Racial Misclassification of American Indians in the Oklahoma Central Cancer Registry

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Background

- OCCR reference year 1997
- Approximately 10% of Oklahoma’s population is American Indian

- Cherokee Nation Cancer Programs
  - Data exchange
  - Participation between programs
Linkage with Indian Health Service (IHS)

- OCCR links with IHS each year
- Link entire database each year
- Linked variable
Results of the Linkage

• Average number of AI/AN cases (all sites) prior to linkage per year = 722

• Average number of AI/AN cases (all sites) subsequent to linkage per year = 1,212!!

• This is an average increase of 70%
Results of the Linkage

Average Age Adjusted Incidence Rates for all sites combined, linked and not linked with IHS: OCCR 1997-2007
Results of the Linkage

Average Age Adjusted Incidence Rates for females breast cancer, linked and not linked with IHS: OCCR 1997-2007
Results of the Linkage

Average Age Adjusted Incidence Rates for colorectal cancer by gender, linked and not linked with IHS: OCCR 1997-2007

- Female Not Linked
- Female Linked
- Male Not Linked
- Male Linked

<table>
<thead>
<tr>
<th>Race</th>
<th>Female Not Linked</th>
<th>Female Linked</th>
<th>Male Not Linked</th>
<th>Male Linked</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
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<tr>
<td>Black</td>
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<tr>
<td>AIAN</td>
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Benefits of the Linkage

- More accurate race-specific rates
- Beneficial for AI/ANs throughout the state
Program Planning and Program Successes

- **PoC (Breast)**
  - After linkage those identified as AIAN who did not received SoC decreased from 13% to 11%.
  - Identified IHS is equal to managed care for providing standard of care.

- **Small area estimates of incidence rates for Cherokee Nation TJSA**
Thank you!

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