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Culture is Medicine



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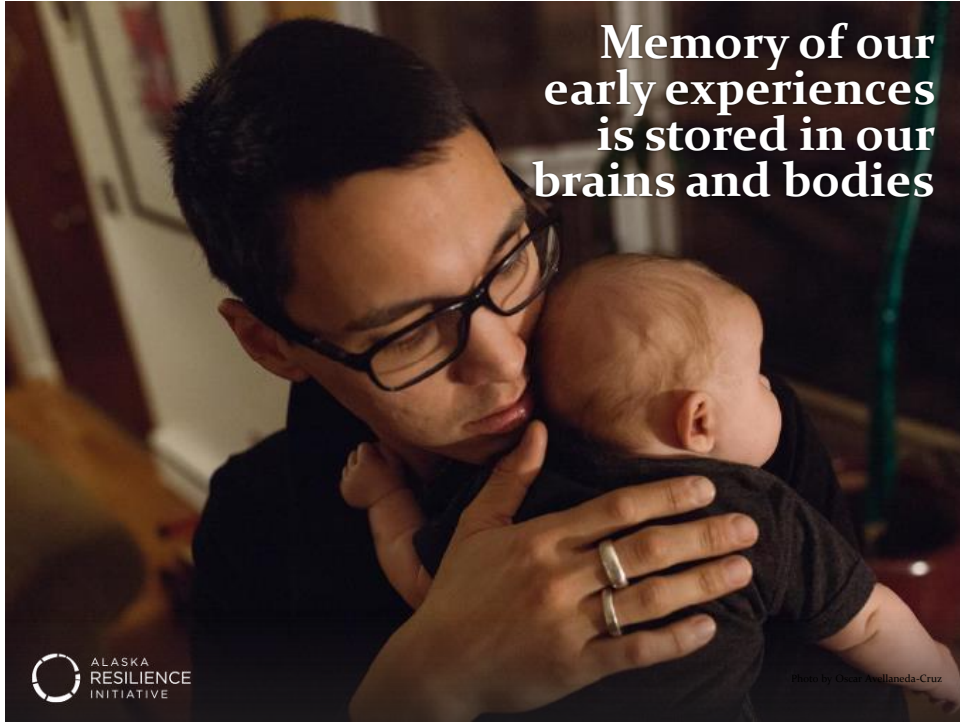








TREAT THE ROOT CAUSE



The Juniper CENTER SERVICES ABOUT STAFF BLOG RESOURCE

If My Mom Suffered the Traumatic Event, Why am I so Anxious?

TOPICS + HEALTH

Study finds trauma effects may linger in body chemistry of next generation

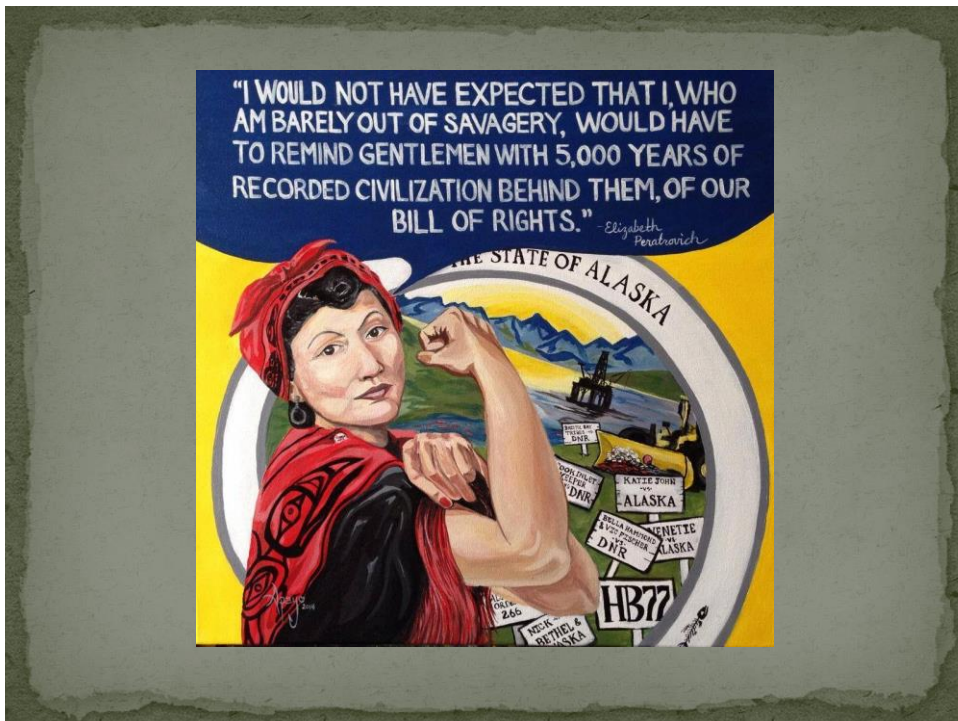
August 06, 2018 at 12:15 PM EDT

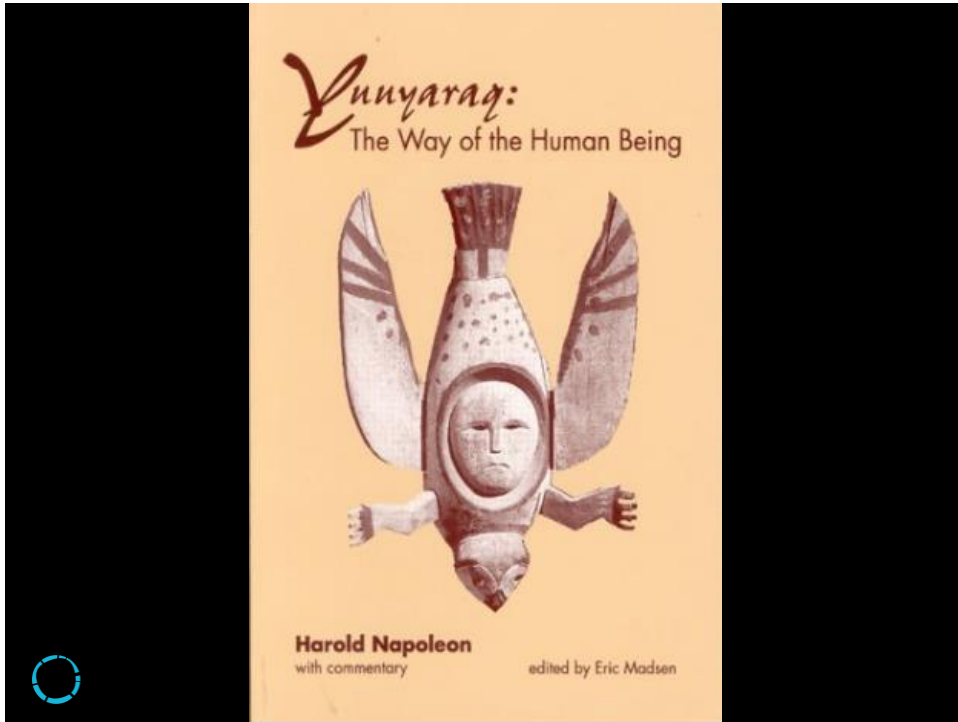
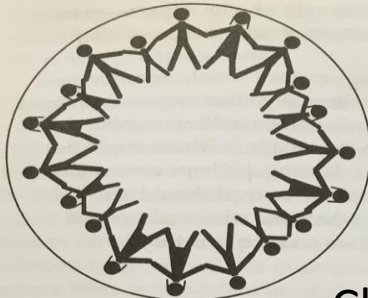
Support for PBS GreatOutdoors provided by **BIG BLUE LIVE** TONIGHT 8pm EDT by PBS

MORE VIDEO

- Price of contact lenses at issue in court case
- Will new New Orleans hospital meet needs of most vulnerable?
- Study raises questions about early breast cancer treatment

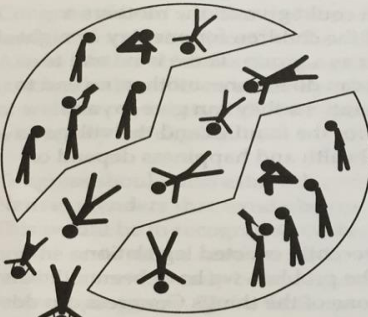
Historical Trauma



- A healthy village is a circle whose people are safe within its fold.
- Love, understanding, kindness, culture, history, goals, and truth make the circle strong and protect the village, the family, and the individual.
- A healthy village is a gift of the Creator to His children.

Child Wellbeing

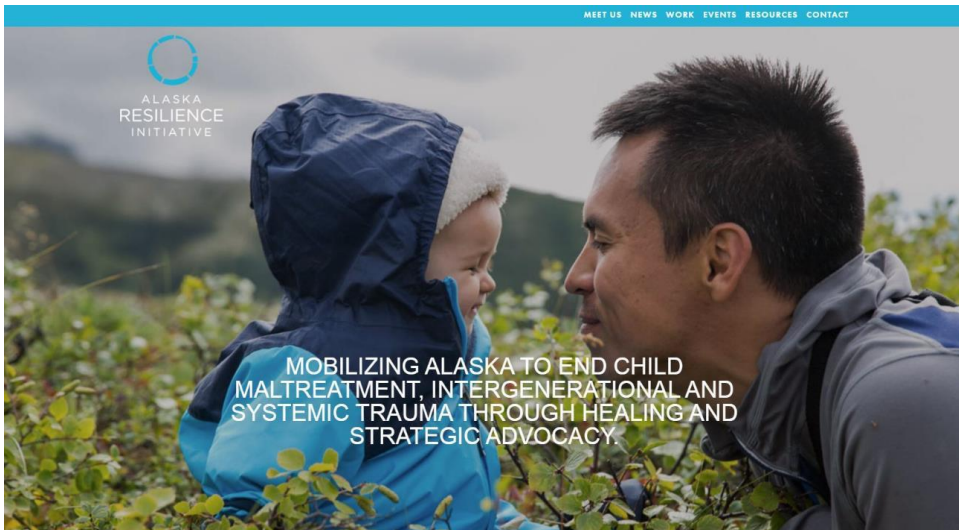


- For many Alaska Natives the circle was broken by the trauma of mass death through epidemics.
- Families and villages lost communication and grew apart.
- A circle broken is incomplete. It hemorrhages, and life flows out of it. It breeds unhappiness. Unless the circle is repaired in time, it will die.

From Harold Napoleon's book, *Yuuyaraq: The Way of the Human Being*



www.akresilience.org

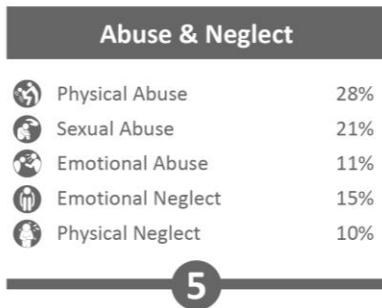


ALASKA
RESILIENCE
INITIATIVE



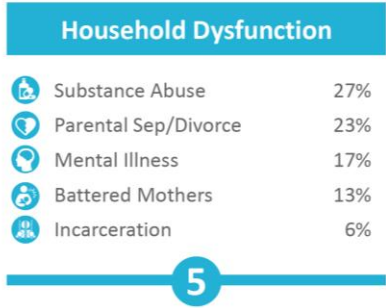
ACE Study: Kaiser

Adverse Childhood Experiences are Common



ACE Study: Kaiser

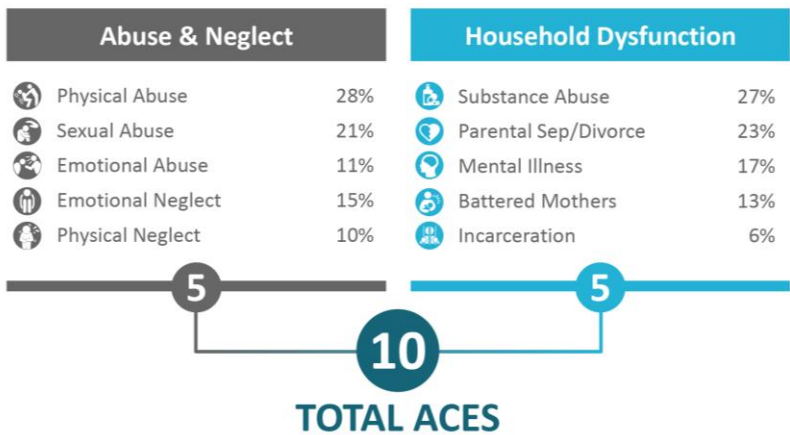
Adverse Childhood Experiences are Common



Source: Anda & Felitti, 1997

ACE Study: Kaiser

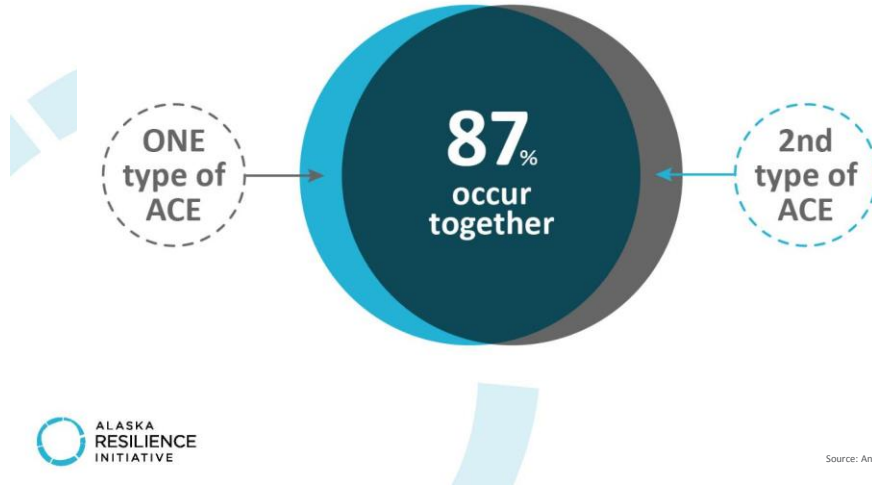
Adverse Childhood Experiences are Common



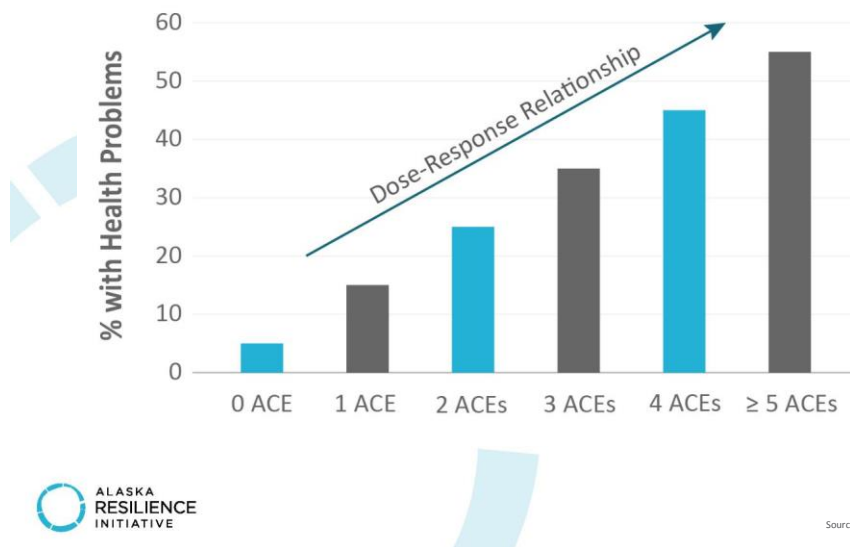
Source: Anda & Felitti, 1997

ACEs are Highly Interrelated:

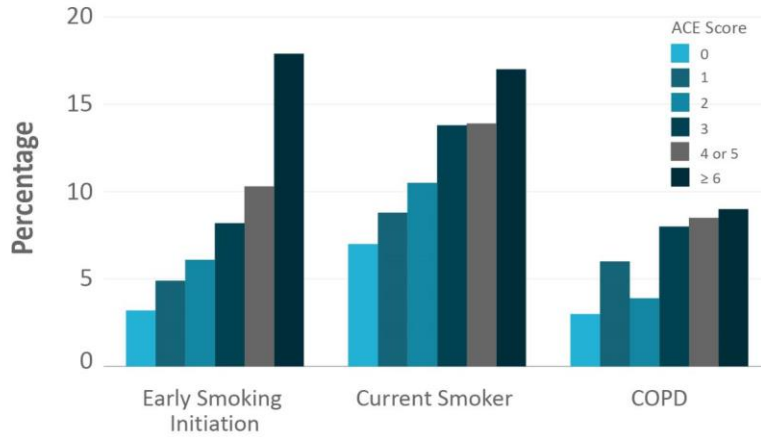
Where One ACE Occurs, There are Usually Others



ACE Score and Health Problems



ACES & Smoking



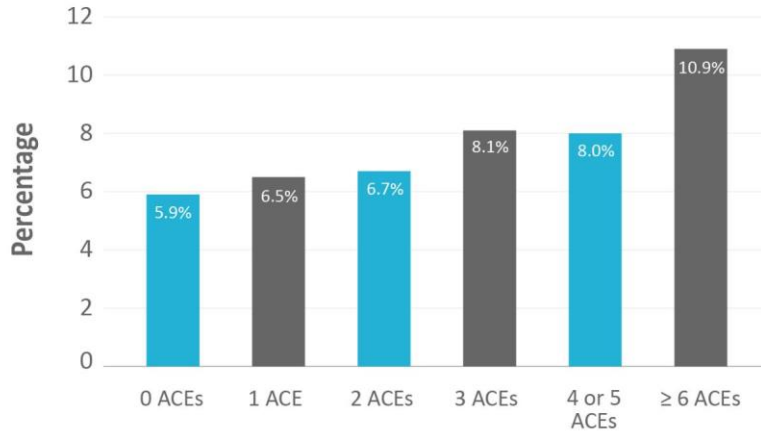
Source: Brown et al, 2010

ACES & HIV Risks



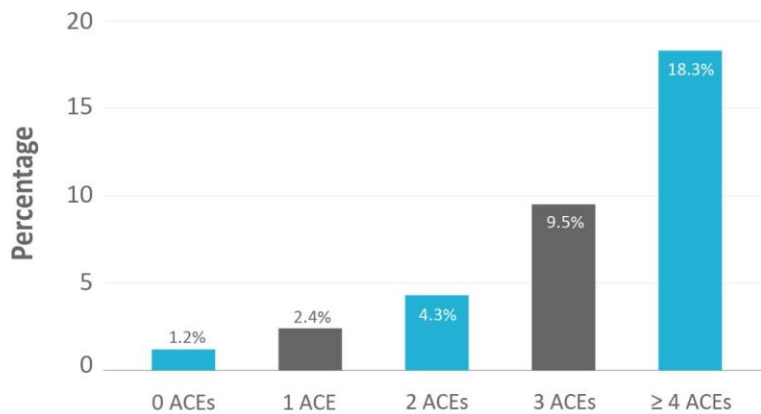
Source: Felitti et al, 1998

ACEs & Liver Disease



Source: Dong et al, 2003

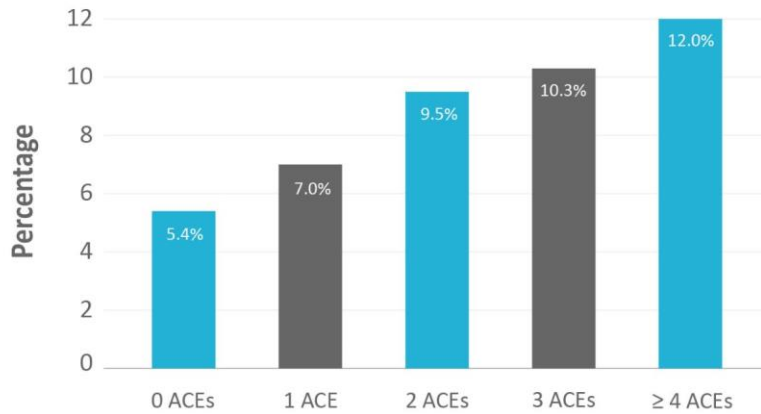
ACEs & Suicide Attempts



Source: Felitti et al, 1998

ACE Study: Kaiser

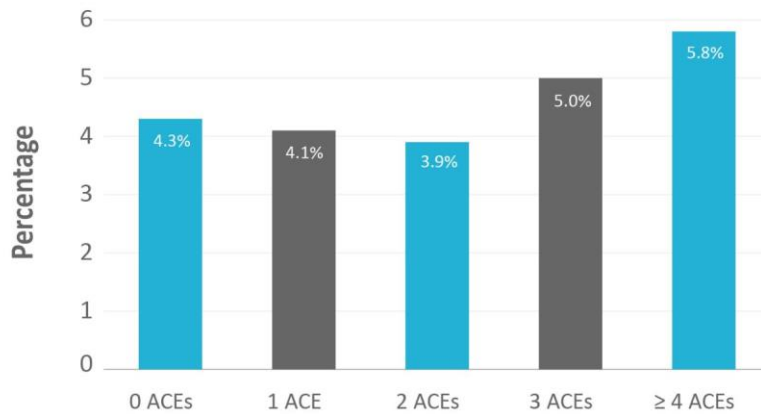
ACEs & Severe Obesity (BMI 34+)



Source: Felitti et al, 1998

ACE Study: Kaiser

ACEs & Diabetes



Source: Felitti et al, 1998

Associated Medical Conditions



“Pregnancy is when children get their first knowledge. If a mother is able to eat well, be active, and attend ceremonies and dances in a peaceful environment, the child develops well. If there is conflict or violence between the mother and father...this will harm the child.”

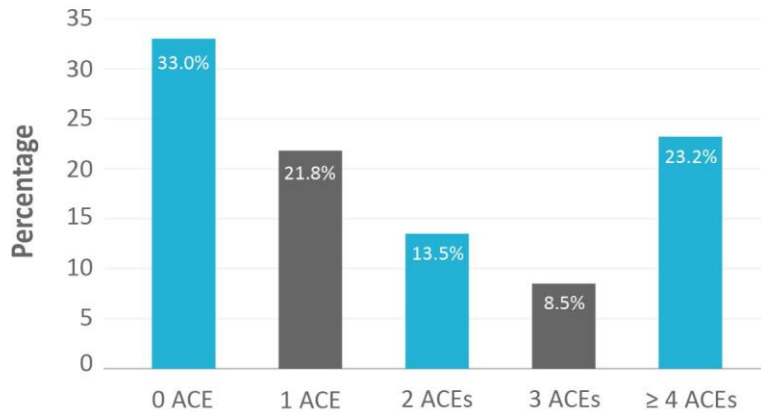
– Tribal doctor & midwife, Rita Pitka Blumenstein



Photo by Laura Norton-Cruz

ACE Study: Alaska

ACE Scores for Alaskan Adults Based on Ten Possible ACEs



Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

ACE Study: Alaska

Percentage of Alaskan Adults Who Reported Ever Having Been Diagnosed with Arthritis by ACE Score



Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

ACE Study: Alaska

Percentage of Alaskan Adults who Reported to Ever Having Been Diagnosed with Asthma by ACE Score



Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

ACE Study: Alaska

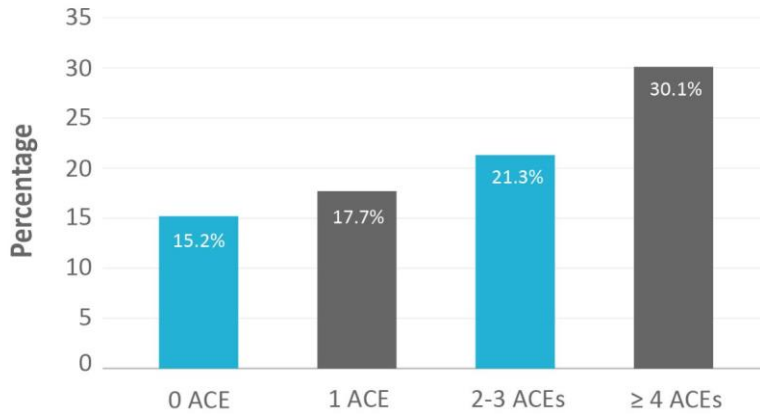
Percentage of Alaskan Adults who Have Ever Been Diagnosed With Kidney Disease by ACE Score



Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

ACE Study: Alaska

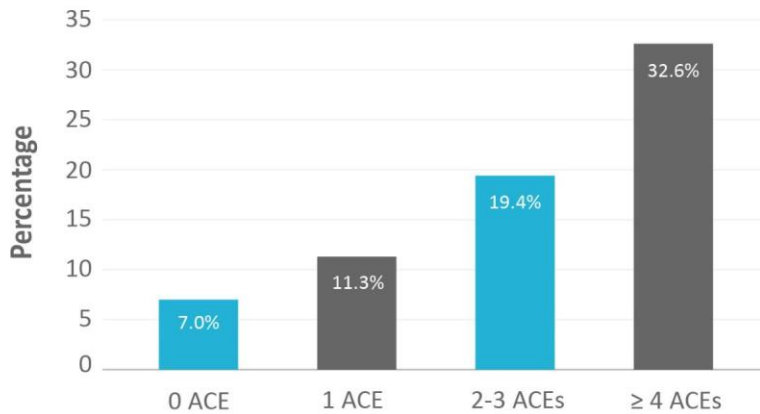
Percentage of Alaskan Adults who Report Limited Activity Due to Health Problems by ACE Score



Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

ACE Study: Alaska

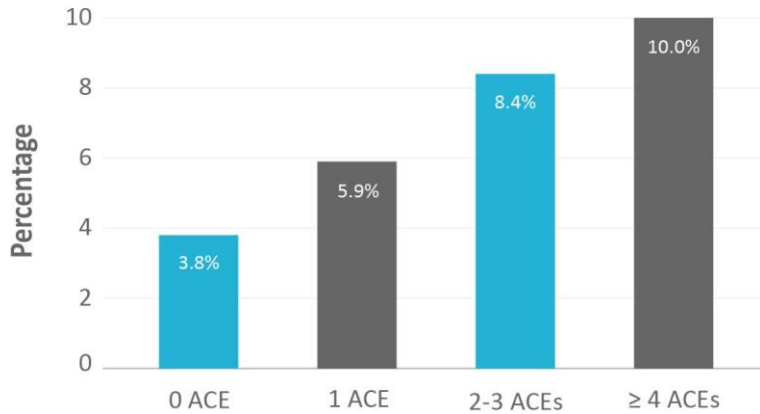
Percentage of Alaskan Adults Who Reported Ever Being Diagnosed with a Depressive Disorder by ACE Score



Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

ACE Study: Alaska

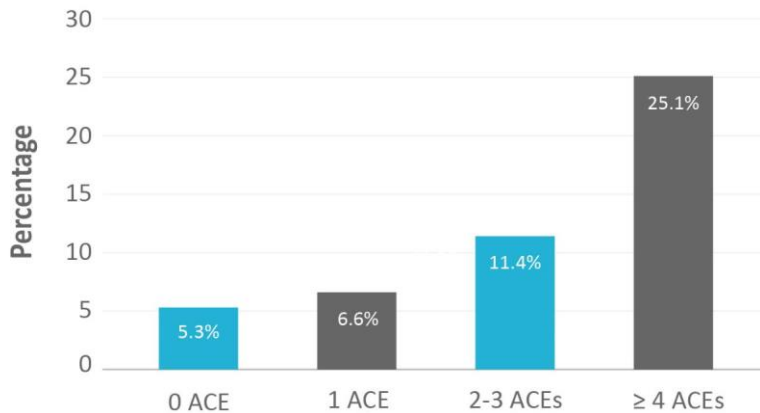
Percentage of Alaskan Adults who Reported Using Medicaid by ACE Score



Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

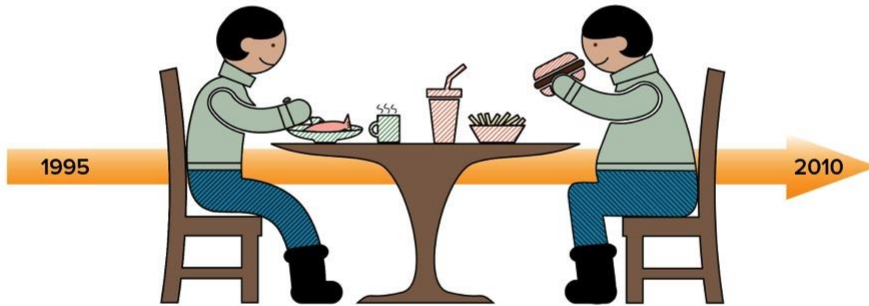
ACE Study: Alaska

Percentage of Alaskan Adults Who Reported Low Food Security by ACE Score

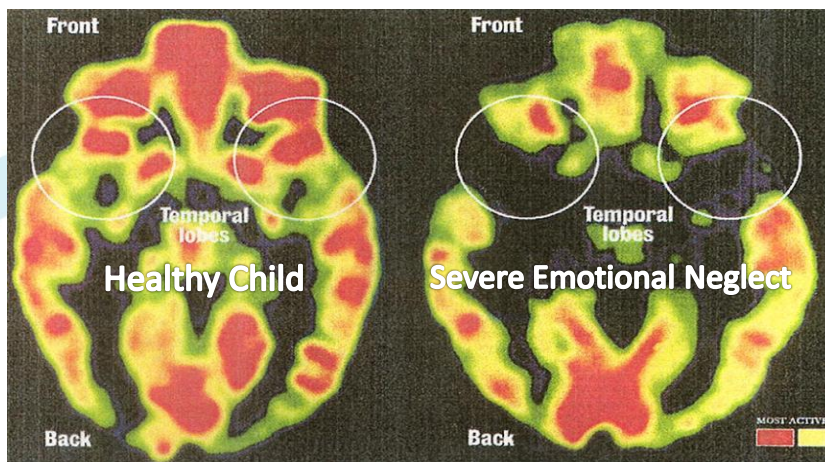


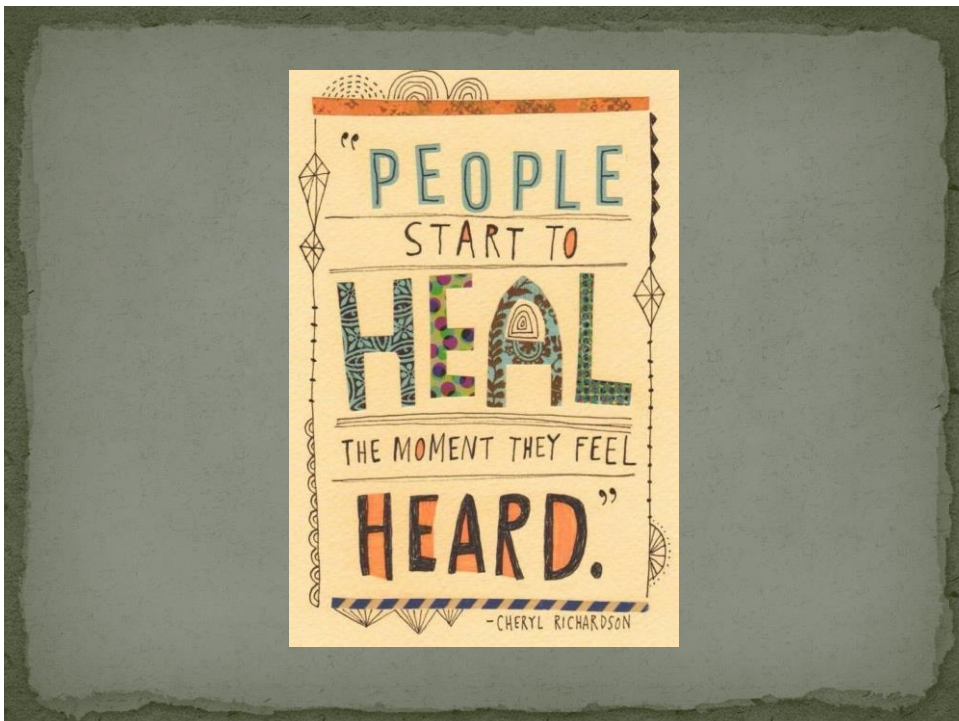
Source: State of Alaska Advisory Board on Alcoholism and Drug Abuse & Mental Health Board

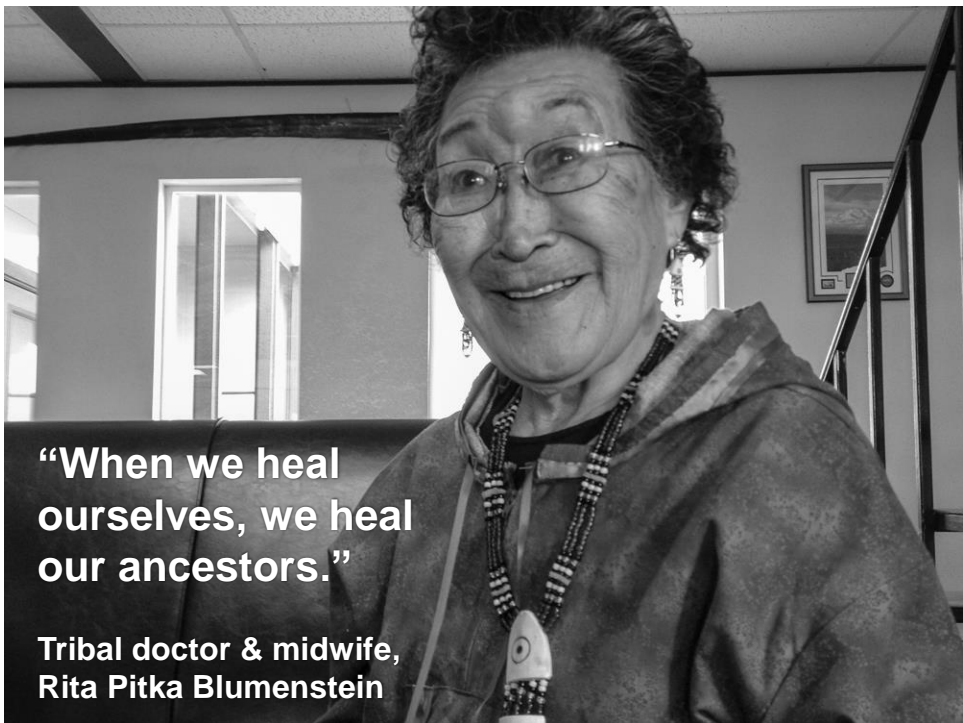
136% increase in diabetes in Alaska Native people.⁽²⁾

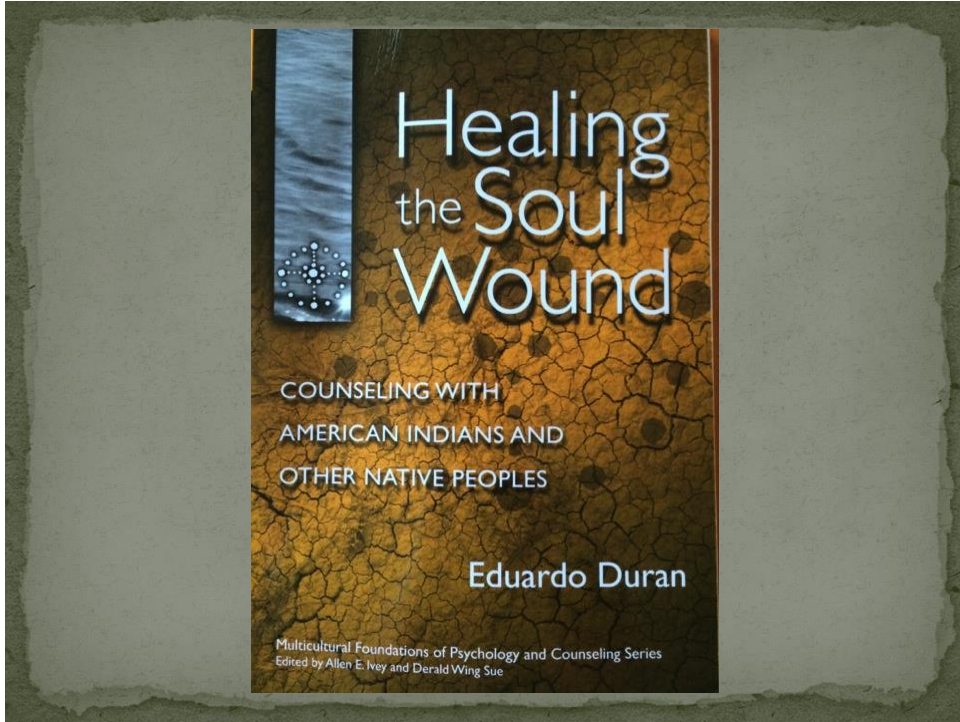


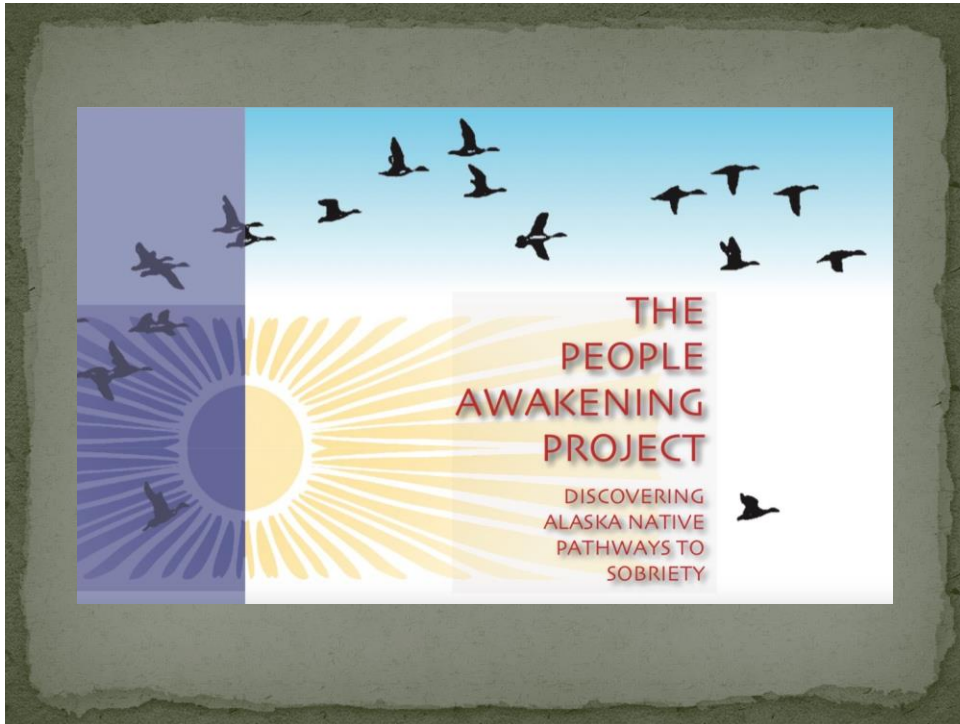
Toxic Stress Affects Early Brain Development












SUBSISTENCE	
14-1	A RESOLUTION SUPPORTING PROTECTIONS, INCLUDING A COMMUNITY FISHING ASSOCIATION, FOR GULF OF ALASKA FISHERY DEPENDANT COASTAL COMMUNITIES FROM THE NORTH PACIFIC FISHERIES MANAGEMENT COUNCIL AS THE COUNCIL DEVELOPES THE GULF OF ALASKA TRAWL GROUND FISH BYCATCH MANAGEMENT PROGRAM (RATIONALIZATION PROGRAM)
14-2	CALL FOR ALASKA NATIVE SELF-DETERMINATION IN THE MANAGEMENT OF THEIR HUNTING, FISHING, TRAPPING, AND GATHERING RIGHTS AND RESOURCES



2014 AFN Convention Resolutions

14-6	TO SUPPORT THE SWIFT ENACTMENT OF REGULATIONS GOVERNING THE PROCEDURES FOR THE FEDERAL SUBSISTENCE BOARD TO DETERMINE RURAL/TRIBAL COMMUNITY STATUS UNDER TITLE VIII OF THE ALASKA NATIONAL INTEREST LANDS CONSERVATION ACT
14-41	SUBSISTENCE RIGHTS PRIORITY OVER COMMERCIAL AND SPORTS USES FOR FISH AND GAME
14-42	PROTECTION OF ALASKA NATIVE TRADITIONAL RESOURCE MANAGEMENT PRACTICES
14-43	RE-ESTABLISH INDIGENOUS SUBSISTENCE RIGHTS IN ALASKA

TRADITIONAL VALUES OF ALASKA

ST. LAWRENCE ISLAND YUPIK VALUES

- Listen with your heart and mind
- Honor Family
- Give Services to others
- Never give up
- Respect all living things
- Remember advice of elders
- Plan for the future
- Be independent
- Avoid laziness
- Gather knowledge and wisdom

YUPIK VALUES

- Help other people
- Help with family chores and needs
- Early to bed and early to rise
- Provide time to see how your life is going
- There's always time to play if you work to share
- Forgiveness - learn to do things yourself
- Respect and honor your elders
- Always show good behavior
- Listen to all advice given to you
- Remember what you are taught and told
- Respect other people's belongings
- Respect the animals you catch for food
- Gather knowledge and wisdom from the elders
- Never give up in trying to do what you set your mind on

UNANGAX (ALEUT) VALUES

- Share respect for our land and its resources at all times
- Be helpful to one another
- Share with others whenever possible
- Respect and care for other's property
- Respect spiritual values
- Learn hunting and outdoor survival skills
- Provide for and take good care of your family
- Through time, respect your children
- Respect your elders
- Work hard and don't be lazy
- Refuse from alcohol and drug use
- Learn, preserve, and be proud of the Native way of life

ATHABASCAN VALUES

- Self-sufficiency
- Hard Work
- Love and commitment for the family

SOUTHWEST ALUTIQ/AMALUTIQ VALUES

- Knowledge of Language
- Knowledge of Family Tree
- Sharing

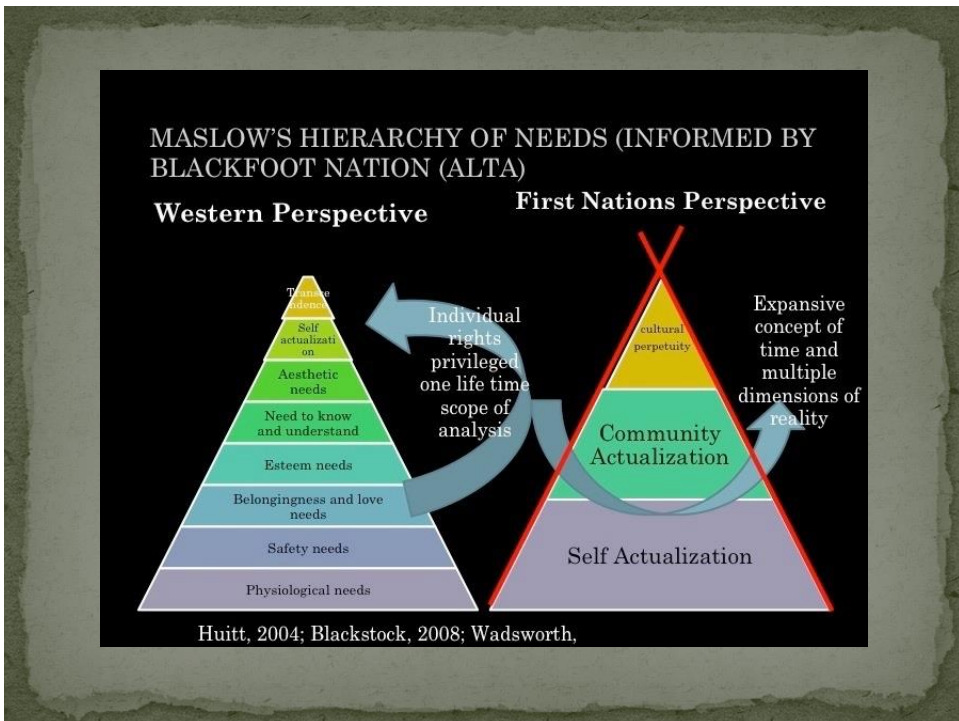
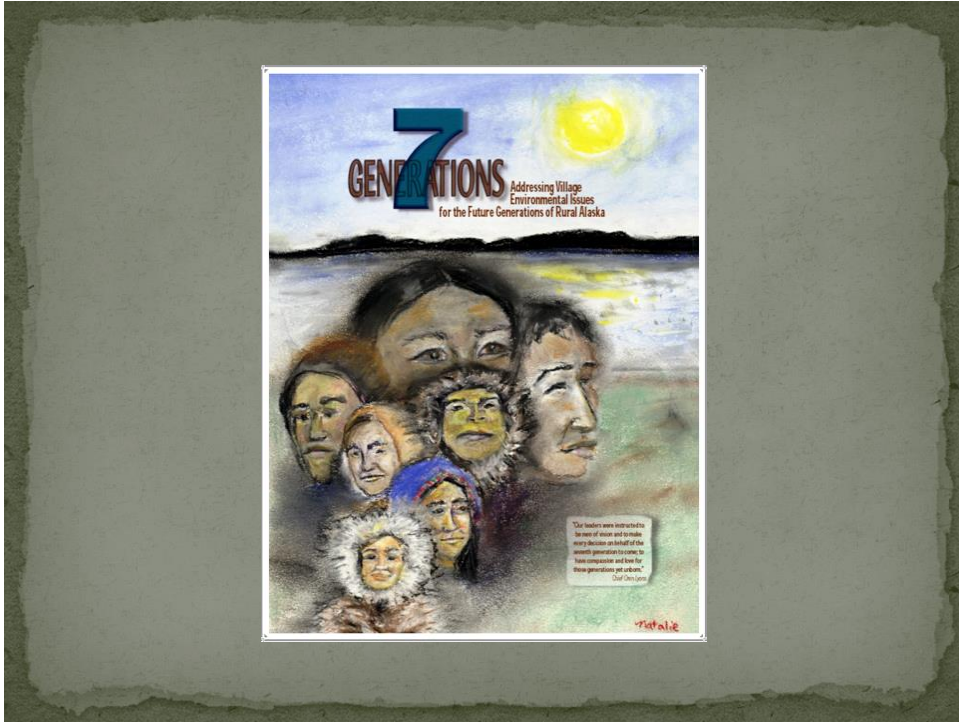
VALUES OF THE UNANGAN/UNANGAS

- Kacaan axtaaganaxtin, E / Kadamis agalagada, W / **Don't get ahead of yourself.**
- Aduxtanaan akidada, E / Adut akida, W / **Pay your debts.**
- Qaqamiiguq, E / Qaqamiiguq, W / **Subsistence.**
- Tunuun ugunuhtalakan angaigiixtin, E / Unangam Tunuu ugunuhtalagada, W / **Don't forget your Unangan Language.**

VALUES OF THE UNANGAN/UNANGAS

- Angaigiisix matanaan imin ixamnakuq. Anagix ukunachin imchin ugutaasaamchin agnaixtichin. / Angaigiisiin sigax imis akuq mal sigaan inixsiisada. **Life is gifted to you. What you make of it is your gift in return.**
- Tuman ilaanuigitxin, Unangan maqaxtadqangin mataagin matakun. / Angaigiisiin, ilaazat ama Ulamis ang aginangis maqaxsingis idaxtalagadaq. **Know your family tree, relations and people's history.**
- Tanaqngin Iqayuusalix angaigimchin agnaixtichin. / Tanaq, Alaquq ama slum imuunuu huzuua anagim anagingis sahngaqtada. **Live with and respect the land, sea, and all nature.**
- Wan alaquq ilan anagim angaginangin usuu Aguugux agach ngiin agiqaa. / Algas ama anagim angagingis huzungis Aguugum agacha ngiin agiqaa haqataasada. **Respect and be aware of the creator in all living things.**
- Txin achigalix angagigumin anuxtanatxin axsaasaduukuixtin. / Huzugaan txin achigaq agacha mada ama txin sakaaqtada. **Always learn and maintain a balance.**
- Qaqamiiguq qalgadam ukulganaa ngiin ugutaasakun. / Qaqamiiguq qalgadaq Anagix ngiin axtanaa akuq. **Subsistence is sustenance for the life.**
- Unangam tunuu unangqasining asix tunuhtalaaqnaqing. Unangan anaan Ukuixtachixikuq. / Unangam tunuu Unangas alganaa ukuchixizaq ama huzuq ngiin tunuhtachixizaq. **Our language defines who we are and lets us communicate with one another.**

Authorized by Moses Dirks, President, Association of Unangan Educators and the Elders Academy



Weston
Price



1933...travelled to remote Alaskan villages

- ...examples of physical excellence and dental perfection such as has seldom been excelled by any race in the past or present.



<https://price-pottenger.org/about-us/history>

“...strong rugged babies”



Virtually NO dental decay, until...



... villages with trading posts...“store grub” ...

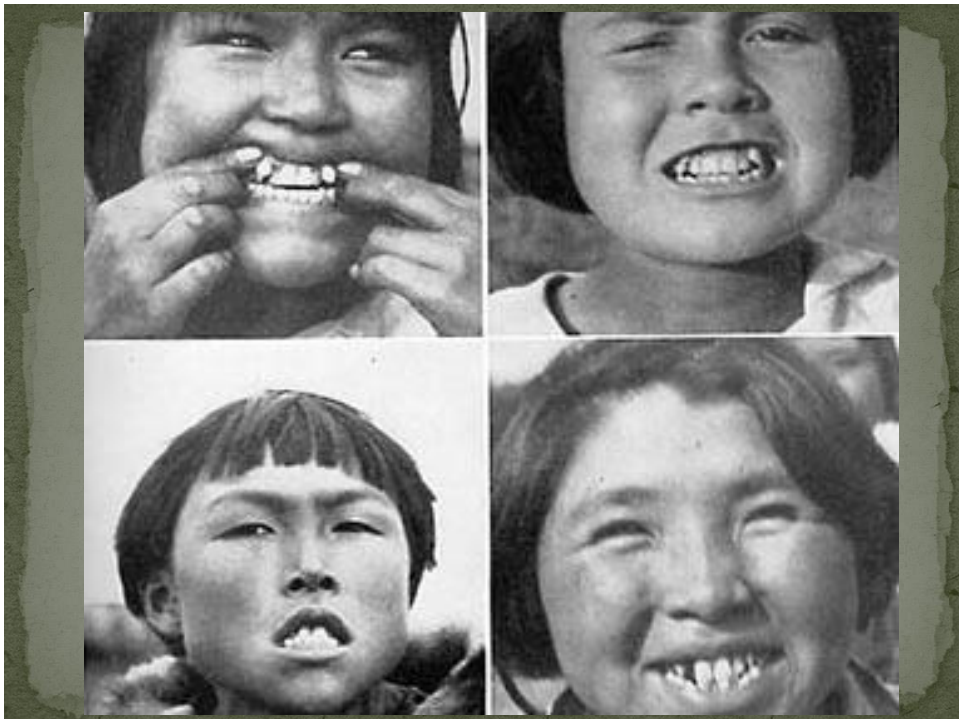
“A typical effect of modernization on a growing girl was shown in a case in which the central incisors and 16 other teeth were attacked by dental caries. Sixty-four per cent of her teeth had tooth decay.”

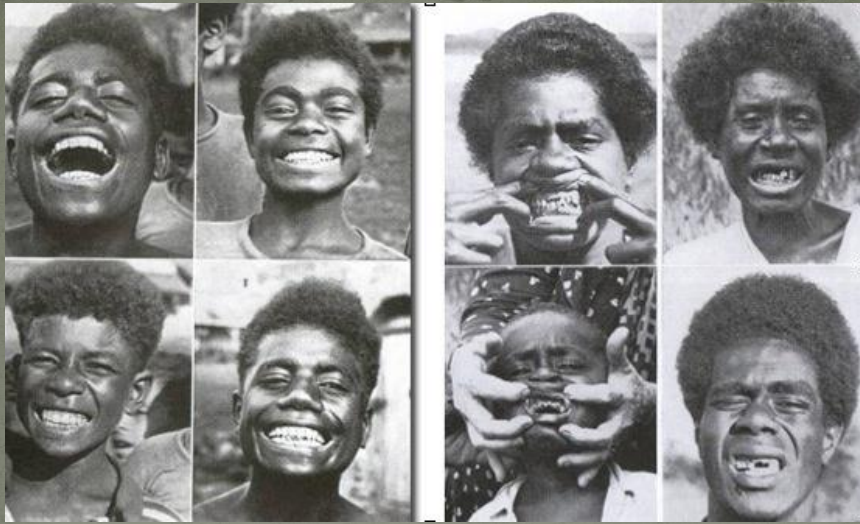
1st generation of children born after
adoption of 'store grub'

- Dental arch deformities
- Crooked Teeth
- Changed facial form

**“We have few problems more urgent
or more challenging
than reversing these trends.”**

Weston A. Price, 1933





Loss of ancestral diet: dental health plummeted, with defects in next generation with switch to processed foods



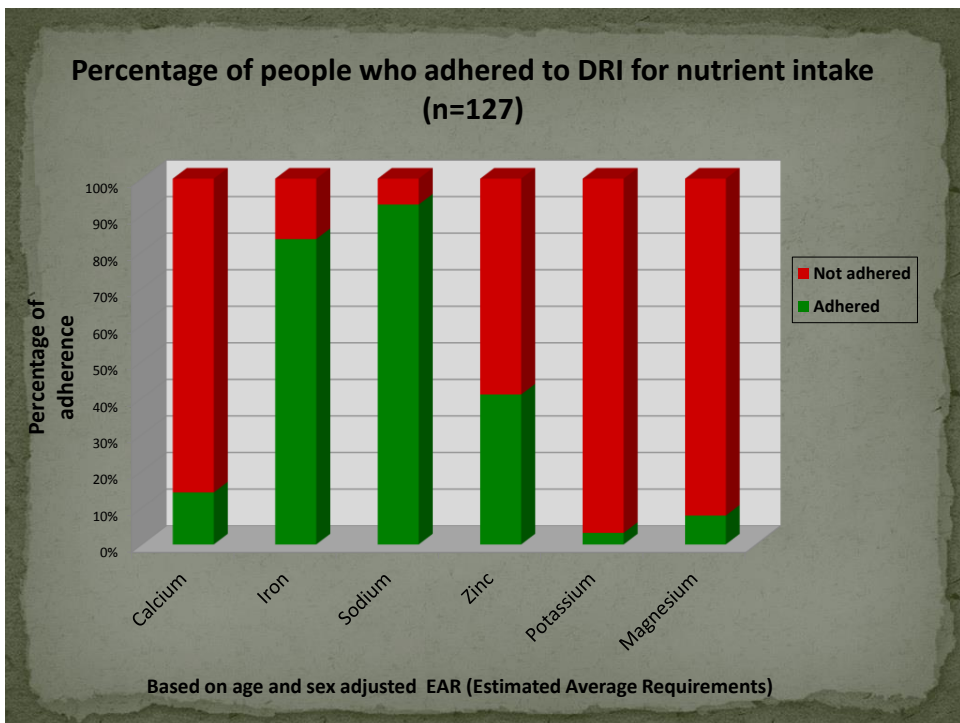
Helping Ourselves to Health: Addressing Factors that Contribute to Obesity Among Alaska Native People

Tim Gilbert, MPH
Desiree Jackson, RD, LD
Gary Ferguson, BS, ND

This research was supported by the National Research Initiative of the USDA National Institute of Food and Agriculture, grant #2007-55215-17923

- **Dietary patterns and nutritional adequacy among rural Yup'ik women in western Alaska**
 - The majority of women (90-100%) fell below the recommendations for **dietary fiber, vitamin D, vitamin E and calcium**. More than 50% of women fell below the recommendations for **vitamin A** and more than one-third were below for **zinc, and vitamins C and B-6**
 - Store-bought foods, such as juices/pop and coffee, were the most frequently reported food items. **Sweetened beverages and pop were the main contributors to energy, carbohydrate and sugar intake**
 - Traditional foods provided **34% of protein, 27% of iron, 23% of vitamin A, 21% of zinc, 6% of carbohydrate intake and <5% of total energy intake**

Dietary Adequacy among Rural Yup'ik Women in Western Alaska
Sangita Sharma, Erin Mead, Desiree Simeon, Gary Ferguson, and Fariba Kolahdooz
Journal Of The American College Of Nutrition Vol. 34 , Iss. 1,2015



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Article

First View

Declines in traditional marine food intake and vitamin D levels from the 1960s to present in young Alaska Native women

Diane M O'Brien ^{1,2}, Kenneth E Thummel ^{1,2}, Lisa R Bulkow ^{1,2}, Zhican Wang ^{1,2} ...

DOI: <https://doi.org/10.1017/S1368980016001853> Published online: 28 July 2016

Abstract

To measure the trends in traditional marine food intake and serum vitamin D levels in Alaska Native women of childbearing age (20–29 years old) from the 1960s to the present. We measured a biomarker of traditional food intake, the $\delta^{15}\text{N}$ value, and vitamin D level, as 25-hydroxycholecalciferol [25(OH)D₃] concentration, in 100 serum samples from 20–29-year-old women archived in the Alaska Area Specimen Bank, selecting twenty-five per decade from the 1960s to the 1990s. We compared these with measurements of red-blood-cell $\delta^{15}\text{N}$ values and serum 25(OH)D₃ concentrations from 20–29-year-old women from the same region collected during the 2000s and 2010s in a Center for Alaska Native Health Research study.

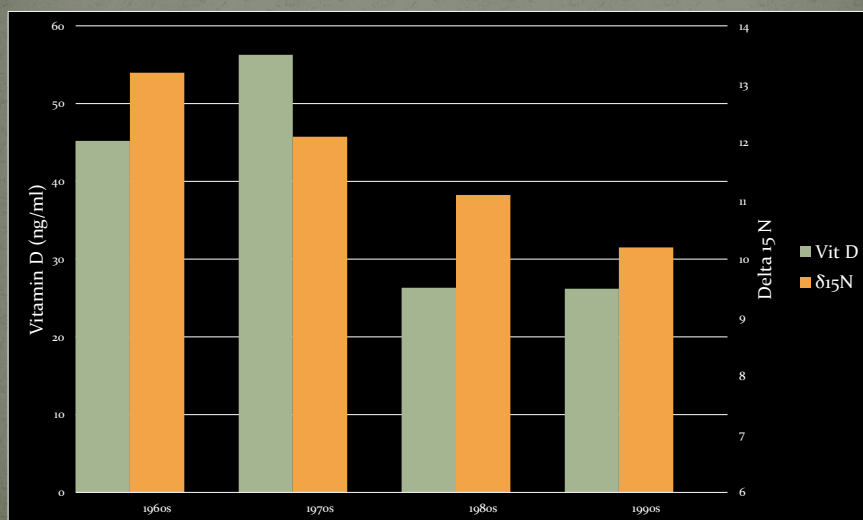
The Yukon Kuskokwim Delta region of south-west Alaska. Alaska Native women (n 319) aged 20–29 years at the time of specimen collection. Intake of traditional marine foods, as measured by serum $\delta^{15}\text{N}$ values, decreased significantly each decade from the 1960s through the 1990s, then remained constant from the 1990s through the present [$F_{3,306}=77.4$, $P<0.0001$]. Serum vitamin D concentrations also decreased from the 1960s to the present [$F_{4,142}=26.1$, $P<0.0001$]. Consumption of traditional marine foods by young Alaska Native women dropped significantly between the 1960s and the 1990s and was associated with a significant decline in serum vitamin D concentrations. Studies are needed to evaluate the promotion of traditional marine foods and routine vitamin D supplementation during pregnancy for this population.

Export citation Request permission

Keywords: Nutrition transition, Rickets, 25-Hydroxycholecalciferol concentration, $\delta^{15}\text{N}$ value, Stable isotope ratios, Arctic health, Circumpolar health

O'Brien, D.M., Thummel, K.E., Bulkow, L.R., Wang, Z., Corbin, B., Klejka, J., Hopkins, S.E., Boyer, B.B., Hennessy, T.W. and Singleton, R. (2016) 'Declines in traditional marine food intake and vitamin D levels from the 1960s to present in young Alaska Native women', *Public Health Nutrition*, pp. 1–8. doi: 10.1017/S1368980016001853.

Serum Vitamin D and $\delta^{15}\text{N}$ values, YK Women, 1960s to 1990s



Study Results: Rickets and Vitamin D Deficiency in Alaska Native children

- Rickets inpatient and outpatient visits were more common in Alaska Native children than in the US or other IHS sites
- Rickets diagnosis increased with:
 - Increasing latitude
 - Diagnosis of malnutrition
- Rickets and vitamin D deficiency occurred in both breastfed and formula fed infants
- Rickets and vitamin D deficiency were more common in infants who did not receive vitamin D supplementation.
- Confirms importance of AAP recommended vitamin D supplementation of newborn infants to prevent vitamin D deficiency

Above 37 degrees latitude from Nov.–Feb.:
80–100% decrease in the number of ultraviolet
B photons reaching earth's surface

American Academy of Pediatric guidelines:
Regardless of sunlight and food intake, all breastfed infants/children and those receiving
< 1 Liter per day of infant formula receive 400 IU/day of vitamin D supplementation

Calcium and Vitamin D content of some traditional foods

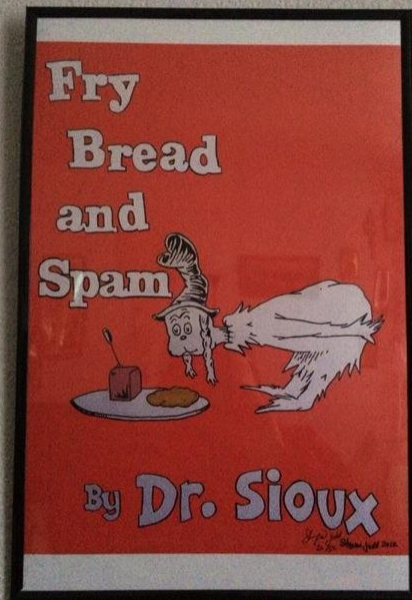
- | | |
|---|---|
| <ul style="list-style-type: none"> • Chum Salmon, canned with bone (3 oz) <ul style="list-style-type: none"> • 212mg Calcium • 328 IU Vit D • Sockeye Salmon, canned (3 oz) <ul style="list-style-type: none"> • 197 mg Calcium • 715 IU Vit D • King Salmon, with skin, kippered (3oz) <ul style="list-style-type: none"> • 39mg Calcium • 44 IU Vit D | <ul style="list-style-type: none"> • Beluga Whale Oil <ul style="list-style-type: none"> • 51 IU Vit D • Seal Flesh (100g) <ul style="list-style-type: none"> • 5mg Calcium • Seal Oil (100g) <ul style="list-style-type: none"> • 1mg Calcium • 30 IU Vit D • Caribou (3oz) <ul style="list-style-type: none"> • 19mg Calcium |
|---|---|

• Nutrient Values of Alaska Native Foods, compiled by Elizabeth D. Nobmann, MPH, RD, Alaska Area Native Health Service, Revised December 11, 1992; October 1993.

Salmon has one of the highest vitamin D content of any food. Southwest Alaska Native people <30 years eat less salmon than their elders.



https://www.nytimes.com/interactive/2017/09/16/health/brazil-obesity-nestle.html?emc=edit_16_20170917&nl=top-stories&nlid=61113591&ref=cta [NY Times, 09/17/17]





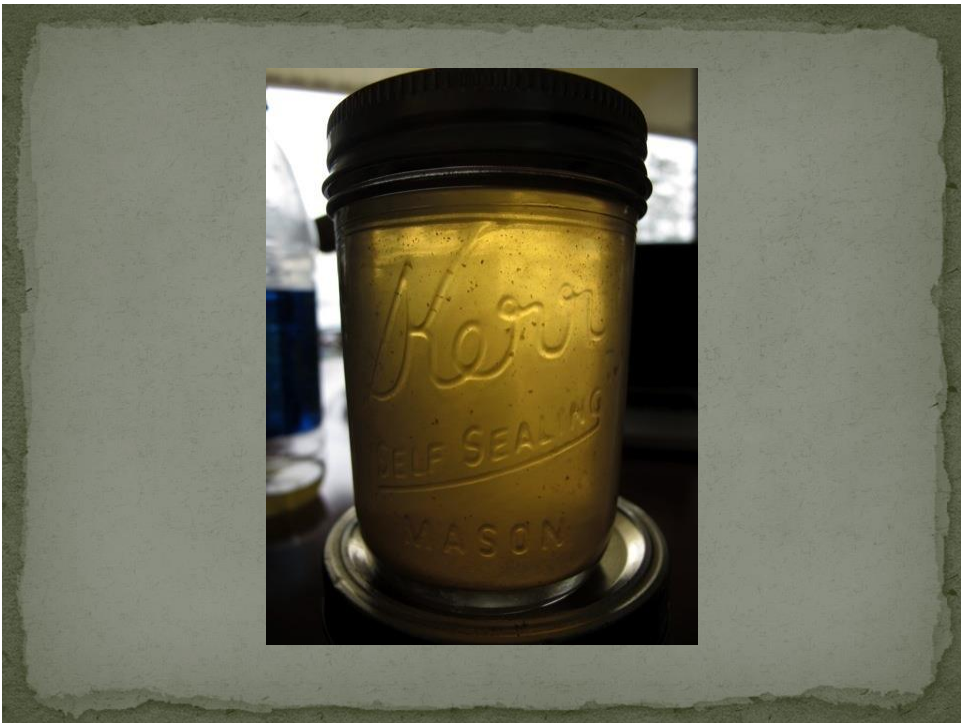


 American Diabetes Association. **Diabetes Care.**

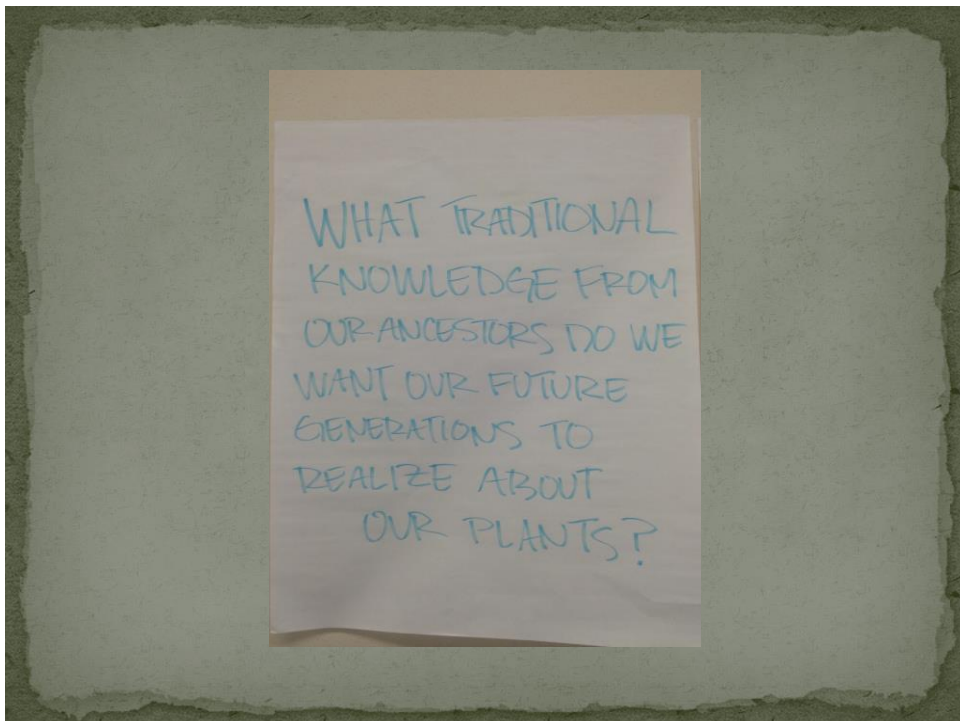
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Lower Prevalence of Impaired Glucose Tolerance and Diabetes Associated With Daily Seal Oil or Salmon Consumption among Alaska Natives

1. Amanda I Adler, MD, PHD,
2. Edward J Boyko, MD, MPH,
3. Cynthia D Schraer, MD and
4. Neil J Murphy, MD

























**Artemisia Annua, Artemisinin & 2015 Nobel Prize in
Medicine – Cancer Treatments: from Research to
Application**

CANCERTREATMENTSRESEARCH.COM








Pacific Yew foliage
Image courtesy of Walter
Siegmond / Wikimedia
Commons

National Cancer Institute U.S. National Institutes of Health | www.cancer.gov
TURNING MOLECULES INTO MEDICINES FOR THE PUBLIC HEALTH
Developmental Therapeutics Program

Success Story

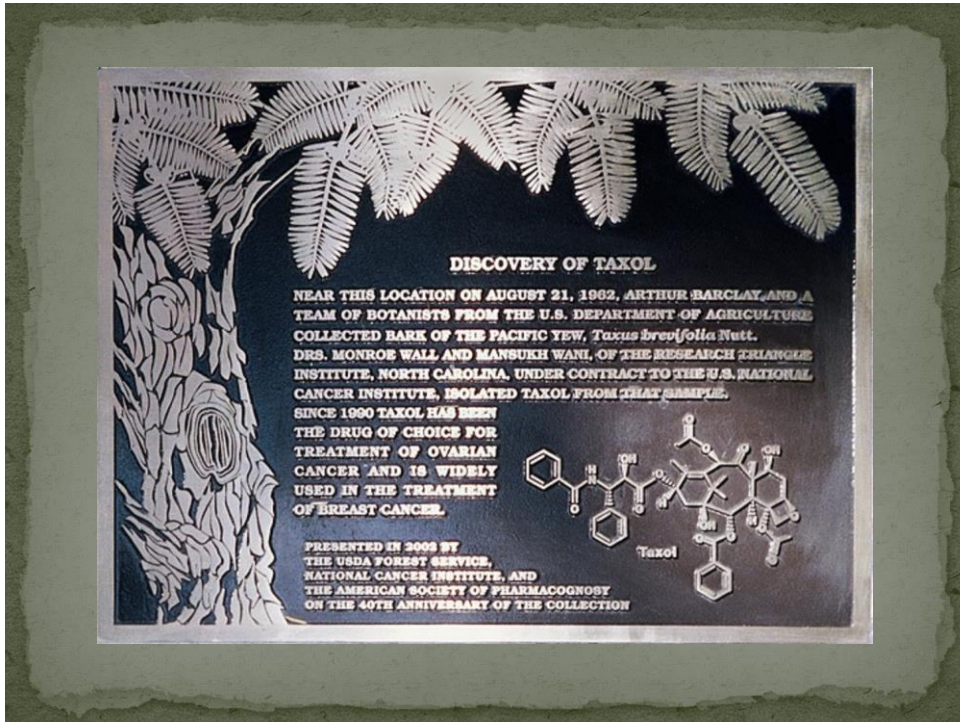
Taxol® (NSC 125973)

 Pacitaxel, the most well-known natural-source cancer drug in the United States, is derived from the bark of the Pacific yew tree (*Taxus brevifolia*) and is used in the treatment of breast, lung, and ovarian cancer, as well as Kaposi's sarcoma.

1962 Samples of the Pacific yew's bark were first collected in 1962 by researchers from the U.S. Department of Agriculture (USDA) who were under contract to NCI to find natural products that might cure cancer. Two years later, Dr. Monroe E. Wall, Dr. Mansukh Wani, and colleagues at the Research Triangle Institute's Natural Product Laboratory in Research Triangle Park, NC, discovered that extracts from this bark contained cytotoxic activity. In 1965, additional samples of bark were collected and sent to Dr. Wall's group for identification and purification of the extract's most active component. It took the researchers at the Research Triangle Institute several years to isolate paclitaxel in its pure form, but once they did, NCI assigned the compound an NSC number and testing began to identify paclitaxel's biological action.

1977 It was not until 1977, when NCI was able to confirm antitumor activity in the mouse melanoma B16 model, that paclitaxel, also known by its trade name, Taxol, was selected as a candidate for clinical development. Activity was also observed in animal models against MX-1 mammary, LX-1 lung, and CX-1 colon

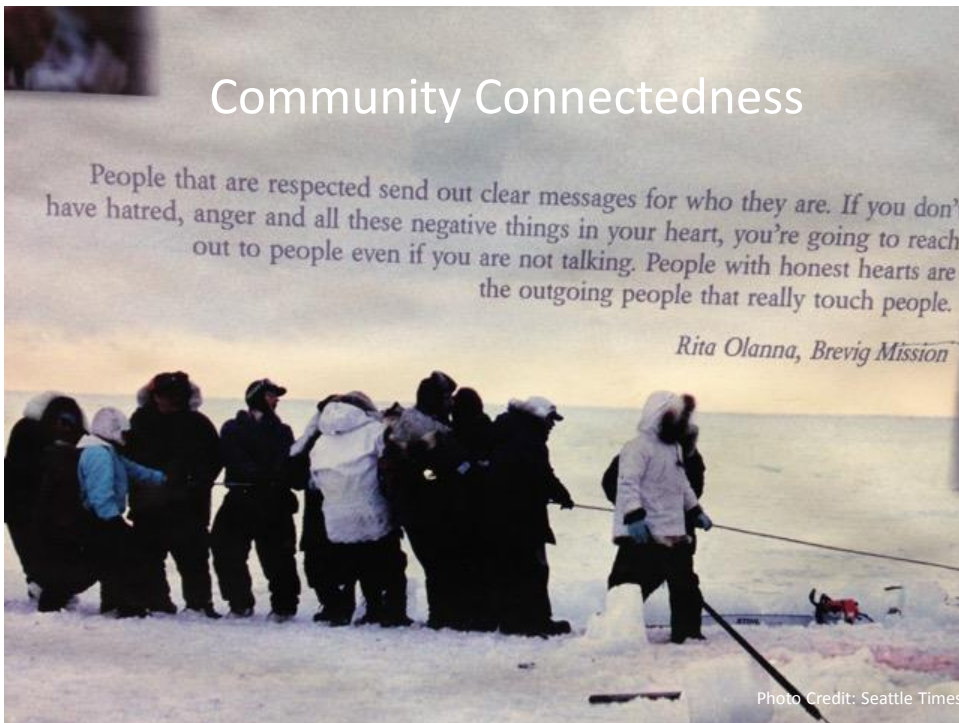
Video
Taxol
high bandwidth | low bandwidth
Transcript:
"The chemical structure of Taxol is unique and it looked extremely interesting to me, so I said yes, please send me 10 milligrams. Within a month we knew that we had a very interesting molecule that was doing something to cells, which no one else had seen occur with a small molecule. It was very exciting."
—Susan Horwitz, Ph.D.





Intergenerational Connectedness

Photo credit: Susan Bernardi, UW collection



Connectedness In Action

Connectedness Mechanisms				
<u>Family</u>	<u>Community</u>	<u>Land/Place</u>	<u>Intergenerational</u>	<u>Spirit</u>
Language	Language	Language	Language	Language
Spending time together	Celebrations	Hunting	Part of a continuous history	Ceremonies
Relational Roles	Dancing/Singing	Gathering	Awareness of historical trauma	Cultural values
Responsibility	Ceremonies	Teaching children	Responsibility to future generations	Art
Namesakes & Nicknames	Service to others	Learning from Elders	Learning ancestral teachings to pass on to younger generations	Stories
Adoption	Mentoring	Exploration	Participation in cultural and community activities	Love, Humor, Truth
TogetherNESS	Rules, values, norms	Observation	Knowledge of family lineage	Beauty
Trust and safety	Safety nets	Travel		Dance
Sharing and support	Family relationships	Care for animals		Subsistence foods
Helping Elders	Social groups	Stories		Songs/Dance/Drum
Stories, family history	Collective belonging	Playing outside		Connection to ancestors and future generations
Recognition of personal talents	Cooperative Teams	Access to clean water		Collective mentality
	Subsistence sharing	Fish camp		Spiritual teachings
	Strong leadership	Survival skills		

LaVerne M. Demientieff, LMSW, Ph.D.



Photo credit: National Geographic

Home » News » National

Researchers identify cause of gastrointestinal disorder affecting Inuit

ANDRÉ PICARD - PUBLIC HEALTH REPORTER
THE GLOBE AND MAIL
Last updated Monday, Dec. 01 2014, 6:48 PM EST



Congenital Sucrase-isomaltase Deficiency (CSID)
<http://www.theglobeandmail.com/news/national/researchers-identify-cause-of-gastrointestinal-disorder-affecting-inuit/article21845977/>

Alaska Dispatch News

NEWS POLITICS VOICES ARCTIC CULTURE SPORTS ADVENTURE MULTIMEDIA

Clues emerging about Arctic gene, diet and health

Yereth Rosen | Alaska Dispatch News | November 29, 2014

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“Let foods be your medicine”
-Hippocrates



STORE OUTSIDE YOUR DOOR

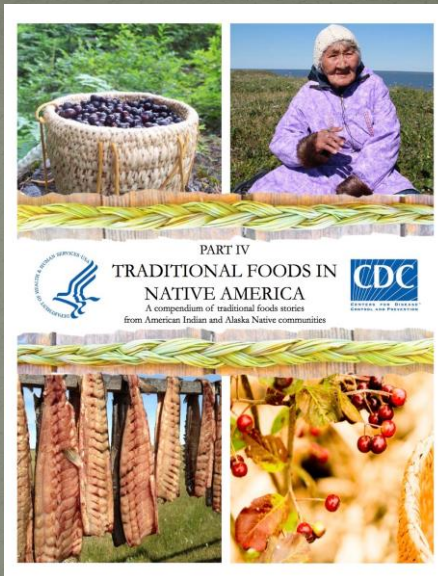
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ELECTRONIC ARTICLE ↔

Prenatal and Postnatal Flavor Learning by Human Infants

Julie A. Mennella, PhD, Coren P. Jagnow, MS, Gary K. Beauchamp, PhD

■ [Author Affiliations](#)

ABSTRACT

Background. Flavors from the mother's diet during pregnancy are transmitted to amniotic fluid and swallowed by the fetus. Consequently, the types of food eaten by women during pregnancy and, hence, the flavor principles of their culture may be experienced by the infants before their first exposure to solid foods. Some of these same flavors will later be experienced by infants in breast milk, a liquid that, like amniotic fluid, comprises flavors that directly reflect the foods, spices, and beverages eaten by the mother. The present study tested the hypothesis that experience with a flavor in amniotic fluid or breast milk modifies the infants' acceptance and enjoyment of similarly flavored foods at weaning.

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Traditional Foods Infant Feeding



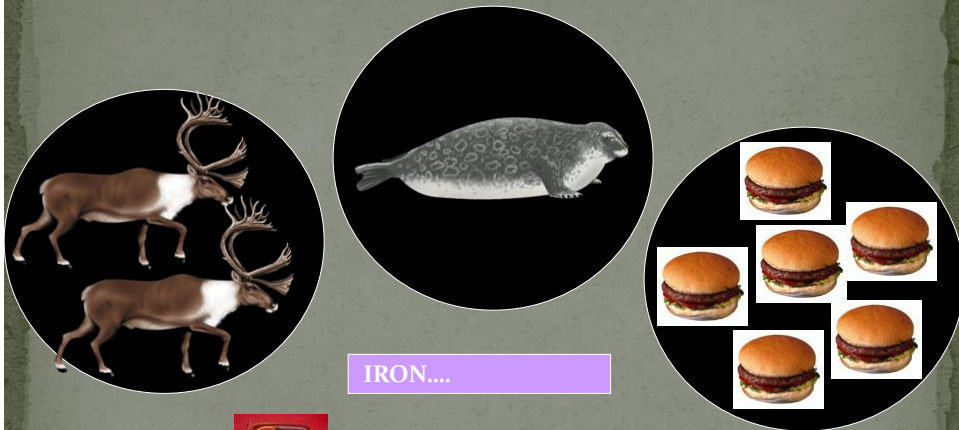
Patti Kanayurak and her boy Connor (Barrow, Alaska). Photo used with permission.







IRON

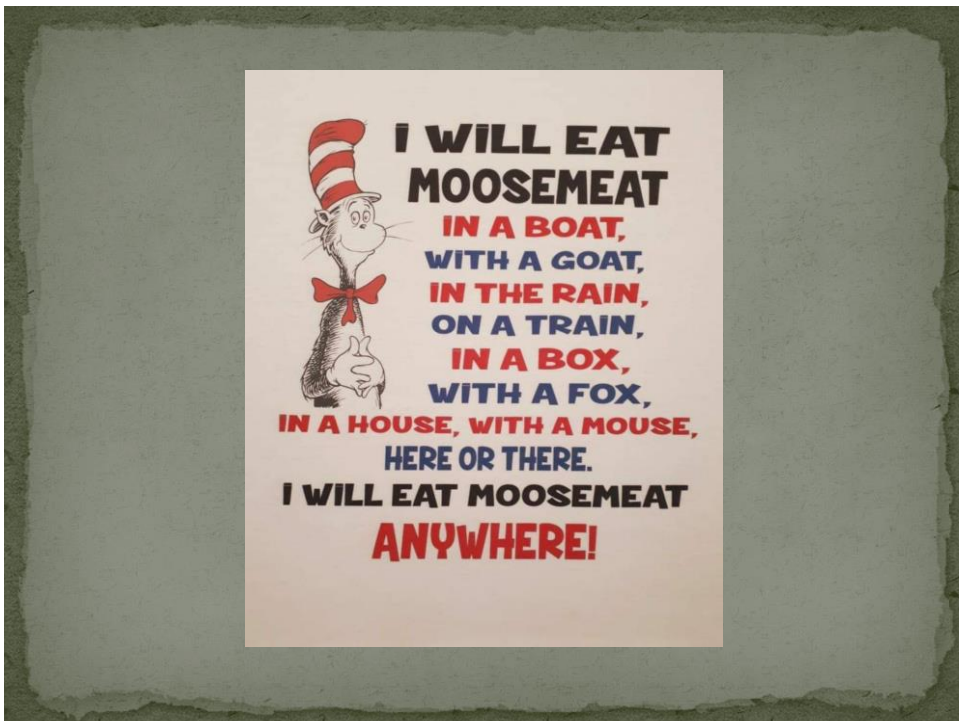
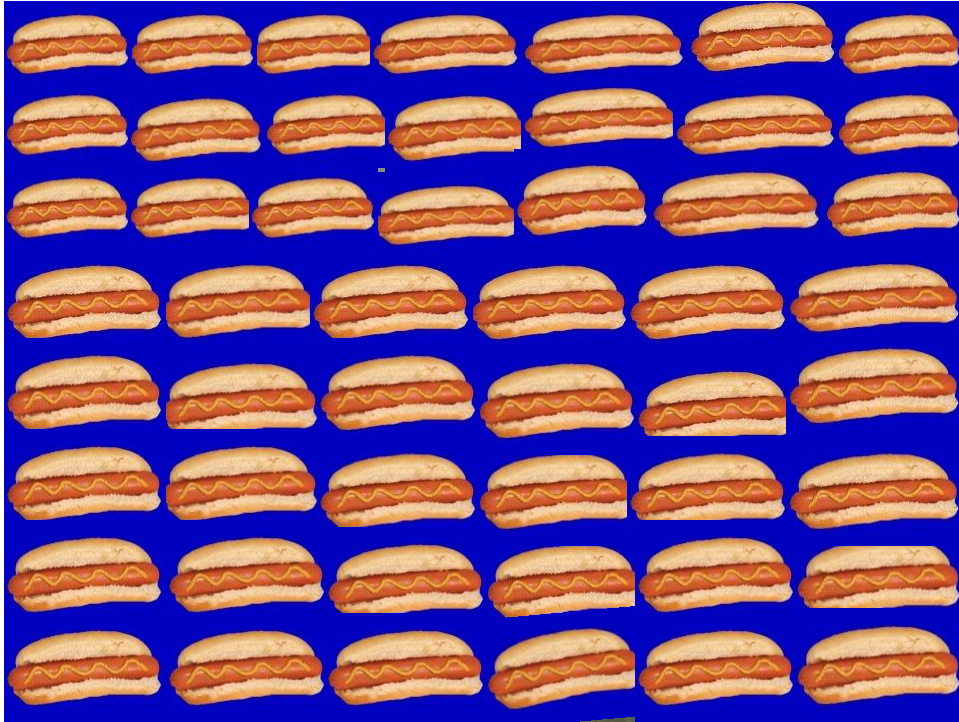


IRON....



how many hotdogs?

Country food is good for you and your family

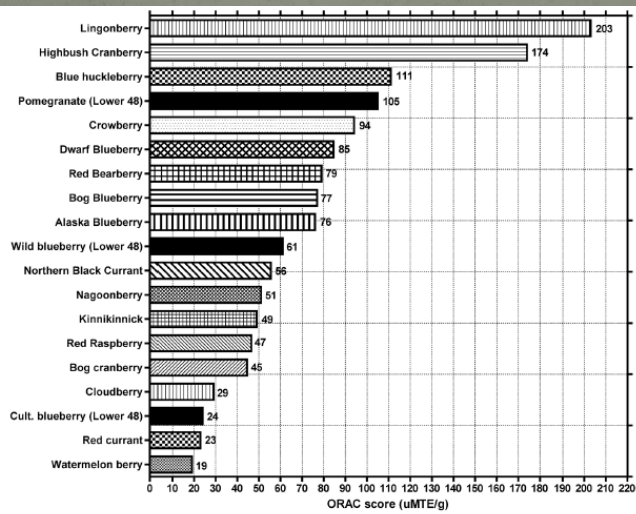


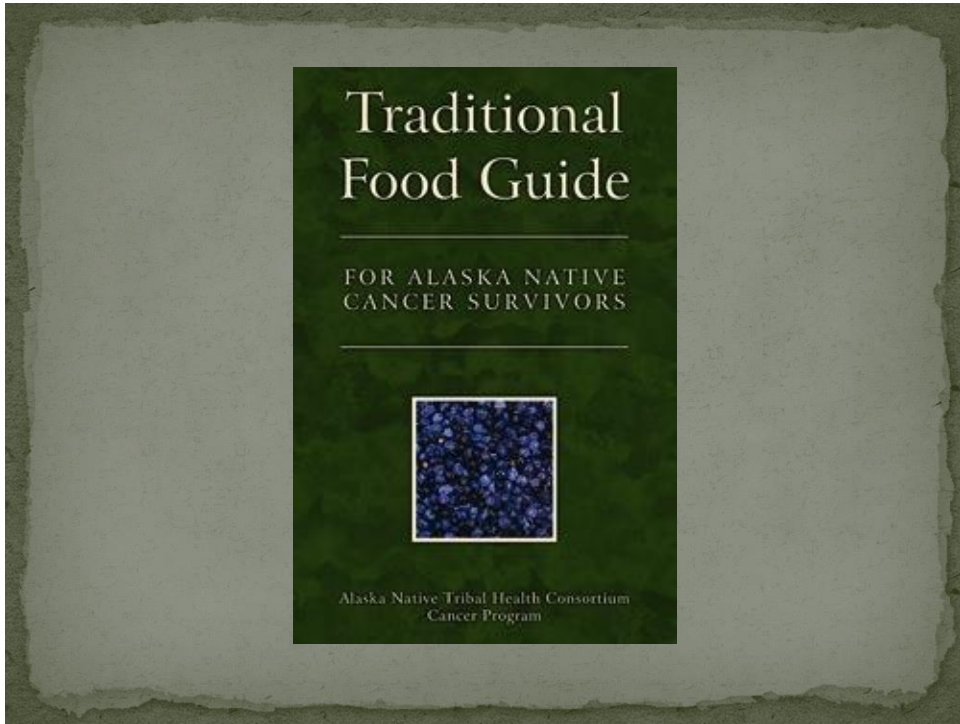






Comparison of berries

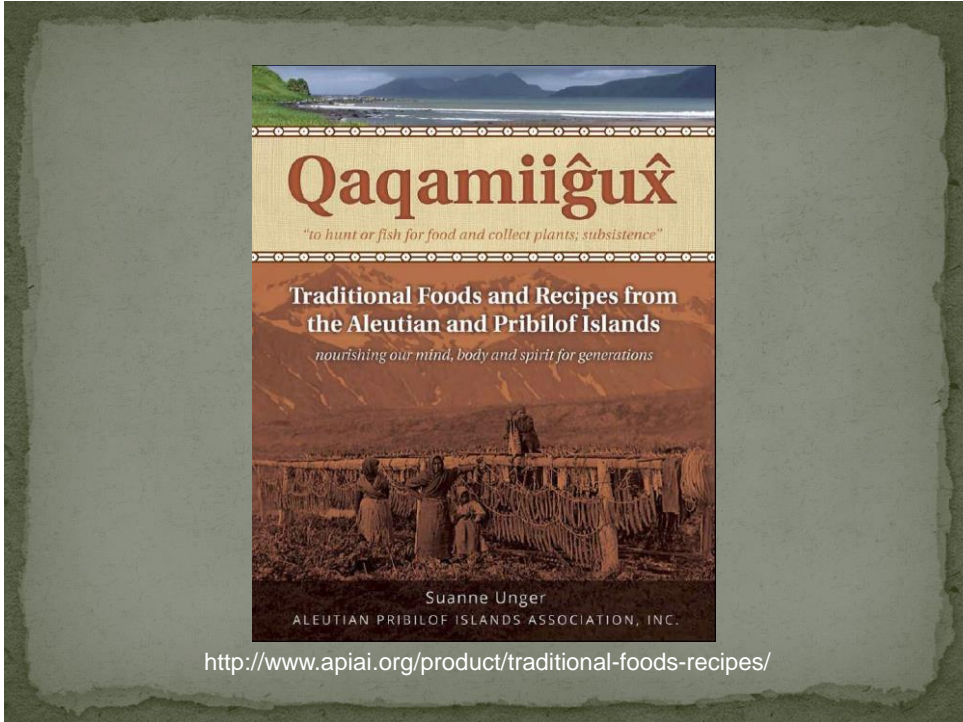




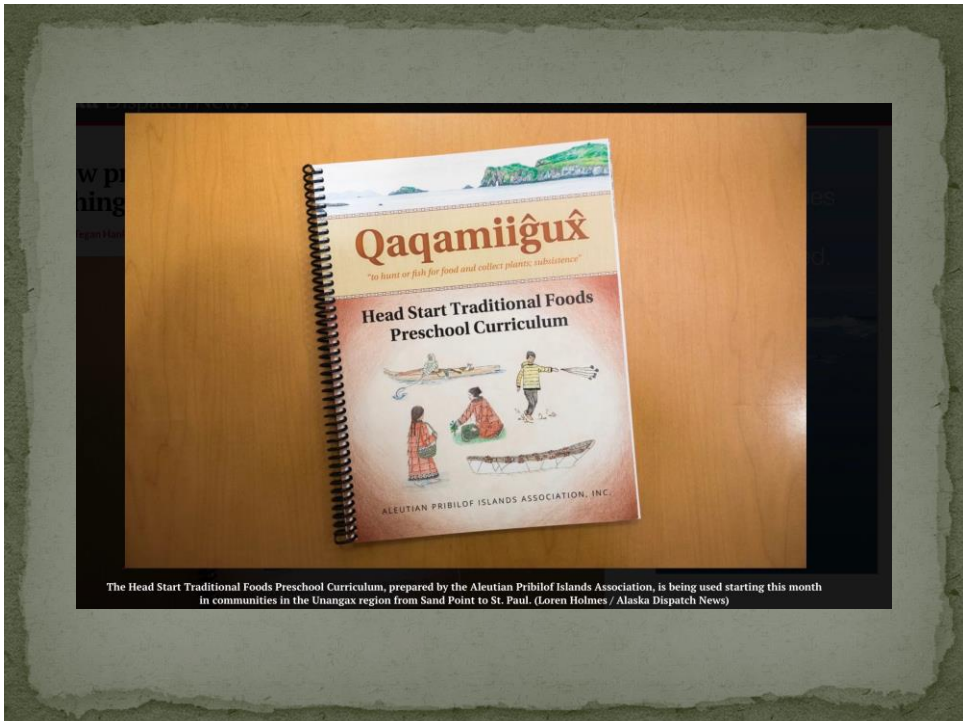
Igiugig residents take on 6-week traditional food challenge as a health experiment

Every month in 2017 they have taken their weight, blood pressure, blood sugar and heart rate. They will compare the results from before and after the challenge.

ADN.COM



<http://www.apiai.org/product/traditional-foods-recipes/>



The Head Start Traditional Foods Preschool Curriculum, prepared by the Aleutian Pribilof Islands Association, is being used starting this month in communities in the Unangax region from Sand Point to St. Paul. (Loren Holmes / Alaska Dispatch News)

TRADITIONAL VALUES OF ALASKA

SAINT LAWRENCE ISLAND YUPIK VALUES

- Listen with your heart and mind
- Honor family
- Give services to others
- Never give up
- Respect all living things
- Remember advice of elders
- Plan for the future
- Be independent
- Avoid laziness
- Gather knowledge and wisdom

Adapted from: Knowledge is a Gift

YUPIK VALUES

- Help other people
- Help with family chores and needs
- Early to bed and early to rise
- Provide time to see how your life is going
- There is always time to play if you work to share
- Progression: learn to do things yourself
- Respect and honor your elders
- Always show good behavior
- Listen to all advice given to you
- Remember what you are taught and act
- Respect other people's belongings
- Respect the animals you catch for food
- Gather knowledge and wisdom from the elders
- Never give up in trying to do what you set your mind on

Adapted from: L. P. Poodlo, College of Arts and Sciences, University of Alaska Fairbanks

UNANGAX (ALEUT) VALUES

- Show respect for our land and its resources at all times
- Be helpful to one another
- Share with others whenever possible
- Respect and care for other's property
- Respect spiritual values
- Learn hunting and outdoor survival skills
- Provide for and take good care of your family
- Through time, respect your children
- Respect your elders
- Work hard and don't be lazy
- Refuse from alcohol and drug use
- Learn, preserve, and be proud of the Native way of life

Adapted from: Knowledge is a Gift

ATHABASCAN VALUES

- Self-sufficiency
- Hard Work
- Care and commitment for the family

ADULTHOOD EDUCATION VALUES

- Knowledge of Language
- Knowledge of Family Tree
- Working



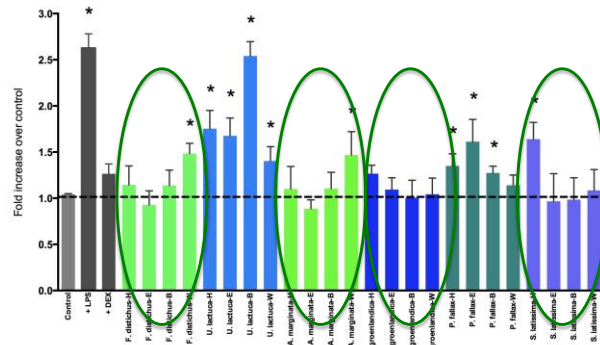
Alaskan Seaweed

Antioxidant activity

- Oxidative damage related to a number of chronic diseases
 - Obesity
 - Diabetes
 - Arthritis
 - Cardiovascular disease
- Preventing oxidants can slow or reverse damage to tissue
- Treat macrophage cells to determine effects on blocking oxidants

Most active species:
Brown kelps:

F. distichus – bladder wrack
A. Marginata – ribbon kelp
S. groenlandica – kelp
S. Latissima – sugar wrack

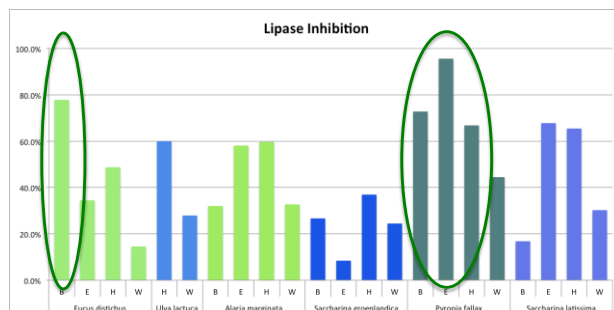


Lipase inhibitory activity

- Lipases are enzymes that digest fat from the diet
 - Our lipases are more active than the amount of lipids we consume
 - Increasing fat in the diet means it is just as easily broken down and digested
- Main source of circulating lipids in the blood stream
- Blocking lipase can help lower lipid digestion
 - Decrease obesity (Orlistat)

Most active species:
Brown and red kelps:

F. distichus – bladder wrack
P. Fallax – false laver



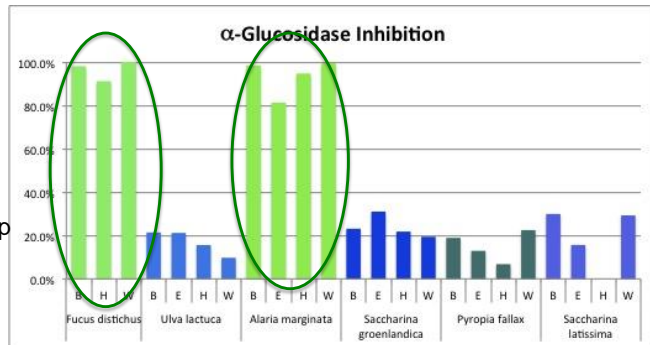
Glucosidase inhibitory activity

- Glucosidases breakdown starch to sugar
 - We contain a variety of related enzymes in our digestive system
- Main source of circulating sugars in the blood stream
- Blocking can help lower glucose metabolism and digestion
 - Decrease glucose levels internally
 - Lower insulin stress, decrease insulin resistance

Most active species:
Brown kelps:

F. distichus – bladder wrack

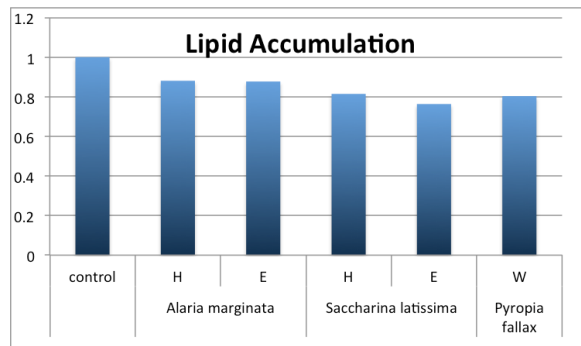
A. marginata – ribbon kelp



Decrease in lipid accumulation

- Fat cells synthesize and accumulate lipids from the bloodstream
 - Grow larger to accommodate all the lipids, leading to obesity
- High accumulation levels also increases inflammation, can lead to diabetes
- Lower levels can help lower obesity risk
 - Decrease lipids circulating in bloodstream
 - Lower inflammation and insulin resistance

Fractions from *A. marginata* (ribbon kelp) and *S. latissima* (sugar wrack) and *P. fallax* (false laver) all decreased fat accumulation in cells by as much as 24%



The image shows a screenshot of a Phys.org website article. The navigation bar at the top includes categories like Nanotechnology, Physics, Earth, Astronomy & Space, Technology, Chemistry, Biology, and Other Sciences. The article title is "Epigenetics unveils how plants may adapt to environments throughout the world", dated March 6, 2013, from Salk Institute. The main image is a globe with various colored pins and small inset photos of plants and landscapes. On the left, there are social media sharing options for Google+, Twitter, and Reddit, along with a PDF download icon. On the right, there is a Fred Meyer advertisement for a Vizio 40" Smart LED HDTV priced at 249.99.

The image is the cover of a book titled "PLANTS THAT WE EAT" by Anore Jones. The title is in large green and brown letters. Below the title, there are several small images: a close-up of a plant, a person eating, a white flower, and various other plant parts. The subtitle is "Nauriat Nigiñaqtuat" in brown text. Below that, it says "From the traditional wisdom of the Iñupiat Elders of Northwest Alaska". At the bottom, the author's name "Anore Jones" is written in bold black text.





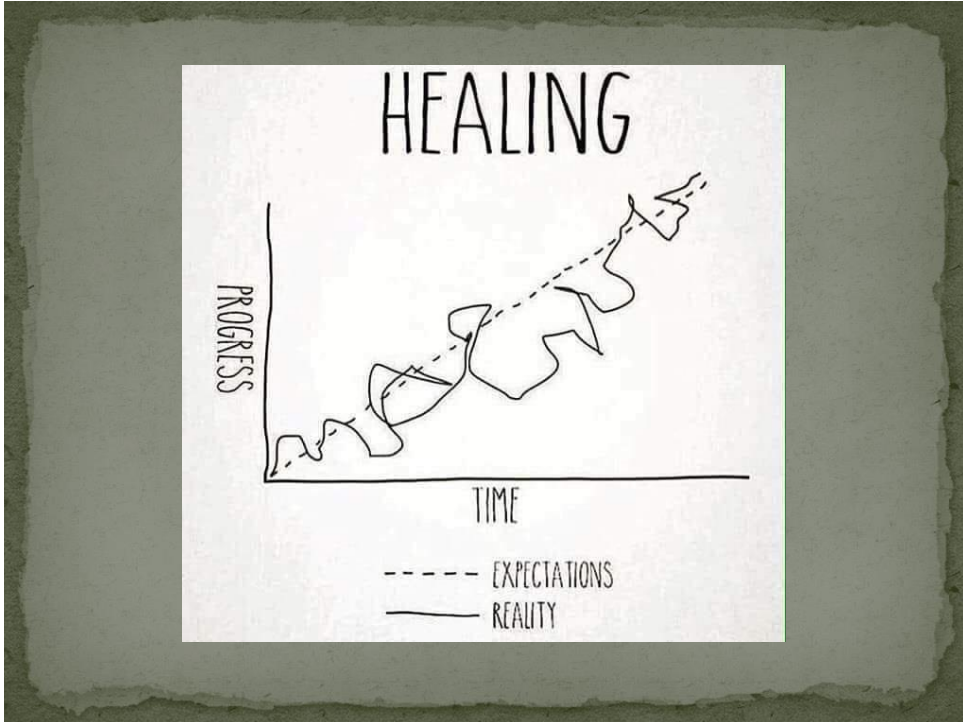
Culture is Medicine







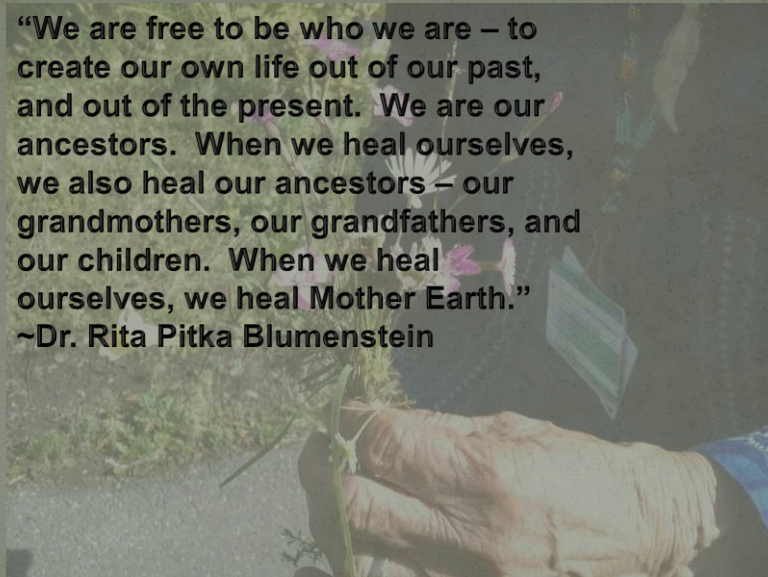




Decolonizing Healthcare



“We are free to be who we are – to create our own life out of our past, and out of the present. We are our ancestors. When we heal ourselves, we also heal our ancestors – our grandmothers, our grandfathers, and our children. When we heal ourselves, we heal Mother Earth.”
~Dr. Rita Pitka Blumenstein



Let us be the
ancestors our
descendants will
thank.

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