

# Patterns of Cancer: One Tribe's Experience

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## Breast cancer

- 86.9% of SD women  $\geq 40$  y.o. received a mammogram in past 2 years (SD 2002 BRPSS)
- 39.4% of AI-SD women  $\geq 50$  y.o. reported clinical breast exam and mammogram in past 2 years.

Source: 2005 South Dakota Comprehensive Cancer Control Plan: 2005-2010

## Cervical Cancer (CC)

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- New cases of CC among AI women is 2x the rate of CC in white women
- Mortality rate for AI is 6x rate of death for white women, 1997-2001
- 88.4% of SD women  $\geq 18$  years have had Pap test in past 3 years (SD 2002 BRFSS)

Source: 2005 South Dakota Comprehensive Cancer Control Plan, 2005-2010.

## Lung cancer: Age-adjusted rate per 100,000 population

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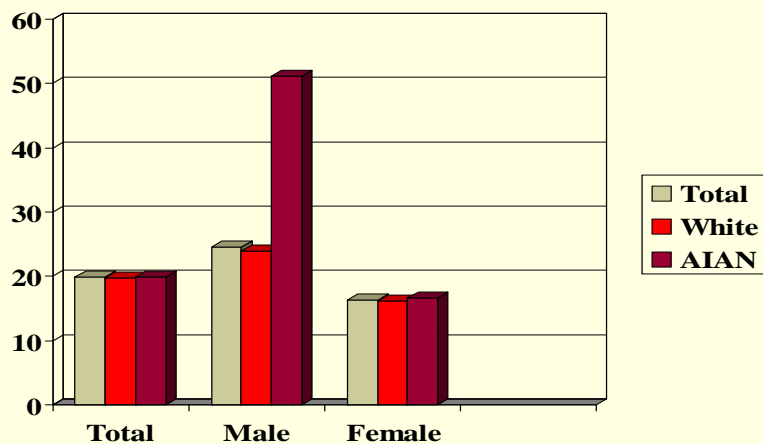
- **Incidence:**
  - 59.2 All Races
  - 59.6 White
  - Rate not available for AIAN (14 cases)
  - 58.5 U.S.
- **Mortality:**
  - 47.6 All Races
  - 47.5 White
  - Rate not available for AIAN (15 cases)
  - 54.2 U.S.

Source: South Dakota Department of Health

## Prostate Cancer Age-adjusted rates per 100,000 population

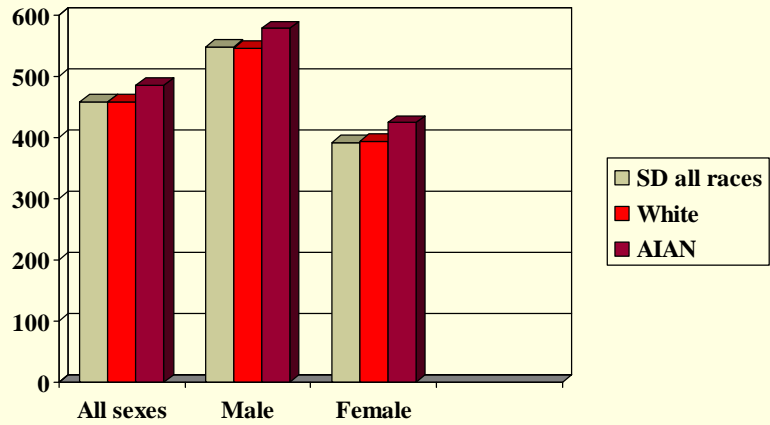
- **Incidence:**
  - 181.3 All Races
  - 180.3 White
  - 165.1 AIAN (16 cases)
- **Mortality:**
  - 29.7 All Races
  - 29.3 White Rate
  - Not available AIAN (4 cases)
  - 18.2 US AIAN
- 75% diagnosed in Localized stage
- Family history, fat consumption, & cadmium exposure increase risk

## Colo-rectal Cancer age-adjusted mortality by race and gender, South Dakota, 2001-2005

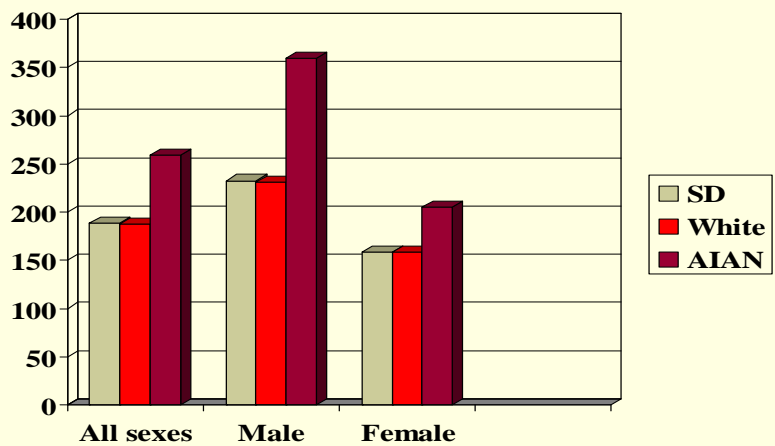


Source: SD Department of Health, Cancer in SD 2003

Age-adjusted Incidence by Gender and Race/Ethnicity, 2002, South Dakota

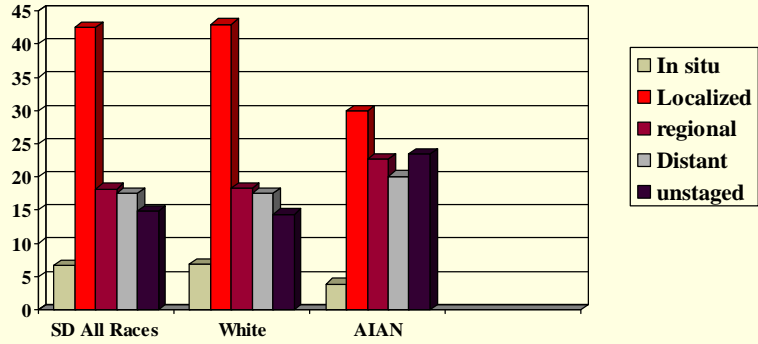


Age-adjusted Mortality rates by gender and race/ethnicity, 2003, South Dakota



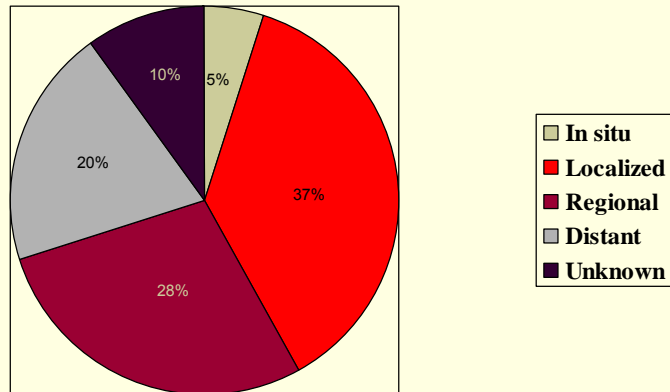
Source: Cancer in South Dakota 2003

Stage at Diagnosis by Race/Ethnicity (%),  
2003, South Dakota



Source: Cancer in South Dakota 2003

Colo-rectal Cancer Stage at Diagnosis, 2005, South Dakota



## Tribes of South Dakota



## Tribal Resources

- Tribal Government Programs
- Indian Health Service
- Casino & Hotel
- Local businesses
- Tribal schools
- Tribal members
- Land

## What are the patterns of cancer care in SD AI populations?

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- One tribe's experience
- Review RPMS data to search for descriptive data
- How far people travel?
- Types of cancer?
- Treatment received? Completed?
- Stage at diagnosis? Type of provider?
- Referral and F/U patterns?

## Age at CA Diagnosis

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■ Age Groups	#	(%)
■ 20-29	3	( 4.29)
■ 30-39	0	
■ 40-49	5	( 7.14)
■ 50-59	15	(21.43)
■ 60-69	25	(35.71)
■ 70-79	15	(21.43)
■ 80-89	7	(10.00)
■ 90-99	0	
■ TOTAL	70	(100%)

## Gender

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■ Gender	#	%
■ Female	34	50
■ Male	34	50
■ TOTAL	68	100
■ Missing charts identified by RPMS =6		

## Number of all visits made, RPMS

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# of visits	Freq.	Percent	Cumulative
0	14	19.44	19.44
1- 10	4	5.56	25.00
11-20	9	12.50	37.50
21-30	8	11.11	48.61
>30	11	15.28	63.89
<u>Missing</u>	<u>26</u>	<u>36.11</u>	<u>100.00</u>
TOTAL	72	100.00	

## Colo-rectal Cancer n= 16

- 7 males; 9 females
- Treatment:
  - 3 surgery;
  - 1 radiation;
  - 8 chemo;
  - 1 not treated due to advance disease
- Stage of DX:
  - 1-Stage I;
  - 4-Stage II;
  - 2-Stage IV;
  - 8-no staging info
- 13 smokers; 5 alcohol users
- 4 died within time period

## Lung Cancer n=21

- 15 males; 6 females
- **Treatment:**
  - 2 surgery;
  - 8 chemo;
  - 5 radiation;
  - 7 no Tx-adv disease;
  - 1 refused Tx
- **Stage of Diagnosis:**
  - 5-Stage III;
  - 4-Stage IV;
  - 12-no staging info
- **20 smokers; 9 also alcohol users**
- **15 died within time period**

## Breast Cancer n=14

- 14 females
- **Treatment:**
  - 8 radical mastectomy
  - 4 lumpectomy
  - 5 chemo; 1 refused
  - 2 palliative chemo
- **Stage of Dx:** 2-Stage I;
  - 2-Stage II;
  - 1-Stage III;
  - 2-Stage IV;
  - 7 no info
- 10 smokers; 2 alcohol users
- 2 died within time period

## Prostate Cancer n=11

- 11 Males
- **Treatment:**
  - 1 Surgery; 1 inoperable
  - 2 chemo
  - 1 radium implants; 1 refused tx
- **Stage of Dx:**
  - 1-St II;
  - 1 St IV;
  - 1 Adv with metastasis
- 6 smokers; 2 also alcohol users
- 2 died within time period

## Other cancers n=7

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- 1 melanoma
- 1 renal
- 1 “intraepidermal sq cell ca ...”
- 1 larynx
- 2 cervix
- 1 pancreas
- 5 smokers; 1 alcohol user

## Survival (date of dx-Jan 2008)

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- N=49: < 5 years
- 10: 5-9 years
- 6: ≥ 10 years
- 7 no information

## Death Certificates

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- 27 total deaths
  - 12 with missing death certificates
  - 15 death certificates in chart

## Distance to Providers

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- Most referred out of state, av. 170 miles RT
- Few to instate facilities (100-300 miles RT)
- Tx offered through Cancer Treatment Center
- Approx 10 miles from home to clinic

## Challenges

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- RPMS selects any mention of cancer
- Selects cancer diagnosis from past if mentioned in present time period “hx of ca”
- Charts missing
- Referral notes not returned
- Lab or biopsy reports not in charts
- Not all volumes available
- No reports from cancer registries

## Challenges

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- Veterans’ charts difficult to read; pt come in for referral – no consultation information returned
- Some partial medical notes from out of state
- Very few screened before diagnosis
- Clinic visits increase after diagnosis
- Poor record of cancer treatment
- Request for medical record in some charts but not always followed by referral facility

## Future

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- Update local comprehensive cancer planning
- Support AATCHB plan to improve cancer data
- Embark on Area –wide study with AATCHB
- Improve communication among partners, tribe, registries, providers
- Capacity building – cancer data & case manager

## Acknowledgements

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- Local Tribe, Health Board
- Service unit
- National Cancer Institute
- Dr. Nina Wampler

