

The Embodiment of Oppression: A Biocultural Hypothesis for American Indian/Alaska Native Dementia Causation and Risk Reduction Targets

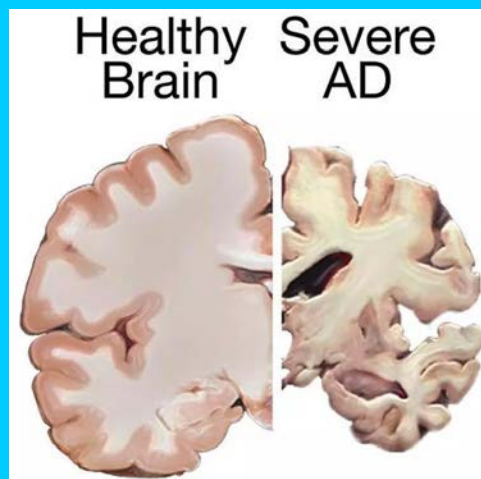
**University of North Dakota
Department of Geriatrics
GWEP project**

**J. Neil Henderson, Ph.D.
(Oklahoma Choctaw)
Professor Emeritus**

**Department of Family Medicine & Biobehavioral Health
University of Minnesota Medical School, Duluth campus**

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This is why we're here today.

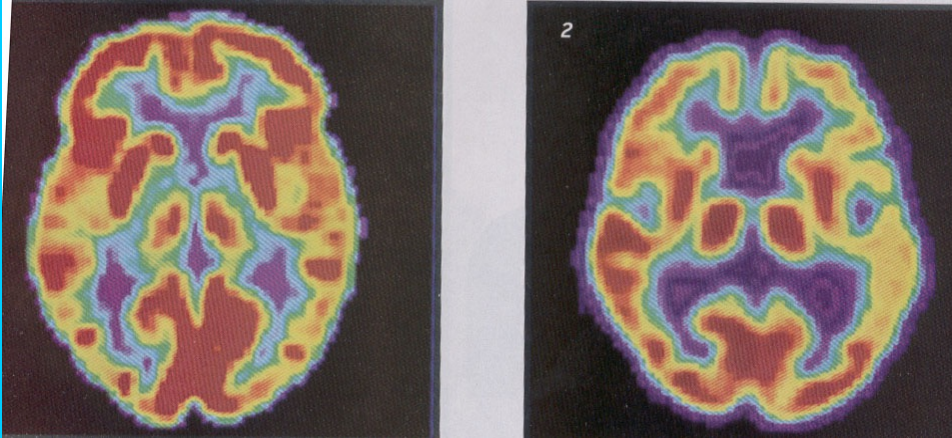


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PET SCANS

NORMAL

MILD AD

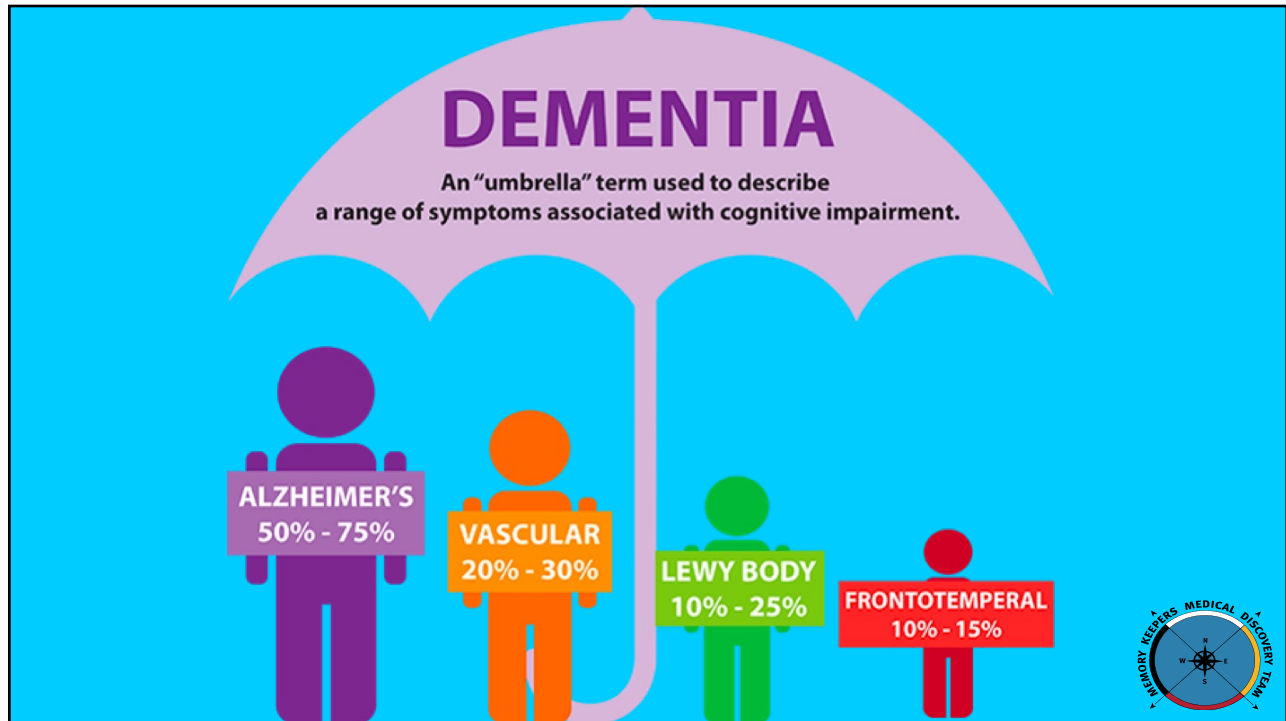


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PET SCAN: AD SEVERE



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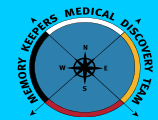
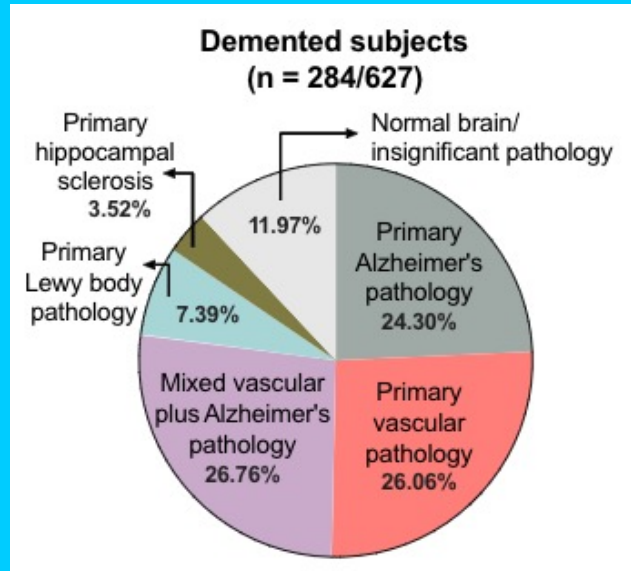
TERMS: DEMENTIA

- **DEMENTIA: ORGANIC BRAIN DYSFUNCTIONS**
 - ALZHEIMER'S DISEASE: 60-80%
 - VASCULAR DEMENTIA: 10%
 - MIXED: 50%
 - DLB: DEMENTIA WITH LEWY BODIES: 20% +
 - FRONTO-TEMPORAL DEMENTIA 3%-10%
 - PARKINSON'S DEMENTIA .2%-.5%
 - CREUTZFELD-JACOB DISEASE below 2%

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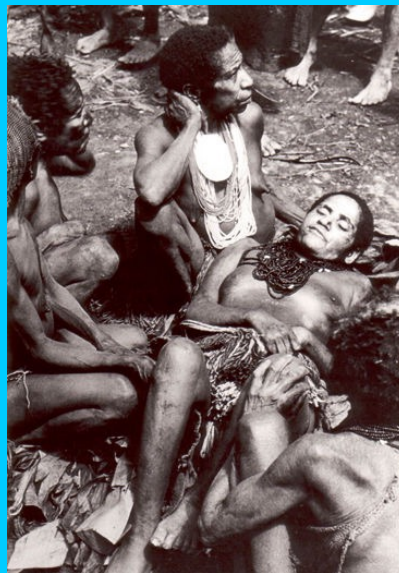
Types of Dementia

Hachinski, 2019 Alzheimer's & Dementia



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Kuru: Fore of New Guinea



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Kuru: Fore of New Guinea



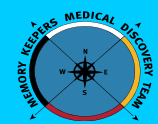
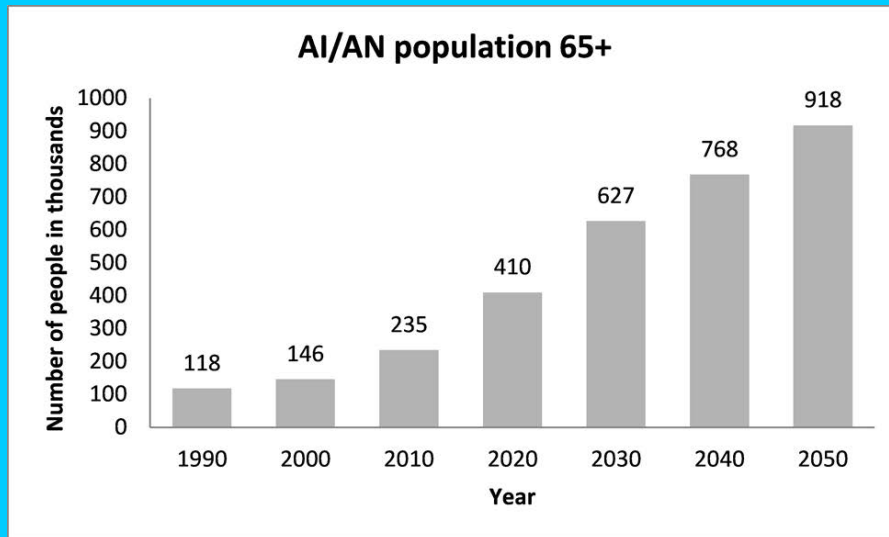
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CAUSES OF AD

- **BETA-AMYLOID: NEUROTOXIC**
- **TAU PROTEIN: NEUROTOXIC**
- **INFECTION: immune response/inflammation**
- **METABOLIC DYSFUNCTIONS**
- **GENETICS**
 - **APOLIPOPROTEIN E: APO-E**
 - E2: protective
 - E3: most frequent; not problematic
 - E4: problem: homozygous = 8-12x; heterozygous = 3x

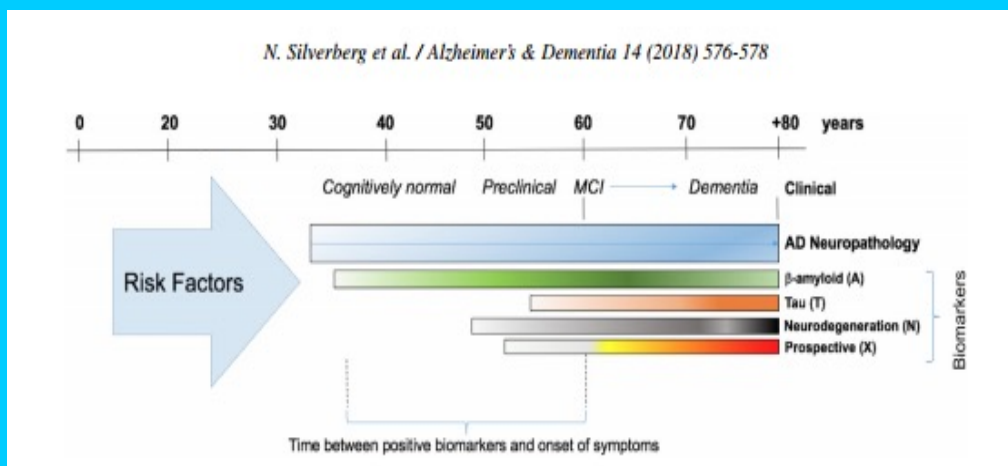
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AI/AN Population 1990-2050



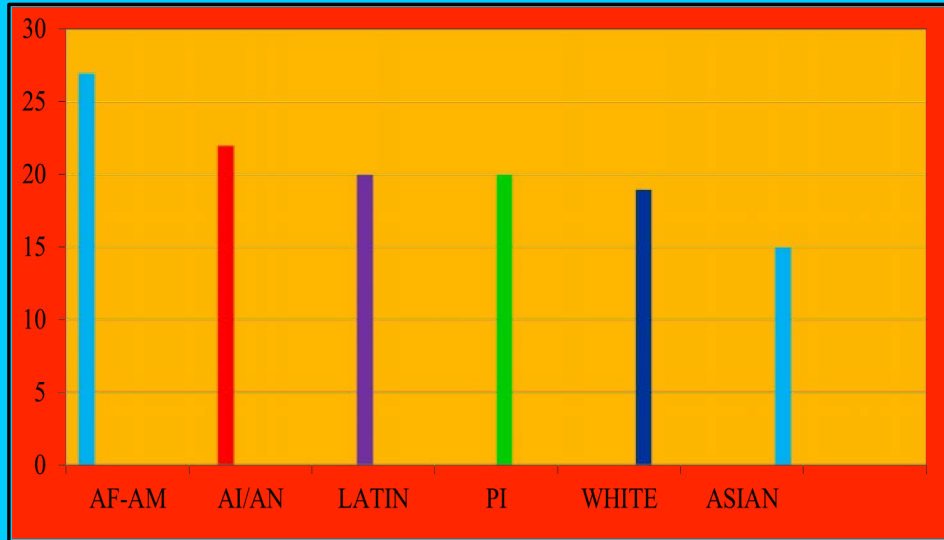
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When Dementia Starts vs. When It Shows

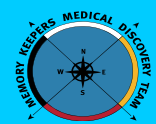


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Incidence in Dementia in Person/Yrs by Race/Ethnicity 2000-2013

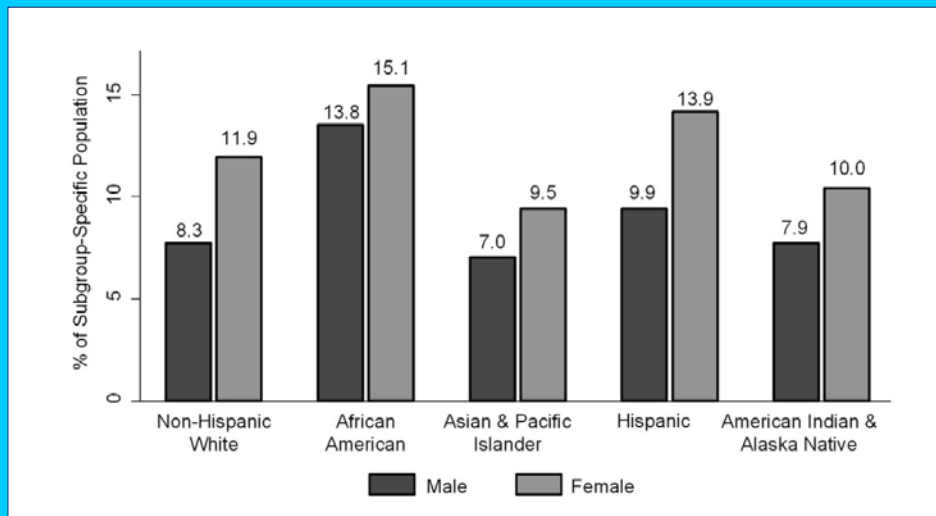


Mayeda, et al. (2016) *Alz & Dementia*



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Prevalence of ADRD in US Populations 65+ years by Sex & Race/Ethnicity (2014)

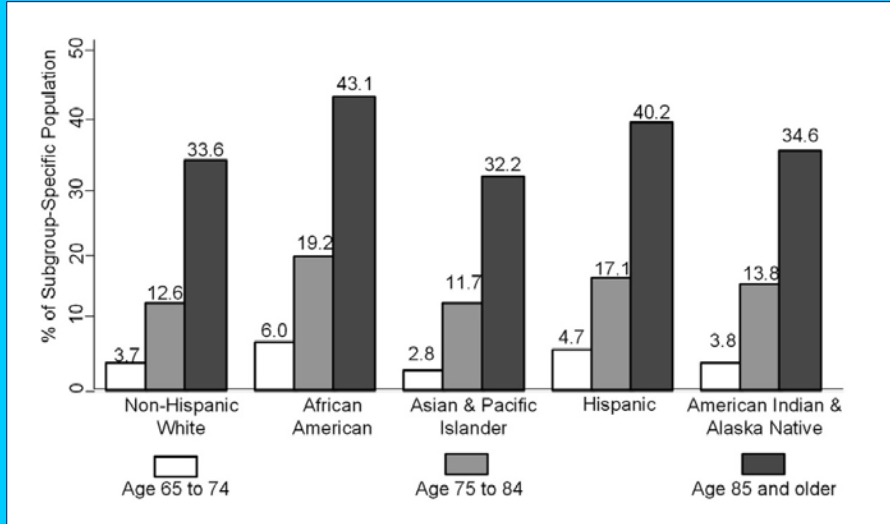


K.A. Matthews et al. / *Alzheimer's & Dementia* 15 (2019) 17-24

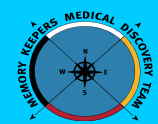


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Prevalence of ADRD in US Populations 65+ years by Age & Race/Ethnicity (2014)



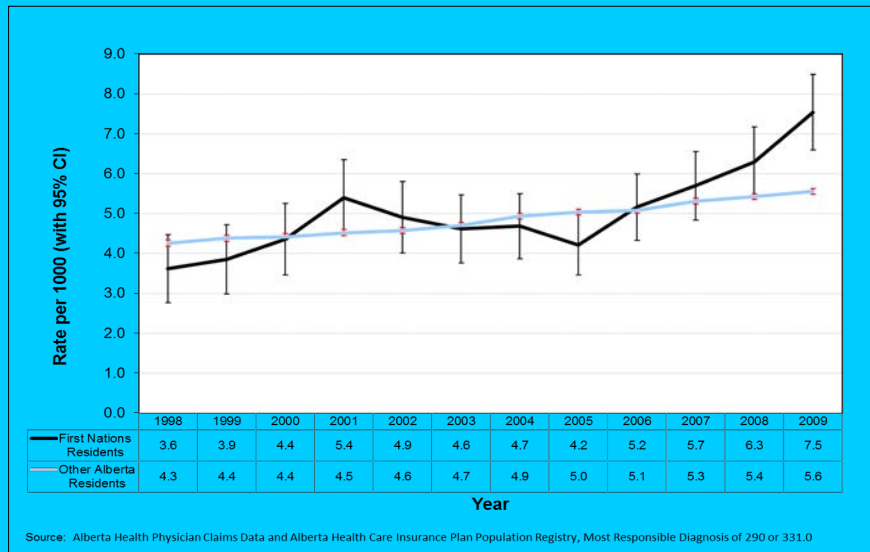
K.A. Matthews et al. / Alzheimer's & Dementia 15 (2019) 17-24



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Dementia in Indigenous Peoples in Canada

- Prevalence **34%** higher in First Nations
- Average age of onset **10 years** younger
- Greater proportion of males
- Dementia **increasing** at a faster rate in First Nations



Age-adjusted treated prevalence of Alzheimer's disease and dementia, Alberta, 1998-2009
Jacklin K, Walker J & Shawande M (2013) Canadian Journal of Public Health

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CREE RESERVES



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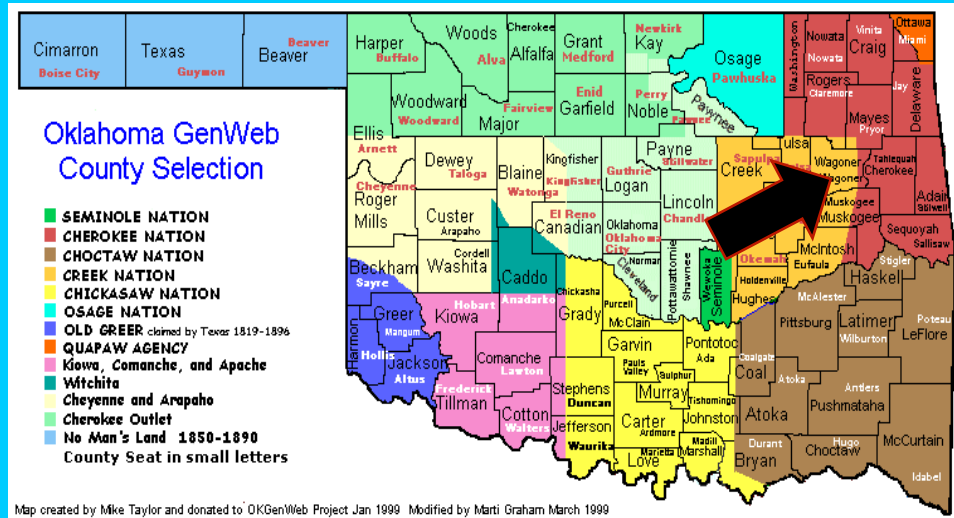
Results

- AD prevalence in Cree = 0.5%
- AD prevalence in Winnipeg = 3.5%
- Dementia prevalence in Cree = 4.2%
- Dementia prevalence in Winnipeg = 4.2%

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The Cherokee Nation of Oklahoma

MAP OF OKLAHOMA, SHOWING THE INDIAN NATIONS, AND THE COUNTIES WHICH WERE LATER FORMED OF THOSE AREAS



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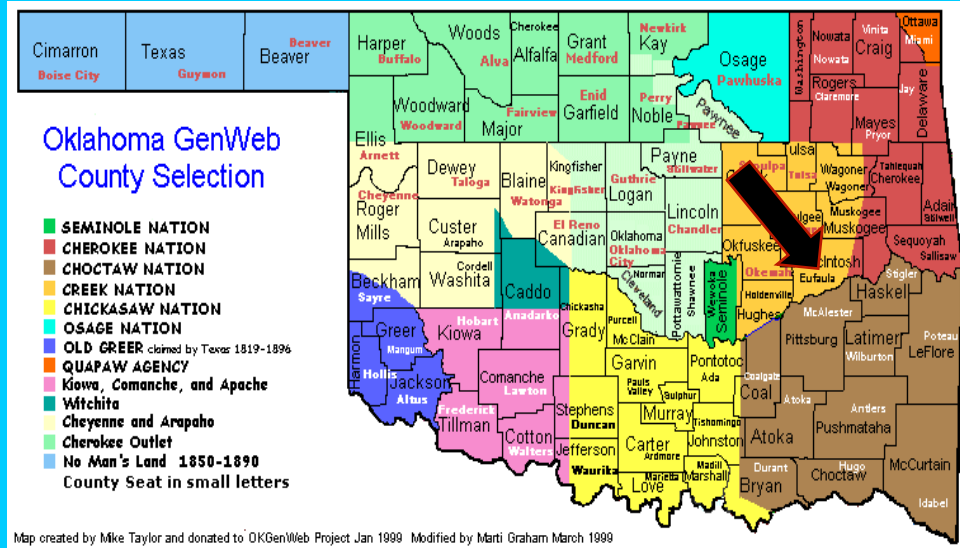
Cherokee Study

- OKLAHOMA CHEROKEE
- DX: NINCDS + ADRDA
- n= 26 CASES + 26 CONTROLS
- INVERSE RELATIONSHIP OF CHEROKEE ANCESTRY TO AD
- INDEPENDENT OF APO-E4
 - Rosenberg, et al. (1996) *Archives of Neurology*

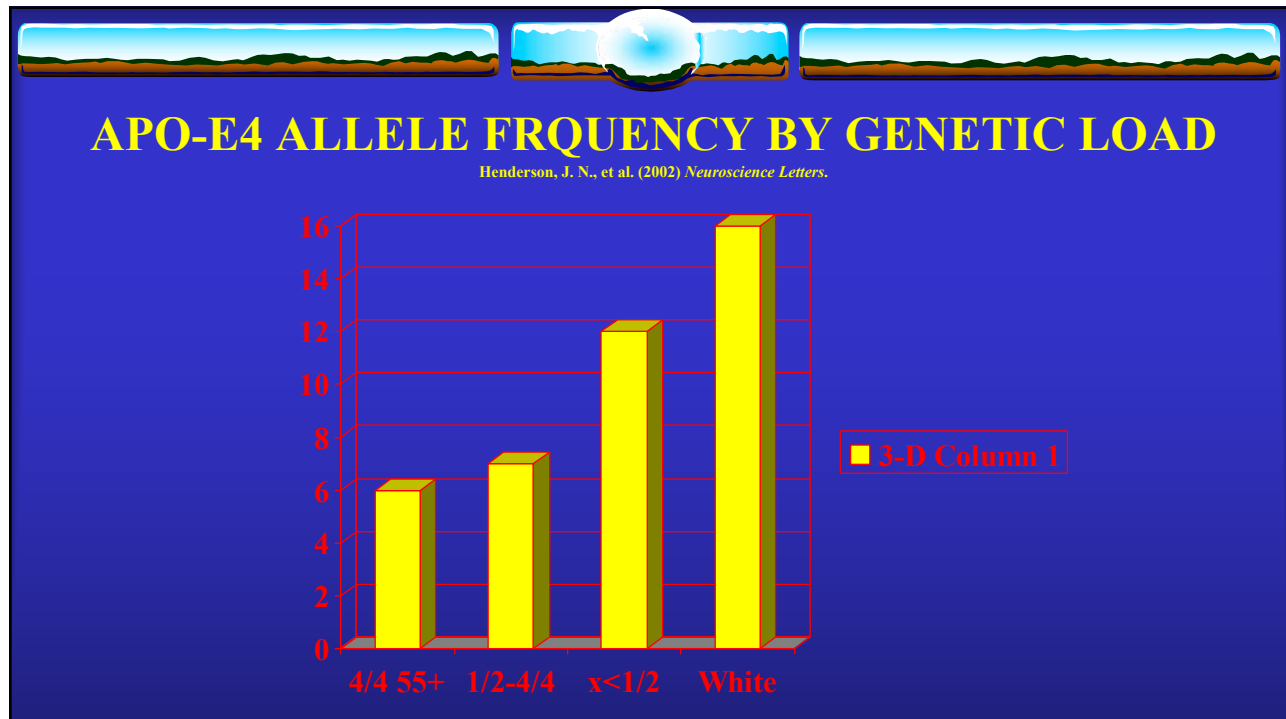
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The Choctaw Nation of Oklahoma

MAP OF OKLAHOMA, SHOWING THE INDIAN NATIONS, AND THE COUNTIES WHICH WERE LATER FORMED OF THOSE AREAS



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Strong Heart Study

Suchy-Dicey, et al. (2022) A&D

- n = 811
- 64-95 yo
- APO-e4 carriers = 22%
- Not stratified by genetic admixture
- APO-e4 presence was not associated with increased risk for dementia

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New Directions in Alzheimer's Research



ELSEVIER

Alzheimer's & Dementia ■ (2019) 1-10

Alzheimer's
&
Dementia

Policy Forum

Dementia: Paradigm shifting into high gear

Vladimir Hachinski*

Schulich School of Medicine & Dentistry, Department of Clinical Neurological Sciences, University of Western Ontario, London, ON, Canada

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NEW 6TH GOAL: Reduce the Burden of Risk Factors for Alzheimer's and Related Dementias
>>Risk Reduction<<

<https://aspe.hhs.gov/collaborations-committees-advisory-groups/napa/napa-advisory-council/napa-advisory-council-meetings/napa-past-meetings/napa-2021-meeting-material/january-2021-meeting-presentation-risk-reduction-goal>

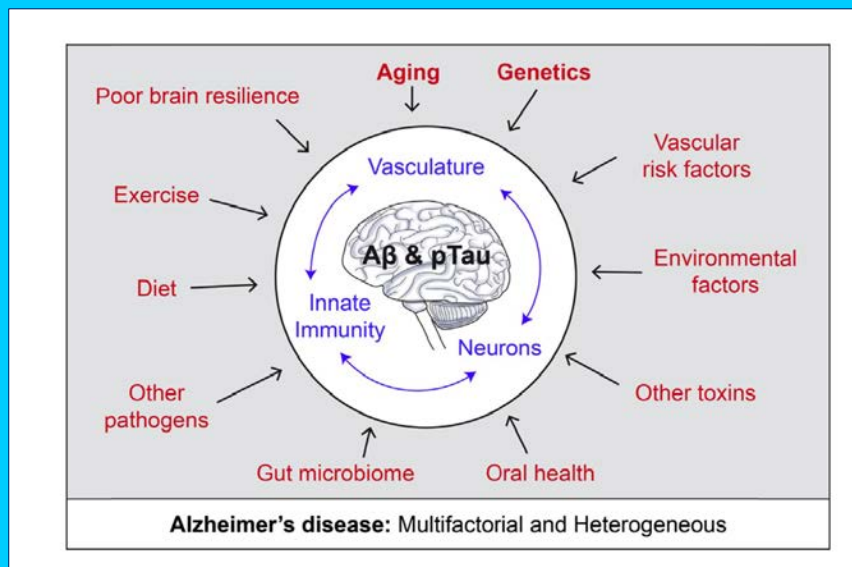
To achieve the goal, aggressively address the following potential risk factors:

- Alcohol Abuse
- Depression
- Diabetes
- Hearing Loss
- Mid-Life Hypertension
- Physical Inactivity
- Poor Diet Quality and Obesity
- Poor Sleep Quality
- Tobacco Use
- Traumatic Brain Injury

J. Neil Henderson PhD 2022

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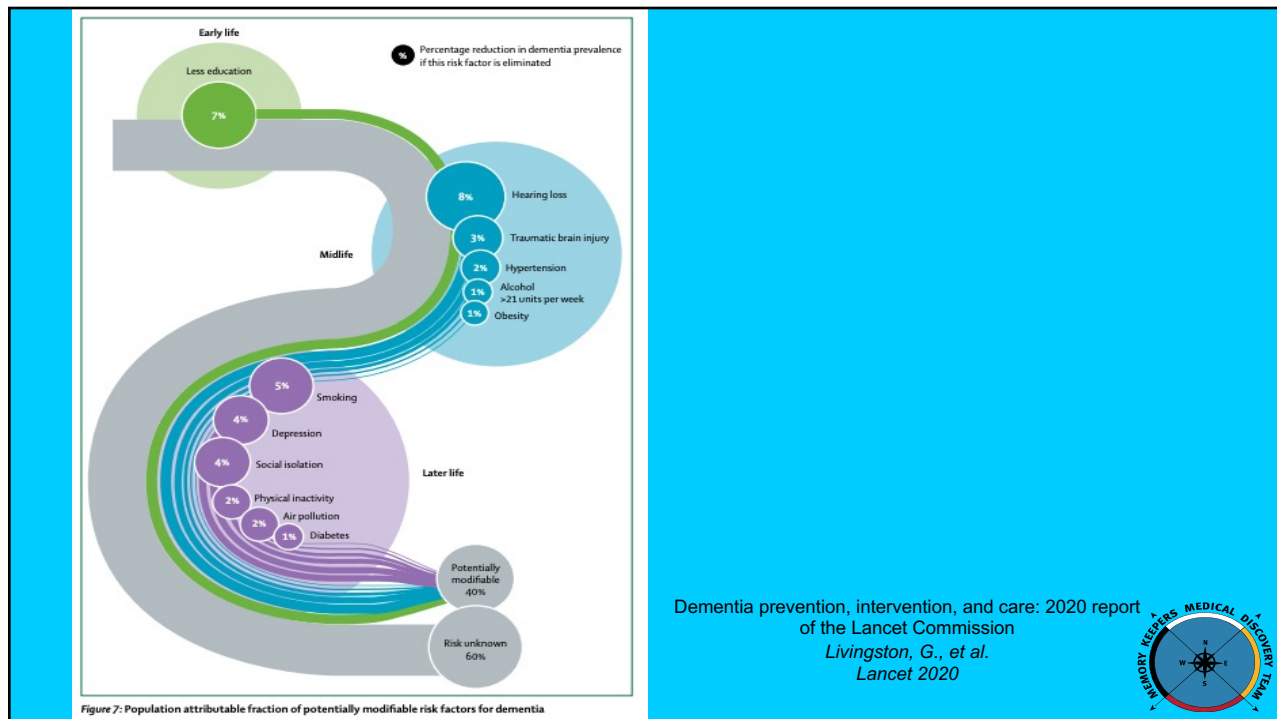
Alzheimer's Disease & Heterogeneous Causation



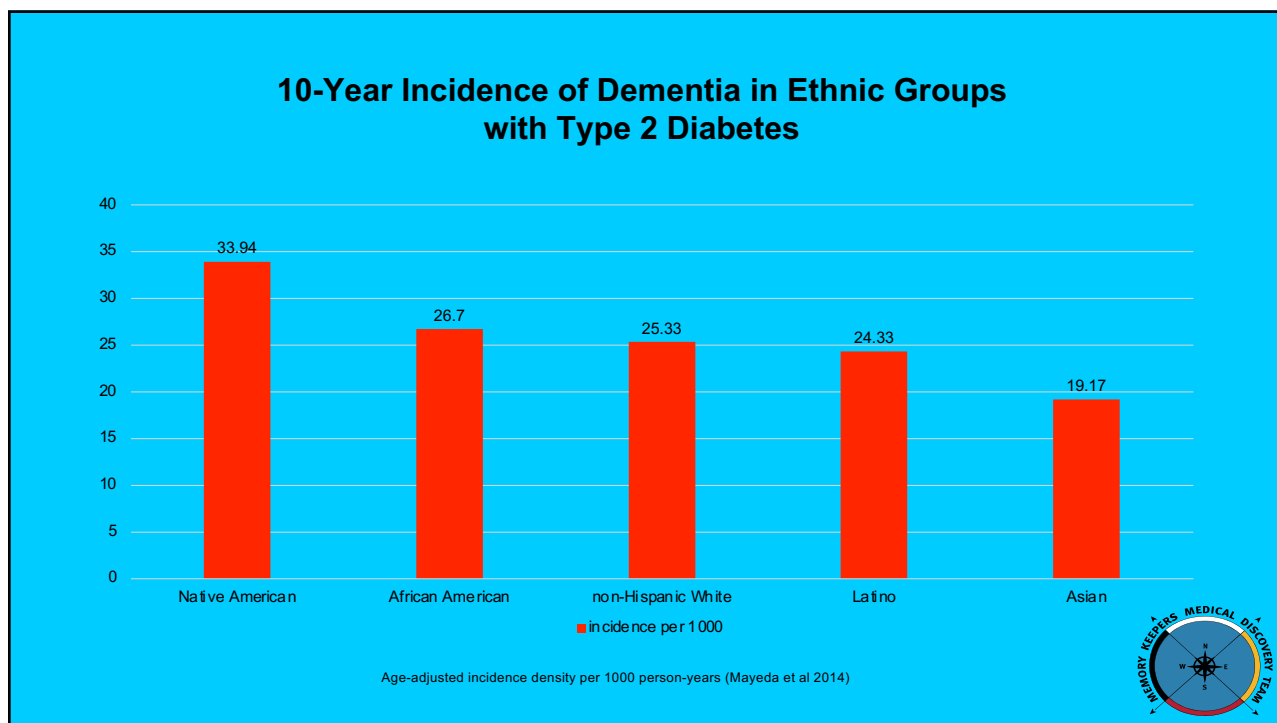
M.D. Sweeney et al. / Alzheimer's & Dementia 15 (2019) 158-167



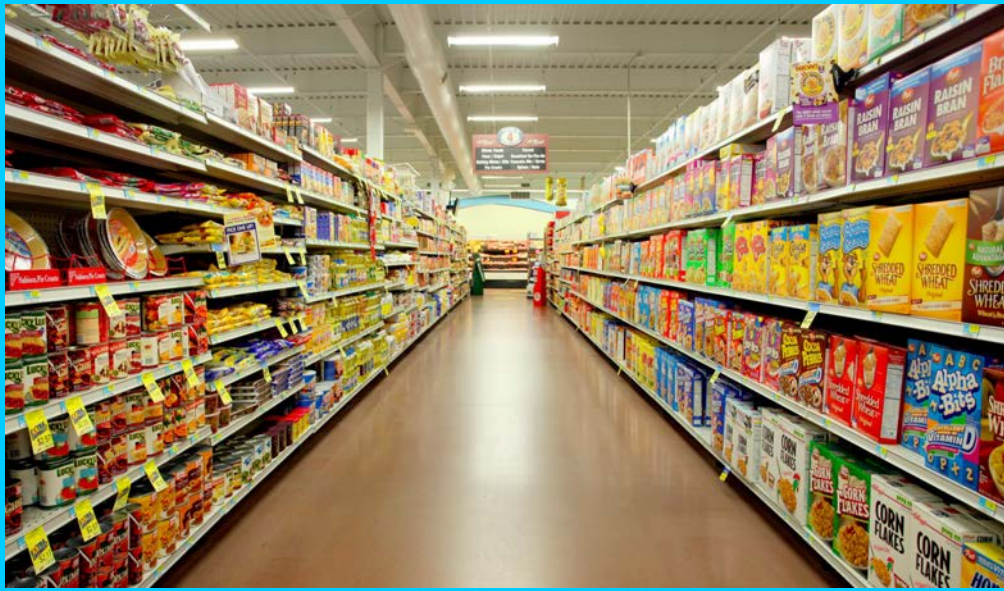
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TANAMPO (WHEELLOCK ACADEMY)



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The Dementia-Diabetes Syndemic: The Embodiment of Oppression


Henderson, JN, et al. (2019); Henderson, JN, Henderson, LD (2005)



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Healthy Heart, Healthy Brain...

The River of Life Flows Through the Heart, Protecting the Mind and Body



1 in 3
American Indians over 65 develops dementia, including Alzheimer's


Make an appointment with your doctor today to talk about how to keep your mind and heart healthy.

astho IA² International Association for Indigenous Aging CDC

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Healthy Heart, Healthy Brain...

The River of Life Flows Through the Heart, Protecting the Mind and Body



5.7 Million
Americans have Alzheimer's disease


1 in 10
People age 65 and older has Alzheimer's

1 in 3
American Indians over 65 develops dementia, including Alzheimer's

Elders with heart disease, high blood pressure, or diabetes have a much higher risk of developing Alzheimer's or other dementias.

Make an appointment with your doctor today to talk about how to keep your mind and heart healthy.


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Healthy Heart, Healthy Brain...


The River of Life Flows Through the Heart, Protecting the Mind and Body




Elders with diabetes, heart disease, or high blood pressure have a much higher risk of developing Alzheimer's or other dementias




5.7 million Americans have Alzheimer's disease



Alzheimer's is the 6th leading cause of death




1 out of 10 people age 65 and older has Alzheimer's



1 out of 3 American Indians over 65 develop dementia, including Alzheimer's

Make an appointment with your doctor today to talk about how to keep your mind and heart healthy.

IA² International Association for Indigenous Aging astho astho



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AMERICAN INDIAN CASE OF DEMENTIA

MRS. MAYTUBBY:

84 yo

HISTORY: DIABETES, BELOW KNEE AMPUTATION

COGNITIVE STATUS: MOD/SEV [GDS]

EMOTIONAL STATUS: LABILE

NEUROLOGICAL STATUS: VaD; LBD

Henderson, J.N. and Henderson, L.C., (2002). *Journal of Cross-Cultural Gerontology.*

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AMERICAN INDIAN CASE OF DEMENTIA

**THE MAYTUBBY NON-EMPIRICAL
ENVIRONMENT:**

“She sees things that we don’t.”

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The Path of Dementia

DIAGNOSIS: Getting an accurate diagnosis as early as possible can rule out causes of memory loss not due to dementia and can help you access care that you need. Having a family member or friend with you for diagnosis is helpful.

CONNECT WITH A DOCTOR OR NURSE YOU TRUST: It will be important for you to be under the care of a doctor or nurse regularly. If you live on-reserve you should be referred to the Home and Community Care Program, off-reserve you should be referred to provincial Home Care services. If you speak an Indigenous language it is extra important to let your doctor or nurse know and to have someone with you who can translate.

TREATMENT: It is important to stay well by being active, getting enough sleep, and eating well. All of these can slow the dementia. Your doctor might also suggest medications to use. There is no cure for dementia but there are medications that have been shown to slow the progression in some people. If you try these medications, it is important to be in regular contact with your doctor about side effects. Some people also use plant-based medicines, ceremony, or spiritual practices to help with the symptoms.

TRANSITIONS: Now you, your caregivers and loved ones will be focused on your comfort and preparing for your transition out of this life. As you come full circle, it is important that your loved ones understand and are able to carry out your final wishes to help make your transition as gentle as possible.

EARLY STAGES: You are noticing some memory problems but are still very healthy. It is important to stay physically and socially active. You can still be independent. Many people use humour to talk about changes they are experiencing.

PLAN FOR THE FUTURE: This is the time to talk to family, trusted friends or health care providers about how you can be supported. What changes need to be made to your house to help you stay independent? Where do you want to live when you can no longer live on your own? Is there someone you trust as your caregiver? Someone you trust to make financial and medical decisions for you?

GETTING EXTRA SUPPORT: At this time, you might want to get extra support for everyday routines and needs. Explore community services such as Friendship Centres, Aboriginal Health Centres, Elder's Centres, and Home Care Programs.

MIDDLE STAGES: By now you may notice that the changes to your memory and the difficulties with everyday tasks are making life more challenging. Many people say that there can be days with moments of frustration and anger and other days that are peaceful and joyful. You may need help remembering household routines and names. You may find yourself repeating stories or getting lost in time. Whether you are living on or off-reserve you should now have home care services in place. It is important to have someone with you at appointments to help remember what is said.

TAKING EXTRA CARE: At this time, some people start to forget more important tasks, like turning off the stove, or putting on mittens when it is cold outside. Sometimes you may leave the house and forget to tell someone where you are going. You and your caregivers should talk about making sure that you, your loved ones, and your home are safe and that you have a system in place to keep track of you when you go out. This might include making changes to your home.

LATE STAGES: Some people describe this as going back to childhood or coming full circle. You will need much more help with meals, getting dressed, and getting washed. You will also need to be cared for more closely. Many people experience visions and see and hear things that others around you cannot. Depending on your spiritual beliefs, you may feel closer to the spirit world. You will need more support in everyday routines. You may wish to spend more time with loved ones. You will still have many stories to share and wisdom to pass on. It is important to continue to communicate however you can. Your caregivers and health care providers will help you prepare for your transition to the next stage.

I-CAARE 2017

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Fact Sheets for Native People:

Search: <https://www.i-caare.ca/factsheets>

WHAT IS DEMENTIA?
Indigenous Perspectives and Cultural Understandings

WHAT TO EXPECT AFTER A DIAGNOSIS OF DEMENTIA:
An Indigenous Persons' Guide

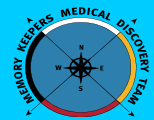
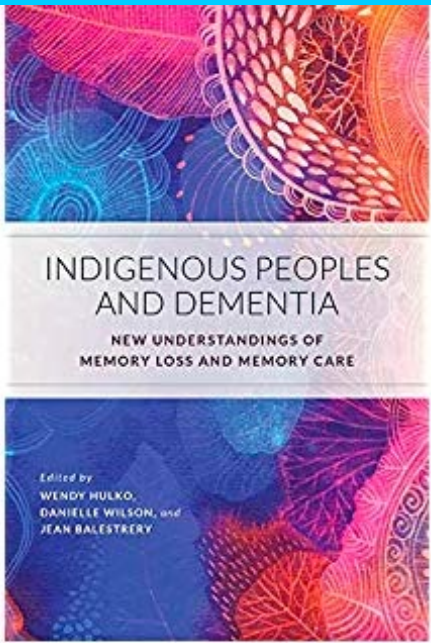
SIGNS AND SYMPTOMS OF DEMENTIA:
An Indigenous Guide

PREVENTING DEMENTIA IN INDIGENOUS PEOPLES BY AGING WELL
Advice from older Indigenous peoples

PREVENTING DEMENTIA IN INDIGENOUS PEOPLES BY AGING WELL
Advice from older Indigenous peoples

The Path of Dementia

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Resources

- AI2 web site: International Association for Indigenous Aging
- Recruitment Partners
- CDC Road Map for Indian Country

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Yokoke!!

Chi pisa lachiki