Section D

An Ecological Framework for Considering Child Development
Ecological Systems Theory

- **Microsystem**: activities and interaction patterns in a child’s immediate surroundings

- **Mesosystem**: linkages across different settings that include the child

- **Exosystem**: social settings that do not contain the child but that affect experiences in the child’s immediate settings

- ** Macrosystem**: larger societal values, historical changes, social policies, laws, resources
Ecological Systems Theory

Influences on Child Health

- Child
- Family
- Community
- Social Policy
Low- and Very-Low-Birth-Weight Babies

Percentage of babies born at a low or very-low birthweight, 1980-2002

- Low birthweight (less than 2,500 grams, or 5.5 pounds)
- Very-low birthweight (less than 1,500 grams, or 3.3 pounds)

Average scores on estimated mental processing composite* among middle school students, by birthweight

- Under 750 grams (1.65 pounds): 83
- Under 1,500 grams (3.3 pounds): 97
- Normal birthweight: 106


Influences on Child Health

- Child
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Percentage of children under age six in families living below the poverty line, 1970–2003


Percentage of children under age six in families living below the poverty line, by family structure, 2003

Percentage of parents who provided various forms of warmth and affection every day in the past month, by age of child, 1997

- **Fathers**
  - Hugged or showed physical affection to their children:
    - 0 to 2 years: 90%
    - 3 to 5 years: 84%
  - Told their child that they love him/her:
    - 0 to 2 years: 80%
    - 3 to 5 years: 69%

- **Mothers**
  - Hugged or showed physical affection to their children:
    - 0 to 2 years: 98%
    - 3 to 5 years: 93%
  - Told their child that they love him/her:
    - 0 to 2 years: 95%
    - 3 to 5 years: 91%


Parental aggravation is based on the questions: How much of the time during the past month have you: Felt your child/children are much harder to care for than most? Felt your child/children do things that really bother you a lot? Felt you are giving up more of your life to meet your child/children’s needs than you ever expected? Felt angry with your child/children?

Source: Child Trends original analyses of the National Survey of America’s Families.
Child Maltreatment rates per 1,000 for children ages three and under by type of abuse and gender, 2000

Parental Depression

Percentage of kindergartners with parents considered at risk for depression by poverty status, 1998

- Below poverty threshold: 27%
- At or above poverty threshold: 13%

Percentage of first-time kindergartners who exhibit behavioral self-control often of very often as reported by parents, by parental depression, 1998

- Parents not at risk for depression: 50%
- Parents at risk for depression: 35%

Source: Child Trends’ original analyses of the Early Childhood Longitudinal Study (ECLS-K) Kindergarten Cohort.
Influences on Child Health

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Percentage of children under age five living in poor and very poor neighborhoods in the United States, 1999

- 20+ % poverty neighborhood: 21.5%
- 40+ % poverty neighborhood: 3.5%

Source: Original analyses by the Population Reference Bureau of 2000 Decennial Census Data.

Percentage of children under age five living in neighborhoods in which at least 20 percent of the population lived in poverty, 1999

- Under 10 percent
- 10 to under 20 percent
- 20 to under 30 percent
- 30 to under 40 percent
- 40 percent and above

Source: Original analyses by Population Reference Bureau of Decennial Census 2000 data.
Blood Lead Levels

Percentage of children ages one to five with elevated blood lead levels

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976–1980</td>
<td>88%</td>
</tr>
<tr>
<td>1988–1991</td>
<td>8.6%</td>
</tr>
<tr>
<td>1991–1994</td>
<td>4.4%</td>
</tr>
<tr>
<td>1999–2000*</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

1 Includes children with blood lead levels of at least 10 micrograms per deciliter.
2 Data for 1999-2000 are highly variable (relative standard error greater than 30 percent).

Influences on Child Health

- Child
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Percentage of children under age six who received a well-child check-up in past year, 2002

<table>
<thead>
<tr>
<th>Age</th>
<th>Race/Hispanic origin</th>
<th>Parental education</th>
<th>Poverty status</th>
<th>Health insurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 2 years</td>
<td>88%</td>
<td>77%</td>
<td>84%</td>
<td>86%</td>
</tr>
<tr>
<td>2 to 3 years</td>
<td>84%</td>
<td>83%</td>
<td>81%</td>
<td>71%</td>
</tr>
<tr>
<td>4 to 5 years</td>
<td>82%</td>
<td>86%</td>
<td>88%</td>
<td>86%</td>
</tr>
<tr>
<td>White</td>
<td>88%</td>
<td>86%</td>
<td>82%</td>
<td>77%</td>
</tr>
<tr>
<td>Black</td>
<td>86%</td>
<td>83%</td>
<td>81%</td>
<td>71%</td>
</tr>
<tr>
<td>Asian</td>
<td>84%</td>
<td>86%</td>
<td>88%</td>
<td>86%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>82%</td>
<td>77%</td>
<td>84%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Source: Original analyses by Child Trends of 2002 National Health Interview Survey data.

* Persons of Hispanic origin may be of any race. Estimates for whites, blacks and Asians do not include persons of Hispanic origin. These estimates reflect the new Office of Management and Budget (OMB) race definitions, and include only those who are identified with a single race.
Dental Visits and Unmet Dental Needs

Dental care in past year among children ages two to five, by health insurance status, 2002

Did not see dentist in past year

- 73% Not covered by health insurance
- 48% Covered by health insurance

Unmet dental need due to cost*

- 8% Not covered by health insurance
- 2% Covered by health insurance

* Children were classified as having unmet dental needs if at any time during the past 12 months, they needed dental care (including check-ups) but did not receive it because their families could not afford it.

Source: Child Trends original analyses of National Health Interview Survey data.
