

**Launch:**  
**World Alzheimer Report 2023**

***Reducing dementia risk:  
never too early, never too late***

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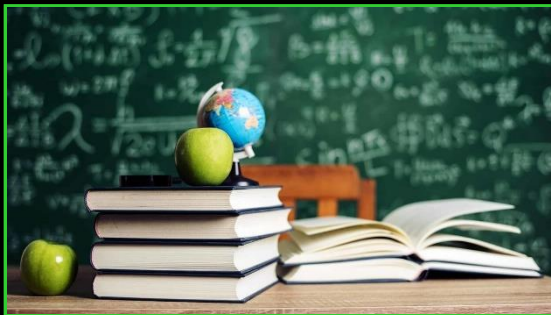
***University of Auckland.***



**World Alzheimer Report 2023**

Reducing dementia risk: never too early, never too late





**Low Education**



**Hearing Loss**



**Traumatic Head Inj**



**High Blood Pressure**



**High Alcohol Use**



**Obesity**



**Smoking**



**Physical Inactivity**



**Depression**



**Social Isolation**



**Air Pollution**



**Diabetes**

## Key areas of risk reduction



***Physical risk reduction***



***Non-modifiable risks***



***Brain health***



***Preventative risk reduction***



***Environmental and population-level risks***



***Post-diagnosis risk reduction***





## Key messages

- Globally and in New Zealand dementia prevalence numbers will more than double over next 30 years
- 12 modifiable risk factors account for 40% of risk for developing dementia prevalence
  - Evidence shows modifying these risk factors makes a difference
  - **Modifying lifestyle** and other risk factors **is not easy**
  - **If you have hearing loss, get a hearing aid.....and wear it!**
  - **Some risks can not be addressed individually:** communities and government must address issues related to environment, healthcare access, poverty
  - **Some risks are not modifiable: it is not your fault you have dementia!**
  - **Risk reduction does not end at diagnosis:** people with dementia can implement healthy lifestyle changes aimed at slowing the progression of the condition

**Government must invest in risk reduction**



## *Physical risk reduction*



9 of 12 “modifiable” risk factors for dementia affect the brain through the body:

- hearing loss
- smoking
- hypertension
- obesity
- physical inactivity
- diabetes
- excessive alcohol consumption
- traumatic brain injury
- air pollution



Live a  
“healthy lifestyle”

*“Healthy hearts, healthy bodies, healthy brains”*



## Physical risk reduction



## Live a “healthy lifestyle”

- eat a healthy diet
- sleep well and long enough
- take plenty of physical exercise
- don't smoke
- stay free of infectious diseases
- don't drink too much
- try and avoid having repeated blows to the head



***Eating a diverse diet best: esp. for  
intestinal bacteria / microbiota –  
good for brain cells***



## *Physical risk reduction*



### Live a “healthy lifestyle”: A pretty easy prescription?

- hard to **persuade people to change diet radically** for rest of their lives.....start with modest changes (swapping beer for wine; drinking less; using more olive oil)
- **Are the recommended foods:** locally available?
  - cheap/affordable?
  - culturally congruent?
- **Need to adapt diet recommendations for dementia risk reduction to local context**
- **Role of government:** food security for all
  - food opportunities in poor communities?
  - making healthy food affordable and/or available





**Velma Peters cooks healthy meals for residents at an old age residence in the suburbs of Cape Town**



**but getting them to enjoy it can be a challenge**





## Physical risk reduction



## Untreated hearing loss: a risk factor for dementia

- Several large observational studies have found that **untreated** hearing loss increases risk of cognitive decline, and AD /dementia (e.g., Deal et al, 2016; Jiang et al, 2023)
- **Wearing hearing aids does make a difference:** (Amieva et al, 2018): 25 yr prospective study (n = 3777); hearing loss increased dementia incidence, **except** those wearing hearing aids
- UK biobank study (Jiang et al/ 2023): marked increased risk of developing dementia in those with self-reported hearing loss, but **NO increased risk in those who used hearing aids**
- ❖ **Mechanism:** might decrease cognitive interactions – extra “load” from effortful listening, increase social isolation and depression

**Recommendation:** Get hearing checked: If you have hearing aids, wear them...

- **Role of govt / health agencies:** affordability, accessibility, compliance



## ***Brain Health***

### **Remaining 3 “modifiable” risk factors: risk to brain health**

- Low levels of education in early life (< 30)
- Social isolation
- Depression



## Brain Health

Low levels of education in early life (< 30 years) risk factor for dementia

- Higher level of education (and/or occupational complexity) associated with reduced risk of cognitive impairment and/or dementia (*e.g. Livingston et al., 2020; Stern 2012*)

**“Cognitive Reserve”**: allows individuals to maintain “adequate functioning” longer in face of brain pathology (**resilience**)







## Brain Health

What are the best ways to enhance cognitive reserve/resilience?

- **Challenge yourself with something new:** learning a new language, playing or learning a new musical instrument, dance, kapa haka
- Activities that are **multilayered** are much better than doing just one thing

**Activities that both stretch the brain and involve social interaction are most effective**





## *Brain Health*



### Three things we can do (and help others to do) to tackle lack of social connection and loneliness

1. **Listen to your body and act on the signal:** feeling lonely is our body's signal that we need to connect
2. **Foster strong connections:** Even one strong, healthy relationship is enough to ward off loneliness
  - keep up contact with family and friends
3. **Get involved.** Join a social, sporting, special interest, community or volunteering group.
  - Helps to satisfy our human need to contact.





...some of the most important risk factors are not modifiable by an individual on their own, despite their best efforts, but come from society, the environment...

- One person alone can not do much about improving air quality where they live
  - they may be able to make individual choices to bike, or use public transport, but the solutions for poor air quality are bigger than the individual



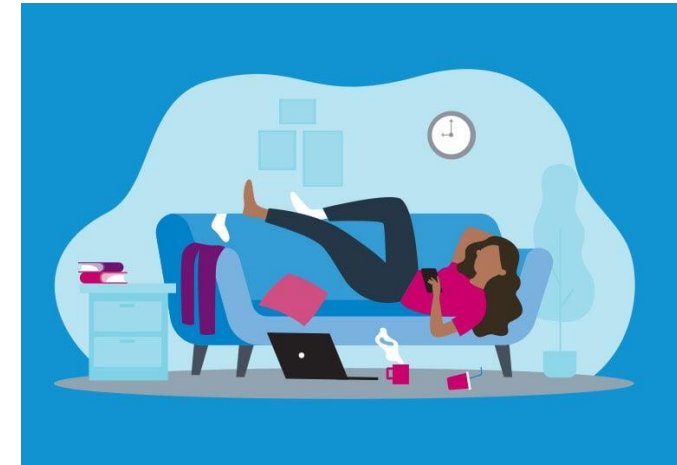
***Environmental  
and  
population-  
level risk  
reduction***





...some of the most important risk factors are not modifiable by an individual on their own, despite their best efforts, but come from society, the environment...

- It is far easier **to list** the changes you are going to make about your lifestyle, **than to actually make them**



Governments have a role to play, and experience has shown that when they legislate to support and empower positive behavioural change, people get healthier.

*Environmental  
and  
population-  
level risk  
reduction*



***Environmental  
and  
population-  
level risk  
reduction***

**Governments need to develop robust risk reduction strategies in partnership with the community**



**In high-income countries widening inequality means risks are very unevenly distributed...**

- Low income and poverty can mean personal health habits are not entirely down self-discipline:
  - if all the food in the nearby shops is full of salt and sugar
  - if food full of salt and sugar is cheap and fresh/unprocessed food is expensive AND you have to feed many mouths....
  - If you can't afford a gym membership or don't have the time to participate in a team/group activity, then positive physical activity/exercise is difficult



***Environmental  
and  
population-  
level risk  
reduction***





**In high-income countries widening inequality means risks are very unevenly distributed...**

**Life stressors as risk factors.**

.....The report found out that common risk factors for **mental health conditions** include

- *adverse childhood experiences,*
- *low levels of education,*
- *food insecurity,*
- *poor housing,*
- *unemployment,*
- *discrimination,*
- *climate change*
- *environmental degradation.....*

***Environmental  
and  
population-  
level risk  
reduction***



***Environmental  
and  
population-  
level risk  
reduction***

**Governments have a role to play....**

**Governments have a role to play in addressing  
poverty and social disadvantage**

**Given how much we know about risk reduction  
and how it can benefit people, how do we  
convince governments to start promoting risk  
reduction-friendly lifestyles?**



***Post-  
diagnosis  
risk  
reduction***

***Life isn't over after a diagnosis of dementia  
mate wareware***



Te noho ora me  
te mate wareware  
**Living with  
dementia**



**Friends celebrate with traditional  
music in San Jerónimo Norte,  
Argentina on June 9, 2013.  
(Alex Kornhuber)**







## ***Post- diagnosis risk reduction***

***Life isn't over after a diagnosis of dementia  
mate wareware***

- Risk reduction does not end at diagnosis
- Most of the lifestyle factors that reduce risk can help slow the progression of the condition and improve a person's quality of life
  - social interaction
  - cognitive stimulation
  - purposeful activity
  - exercise



*Post-  
diagnosis  
risk  
reduction*

*Life isn't over after a diagnosis of mild cognitive impairment*

social interaction

cognitive stimulation

purposeful activity

exercise





## ***Post- diagnosis risk reduction***

# ***Life isn't over after a diagnosis of mature-onset dementia***

Participating in the community for as long as possible

### **Dementia friendly communities**

- education
- address stigma
- environmentally friendly



Across Japan, there are thousands of dementia cafés, some of them permanent establishments catering for (and sometimes catered by) people with dementia.



Okinawa: subtropical string of islands  
400 miles south of mainland Japan)

***“The real secret of Ogimi’s longevity is that **people continue doing social activities** no matter how old they are”.***

Yuya Nohara, Ogimiâ’s citizen welfare division



Along with Sardinia in Italy and Icaria in Greece, Okinawa is designated as one of the world’s **Blue Zones** where people live longer than average. Ogimi is a remote, rural village in Okinawa.

***“The reason for [their longevity] is because of **diet and lifestyle.**”***

Dr Hidenori Arai, president of the National Centre for Geriatrics and Gerontology (NCGG)

***“The **people who have a purpose in life, or ikigai [in Japanese],** do not present a worry.”***

Yuko Taira, an official in Ogimi, known as the “village of longevity”, in Japan