



The Curious Case of Cancer in American Indians and Alaska Natives

Using Policy to Influence Change

CDC 2016 American Indian and
Alaska Native Cancer Summit

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Presentation Overview

- Background
- The Curious Case of Cancer in American Indians and Alaska Natives
- Implications, including those for policy approaches to influencing change
- Conclusions

Acknowledgements

- National Cancer Institute
- AI/AN Cancer Researchers' Network
- Centers for Disease Control and Prevention
- Dr. Patricia Nez Henderson
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No Financial Conflicts

Background

- AI/AN cancer data very problematic
- Estimates of racial misclassification of 35-50%
- Incomplete coverage of the AI/AN population by surveillance efforts
- Cancer not a significant problem among our people
- New linkage techniques have greatly strengthened AI/AN cancer data

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Supplement

An Update on Cancer
in American Indians
and Alaska Natives,
1999–2004



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An Update on Cancer in American Indians and Alaska Natives, 1999–2004

Supplement to Cancer

Prostate Cancer Incidence Among American Indian and Alaska Native Men, US, 1999–2004

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BACKGROUND. American Indian and Alaska Native (AI/AN) men experience lower incidence of prostate cancer than other race/ethnic populations in the US, but racial misclassification of AI/AN men threatens the validity of these estimates. To the authors' knowledge, little is known concerning prostate-specific antigen (PSA) testing in AI/AN men.

METHODS. The authors linked cancer registry data with Indian Health Service enrollment records to improve race classification. Analyses comparing cancer incidence rates and stage at diagnosis for AI/AN and non-Hispanic white (NHW) men for 6 geographic regions focused on counties known to have less race misclassification. The authors also used Behavioral Risk Factors Surveillance System data to characterize PSA testing in AI/AN men.

RESULTS. Prostate cancer incidence rates were generally lower in AI/AN than in NHW men for all regions combined (rate ratio of 0.68). However, regional variation

An Update on Cancer in American Indians and Alaska Natives, 1999–2004

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Regional Differences in Cervical Cancer Incidence Among American Indians and Alaska Natives, 1999–2004

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Primary Liver Cancer Incidence Among American Indians and Alaska Natives, US, 1999–2004

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Cancer Among American Indians and Alaska Natives in the United States, 1999–2004

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Lung Cancer Incidence Among American Indians and Alaska Natives in the United States, 1999–2004

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BACKGROUND. Lung cancer incidence rates among American Indians and Alaska Natives (AI/ANs) in the United States have not been described well, primarily because of race misclassification and, until the 1990s, incomplete coverage of

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Regional Differences in Colorectal Cancer Incidence, Stage, and Subsite Among American Indians and Alaska Natives, 1999–2004

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Gastric Cancer Among American Indians and Alaska Natives in the United States, 1999–2004

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Cancer in American Indian and Alaska Native Young Adults (Ages 20–44 Years): US, 1999–2004

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BACKGROUND. An examination of cancer incidence patterns in American Indians and Alaska Native (AI/AN) young adults may provide insight into their present and future cancer burden.

METHODS. To reduce racial misclassification, incidence data were linked with the

TABLE 2
Colorectal Cancer Invasive Incidence Rates and Percent Distribution by Age and Indian Health Service Region for American Indians/ Alaska Natives and Non-Hispanic Whites in Contract Health Service Delivery Area Counties: US, 1999-2004

IHS Region	<40 Years			40-49 Years			50-64 Years			≥65 Years						
	Count	% of Cases ^a	Rate ^b	Count	% of Cases ^a	Rate ^b	Count	% of Cases ^a	Rate ^b	Count	% of Cases ^a	Rate ^b				
AI/AN																
Northern Plains	19	2.0	2.5	1.5-3.9	61	7.1	33.5 ^c	25.7-43.1	175	24.5	118.3 ^c	101.4-137.2	258	66.4	380.7 ^c	334.3-431.7
Alaska	8	1.3	2.3	1.0-4.5	40	6.9	46.1 ^c	32.9-62.8	128	26.9	183.8 ^c	153.2-218.5	194	64.9	527.2 ^c	453.6-609.5
Southern Plains	40	3.7	3.9	2.8-5.3	61	6.1	24.0	18.3-30.8	241	25.1	100.7 ^c	88.3-114.2	430	65.1	309.9 ^c	281.1-340.9
Pacific Coast	16	1.8	1.2	0.7-2.0	42	5.1	12.9	9.3-17.5	161	23.5	60.8 ^d	51.7-70.9	245	69.5	212.9 ^{gd}	186.4-242.0
East	4	2.2	1.4	0.4-3.4	11	6.3	14.7	7.4-26.4	33	21.4	51.5 ^{dl}	35.4-72.4	64	70.1	199.7 ^{dl}	153.3-255.8
Southwest	38	6.0	2.2	1.6-3.0	48	9.0	12.2 ^d	9.0-16.2	150	32.7	45.7 ^d	38.7-53.7	154	52.3	86.9 ^{fd}	73.5-102.0
Total	125	2.8	2.3	1.9-2.7	263	6.7	20.0	17.7-22.6	888	25.8	79.6	74.5-85.1	1345	64.7	236.8 ^{gd}	224.1-250.0
NHW																
Northern Plains	425	2.0	1.8	1.6-2.0	1361	5.4	18.3	17.4-19.3	5863	21.8	76.1	74.1-78.1	19,508	70.8	292.8	288.7-296.9
Alaska	36	2.7	2.3	1.6-3.2	73	4.3	14.0	11.0-17.7	276	18.9	63.8	56.4-71.9	483	74.2	296.9	270.4-325.2
Southern Plains	197	2.6	2.3	2.0-2.7	561	6.4	21.5	19.8-23.4	2452	23.6	81.4	78.2-84.7	7201	67.5	276.5	270.1-282.9
Pacific Coast	718	2.0	1.7	1.5-1.8	2477	5.7	18.1	17.4-18.8	10,319	22.1	71.4	70.0-72.8	32,816	70.2	289.9	267.0-272.8
East	567	2.2	2.1	1.9-2.3	1863	6.0	21.5	20.5-22.5	8167	23.1	85.2	83.8-87.1	27,404	68.7	300.1	296.5-303.7
Southwest	289	2.0	1.6	1.4-1.8	5.8	17.7	16.6-18.9	4674	22.7	70.8	68.8-72.9	14,440	69.5	257.2	253.0-261.5	
Total	2252	2.1	1.8	1.8-1.9	7305	5.8	19.0	18.6-19.5	31,751	22.4	76.0	75.1-76.8	101,852	69.8	280.3	278.6-282.0

Source: Cancer registries in the Centers for Disease Control and Prevention's National Program of Cancer Registries and/or the National Cancer Institute's Surveillance, Epidemiology, and End Results Program. IHS indicates Indian Health Service; 95% CI, 95% confidence interval; AI/AN, American Indians/Alaska Natives; NHW, non-Hispanic whites.

- ^aPercent may not add to 100% due to rounding.
- ^bRates are per 100,000 persons and are age-adjusted to the 2000 US standard population (19 age groups; Census P25-1130).
- ^cThe AI/AN rate is statistically significantly higher than the NHW rate ($P < .05$).
- ^dThe AI/AN rate is statistically significantly lower than the NHW rate ($P < .05$).

Years of data and registries used: 1999-2004 (41 states and the District of Columbia); Alaska,* Alabama,* Arkansas, Arizona,* California,* Colorado,* Connecticut,* the District of Columbia, Delaware, Florida,* Georgia, Hawaii, Iowa,* Idaho,* Illinois, Indiana,* Kentucky, Louisiana,* Massachusetts,* Maine,* Michigan,* Minnesota,* Missouri, Montana,* North Carolina,* Nebraska,* New Hampshire, New Jersey, New Mexico,* Nevada,* New York,* Ohio, Oklahoma,* Oregon,* Pennsylvania,* Rhode Island,* Texas,* Utah,* Washington,* Wisconsin,* West Virginia, and Wyoming; 1999 and 2002-2004: North Dakota,* 2001-2004: South Dakota,* 2003-2004: Mississippi* and Virginia; 2004: Tennessee (asterisks indicate states with at least 1 county designated as a Contract Health Service Delivery Area).

TABLE 3
Colorectal Cancer Invasive Incidence Rates and Rate Ratios by Age and Indian Health Service Region for American Indians/ Alaska Natives and Non-Hispanic Whites in Contract Health Service Delivery Area Counties: US, 1999-2004

IHS Region	<40 Years			40-49 Years			50-64 Years			≥65 Years						
	AI/AN Rate ^a	NHW Rate ^a	RR	AI/AN Rate ^a	NHW Rate ^a	RR	AI/AN Rate ^a	NHW Rate ^a	RR	AI/AN Rate ^a	NHW Rate ^a	RR				
Northern Plains	2.5	1.8	1.42	0.84-2.22	33.5	18.3	1.83 ^b	1.39-2.37	118.3	76.1	1.55 ^b	1.33-1.81	380.7	292.8	1.30 ^b	1.14-1.48
Alaska	2.3	2.3	1.00	0.40-2.13	46.1	14.0	3.28 ^b	2.17-4.89	183.8	63.8	2.88 ^b	2.31-3.57	527.2	296.9	1.78 ^b	1.49-2.11
Southern Plains	3.9	2.3	1.66 ^b	1.15-2.34	24.0	21.5	1.11	0.84-1.45	100.7	81.4	1.24 ^b	1.08-1.41	309.9	276.5	1.12 ^b	1.01-1.24
Pacific Coast	1.2	1.7	0.73	0.42-1.20	12.9	18.1	0.72 ^b	0.52-0.97	60.8	71.4	0.85 ^b	0.72-1.00	212.9	269.9	0.79 ^b	0.69-0.90
East	1.4	2.1	0.65	0.18-1.63	14.7	21.5	0.69	0.34-1.23	51.5	85.2	0.60 ^b	0.42-0.85	199.7	300.1	0.67 ^b	0.51-0.85
Southwest	2.2	1.6	1.39	0.96-1.94	12.2	17.7	0.68 ^b	0.50-0.92	45.7	70.8	0.65 ^b	0.55-0.76	86.9	257.2	0.34 ^b	0.29-0.40
Total	2.3	1.8	1.25 ^b	1.04-1.50	20.0	19.0	1.05	0.93-1.19	79.6	76.0	1.05	0.98-1.12	236.8	280.3	0.84 ^b	0.80-0.89

Source: Cancer registries in the Centers for Disease Control and Prevention's National Program of Cancer Registries and/or the National Cancer Institute's Surveillance, Epidemiology, and End Results Program. IHS indicates Indian Health Service; AI/AN, American Indians/Alaska Natives; NHW, non-Hispanic whites; RR, rate ratio; 95% CI, 95% confidence interval.

Rates are per 100,000 persons and are age-adjusted to the 2000 US standard population (19 age groups; Census P25-1130).

^bThe RR is statistically significant ($P < .05$).

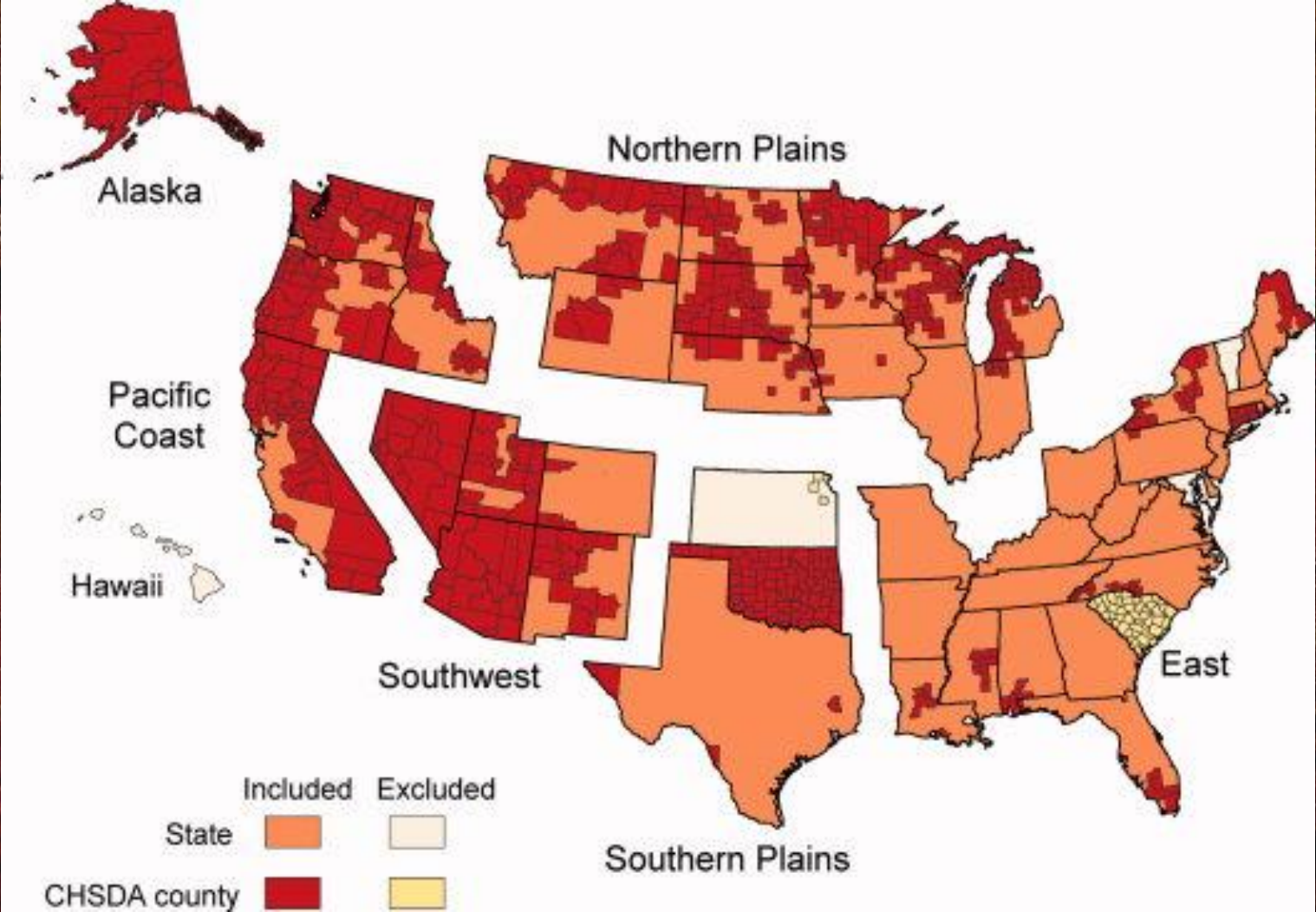
Years of data and registries used: 1999-2004 (41 states and the District of Columbia); Alaska,* Alabama,* Arkansas, Arizona,* California,* Colorado,* Connecticut,* the District of Columbia, Delaware, Florida,* Georgia, Hawaii, Iowa,* Idaho,* Illinois, Indiana,* Kentucky, Louisiana,* Massachusetts,* Maine,* Michigan,* Minnesota,* Missouri, Montana,* North Carolina,* Nebraska,* New Hampshire, New Jersey, New Mexico,* Nevada,* New York,* Ohio, Oklahoma,* Oregon,* Pennsylvania,* Rhode Island,* Texas,* Utah,* Washington,* Wisconsin,* West Virginia, and Wyoming; 1999 and 2002-2004: North Dakota,* 2001-2004: South Dakota,* 2003-2004: Mississippi* and Virginia; 2004: Tennessee (asterisks indicate states with at least 1 county designated as a Contract Health Service Delivery Area).

TABLE 1
Colorectal Cancer Incidence by Sex and Indian Health Service Region for American Indians/Alaska Natives and Non-Hispanic Whites: US, 1999-2004*

IHS Region	Sex	CRCA Counts					All Counts						
		AI/AN Count	AI/AN Rate ^a	95% CI for Rate ^a	NHW Rate ^a	RR	AI/AN Count	AI/AN Rate ^a	95% CI for Rate ^a	NHW Rate ^a	RR		
Northern Plains	Both sexes	533	72.3	63.7-81.3	62.3	1.37 ^b	1,150,132	690	54.9	50.9-59.6	56.7	1.00	632,118
	Males	281	46.9	37.5-56.3	41.3	1.07	1,150,130	587	46.9	43.0-50.8	46.9	1.00	301,116
Alaska	Both sexes	252	25.8	22.8-28.8	26.1	1.37 ^b	1,151,152	205	16.7	15.1-18.3	16.7	1.00	95,111
	Males	130	13.0	11.0-15.0	13.0	1.00	1,151,152	100	8.6	7.6-9.6	8.6	1.00	43,111
Southern Plains	Both sexes	370	30.6	26.6-34.6	29.8	2.00 ^c	2,192,211	370	10.6	9.6-11.6	10.6	2.00 ^c	1,780,211
	Males	183	18.3	16.3-20.3	18.3	1.00	2,192,211	183	8.3	7.3-9.3	8.3	1.00	810,211
Pacific Coast	Both sexes	272	30.2	26.2-34.2	29.8	1.02	1,150,152	207	16.2	14.2-18.2	16.2	2.00 ^c	2,811,152
	Males	136	13.6	11.6-15.6	13.6	1.00	1,150,152	107	9.2	8.2-10.2	9.2	1.00	1,310,152
East	Both sexes	376	70.3	62.3-78.3	62.3	1.11	6,096,124	431	66.2	61.2-71.2	66.2	0.93	6,013,124
	Males	191	19.1	17.1-21.1	19.1	1.00	6,096,124	162	10.1	9.1-11.1	10.1	1.00	3,006,124
Southwest	Both sexes	454	38.7	34.7-42.7	41.3	0.93 ^d	6,072,438	374	28.4	24.4-32.4	28.4	0.93 ^d	6,072,438
	Males	231	23.1	21.1-25.1	23.1	1.00	6,072,438	201	13.1	12.1-14.1	13.1	1.00	3,036,438
Total	Both sexes	233	23.6	20.6-26.6	23.6	1.00	6,072,438	202	15.7	14.7-16.7	15.7	1.00	6,072,438
	Males	117	11.7	10.7-12.7	11.7	1.00	6,072,438	102	6.7	5.7-7.7	6.7	1.00	3,036,438
NHW	Both sexes	44	16.1	14.1-18.1	16.1	1.00	6,072,438	42	12.9	11.9-13.9	12.9	1.00	6,072,438
	Males	20	10.0	9.0-11.0	10.0	1.00	6,072,438	18	6.4	5.4-7.4	6.4	1.00	3,036,438
Total	Both sexes	390	20.1	18.1-22.1	20.1	1.00	6,072,438	370	14.9	13.9-15.9	14.9	1.00	6,072,438
	Males	211	10.5	9.5-11.5	10.5	1.00	6,072,438	192	6.4	5.4-7.4	6.4	1.00	3,036,438

Notes: CRCA indicates Colorectal Cancer; AI/AN, American Indians/Alaska Natives; NHW, non-Hispanic whites; RR, rate ratio; 95% CI, 95% confidence interval. *Data are for the United States; Alaska is included in the Northern Plains region. ^aAI/AN rates are per 100,000 persons and are age-adjusted to the 2000 US standard population (19 age groups; Census P25-1130). ^bRR is statistically significant ($P < .05$). ^cRR is statistically significant ($P < .01$). ^dRR is statistically significant ($P < .001$). ^eRR is statistically significant ($P < .0001$). ^fRR is statistically significant ($P < .0001$). ^gRR is statistically significant ($P < .0001$). ^hRR is statistically significant ($P < .0001$). ⁱRR is statistically significant ($P < .0001$). ^jRR is statistically significant ($P < .0001$). ^kRR is statistically significant ($P < .0001$). ^lRR is statistically significant ($P < .0001$). ^mRR is statistically significant ($P < .0001$). ⁿRR is statistically significant ($P < .0001$). 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State and Contract Health Service Delivery Area (CHSDA) counties by IHS region



Cancer incidence rates, both sexes combined, CHSDA and all counties

Type of Cancer	AIAN	NHW	AIAN:NHW
CHSDA-All sites	368.4	475.9	0.77
Kidney	18.2	12.6	1.45
Stomach	10.8	5.8	1.88
Cervix	9.4	7.4	1.28
Liver	9.0	4.3	2.11
Gallbladder	3.3	0.9	3.59
All Co.-All sites	275.5	479.0	0.58

Incidence rates for AI/AN vs. NHW *males* by IHS region, 1999-2004

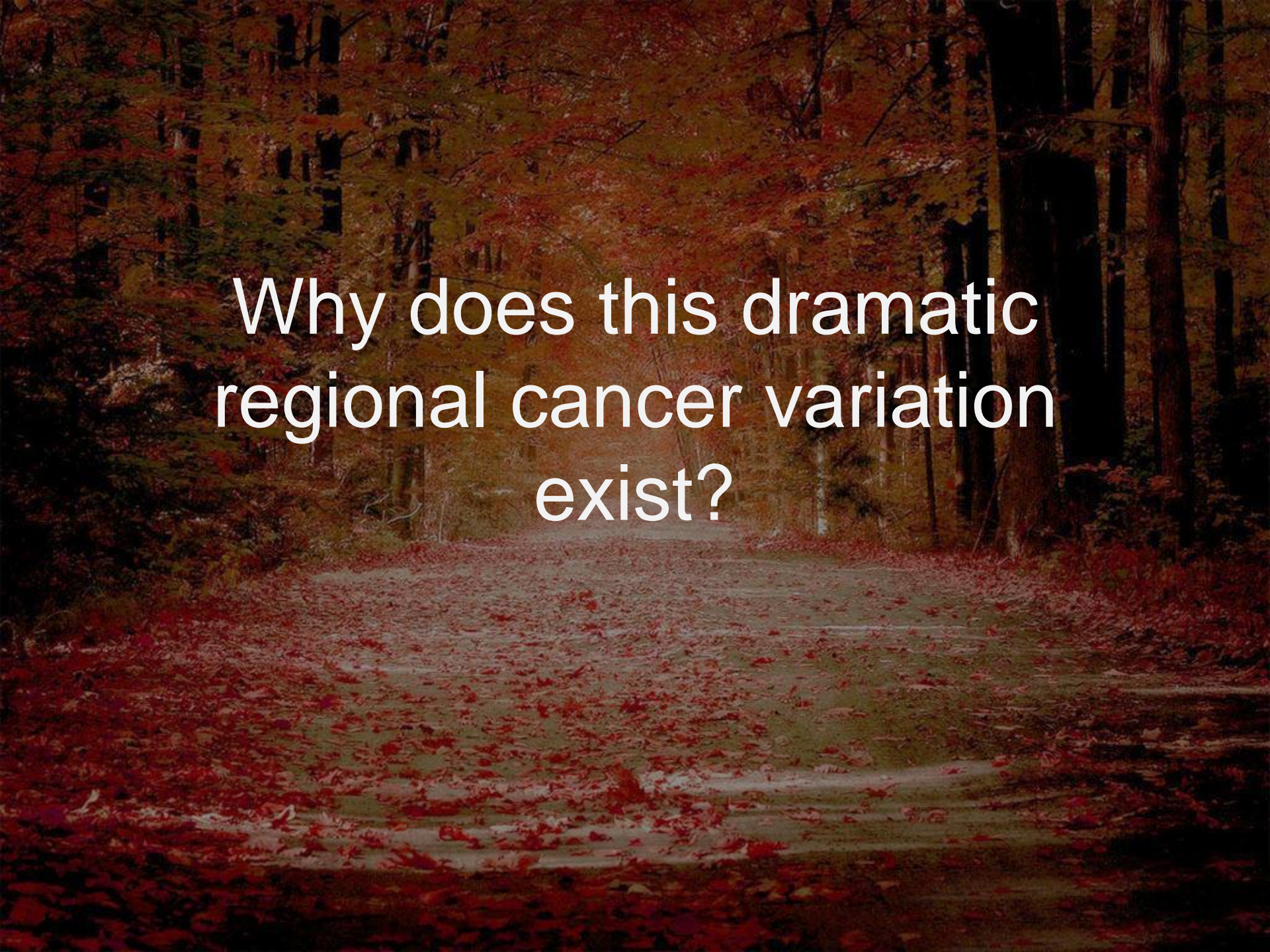
Type	AIAN	NHW	NP	AL	SP	PC	East	SW
All sit	414.6	549.2	636.1	538.7	573.4	338.0	308.9	256.2
Prost	105.6	154.4	174.6	78.3	156.7	83.2	83.9	65.7
Lung	69.6	85.9	119.8	115.3	111.0	57.7	51.0	21.2
CRC	52.6	59.8	88.9	98.5	70.3	44.0	31.1	25.7
Renal	23.2	17.2	29.2	28.6	25.1	15.2	15.3	25.2
Blad	16.5	41.5	26.8	23.0	25.0	14.1	22.8	5.7
NHL	15.2	23.1	19.2	13.2	24.2	12.5	5.5	10.9
Stom	14.7	8.5	18.7	34.6	10.5	12.2	7.9	15.3
Oral	13.1	16.4	22.6	20.5	18.4	12.2	11.3	4.7

Incidence rates for AI/AN vs. NHW females by IHS region, 1999-2004

Type	AIAN	NHW	NP	AL	SP	PC	East	SW
All sit	337.6	424.0	471.1	500.7	440.9	295.1	272.0	218.3
Breas	85.3	134.4	115.9	134.9	115.7	74.7	71.4	50.8
Lung	48.5	58.6	93.8	75.4	69.9	48.0	43.5	10.4
CRC	41.6	43.6	59.8	106.2	53.8	35.0	39.7	17.3
Uteru	18.1	23.6	19.5	13.6	22.4	16.7	15.2	16.7
Renal	14.2	8.7	19.3	12.0	18.1	10.2	14.0	12.4
NHL	13.1	16.4	18.0	9.9	18.5	12.5	8.8	8.8
Ovary	11.5	14.4	11.0	7.3	14.7	10.0	5.9	12.5
Pancr	9.8	9.4	12.5	11.9	10.1	11.1	7.0	7.7

SELECTED CANCER Incidence rates for AI/AN (CHSDA) vs. OTHER POPS

Type	AIAN	NHW	NP	AL	SW	Low USA	Low Global	High Global
All sit	368.4	475.9	636.1	538.7	256.2		84.2 (ALG)	326.1 (DEN)
Breas	85.3	134.4	115.9	134.9	50.8	73.2 AANM	18.0 (THA)	109.2 (BEL)
Lung	57.4	70.3	104.3	93.2	14.9	32.5 (HIS)	24.6 (JAP)	52.0 (HUN)
CRC	46.3	50.8	72.5	102.6	21.0		< 5 (SSA)	
Uteru	18.1	23.6	19.5	13.6	16.7		2.8 (CHI)	> 45 (SSA)
Prost	105.6	154.4	174.6	78.3	65.7	58.0 (API)	3.9 (IND)	

A photograph of a forest path covered in fallen red leaves. The path is a light brown color, and the surrounding trees are mostly bare, with some green foliage visible in the background. The overall scene is autumnal and somewhat somber.

Why does this dramatic
regional cancer variation
exist?



An Ecosocial Model of Population Health

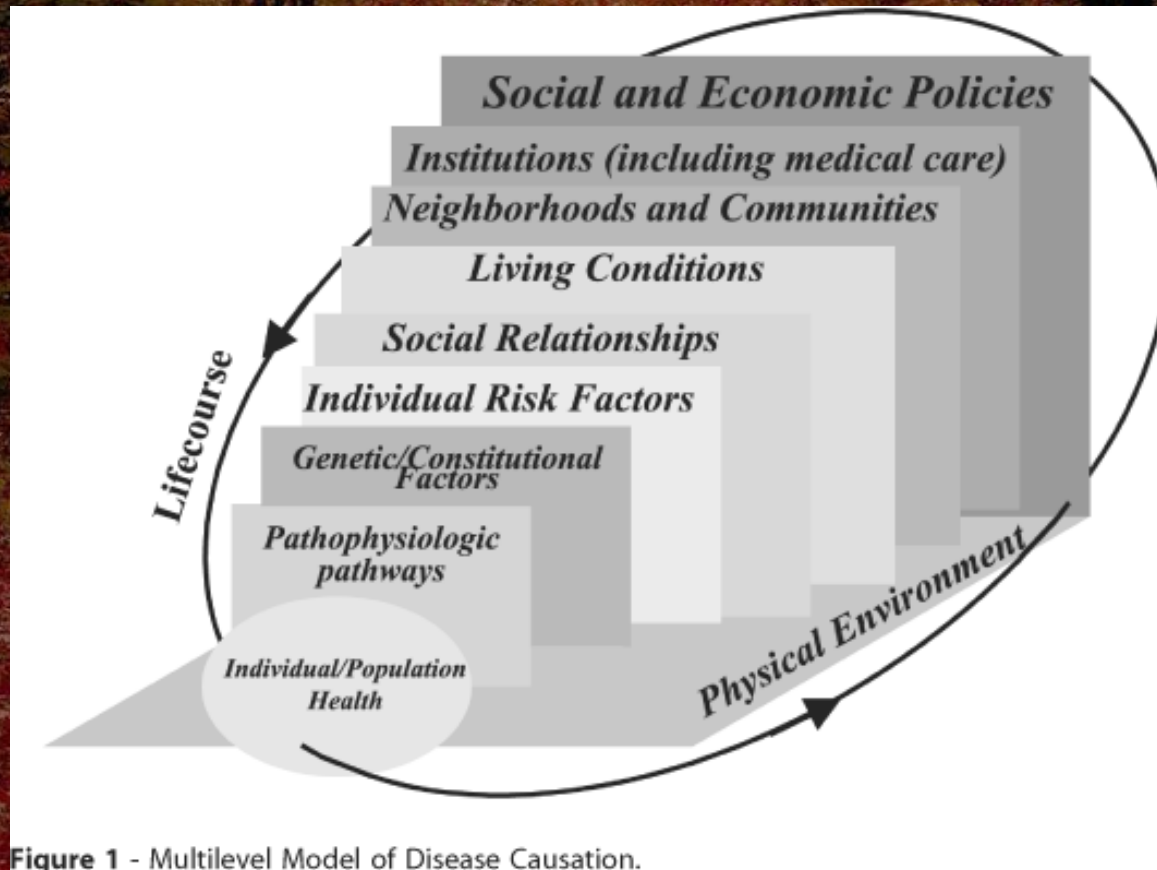


Figure 1 - Multilevel Model of Disease Causation.

Kaplan GA, Upstream approaches to reducing socioeconomic inequalities in health, *Rev Bras Epidemiol* 2002; 5(Supl 1):18-27.

Why does this variance exist?

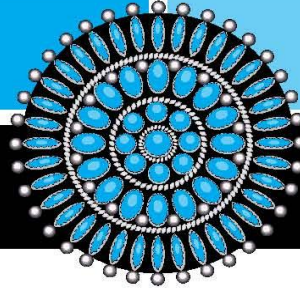
- Tobacco use certainly relates to several of the cancer types
- We might possibly not appreciate the relationship between other cancer types and tobacco use
- Quite possibly a yet undescribed protective factor at work in the Southwest, East and Pacific Coasts
- Research desperately needed to follow-up these findings
- A chance to change from a deficit-based orientation to an asset-based one

Using Policy to Influence Change

- Tobacco- and smoking-related policy is key
- Not simply smoke-free bans
- Lots of related work on Navajo Nation

Team Navajo





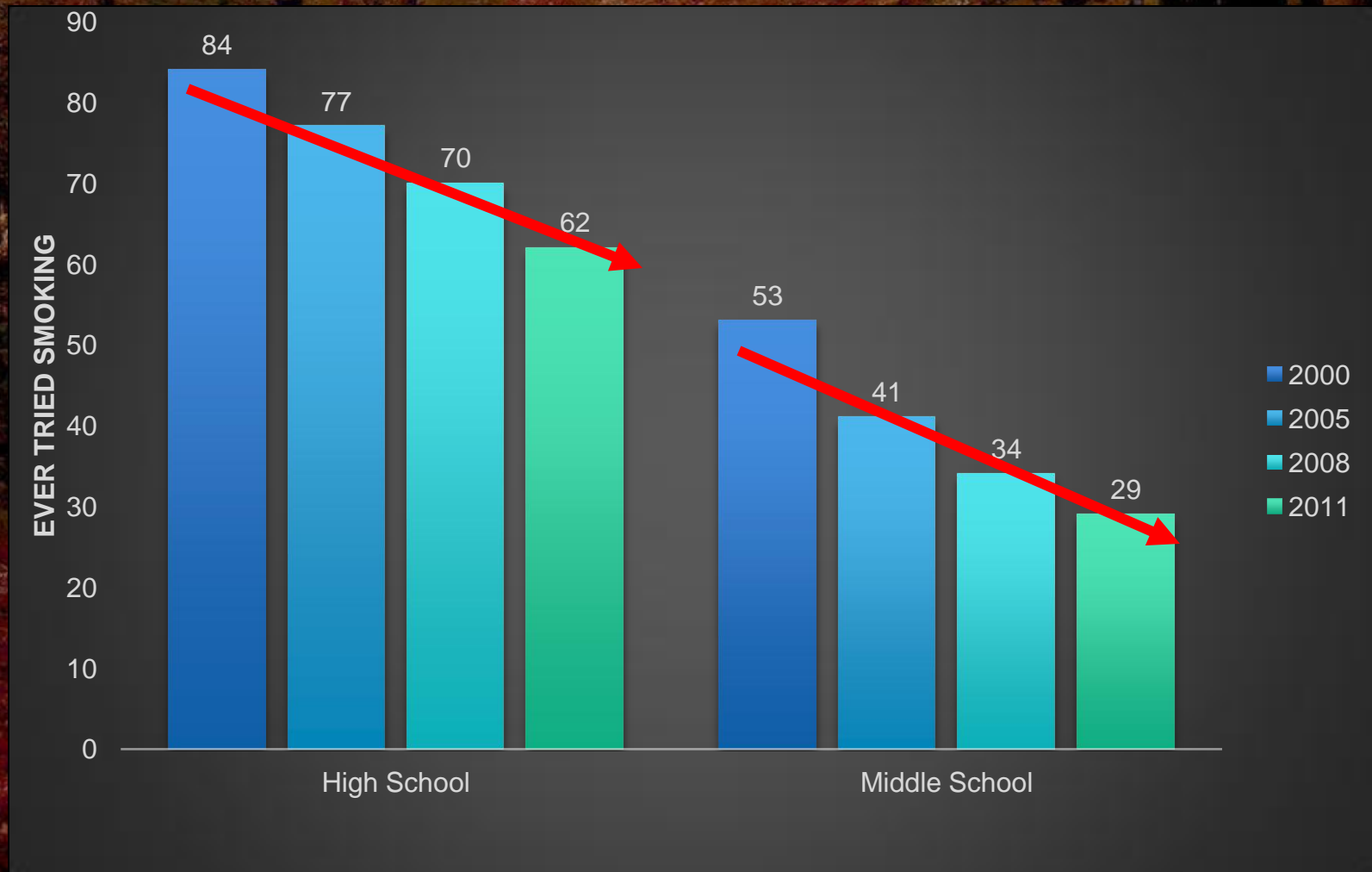
Navajo Nation Cigarette Excise Tax Increases Estimated New Revenues, Cost Savings, and Other Benefits & Effects

Current Cigarette Tax Rate in the Navajo Nation: 40 cents per pack
Fiscal Year 2009 Tobacco Tax Revenue: \$341, 950

\$.75 vs \$1.50

Tax Increase Per Pack	Additional New State Cig. Tax Revenue (Thousands/Year)	Youth Smoker Decline	Fewer Future Youth Smokers	Fewer Adult Smokers	Overall Long-Term Health Savings (Millions)
\$0.75	\$480.00	-6.5%	500	200	\$10.7
\$1.50	\$890.00	-13%	1,000	400	\$21.3

Smoking Initiation among Navajo Youth



Protect People from SHS

The Navajo Nation Commercial Tobacco Free Act 2008 **Vetoed**

The Navajo Nation Commercial Tobacco Free Act 2009 **Killed on Floor**

Navajo Nation President Shelly's Executive Order 2011 **Attorney General did not signed**

The Navajo Nation Commercial Tobacco Free Act 2011 **Did not get through Council Committees**

Navajo Nation Smoking Regulation Act of 2011 **Gaming Enterprise Legislation was Vetoed by President**

Commercial Tobacco Companies Use Casinos to Sell More Cigarettes

- DRAFT -

ECONOMIC CONSEQUENCES OF BANNING SMOKING
~~IN THE WAGERING~~ IN THE STATE OF MISSISSIPPI
CASINOS

by

N. Keith Womer, Ph.D.
University of Mississippi

William F. Chappell, Ph.D.
University of Mississippi

*with research by
SWA*

Bates number 2072277904

A Report Submitted to Philip Morris Management *Corp.* Inc.

February, 1998

70 students receive
Chief Manuelito award

Brother, sister serve as
Navajo Police officers

A8 Gallup team wins
NABI tournament

B1

NAVajo TIMES

WWW.THENAVAJOTIMES.COM

Y 31, 2008 THE NEWSPAPER OF THE NAVAJO PEOPLE WINDOW ROCK, NAVAJO NATION, ARIZONA 86515-0310

OF THE WEEK: *Uplifting vision: Youth cleaning, planting, fixing, Page A-6*

st legs'
evicted from
ion, used
plies, to

**Smoking ban prompts
40% cut in casino jobs**

ember 2006. Prior to that he
been living in the BCDS
house in Shiprock, according
wo people who worked with


mong the alterations he made
e palatial Farmington property
a fishpond. Ghun used BCDS
kers and company supplies to
d it, said Ronald Atcity, a laid-
BCDS welder.
Ghun) did extensive damage to
property and then bailed on it,"
Brad Ballard of B & L
struction in Aztec, N.M.

See EVICTED, Page A-4



Towards A Healthier Nation

10 THURSDAY, JUNE 23, 2011



Finding the Right Balance:

A Sensible Approach to the Smoking Ban Issue

Smoke-Free Navajo Nation Act of 2011, Legislation No. 0240-11

The Navajo Nation Gaming Enterprise seeks to work with the Navajo Nation to coordinate efforts with the Arizona and New Mexico Indian Gaming Associations to ban smoking in ALL Indian casinos - not just gambling on Navajo Casinos - and to fulfil ALL debt obligations before a total smoking ban is implemented. NNGE is a fierce believer that working together to meet on common ground, yet still educate the public about the health issues involved with smoking, will lead to a win-win for all sides.

The Navajo Casino Exception

Legislation No. 0240-11 seeks to balance the economic interests of the Navajo Nation with health and safety concerns associated with smoking commercial tobacco. This proposed legislation presents a reasonable and fair approach to restricting smoking on the Navajo Nation, and, overtime, includes Navajo casinos. The legislation establishes new common ground, ensuring healthy environments while maintaining job security for many casino and construction workers, construction-related workers and tribal business contractors.

The proposal, supported by the Navajo Nation Gaming Enterprise, looks to eliminate smoking in public venues and workplaces, but creates an exception for Navajo Casinos. This will enable the NNGE to repay its debt obligations to the Nation. Under the present loan agreement, the NNGE is indebted to the Navajo Nation for several years. The proposed legislation allows the NNGE the time necessary to repay its debt to the Nation. This will ensure that the Nation receives its repayment plus interest, on the loan from the NNGE and that needed jobs will continue. Once the loans are repaid, Navajo casinos can become smoke-free.

The proposal also allows Navajo casinos to succeed and compete with surrounding Indian-owned and non-Indian owned casinos and resorts by removing the threat of isolating Navajo casinos with a total smoking ban.

The Smoke-Free Navajo Nation Act of 2011 also works to ensure the health of the Navajo Nation gaming economy.

With more than half of the Navajo Nation looking for work, it is important to understand the many ways the Navajo Nation gaming initiative maintains and creates jobs for the Navajo Nation. If the proposed Smoke-Free Navajo Nation Act of 2011 passes, many of our members will be presented with additional job opportunities, including casino jobs, management positions, construction work, construction-related jobs and tribal business contracts, helping to reduce the all ready high unemployment rate.


Free Rock
NATIVE GAMING

Flowing Water
NATIVE GAMING

Northern Edge
NATIVE GAMING

Twin Arrows
NATIVE GAMING

rendering of the proposed Twin Arrows Navajo Casino Resort



Navajo Nation

Take Charge and Change the Odds

Vote Yes for Legislation No. 0497-08



Smoke-Filled Casinos have up to **50 Times** more Cancer-Causing Particles in the Air than Highways and City Streets Clogged with Diesel Trucks in Rush Hour Traffic.

There is **"NO Risk Free Level of Exposure"** to secondhand smoke. Even the **BEST** Ventilation **CANNOT** Completely Eliminate Health Risks Caused by Exposure.

SNTEPP Phone: 928-289-6483 Fax: 928-289-9372

Azeé Bee Nahaghá of Diné Nation Commercial Tobacco-free Resolution 2014



- F. Commercial smoke and smokeless tobaccos shall not be used within the Nahaghá between the time of placement of the Azeé Dah Naat'aah (Azeé Naat'áanii) on the altar and the removal at the completion of the Nahaghá for the respect of Nahaghá (prayer service).

Navajo Nation President Shelly's Executive Order 2014

THE NAVAJO NATION



BEN SHELLY PRESIDENT
REX LEE JIM VICE PRESIDENT

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FOR IMMEDIATE RELEASE
August 15, 2014

President Shelly issues Executive Order No. 12-2014 for smoke free workplace



recognition for their work and advocacy.

Vice President Rex Lee Jim praised the coalition for being persistent in revising the order to not only allow provisions for the health of Navajo employees, but to also give proper consideration for the traditional tobacco used in Navajo ceremonies.

"It is important that we do what we need to do to ensure our people have access to quality workplaces and ensure that they are not exposed to secondhand smoke," Vice President Jim said. "Thank you for working with us and let's continue to

SMOKEFREE TRIBAL CASINOS



**Tribal Casinos: Creating Safe,
Healthy Workplaces**

Factors Affecting Casino Visits

In the early 1990's, lobbyists for commercial tobacco companies invented a **myth** that businesses would lose 30% of their revenue to smokefree policies. **The fact is** that every legitimate, peer-reviewed economic study has shown that business remains the same or improves after the implementation of a smokefree law or rule. This makes sense when you consider that more than **80%** of the U.S. population is made up of nonsmokers. Many factors impact casino revenues. Some include:

- **The Competition.** There is expansion and saturation of the casino market, as well as competition with other forms of gambling (such as VGT's, Fantasy Sports betting, "Internet Cafes," and iGaming);

The Economy. There is unemployment from the...



Associated Press

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No Smoking! Ho-Chunk Gaming Is First Tribal Casino in Wisconsin to be Smoke (and Alcohol) Free

MORE INDIAN COUNTRY BUSINESS TODAY



April 26, 2016

Golf Digest Names...
The Central New York resort boasts...



April 26, 2016

Economic Summit to...

Many opportunities await tribal...

April 25, 2016



Ernie Stensgar Honored...

The prestigious Tribal Leader of the Year...

Using Policy to Influence Change

- The food environment is another key policy area





The Navajo Nation's Tax On Junk Food Splits Reservation

3:54
April 8, 2015 · 4:04 PM ET
Heard on All Things Considered

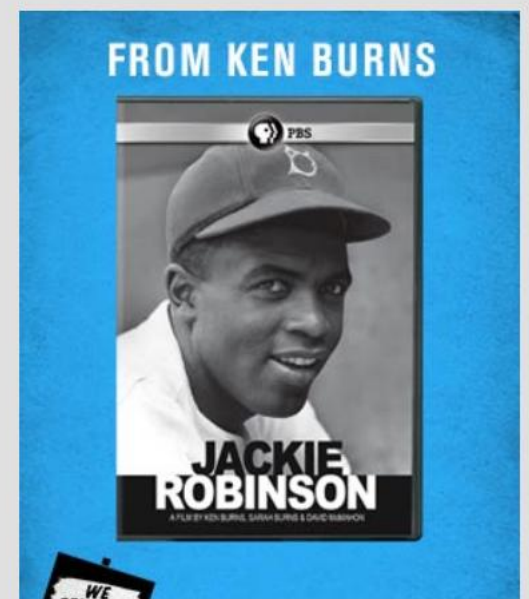
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Using Policy to Influence Change

- The clinical environment also a key policy target
- Both IHS and other federal targets
- Affordable Care Act's support for preventive measures
- Metformin use and its anti-cancer properties

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Society Information



Original Article

Strengthening breast and cervical cancer control through partnerships: American Indian and Alaska Native Women and the National Breast and Cervical Cancer Early Detection Program

David Espey MD^{1,*}, Georgina Castro MPH, MID¹, T'Ronda Flagg MPA¹, Kate Landis BA², Jeffrey A. Henderson MD, MPH², Vicki B. Benard PhD¹ and Janet E. Royalty MS¹

Article first published online: 5 AUG 2014

DOI: 10.1002/cncr.28824

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Cancer
Supplement: National Breast and Cervical Cancer Early Detection Program: Two Decades of Service to Underserved Women
Volume 120, Issue S16, pages 2557–2565, August 15, 2014



Additional Information (Show All)

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- Publication History

The findings and conclusions in this article are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention

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Using Policy to Influence Change

- The broader environment is also a key policy area
- Point source exposures
- Worker's safety
- The role of environmental health research to guide policy development

CONCLUSIONS

- American Indians and Alaska Natives experience dramatic regional variation in cancer incidence when compared to NHWs
- This variation should be taken into account in both policy and surveillance efforts
- Many influences on individual- and population-health
- Many potential policy levers exist that could help lessen cancer

CONCLUSIONS

- Tribal/community, clinical, and national leadership and governmental financial support are essential
- Further research is needed to determine effective preventive interventions
- Successful interventions need to be replicated
- Ongoing surveillance of behaviors and conditions is essential to gauge progress
- Greater participation on the part of AIAN Tribes, communities and people is essential to efforts to improve health

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