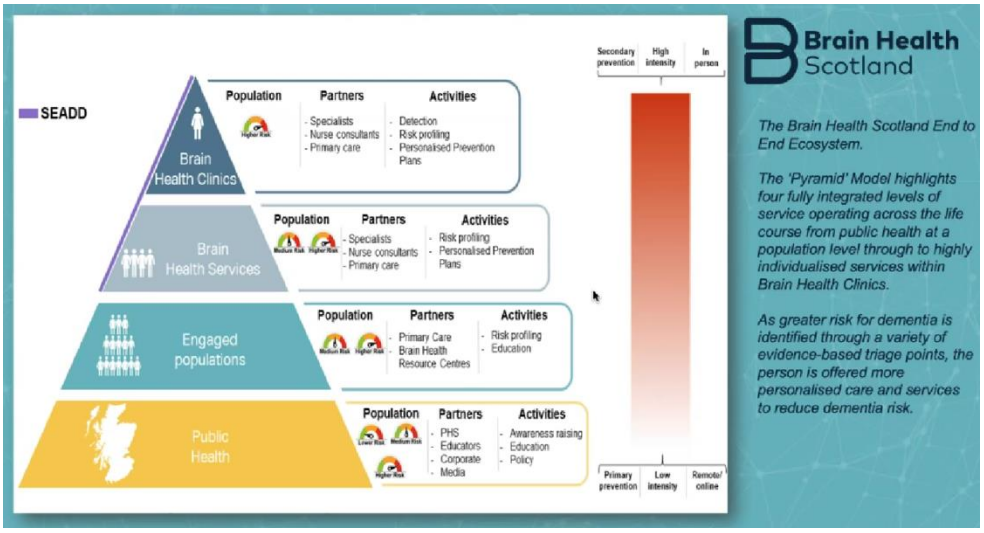
Professor Craig Ritchie, Chair of the Psychiatry of Ageing, Director of the Centre for Dementia Prevention, The University of Edinburgh. Director of Brain Health Scotland.

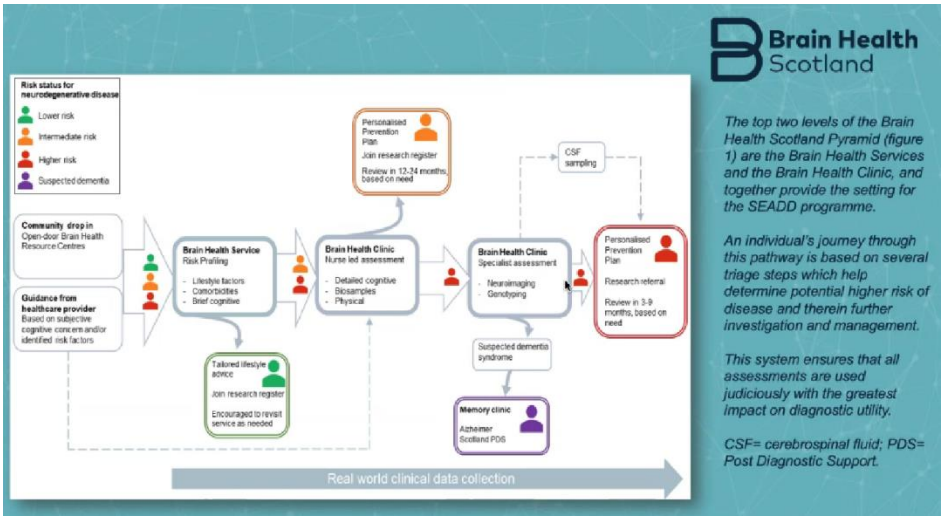
PROFESSOR CRAIG RITCHIE is the Professor of Psychiatry of Ageing at the University of Edinburgh and Director of Edinburgh Dementia Prevention, having moved from his role as Senior Lecturer in the Centre for Mental Health at Imperial College London in October 2014. Appointed as Associate Director of the Edinburgh Clinic Research Facility (CRF) in 2016, he was elected Chair of the Scottish Dementia Research Consortium (SDRC) in 2017. Professor Ritchie has driven forward on his commitment to promote and grow that consortium to assist Scotland and Scottish based researchers from all over the world to achieve its objectives and theirs. His primary research interest is in the maintenance of brain health in mid-life to mitigate the risks of initiation and progression of degenerative brain diseases that may lead to dementia. To achieve this, he leads as Chief Investigator on the EPAD (European Prevention of Alzheimer's Dementia) Programme, the PREVENT Dementia Project and the Scottish Brain Health Register. Professor Ritchie is Associate Director of DPUK (Dementias Platform UK).

'Brain Health Clinics: The Scottish model and points for social prescribing.'

There was a lovely segue there, Alistair, when you mentioned research into practice. I did not just edit this slide the minute you said it, this is what Brain Health Scotland is all about. I will, in just less than ten minutes, talk about an initiative here in Scotland, which I think is of high relevance to what we have been discussing today and what we will talk about tomorrow. Brain Health Scotland is an initiative that started officially about a year ago. But it originated about three or four years ago when myself and Henry Simmons there, who you'll see is Chief Executive of Alzheimer Scotland, had an audience with the First Minister to discuss the potential for preventing dementia, by bringing into practice a lot that what we were learning from research studies. Both at a basic science as well as at an epidemiological level. She was hugely supportive, and we are navigating our way through the various layers of Scottish government and NHS Scotland to actually implement what I'm about the show you.



The reason I think this is an important slide is for many reasons. Not least to highlight a few really important aspects to dementia prevention. Number one is that improving brain health across the life course from the earliest years onwards will, I think, give us the greatest opportunity and the greatest impact on dementia prevention. At a public health and a policy level, we know we should be able to, if you like, address all of those risk factors which have been identified in the Lancet Commission Report, which many of you will know about, if not all of you will know about. In a sense, what this is trying to do is operationalise the Lancet Commission Report, to prevent or manage risk factors that lead to poor brain health, and later life, a dementia syndrome. The other element of our work is around the individual, as opposed to just the population level. That is the top two tiers in this pyramid structure, we have brain health services and brain health clinics. SEADD, by the way, stands for the Scottish Early Alzheimer's Disease Detection programme.

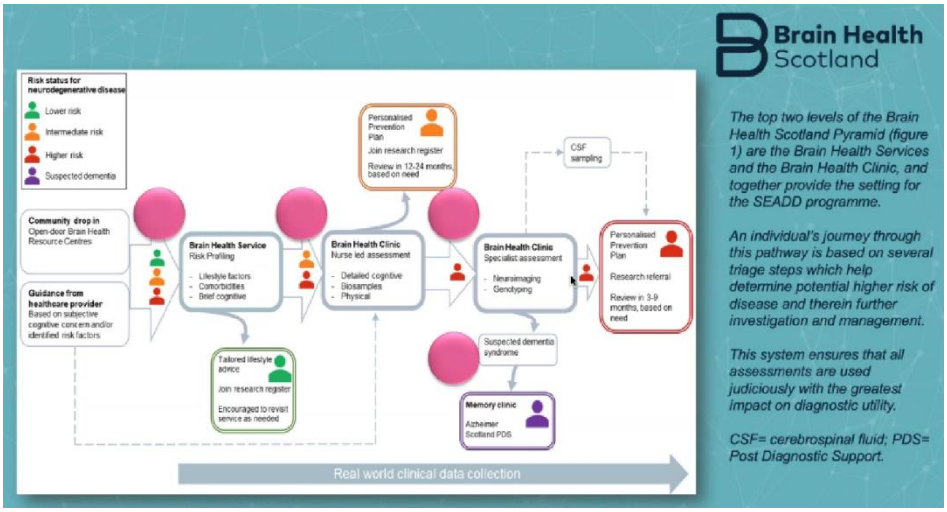


Just quickly to illustrate what an individual would expect in attending a brain health centre. It is very important to note that these are not memory clinics, these are not expansions of the memory clinic service. This is a new offering that will hopefully attract people who have

concerns about brain health for whatever reason. Some of whom we may detect early Alzheimer's disease, or early Lewy Body disease, or early Cerebrovascular disease. But the offering is really to not identify the dementia syndrome, it is to try and identify the diseases that lead to dementia decades before symptoms develop. That is of course what we are learning is relevant from all the cohort studies that we have been running over many years.

The key elements around this: number one, these are going to be community-based services, open door, not waiting for a GP referral or a referral from another healthcare agency. People can walk in the front door of a Brain Health Resource Centre and be greeted, hopefully with a cup of tea, cup of coffee or a glass of water, and asked to complete some basic assessments. We look at lifestyle, look at smoking habits, alcohol habits, eating habits etc. We get an assessment of co-morbidities we know to be important in terms of brain health, like diabetes, depression, cardiovascular disease, and we will do a brief cognitive assessment. On the basis of that they will then either be reassured that their lifestyle is good, they are at a young age, and they are very unlikely to have a neurodegenerative etiology to their concerns. But if not, they may go for further assessments with the nurse who will do some blood sampling, some genetic testing, and on the basis of that risk algorithm, they may be seen by a specialist who will undertake some brain scanning.

So, all this is within one system. Probably within one building apart from the brain scan. Throughout it all we will collect data to help inform and reassess how many people are coming through, what sorts of problems they have, what sort of disposal takes place, and what sort of diagnosis, ultimately, they receive. It is also important to note that if at any point somebody is picked up as having dementia syndrome, they will be linked into the existing memory clinic structures within Scotland, and Alzheimer's Scotland obviously run post-diagnostic services here, north of the border.



I just thought it was really important, you can see how at the front end on the left of this slide, there is not a lot of medical stuff going on. It is about lifestyle, it is about nutrition, it is about diabetes, it is about social isolation. These are just the nodes or the points where I think social prescribing, or I don't think, I know social prescribing is going take precedence in many ways in terms of that management. So, for instance, at that front end, if somebody is recognised for their lifestyle - it could be in terms of nutrition, it could be in terms of weight, it could be in terms of lack of exercise - that is not going to be druggable. That is not something that we are going to prescribe a medication to, to try and improve their exercise.

That is where social prescribing and working with communities in Scotland who provide those facilities, those services, those support, will be onboarded to work with the brain health services. That can happen all the way through this process, as risk factors are identified, they can be helped and addressed through social prescribing. Which is not the traditional route of course, in terms of memory clinics, where, as I think somebody said earlier, are heavily biased still to prescribing medication. As we develop these care pathways, we are also working very actively with numerous agencies in Scotland, Active Scotland and Sport Scotland, and we have got collaborations with nutrition and food industries ongoing at the moment to see how we can make sure we have got these partners within the system from the outset.

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