Provision of intercultural approaches to cancer services for rural Indigenous women in the US
22 February 2022

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University of North Carolina – Lineberger Comprehensive Cancer Canter
Recognizing land and sovereignty of Native nations
Native protocol: Establishing relationality

K’é - Traditional practice of introductions rooted in relationality and kinship
Research philosophy: Creating a context for *why* this work is meaningful

**Sa’ah Naaghai Bik’eh Hozhoon (SNBH)** – The life force which is the reason for being and becoming; the pathway for continual learning and renewal of aspiration

- A way of life for Diné (Navajo)
- Provides an equitable framework
- A process, philosophy, and orientation
- Guides and grounds me personally and professionally
Research as a pathway to SNBH*

• Addresses the challenge of research in culturally complex settings
• Indigenous epistemology and storytelling
  • Indigenous storytelling must be heard and added as a research paradigm (Chilisa)
  • Theorizing through autobiography (hooks)

*Sa’ah Naaghai Bik’eh Hozhoon = the life force which is the reason for being and becoming; the pathway for continual learning and renewal of aspiration
Allowing *Sa’ah Naaghai Bik’eh Hozhoon* to guide the research process

**Question:**
- How can we improve AIAN health measured by what is meaningful to the community?

**Method:**
- Academic protocol
- Indigenous protocol
- Draws on both Navajo epistemology and Western academic epistemology

**Conclusion:**
- Interpretation is informed by worldview, method, and results

*Sa’ah Naaghai Bik’eh Hozhoon = the life force which is the reason for being and becoming*
Improving access and treatment in American Indian/Alaskan Natives (AIAN)
Great diversity among AIANs

• 574 federally recognized tribes
  • Different culture, location, language and beliefs

• Primary healthcare provided by the Indian Health Service
  • Must be enrolled members of federally recognized tribe
  • Must reside on/near reservation within a contract health service delivery area
Urban AIANs

• The majority of AIAN persons reside in urban areas
• Outside of the Indian Health Service, AIAN have the lowest rate of private health insurance of any racial/ethnic group
Disparities in Prostate, Lung, Breast, and Colorectal Cancer Survival and Comorbidity Status among Urban American Indians and Alaskan Natives

Marc A. Emerson¹, Matthew P. Banegas², Neetu Chawla³, Ninah Achacoso³, Stacey E. Alexeeff³, Alyce S. Adams³, and Laurel A. Habel³
<table>
<thead>
<tr>
<th></th>
<th>Adjusted for patient + disease characteristics</th>
<th>Adjusted for patient + disease characteristics + Charlson score</th>
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</thead>
<tbody>
<tr>
<td><strong>HR (95% CI)</strong></td>
<td></td>
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<tr>
<td>All-cause mortality</td>
<td>$1.52 (1.17-1.99)$</td>
<td>$1.47 (1.13–1.92)$</td>
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<tr>
<td>Cancer–specific mortality</td>
<td>$1.31 (0.89–1.95)$</td>
<td>$1.31 (0.88–1.94)$</td>
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Emerson MA et al. *Cancer Res.* 2017
Initiation and adherence to adjuvant endocrine therapy (AET) among insured, urban AIAN
Objective

To evaluate whether AET initiation and adherence were lower among AIAN than other races/ethnicities
Source population: Kaiser Permanente Northern California

• Over 3.9 million currently active members
• Membership comprises approximately one-third of the population of California’s San Francisco Bay Area and Central Valley
Participants and analysis overview

23,680 AET eligible (first primary, stage I-III, hormone receptor-positive breast cancers) patients from 1997 to 2014

Exposure
Race/ethnicity

Outcomes
AET-initiation
AET-adherence
Low AET initiation among AIAN

83% were AET initiators
• AIAN women had the second lowest AET initiation

<table>
<thead>
<tr>
<th>Race</th>
<th>%</th>
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<tbody>
<tr>
<td>API</td>
<td>84.7</td>
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<tr>
<td>Hispanic</td>
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<tr>
<td>White</td>
<td>82.5</td>
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<tr>
<td>AIAN</td>
<td>78.6</td>
</tr>
<tr>
<td>Black</td>
<td>78.0</td>
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</table>
AIAN AET-adherence

Years since index date

PDC >80%

NHW

AIAN

51%
AET treatment gap

At the end of the 5-year period, total underutilization (combining initiation and adherence) in AET eligible was greatest among AIAN (70.6%)

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<tbody>
<tr>
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<tr>
<td>White</td>
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<td>Black</td>
<td>69.6</td>
</tr>
<tr>
<td>AIAN</td>
<td>70.6</td>
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</table>
The takeaways

• Our results suggest that AET initiation and adherence are particularly low for insured, urban AIAN women.
• Results may represent a “best-case scenario” for access yet still highlights substantial racial disparities.
• Interventions that address barriers specific to AIAN women are needed.
Additional barriers for AIAN populations

Map by Alex Newman/Al Jazeera America & Marc Emerson

Map by Google Maps https://www.google.com/maps/place/Navajo+Nation

LEGGEND
- Grocery store
- Highway
- IHS Service Unit 200 mi.
- Hopi Reservation

Shiprock
- 28 mi
- 34 min
- 209 mi
- 3 hr 30 min

Tuba City
- 28 mi
- 34 min

Crownpoint
- 209 mi
- 3 hr 30 min

Canyon Rim
- 3 hr 30 min

Apache
- 3 hr 30 min

Hopi Reservation
- 3 hr 30 min

Glen Canyon
- 3 hr 30 min

Navajo Nation
- 3 hr 30 min

San Juan
- 3 hr 30 min

Albuquerque
- 3 hr 30 min

Lineberger Comprehensive Cancer Center
WATER FROM THIS WELL IS NOT SAFE TO DRINK!

Dennehotso, AZ
Native protocol: Establishing relationality

K’é - Traditional practice of introductions rooted in relationality and kinship
Danger
Humans and Animals must not drink the seep water

Yiiyá Bááhádzíd
Díí Tó doo Dine’ doo
Naaldlooshii doo
bá yá’ át’ éehda
### Integrating K’é: Key questions for researchers

#### Accountability the individual has for the collective well-being
- To whom I am accountable? How can I expand my sense of accountability to consider a connection to a broader collective?
- Do my research questions, methods, and interpretations consider Indigenous populations, perspectives, or sovereignty?
- Does this project acknowledge and promote structures of accountability to Indigenous land and territory?

#### Relationships to broader community, family, and non-human relations
- What is my subject position in relation to the research topic? Who else can I elevate and support as a collaborator or stakeholder?
- How do I promote equity in research design, methods, and interpretation? (considering gender, class, race, ability, etc.)
- How will the data and knowledge be protected? How will it be shared? How does it benefit the community outside the project?

#### Social responsibility to viewing all life forms as relatives and research partners
- How does project this consider beyond human-to-human relations towards the inclusion of other than human beings?
- How do we consider mental, emotional, physical, and spiritual dimensions of the research project and its implementation?
- Does any part of this project control, subjugate, commodify, manipulate, or exploit?