BRAIN HEALTH:

A NEW WAY TO THINK ABOUT DEMENTIA RISK REDUCTION

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Alzheimer's Research UK

RSPH
ROYAL SOCIETY FOR PUBLIC HEALTH
VISION, VOICE AND PRACTICE

THINK BRAIN HEALTH

EXECUTIVE SUMMARY

Despite years of engagement there is still limited understanding of the potential to reduce the risk of developing dementia. Yet, the case for risk reduction has never been stronger: we know now up to 40% of global dementia cases could potentially be prevented or delayed.[1] So, we want to transform the way people think about dementia risk reduction, by introducing the term 'brain health' as a new way of talking about it. Brain health is a term that is growing in use internationally, but to date has had limited use in the UK. Could it offer a new way to discuss and encourage dementia prevention? Through a joint insight project between Alzheimer's Research UK and the Royal Society for Public Health, we investigated the potential of brain health to reframe dementia risk reduction.

69%

Our research shows 69% of UK adults believe they can influence their brain health whereas only 34% believe they can reduce their risk of developing dementia.

Understanding what people think about brain health:

Brain health is a more empowering concept for the public than dementia risk reduction. Our research shows 69% of UK adults believe they can influence their brain health whereas only 34% believe they can reduce their risk of developing dementia.[2]

Brain health resonates with people of all ages, unlike dementia, which is usually associated with late life.

Brain health is a stronger driver of health-conscious behaviour than the concept of dementia risk reduction.

Messages around brain health will need to be shared across a range of platforms and from a range of sources to maximise impact, as **engagement preferences are multi-faceted.**

Changing the narrative – the conversation about brain health starts now

The time is right to work with the government to ensure there is the **development of a brain health strategy** to enable everyone to maintain good brain health.

This should include:

- A funded commitment to **implement cost-effective interventions** to address risk factors.
- Development of a **targeted public awareness-raising campaign.**
- **Creation of health care professional resources and educational opportunities** for all practitioners.
- Maximising all opportunities to **embed brain health within existing services.**
- **Funding more research** to find ways to reduce the prevalence of dementia.
- **Embedding brain health across the life course,** for example by working with employers or schools to raise awareness and understanding.

Alzheimer's Research UK is committed to:

- **Engaging the public** through our Think Brain Health public awareness campaign.
- **Engaging stakeholders** to build a shared understanding of the brain health concept through a joint consensus.
- **Engaging parliament and policy makers** to embed brain health within wider health-related decision making through a national brain health strategy.

DEFINING OUR VISION FOR BRAIN HEALTH

We want to engage more people with the reality that they can significantly reduce their risk of developing dementia. Too few people currently realise this is possible.

With no treatments currently available to modify the progression of the underlying diseases, reducing the risk of developing dementia is a key intervention to reduce the number of people affected. We know there is a gap between the perception and reality of what a person can do throughout their life to maximise their cognitive health in later life. We want to address this gap to ensure people have a better understanding and interest in the health of their brain, which ultimately could reduce their risk of developing dementia.

What is the current view of our brains and dementia?

The brain is one of the most unknown and mysterious organs for many people. There are almost no opportunities to see or touch a brain, which creates detachment and a sense of stigma. When people do think about the brain, it is often in the context of emotions and mental health. It isn't perceived as the physical organ that is the control centre for all of our bodily functioning. This creates a disconnection between the brain and body.

Despite growing public awareness, misconceptions of dementia persist, the most common of which is that dementia is an inevitable part of getting older. Findings from Alzheimer's Research UK's Dementia Attitudes Monitor Wave 1 found that 22% of people incorrectly thought that dementia is an inevitable part of getting older.[2] Research for the Royal Society for Public Health revealed that two in five 18 to 24 year olds (40%) believed "there isn't any way to escape getting dementia as you age".[3] The stigma associated with dementia presents a cycle of disengagement for managing risk.[4] The Royal Society for Public Health also found that ageist views are pervasive across age groups and that an ageing society presents a number of challenges.[3] A sense of fatalism does not encourage people to consider or engage with the processes and mechanisms within their brains. More broadly, dementia remains one of the most feared conditions, which often results in people not wanting to find out about dementia, especially when it is perceived to be inevitable.[1] We also know that personal experience of caring for someone with dementia increases understanding of the condition but can also increase fear of personally developing dementia.

The evidence base for dementia risk reduction is steadily growing. In 2020, the Lancet Commission on dementia prevention, intervention and care systematically reviewed the current evidence base and suggested that globally, four in ten cases of dementia could be attributed to modifiable risk factors (figure 1).[1] 'What is good for the heart is good for the brain' has been used to summarise some of the key risk factors for dementia, highlighting the overlap

with risk factors for cardiovascular disease. The evidence also shows that managing risk factors throughout life is an important way to lower risk. It's both 'never too early and never too late' to take action. The evidence applies to populations rather than individuals so there is no guarantee that by minimising all the risk factors, an individual will avoid developing dementia.

As the evidence base grows, it is possible to start evaluating whether interventions to reduce the risk of developing dementia will be cost-effective. A recent analysis has estimated that treatments for stopping smoking, the provision of hearing aids, and treatment for hypertension may be either cost effective or cost saving and may reduce dementia prevalence in the UK by 8.5% if fully implemented.[5]

Despite a range of policy actions since 2014, awareness remains low regarding the risk reduction potential.[6] Only 34% of those polled in Alzheimer's Research UK's Dementia Attitudes Monitor thought they could reduce their risk of developing dementia.[2] This lags well behind equivalent figures for conditions such as diabetes and heart disease (81% and 77% respectively).[2] The perception that dementia is something to worry about only in later life means that many people do not engage with the concept of risk reduction until it is too late. We need to find ways to raise awareness and understanding of dementia at a much earlier age, so that people can engage with the health of their brain throughout their life.

It is important to acknowledge that many of the wider environmental drivers of health, such as income, education and housing, are often not something that individuals can necessarily change. Many of the lifestyle changes to support dementia risk reduction are options that are also more or less accessible depending on people's circumstances. This does not diminish the importance of having messaging and awareness raising that improves engagement, education, and motivation – in fact, it increases it – but we acknowledge that a whole-system sustainable solution cannot rely solely on voluntary behaviour change.

Experiences with COVID-19 have tragically highlighted the disproportionate impact of the virus, as a recent report found that people living with dementia made up 25% of COVID-19 related deaths in England and Wales.[7] It has also been identified that some of the risk factors for dementia, such as diabetes or cardiovascular disease, are factors which increase fatality rate for people with COVID-19.[1] There is a recognition that more needs to be done to support people to make those healthier choices. The disruption of COVID-19 and the lockdown has, for some people, given them the chance to reflect on how they may wish to change their lifestyles, and a broader recognition that health is an asset that needs to be valued and nurtured.

How could we view brain health differently?

This project has been an opportunity to consider how we might frame dementia risk reduction differently. In conversations with individuals and organisations about how else to consider dementia risk reduction, the concept of brain health has been mentioned. The term 'brain health' has been growing in use in recent years, mainly within the research field and in other countries, especially the United States. The National Institute on Aging in the US describes brain health as "the ability to remember, learn, plan, concentrate and maintain a clear, active mind… draw on the strengths of your brain—information management, logic, judgement, perspective and wisdom… making the most of your brain and helping reduce some risks to it as you age".[8]

Although defined differently by various groups, brain health is being used in the context of dementia risk reduction messaging. In some cases, brain health is used as part of a research initiative, while others have a common goal of raising the profile of brain health as a way to encourage the public to engage with risk reduction behaviours.[9] Initiatives have developed their own language around the concept, making it novel and appealing. We can potentially learn from these approaches and apply the insights to the emerging brain health movement in the UK, with for example Brain Health Scotland.[10]

The term brain health provides an opportunity for a new and impactful way to communicate risk reduction. It also has the potential to reframe dementia both as a condition caused by physical diseases and as a concept relevant to all stages of life, not just later life.

Figure 1. Modifiable risk factors for dementia.

- unmanaged high blood pressure
- limited childhood education
- less exercise
- high air pollution
- traumatic brain injury
- higher alcohol consumption
- less social engagement
- smoking
- unmanaged hearing loss
- unmanaged depression
- unmanaged diabetes
- obesity

WHAT ARE WE TRYING TO DO?

Given that currently brain health has very limited use in the UK, we wanted to understand public responses to the concept, and to understand if it would be a better way to reframe dementia risk reduction messages.

Alzheimer's Research UK and the Royal Society for Public Health worked together to undertake a series of interviews, focus groups, and online public polling.

We set out to find out what the term brain health means to the public and stakeholders, and also the broader context of how it fits within their approach to specific health or lifestyle choices. We started the project with the initial hypothesis that good brain health is 'supporting the physical health of your brain to keep it working properly'.

Throughout June and July 2019 we conducted 18 semi-structured interviews on brain health with academics, health professionals, policy makers, employers, and members of the wider prevention workforce. These individuals comprised our stakeholder group ("stakeholders"). These discussions enabled us to get a more formal view from those who potentially have a professional interest or perspective.

Between August and October 2019 we ran a series of focus groups with members of the public aged 35 to 64, and from a mixture of socioeconomic groups and ethnicities, to explore the concept of brain health in more detail. Focus groups were held in London and Birmingham.

The key areas of discussion were:

- Awareness and understanding of brain health.
- Association with illness.
- Overlap between physical and mental health.
- How to keep the brain healthy throughout life.
- Dementia risk reduction.
- Health messaging.

In September 2019, the Royal Society for Public Health and Alzheimer's Research UK commissioned Populus (now Yonder) to undertake online public polling of a representative sample of 2,080 adults from across the UK to consider what brain health means to the public.

Throughout the interviews and focus group work, we avoided giving a set definition of brain health as we wanted to see an unprompted response to the term and what people intuitively understood it to mean. We did present possible definitions to the online survey respondents. While we are principally interested in perceptions of brain health, we recognise the need to incorporate research, clinical, and other existing definitions into how we ultimately frame and communicate brain health.

The findings and recommendations were tested with the Alzheimer's Research UK Sounding Board, a group of volunteers with a personal connection to dementia who help the charity to shape its policy work. Any quotes are attributed to the type of insight.

UNDERSTANDING WHAT PEOPLE THINK ABOUT BRAIN HEALTH

The key observation from our research is that people are fascinated to know more about their brain. The opportunity to have a conversation about the brain and what you can do to look after it was compelling. For many, it was the first time they had considered how they could ensure their brain remained healthy in later life. It was new news. The potential for engagement is significant.

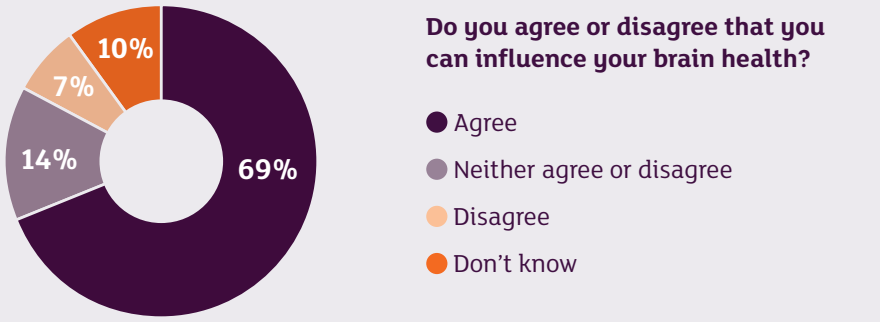
Brain health is a more empowering concept than dementia risk reduction

Over two thirds (69%) of the public believe they can influence their brain health (figure 2). This far outstrips the 34% who believe they can reduce their risk of dementia and illustrates how health messaging centred around brain health has the possibility to resonate with a much larger audience than does dementia specific messaging.[2]

While the majority of the public agree that you can influence your brain health, we did observe differences in the level of agreement by socioeconomic status. AB socioeconomic groups were more likely (73%) to agree that you could influence your brain health than were DE socioeconomic groups (59%). The difference looks to be driven by DE group respondents being more likely to answer don't know or neither agree or disagree rather than disagreeing with the question outright. This could suggest that with greater awareness and understanding of the concept, they might agree that you can influence your brain health.

Regardless of the means by which brain health could be influenced, almost all stakeholders agreed with the majority of the public that you can influence your brain health.

Figure 2. Percentage of UK adults who agree that brain health can be influenced.



> Brain health, I think it's a good term actually, because I think it's actually stimulated us to think about lots of stuff, you know, some more relevant than others.
>
> focus group participant

> Brain health is more beneficial than dementia risk reduction. People are scared of dementia and don't want to talk about it... Adults need to face to fear of dementia, but risk can be lessened if they concentrate on brain health.
>
> stakeholder interview

Brain health is effective as a concept throughout life

A key finding from our insight is that brain health resonates with all ages in a way that dementia risk reduction has not. Responses from the survey show how people of all ages consider good brain health to be important throughout life (figure 3). The support across a broad potential age range is important, as the Lancet Commission review concluded that it is never too early and never too late in the life course to take action to reduce dementia risk.[1]

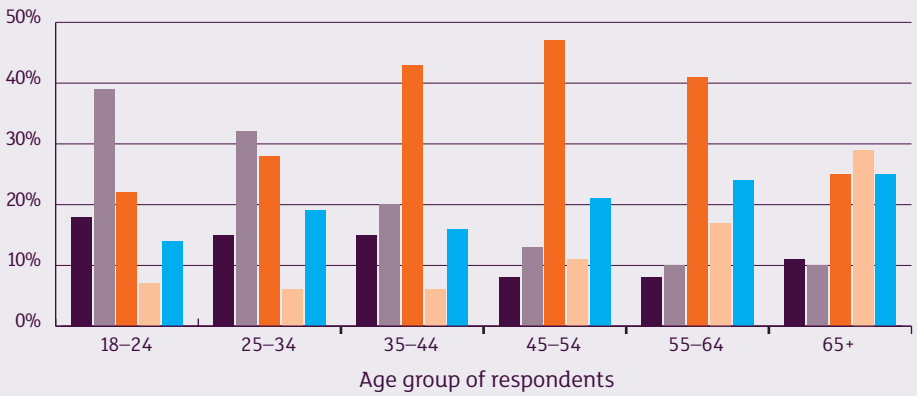
Overall, a third of the public (34%) think mid-life is the most important time to look after your brain health. Young adults (18-34), those in mid-life (35-64) and later life (65+), think their own age category is the most important time of their lives to look after their brain health, respectively, as shown in figure 3. We did not find significant differences in perspectives according to gender or socioeconomic status.

As part of the focus group discussions, there was a recognition that wider life events may change personal motivations. Major life changes, such as retirement or bereavement, raised the question of how to keep your brain stimulated and active. Traumatic life events were also seen as potential triggers to start to engage with your brain health. The focus group discussions highlighted the potential to ensure that young people were taught about brain health and associated healthy behaviours.

How do we help people improve brain health across the lifespan (mid-life into early older age) so they start at a healthier point in their 60s and 70s?

stakeholder interview

Figure 3. Most important periods in life to be looking after your brain health, according to UK adults in different age groups.



Brain health is a stronger motivator to encourage action than reducing dementia risk

Brain health has the potential to be more powerful than dementia in driving health-conscious choices. The concept of brain health was particularly useful in creating discussion around possible relevant activities, behaviours, and external influences. We found significant levels of interest in supporting brain health across the range of activities and behaviours we asked about.

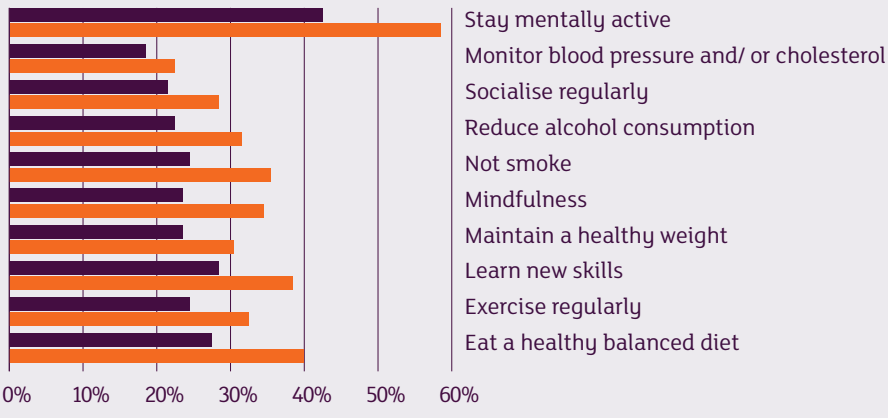
For all of the 10 actions we asked about, people were more motivated by the prospect of improving their brain health than by reducing their risk of dementia (figure 4). This gap can partly be explained by the finding that brain health is a more expansive phrase than dementia risk reduction, both in scope and in the potential benefits it offers. More people believe they can modify their brain health than believe they can lessen their risk of developing dementia. These responses also show how the activities and behaviours people claim to engage in to support their brain health closely align with what people claim to be doing to reduce their risk of dementia, highlighting the conceptual overlap between the two.

As these are group-level results, we do not know how the same option was regarded at an individual level. It is unclear whether someone who claimed, for example, not to smoke in order to reduce their risk of dementia, also abstained from smoking to protect their brain health.

A range of messages and influencers will need to be utilised to maximise effectiveness of messaging

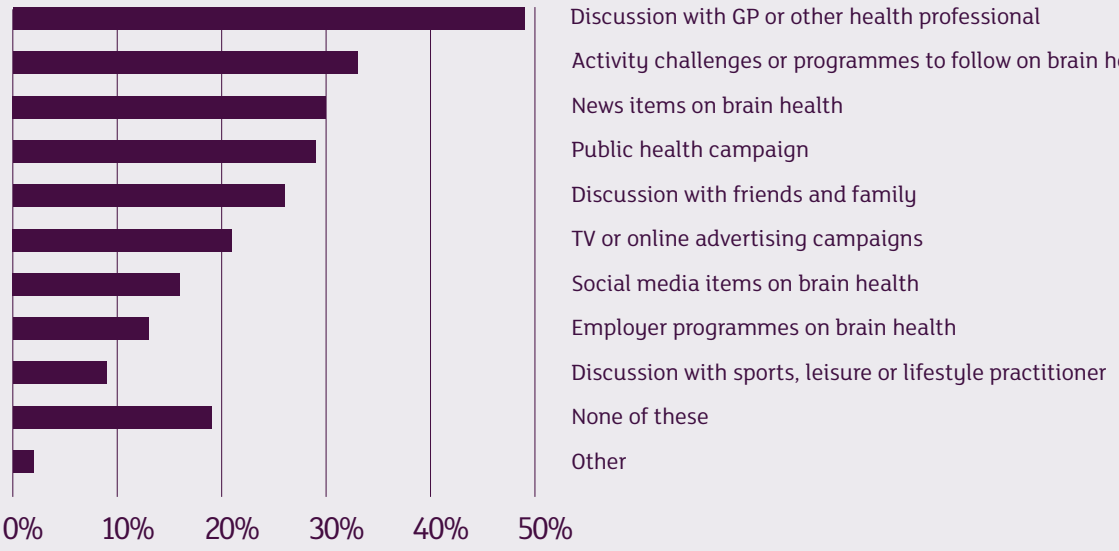
Our insight identified that to raise awareness and understanding around the concept of brain health, messages will need to be shared in multiple formats, from a range of sources. The survey showed that while half of people perceive discussions with GPs or other healthcare professionals to be an important influence to improve brain health (figure 5), there was a broad range of preferences. It is also relevant to note that 19% of respondents felt that none of the possible influences would change their opinion or motivations.

Figure 4. Comparing brain health and dementia in motivating UK adults to engage in health conscious activities.



> I think the thing with health campaigns is, it's got to be something that resonates with you... It's something that's quite personal to you, or it's affected a loved one and you would pay a bit more attention.
>
> focus group participant

Figure 5. Resources and communication channels likely to motivate UK adults to improve or maintain their brain health.

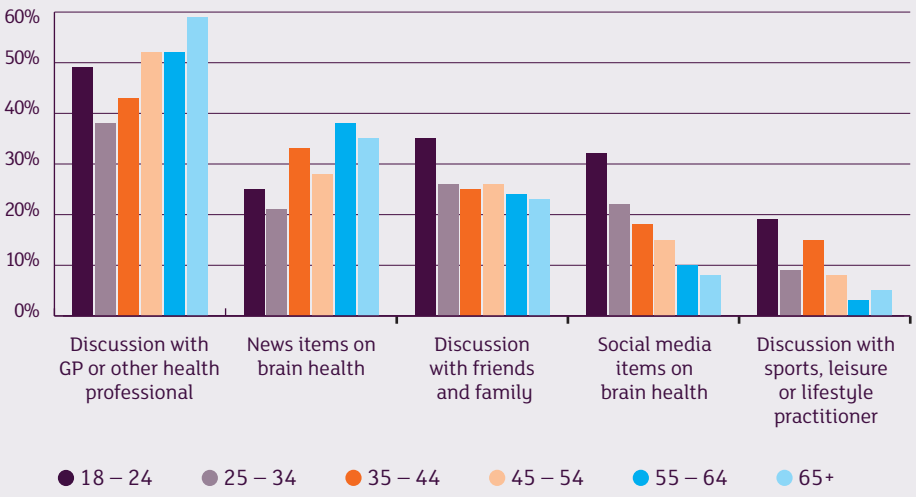


Within the breadth of opinion, we observed differences in preference by age group (figure 6). Younger age groups were more open to a range of influencing sources than older age groups were. Older age groups were more likely to prefer more traditional messaging sources, such as interaction with a health professional and items on a news bulletin, whereas younger age groups preferred social media sources or broader discussions with family or lifestyle practitioners, such as personal trainers.

Within the focus groups, individuals also reiterated that a breadth of approaches, whether through GPs, public health campaigns, or social media would be more effective at providing motivation.

The range of responses emphasises the need for a comprehensive and multifaceted approach to communication, suited to the specific needs of target groups.

Figure 6. Resources and communication channels likely to motivate UK adults to improve or maintain their brain health, according to adults in different age groups.



> There are many campaigns – it's quite noisy space. Sometimes it feels like there are too many messages.
>
> focus group participant

Brain health currently has broad conceptual meaning

Having considered the case for brain health as a reframing of dementia risk reduction, it is important to consider brain health in terms of its definition and scope as a concept.

Current definitions of brain health are broad

When we asked the public to what extent they agreed or disagreed with a list of predefined phrases about brain health, the most popular definition was "keeping the brain working properly". However, as shown in figure 7, several other definitions had almost as strong support.

Discussions within the focus groups also resulted in a range of definitions: "making the most of what your brain can do" being the most popular, followed by "improving how well the brain works", "the link between brain and body", and "reducing the risk of developing diseases that could affect the brain."

In contrast to the public, stakeholders spoke less about individual risk factors and more about what the concept could entail. Functioning of the brain was perceived by many to be a key component of brain health. It was often remarked that brain health could span both the physical and the functional. Across the interviews, perceptions of brain health encompassed everything from physical structures and physiology, through to behaviour and a sense of wellbeing.

We explored alternative terms for dementia risk reduction to assess whether brain health was the most impactful framing of the concept. Terms tested included "cognitive health", "brain strength", "brain fitness", "cognitive footprint", "cognitive resilience", and "cognitive reserve". The term "cognitive" was largely perceived to be too technical for many people to understand and was rejected by both the public focus groups and the professional stakeholders. There was less strong opinion with the remaining terms, and through the course of discussions brain health was generally agreed to be the most appropriate overall term.

We should acknowledge that this is a new concept for many. Throughout our engagement with stakeholders and the public, it was apparent that few people had previously heard of the concept of brain health, and even fewer were actually familiar with it. Many people had heard of physical and mental health, and of wellbeing, but not of brain health. Many reverted back to talking in terms of these familiar concepts whereas brain health proved to be enigmatic. We interpreted this to reflect the collective lack of common language for the concept rather than a refusal to engage with the concept. The absence of a shared understanding of brain health was clear when people were trying to collectively agree on a single definition.

> The danger is that 'poor brain health' may become seen as a euphemism for dementia, when it should be much broader.
>
> stakeholder interview

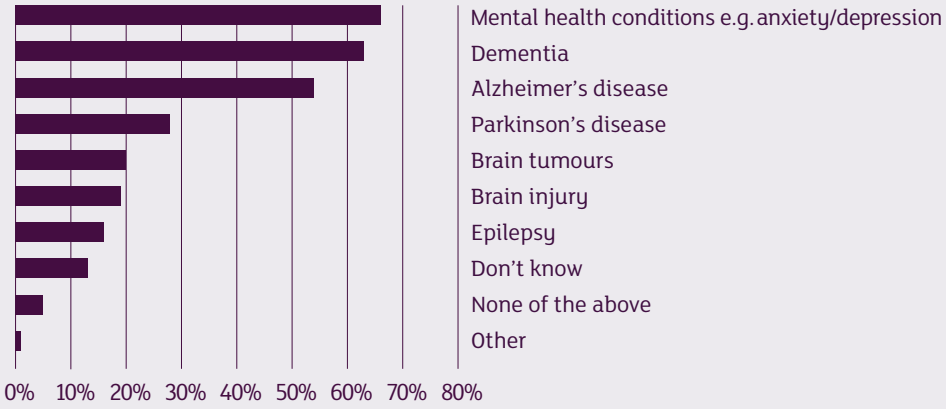
Figure 7. Top definitions that UK adults agree the term 'brain health' refers to.

- 86% agree that brain health is about keeping the brain working properly
- 82% agree that brain health is about the physical health of the brain
- 79% agree that brain health is about what is good for a healthy brain
- 79% agree that brain health is about reducing the risk of developing diseases that could affect the brain

Brain health has wider meaning which extends beyond dementia

We recognise that brain health is not currently perceived exclusively as a term associated with dementia. In the online survey we asked what conditions or illnesses, if any, could be managed or avoided by maintaining brain health. Mental health conditions, dementia, and Alzheimer's disease were the most popular answers (figure 8). We observed differences in responses according to age group. The over 65-year olds were more likely to think that protecting brain health could help to avoid dementia compared to the under 35-year olds. Conversely, more under 35-year olds were more likely than the over 65s to mention brain tumours and brain injury (figure 9). This underlines the current reality that brain health has wide meaning to many. Among stakeholder interviews, dementia and the underlying diseases that cause it were the most referred to conditions, possibly reflecting a more developed perspective within this setting.

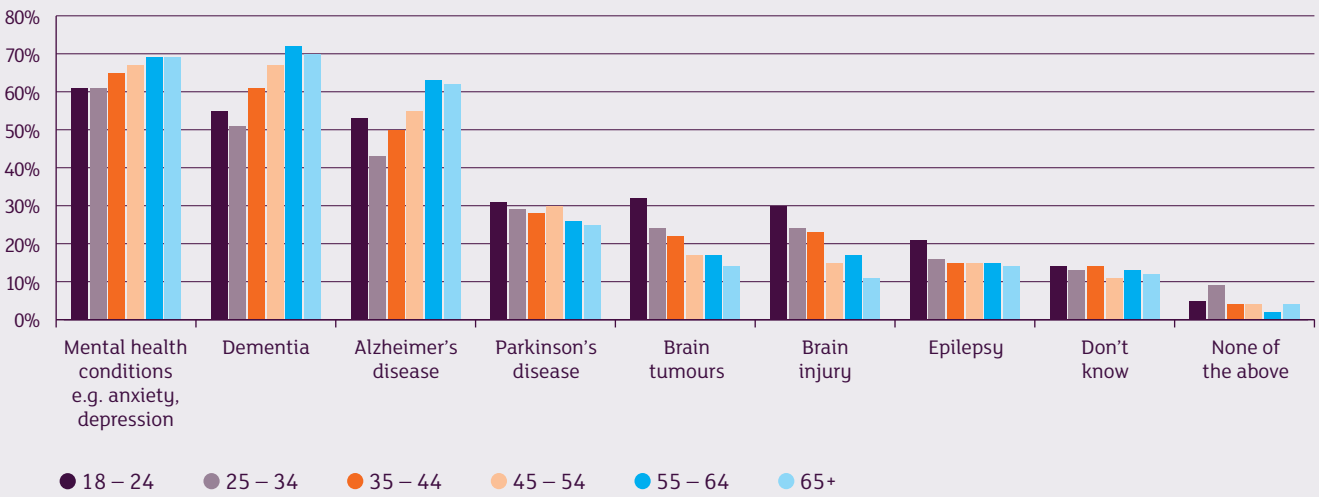
Figure 8. Perceived conditions or illnesses that can be managed or avoided by maintaining your brain health.



There is growing evidence that existing conditions may increase the likelihood of developing dementia, with over three quarters of people (77%) with a recorded diagnosis of dementia also living with at least one other health condition, the most prevalent being hypertension.[11] This reality is likely to complicate how brain health is perceived, as some comorbidities (e.g. diabetes and depression) are modifiable risk factors for dementia and others (e.g. epilepsy and Parkinson's) are not. Brain health messaging will need to be adaptable to ensure people with a range of comorbidities are not confused by what brain health can achieve.

We recognise that our perspective focuses particularly on the potential of brain health to reframe dementia risk reduction. If someone's primary motivator to engage in health-conscious activities is to reduce the risk of developing dementia, and they miss the link between brain health and dementia, there is the possibility that they may choose not to engage with changing behaviours at all. It is also important to remember that lifestyle changes and interventions cannot guarantee dementia prevention. Therefore, we need to be careful to ensure that people's expectations are not unrealistically raised, especially if the supporting evidence might not be there.

Figure 9. Perceived conditions or illnesses that can be managed or avoided by maintaining your brain health, according to adults in different age groups.



Brain health overlaps with both physical and mental health

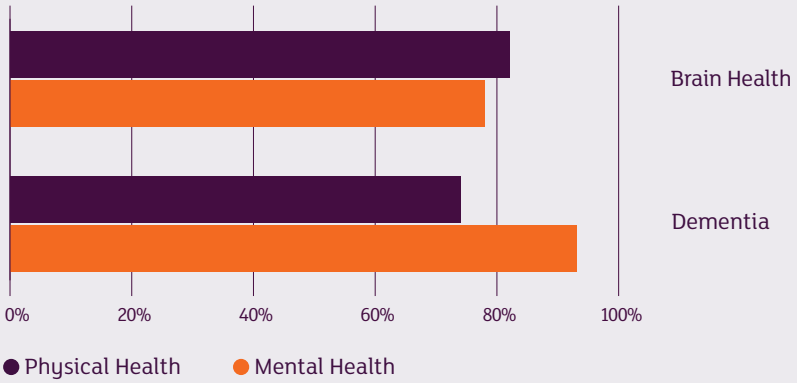
The question of how brain health relates to physical and mental health has been present throughout our discussions. We found through the online survey that 82% of the public agreed that brain health corresponds to the physical health of the brain while 78% agreed that the term refers to "mental health". This inclination, albeit slight, to categorising brain health towards the physical was also present in the focus group discussions. By contrast, when asked about dementia, people were much more likely to consider the mental rather than the physical aspects (figure 10).[2] In the Dementia Attitudes Monitor, people were more likely to identify non-physical risk factors (e.g. loneliness) than physical risk factors (e.g. high blood pressure) for dementia. This is despite evidence suggesting that physical risk factors are more closely linked to dementia risk. The insight suggests that brain health as a concept is likely to be more effective at highlighting the physical aspects of dementia risk reduction.

Much of the language around brain health used by participants in the focus groups was based more in mental than physical health concepts. When probed, focus group members repeatedly identified brain health as a physical concept despite the use of mental health language. This occurred repeatedly in several focus groups. We suggest this reflects the current lack of common language for the concept of brain health, rather than brain health having a greater association with mental health.

People went into the discussions with their own assumptions, understanding, and perceptions of what mental and physical health were, as well as how these related to brain health. At this stage, it is clear that for a dementia-centric brain health concept to resonate with the public, it would need to balance both physical and mental health features. This shared trait with the public perception of dementia further supports the idea of analogising dementia risk reduction with brain health.

As we have seen, most people do care about maintaining or maximising their health. This, however, has broad meaning and in reality is rarely driven by the desire to exclusively avoid one health condition. People recognise the need to look after the physical health of their body and increasingly recognise the importance of mental health. We argue that brain health, while drawing from both physical and mental aspects of health, is a standalone concept that deserves equal attention.

Figure 10. Comparing the extent to which UK adults perceive physical health and mental health to be related to dementia, and to brain health.



Embedding brain health

The use of brain health as a concept in the UK is still at the earliest stage and ongoing action will be needed to successfully embed it within common and regular use.

Our findings represent the start of a process to consider the concept of brain health. Our underlying aim throughout this work is how to maximise our ability to reduce the risk of developing dementia. Clearly, the first step is to share and amplify the key message that it is possible to protect brain health and reduce the risk of developing dementia. We will need policy makers, stakeholders, and professionals' support for the concept. We will need to ensure there is clarity of understanding, recognition of practical concerns and limitations, and action to address barriers and areas of uncertainty. However, we appreciate that raising awareness does not immediately translate into behavioural change. There are also wider environmental drivers that can limit some people's ability to effect behaviour change more than others. We recognise both the importance and the challenge of getting the message to have traction with those groups in particular.

The evidence base for dementia risk reduction has made significant advances in recent years. Nevertheless, there are still gaps in our understanding. By addressing these gaps we can help to strengthen the underlying evidence and develop brain health further as a concept. Potential priorities include:

- Research to design specific interventions. Our collective understanding of prevention is growing and effective interventions, including for hypertension and smoking, have already been identified. But we need more research to design widespread public health interventions. Increased understanding of the efficacy, cost and return on investment of interventions is needed as the wider evidence base grows.
- Increased understanding of additional risk factors. Aside from the 12 identified in the 2020 Lancet Commission, other risk factors like sleep may be significant. But the research needed to determine their importance has not yet been conclusive.
- Better understanding of impact across the life course to understand when risk factors are more influential and at what age interventions should be targeted.
- Understanding of the interaction between risk factors in terms of how they increase risk and which combinations of risk factors are most significant.

CHANGING THE NARRATIVE – THE CONVERSATION ABOUT BRAIN HEALTH STARTS NOW

This insight has demonstrated the case for reframing dementia risk reduction. There are several advantages to using the term brain health instead of dementia risk reduction.

It is accessible and relatable because it steers clear of technical language. It offers a more positive framing and avoids the fear, stigma, and misconceptions that limit some people's perceptions of the potential to reduce their risk of developing dementia. Brain health encapsulates more than just dementia, and as such, by addressing brain health related risk factors, individuals could benefit their general health as well.

This report is the start of a journey to engage the UK population with the concept of brain health. We see brain health as an investment for both now and the future – with the right care and attention, your brain has the potential to be a fully functional and valued asset throughout life. It is clear that brain health can engage people at all ages, and while the motivation behind this work is to minimise dementia risk in late life, there is the potential to maximise or maintain brain health throughout life.

It is now time to act to raise awareness and improve everyone's brain health. From our evidence we know that a single approach will not be sufficient to engage with the breadth of people who have the opportunity to benefit. There is also the potential of exacerbating existing health inequalities, given the differences in awareness and understanding between socioeconomic groups, ethnic minorities, and the environmental circumstances that drive these health disparities. Any course of action will require a range of approaches, including some actions that are targeted to specific groups likely to be at greater risk.

Develop a brain health strategy

With a growing evidence base, including identification of cost-effective interventions, there is a need to convene a collaborative approach to ensure we can support good brain health and reduce the prevalence of dementia. The 2019 Conservative manifesto set out an ambition to "save millions of people, and their families, from suffering the agony of a slow decline due to dementia".[12] The policy environment is also changing with the impact of COVID-19, with, for example, changes to the structure of public health provision in England and recent initiatives such as the Ageing Society Grand Challenge.[13] This offers the opportunity to work with the government to ensure there is the development of a brain health strategy to enable everyone to maintain good brain health.

This should include:

- A funded commitment to **implement cost-effective interventions** to address risk factors.
- Development of a **targeted public awareness-raising campaign** aimed at those with most to gain from good brain health, especially minority ethnic groups and lower socioeconomic groups.
- **Creation of health care professional resources and educational opportunities** to enable all practitioners to understand the emerging evidence and have the skills to support their patients.
- Ensuring that all opportunities to **embed brain health within existing services** are supported. For example, the dementia risk reduction messaging within the NHS Health Check could be reframed as promoting good brain health.
- Commitment to **fund more research** to find ways to reduce the prevalence of dementia.
- Commitment to **embed brain health across the life course,** for example by working with employers or schools to raise awareness and understanding.

It will also be important to engage the devolved administrations of Scotland, Wales and Northern Ireland, building on the current progress of the recently launched Brain Health Scotland initiative.

In recent months, the effect of COVID-19 across the UK has been profound. COVID-19 has disproportionately, and tragically, impacted people with dementia. The case for reducing the risk of developing dementia has never been stronger. The pandemic has also reframed the way many people think about their health and for some has been the motivator to address aspects of their health behaviours. As we start to develop our new normal, this is the ideal opportunity to incorporate brain health into our lives.

Alzheimer's Research UK intends to act on the findings and recommendations. Our plans are stratified into three areas:

Think Brain Health – engaging the public
At the broadest level, we want to raise awareness and understanding of brain health. We need to create opportunities to start a conversation about brain health and give people the chance to understand, conceptualise, and engage with the term. The first step is to ensure that people have the insight of why brain health is relevant to them and how it can help them reduce their risk of developing the diseases that cause dementia. In response, we have developed our Think Brain Health campaign. This is the start of a public engagement process that we intend to build and grow.

Amplifying the brain health conversation – engaging stakeholders
We will work in collaboration with other organisations who have a shared interest in our aims to strengthen our impact and reach. We will identify potential collaborations and relationships to develop a shared understanding of the brain health concept and its potential impact through a joint consensus and develop, share messages, and concepts that amplify the brain health message.

Embedding brain health within health, public health and wider decision making – engaging parliament and policy makers
We recognise that while individuals take responsibility for their own choices about their life, national and regional decision-making creates systems that can make it easier for people to make healthy choices. We will seek to ensure decision makers are fully engaged with the concept and potential of brain health, including relevant interventions. Building on our public and stakeholder engagement, we will work to ensure brain health is embedded within policy making across the UK.

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Alzheimer's Research UK

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