Defining a Pathway for Health

Everychild Foundation
State of Our Children: LA 2013 Symposium
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Los Angeles County: Background

- 4,060 square miles
- 88 incorporated cities
- 2 islands
- 9.8 million residents (more than 41 States)
- 100+ languages spoken by significant size populations*
- 16% of entire population living in poverty
  - 23% of children in poverty**

## Children, Adolescents & Young Adults in LA County, 2011

<table>
<thead>
<tr>
<th>Age</th>
<th>Total Population</th>
<th>MALE % of Total Population</th>
<th>FEMALE % of Total Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>LA County</td>
<td>9,889,056</td>
<td>4,877,989</td>
<td>5,011,067</td>
</tr>
<tr>
<td>0-4</td>
<td>6.6%</td>
<td>6.8%</td>
<td>6.3%</td>
</tr>
<tr>
<td>5-9</td>
<td>6.3%</td>
<td>6.6%</td>
<td>6.0%</td>
</tr>
<tr>
<td>10-14</td>
<td>6.8%</td>
<td>7.0%</td>
<td>6.6%</td>
</tr>
<tr>
<td>15-19</td>
<td>7.4%</td>
<td>7.7%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Total</td>
<td><strong>27.1%</strong></td>
<td><strong>28.1%</strong></td>
<td><strong>26.0%</strong></td>
</tr>
</tbody>
</table>

Source: American Fact Finder: Age and Sex: 2011 American Community Survey 1-Year Estimates
http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_1YR_S0101&prodType=table

MORE THAN A QUARTER OF THE COUNTY’S POPULATION

2.6 Million+
## Leading Causes of Death
### Ages 0-24, 2008

<table>
<thead>
<tr>
<th>Age group</th>
<th># of deaths</th>
<th>#1 cause</th>
<th>#2 cause</th>
<th>#3 cause</th>
<th>#4 cause</th>
<th>#5 cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year old</td>
<td>741</td>
<td>Low BW/ prematurity 116</td>
<td>SIDS*</td>
<td>Heart defect</td>
<td>Pregnancy complication</td>
<td>Other birth defects</td>
</tr>
<tr>
<td>18 per 100,000</td>
<td>488 per 100,000</td>
<td>76 per 100,000</td>
<td>48 per 100,000</td>
<td>29 per 100,000</td>
<td>29 per 100,000</td>
<td>18 per 100,000</td>
</tr>
<tr>
<td>1-4 years old</td>
<td>111</td>
<td>Homicide</td>
<td>MV crash</td>
<td>Birth defect</td>
<td>Brain/CNS cancer**</td>
<td>Septicemia**</td>
</tr>
<tr>
<td>18 per 100,000</td>
<td>11</td>
<td>MV crash</td>
<td>Birth defect</td>
<td>Brain/CNS cancer**</td>
<td>Septicemia**</td>
<td>&lt;5</td>
</tr>
<tr>
<td>5-14</td>
<td>208</td>
<td>Homicide</td>
<td>MV crash</td>
<td>Suicide</td>
<td>Drug OD</td>
<td>Leukemia**</td>
</tr>
<tr>
<td>14 per 100,000</td>
<td>322</td>
<td>21 per 100,000</td>
<td>13 per 100,000</td>
<td>6 per 100,000</td>
<td>3 per 100,000</td>
<td>2 per 100,000</td>
</tr>
<tr>
<td>15-24</td>
<td>932</td>
<td>Homicide</td>
<td>MV crash</td>
<td>Suicide</td>
<td>Drug OD</td>
<td>Leukemia</td>
</tr>
<tr>
<td>60 per 100,000</td>
<td>322</td>
<td>21 per 100,000</td>
<td>13 per 100,000</td>
<td>6 per 100,000</td>
<td>3 per 100,000</td>
<td>2 per 100,000</td>
</tr>
</tbody>
</table>

**Sudden Infant Death Syndrome.**

**# of deaths too small to calculate a reliable rate.**

Many causes are preventable!
Disparities Persist

- In LA County, life expectancy for an African American male at birth (69.4 yrs) is nearly 18 years shorter than that of an Asian/Pacific Islander female (86.9yrs)
Asthma: Lifetime Prevalence in Children by Race/Ethnicity, LA County, 2007

- White: 8.1%
- Latino: 6.4%
- Black: 18.4%
- Asian/PI: 6.7%

Source: LAC Health Survey: Childhood Asthma, 2007, LACDPH
Disparities from the Life Course Perspective

Protective & Risk Factors
- Socioeconomic status
- Race and racism
- Health care
- Disease status
- Stress
- Nutrition
- Weight status
- Birth weight
- Various health behaviors

Intergenerational impact of pregnancies on major chronic diseases

- Mother’s body composition and diet at conception and during gestation have important effects on health of offspring
- The lower the weight at birth and during infancy the higher the risk for coronary heart disease later in life
- Low birth weight also associated with increased risk of hypertension, stroke and type 2 diabetes
Prevention Before Day One

• **Preconception**
  – Maintain healthy weight
  – Folic acid supplementation

• **Prenatal**
  – Early care
  – Healthy weight gain
  – Disease screening (e.g. Diabetes)

• **Maternal obesity in early pregnancy** more than doubles risk of obesity in child 2-4 years old\(^1\)

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### Prevalence of Pre-Pregnancy Obesity or Overweight Among Women Who Recently Had a Live Birth, by Age and Race/Ethnicity, LA County, 2010

<table>
<thead>
<tr>
<th>Age</th>
<th>Prevalence</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>35.6%</td>
<td></td>
</tr>
<tr>
<td>20-24</td>
<td>49.9%</td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>45.0%</td>
<td></td>
</tr>
<tr>
<td>&gt;34</td>
<td>43.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>White</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hispanic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>African American</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Asian/PI</td>
</tr>
</tbody>
</table>

- White: 31.2%
- Hispanic: 53.5%
- African American: 53.3%
- Asian/PI: 18.9%
Best health outcomes are associated with:

• exclusive breastfeeding

• sustained breastfeeding
Breastfeeding – Prevention for Babies

Risk Differences for Various Diseases

- Acute:
  - Acute Otitis Media: -23%
  - Atopic Dermatitis: -42%
  - GI (non-specific): -64%

- Chronic:
  - Asthma: -40%
  - Type 2 Diabetes: -39%
  - SIDS: -36%
  - Childhood Leukemia: -24%
  - Obesity: -24%

A Critical Time for Brain Development

Source: Dr. Jack P. Shonkoff
Center on the Developing Child, Harvard University
Healthy People 2020: Developmental Periods

**Early Childhood** *(Birth – 8 Yrs)*
- Tremendous physical, cognitive and socio-emotional development

**Middle Childhood** *(6 – 12 Yrs)*
- Develop skills for building healthy social relationships and learn roles that lay groundwork for a lifetime

**Adolescent** *(10 – 19 Yrs)*
- Establish behavioral patterns that help determine current health status and risk for developing chronic diseases in adulthood

Adverse Childhood Experiences (ACE) Study

- Surveyed over 9,500 adults
- 7 categories of adverse childhood experiences:
  - Psychological, physical or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill, suicidal or ever imprisoned.
- Strong graded relationship between ACEs and multiple risk factors for several leading causes of death including cancer, chronic lung disease, and liver disease.
- Later ACE study\(^2\) (n=17,000+ adults) associated ACEs with increased risk of premature death.
  - People with 6+ ACEs died nearly 20 years earlier, and had 3x times greater years life lost per death, than those without ACEs.

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Health Influences Over the Lifetime

One Model of Population Health

Health Outcomes
- Mortality (50%)
  - Health behaviors (30%)
    - Tobacco use
    - Diet & exercise
    - Alcohol use
    - Unsafe sex
  - Clinical care (20%)
    - Access to care
    - Quality of care
  - Social & economic factors (40%)
    - Education
    - Employment
    - Income
    - Family & social support
    - Community safety
  - Physical environment (10%)
    - Environmental quality
    - Built environment

Morbidity (50%)

Health Factors
- Physical environment (10%)
- Social & economic factors (40%)
- Clinical care (20%)
- Health behaviors (30%)

Programs and Policies

County Health Rankings model © 2010 UWPHI
Improving Educational Outcomes

Improves Health Outcomes
Education Matters:

More Formal Education = Longer Life Expectancy

And It Matters to the Next Generation: 
*Mother’s Education Related to Infant Mortality*

- **0-11 years**: 8.1
- **12 years**: 7.6
- **12-15 years**: 6.2
- **16 or more years**: 4.2

Years of School Completed by Mother, All Ages

Poverty US, CA, LA County: Under Age 18

NEARLY 1 IN 4 CHILDREN IN LA COUNTY LIVE BELOW FPL

% of Population in Poverty

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

U.S. CA LA County

22 21.6 24.5

28 26 24 22 20 18 16 14 12

U.S. Census Bureau, Small Area Income and Poverty Estimates Program, November 2011
How much income does a family need to meet basic needs without public or private aid in LA County?

Self-sufficiency standard is based on the costs families face daily
- Housing, food, child care, out-of-pocket medical expenses, transportation, and other necessary spending

Some Effects of Poverty

- Children born poor are 3x more likely not to complete HS than those not born poor.¹
- By age 50, children who grew up in poverty are more likely to have asthma, hypertension, diabetes, stroke, heart attack and heart disease than children who did not.²
- Studies have shown lower-income children experience higher rates of asthma, heart conditions, hearing problems, digestive disorders, elevated blood lead levels and are more likely to be obese.³, ⁴, ⁵

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### Cities/Communities with Lowest and Highest Childhood Obesity Prevalence, 2008

<table>
<thead>
<tr>
<th>City/Community Name</th>
<th>Obesity Prevalence (%)</th>
<th>Rank of Economic Hardship (1 - 128)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Athens</td>
<td>30.6</td>
<td>94</td>
</tr>
<tr>
<td>South Gate</td>
<td>30.7</td>
<td>110</td>
</tr>
<tr>
<td>Florence-Graham</td>
<td>31.0</td>
<td>128</td>
</tr>
<tr>
<td>West Whittier-Los Nietos</td>
<td>31.1</td>
<td>81</td>
</tr>
<tr>
<td>West Carson</td>
<td>31.4</td>
<td>56</td>
</tr>
<tr>
<td>Vincent</td>
<td>32.2</td>
<td>69</td>
</tr>
<tr>
<td>East Los Angeles</td>
<td>32.9</td>
<td>117</td>
</tr>
<tr>
<td>Hawaiian Gardens</td>
<td>33.4</td>
<td>107</td>
</tr>
<tr>
<td>South El Monte</td>
<td>34.5</td>
<td>111</td>
</tr>
<tr>
<td>Walnut Park</td>
<td>38.7</td>
<td>113</td>
</tr>
<tr>
<td><strong>Average 10 highest</strong></td>
<td><strong>32.7%</strong></td>
<td></td>
</tr>
<tr>
<td>Ave Median Household Income</td>
<td><strong>$37,747</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City/Community Name</th>
<th>Obesity Prevalence (%)</th>
<th>Rank of Economic Hardship (1 - 128)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manhattan Beach</td>
<td>3.4</td>
<td>2</td>
</tr>
<tr>
<td>Calabasas</td>
<td>5.0</td>
<td>8</td>
</tr>
<tr>
<td>Hermosa Beach</td>
<td>5.1</td>
<td>1</td>
</tr>
<tr>
<td>Agoura Hills</td>
<td>5.3</td>
<td>10</td>
</tr>
<tr>
<td>Beverly Hills</td>
<td>5.4</td>
<td>19</td>
</tr>
<tr>
<td>Malibu</td>
<td>5.9</td>
<td>4</td>
</tr>
<tr>
<td>Palos Verdes Estates</td>
<td>7.3</td>
<td>5</td>
</tr>
<tr>
<td>San Marino</td>
<td>7.8</td>
<td>15</td>
</tr>
<tr>
<td>Rolling Hills Estate</td>
<td>8.4</td>
<td>9</td>
</tr>
<tr>
<td>La Canada Flintridge</td>
<td>8.5</td>
<td>18</td>
</tr>
<tr>
<td><strong>Average 10 lowest</strong></td>
<td><strong>6.2%</strong></td>
<td></td>
</tr>
<tr>
<td>Ave Median Household Income</td>
<td><strong>$99,555</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Table excludes cities/communities where number of students with BMI data < 500.
Source: CA Physical Fitness Testing Program, CA Department of Education. Includes 5th, 7th, and 9th graders enrolled in LAC public schools; 2000 Census
“Healthy development in the early years provides the building blocks for educational achievement, economic productivity, responsible citizenship, lifelong health, strong communities and successful parenting of the next generation.”

- Dr. Jack P. Shonkoff
Director, Center on the Developing Child
Harvard University
Call to Action

- Children and adolescent health, safety and well-being are affected by an interplay of factors
  - e.g. between the individual and their parents, peers, schools, health care systems, media and policies and laws in many sectors

- Improving health requires government agencies, community organizations, schools, businesses and other stakeholders to work together with an eye toward creating healthy communities and environments for our youngest residents
Policies As Levers of Change

Policies can improve physical and social environments

• Create safe places for physical activity
  – Joint use agreements
  – Walkable/bikable community design
  – Pocket park development

• Improve access to early childhood development programs, particularly for low-income children
Policies As Levers of Change
(continued)

• Fund youth apprenticeship programs and vocational training for at-risk youth
• Expand tenant based rental assistance programs
• Find permanent housing solutions for homeless individuals and families
• Strengthen programs that effectively teach parenting skills
• Ensure all eligible families receive economic supportive services
  – Supplemental Nutrition Assistance Program
  – Earned Income Tax Credit
Policies can increase protective factors

- Support community efforts to build social connectedness (e.g. community gardens)
- Address potentially harmful environmental exposures (e.g. siting schools away from freeways to reduce asthma burden)
- Create environments geared toward prevention (e.g. baby-friendly hospitals)
Thank You!

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