



Atkinson Centre for  
Society and Child Development



Effective Programs for  
Early Child Development:  
Linking Research to Policy and Practice



## Biodevelopmental Processes



# Society and Child Development

Criteria for effective programs for early child development:

1. What is the strength of the relationship of the program target to the outcomes?
2. What evidence is there that changing the input changes the outcome?
3. Is there a known mechanism for the relationship from input to outcome?
4. Is changing the input feasible from a policy perspective? How substantial an impact will it have?

[From Boyce & Keating (in press), Should we intervene to improve childhood circumstances? In Kuh & Ben-Shlomo, *A lifecourse approach to chronic disease epidemiology*.

*The Relationship between Behavioural Markers of Vulnerability and Parental Harshness and Consistency*  
(Odds-Ratios)

Children Aged 2 and 3*	Separation Anxiety		Emotional Disturbance		Anxiety		Hyperactivity		Physical Aggression	
	I	II	I	II	I	II	I	II	I	II
	Socioeconomic Status	<b>.85</b>	.89	1.27	1.28	1.30	<b>1.38</b>	<b>.68</b>	<b>.73</b>	<b>.72</b>
Harsh		<b>1.16</b>		<b>1.88</b>		<b>1.96</b>		<b>1.70</b>		<b>1.92</b>
Consistent		<b>.89</b>		1.05		.99		.87		.93

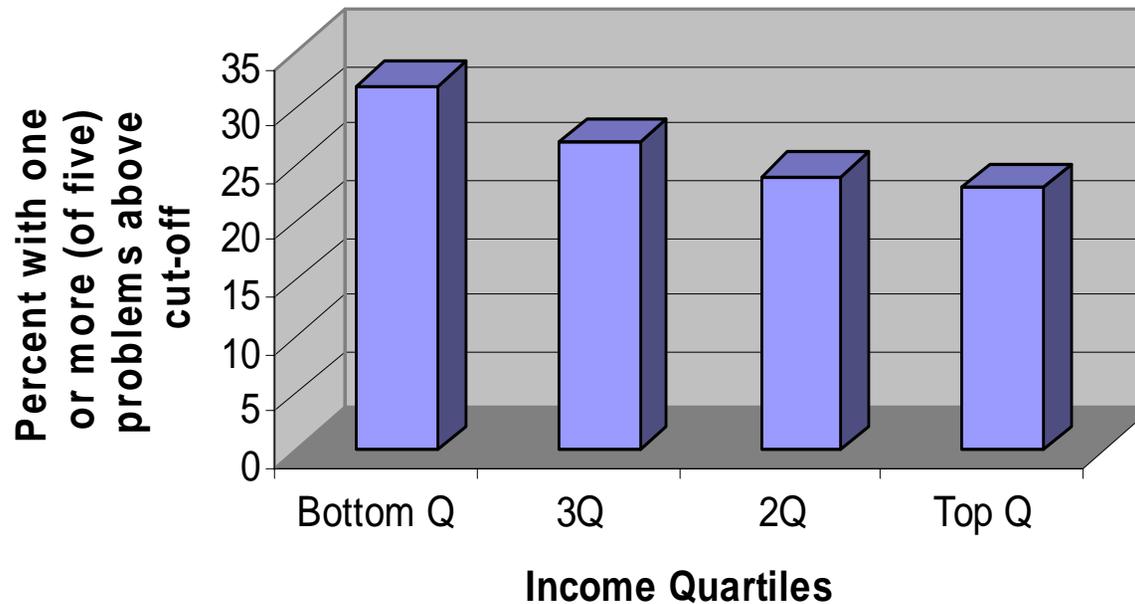
Children Aged 8 and 9*	Conduct Disorder		Emotional Disturbance		Anxiety		Hyperactivity		Physical Aggression	
	I	II	I	II	I	II	I	II	I	II
	Socioeconomic Status	<b>.18</b>	<b>.23</b>	<b>.68</b>	<b>.71</b>	<b>.78</b>	<b>.80</b>	<b>.65</b>	<b>.68</b>	<b>.67</b>
Harsh		<b>3.98</b>		<b>1.96</b>		<b>1.85</b>		<b>1.92</b>		<b>2.44</b>
Consistent		<b>.49</b>		.98		1.05		<b>.92</b>		<b>.84</b>

[Adapted from Miller, Jenkins, & Keating, 2002 (Table 10.2); in Willms, D., *Vulnerable Children: Findings from the National Longitudinal Study of Children and Youth*, U. Alberta Press] \*N = approximately 2000 per cohort. NOTE: Scores derived from parent report.

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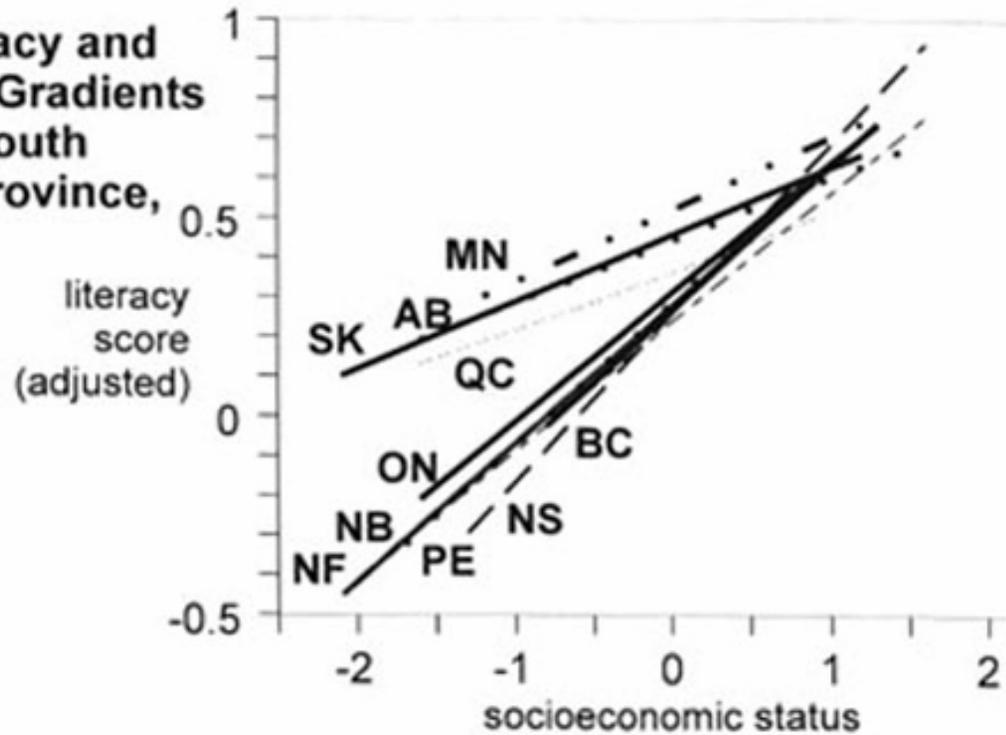
## Vulnerable Children by Household Income: Canadian NLSCY

(J. D. Willms [ed.], Vulnerable Children, 2002)



## The Founder's Network

### Literacy and SES Gradients for Youth by Province, 1994



J. Douglas Wilms, "Literacy Skills of Canadian Youth"  
Atlantic Centre for Policy Research in Education, University  
of New Brunswick, October 21, 1996. Prepared for Statistics Canada

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**Societies with sharper social status differences have generally lower developmental health.**

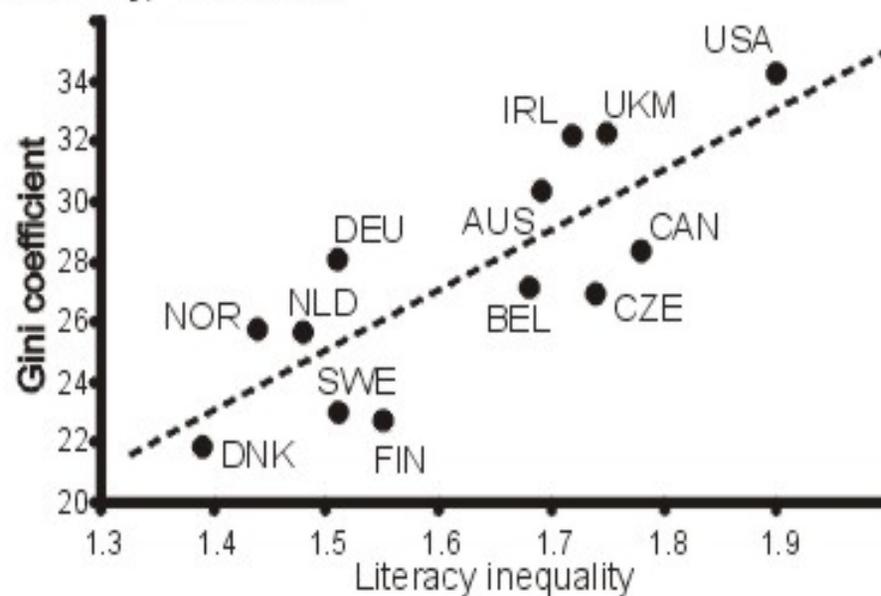
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**At least three policy implications:**

- 1. Income/wealth disparities**
- 2. Distribution of developmental opportunities and programs**
- 3. Social capital, especially in community connections**

[Boyce & Keating (in press). Should we intervene to improve childhood circumstances? D. Kuh & Y. Ben-Shlomo, *A life course approach to chronic disease epidemiology*, Oxford U. Press]

### Relationship Between Economic Inequality (Gini Coefficient) and Inequality in the Distribution of Literacy, 1994-1998



LITERACY IN THE INFORMATION AGE, Final Report of the International Adult Literacy Survey, Statistics Canada/OECD 2000 pg.81

# Types of Programs

Income/Wealth Gradient	Developmental Opportunities/ Programs	Social Capital: Community	Social Capital Society
<i>Child benefit payments vs. “workfare” battle: tough sell</i>	Parent Education [COPE, Triple P, attachment, Early Start, home visting]	BBBF, Sure Start (comprehensive in high risk areas); COPE	Triple P (media); <i>National Children’s Agenda, political recognition, OECD et al.</i>
	Centre-based [Care, ECD, prevention , parent support]		

## Evidence based criteria by type of program

	Strength of association?	Change leads to outcome improved?	Mechanism understood?	Policy/ population impact?
Parenting	Strong	Yes (“time to abandon ‘controls’”)	Somewhat (factors known, how “into” child?)	Policy support/ pop. coverage open (gradients?)
Early Child Development Centres	Strong (if high enough quality)	Yes (with caveats on quality/ quantity/ intensity)	Somewhat (quality factors known, cf. above)	Policy iffy (investment vs. benefit to some) Pop. Impact high <i>IF</i> . . .
Community Development	Strong (gradients); some (neighbourhoods)	Provisionally yes, more info needed	Multiple risk clear; specifics no	Policy attractive, pop. impact possibly highest

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- To support human development in the broadest sense, social innovations are essential
- Such innovations likely require conscious design rather than the slower pace of biocultural evolution
- A major feature of future conscious design is how to integrate the approaches that meet evidence based criteria
- New “coherent” institutions to replace “incoherent” networks and temporary coalitions? (Analogy to universal education)

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- Research is needed to **identify links** among population trajectories in developmental health, biodevelopmental processes, and contexts for development.
- Implementation of programs needs to be **evidence-based** in a continuous improvement model
- Establishing rigorous procedures for **monitoring progress** is essential for this understanding to become part of on-going public discourse.

## Continuing Tensions

- Universal – targeted – clinical
  - What we know how to fix, where the greatest needs are (population definition, or multiple risk definition)
- RCTs – evaluation – community/population monitoring
  - Rigor not attached to methodology, but rather the match between question and method
  - Degree of “coverage” attainable in scaling: SES gradients?
- Top-down design vs. bottom-up design/choice
- Professional roles/status in how choices are made/enacted
  - medical/health/mental health, education, child care, policy makers/advisors, parents, public at large)