Policy Interventions to Address Child Health Disparities: Moving Beyond Health Insurance

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Overview

Health disparities are differences in the incidence and effects of health conditions between poor or minority children and others.

This presentation will:

- Discuss the measurement of “excess burden” posed by child health disparities.
- Discuss policy approaches to the reduction of child health disparities.

Health disparities have three types of costs:

- Direct costs of medical care and lost work by caregivers.
- Future costs of lost productivity.
- Costs associated with excess mortality.

Health Disparities are pervasive:

Table 1: Health Disparities in Representative Specific Illnesses

	Overall	*Non-Hispanic White*	*Hispanic*	*Black*	*Poor*	*Non Poor*	*Sample*
ADHD Symptoms	8.70%	9.80%	6%[a]	8.70%	11%[b]	8.40%	NHIS children 8-15[2]
	4.20%	4.30%	3.01%	5.67%	6.5%[c]	3.90%	NHIS boys 4-17[3]
Ever Asthma	13.60%	12.80%	13.20%	16.60%	18.10%	13.10%	NHIS children 0-17[4]
Obese					17.2%[d]	13.90%	NHANES children 2-11, 1999/04[5]
Overweight	17.10%	16.30%	20.00%	19.20%			NHANES children 2-19, 2003/4[6]
Injury Deaths per 100,000	21.90	20.90	18.90	30.10			Vital Statistics Mortality, Children 1-19[7]

[a] Refers to Mexican-origin children only.

[b] Refers to a comparison between children in bottom quintile and others.

[c] Refers to children in households with less than $20,000 income vs. others.

[d] Refers to children in bottom quartile income to poverty ratio vs. others.

Injuries are a leading cause of death, not usually thought of as being preventable by medical care.

Deaths per 100,000 Due to Injuries
Children 1-14, 1991-1995

	Total Death Rate	Accidents as Share of Deaths (%)	Traffic Deaths	Boys Rate	Girls Rate
Sweden	5.2	33	2.5	5.9	4.4
UK	6.1	29	2.9	7.7	4.3
Italy	6.1	28	3.3	8.1	4.1
Netherlands	6.6	30	3.4	8.3	4.8
France	9.1	41	3.8	11	7
Canada	9.7	44	4.3	11.9	7.4
U.S.	14.1	49	5.8	17.5	10.4

Source: Unicef, 2000.

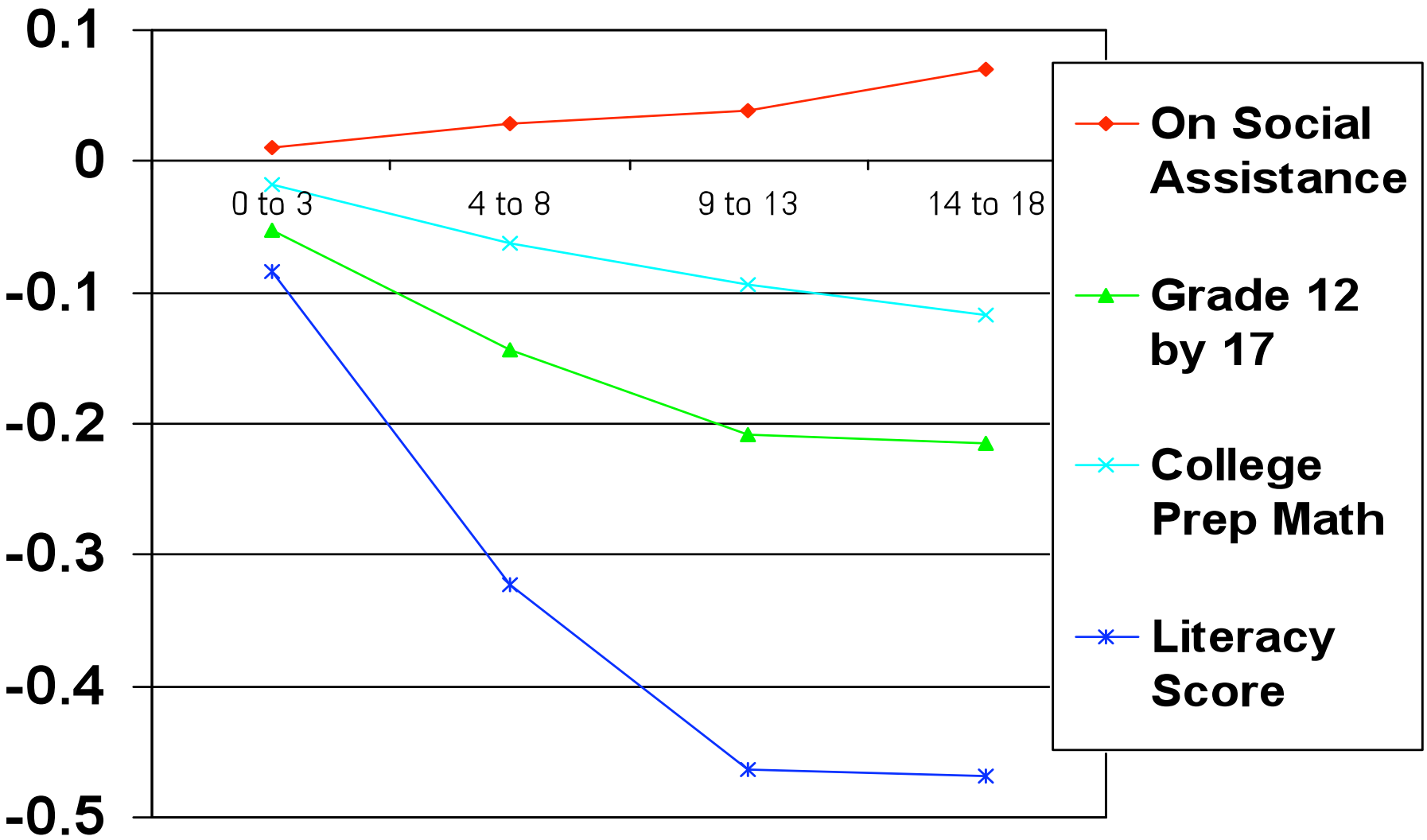
The relative magnitudes of the three costs are illustrated using the e.g. of ADHD

- Additional medical costs and costs of lost work due to an ADHD child are estimated at $1,554 per annum (Birnbaum et al.)
- Equating rates of ADHD in the poor and non-poor population would reduce the number of ADHD children by 338,000 for a net savings of $525 million per year.

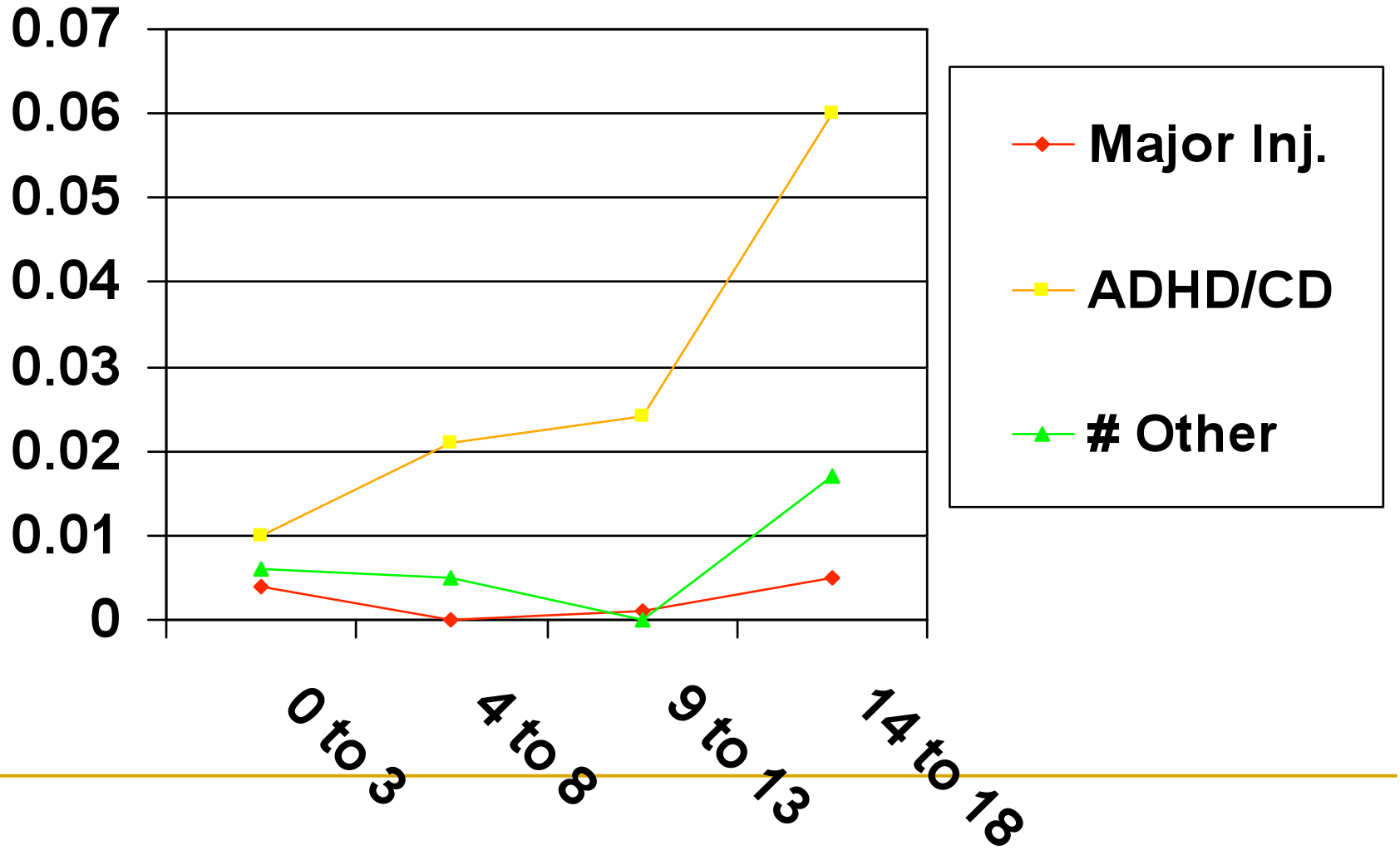
But these costs are likely dwarfed by lost productivity

- Childhood ADHD is associated with lower educational attainment. E.g. one longitudinal study found 14% of ADHD children graduated from college vs. 52% of others.
- College nearly doubles annual earnings.
- Hence, “excess” ADHD cases among poor children could be responsible for as much as $9 billion in lost earnings annually.

Mean Sibling Difference in Outcomes with Difference in ADHD/Conduct Disorder at each age, Manitoba, all sibs born 1979-1986.



Effects of Childhood Illness on Future Social Assistance, by Condition and Age, Manitoba



Costs due to excess mortality associated with ADHD are unknown

- May include costs of higher fatalities due to injury.
- At a value of life of $6-7 million (a typical estimate from studies of the value of a “statistical life”, even 100 excess deaths among the 338,000 excess cases of ADHD would yield costs of $600-$700 million.
- These costs would also exceed the immediate medical costs and costs of lost work.

Summary

- A narrow focus on medical costs will tend to greatly underestimate the cost of health disparities.
- Costs associated with lost future productivity may be very large.
- Costs associated with excess mortality may also be large.

So far, we have focused on the costs of particular conditions, but low SES children have more of most conditions:

Health of Poor vs. Non-Poor Children, 2001-2005 NHIS

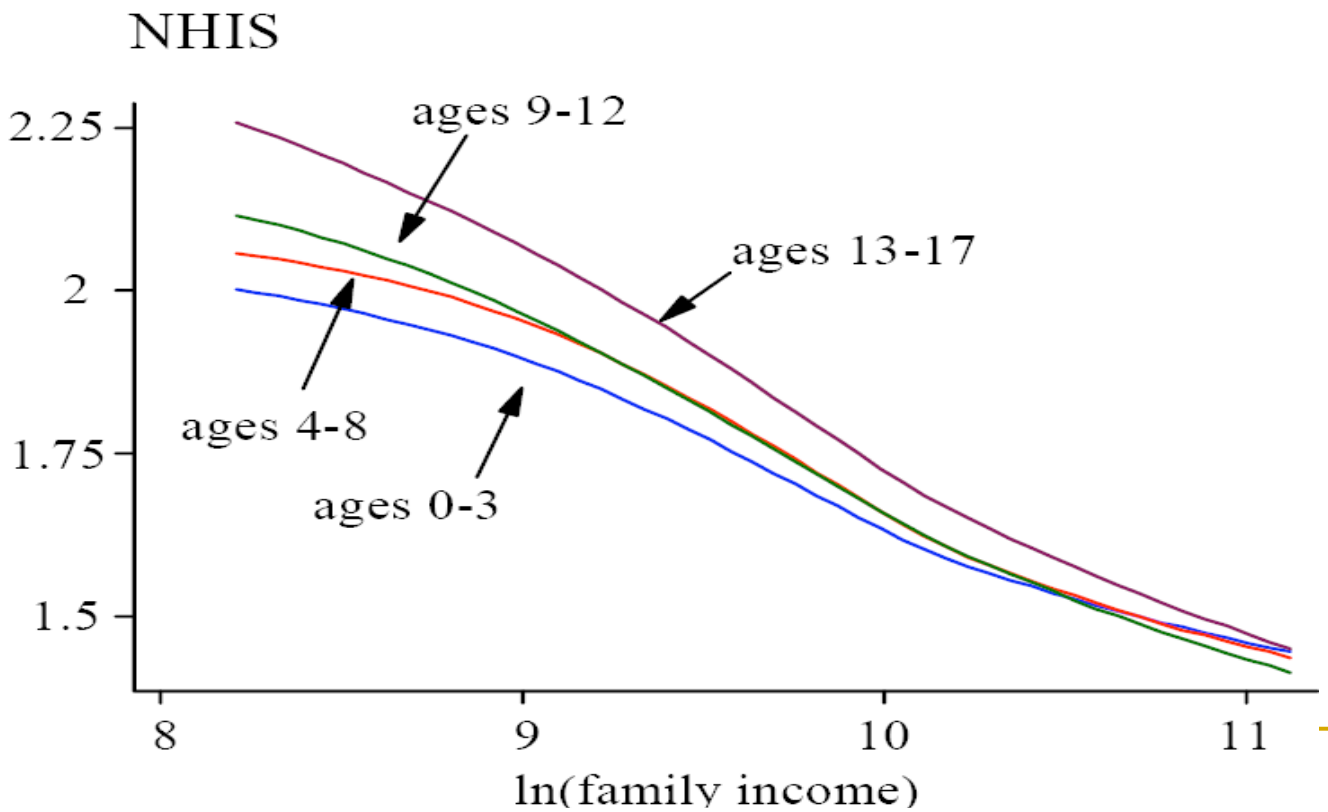
	Poor	Non-Poor
Maternal Assessment of Child Health		
health is excellent/very good	0.700	0.869
AGE 2~3	0.746	0.901
AGE 4~8	0.725	0.873
AGE 9~12	0.682	0.870
AGE 13~17	0.661	0.853
Health at Birth		
Birth weight (grams)	3221	3348
Birth weight < 2500 grams	0.112	0.078
Ever Chronic Conditions		
Ever told Asthma	0.159	0.131
Ever mental problem[a]	0.119	0.079
Ever told ADHD, 2-17	0.071	0.060
Trouble hearing or seeing	0.076	0.053
Stuttering or stammering-past 12 mo.	0.026	0.012
Ever told heart problems	0.018	0.014
Ever told diabetes	0.002	0.002
Ever told had arthritis	0.002	0.001
Any of the above	0.324	0.265

And poor children are more likely to be limited by their conditions:

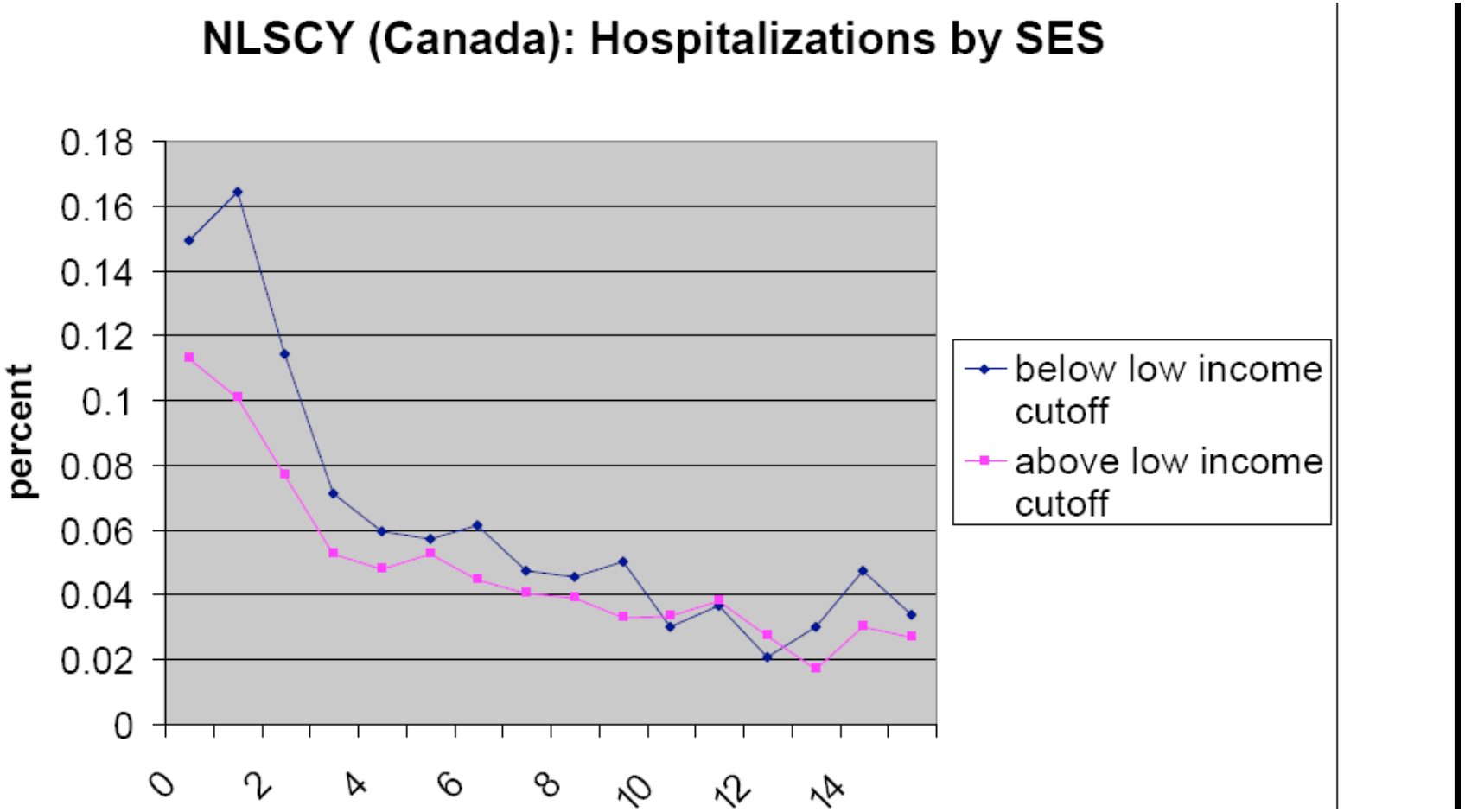
Activity Limitations	Poor	Non Poor
Limit b/c of chronic conditions	0.114	0.070
AGE 2~3	0.061	0.037
AGE 4~8	0.097	0.062
AGE 9~12	0.139	0.087
AGE 13~17	0.141	0.078
Asthma/resp. prob causes limit	0.019	0.006
Mental problem causes limit[b]	0.062	0.035
ADHD causes limits	0.023	0.014
Hearing/vision causes limit	0.008	0.005
Speech problem causes limit	0.019	0.015

The result is that the relationship between low income and poor health rises with age:

Child health on family income
1=excellent, 5=poor
U.S. National Health Interview Survey
Source=Case, Lubotsky, Paxson (2003)

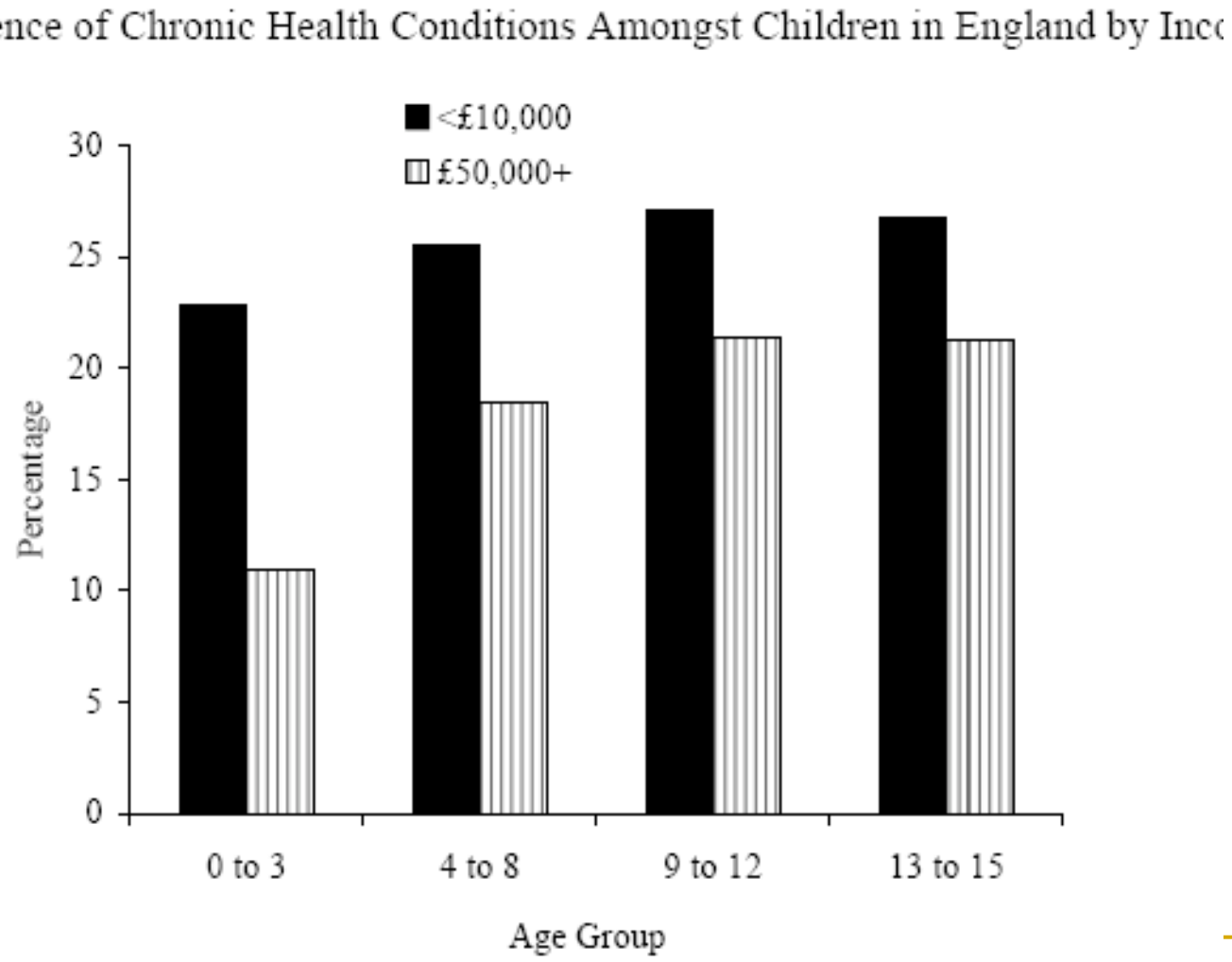


This is true even in settings where all children have health insurance:



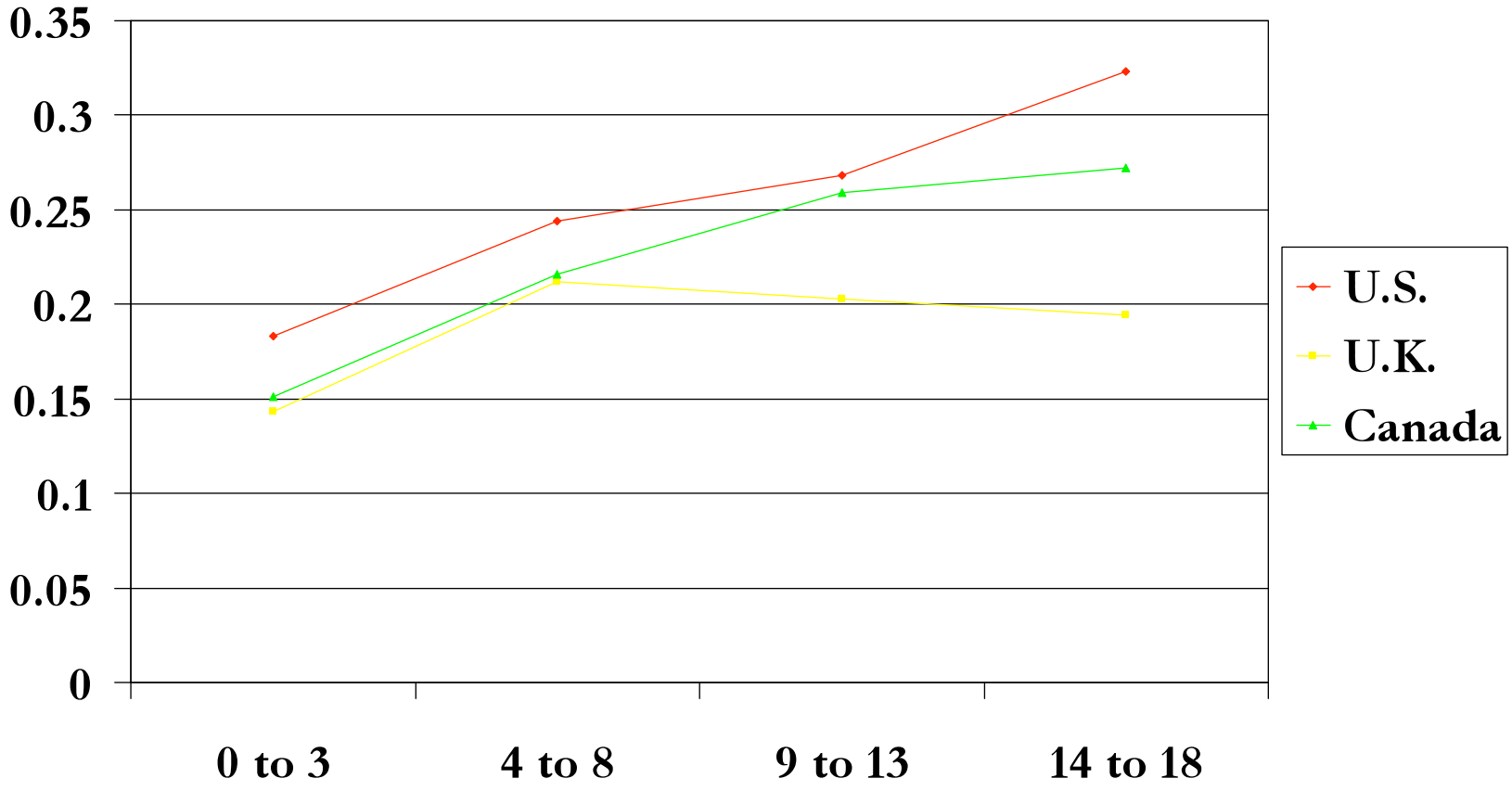
U.K. data from Health Survey of England

Currie, Shields, and Price



Effect of Income on Poor Health

(Coefficients from ordered probits, 1=excellent, 5-poor health)



Three Categories of Policies Aimed at Reducing Child Health Disparities:

- Extending health insurance coverage
- Reducing poverty through cash transfers to parents
- Improving children's outcomes, and breaking the intergenerational cycle of poverty.

Extending Medicaid to Currently Uninsured Children Relatively Inexpensive

Table 2: Costs of Medicaid, SCHIP, and Insuring Uninsured Children

	Cost (billions)	# children (millions)
Current Medicaid for children[a]	52.6	21.5
Current SCHIP[a]	8.7	4.1
Estimated Medicaid for currently uninsured children[b]	14.6	9.0

[a] From Kaiser (2008)[i] and refer to 2006. Estimated cost of extending coverage based on payments of $1,617 per enrolled child in 2005.

[b] Ku L, Lin M, Broaddus M. Improving children's health: a chartbook about the roles of Medicaid and SCHIP. Center on Budget and Policy Priorities. 2007. Available at: http://www.cbpp.org/schip-chartbook.htm. Accessed July 11, 2008

While expanding health insurance eligibility is important, it is not sufficient:

- Need to increase “take up” by eligible uninsureds.
- Follow example of Medicare Part B – make kids automatically eligible for Medicaid unless parents opt out by selecting insurance coverage of equivalent value.
- But insurance coverage cannot eliminate disparities due to differences in incidence of conditions such as injuries.

Income Transfers to Parents

- Bringing all families with children up to the poverty line would also be relatively inexpensive.
- Unfortunately, documented effects of income transfers are small.
- E.g. data from the Fragile Families study suggests that income has positive effects, but that the size of the transfer necessary to close gaps between rich and poor children through income transfers is large (Berger, Paxson, and Waldfogel, 2006).

Problem may be that current transfers do not overcome effects of long-term poverty

- Mother's childhood circumstances matter more to her children's outcomes than current income transfers.
- E.g. mothers born in poor areas are more likely to give birth to low birth weight babies than their own sisters born in richer areas (Currie and Moretti, 2007)

An ounce of prevention is worth a pound of cure

- We need programs that prevent disparities before they start.
- There are many candidates.
- I focus on three programs with proven results:
  - Head Start/Early Intervention Programs
  - WIC
  - Nurse Home Visiting

Early Intervention/Head Start Offers:

- Nutritious food
- Access to medical screenings and medical services
- Access to dental services
- Regular contact with trained caregivers
- Proven benefits in terms of future schooling attainment (which will benefit the health of the children of attendees).

So far limited evaluation of health benefits to attendees shows:

- Introduction of Head Start was associated with large reductions in the mortality.
- Attendees more likely to be insured, receive dental care, and are in better overall health (as reported by parents). Benefits larger for children of non-native speakers, children with special needs, and children whose mother's were depressed at baseline.
- Reduction in overweight among children who were able to move from a part-day to a full-day program due to changes in program availability.

Home Visiting

- Evaluations of nurse home visitor programs can reach children earlier, prevent children from “falling through the cracks”.
- David Olds programs focus on mothers who are at risk, include visits from prenatal period to two years.
- Positive effects on maternal behavior and child outcomes, reductions in injury rates, future smoking and teen sex.

WIC

- Provides nutrition supplements, nutrition education, and facilitated access to medical care to infants, children up to 4 and pregnant and lactating women.
- WIC already serves much of the target population of (up to 54% of pregnant women are eligible and 67% of eligibles participate).

Increasing evidence that maternal health before birth may be particularly important

- One example comes from the flu epidemic of 1918.
- Spread in a well documented way across the country
- Affected “prime age” people, including the majority of pregnant women

This picture shows a sharp peak in flu deaths – ideal for "cohort" analysis.

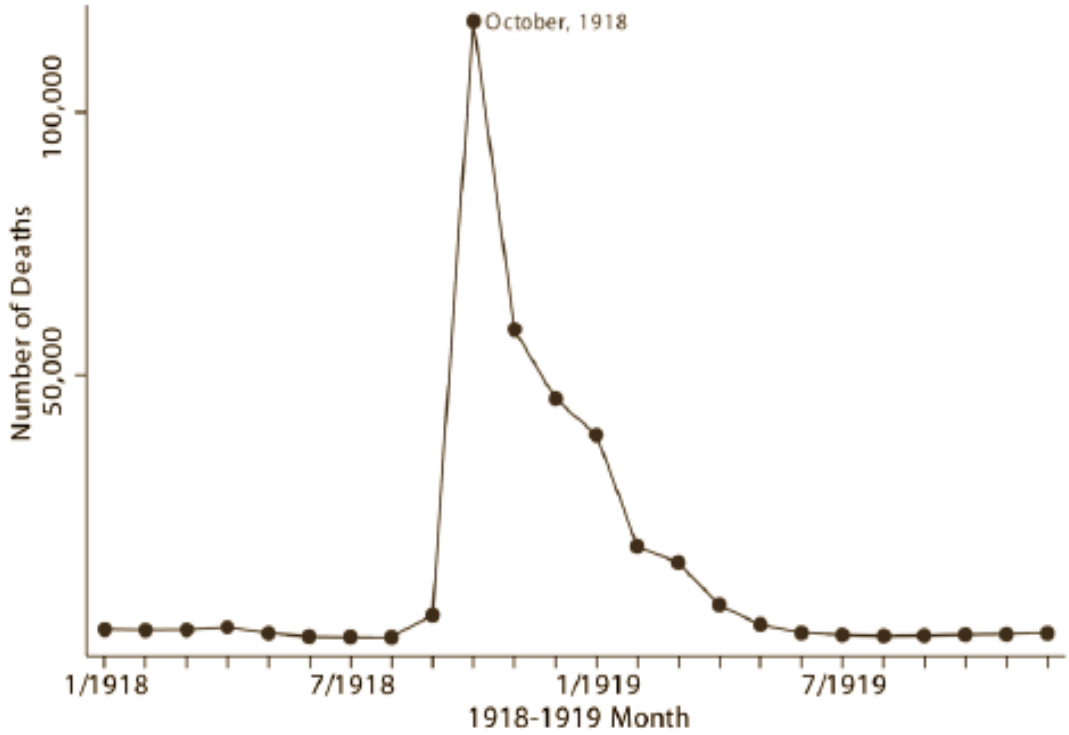


FIG. 1.—U.S. influenza deaths: *a*, by year; *b*, by month

Birth cohorts with higher deaths had lower schooling attainment (Source: Almond)

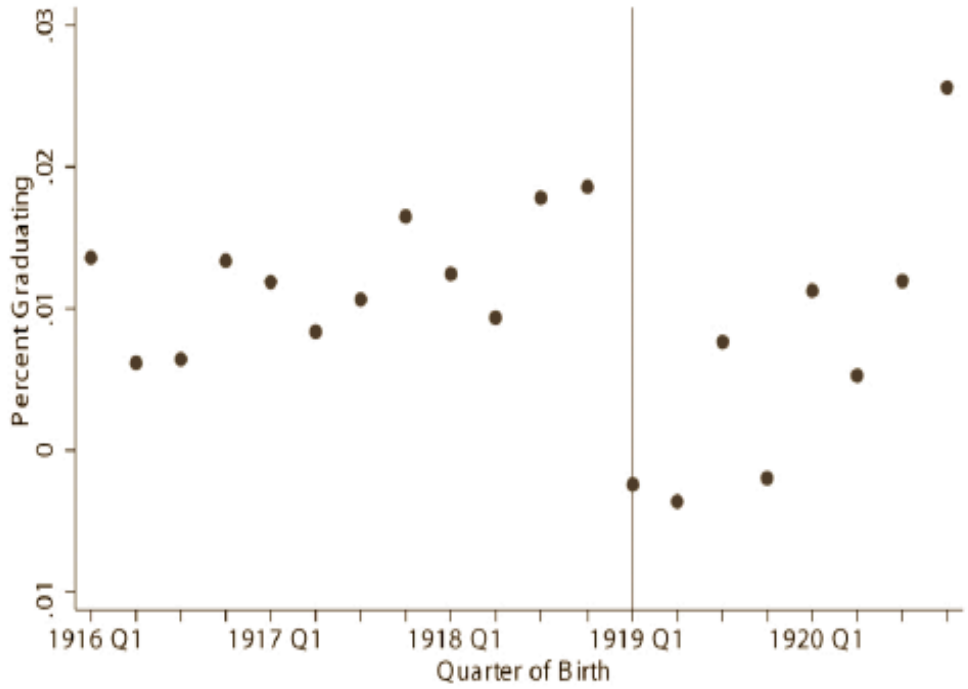


FIG. 5.—*a*, 1980 high school graduation rate by quarter of birth. *b*, Regression-adjusted 1980 high school graduation rate by quarter of birth.

WIC addresses this crucial period. Evidence suggests that WIC Works!

- Reduces the incidence of low birth weight especially among black mothers.
- Reduced anemia among young children between 1975 and 1985.
- Sibling studies show gains in cognitive functioning among children who got WIC in utero.

Costs of extending these programs to all eligible children would be modest

Table 3: Costs of Eliminating Poverty and Providing Basic Services to All Children

	Cost (billions)	# children (millions)
Total poverty gap[a]	46.7	13.0
Transfer needed to close gap given existing near-cash programs (SSI, Food Stamps, EITC, housing etc.)[b]	21.7	
Medicaid and SCHIP for currently covered and uninsured children (see Table 2)	75.9	34.6
Current Head Start[c]	6.8	0.9
Estimated Head Start for eligible unenrolled children[c]	6.8	0.9
Current WIC[d]	5.0	8.1
Estimated WIC for eligible unenrolled	3.7	6.0
Estimated infant home visiting program for all children[e]	14.0	73.8
Total	180.6	
Total additional over current spending	60.8	

[a] From Ziliak (forthcoming) and refer to 2001.[i]

[b] Estimates of number of children in poverty are from U.S. Bureau of the Census (2004).[20]

[c] Head Start numbers based on assumption that 50 percent of eligible children are currently served, so that full coverage would double costs.[ii]

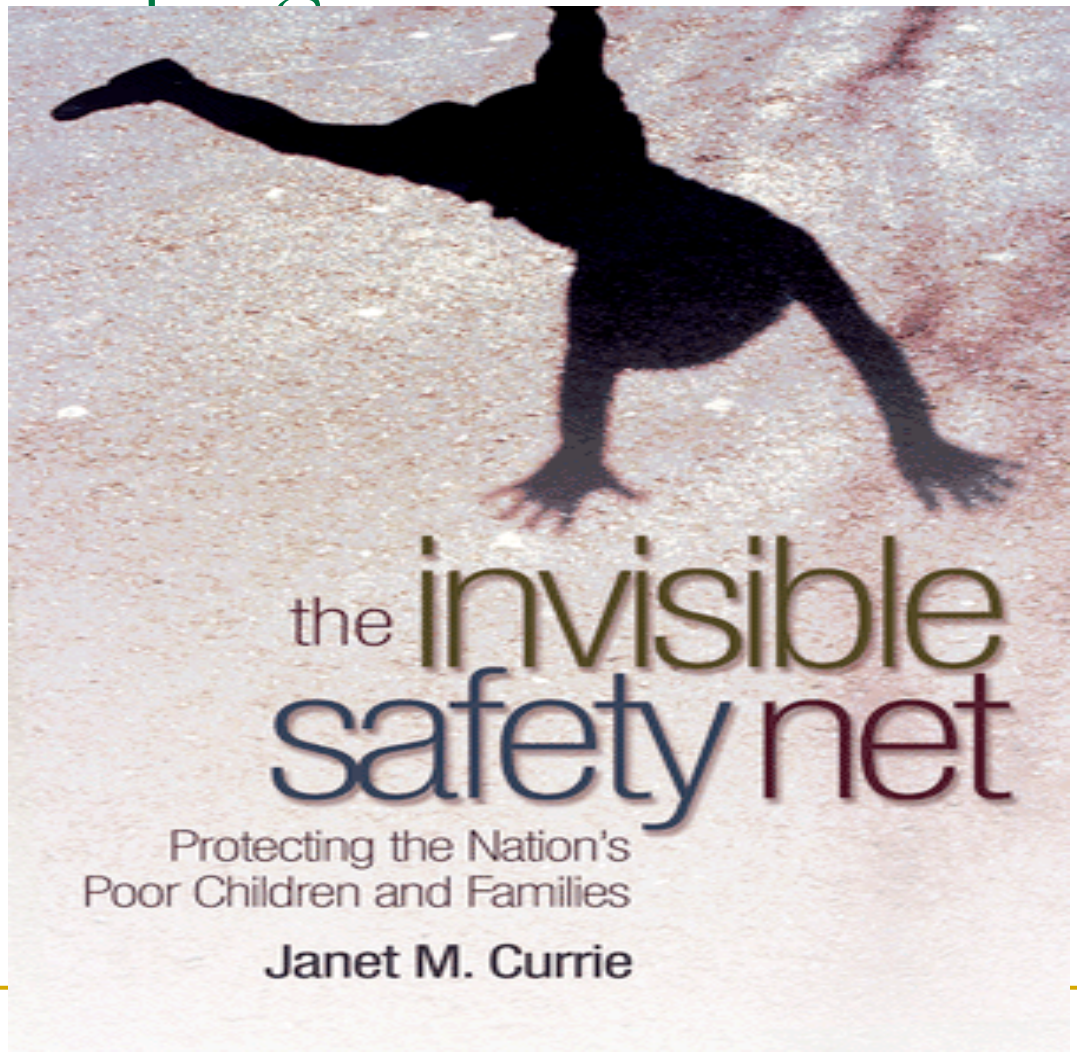
[d] WIC current data from FNS (2008).[iii] Estimates of WIC eligible unenrolled from NAS (2003).[iv] Since the number of WIC eligibles has grown since the NAS report, we adjust the numbers of unserved downwards. Cost estimate is pro-rated given current spending.

[e] Home visiting estimate based on a cost of $4000 per child. Assumes all children receive an initial visit but only children with risk factors are followed.

Compare to:

- Costs of Medicare: $380 billion
- Costs of Medicaid: $258 billion
- Costs of Social Security: $480 billion
- Costs of “bailout”: One trillion and rising!

For further analysis of anti-poverty and pro-health programs that work see:



Conclusions

- Costs of child health disparities are under-estimated if effects on future productivity are not considered.
- Poor children are likely to have multiple conditions, and are more limited by their conditions.
- Extending insurance coverage and reducing income poverty are important, but these policies will not eliminate health disparities.
- Policies must reach needy children before problems start. Proven programs along this line include early intervention programs, nurse home visiting programs, and WIC.
- Extending such programs to all needy children inexpensive relative to other important government programs.