



Cancer Mortality Among Persons Diagnosed with HIV Disease, New Jersey, 2000-2018

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Debbie Mohammed, DrPH

Associate Professor, William Paterson University

Eugene Martin, PhD

Professor, Robert Wood Johnson Medical School

Barbara Bolden, PhD

Director, Center for Health Statistics and Informatics

New Jersey Department of Health

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Background

- Untreated HIV infection affects the immune system; inflammatory processes lead to increased morbidity and eventual death
- Antiretroviral therapy lessens these effects, and Persons Living With HIV (PLWH) now have a higher life expectancy ^(1,2)
- Cancer risk among PLWH, in the USA, is higher than in the general population; with a decrease in AIDS defining cancers (ADC) and an increase in non-AIDS defining cancers (NADCs) ^(3,4)

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Purpose and Methods

- **Purpose:** Evaluate trends in cancer mortality for ADC and NADCs in Persons With Diagnosed HIV (PWDH), aged > 20 years in New Jersey from 2000-2018.
- **Methods:** Calculate the indirect standardized mortality ratios (SMRs) using the New Jersey 2010 population as the standard
- The proportion of specific cancer in each time-period (2000-2004, 2005-2009, 2010-2014, 2015-2018) was used to rank the top five underlying causes of cancer mortality
 - Assessed by age, sex, race-ethnicity and area of prevalence

Results

Table 1a: SMR for Non-AIDS Defining Cancers, by Sex, among Persons with Diagnosed HIV, New Jersey, 2000-2018, N=391

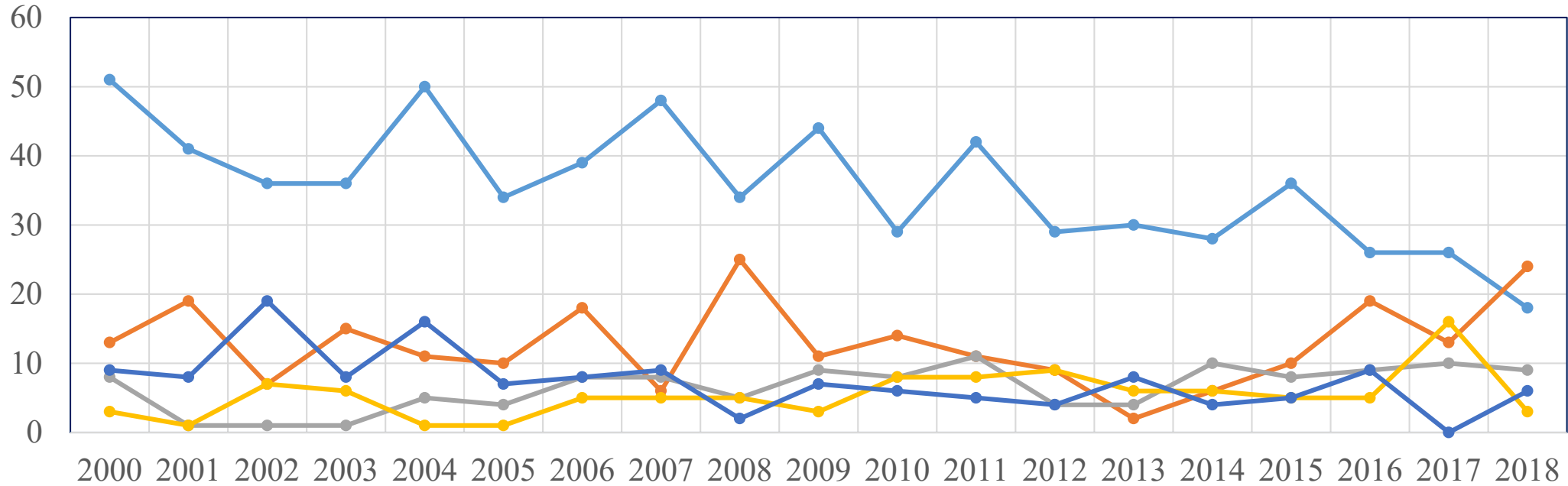
Cancer Mortality Cause (ICD10 Code)	Male SMR (95% CI)	Male N (%)*	Females SMR (95% CI)	Female N (%)*	Total SMR (95% CI)	Total N (%)**
Oral (C05-06, C10-11, C14, C32)	478 (297-658)	27 (69)	1,194 (545-1,843)	12 (31)	539 (409-777)	39 (10)
Liver (C22)	531 (370-691)	42 (75)	675 (308-1040)	14 (25)	559 (411-707)	56 (14)
Stomach/ Pancreas (C16, C25)	153 (94-212)	27 (77)	107 (32-181)	8 (23)	139 (92-186)	35 (9)
Colorectal (C18-20)	256 (195-336)	52 (75)	179 (94-263)	19 (25)	238 (182-293)	71 (18)
Lung (C34-35)	220 (178-263)	104 (72)	202 (139-265)	41 (28)	215 (180-250)	145 (37)
Female Breast (C50)	--	--	120 (76-163)	30	120 (76-163)	30 (8)
Prostate (C61)	89 (44-134)	15	--	--	89 (44-134)	15 (4)

Table 1b: SMR for AIDS-Defining Cancers, by Sex, among Persons with Diagnosed HIV, New Jersey, 2000-2018, N= 575

Cancer Mortality Cause (ICD10 Code)	Male SMR (95% CI)	Male N (%)*	Females SMR (95% CI)	Female N (%)*	Total SMR (95% CI)	Total N (%)**
Cervix (C53)	--	--	963 (530-1,396)	20	963 (530-1,396)	20 (3)
Hodgkin's Lymphoma (C81)	4,251 (2,514-5,989)	25 (78)	3,432 (890-5,974)	7 (22)	4,027 (2,586-5,469)	32 (6)
Non-Hodgkin's Lymphoma (C83, C85)	4,016 (3,574-4,458)	321 (75)	3,292 (2,569-3,574)	107 (25)	3,809 (3,445-4,173)	428 (74)
Kaposi Sarcoma (C46)	53,956 (42,485-65,426)	89 (94)	45,140 (9,021-81,259)	6 (6)	53,270 (42,325-64,214)	95 (17)

SMR: Standardized Mortality Ratios CI: Confidence Interval
*Row percent **Column percent

Results 2



Cancer Type

—●— NHL* —●— Lung —●— CR* —●— Liver* —●— KS*

Figure: Trends in the top five cancers among PWDH, 2000-2018

Results 3

Characteristics of PWDH and Cancer Mortality, 2015-2018

AIDS Defining Cancer

Characteristics N=180	NHL N=51 N (%)	KS N=12 N (%)
Sex	--	--
Male (n=124)	34 (67)	11 (92)
Female (n=56)	17 (33)	--
Race/Ethnicity	--	--
Black (n=113)	29 (57)	9 (75)
Other (n=67)	22 (43)	--
Age	--	--
20-44 (n=29)	15 (30)	8 (67)
45-54 (n=36)	15 (29)	--
≥55 (n=115)	21 (41)	--

Non-AIDS Defining Cancer

Characteristics N=180	Lung N=26 N (%)	Colo-rectal N=16 N (%)	Liver N=11 N (%)
Sex	--	--	--
Male (n=124)	16 (62)	10 (63)	9 (82)
Female (n=56)	10 (38)	6 (37)	--
Race/Ethnicity	--	--	--
Black (n=113)	15 (58)	13 (81)	7 (64)
Other (n=67)	11 (42)	--	4 (36)
Age	--	--	--
20-44 (n=29)	--	--	--
45-54 (n=36)	--	--	--
≥55 (n=115)	23 (89)	12 (75)	9 (82)

Data not reported for cell sizes less than 5

Conclusion

- Cancer mortality declined from 2000 to 2018 in New Jersey. However, similar to previous reports, mortality due to non-ADCs cancers have increased while ADCs have declined.
- Lung and colo-rectal cancer were at least twice as common among both males and females with HIV, compared to the New Jersey general population. (5)
- Non-Hodgkin's Lymphoma was the most common ADC from 2000-2018
- Need for increased screening for Non-ADCs in an aging New Jersey cohort of PLWH

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