

Professor Sir Muir Gray, Director of the Optimal Ageing Programme at the University of Oxford.

SIR MUIR GRAY CBE entered the Public Health Service by joining the City of Oxford Health Department in 1972 after qualifying in medicine in Glasgow. The first phase of his professional career focused on disease prevention, helping people stop smoking. He went on to develop the NHS screening programmes for pregnant women, children, adults and older people, and was appointed Chief Knowledge Officer of the NHS. He set up charities to promote urban walking and the Oxford based [Centre for Sustainable Healthcare](#) and [Better Value Healthcare](#), publishing a series of How-to Handbooks, including How to Get Better Value Healthcare. In a 50-year mission to help people live longer better and cope with ageing, he published *Sod 70!* for septuagenarians, *Sod 60!* for the younger decade and the dietary *Sod It, Eat Well!* Through his research and experience he has developed a new paradigm to help people live longer better, to compress morbidity at the end of life, reduce the incidence of dementia and frailty and therefore reduce the need for social care. This is based in the new [Optimal Ageing Programme](#) at Oxford.

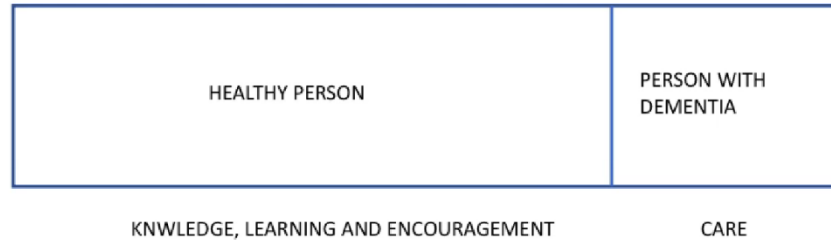
I am speaking for the Optimal Ageing Programme at Oxford. Our mission is to help people live longer, better. To compress that period at end of life when people are dependent on others. We know we can do that, because the evidence says we can delay or prevent dementia, disability, frailty and dependency. There is a huge overlap between frailty and dementia, but they are separate empires. I am going to tell you about what we do, and how it relates to dementia and to its management.

It is partly by developing a system. We have now got about 20 million people working to a common set of objectives, but it is a cultural revolution. We need to change the way people think. We need to rewire the brains of people, particularly of my colleagues in the medical profession. Anyone who qualified before 2000 didn't hear about neuroplasticity. We were all taught [Ramón y Cajal](#) and then in about 2000 the concepts came in. I was certainly never taught it, and even younger doctors who are in their 50s have never heard of it in medical school.

We need to change the way people think. We do that by changing language. I am aiming to ban the word 'retirement'. We are going to call it a 'renaissance' and ban the word 'care'. In the 1948 Assistance Act the younger disabled people - the deaf, dumb, blind and crippled to be precise - were at least given education to help them overcome their disabilities. The ageing were simply to be given practical assistance in care homes.

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I am going to talk a little bit about the revolution. The conventional view of the world is that there are two subgroups: there are healthy people, who need knowledge, learning and encouragement; and there



are those people who have problems like dementia, who need care. This is a wrong model. Everybody needs knowledge, learning and encouragement, including those people who are living with dementia.

Here is the conventional model, there are healthy people and people with health problems. Healthy people get knowledge without knowing it. They get knowledge, learning and encouragement, and what we are seeing in our programme in Oxford is that we have discovered the elixir of life. It is called knowledge.

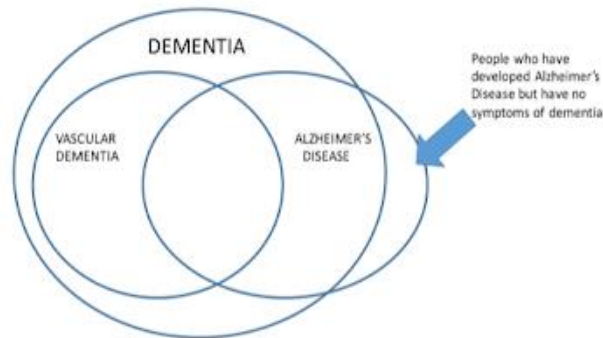


It is consumed not through a bottle, but through learning. This is the model. It is not a sharp cut off. Some people get learning, and others get care. But you need to think of everybody needing knowledge, learning and encouragement.

Here are the objectives of our system. It is a wide range, for example, to minimise and mitigate the effects of deprivation, not easy for individual professionals to do, but we have to think about these things. Also included, to delay or reduce the risk of dementia. When we're out talking to people in bridge clubs, bowls clubs, mosques and churches, that last one, to enable dying well as well as living well, was one of the key subjects.

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Our programme focuses positive of [Brainability](#). There is an overlap of causes between Alzheimer's disease and vascular dementia, and then of course there are other causes of



dementias. Many of our colleagues are confused. They mix up the word dementia and Alzheimer's disease. Quite a lot of it is just helping people think very clearly about what the challenge is. We cannot prevent Alzheimer's at the moment, but we can reduce the risk of dementia. We base our work largely on the Lancet Commission, [Dementia prevention, intervention, and care: 2020 report of the Lancet Commission](#) (2020). In the Brainability programme we have three strategies: 'Protect your brain cells' – sleep better, avoid stress, avoid drugs. 'Keep the blood flowing

DEMENTIA RISK REDUCTION STREAM	CONTRIBUTION OF ARTS
PROTECT THE BRAIN TISSUE	Reducing stress Sleeping better
KEEP THE BLOOD AND OXYGEN FLOWING	Music and movement Daily dozen
KEEP ENGAGED, POSITIVE AND WITH A PURPOSE	Join groups Join groups with a social purpose Work and purpose

well' – exactly the same as for heart disease, because atrial fibrillation causes vascular dementia just as it may cause a major stroke. The third interesting one is 'Stay engaged'.

Here is how we see the arts and music factor into this. Let us look at the risk reduction streams. Firstly, protect the brain tissue, the contribution of arts is in reducing stress and sleeping better. We know that disrupted sleeping patterns increases the of risk of dementia. In terms of pre-sleep rituals, music can have an important role to play. The medical profession has stopped using the term stress, because it was not clear how it can be defined. But a combination of stress and inactivity undoubtedly causes inflammation, one of the contributing factors for dementia. Secondly, keep the blood and oxygen flowing. This can be through exercise, music and movement. The Academy of Royal Colleges also produced a fantastic report called, [Exercise - the Medical Cure](#) (2015).

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What we found in the past is that as soon as someone had a long-term condition, the NHS moved to give them medication. But we are now introducing activity prescribing, Michael Dixon's wonderful leadership has given us a platform. The plan is that in future whenever the GP hits the button to prescribe a drug, a social prescription will be automatically offered. That could be a music class, a link to local activities, but something will happen.

I am on about six drugs for various health problems, I get hundreds of words a year tucked into my drug boxes, but not a single word have I had about arts or music, or anything other than medication.

We will change that. Hopefully, the GP can give us nine seconds to prescribe something else. Even if the GP forgets, then the SPLW will be feeding the GP information systems, and this will happen automatically. You can see there the good old daily dozen, 30-minute brisk walking plus the daily dozen. We are focusing very much on housebound people in care homes too. That is 12 minutes a day for strength, suppleness and skill, and 30-minute for stamina. This last fascinating issue of keeping engaged, positive and with a purpose.

I was greatly encouraged when I saw the first editorial in the *Journal of the American Medical Association* 2020, the editorial in the *British Medical Journal* was called Multimorbidity Complexity, but this was in in JAMA, and Philip Pizzo was a very distinguished laboratory scientist. Look at this subheading [*A Prescription for Longevity in the 21st Century: Renewing Purpose, Building and Sustaining Social Engagement, and Embracing a Positive Lifestyle*](#) (2019). Isn't it fantastic, not a mention of the human genome?

So, starting to think about keeping engaged. Join a group, could be painting, singing, a choir. I am very interested in how we use digital inclusion. I said to a friend once, 'How is your mother finding her care home?' He said, 'They're very nice people, but no one has heard of Schubert.' I will bet there are thousands who do love Schubert in other care homes or who are house bound. Let's create a virtual club!

Then we think about groups having a social purpose, they could be raising money for young musicians or artists. Camilla Cavendish's book, [*Extra Time*](#) is excellent in explaining the Ikigai purpose, not just listening to arts, but supporting arts.

That leads me to finish on this issue of work, and purpose, these are all summarised in our book [*Increase Your Brainability and Reduce your Risk of Dementia*](#). The issues of work and purpose is very important. David Hockney is a wonderful example to us all. I'm in the Daily Mail each

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week doing a video, and last week I did a video about Hockney, who at 83 he said, 'Well, working is just great!' and that's what he does to stay healthy.

So, I am trying to summarise with how the arts are playing a part in our programme to reduce the risk of dementia, but I don't see a sharp cut off, and everything I was saying about groups and social purpose can apply equally to those with a diagnosis of dementia, as to those without.

Congratulations to A4D, you are coming up the agenda very well thanks to your good work. Thanks also to Michael Dixon for blazing the way with SP.

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