

# Children's Health Protection Advisory Committee

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December 13, 2002

Honorable Christine Todd Whitman  
Administrator

U.S. Environmental Protection Agency  
1200 Pennsylvania Ave, NW  
Washington, D.C. 20406

Dear Administrator Whitman:

The Children's Health Protection Advisory Committee (CHPAC) thanks you for your continuing support for children's environmental health and for your leadership in EPA's smart growth efforts. We believe EPA can protect and promote children's health through a focus on the "built environment," in particular supporting "smart growth" initiatives. This letter is divided into three parts. *First*, we show that land use and transportation policies and practices have a significant impact on children's environmental health. *Second*, we briefly summarize current EPA activities in this area as a starting point for our recommendations. *Third*, we offer these six recommendations:

1. Define smart growth as a health issue;
2. Establish smart growth as an agency wide priority;
3. Form partnerships with the health sector;
4. Ensure that federal agencies integrate public health into land-use, transportation, and smart growth programs;
5. Include public health information in EPA's smart growth tools and technical assistance; and
6. Support research, both internally and in collaboration with partners, on health aspects of smart growth.

## Smart Growth is a Children's Environmental Health Issue

Over the past century, land use patterns have changed dramatically. Before World War II, communities were compact, contained a mix of uses and offered transportation choice, a pattern that can still be seen in the cities and towns of many other countries. Today, as American cities extend into rural areas, large tracts of land are developed in a "leapfrog," low-density

pattern, threatening prime farmland and other green space, while leaving an underutilized and neglected inner core. Homes, businesses, and schools are separated from each other so that most trips, even to buy a newspaper or a quart of milk, are made by automobile. This pattern of metropolitan and regional development impacts both environmental quality and human health. Smart growth offers strategies to ensure that neighborhoods, cities, and regions accommodate growth in ways that are economically sound, environmentally responsible, and supportive of healthy, livable communities.<sup>1</sup> Through creating a clean and safe environment, smart growth can help meet the health needs of children in the following ways:

- *Children need clean air.* Smart growth offers opportunities to replace some motor vehicle trips with walking, biking and clean forms of transit. On the regional scale, less traffic lowers ozone levels, as was seen for example, in Atlanta during the 1996 Olympic Games.<sup>2</sup> On the local scale, smart growth separates homes, schools, and other sensitive land uses from air pollutant sources such as industries and busy roadways. These strategies, in turn, help control the adverse effects of air pollutants on children's health, such as exacerbations of asthma, impaired lung growth, and respiratory tract infections.<sup>3,4,5,6</sup> Air pollution is not confined to the ambient environment; outdoor air pollution from vehicles and other sources contributes to poor indoor air quality, most severely for families who live or send their children to school near high-traffic areas or major emitting industries. The health impacts of air pollution fall disproportionately on poor children and on children of color, especially those living in urban areas.<sup>7,8</sup> Smart growth reduces exposure to air pollutants and benefits children's health.
- *Children need safe drinking water, and the streams, rivers and beaches where children play and explore need to be clean.* Smart growth decreases non-point source pollution by preserving green spaces and reducing impervious surfaces.<sup>9,10,11</sup> Non-point source pollution degrades our lakes and rivers with chemical contaminants, such as pesticides and fertilizers, and microbial contaminants such as *Cryptosporidium* and *Giardia*. Children are more susceptible to waterborne illnesses than adults.<sup>12</sup> Increased loads of sediment and associated pollutants in storm water from developed areas increase the cost and decrease the effectiveness of drinking water treatment, even in state-of-the-art facilities. Turbid drinking water is associated with up to a two-fold increase in the incidence of acute gastrointestinal illness in children.<sup>13,14</sup> Non-point source pollution also contributes to thousands of beach closures each year. Limiting rainwater runoff, and protecting land along streams and rivers from development, protects stream integrity, providing urban and suburban children with wholesome places to play and explore.

Smart growth also protects water and sewer infrastructure. In some communities, growth rates have outpaced the capacity of water and wastewater plants to treat water and maintain drinking water quality. Low-density growth at the periphery contributes to this problem by diverting resources for plant operations from cities' core. A recent U.S. General Accounting Office survey found that more than one-third of utilities have 20 percent or more of their pipelines nearing the end of their useful life, without sufficient funding for timely replacement.<sup>15</sup> Leaks in water and sewer pipelines pose a substantial risk for contamination of drinking water and have contributed to documented outbreaks of waterborne disease. In addition, development beyond the reach of sewer lines has led to a proliferation of septic systems, which are prone to failure and are a significant non-point pollution source.

- *Children need opportunities for regular physical activity, including walking and bicycling to school.* Children in well designed communities walk and bike to school and to other activities, and simply explore, far more than children in automobile-dependent communities. Currently, only 13 percent of trips to school are made by walking,<sup>16</sup> a figure down from what some experts believe was more than 50 percent in the 1960s.<sup>17</sup> Physical activity, in turn, offers an essential bulwark against the rising prevalence of overweight and obese children, and against associated diseases such as diabetes and hypertension. One quarter of American children between the ages of six and 17 are overweight.<sup>18</sup> Smart growth promotes walkable and bikable neighborhoods linked to activity centers by clean, convenient public transit, which promotes physical activity in children. Green spaces, preserved through smart growth or restored through the healthful reclamation of brownfields, provide places to play and interact with nature, and strengthen communities.
- *Children need protection from injuries.* Smart growth decreases motor vehicle crashes by reducing and calming traffic, and by providing safer routes for pedestrians and bicyclists.<sup>19,20,21,22</sup> Motor-vehicle-related injuries remain a leading cause of morbidity and mortality in children.<sup>23</sup> Despite progress on many fronts – safer cars, more use of seat belts and car seats, better enforcement of drunk driving laws, and others – the simple fact is that more time in a car implies more risk of a car crash.<sup>24</sup> Roads designed for high speed and capacity, without regard for safe bicycle and pedestrian use, endanger children as they walk and bike. By promoting smart growth, EPA can further its work with the President's Task Force on Environmental Health Risks and Safety Risks to Children, which has made unintentional injuries a priority.
- *Children need strong communities, with opportunities to interact with family, friends, and neighbors.* Smart growth contributes to strong families and communities. Families benefit from shorter commute times and more time together when homes and workplaces are located near each other. Communities benefit from the presence of sidewalks, parks, and other public places where people can interact and children can play and explore. Finally, smart growth promotes strong, healthy communities by encouraging reinvestment in the urban core and the renewal of urban neighborhoods.
- *Children need the promise of a sustainable future.* In this century and beyond, smart growth offers strategies for stewardship of our land, water, and other natural resources, and for control of global climate change. These strategies will help ensure that the legacy we leave to our children and our children's children will be a sustainable world, with sufficient natural resources and a built environment in which they can thrive and prosper.

### **EPA's Approach to Smart Growth Needs to Be Broadened**

Since 1996, EPA's Office of Policy, Economics and Innovation (OPEI) has worked to minimize adverse environmental impacts of growth. OPEI's approach has included four components: partnerships through the Smart Growth Network, comprised of more than 30 organizations; outreach and education, such as production of the document "Getting to Smart Growth: 100 Policies for Implementation;" technical assistance to groups such as the Association of Metropolitan Planning Organizations; and research and policy development.

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These successful activities serve as a starting point for six recommendations intended to assist EPA in promoting children's health through smart growth initiatives.

### **Recommendations Regarding Children's Health and Smart Growth**

EPA should promote children's environmental health by expanding its smart growth efforts to address the health implications of land use and transportation decisions.

*1. Define smart growth as a health issue.*

EPA's current definition of smart growth is "development that serves the economy, community, and the environment." This definition should be expanded to include the health of the population, recognizing the connections between the built environment and human health. The broader definition promotes public health as a basic criterion in designing, implementing and evaluating all phases of land use and transportation planning. Integrating health in this way enables the agency more fully to protect children's environmental health.

*2. Establish smart growth as an agency-wide priority.*

We recommend that EPA adopt an agency-wide strategy on smart growth that highlights the environmental and public health implications of land use and transportation decisions. The strategy should be tied to achieving specific outcomes, including health related outcomes, and should identify means of measuring performance. EPA offices and programs should collaborate to promote children's health and smart growth. Examples of this strategy may include:

- incorporating children's health and smart growth strategies in regulatory and enforcement actions;
- promoting brownfield redevelopment in ways that maximally protect children's health;
- including children's health criteria in future EPA smart growth awards; and/or
- designating regional coordinators for smart growth to work with their children's health counterparts.

*3. Form external partnerships with the health sector.*

EPA should take a national leadership role in integrating smart growth with children's health. We commend EPA for developing the Smart Growth Network into an effective operating partnership of 30 diverse organizations. However, organizations and agencies representing public health or children's health are conspicuously absent from the network. Furthermore, many organizations and agencies already working on smart growth and transportation issues fail to incorporate public health. EPA can advance children's environmental health through smart growth partnerships with public health organizations such as the National Association of County/City Health Officials and the Association of State and Territorial Health Officials, professional associations such as the American Academy of Pediatrics, health philanthropies such as the Robert Wood Johnson Foundation, and others. These partnerships could expand EPA's efforts through technical assistance, information dissemination, public health policy development, and public health data collection.

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4. *Take a leadership role in ensuring that all federal agencies integrate public health, including child-specific concerns, into land-use, transportation, and smart growth programs.* EPA should also work with other federal agencies to integrate children's health into appropriate programs. Examples might include:

- addressing the children's health impacts of smart growth in the Interagency Task Force on Children's Environmental Health Risks and Safety Risks;
- working with the U.S. Department of Transportation to promote children's health through smart growth programs;
- working with the U.S. Department of Housing and Urban Development to promote brownfield redevelopment and urban revitalization using standards that protect children's health;
- working with CDC and other HHS agencies to improve the collection of relevant data and the development of appropriate health-based indicators; and
- integrating these concerns into relevant federal research programs.

5. *Include public health information in EPA's smart growth tools and technical assistance.* EPA's smart growth efforts already include developing, disseminating, and evaluating tools such as financial incentives, model policies, best practices, and training programs. These resources should be expanded to include useful public health advice and information to assist local decision makers in protecting public health through smart growth and in assessing the public health impacts of alternative land use decisions. These resources should be explicit about ways to protect and promote children's environmental health through smart growth practices.

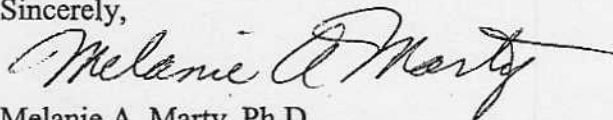
6. *Support research, both internally and in collaboration with partners, on health aspects of smart growth.*

EPA should identify children's health research needs related to land use and transportation. The agency's research planning should build on, and not duplicate, similar efforts recently conducted by CDC and the National Institutes of Health, adding a focus on children's health. Once research needs are identified, EPA should conduct and support studies documenting the health effects of land use and transportation patterns at the state and local levels. In particular, EPA should take a leading role in including these issues in the National Children's Study. Priority should be given to applied studies drawing on planning, public health and other disciplines, and studies that explicitly address implementation issues.

## Conclusion

The CHPAC firmly believes that smart growth offers strategies to benefit the economy, the local and national community, and the environment, and most importantly, to promote and protect children's health today and in the future. We thank you for considering these recommendations, and stand ready to assist you in implementing them.

Sincerely,



Melanie A. Marty, Ph.D.

Chair, Children's Health Protection Advisory Committee

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Cc: G. Anderson, Director, Development, Community and Environment Division  
L. Blackburn, Acting Director, Office of Children's Health Protection,  
Office of the Administrator  
L. Garczynski, Director, Office of Brownfields Cleanup and Redevelopment  
T.J. Gibson, Assistant Administrator, Office of Policy, Economics, and Innovation  
P. Gilman, Assistant Administrator, Office of Research and Development

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