

# Children's Health in Connecticut

Presentation to Second Year Medical  
Students

Yale University Medical School

EPH 500



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**CT Voices for  
Children**

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- Statewide, nonprofit
- Promote children's issues in the policy process, in communities and in the media
- Goal: Enable all children to become competent, responsible, contributing citizens
- Belief: Connecticut can and should be the best state in the nation to raise children



- Research and analysis on a wide variety of issues that affect children:
  - Early Care and Education
  - Health
  - Safety
  - Technology
  - Youth Development
  - Child poverty and family income
  - State Budget and Tax policy



CT Voices educates, advocates for, and shapes policy that impacts Connecticut's children and youth, because children do not have a voice in the political process.



[www.ctkidslink.org](http://www.ctkidslink.org)

# Overview

- Why talk about children's health in CT?
- Child poverty is bad for children's health
- What can be done (in the policy arena) about child poverty and children's health issues

# Data Drives Public Policy

Over the last decade, there has been a marked shift in the content of public discussions about children and families. Discussions are now much more likely to be based on research and statistical facts rather than ideology and rhetoric. News stories [and policy discussions] are more likely to rely on objective facts regarding the status of child [and family well-being].

**William P. O'Hare**  
**KIDS COUNT Coordinator**  
**The Annie E. Casey**  
**Foundation**

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# Why is children's health in CT important?



# Children's health in CT

- Definition of Children
- Definition of Health
- Why CT?

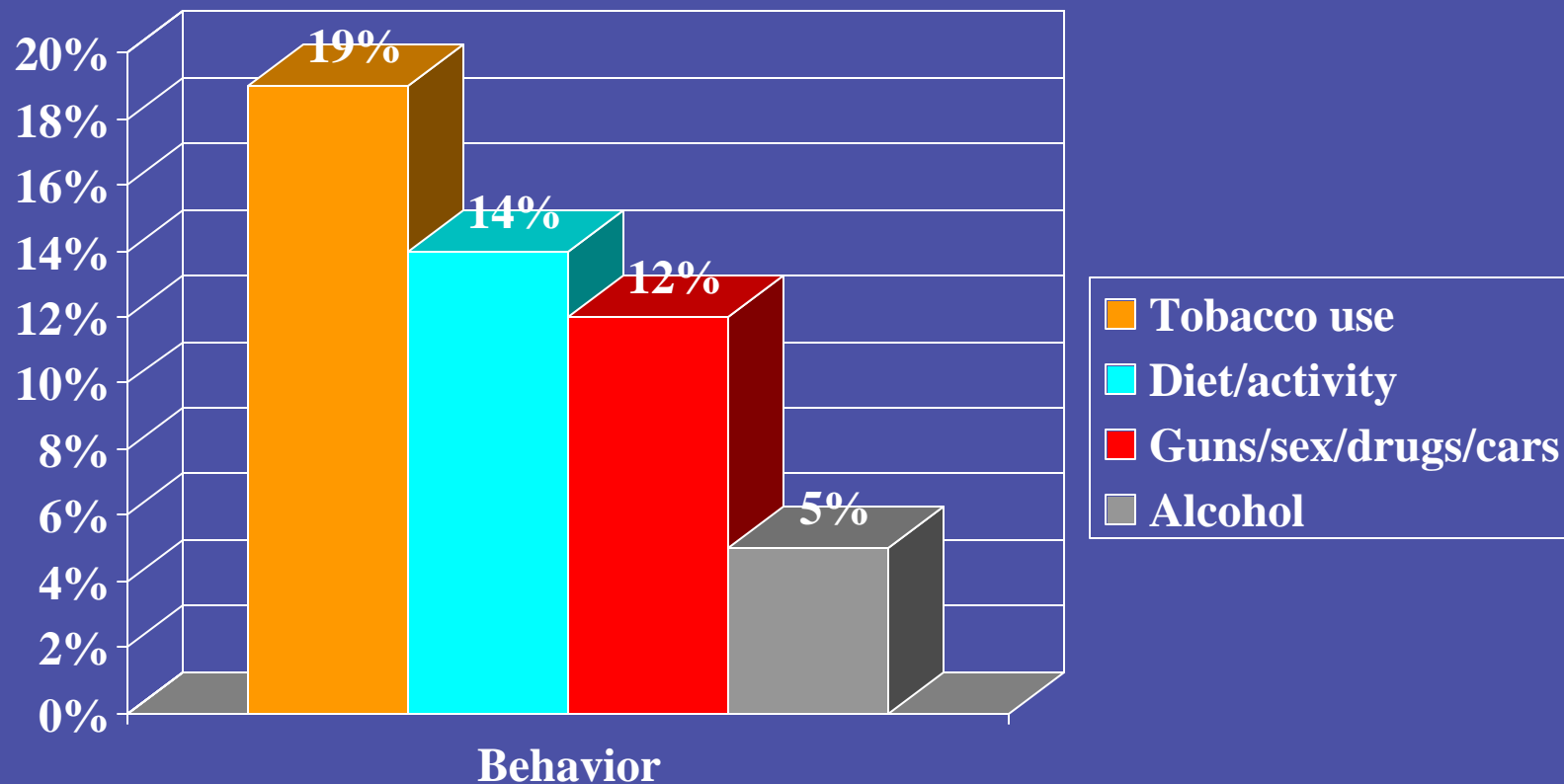
# Why should you care about children's health in CT?

- Many adult health problems have their etiology in childhood
- Connecticut is similar to the United States
- You will see these CT children in your clinics

# Many adult deaths are due to behavior initiated in childhood

Half of all adult deaths are due to behavior, the antecedents of which usually arise in childhood and adolescence (eg: smoking, eating habits). Many diseases you will see in adults have their roots in childhood.

# Half of all adult deaths are attributable to behavior that has its origins in youth

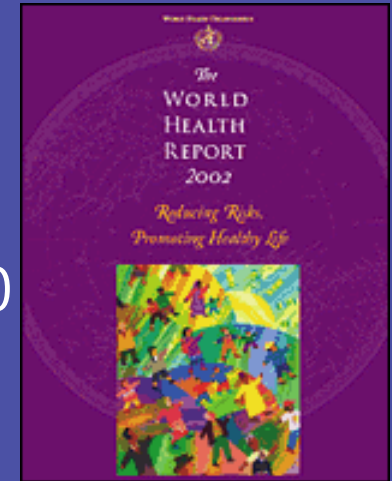


HRSA, Community Health Status Report, 1999 ( from McGinnis and Foege, JAMA: 1993).

# WHO Report

NY Times Oct 31, 2002

- The World Health Organization identified 10 major health risks it said accounted for up to 40 percent of the 56 million deaths around the world each year. The 10 risks are :
  - lack of food,
  - unsafe sex,
  - high blood pressure,
  - smoking,
  - alcohol,
  - unsafe water or sanitation,
  - high cholesterol,
  - nutritional deficiencies,
  - obesity and
  - indoor smoke from cooking or heating fires



# WHO Definition of Health

Also RWJ 2010

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

# Why Connecticut?

## CT = paradigm for the U.S.

- Infant mortality: infant mortality is an important indicator, used internationally, of the well-being of infants, children and pregnant women in a community, country or nation
  - we are one of the richest nations in the world yet our infant mortality ranks 26<sup>th</sup>
  - CT has the highest per capita income in the US yet we rank 26th in infant mortality among the states

# How are children faring in Connecticut?

- On average, in comparison to the US, children are doing as well if not better than average
- However, disparities within CT tell a different story



# Children's health in CT: Some Fast Facts

# Children's health in CT

	<u>CT</u>	<u>US</u>
Infant mortality	7.2	7.2
Low birthweight	7.3%	7.5%
Late Prenatal Care	12%	17%
Immunization rates	91%	81%
Child death rates	20	25
Teen birth rate	22	32
Children w/o insurance	11%	16%

# Children's health in CT

	<u>CT</u>	<u>NH</u>
Infant mortality (3 year average)	6.8	9.9
Low birthweight	7.6%	11.2
Inadeq. Prenatal Care	13%	21%
Lead poisoning	4%	10%
Asthma (per 10,000 hosp rate 97-98)	21	84
Teen birth rate (per 1,000)	32	58
Child abuse (per 1000)	17	37

# Children's Health in CT

	<b>New Haven</b>	<b>Darien, New Canaan, Ridgefield, Simsbury, Westport, Wilton</b>
Population <sup>1</sup>	123,626	129,261
Med. Family Inc. <sup>1</sup>	\$36,000	\$148,000
Infant mortality (per 1000 births)- 3yr average	10	2
Late Prenatal care	19%	4%
Lead Poisoning	10%	<1%
Asthma (hospital discharge rate per 10000)	84	~10
Child abuse (per 1000 children)	37	3

# Effects of family income on children's health clearly seen in CT

As in the US, poor children  
and children of color bear a  
disproportionate share of the  
health problems of CT's  
children and youth

# Racial disparities in child health outcomes

	White	Black	Overall	Ranking
Infant mortality				
CT	6%	17%	7%	26 <sup>th</sup>
US	6%	14%	7%	26 <sup>th</sup>
Late prenatal care				
CT	9%	21%	12%	
US	12%	27%	17%	

# Disparities in health outcomes: CT

Infant mortality rates:

- Black 3x greater than white
- Hispanic 2x greater

Low birthweight

- Black 2 times greater than white

Late/inadequate Prenatal care:

- Black and Hispanic rates 2x greater than white

Child death rate:

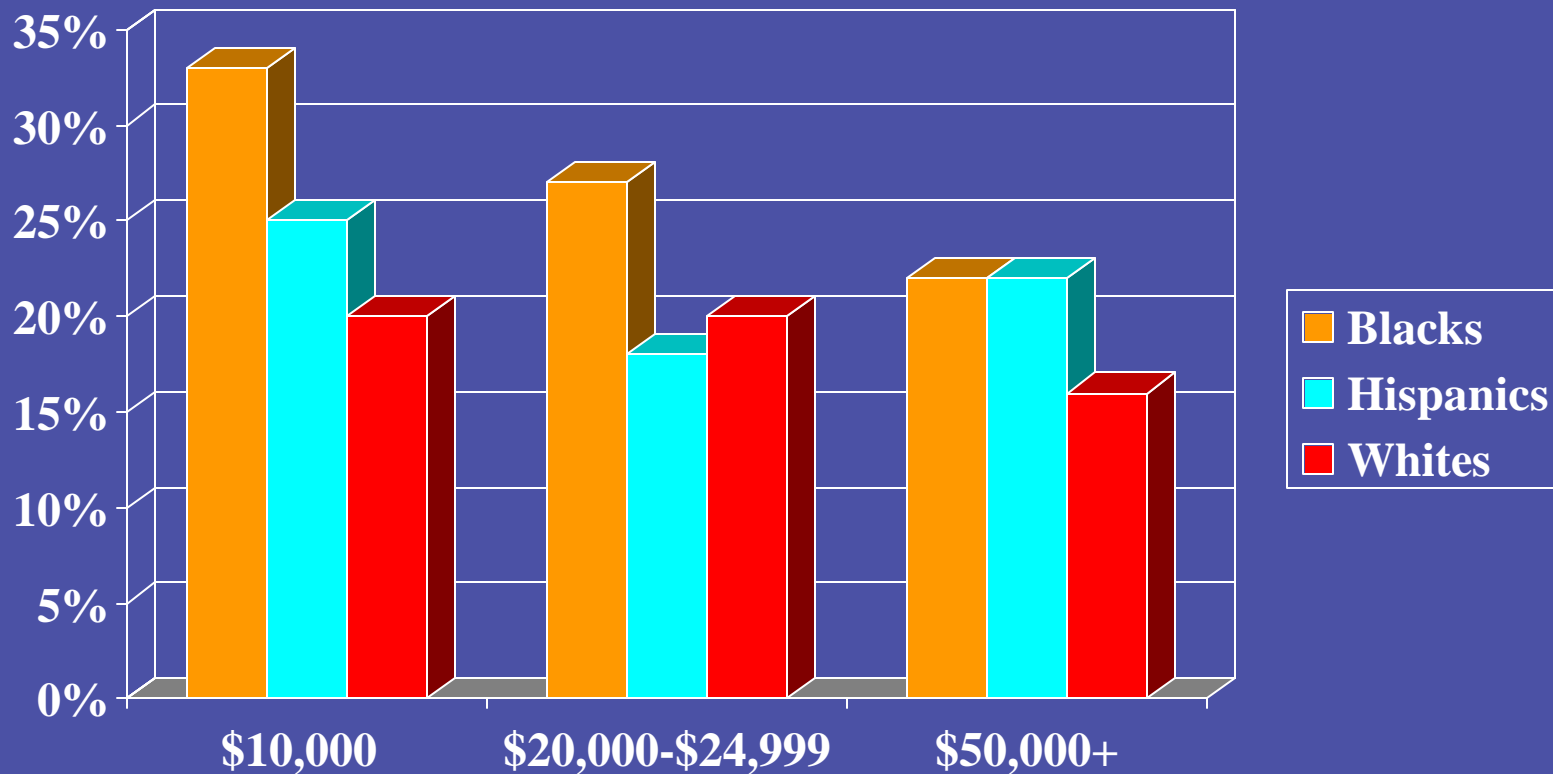
- Black 3x greater than white



# Disparities in asthma prevalence in CT

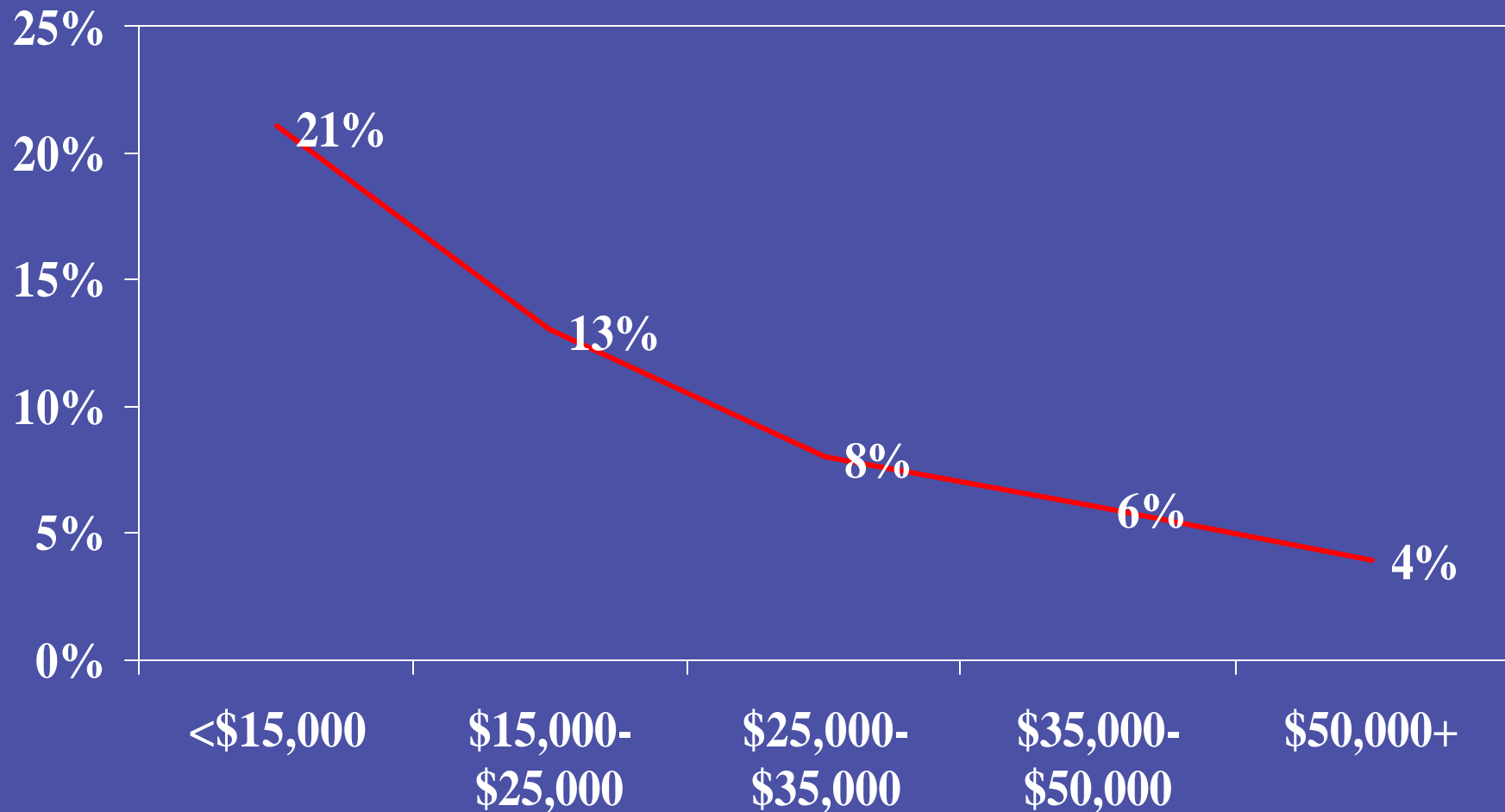
	All	White	Black	Hispanic
Rates of ED visits (0-14) (per 100,000)	931	240	923	2290
Hospitalization rates	136	86	381	412

# Race, income and obesity

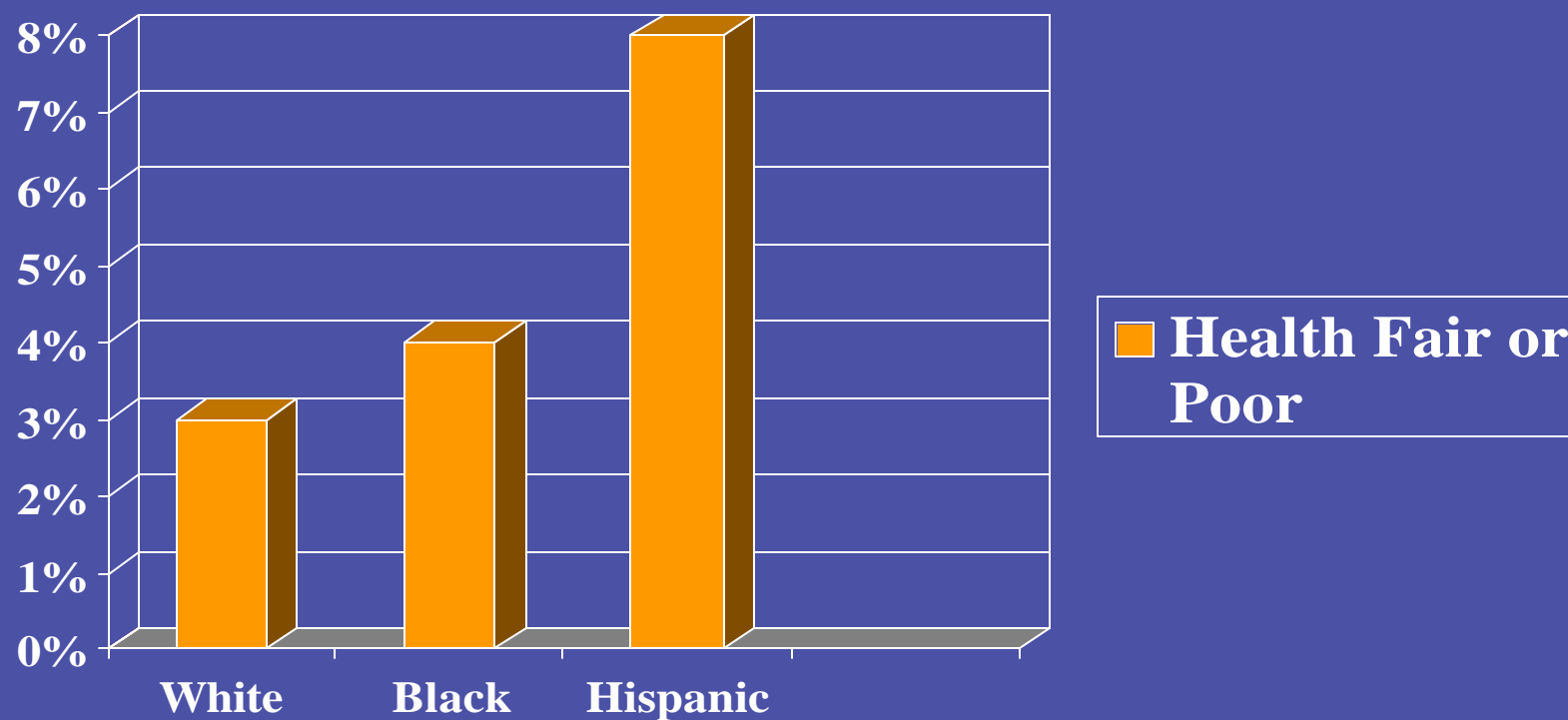


CDC, 1999, NYTimes

# Relationship between income and poor health status



# Perceived health status of children, by race



Black and Hispanic children were less likely than white children to be in excellent health (48.1% of black children and 42.9% of Hispanic children, compared with 55.1% of white children).

# Obesity and poverty

BMJ October 12

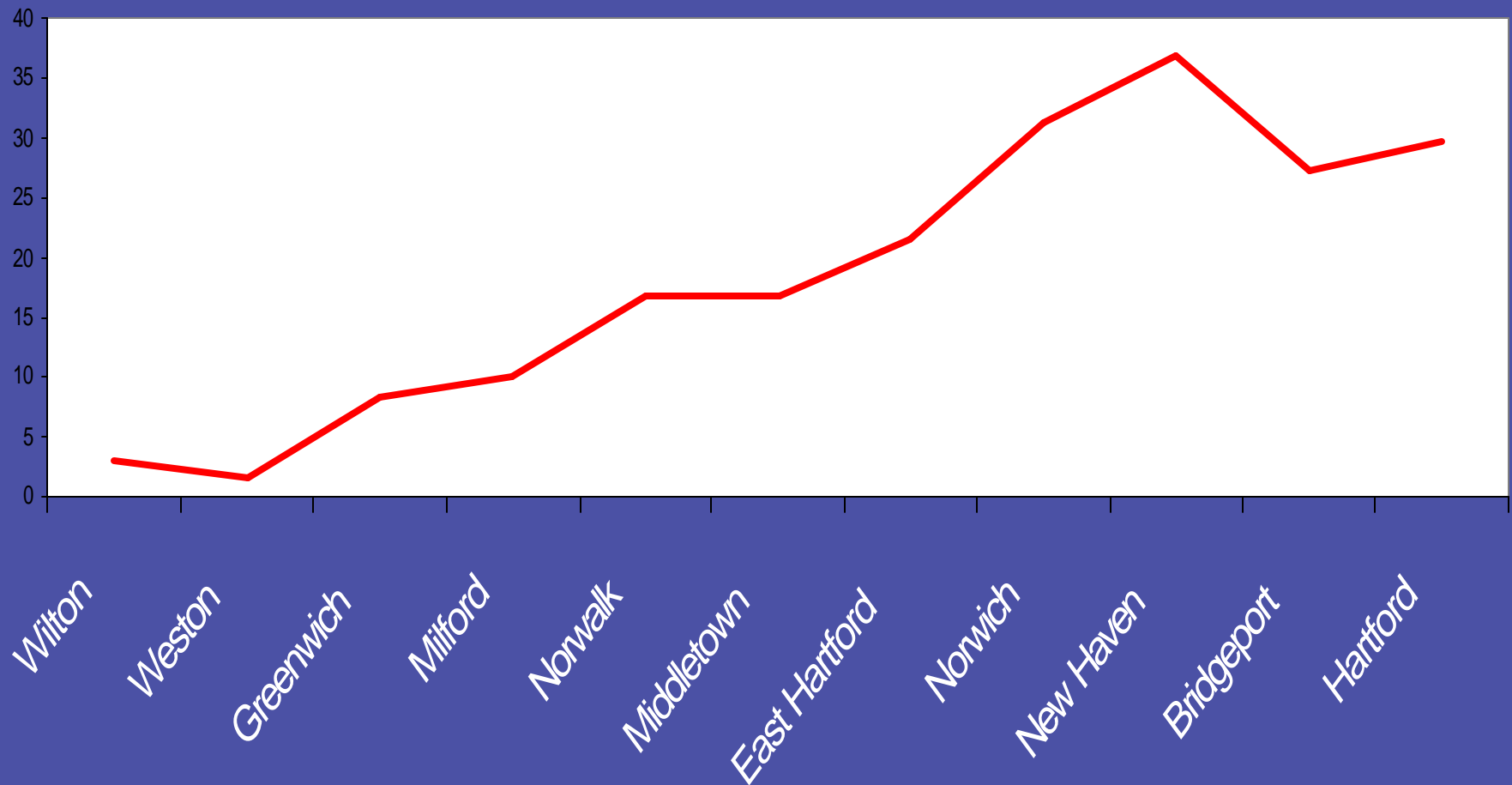
- **Women from lower income conditions as children were 58 per cent more likely to show high insulin resistance than those who lived under higher income conditions as children.** Women living in better social and economic circumstances as adults still had a 29 per cent greater chance of being insulin resistant if they grew up in low-income families.

Women who grew up poor were more likely to show increased insulin resistance, have higher levels of bad cholesterol and obesity than those who lived under better socioeconomic circumstances as children. These relationships remained after taking into account adult social and economic conditions.

- **Conclusions: Adverse social circumstances in childhood, as well as adulthood, are strongly and independently associated with increased risk of insulin resistance and other metabolic risk factors.**

British Medical Journal: Socioeconomic position in childhood and adulthood and insulin resistance: cross sectional survey using data from British women's heart and health study  
*BMJ* 2002;325:805 (12 October )

# Child Abuse Referrals: Selected Connecticut Towns



2000 Data from DCF

# Students who reported that they had been abused were significantly more likely to:

- Attempt suicide (OR=6)
- Carry weapons (OR=5)
- Smoke (OR=3)
- Use drugs (OR=3)
- Get into trouble with the police (OR=2)
- Skip school (OR=2)
- Have been pregnant (OR=2)

# Chronically ill children and welfare recipients

September 2002 American Journal of Public Health

- Welfare recipients with chronically ill children face substantial barriers to employment, including high child health care use, hard to find child care and missed work
- One in four (25%) children on welfare had some form of chronic illness



# Effects of health on family income

- A study of a million personal bankruptcies (1999) showed that more than a third (326,000) were directly caused by illness or injury to a family member, while substantial medical bills were a contributing factor in more than 260,000 additional cases.

# Poverty More Harmful to Children than Prenatal Exposure to Cocaine

- “A decade ago, the cocaine-exposed child was stereotyped as being neurologically crippled -- trembling in a corner and irreparably damaged. But this is unequivocally not the case. And furthermore, the inner-city child who has had no drug exposure at all is doing no better than the child labeled a 'crack-baby'”
  - “Problem-Solving Ability of Inner-City Children With and Without In Utero Cocaine Exposure”, Journal of Developmental and Behavioral Pediatrics, 1999;20:14-19.

# Education



The effects of child poverty  
on education

# Effects of Poverty on Education

On August 26th, Business Week wrote,

- "Poor children typically enter school a full-year and a half behind their middle-class peers in language ability... millions of kids start their lives with an educational deficit. That's why we have to get them while they're still tots. Short of wiping out poverty all together, the US should offer preschool education to the children of the poor - and maybe even to all children."

In a new national poll, 87% of likely voters agree.

# Children from wealthier homes start school ahead

- **Children from wealthier homes start school with vocabularies of approximately 30,000 words, while children from lower income homes start school with vocabularies of approximately 5000 words.**

# Poverty Amplifies Educational Risk

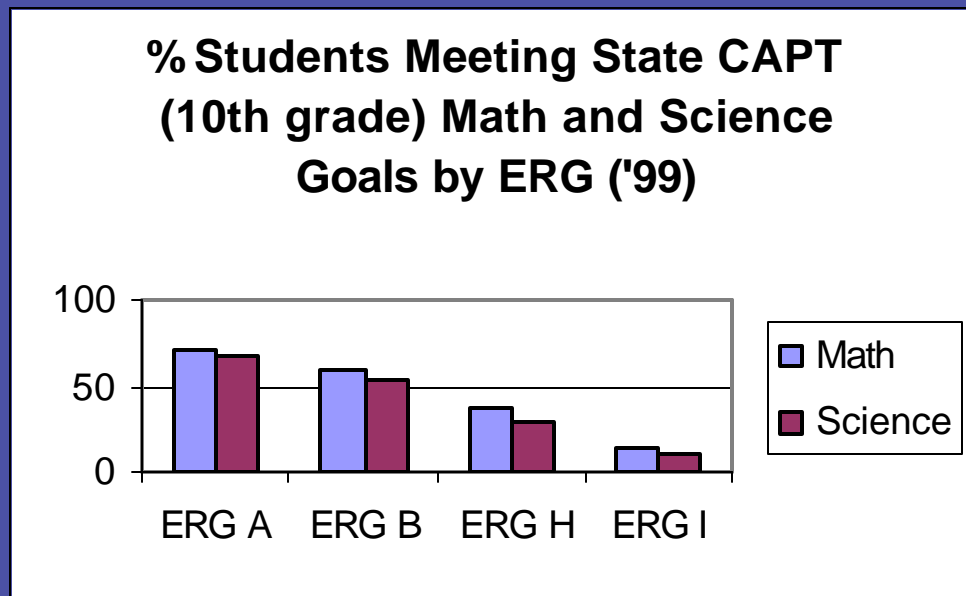
Students in ERG A--as compared to ERG I -- are

- 2x more likely to attend preschool
- 5x more likely to pass the CMT at Grade 4
- 6x more likely to pass the CMT at Grade 8
- 9x more likely to pass the CAPT in Grade 10
- 16x more likely NOT to drop out of school

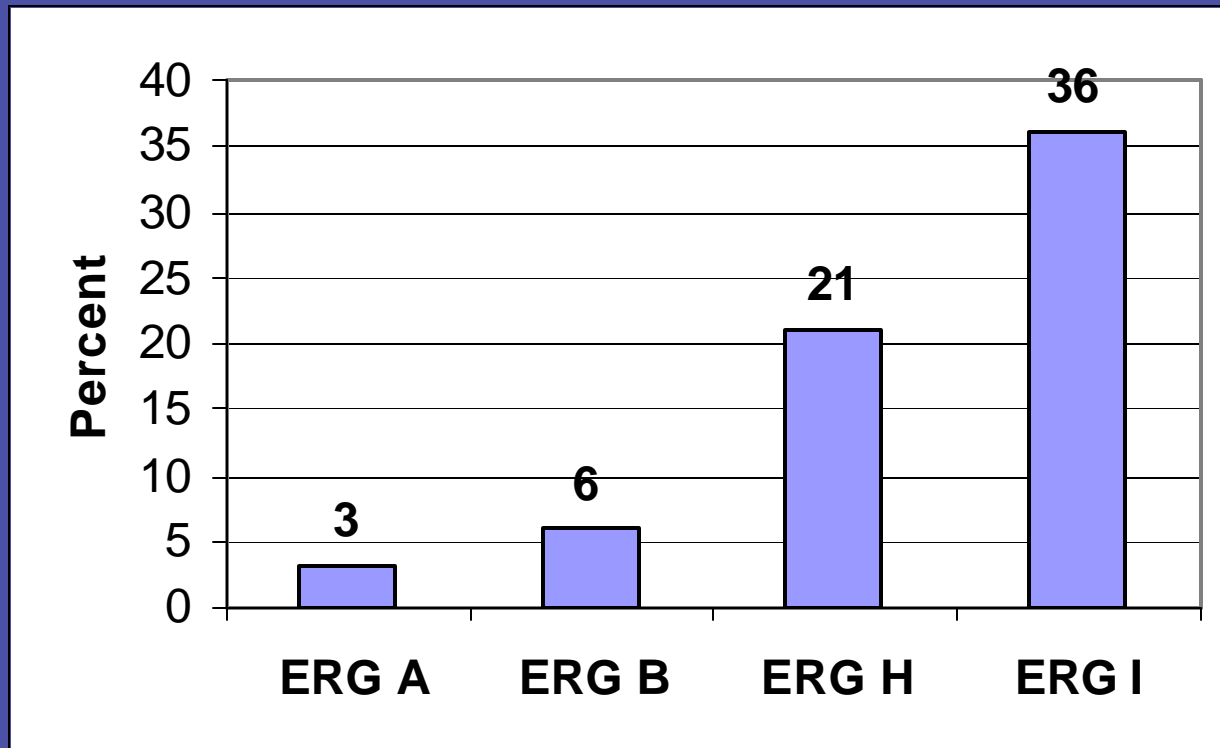
Source: Strategic School Profiles, CT Department of Education, 99-00

# Math and Science Performance and Poverty

CT's new economy requires more students educated in math and science. But the wealthier districts dramatically outscore poorer districts.



# CT's Cumulative Drop Out Rates Follow the Poverty Curve



One in seven students of the class of 1999 in Connecticut dropped out of high school.

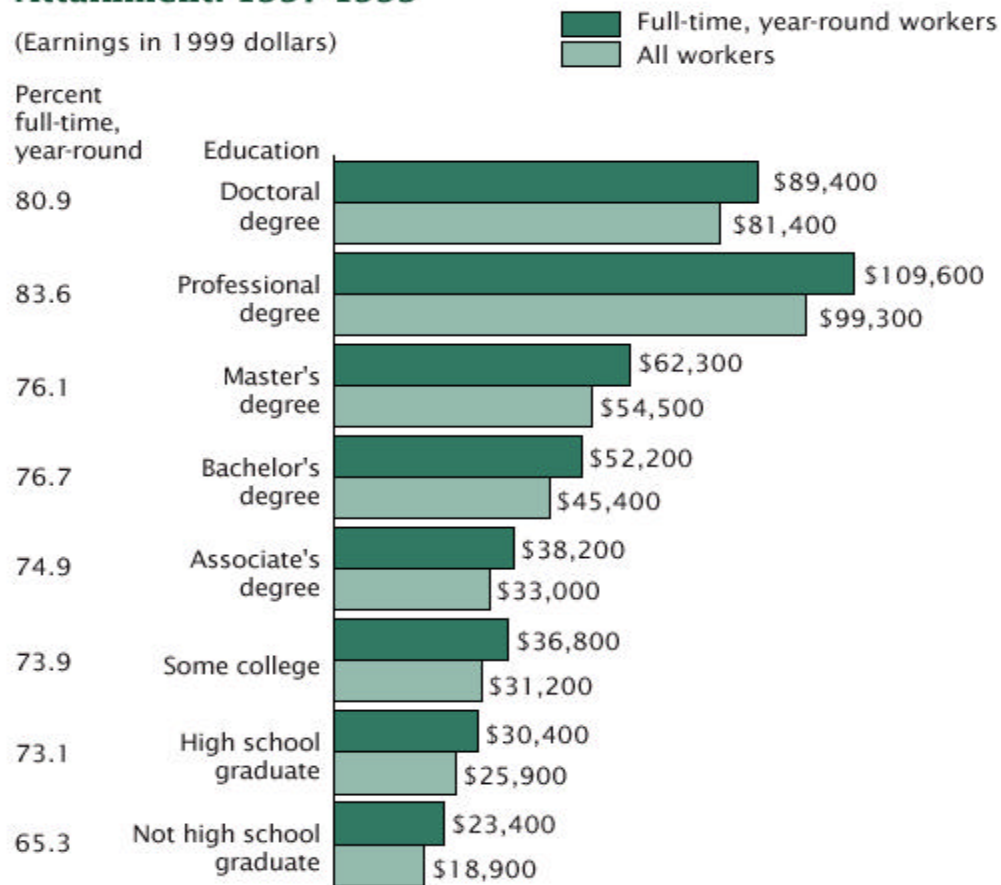


A college degree is now the single greatest factor in determining access to better job opportunities and higher earnings.

# Educational Attainment: Average Annual Earnings

Figure 1.  
**Work Experience and Average Annual Earnings of  
Workers 25 to 64 Years Old by Educational  
Attainment: 1997-1999**

(Earnings in 1999 dollars)



Source: U.S. Census Bureau, Current Population Surveys, March 1998, 1999, and 2000.

# Child Poverty

# What do you know about Connecticut?

1. How do we rank nationally among other states in terms of income?
2. How do New Haven, Bridgeport and Hartford rank nationally among other towns on income?
3. What percent of children in CT are poor?
4. What percent of children in New Haven are poor?
4. What is poverty?
  - a. Federal guidelines
  - b. Working at a low wage

# Minimum wage

What is a full time, annual salary for someone working at minimum wage?

# Federal Poverty guidelines 2002

- \$15,020 for a family of 3
- \$18,100 for a family of 4

Minimum wage fulltime salary < \$14,000

# Child Poverty In CT

- Nearly 2/3 of CT's poor children live in families with at least one working parent.

# Some economic facts about CT in the last ten years

- Top fifth of incomes have been going up, bottom fifth of incomes have been going down
- Manufacturing jobs have been replaced by service jobs
- Both spouses are working, longer hours for less
- Parents spend less time at home, more need for day care and school readiness programs
- CT cities are increasingly poor, with Hartford reaching the front page of the New York Times as having the second highest child poverty rate in the US
- Meanwhile, some towns in Fairfield County have some of the highest incomes in the US



# Economic Disparities in CT

	Hartford	New Haven	Darien	New Canaan
Median family income	\$27,051	\$35,950	\$173,777	\$175,331
Child poverty	41%	33%	2%	2%

# % CHILDREN IN POVERTY

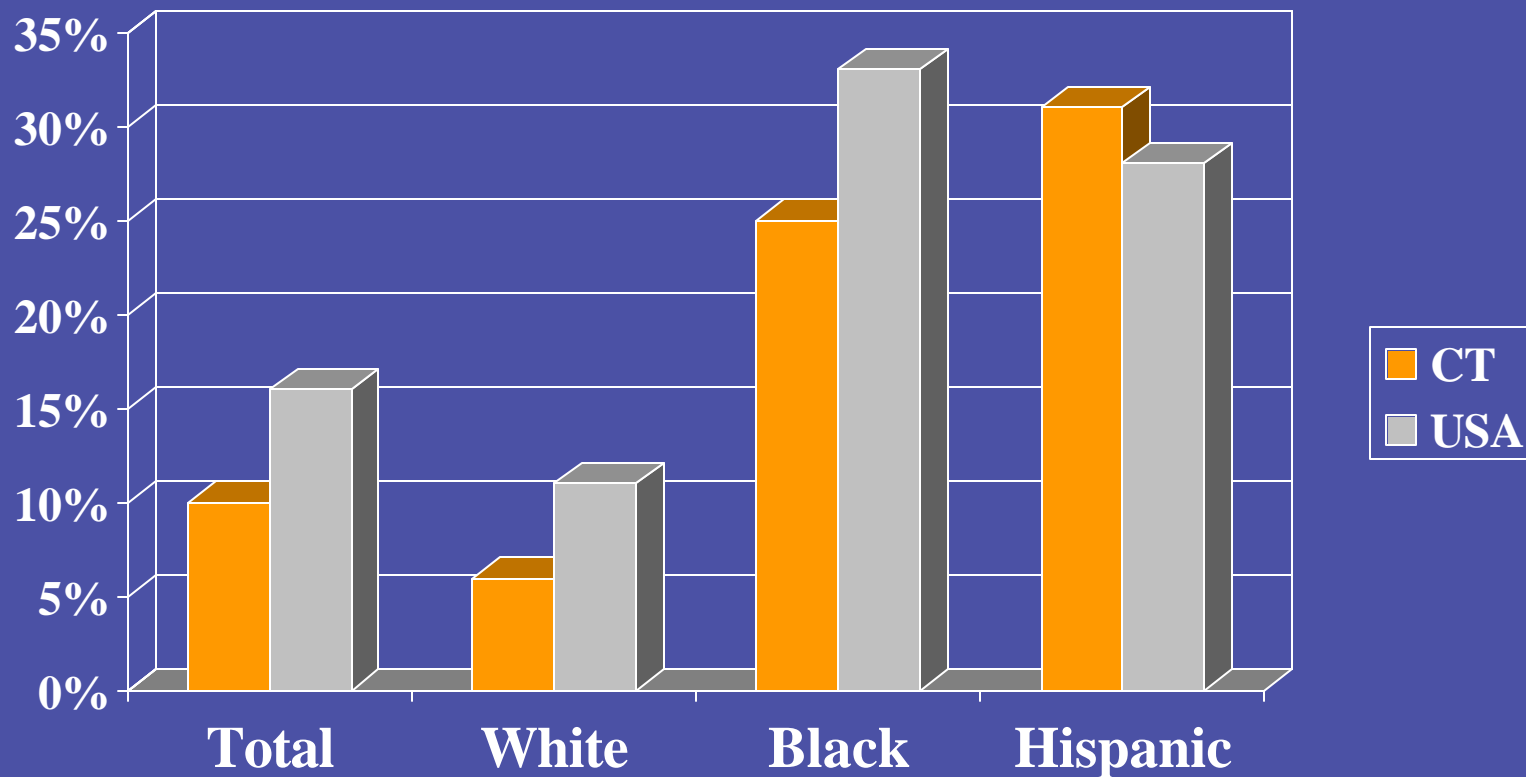
Greater New Haven area

New Haven	32%
West Haven	12%
Hamden	8%
East Haven	5%
Branford	4%
Woodbridge	3%

# Percent of children below poverty

CT and US

Child poverty and race are correlated



# Poverty threshold is obsolete

# Poverty threshold vs self sufficiency standard

- The Self sufficiency standard for CT is a significant improvement over the poverty threshold as a measure of family economic security.
- Unlike the federal poverty threshold, developed 40 years ago, this newer measure takes into account
  - Regional differences in the cost of living
  - Age of children
  - Expenses incurred by working families that are ignored by the poverty threshold
  - Child care, transportation, housing, health care

# Self sufficiency calculation New Haven

2 parents, 1 infant, 1 school age child

• Housing	• \$806	
• Child Care	• \$928	Poverty guideline=
• Food	• \$524	\$18,100
• Transportation	• \$298	
• Health Care	• \$260	
• Misc	• \$281	Minimum wage
• Taxes	• \$614	income =
• <u>Child Care Credits</u>	• <u>-\$156</u>	\$14,000
Monthly total	\$3,552	
Annual total	<u>\$42,624</u>	

# One quarter of CT's children live in families with incomes below economic self sufficiency

- 2000 Census
- 10% of CT children live below poverty
- 24%, nearly 1 in 4, live in families with incomes below TWICE the federal poverty threshold, a rough approximation of the CT self sufficiency standard in most regions.

# Child Poverty in New Haven and Bridgeport

More than two thirds of New Haven's (67%) and Bridgeport's (88%) school children were eligible for free and reduced price meals (living in families with incomes below 185% of poverty and thus below self sufficiency)

2000-2001 school year



# Journal articles

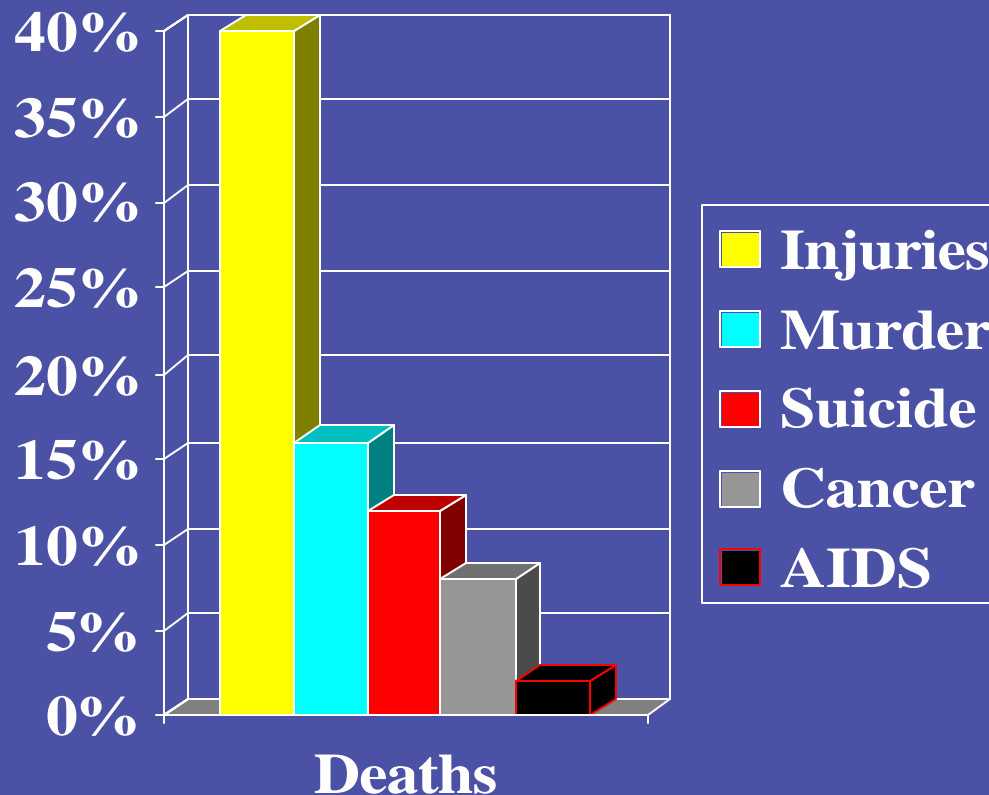
## Effects of poverty on health

- AJPH: Sept 2002:
  - One in four (25%) of children on welfare had some form of chronic illness
- British Med Journal: Oct 12, 2002
  - Adverse socioeconomic factors in childhood are strongly and independently associated with increased risk of insulin resistance on adulthood
- NEJM: July 2001
  - Even after controlling for personal income, education and occupation, living in a disadvantaged neighborhood is associated with an increased risk of coronary heart disease

# Children's health

- Asthma, obesity, lead poisoning, infant mortality all correlated with poverty
- What is the leading cause of child morbidity and mortality?

# Causes of Death in CT children: 1998



- Two thirds of deaths in children due to intentional and unintentional (car crashes, falls, drowning) injuries
- Only one third due to disease

# Unintentional Injuries in Children

## National stats

- The number of unintentional injuries among children each year is greater than homicide, suicide, cancer, HIV/AIDS, respiratory illness and heart disease combined.
- Overall, unintentional injury rates are highest among adolescents ages 15 to 19, males, children from impoverished families, and minorities.

# Safety: Another Problem With Poverty

October 29, 2002 NYTimes

Children who live in the poorest neighborhoods of cities tend to face the biggest risk of being hit by cars, according to two new studies (Britain/United States). The two studies concluded that a combination of factors helped to raise the dangers faced by children in poor urban areas. Among them are congestion, lack of safe places to play, poorly maintained roads and lax enforcement of traffic laws.

- The British study, which was released by the Imperial College Center for Transport Studies, found that the children living in the country's poorest areas were more than three times as likely to be struck by cars or trucks as those children living in the most affluent areas.
- But the American study, led by Dr. Thomas S. Renshaw of the Yale School of Medicine, tracked a decline in the number of children struck by cars and trucks in New Haven, from 223 in 1993 to 87 in 1999.
- In an article in The Journal of Bone and Joint Surgery, Dr. Renshaw reported how the city had cut the number of such accidents involving children through a program that included making pedestrian safety part of the school curriculum, expanding the bus system and handing out more traffic tickets in high-risk areas.

# What can I do?

- Become aware of the issues
- Be aware in your clinical encounters
- Support education
- Get involved, make a difference
- Volunteer
- Vote
- Spend time with your own children

# Canadian Government Statements on Health and Health Promotion I

*All policies which have a direct bearing on health need to be coordinated. The list is long and includes, among others, income security, employment, education, housing, business, agriculture, transportation, justice and technology.*

-- *Achieving Health For All: A Framework for Health Promotion*, J. Epp. Ottawa: Health and Welfare Canada, 1986.

## Canadian Government Statements on Health and Health Promotion II

*There is strong evidence indicating that factors outside the health care system significantly affect health.*

*These “determinants of health” include income and social status, social support networks, education, employment and working conditions, physical environments, social environments, biology and genetic endowment, personal health practices and coping skills, healthy child development, health services, gender and culture.*

-- *Taking Action on Population Health: A Position Paper for Health Promotion and Programs Branch Staff.* Ottawa: Health Canada, 1998.



## Canadian Government Statements on Health and Health Promotion III

*In the case of poverty, unemployment, stress, and violence, the influence on health is direct, negative and often shocking for a country as wealthy and as highly regarded as Canada.*

-- *The Statistical Report on the Health of Canadians. Ottawa: Health Canada, 1998.*

# Get involved, make a difference

- How many of you voted in the last election?

# Vote

- “ If you are volunteering and not voting as a young person, 20 years from now your kids are going to be cleaning the same dirty rivers that you're cleaning today, or tutoring in the same mediocre school system.”
- “Young people don't have six-figure checks they can write to political parties and they don't have lobbyists or special interests to represent them. But they do have the future of our nation in the palm of their hand. ”

# Political Will Can Make The Difference

- When poverty among seniors was determined to be unacceptable in the 1970s, government programs were enacted that resulted in the dramatic drop in poverty shown on the preceding graph.
- Contrast that with efforts to aid our lowest income families:
  - The goal of welfare reform is acknowledged to be removing names from the welfare rolls, but *not* lifting people out of poverty.
  - From 1986-2002 cash assistance to CT's poorest families was *reduced* 68% in adjusted inflation dollars.

If you think you're too small to be effective, then you've never been in bed with a mosquito.