Working with Health Care Institutions and Systems to Advance Child Health in Low-Income Communities

Council on Community Pediatrics Program
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Disclosures

Dr. Racine has no financial conflicts or disclosures to report and will not be discussing any off-label products in this talk.
Outline

Poverty and child health
  o Theoretical considerations
  o Empirical findings
  o Recent trends

The response of the health care system
  o At the policy level
  o At the institution level
  o At the practice level
Theoretical Considerations
Income and health status: a human capital approach

\[ h = \alpha_0 + \beta_1 \text{Gen} + \beta_2 \text{Ed} + \beta_3 \text{Nutr} + \beta_4 \text{Hous} + \beta_5 \text{Envir} + \beta_6 \text{HS} + \varepsilon \]

And \[ \partial h / \partial \text{HS} > 0 \]
Income and health status: a human capital approach

\[ h_t = h_{t-1} - \delta(c_{t-1})h_{t-1} + \varepsilon(y, h_{t-1})h_{t-1} \]

And

\[ \frac{\partial \varepsilon(y, h_{t-1})}{\partial y} > 0 \]

Source: Case et al. NBER, 2001
Poverty and Child Health
Case, et al. 2001

“Using several large, nationally representative data sets, we find that children’s health is positively related to household income, and that the relationship between household income and children’s health status becomes more pronounced as children get older.”
Health Shocks

Figure 4.2 The evolution of children's health status

Empirical Findings
Self-reported Health Status

U.S. Bureau of the Census, CPS; 2014
Child well-being in rich countries
A comparative overview
Child Poverty Rates: International Comparisons
The percent of 11, 13, and 15 year olds who rate their “life satisfaction” at a level of 6 or more out of 10.
Correlation between income inequality and the UNICEF index of child wellbeing

Pickett K E, Wilkinson R G BMJ 2007;335:1080
The Top Ten Percent Income Share, 1917 - 2008

Great Depression 1929-1941
Great Compression 1941-1979
Great Divergence 1979-present

Top 10% Income Share

Excluding capital gains
Including capital gains

Income is defined as market income (and excludes government transfers). In 2008, top decile includes all families with annual income above $109,000.

Source: Thomas Piketty and Emmanuel Saez.
And in the United States....

| Source: Pickett K E , Wilkinson R G BMJ 2007;335:1080 |
Recent Trends
The Disappearing Income Gradient in New York City Birth Outcomes: Thirteen Years of Convergence From 1988 to 2001

Andrew D. Racine and Theodore J. Joyce

*Pediatrics* 2004;114;e51-e57

DOI: 10.1542/peds.114.1.e51
Health Center Districts, New York City
Trends in Infant Mortality in New York City 1988 - 2001
Inequality in mortality decreased among the young while increasing for older adults, 1990–2010

J. Currie\(^{1,2,3}\) and H. Schwandt\(^{3,4,5}\)
Fig. 2 Male 3-year mortality rates by poverty percentile across age groups.


Published by AAAS
Fig. 3 Female 3-year mortality rates by poverty percentile across age groups.

Policy Level Response
“In March 1999, British prime minister Tony Blair made a dramatic pledge to end child poverty in the next twenty years. The announcement startled the journalists, advocates, and academics he had invited to hear him address child poverty at Toynbee Hall, a settlement house in the East End of London. None among them would have dared imagine he would make such a bold pledge or commit his government to such an ambitious agenda of reform.”
Primary Prevention

• Promoting work and making work pay
  o Minimum wage set at 50% of the median wage
  o Voluntary welfare-to-work experiments
  o Working Families Tax Credit paid throughout the year

• Increasing financial support for families
  o Increase in Universal Child Allowance
  o Child tax credit with increases for infants
Secondary Prevention

• Investing in children
  o Universal free pre-school to all 4 year olds
  o Nine months of paid maternity leave
  o Flexible work hours for parents of children under 6
  o Increased home visiting for infants
  o Limiting class sizes in elementary school
  o Educational Maintenance Allowances
The British Case: Results

Figure 1: Absolute Poverty in the U.S. & U.K. 1989–2009


Figure 5.
Poverty Rates by Age: 1959 to 2015

Note: The data for 2013 and beyond reflect the implementation of the redesigned income questions. The data points are placed at the midpoints of the respective years. Data for people aged 18 to 64 and aged 65 and older are not available from 1960 to 1965. For information on recessions, see Appendix A. For information on confidentiality protection, sampling error, non-sampling error, and definitions, see <www2.census.gov/programs-surveys/cps/techdocs/cpsmar16.pdf>.

Figure 1

Uninsured Rates Among Nonelderly Adults and Children, 1997-2012

NOTE: Children includes all individuals under age 18.
SOURCE: KCMU analysis of the National Health Interview Survey data.
UNINSURED

Source: Larson et al. *Pediatrics* (forthcoming)
Uninsured Rates of Children, by Citizenship Status, 2011

Percent Uninsured:

- U.S.-Born Parents: 7%
- Naturalized Parents: 13%
- Non-Citizen Parents: 16%
- Non-Citizen Children w/ Non-Citizen Parents: 29%

Citizen Children

Effect of Taxes and Transfers on Income Inequality

Selected OECD Countries 2012

Gini of Income before taxes/transfers
Gini of Income after taxes/transfers
Institution Level Response
Essential Institutional Elements

- Awareness of context
- Leadership
- Architecture and Alignment
- Scale and Integration
- IT interface
- Government partnership
Practice Level Response
Practice

- Who we treat
- How we get paid
- What we do
- How we do it
Percent of Patient Caseload With Financial Hardship

Source: AAP Periodic Survey of Fellows #90, 2015
Percent of U.S. Pediatricians reporting Medicaid participation

<table>
<thead>
<tr>
<th>State</th>
<th>Percent Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>All States</td>
<td>59.1%</td>
</tr>
<tr>
<td>North Dakota and Wyoming</td>
<td>100%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>34%</td>
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</tbody>
</table>

Source: Suk-fong Tang, AAP Member Survey on Medicaid Participation
State Medicaid Payment Reforms

• Enhanced payments for care coordination
  o PMPMs for PCMH certified providers
  o Risk adjustments
  o Pay for performance incentives

• Shared savings/risk
  o ACOs
  o Episode based

• Global budgets i.e. full risk capitation
What we do

• Enhanced screening and referral for socio-economic risk factors
• Incorporation of ROR, Healthy Steps, Head Start and pre-school
• Co-location of behavioral health and early recognition of toxic stress
Proportion of Pediatricians Who Routinely Screen

Source: AAP Periodic Survey of Fellows #90, 2015
How we do it

• Team-based practice
• Enhanced care management
• Advocacy
• Cost-shifting
Summary