



**Alzheimer's Disease  
International**

*The global voice on dementia*

# **National Dementia Plans: Early Detection and Diagnosis**

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## Early Detection and Diagnosis

In 2012, Alzheimer's Disease International (ADI) released the report *National Alzheimer and Dementia Plans Planned Policies and Activities: Early Detection, Access to Diagnosis, and Stigma Reduction*. The purpose of this paper was to compare and contrast policy directions and commitments concerning diagnosis, detection, and stigma reduction. This report looked at eight national dementia plans that were readily available as of November 2011 including, Australia, England, France, Republic of [South] Korea, Netherlands, Norway, Scotland, and Wales.

Since 2011, some countries have updated their national plans and several other countries have created new plans. The purpose of this paper is to provide information concerning the updated and new national plans about policy commitments regarding diagnosis and detection. The following 17 countries' national plans are included in this analysis: Australia, Cuba\*, Finland, Greece\*, Indonesia\*, Ireland, Israel, Italy\*, Luxembourg\*, Malta, Mexico\*, Norway, Northern Ireland, Scotland, Switzerland\*, Taiwan, and the United States. Please note that the analysis of countries with asterisks are based on unofficial Google translations into English.

The following report provides an overview of each country's plan concerning early detection and diagnosis, and then more specifically discusses topic areas that appear more frequently throughout the 17 plans. Each country describes and commits to early detection and diagnosis in diverse ways. After reviewing each of the 17 national plans, the countries displayed a series of commitments and actions to improve early detection and diagnosis in the following most common topic areas:

- Awareness and Education of Society
- Awareness, Education, and Training of Professionals
- Role of General Practitioners
- Primary Healthcare
- Hospital and Acute Care Settings
- Specialist Assessment and Services
- Chain, Network, or Pathway of Care
- Home, Care Home, and Adult Day Settings
- Support of Multi-Disciplinary Teams
- Tools to Support the Diagnostic Process
- Research and Data

### Limitations

This review aims to highlight and discuss key topic areas and action steps relating to early detection and diagnosis that were included by countries in their national plans. **For the plans (listed above) that were translated using Google Translate, meaning may have been distorted during translation.**

## Why Early Detection and Diagnosis is Important

ADI's *World Alzheimer Report 2011: The Benefits of Early Diagnosis and Intervention*, provides detailed background on why early detection and diagnosis is important. The information in this report provides guidance on how national and sub-national dementia plans can address and improve early detection and diagnosis.

The report is divided into several sections, including research on whether or not early diagnosis benefits people with dementia and their care partners. Key findings of the report were that: earlier diagnosis allows people to plan ahead and make decisions about their future care; people with dementia must have a diagnosis in order to receive pharmaceutical and non-pharmaceutical therapies that may improve their condition and quality of life; and that earlier diagnosis also provides an opportunity for people with dementia to participate in research, should they choose.

Another finding indicates that most people with early stage dementia would want to be informed of their diagnosis.

The report highlights ways of increasing the likelihood of earlier diagnosis, through educational programmes in primary care; the introduction of accessible diagnostic and early stage dementia care services (for example, memory clinics); and promoting interactions throughout a health system. These three strategies for enhancing early diagnosis are also seen throughout many of the national and sub-national plans.

Improving the likelihood of earlier diagnosis is important because early therapeutic interventions have been shown to delay institutionalisation and improve cognitive functioning, caregiver mood, and depression. The *World Alzheimer Report 2011* emphasises that it is untrue that there is "no point in early diagnosis," and, in fact, some interventions may be more effective when started earlier. Ultimately, governments would benefit from investing now in early diagnosis, and saving in the future on interventions.

The report details and categorises the perceived benefits of early detection and diagnosis into nine broad themes. These themes include: optimising current medical management; relief gained from better understanding of symptoms; maximising decision-making autonomy; access to services; risk reduction; planning for the future; improving clinical outcomes; avoiding or reducing future costs; and diagnosis as a human right.

The significance of early detection and diagnosis means it is important to understand why and how nations are addressing this topic in their national and sub-national dementia plans.

## Country Overviews

### Australia

Australia's national plan has three action areas that specifically address early detection and diagnosis. These areas are: the need for timely diagnosis; accessing care and support during and after hospital care; and promoting and supporting research.

The plan addresses the 'need for timely diagnosis' action area via awareness and education of society, awareness and education of professionals, ongoing education of General Practitioners (GPs), the use of multi-disciplinary teams (MDTs), and guidelines.

Australia's plan states that increasing awareness among the general population and professionals is important because people have difficulty distinguishing the early signs of dementia from their perception of "normal" ageing, and because stigma is an issue. It is recognised that increasing knowledge and awareness can be achieved by national public awareness activities, and circulating communications and resources to help people recognise the early signs of dementia. Additionally, Australia's plan describes how increased awareness among health professionals may help detect the early signs of memory loss, monitor changes, and decide about the need for further investigation. The plan mentions the need for ongoing professional education for GPs to inform their practice on recognising, assessing, diagnosing, and providing support. Ongoing support and education need to be provided on areas such as: the impact, prevalence, and manifestation of dementia; the use of evidence-based diagnostic tools; awareness of services for patients and their carers; and clinical decision making tools, such as referral systems and pathways.

Because dementia is a multifaceted condition, and diagnosis requires the expertise of multiple stakeholders, the plan says that the support of Multidisciplinary Teams (MDTs) is also important in providing assessment for persons living alone without caregivers or family nearby. Finally, with regards to the need for timely diagnosis, Australia's plan describes how there are diagnostic instruments, but there is a need to further consider where separate guidelines and assessment methods are required for people with culturally and linguistically diverse backgrounds, Aboriginal people and Torres Strait Islanders.

Another action area that addresses early detection and diagnosis is 'accessing care and support during and after hospital care'. Engaging the person with dementia, their carers, and family in the planning of care while in an acute care setting may facilitate more accurate assessment, diagnosis, and support. In order to do this, better education programmes are required for the healthcare workforce, as well as implementing dementia training in all undergraduate and postgraduate health professional programmes.

Finally, the action area 'promoting and supporting research' discusses how research in technology and neuroimaging will provide more timely diagnoses, and how the development of blood tests will enable a more accurate and earlier diagnosis.

## **Cuba\***

Cuba's national plan presents several objectives that relate to improving diagnosis and detection. One is to increase promotion, information, and education of professionals and families. Societal participation in a national prevention campaign, including a prevention strategy and information about modifying risk and protective factors, would have an impact in many areas, including allowing early diagnosis. Stigma could also be tackled by such a campaign. The plan recommends that institutions and the media launch campaigns, television spots, and health promotion activities, with the premise that all sectors have to adapt to an ageing population. Another proposed action includes establishing early detection of dementia through primary health care. Cuba's plan states the need for more research to improve diagnostic tools, neuroimaging and biomarkers. Lastly, the plan proposes action to implement guidelines for good clinical practice in the prevention, diagnosis, and management of chronic diseases. This priority does not specifically address dementia, but applies to all non-communicable diseases.

## **England**

The Government's first National Dementia Strategy, "Living well with dementia", was published in 2009. Two key themes in the five-year plan were related to detection and diagnosis: "raising awareness of dementia, and removing the stigma that surrounds the condition" and "improving diagnosis rates for people with dementia".

In 2012, the Prime Minister launched a mandate through a policy document titled: "Dementia 2012: A national challenge". It included a focus on delivering change in detection and diagnosis including better diagnosis and improving care in hospitals. In May 2014, achievements made since the launch of the challenge were released, including increased dementia diagnosis rates increased by 6% (from 46% to 48.7%) since March 2012 and over 400,000 NHS staff and over 100,000 social care staff being trained to better identify and support people with dementia.

In February 2015, the Prime Minister's Challenge on Dementia 2020 set out future work to improve diagnosis rates, including reducing variation in rates across the country, improving waiting times for assessments, and improving the diagnosis of dementia for Black, Asian and Minority Ethnic people, for whom evidence showed that diagnosis rates were particularly poor. The challenge set objectives that the Government wished to see achieved by 2020, including equal access to dementia diagnosis as for other conditions, with a national average for an initial assessment of 6 weeks following a referral from a GP; and all NHS staff to have appropriate training on dementia including recognition of symptoms; and all hospitals and care homes to become dementia friendly settings.

## **Finland**

Finland's plan describes the important role of primary care in early detection and diagnosis and their responsibility to refer those affected for appropriate tests. Primary health care is responsible for treatment and follow-up of people with dementia. Finland's plan also states that action is needed to promote prevention and early diagnosis, and to support people living in their own homes.

## **Greece\***

Greece's plan features several action areas that relate to early detection and diagnosis. One is a national information campaign to foster early detection of the disease and managing it in the early stages. The plan suggests that information campaigns for the general population would promote the benefits of early diagnosis, prevention of dementia, and would help to fight stigma. Another action is to integrate dementia into primary care and, by doing this, ensure equal and easy access to early diagnosis and treatment for people with dementia and their families. Further action includes the establishment of memory clinics in hospitals. Each clinic will provide diagnosis, treatment, and monitoring of people with dementia in collaboration with their primary care physician. Lastly, Greece's plan contains an action to strengthen valid and reliable data. One way to do this is through the Shaw National Archive Registry (a dementia registry), which is a systematic recording of cases of dementia and standardisation of information collected. This would help improve the quality of diagnosis, treatment, and care.

## **Indonesia\***

Indonesia's national plan has one objective, three strategies, and seven action steps. One action step is a public awareness campaign, and although detection and diagnosis are not mentioned, the campaign would raise awareness that dementia is not a normal part of ageing. Another action area is early detection, diagnosis, and management. There are several activities assigned to this including increasing the quantity and quality of day care and home care provision, and ensuring the availability of instruments to screen for cognitive impairment and dementia in the elderly, pre-elderly, and all individuals with risk factors.

## **Ireland**

Ireland's plan has several action areas, and one specifically addresses timely diagnosis and intervention. Other action areas, such as better awareness and understanding, training and education, and research also speak to early detection and diagnosis. For better awareness and understanding, the plan describes the need to provide a better understanding of dementia in society and to reduce stigma. The belief is that better awareness and education may encourage greater diagnosis and support. For professionals, a curriculum needs to be developed that addresses diagnosis and disclosure of dementia.

Within the timely diagnosis and intervention action area, Ireland's plan promotes the development of materials for GPs to broaden their skill base, provide guidance on pathways to investigation and diagnosis, and ensure support in local communities. Many of the plan's actions focus on GPs being prepared. There is also discussion of maximising the access that GPs and acute hospital clinicians have to specialist assessment and diagnosis of dementia. Finally, within timely diagnosis and intervention, the plan explains the need to develop a dementia care pathway to describe and clearly signpost the optimal journey.

Under the research and information systems action area, hospitals will take measures to encourage better recording and coding of a primary or secondary diagnosis of dementia, and this will foster better evidence in Ireland in relation to diagnostic rates.

## **Israel**

Israel's national plan identifies seven areas that are critically important. Four of these areas address early detection and diagnosis. Under raising public awareness, Israel's plan discusses how low awareness leads to non-identification of the problem. Therefore, they recommend several steps including: having the government and health and social systems recognise dementia as an issue of national priority; organising campaigns to raise public awareness in collaboration with civil society organisations and major public stakeholders; and developing a programme to disseminate information. Israel's plan also mentions developing an array of health services. Steps recommended include improving diagnosis by broadening the knowledge base on dementia among community professionals and increasing access to early diagnostic services. Training is another focus, and recommended steps involve developing training for family physicians on topics such as diagnosis of dementia. Lastly, the plan discusses the importance of a research base, and recommends defining relevant outcome measures for diagnosis.

## **Italy\***

Italy's national dementia plan has four objectives, two of which specifically relate to early detection and diagnosis. Their plan highlights the need to increase the knowledge of the general population to achieve timely diagnosis, which requires greater awareness and a reduction in stigma. Another objective is to create an integrated diagnosis system, which would see the creation, reorganisation, and expansion of an integrated network that will help to ensure timely diagnosis. While this is not an objective, Italy's plan also highlights that the country was one of the first to focus on creating specialised centres for diagnosis and coordination of a therapeutic phase.

## **Luxembourg\***

Luxembourg's plan describes the need for continuing education of physicians in order to achieve more consistent diagnosis. The plan also promotes the role of early diagnosis in primary care, having a validated diagnostic tool, and creating national guidelines for various areas, including diagnosis.

## **Malta**

Malta's national dementia plan identifies six strands for intervention, with each including several objectives. One of the areas is improving timely diagnosis and intervention. Highlights from some of the objectives are: providing opportunities to general practitioners for training in diagnosis; facilitating and drawing up referral pathways to relevant specialist services; providing a multi-disciplinary team throughout the progression of the disease; and creating a consistent and single protocol for dementia diagnosis using international best practice guidelines. Another strand of intervention is increasing awareness and understanding. Again, there are several objectives that suggest tools such as campaigns, informational materials, and a directory of services. Lastly, Malta's plan identifies workforce development as a strand of intervention. One objective of this is training healthcare professionals in areas including diagnosis in order to ensure an able workforce.

## **Mexico\***

Mexico's plan describes eight strategies and subsequent lines of action. It features raising public awareness, but does not specifically link this to early detection and diagnosis. One strategy is for diagnosis and treatment of those affected by the disease and within this strategy there are several actions. One action is strengthening the training of health professionals, especially those in primary care, to detect the early stages of the disease. Another strategy is ensuring access to quality services, and an action item is the study and management of difficult cases for appropriate, differential, and final diagnosis. Finally, increasing dementia research is another strategy, and one action for this is interagency collaboration for molecular, clinical, and imaging research for disease diagnosis.

## **Norway**

Norway's dementia plan contains six strategies and associated actions. Within one strategy, improved coordination and medical follow up, they state that they will continue their initiative of training for, and implementation of, the diagnostic tool among the country's primary care doctors and local authorities. Additionally, within this strategy, their plan states that the Government shall prepare a national strategy for enhancing specialist health services for the elderly. Specialist health services play a key role in evaluating and diagnosing people with dementia. Quality development, research, and planning is another strategy where the plan recognises the importance of continuing the development of evaluation tools for diagnosing people with developmental disabilities who develop dementia. Furthermore, a new initiative discussed under this strategy focusses on people with minority language backgrounds who develop dementia, with some attention given to their diagnosis.

## **Northern Ireland**

Northern Ireland's action plan is divided into seven topics. Within raising public awareness, their plan states the need to draw up and lead a plan to raise public awareness of the signs and symptoms of dementia and about the benefits of seeking help early. For health and social care staff there is a need for training in this sector, and changes need to be made to undergraduate curricula, for example. Additionally, the plan mentions how GPs and staff in primary care need to be able to identify the early symptoms of dementia and provide appropriate information, advice, and referral. Moreover, in promoting early assessment and diagnosis, they need to draw up criteria and clear protocols for referral from GP practices to the memory service. Lastly, in supporting people with dementia, Northern Ireland's plan discusses ensuring that specialist dementia diagnostic and support services provide the necessary reasonable adjustments to enable full access by people with learning disabilities.

## **Scotland**

Scotland's plan describes 17 different commitments and actions. Several of these commitments mention early detection and diagnosis. Commitment 1 states that they will sustain and improve dementia diagnosis rates. Scotland achieved the national diagnosis target by providing national improvement support and focusing on areas such as improving staff awareness of the value of early diagnosis and better information sharing between

primary and secondary care. They will continue to focus on sustaining and improving diagnostic rates. Commitment 10 says, “we will develop and deliver a 3-year National Action Plan to improve care in acute general hospitals,” and this includes using evidence-based screening and assessment tools for diagnosis. Commitment 16 states, “we will undertake a brief piece of work focusing on the care pathway for people with dementia from diagnosis, post-diagnostic support, and care co-ordination to see areas of modification to take account of the needs of different groups.” These groups include early onset, learning disabilities, other chronic conditions, sensory impairment, and black and ethnic minority communities. Commitment 12 addresses care homes, and the plan commits to doing more work to ensure that people in care home settings are identified and receive a diagnosis.

## **Switzerland**

Switzerland’s plan contains four action areas. Their plan discusses the need to raise awareness and educate about the importance of early detection and the needs of people living with dementia. In terms of professionals and diagnosis, they state that personnel managers and occupational health management need to be educated in the context of the promotion of early diagnosis. Switzerland’s plan also notes the need for the development of recommendations on the establishment of chains of care that encourage interdisciplinary coordination and continuous networking services in primary care, including early detection and diagnosis. In addition, it recognises the need for project implementation and extension of a network of regional competence centres for diagnosis. Lastly, the plan highlights the need for the development of recommendations in the areas of early detection, diagnosis, and treatment for basic care.

## **Taiwan**

Taiwan’s plan has two main objectives and seven purposes. One purpose is to improve awareness and education to enhance people’s knowledge of dementia and facilitate timely referral. Another is to establish comprehensive community care, and one way to do this is by identifying early dementia symptoms for timely diagnosis and comprehensive medical care. The last purpose related to detection and diagnosis is to strengthen inter-departmental cooperation and resource integration, which can be achieved by promoting cooperation between departments to advocate prevention, treatment, and early diagnosis of dementia.

## **USA**

The USA’s plan consists of five main goals. Detection and diagnosis is addressed throughout these goals. In terms of building a workforce with the skills to provide high-quality care, the plan talks about how work is being undertaken to develop and disseminate a uniform curriculum for primary Alzheimer’s disease and related dementias care to help ensure timely and accurate detection and diagnosis. The plan also discusses ensuring receipt of culturally sensitive education and training. For instance, the Indian Health Service (IHS) collaborated with the Health Resources and Services Administration (HRSA) to engage the HRSA-funded Geriatric Education Centers (GECs) in strategies to improve recognition and diagnosis of dementia. Additionally, to ensure timely and accurate diagnosis there needs to be a pathway from detection to diagnosis. The USA plan

discusses a report that was produced that outlines areas including such a pathway. Lastly, the USA has a goal to prevent and effectively treat dementia by 2025. Research is being done to enhance brain imaging techniques to make it possible to detect the earliest changes in the blood brain barrier, which may be an early sign of cognitive impairment and dementia.

## Topic Areas

After reviewing the national plans, it is evident that each country has developed its own pathway to addressing early detection and diagnosis. This next section will highlight how countries are tackling early detection and diagnosis within various topic areas that were repeatedly touched on throughout the plans. Note that countries may have action items in a certain topic area, but they are only included below if they are talked about in relation to early detection and diagnosis. There is also some overlap between topic areas. For instance, one country may talk broadly about increasing education of professionals, but then more specifically focus on education of primary health care providers.

## Increasing Awareness and Education of Society

Many countries highlight increasing awareness and education of society in order to improve early detection and diagnosis. Twelve national plans discuss increasing awareness and education of society or the general public for improving early detection and diagnosis. This is often talked about in relation to stigma and the need to improve the understanding that dementia is not a normal part of healthy ageing. The overall understanding that is echoed in many of the plans is that if the general public understands more about dementia they will be more likely to seek help and receive a diagnosis.

Country	Increasing Awareness and Education of Society
Australia	Highlights the need for national public awareness activities, and circulating communications and resources to help people recognise the early signs of dementia in order to improve timely diagnoses.
Cuba	Recommends increasing promotion, information, education, and support of health professionals and families. A national campaign with the participation of the whole society about a prevention strategy and modifying risk factors and protective factors would have an impact on many areas, including supporting early diagnosis. The plan also states that stigma needs to be addressed.
England	Aims to improve public and professional awareness through general, local and specifically targeted public information campaigns to encourage help-seeking and help provision.
Greece	Describes information campaigns for the general population about the benefits of early diagnosis, prevention of dementia, and to fight stigma.
Ireland	States that providing a better understanding of dementia in society, reducing stigma associated with dementia, and targeting populations particularly at risk, including people with intellectual disabilities, may encourage more rapid diagnosis and support.
Israel	Highlights the importance of campaigns to raise public awareness because lack of awareness leads to non-identification of the problem.
Italy	Discusses increasing knowledge of the general population for timely diagnosis.
Malta	Mentions how increasing awareness and understanding of dementia is necessary to decrease fear and stigma and provide information about the importance of timely diagnosis.
Northern Ireland	Discusses the need for members of the public to know about the signs and symptoms of dementia in order to encourage them to seek help early.

Switzerland	Says there is a need to raise awareness and education about the importance of early detection and the needs of people with dementia.
Taiwan	Mentions improving awareness and education to facilitate timely referral and assessment.
USA	Describes enhancing public awareness and engagement because misperceptions often lead to delayed diagnosis. One strategy of the USA includes a campaign to change the way persons aged 60-70 think about their brains and brain health.

## Increasing Awareness, Education, and Training of Professionals

Another consistent topic seen throughout the national plans in relation to early detection and diagnosis is increasing the awareness, education, and training of professionals. Sixteen national plans talk about the lack of, or the importance of, ongoing support of professionals in order to improve early detection and diagnosis. Support ranges from broadly increasing awareness, to more specific plans to provide training programmes to professionals.

Country	Increasing Awareness, Education, and Training of Professionals
Australia	Describes how increased awareness among health professionals may help detect the early signs of memory loss and monitor changes.
Cuba	Mentions increasing the education of professionals, along with society, to allow for early diagnosis.
England	Proposes ensuring that all health service, intermediate care and home care staff receive appropriate training on dementia, through working with all bodies involved in professional and vocational training to adapt curricula for pre- and post-qualification and occupational training.
Finland	Proposes that education authorities and organisations pay particular attention to ensuring that basic, further, and supplementary social welfare and health care training include enough elements aimed at areas such as detecting memory disorders in their early stages.
Greece	Mentions that primary care physicians are not adequately trained to respond to the significant need for early detection, referral, and management of people with dementia.
Luxembourg	Highlights how detecting dementia requires awareness at several levels including professionals and physicians. They state that physicians, generalists, and specialists need to be trained to identify the disease as early as possible.
Ireland	Describes how a curriculum needs to be developed to address diagnosis and disclosure of dementia for professionals.
Israel	Discusses improving diagnosis by broadening the knowledge base about dementia among community professionals, and developing focussed training for family physicians on topics such as diagnosis of dementia.

Malta	Explains how training healthcare professionals in areas such as diagnosis is important in ensuring an able workforce. Malta's plan also describes the need for educational campaigns to develop a better understanding of dementia among public and healthcare professionals.
Mexico	States that they need to strengthen the training of health professionals, especially those in primary care, to detect people affected in the early stages of dementia.
Northern Ireland	Talks about promoting earlier diagnosis through further development of health and social care.
Norway	Describes initiatives that they are continuing to work on including training in, and implementation of, the diagnostic tool among the country's primary care doctors and local authorities.
Scotland	Explains how they achieved the national diagnosis target by providing national improvement support and focussing on areas such as improving staff awareness about the value of early diagnosis and better information sharing between primary and secondary care.
Switzerland	Mentions how personnel managers and occupational health management need to be educated in the context of the promotion of early diagnosis.
Taiwan	Wants to strengthen primary prevention by increasing primary healthcare worker's competence in evaluating dementia.
USA	Talks about building a workforce with the skills to provide high-quality care that can provide timely and accurate diagnoses. One way the USA is doing this is through the development and dissemination of a uniform curriculum for primary Alzheimer's disease and related dementias care. The USA also discusses how they reviewed training resources for the Indian Health Service nursing staff as a way to ensure receipt of culturally sensitive education and training. Additionally, the USA began providing education opportunities for healthcare professionals on a variety of topics, including on tools to identify dementia.

## Role of General Practitioners

Five of the national plans discuss the role of General Practitioners (GPs), or primary care physicians, in improving early detection and diagnosis. Plans contain action items varying from GPs and the use of evidence-based diagnostic tools, to offering training and education to GPs about diagnosis.

Country	Role of General Practitioners
Australia	Describes the importance of GPs in recognising, assessing, diagnosing, and supporting people with dementia because a GP is often the first point of contact. Therefore, GPs require ongoing support and professional education on areas such as: the impact, prevalence, and manifestation of dementia; the use of evidence-based diagnostic tools; awareness of services for people with dementia and their carers; and clinical decision making tools including referral systems and pathways.
Ireland	Many of Ireland's actions focus on GPs being better prepared. For instance, they discuss the need to develop materials for GPs to broaden their skill base, to provide guidance on pathways to investigation and diagnosis, and to make information available about supports in local communities.
Luxembourg	Luxembourg's plan talks about how continuing education of physicians should lead to more consistent diagnosing. They focus on physicians more broadly, but also mention GPs.
Malta	Describes the need to provide opportunities for training to GPs in diagnosis.
Northern Ireland	In Northern Ireland, for raising awareness, GPs and staff in primary care need to be able to identify the early symptoms of dementia and provide appropriate information, advice, and referral. For promoting early assessment and diagnosis, they need to draw up criteria and clear protocols for referral from GP practices to the memory service.

## Primary Health Care

Fifteen national plans mention primary health care in relation to improving early detection and diagnosis. Action items include improving the role of early diagnosis in primary care, training for diagnostic tools in primary care, and access to a diagnosis from primary care.

Country	Primary Health Care
Australia	Describes how it is estimated that approximately 50 percent of cases of early dementia are not detected on first contact with primary care. Australia's plan states that people with dementia require access to high quality and appropriate early detection services, which includes access to knowledgeable primary care practitioners. Additionally, one area of focus for their dementia research includes the provision of more timely diagnosis in primary care, through advances in technology such as neuroimaging.
Cuba	Cuba's plan has a proposed action to establish the National Health System for early detection of the disease through primary health care.
Finland	Finland's plan states that the objective of primary healthcare is that it needs to detect cognitive disorders as early as possible, and that primary health care providers are responsible for treatment and follow-up.
Greece	Describes how there needs to be integration of dementia in primary care, and equal and easy access for people with dementia and their families to early diagnosis and treatment. Greece also mentions that primary care physicians are not adequately trained to respond to the significant need for early detection, referral, and management of people with dementia.
Indonesia	Discusses the need for improved quality of care that includes early detection and diagnosis in primary and secondary care facilities.
Ireland	Within Ireland's timely diagnosis and intervention action area, an objective is ensuring as much specialist expertise as possible is available regionally in order to ensure appropriate investigation and timely diagnosis of dementia in primary, mental health, acute, and long term care services.
Luxembourg	Mentions how, in order to increase the rate of timely diagnosis, they need to promote the role of early diagnosis in primary care.
Malta	An objective within Malta's plan to improve timely diagnosis is to promote the role of early diagnosis and intervention in primary care.
Mexico	Discusses the need to strengthen the training of primary care professionals to detect those in the early stages of the disease.

Norway	Describes initiatives that they are continuing to work on including training in and implementation of the diagnostic tool among the country's primary care doctors and local authorities.
Northern Ireland	While Northern Ireland's plan talks about raising awareness among GPs, it also discusses the importance of staff in primary care being able to identify early symptoms of dementia.
Scotland	Scotland helped achieve the national diagnosis target by providing national improvement support and focussing on areas such as improving staff awareness of the value of early diagnosis and better information sharing between primary and secondary care.
Switzerland	Switzerland's plan discusses development of recommendations on the establishment of chains of care that encourage interdisciplinary coordination and continuous networking services in primary care, including with early detection and diagnosis.
Taiwan	Taiwan's plan talks about raising awareness of dementia as an important part of primary healthcare, and increasing primary healthcare worker's competence in evaluating dementia.
USA	Describes initiatives aimed at educating health care providers, including primary care physicians, on how to use evidence-based strategies to diagnose, treat, and monitor individuals with dementia and improve early detection in primary care and outpatient settings.

## Hospital and Acute Care Settings

Seven national plans discuss early detection and diagnosis within hospital and acute care settings. These six plans describe action items such as hospitals engaging people with dementia to facilitate a more accurate diagnosis, encouraging better recording of diagnoses, and using evidence-based screening and assessment tools for diagnosis.

Country	Hospital and Acute Care Settings
Australia	A section in Australia’s national plan discusses accessing care and support during and after hospital care. The plan states that engaging the person with dementia, their carers and family in the planning of care while in an acute care setting may facilitate more accurate assessment, diagnosis, and support. The plan also states that better education programmes are required for the healthcare workforce, and that dementia training in all undergraduate and postgraduate health professional programmes would help with improving planning of care while in an acute care setting. In order to help acute care professionals recognise and respond to people living with dementia, Australia will develop and promote the use of an evidence-based clinical care pathway for an acute care setting.
England	England’s plan includes an objective to improve quality of care for people with dementia in general hospitals, by identifying leadership for dementia in general hospitals, defining the care pathway for dementia, and commissioning of specialist liaison older people’s mental health teams to work in general hospitals.
Greece	Greece’s plan talks about the need to establish memory and mental function clinics in every hospital to provide diagnosis, treatment, and monitoring of people with dementia by region, in collaboration with Primary Care Physicians.
Ireland	Ireland’s plan states their hospitals will take measures to encourage better recording and coding of a primary or secondary diagnosis of dementia.
Malta	Malta’s plan recommends that acute care hospitals ensure that all people with suspected or known dementia using inpatient services are assessed by a liaison service that specialises in dementia management. Objective delivery includes setting up a liaison service that specialises in providing a rapid, high-quality assessment of individuals presenting dementia symptoms in acute general hospitals.

Northern Ireland	Discusses how statistics suggest that a person who has dementia is often not recognised or considered important in acute hospital care. Northern Ireland's plan states that mechanisms to identify people with dementia are essential when admitted to an acute care hospital.
Scotland	Scotland's plan commits to the development and delivery of a three-year National Action Plan to improve care in acute general hospitals, and use evidence-based screening and assessment tools for diagnosis.

## Specialist Assessment and Services

Nine countries' plans address specialist assessment and services. Some of these plans describe the need for pathways to specialist services for a diagnosis; others describe their specialised centres for diagnosis and the importance of specialised health services in evaluating and diagnosing people with dementia. Additionally, Northern Ireland specifically plans to ensure specialist dementia diagnostic services for people with learning disabilities.

Country	Specialist Assessment and Services
Australia	Within the action area for need for timely diagnosis, Australia's plan states that people with dementia require access to high quality and appropriate early detection services, which includes access to specialist and diagnostic processes. The plan also discusses improving links to specialist diagnostic services through the development of referral pathways.
England	Within the section on early diagnosis, the plan includes an objective for all people with dementia to have access to a pathway of care that delivers a rapid and competent specialist assessment, and suggests this would be delivered by commissioning good quality, locally available specialist services to assess all new cases.
Ireland	States that to improve timely diagnosis and intervention they need to maximise the access that GPs and acute hospital clinicians have to specialist assessment and diagnosis of dementia.
Italy	Describes how they were one of the first countries that focussed on creating specialised centres for diagnosis and coordination of a therapeutic phase.
Luxembourg	Luxembourg's plan highlights the need to ensure there are the necessary means to train specialists in making a diagnosis as early as possible.
Malta	In order to improve timely diagnosis, Malta's plan states that they need to facilitate and draw up referral pathways to relevant specialist services.
Norway	Talks about the need for improved coordination and medical follow-up. Within this, the plan states that the Government shall prepare a national strategy for enhancing specialist health services for the elderly, and that specialist health service has a key role to play in evaluating and diagnosing people with dementia.

Northern Ireland	Describes how they need to ensure that specialist dementia diagnostic and support services provide reasonable adjustments to enable full access by people with learning disabilities. Northern Ireland's plan also discusses ensuring the availability of pathways and protocols for referral to specialist services for diagnosis.
Switzerland	Switzerland's plan talks about how less than half of people with dementia received a diagnosis from a specialist. They say that this lack of specialised diagnosis particularly affects people living in situations of mental disability or multiple disabilities.

## Chain, Network, or Pathway of Care

Twelve plans address the chain, network, or pathway of care. This refers to the journey of diagnosis, intervention, and care of dementia. Many of these national plans contain action items about developing a dementia care chain, pathway, and integrated network in order to improve timely diagnosis.

Country	Chain, Network, Pathway of Care
Australia	In order to help acute care professionals recognise and respond to people living with dementia, Australia’s plan says they will develop and promote the use of an evidence based clinical care pathway for an acute care setting.
England	England’s plan says, in the section on early diagnosis and support that all people with dementia should have access to a pathway of care “that delivers a rapid and competent specialist assessment; an accurate diagnosis sensitively communicated to the person with dementia and their carers; and treatment, care and support provided as needed following diagnosis”.
Ireland	Ireland’s plan discusses another way to improve timely diagnosis and intervention by developing a dementia care pathway to describe and clearly signpost the optimal journey.
Italy	Describes the need to focus on the creation, reorganisation, and expansion of an integrated network to ensure timely diagnosis. Legislative decree also directs the actions of the National Health Service to identify therapeutic diagnostic pathways and guidelines.
Luxembourg	One area of focus for Luxembourg is the continuity of the medical and social care chain with particular attention to early diagnosis.
Malta	For timely diagnosis and intervention, Malta’s plan discusses the importance of early symptom recognition and interventions through appropriate referral pathways. The plan also suggests drawing up referral pathways to relevant specialist services to improve timely diagnosis.
Northern Ireland	Northern Ireland’s plan recommends creating locally agreed pathways and protocols for referral to specialist services for diagnosis.
Norway	Describes how diagnosis and clinical care coordination is a missing link in the chain of care.

Scotland	Mentions how they will undertake a brief piece of work focusing on the care pathway for people with dementia from diagnosis to care co-ordination, in order to see areas of modification to take account of the needs of different groups including early onset, learning disabilities, other chronic conditions, sensory impairment, and black and ethnic minority communities.
Switzerland	Discusses how they will work on the development of recommendations on the establishment of chains of care that encourage interdisciplinary coordination and continuous networking services in primary care, including with early detection and diagnosis. They will also work on project implementation and extension of a network of regional competence centres for diagnosis.
Taiwan	Taiwan's plan talks about the need to establish comprehensive community care and, within this, identify early dementia symptoms for timely diagnosis and comprehensive medical care.
USA	To ensure timely and accurate diagnosis, the USA's plan discusses a report that was produced that outlines areas such as the pathway from detection to diagnosis.

## Home, Care Home, and Adult Day Settings

Six plans feature early detection and diagnosis within home and care settings. The common theme here is that there needs to be more effort around early detection and diagnosis within home, care home, and adult day care settings.

Country	Home, Care Home, and Adult Day Settings
Australia	For their timely diagnosis action area, Australia’s plan says that in-home assessments conducted by nurse practitioners or other clinicians can be an important component in diagnosis and may supplement information from a general practice environment.
England	Has an objective on living well with dementia in care homes including by training staff, commissioning specialist in-reach community services and through inspection regimes.
Finland	Finland’s plan states that action is needed to enable prevention and early diagnosis and to support people with dementia living in their own homes.
Indonesia	Within early detection and diagnosis, Indonesia’s plan discusses increasing the number and quality of day care and home care services.
Norway	Discusses how studies show that up to 50% of all nursing home residents with sure signs of dementia have not been diagnosed. The Norwegian model requires collaboration between specialist health services and municipal health and care services, but recognises that collaboration on diagnosing dementia between these different service levels is a challenge.
Scotland	Scotland’s plan says that more work needs to be done to ensure that people in care home settings are identified and receive a diagnosis.

## Support of Multi-Disciplinary Teams and Services

Four plans describe the importance of multi-disciplinary teams (MDTs) concerning early detection and diagnosis. These plans stress the necessity of the expertise of multiple stakeholders in order to improve early detection and diagnosis.

Country	Support of Multi-Disciplinary Teams and Services
Australia	Under need for timely diagnosis, Australia's plan discusses how dementia is a multifaceted condition, and diagnosis requires the expertise of multiple stakeholders. The plan states that the support of MDTs is especially important in providing assessment for people living alone without care partners or family nearby.
Malta	Malta's plan discusses how dementia in young people poses a diagnostic challenge and, because of this, multidisciplinary services should be developed.
Mexico	Describes how the delay in diagnosis affects the course of the disease and impacts the quality of life of those affected by dementia. To help with this delay, it is necessary for multidisciplinary evaluations to be completed in order to diagnose dementia in its early stages.
Northern Ireland	In order to place the person with dementia at the centre of the care planning process, Northern Ireland plans to promote access to earlier diagnosis and multidisciplinary assessment and support through further development of health and social care commissioning.

## Tools to Support the Diagnostic Process

Seven plans talk about tools to support the diagnostic process. Plans discuss how diagnostic tools need to be made available, improved, and validated. Norway's plan goes further and suggests the development of evaluation tools for the diagnosis of people with developmental disabilities.

Country	Tools to Support the Diagnostic Process
Australia	In Australia, General Practitioners must have access to, and ongoing education for, the use of evidence based diagnostic tools. There is also a need to consider specific diagnostic instruments and where separate guidelines and assessments are required for people with culturally and linguistically diverse backgrounds and Aboriginal and Torres Strait Islander people. An action item in Australia's plan is to encourage the appropriate and consistent use of validated clinical assessment and diagnostic tools.
Cuba	Cuba's plan says that they need to increase research to improve diagnostic tools.
Indonesia	For early detection and diagnosis, Indonesia's plan describes the need for the availability of raw instruments to perform screening of cognitive impairment and dementia diagnosis for the elderly, pre-elderly, and all individuals with risk factors.
Luxembourg	Highlights the need to have a validated diagnostic tool.
Norway	Talks about continuing the development of evaluation tools for diagnosing people with developmental disabilities who develop dementia. Norway also discusses the need for training and implementation of the diagnostic tool among the country's primary care doctors and local authorities.
Switzerland	One of Switzerland's projects - the development of recommendations in the areas of early detection, diagnosis, and treatment for basic care - includes encouraging the use of, and checking the quality of, indication criteria and examination tools for early detection of dementia.
USA	The USA plans for research to enhance brain imaging techniques to make it possible to detect the earliest changes in the blood brain barrier, which may be an early sign of cognitive impairment and dementia. Additionally, education opportunities for healthcare professionals include topics on tools to identify dementia. Furthermore, an action under the strategy to ensure timely and accurate diagnosis, says that the USA will identify and disseminate a variety of assessment tools.

## Guidelines

Seven national plans describe the need for guidelines in relation to early detection and diagnosis. Most of these plans mention guidelines to create more consistency and improvement of diagnosis. Australia’s plan also discusses guidelines and diagnosis in relation to minority populations.

Country	Guidelines
Australia	Within need for timely diagnosis, Australia’s plan states that they need to further consider where separate guidelines and assessment methods are required for people with culturally and linguistically diverse backgrounds, Aboriginal, and Torres Strait Islander people.
Cuba	Discusses implementing guidelines for good clinical practice in the prevention and management of chronic diseases, including unifying criteria on early detection. This priority does not specifically talk about dementia, but rather the importance of guidelines for good clinical practice for all chronic noncommunicable diseases.
England	“World Class Commissioning guidance for dementia” is annexed to the plan, suggesting engagement of stakeholders and a coherent system for local commissioning to achieve consistent results.
Italy	Legislative decree directs the actions of the National Health Service to identify therapeutic diagnostic pathways and guidelines. Italy’s plan also discusses the formulation of guidelines to promote correct approaches in communication during the diagnosis phase.
Luxembourg	Luxembourg’s plan states that they need national guidelines for areas such as diagnosis.
Malta	Malta’s plan highlights the need to create a consistent and single protocol for dementia diagnosis using international best practice guidelines.
USA	A resource was developed for clinicians that summarises current guidelines for clinical practice on assessing cognitive impairment in older patients. Additionally, the USA’s plan talks about how a uniform Alzheimer’s disease and related dementias curriculum is being developed to identify high quality dementia care guidelines and help build a workforce that can provide timely detection and diagnosis.

## Research and Data

Thirteen national plans discuss research and data as it pertains to early detection and diagnosis. Actions range from specific projects, such as research to develop blood tests to enable more accurate diagnosis, to generally stating the need for better evidence in relation to diagnostic rates.

Country	Research and Data
Australia	Australia's plan has a priority area for action on promoting and supporting research, including research in technology and neuroimaging to provide a more timely diagnosis, as well as the development of blood tests to enable a more accurate and earlier diagnosis.
Cuba	Cuba's plan promotes increasing research to improve diagnostic tools, neuroimaging, and biomarkers for early diagnosis.
Greece	Discusses improving valid and reliable data in order to improve the quality of diagnosis. Greece's plan describes a Shaw National Archive Registry (a dementia registry), which would be a systematic recording of cases of dementia and standardisation of information collected, thus helping to improve the quality of diagnosis, treatment, and care.
Ireland	Discusses the need for better evidence in Ireland in relation to diagnostic rates.
Israel	Israel's plan highlights the need to do research to define relevant outcome measures for diagnosis.
Italy	Discusses the urgent need for scientific research that can support prevention and diagnosis.
Malta	Malta's plan states that research is needed to gather information on many issues related to dementia, including patterns of detection and diagnosis. Furthermore, a number of research studies showed that healthcare professionals lacked knowledge on various aspects of dementia diagnosis.
Mexico	Describes the need for the study and management of difficult cases for appropriate, differential, and final diagnosis. Mexico's plan also talks about increasing dementia research in areas such as networking interagency collaboration for molecular, clinical, and imaging of disease diagnosis.

Northern Ireland	Discusses how they need to do further research on people's experiences of assessment and diagnosis, and gather research on this topic from "seldom heard groups". Furthermore, the Northern Ireland Clinical Research Network (NICRN) is providing support for staff to carry out studies and trials on new potential diagnostic technologies.
Norway	Under Norway's quality development research and planning strategy, there is mention of how people with minority language backgrounds who develop dementia should be a key focus, including questions related to diagnosis.
Scotland	Scotland has an Implementation and Monitoring Group that will monitor and track changes and improvement over time from data sources of items such as the number of people with a diagnosis.
Switzerland	Switzerland's plan says there is missing data on the number of diagnoses within different groups of people.
USA	Has a goal to prevent and effectively treat Alzheimer's dementia by 2025. Actions to reach this goal include research to enhance brain imaging techniques to make it possible to detect the earliest changes in the blood brain barrier, which may be an early sign of cognitive impairment and dementia.