Connecticut Latinos: Lower Age-Adjusted Death but Higher Premature Mortality Rates Compared With White Residents

Margaret M. Hynes, PhD, MPH,

Lloyd M. Mueller, PhD, Heping Li, PhD,

Federico Amadeo, MPA –

Connecticut Department of Public Health

Presented at the 132nd Annual Meeting of the American Public Health Association
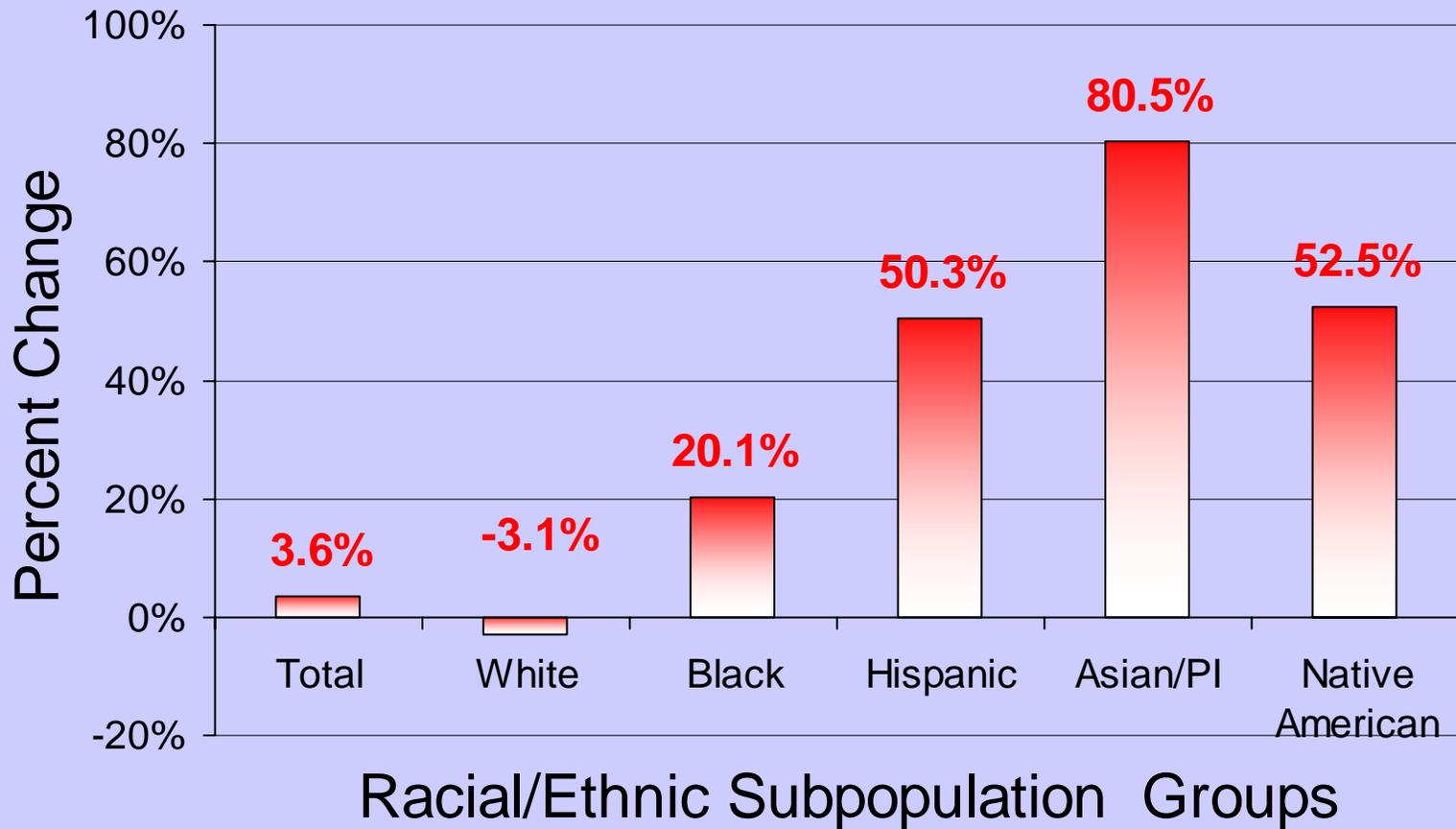
Washington, D.C.

Wednesday, November 10, 2004

12:30 p.m.

OVERVIEW

- Connecticut Population
- Data Sources and Methodology
- Latino Mortality "Paradoxes"
- Conclusions
- Discussion

Population Growth 1990 - 2000
Connecticut Subpopulation Groups

Percent Change vs **Racial/Ethnic Subpopulation Groups**

- Total: 3.6%
- White: -3.1%
- Black: 20.1%
- Hispanic: 50.3%
- Asian/PI: 80.5%
- Native American: 52.5%

Connecticut Population 1990 & 2000

Race / Ethnicity	1990	2000	# Change	% Change
White	2,756,868	2,672,622	- 84,246	- 3.1%
Black	261,934	314,642	+ 52,708	+ 20.1%
Hispanic	213,116	320,323	+107,207	+ 50.3%
Asian/PI	49,238	88,890	+ 39,652	+ 80.5%
Native American	5,960	9,088	+ 3,128	+ 52.5%
Total	3,287,116	3,405,565	+ 118,449	+ 3.6%

Per Capita Income – CT Residents by Race/Ethnicity

- Latino/Hispanic (all races): $13,123
- African American/Black: $16,685
- American Indian: $18,186
- Native Hawaiian & PI: $18,345
- Asian: $27,948
- White, Non-Hispanic: $32,330

Source: 2000 Census (Connecticut Residents)

Educational Attainment - CT residents 25 Years and Older by Race/Ethnicity

Less than a High School diploma:

- 42% of all Latinos/Hispanics (all races)
- 26% of all African Americans/Blacks
- 32% of all American Indians
- 20% of all Native Hawaiian & PI
- 15% of all Asians
- 13% of all White, Non-Hispanics

Data Source & Methodology

- Connecticut Death Registry
  – 1989-1991, 1996-1998, and 1999-2001

- Age-Adjusted Mortality Rates, Age-Adjusted Years of Potential Life Lost (YPLL) Rates, and Age-specific Mortality Rates were examined.

- Relative Risks were calculated.

Data Source & Methodology

- Between-group differences in age-adjusted rates were evaluated by comparing the respective 95% and 99% confidence intervals.

- Age-specific differences and annual trends were evaluated using logistic regression models.

Some Limitations

- 1989-1991 mortality data had substantial information missing on Latino/Hispanic ethnicity.

- 1989-1991 & 1996-1998 mortality data are classified according to ICD-9 codes, while 1999-2001 data are classified according to ICD-10 codes.

- Currently we do not have usable indicators of socioeconomic status in these mortality files.

Latino Mortality Paradox

Despite their less favorable socio-economic profile, which would supposedly predispose them to higher mortality rates, Latinos in the US (& Connecticut) have lower age-adjusted, all-cause mortality than do white, non-Latinos (Abraido-Lanza, et al. 1999).

A Second Latino Mortality Paradox?

Despite their lower age-adjusted all-cause mortality rate, Latino residents of Connecticut have higher *premature* (< 75 years) all-cause mortality rates compared with non-Latino white residents.

Leading Causes of Death *(ranked according to number of deaths)* Connecticut Residents, 1999-2001

Rank	All	White	African American/Black	Latino/Hispanic
1	Heart disease	Heart disease	Heart disease	Heart disease
2	Cancer	Cancer	Cancer	Cancer
3	Cerebrovascular Disease	Cerebrovascular Disease	Unintentional Injuries	Unintentional Injuries
4	Chronic Lower Respiratory Disease	Chronic Lower Respiratory Disease	Cerebrovascular Disease	HIV
5	Unintentional Injuries	Unintentional Injuries	HIV	Cerebrovascular Disease
6	Pneumonia & Influenza	Pneumonia & Influenza	Diabetes	Diabetes

Latino vs. White Mortality

Relative Risk of Mortality - Latino Compared with White Residents of Connecticut (1989-91, 1996-98, 1999-2001)

- Relative risk of age-adjusted mortality due to:

	1989-91	1996-98	1999-2001
All Causes	1.0	0.7*	0.8*
Heart Disease	0.6*	0.6*	0.8*
Cancer	0.6*	0.6*	0.6*

* p < .01

Source: CT Department of Public Health, Vital Records Mortality Files

Relative Risk of Mortality - Latino Compared with White Residents of Connecticut (1989-91, 1996-98, 1999-2001)

- Relative risk of age-adjusted mortality due to:

	1989-91	1996-98	1999-2001
– Uninten. Injury	1.2	1.2	1.1
– Cerebrovascular	1.1	0.7*	0.7*
– HIV	6.7*	9.0*	10.5*
– Diabetes	2.0*	1.4+	1.6*

$* \ p < .01$ $+p<.05$

Source: CT Department of Public Health, Vital Records Mortality Files

Relative Risk of Premature Mortality - Latino Compared with White Residents of Connecticut (1989-91, 1996-98, 1999-2001)

- Relative risk of age-adjusted YPLL due to:

	1989-91	1996-98	1999-2001
– All Causes	1.7*	1.4*	1.3
– Heart Disease	1.3+	1.0	1.2
– Cancer	0.8+	0.7*	0.7

* p < .01   +p<.05

Source: CT Department of Public Health, Vital Records Mortality Files

Relative Risk of Premature Mortality - Latino Compared with White Residents of Connecticut (1989-91, 1996-98, 1999-2001)

- Relative risk of age-adjusted YPLL due to:

	1989-91	1996-98	1999-2001
–Uninten. Injury	1.2	1.2	1.4
–Cerebrovascular	1.1	0.7*	1.2
–HIV	6.7*	9.0*	10.1
–Diabetes	1.6	1.8+	1.8

* $p < .01$ + $p < .05$

Source: CT Department of Public Health, Vital Records Mortality Files

Leading Causes of Death – Ranked by Premature Mortality under age 75 Latino Residents of Connecticut (1996-98)

	YPLL < 75	Rank
– Uninten. Injury	8,441	1
– HIV	6,427	2
– Heart Disease	5,682	3
– All Cancer	5,540	4
– Diabetes	745	10

Source: CT Department of Public Health, Vital Records Mortality Files

Latino vs. White Male Mortality

Latino – White Male Premature Mortality, 1996-98

- Among the leading causes of death, HIV infection and unintentional injury accounted for about 31% of all premature mortality among Latino males, while they accounted for about 19% of all premature mortality among white males.

Latino – White Male Mortality by Age Group

- We identified specific age groups where the mortality disparity departs significantly

  (p < .0014) from the estimated trend for all age groups using logistic regression models (1996-98 data).

Latino – White Male Mortality by Age Group, 1996-98

- *Under age 60*: Significantly higher all-cause mortality for Latino compared with white males.

- *Ages 60 – 74*: No significant differences in all-cause mortality.

- *Ages 75 and older*: Significantly lower all-cause mortality for Latino compared with white males.

Latina vs. White Female Mortality

Latina – White Female Premature Mortality, 1996-98

- Among the leading causes of death, HIV infection and unintentional injury accounted for about 21% of all premature mortality among Latinas, while they accounted for about 11% of all premature mortality among white females.

Latina – White Female Mortality by Age Group

- We identified specific age groups where the mortality disparity departs significantly

  (p < .0014) from the estimated trend for all age groups using logistic regression models (1996-98 data).

Latina – White Female Mortality by Age Group, 1996-98

- Latinas have significantly lower all-cause mortality compared with white females and this is fairly consistent across all age groups with two exceptions.

- *40-44 year old age group*: Latinas have significantly greater all-cause mortality compared with white females.

- *80 years and older*: Latinas have substantially lower all-cause mortality compared with white females.

Conclusions

- Connecticut Latino v. White mortality patterns are consistent with the observed "Latino Mortality paradox."

- Higher all-cause premature mortality (< age 75) among Latinos compared with whites can be largely explained by higher mortality in younger age groups due to HIV and unintentional injuries. As such, higher all-cause premature mortality among Latinos is <u>not</u> a "paradox."

Discussion

- Further examination of the apparent Latino health advantage over whites for cardiovascular diseases and cancer (in the US & CT) is warranted.

- Further examination of the behaviors and related factors that put CT Latinos at risk for premature mortality due to HIV and unintentional injuries is warranted.

Discussion

- Knowledge gained can provide insights to guide state health policies and appropriate interventions at the community level.

- Mortality patterns differ by race/ethnicity (as well as by geographic area and SES) and it is important for states to look at premature, cause-specific, and age-specific mortality when identifying priority areas for public health intervention at the state and community levels.

CONNECTICUT DEPARTMENT OF
PUBLIC HEALTH