Houston Initiative and Roundtable Discussion: The Environment Related to Asthma and Respiratory Disease in Pre-School and School-Age Children

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Houston Health and Human Services Department, Environmental Health Services

Special Thanks

• To Mr. Stacy Murphy, Schools Coordinator for the U.S. Environmental Protection Agency (EPA) Region 6, for an outstanding job as facilitator.

• To Dr. Martin Lorin, Professor of Pediatrics at Baylor College of Medicine, Attending Physician at Texas Children’s Hospital, and CEHI Board Member, for serving as Chair of the Houston Roundtable Discussion.

• To the Houston Health and Human Services Department for their support and the use of their facilities to host the event.

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Houston Initiative and Roundtable Discussion: The Environment Related to Asthma and Respiratory Disease in Pre-School and School-Age Children

Roundtable Conducted November 15, 2013

Project Description:

The Houston Roundtable Discussion on the Environment Related to Asthma and Respiratory Diseases in Pre-School and School-Age Children was an invitational assembly convened to address the need to improve the prevention and management of asthma and respiratory disease (cystic fibrosis, reactive airway disease and recurrent respiratory tract allergies) in pre-school and school-age children within the Greater Houston Area.

A web-based private forum supported participants in their preparation for the Roundtable Discussion. The Essential Core Elements defined can serve as building blocks for designing effective and sustainable action plans for public/government (including school districts) and private/civic organizations.

The Roundtable Discussion was designed to provoke critical thinking on ways to strengthen and expand current networks to improve the quality of health for pre-school and school-age children afflicted with asthma and other respiratory diseases living in the Greater Houston Area.

The Houston Roundtable Discussion on the Environment Related to Asthma and Respiratory Diseases in Pre-School and School-Age Children supported the Healthy People 2020 Objectives for Respiratory Disease, and the President’s Task Force on Environmental Health Risks and Safety Risks to Children: Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities.

The President’s Task Force on Environmental Health Risks and Safety Risks to Children: Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities strategies included the following:

**Strategy One**

- Priority Action 1.4
In schools and childcare settings, implement asthma care services and reduce environmental exposures, using existing federal programs in collaboration with private sector partners. Promote the use of asthma action (policies) plans through outreach and education to schools, school districts, Head Start and child care providers.

Key Federal Organizations Involved: ACF, AHRQ, CDC, CPSC, ED, EPA, HRSA and NIH (NHLBI, NICHD, NIEHS).

**Strategy Two**

- Priority Action 2.1
Expand the use of practical implementation tools that link all elements of care (e.g., schools, families and health/social service providers).
• Priority Action 2.2
Focus on supporting communities in their efforts to address: school siting new construction, renovations, repairs, operations and maintenance.

• Priority Action 2.3
Coordinate with child care and school programs to ensure support for children's asthma management plans, and to ensure communication with families and health care providers when asthma is not well-controlled in the child care or school setting.

Link those who provide medical care and those who provide supportive services (e.g., self-management education, home visits), as well as childcare providers and schools. As appropriate, link asthma programs with social service programs.

Key Federal Organizations Involved: AHRQ, CDC, CMS, DOE, ED, EPA, HUD, HRSA, all other HHS agencies and NIH (NHLBI, NICHD, NIEHS, NIMHD, NINR).

The Healthy People 2020 Objectives for Respiratory Disease strategy included:

• Healthy People 2020 Objective EH-16
Increase the proportion of the nation’s elementary, middle and high schools that have official school policies and engage in practices that promote a healthy and safe physical school environment.

Project Goal:

The goal of the project was to develop a set of recommendations to serve as essential core elements in action plans to decrease environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in the Greater Houston Area.

The project supports EPA’s FY2011-2015 Strategic Plan Goal 4: Ensuring the Safety of Chemicals and Preventing Pollution; Objective 4.1: Ensure Chemical Safety. Specifically, proposed activities will increase the number of people taking all essential actions to reduce exposure to indoor chemical and environmental hazards and protect children’s health from chemical and environmental risks.

Project Objectives:

• Assess core elements of existing policies and action plans designed to address environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in Houston.
• Identify missing pieces of essential core elements in existing policies designed to address environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in Houston.
• Identify and utilize expertise within the greater Houston Metro Area to increase the efficacy of asthma prevention and intervention programs targeting pre-school and school-age children.
• Design successful strategy models to promote effective and sustainable policies and action plans designed to decrease environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in Houston.
The Roundtable Discussion participants included representatives from the following sectors:

- Pediatrician with expertise in asthma and/or other respiratory illnesses
- Primary care pediatrician (currently practicing in a geographic area with high environmental pollution)
- Representative from Harris County Department of Education
- Representative from Harris County Public Health and Environmental Services
- Representative from Houston Department of Health and Human Services, Community & Children's Environmental Health Environmental Health Division
- School nurse (currently working in a geographic area with a high percentage of and school-age children with asthma and respiratory disease)
- School board/member/administrator (representing a geographic area with a high percentage of school-age children with asthma and respiratory disease)
- Facility maintenance professional
- Researcher/expert in outdoor pollution
- Researcher/expert in indoor pollution
- Researcher/expert in environmental pollution in school, both indoor and outdoor
- Representative from US Environmental Protection Agency, Office of Children’s Health Protection
- Representative from National Center for Environmental Health at the Centers for Disease Control and Prevention
- Representative from Head Start
- Representative from public health and chronic disease
- NGO representative (primary focus is on asthma and respiratory disease prevention and management)
- Representative from the faith community
- Representative from the health charities/foundation sector
- Parent of pre-school or school-age child with asthma
- Representative from the architecture/built environment sector
- School Environmental Health Expert
- Marketing representative with a focus on public health
- Representative from the American Lung Association
- Corporate sector providing services to children

CEHI board members and staff – Dr. Martin Lorin, MD, Dr. Jules Elkins, Vincent Torres, Michael Wells, and Janie Fields

Outcome:

A decrease in exposure to environmental factors that exacerbate asthma and respiratory diseases, affect educational performance and quality of life, result in emergency room visits, hospitalizations and missed school days for pre-school and school-age children in the Greater Houston Area.
Outputs:

- Twenty-five experts distinguished in their fields participated in the Roundtable Discussion.
- Review of current policies and action plans designed to address environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children residing in Houston.
- Identification of missing core elements with supporting recommendations, for inclusion in policies and action plans to decrease environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children residing in the Greater Houston Area.
- Identification of successful strategy models to promote effective and sustainable policies and action plans designed to decrease environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children.
- Creation of action statements that may be offered by participants for their personal commitments to address one or more of the identified gaps or recommendations for Essential Core Elements.

Timeline:

The Children’s Environmental Health Institute conducted an on-line city, state and national review of public and private sector policies with action plans designed to address environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children. Both common and unique components of policies and best practices from exemplary programs served as models to identify essential core elements for the Roundtable Discussion.

<table>
<thead>
<tr>
<th>Task</th>
<th>Month(s)</th>
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<tbody>
<tr>
<td><strong>PHASE I</strong></td>
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<tr>
<td>Planning &amp; Hosting Event (EPA Funding Commences)</td>
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<tr>
<td>Selection of facility to host the Roundtable within the Greater Houston Metro Area</td>
<td>August 2013</td>
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<tr>
<td>Development and management of private forum for Roundtable participants on the CEHI website</td>
<td>August – on-going</td>
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<tr>
<td>Recruitment of Roundtable participants</td>
<td>August – on-going</td>
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<tr>
<td>Selection and meeting with facilitator</td>
<td>September</td>
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<tr>
<td>Pre-event communication with Roundtable participants</td>
<td>October</td>
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<tr>
<td>Gather information/ review participant feedback</td>
<td>October</td>
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<tr>
<td>Finalize Roundtable agenda/ print program</td>
<td>November</td>
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<td>Host Roundtable Discussion</td>
<td>November</td>
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<tr>
<td><strong>PHASE II</strong></td>
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<td>(Analysis and Reporting)</td>
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<tr>
<td>Post-event communication with stakeholders</td>
<td>November</td>
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<tr>
<td>Edit proceedings of Roundtable Discussion</td>
<td>November - December</td>
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<tr>
<td>Compile final reports</td>
<td>December – January 2014</td>
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<td>Submit final reports to stakeholders</td>
<td>January 2014</td>
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**Sustainability Approach:**

The Children’s Environmental Health Institute will provide Region VI EPA, other sponsors, Roundtable Discussion participants and stakeholders with an electronic version of the Roundtable Discussion report for distribution within their networks. The Children’s Environmental Health Institute will provide a notice of the availability of the report on the CEHI website to both governmental and non-governmental organizations in Houston and Texas with an interest in addressing the need to improve asthma and respiratory disease, prevention and management in pre-school and school-age children. In addition CEHI will follow-up with post-event communications with attendees to access any actions taken subsequent to their participation in the event or assistance CEHI may provide.

US EPA Region 6 and Air Pollution and Respiratory Health Branch, and the National Center for Environmental Health at the Centers for Disease Control and Prevention have pledged to continue to support the recommendations from the participants at the Houston Roundtable Discussion.

**Organization Background and Leadership Biographical Profiles**

Since its inception in 1999, the Children’s Environmental Health Institute (CEHI) has worked to establish networks and ways of distributing information to protect children from environmental health risks. CEHI has an established record for maintaining a focus on the microenvironment of children and on professional education and interdisciplinary collaboration grounded in evidence based current research.

The following represents such efforts: biennial scientific symposia, town hall meetings, policy roundtable discussions, community leadership forums, public awareness campaigns and photographic essay exhibits. The Children’s Environmental Health Institute has partnered with both the private and public sectors.

Primary contractual public partners include the National Institute of Environmental Health Sciences (NIEHS); the Agency for Toxic Substances Disease and Registry (ATSDR); the Centers for Disease Control (CDC); the U.S. Environmental Protection Agency (EPA); Southwest Center for Pediatric Environmental Health; U.S. Air Force School of Aerospace Medicine; Blue Cross Blue Shield of Texas; City of El Paso; City of San Antonio. In addition, CEHI has begun engaging with independent school districts.

Primary private not-for-profit partners include the Physicians for Social Responsibility; Texas Medical Association; Healthy Schools Network; Collaborative for Health and the Environment; Children’s Environmental Health Network; Coalition for Environmental Health Justice; Autism Society of America and Children’s Optimal Health.

In academia, CEHI has collaborated with The University of Texas at Austin, Department of Engineering, Architectural and Environmental Health Sciences; The Center for Energy & Environmental Resources, The University of Texas at Austin; Texas A&M University, Health Science Center, School of Rural Health Studies; The University of Texas Health Science Center at San Antonio; and The University of Texas El Paso.
The CEHI Board and staff leadership for The Houston Roundtable Discussion on the Environment Related to Asthma and Respiratory Diseases in Pre-school and School-age Children include the following:

**Fernando A. Guerra, M.D., M.P.H.**, serves as the Chair of the CEHI Board of Directors. Dr. Guerra is the immediate past Director of the San Antonio Metropolitan Health District. He is a practicing pediatrician and a Clinical Professor of Pediatrics at the University of Texas Health Science Center at San Antonio. He serves as an Adjunct Professor in Public Health at the Air Force School of Aerospace Medicine. Dr. Guerra is a founding scholar of the Public Health Leadership Institute. His professional career reflects a long-standing interest and involvement in pediatric care, public health and health policy. He remains active with local, regional and national forums with responsibilities including research, program and policy development, legislative issues and health planning.

**Martin Lorin, M.D.**, is a Professor of Pediatrics at Baylor College of Medicine and Attending Physician at Texas Children’s Hospital. Dr. Lorin previously served as the Director of the Pediatric Residency Training Program at Baylor College of Medicine. His special interests include clinical education, pediatric environmental health, asthma and other respiratory diseases, and educating health care providers and others about pediatric environmental health. He is a longstanding advocate for a healthy environment.

**Vincent Torres, M.S.E., P.E., M.A.C.**, is a registered professional engineer. Mr. Torres has been employed by The University of Texas at Austin since 1986, where he is the Associate Director of the Center for Energy & Environmental Resources. His research interests include indoor air quality, as well as heating, ventilating and air-conditioning systems. He has a long-standing commitment as a community leader and currently serves as the President of the Board of Trustees of the Austin Independent School District.

**Michael Wells, AIA, NCARB**, is Senior Advisor for Center Development of Bright Horizons Family Solutions, AIA Architect and serves as the Vice Chair of the CEHI Board of Directors. Mr. Wells brings the project experience of more than one hundred early education centers for children in 24 states, including more than sixty centers for Bright Horizons. He is a frequent speaker and advocate for child-sensitive design, including workshops presented for the National Coalition for Campus Children’s Centers, the National Association for the Education of Young Children, Bright Horizons Family Solutions, the National Head Start Association, and the General Services Administration. He served as guest faculty for the Harvard Graduate School of Design's Child Care Design Institute for three years and is co-chair of the American Institute of Architects Subcommittee for Early Childhood Learning Environments.

**Janie D. Fields, MPA**, founder and executive director of the Children’s Environmental Health Institute previously served for 14 years as the first executive director of the Children’s Trust Fund of Texas. Ms. Fields was a founder and president of the National Alliance of Children’s Trust and Prevention Funds. She has extensive background experience in public/private administration, program design and policy development. She has served on numerous U.S. Federal Advisory Committees, state and national boards.

**Sarah Jones** is co-founder and Program Manager for the Children’s Environmental Health Institute. Prior to this, Ms. Jones spent 11 years with the Children’s Trust Fund of Texas as a Contract Specialist and Program Manager.
Forum Process:

The Roundtable (RT) Forum was developed in August, 2013 and finalized in October, 2013 for the purpose of providing Roundtable participants access to reports, data, and program models to assist in preparation for the forum, as well as for beginning a dialogue with other Roundtable participants on various topics of interest regarding asthma and respiratory disease in the Greater Houston Area.

The forum was developed after researching other forums on the web and designed according to features, ease of use, and overall tone. It was determined that the forum would be set up on the CEHI website and would be password protected for access only by Roundtable participants and stakeholders of the November 15 forum.

The RT Forum was designed with seven main “rooms” displayed on the home page. In addition, a welcome section alerts the user of their last visit, new topics since their last visit, edit forum options, edit profile features, and log out. The seven “rooms” included:

**Houston Roundtable Event on November 15, 2013** - Logistics and Other Information for November 15.

**Houston Roundtable Discussion - HOT TOPICS POSTED HERE!** - In preparation of the November 15 Roundtable Discussion, this "room" was available to post questions/comments regarding child asthma in pre-school and school settings for open discussion.

**NEW USER: READ THIS FIRST!** – Directions and User Guidelines

**Houston Roundtable (RT) Forum General Information** - Project Overview / Roundtable Member Roster

**Resource Materials Specific to the Houston Area** – Participants were encouraged to review the materials prior to the RT to assist in facilitating the discussion.

**Resource Materials from Outside the Houston Area** – Model programs at the local, state and national level were available for review and comment.

**Off Topic** – Provided a place to register content not directly related to the Houston Roundtable Discussion.

Clicking on the above "rooms" provided further access into that "room" to review posts, reply to existing posts, or post new information.

Correspondence was sent in September to the Roundtable participants with instructions on how to access the private forum with their personal login name and password and briefing instructions.
Roundtable Group Results

Roundtable Group Consensus for Primary Gaps and Barriers Identified

- Overextended primary care workforce
- Limited coordination among health systems
- Inadequate self management training
- Limited awareness of common triggers
- Lack of resources to manage disease
- (medical, environmental, etc)
- Misplaced priorities (resources)
- Proactive policies (chemicals, siting...)
- Inconsistency of asthma management

Roundtable Workgroups Address Four Major Building Blocks:

Roundtable members were pre-assigned to four groups charged with addressing four Major Building Blocks for effective policy development and program implementation. Methods to identify the Major Building Blocks included research and planning committee meetings, primarily with Region 6 EPA staff and CEHI board members.

The issues in green were selected by group consensus for inclusion in the Brainstorming Sessions.

Environmental Health Triggers

a. Indoor biological pollutants (mold, dust, dander)
b. Pests and pesticides
c. Outdoor pollutants (mono-nitrogen oxides, particulate matter, traffic related)
d. Animals/animal dander
e. Environmental chemicals (cleaning supplies, art materials, science labs)
f. Tobacco smoke
g. Building furnishings and materials
h. Hookah/E-cigarette

Health Care and Health Consequences

a. Disparity in standards of care (routine & urgent)
b. Disparity in risk for disease
c. Disparity in access to health care
d. Undiagnosed cases
e. Inadequate self-management education
f. Childhood obesity (risk factor for asthma)
g. Secondary and co-morbidities (obesity, sleep disturbance, depression)
h. Provider education and incentives
i. Inadequate cause and prevention education
Economic Considerations

a. School attendance and academic performance
b. Parents’ missed work days
c. Lack of/inadequate health insurance; Cost of medications/supplies
d. Cost of ER visits and hospitalizations
e. Cost of assessing exposures (indoors/outdoors)
f. Insurance reimbursement
g. Funding for remediation unavailable
h. Unfunded mandates impact on maintenance
i. Cost of asthma education

Community Engagement

a. Partnership development; Coordination of community leaders (schools, faith-based, health care partnerships)
b. Communication strategy; Advocacy
c. Peer support models/outreach liaisons (ie. promotoras)
d. Training/capacity building
e. Assess/improve the state of knowledge
f. Opportunities for awards/recognition
g. Stronger legislation and policy (health-driven)

Note: Green = Selected for Brainstorming

Workgroup Results

The four workgroups for the building blocks (Environmental Health Triggers, Health Care and Health Consequences, Economic Considerations, and Community Engagement), were given specific instructions as provided by the facilitator and outlined in the workbook provided during the meeting. At the conclusion of the Roundtable, the workgroups for each building block submitted recommended actions under each of their top four compelling issues listed above, and each workgroup also provided one bold goal. The results are compiled in the sections below and may vary depending on what was provided by the workgroup. Some groups included additional actions and strategies under their bold goal.

Building Block: Environmental Health Triggers

Workgroup Members Participating in Building Block: Environmental Health Triggers

Katy Butterwick
Senior Program Associate, Center for Collaborative Leadership
Episcopal Health Charities

William Cooper
Facilities Manager, Houston Independent School District (HISD)
Indoor Air Quality Committee Chair for HISD
### Building Block: Environmental Health Triggers

#### Compelling Issue: Indoor Biological Pollutants

**Recommended Actions:**
1. Incorporate better air filtration in schools
2. Enhance maintenance functions (HVAC) moisture control
3. Improve building envelope
4. Adequate ventilation – maintain levels to support optimal student performance

#### Compelling Issue: Outdoor Pollutants

**Recommended Actions:**
1. Improve patient and parent education on what poor air quality is and how to interpret it
2. Identify ways to reduce exposure and personal contribution to outdoor pollution
3. Engage industry in conversations about health impacts from excessive releases
4. Explore personal air monitoring (i.e. sampling at schools)
5. Maintain a list of resources (messaging, support age receipt)
6. Establish a central point to which data will be reported

#### Compelling Issue: Chemicals

**Recommended Actions:**
1. Everything coming into a school (chemicals, furniture, supplies, etc..) should be Greenguard certified
2. Ensure HVAC systems operate correctly  
   1. Air exchange rate
   2. Filters
   3. Air intake location
3. Utilize integrated pest management
4. Expand outreach to families and communities, not just schools
Compelling Issue: Tobacco Smoke

Recommended Actions:
1. Prohibit smoking in multi-family units
2. Promote smoke-free bars, work places, parks, outdoor areas, sports venues, all public places
3. De-normalize smoking
4. Implement smoking cessation programs
5. Enforce fines for smoking in cars with minors
6. Expand parental tobacco dependence treatment by primary care doctor
7. Stop tobacco companies from promoting tobacco to children and young women
8. Raise tobacco taxes
9. Increase funding for enforcement and media awareness campaigns
10. Market non-smoking agendas
11. Regulate Hookahs/e-cigarettes as tobacco
12. Increase smoke-free legislation

Bold Goal:

We will adopt, mandate, and fund best practices for indoor air quality in all early childhood care and education and K-12 settings in the Greater Houston Area by 2020.

Strategies:
All materials entering a childcare or education setting will be Greenguard certified. All facilities will comply with established HVAC standards that are protective of children’s health.

Building Block: Health Care and Health Consequences

Workgroup Members Participating in Building Block: Health Care and Health Consequences

Harold J. Farber, MD, MSPH, FAAP, FCCP
Associate Professor of Pediatrics, Pulmonary Section
Baylor College of Medicine,
Attending Physician, Texas Children’s Hospital
Associate Medical Director, Texas Children’s Health Plan

Gwen Johnson, RN, MED
Manager, Health and Medical Services
Houston Independent School District
Hattie Mae White Educational Support Center

Martin Lorin, MD
Professor of Pediatrics, Baylor College of Medicine
Attending Physician, Texas Children’s Hospital
CEHI Board Member
| Building Block: **Healthcare and Health Consequences** |
|-----------------|-----------------|-----------------|-----------------|
| **Compelling Issue: Disparity in Risk for Asthma** |
| **Recommended Actions:** |
| 1. Target those at most risk to reduce disparity (Hotspot zones) |
| 2. Identify schools most at risk |
| 3. Evaluate care desert |
| 4. Use alternative community partnerships (eg faith based) |
| 5. Use populations/ages/locations to identify targets |
| **Compelling Issue: Disparity in Access to Healthcare** |
| **Recommended Actions:** |
| 1. Utilize The Affordable Care Act to improve access to care |
| 2. Utilize Community Outreach promotion to improve access to care |
| 3. Expand quality education about asthma |
| 4. Provide facilities to administer care |
| 5. Utilize community services/resources to encourage practices in underserved area |
| 6. Increase access to specialty care/referrals |
| **Compelling Issue: Inadequate Self Management** |
| **Recommended Actions:** |
| 1. Establish peer support groups for school-age children |
| 2. Cross train school personnel (coaches) |
| 3. Enhance home-based training |
| 4. Develop apps to monitor asthma symptoms |
| **Compelling Issue: Inadequate Cause and Prevention** |
| **Recommended Actions:** |
| 1. Train Nursing and Medical Students |
| 2. Pilot home assessment trainings |
| 3. Integrate asthma cause and prevention into curricula |
| 4. Develop messaging around asthma cause and prevention for stakeholders and key audiences |
| 5. Leverage community partnerships to integrate building block messages into existing resources |
Bold Goal:

We will improve access to quality comprehensive care in identified risk areas/zones by 2018 by decreasing hospitalization and emergency room visits by 15%.

Action Steps:
1. Identify for high risk area
2. Provide incentives to physicians
3. Identify faith-based organizations/champions
4. Identify peer-support groups

Building Block: Economic Considerations

Workgroup Members Participating in Building Block: Economic Considerations

Winifred J. Hamilton, PhD, SM
Director Environmental Health Service
Assistant Professor, General Internal Medicine
Baylor College of Medicine

Greg Lookabaugh
Senior Manager of Facilities Planning
Harris County Department of Education

Jacqueline E. Mosby, MPH,
Acting Director, Office of Children’s Health Protection
United States Environmental Protection Agency

Bakeyah Nelson, PhD
Public Health Analyst, Office of Policy and Planning
Harris County Public Health and Environmental Services

Manuel Rodríguez Jr.
Second Vice President, District III
Houston ISD Board of Education

Vincent Torres, MSE, PE, MAC
President, Austin ISD Board of Trustees
Associate Director, Center for Energy & Environmental Resources
The University of Texas at Austin
CEHI Board Member
<table>
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<tr>
<th>Building Block: <strong>Economic Considerations</strong></th>
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<tr>
<td><strong>Compelling Issue:</strong> Attendance and Academic Performance</td>
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<tr>
<td><strong>Recommended Actions:</strong></td>
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<tr>
<td>1. Develop a presentation for each of 54 school districts to educate regarding “real” cost of asthma, including lost school days, ER costs, performance, graduation, etc., of not treating/addressing asthma prevention proactive in meaningful outcomes for school administration</td>
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<tr>
<td>2. Incorporate new criteria to strengthen existing Green Ribbon Schools Program</td>
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<tr>
<th>Compelling Issue: Lack of insurance/inadequate health insurance; Cost of medications and medical supplies</th>
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<tr>
<td><strong>Recommended Actions:</strong></td>
</tr>
<tr>
<td>1. Increase capacity of FQHC (Federally Qualified Health Center) to provide comprehensive services for asthma management</td>
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<tr>
<td>2. Reduce cost of asthma medication through innovative solutions such as rebates for patients</td>
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<th>Compelling Issue: Insurance reimbursement</th>
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<tr>
<td><strong>Recommended Action:</strong></td>
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<tr>
<td>1. Demonstrate to insurance companies the cost benefit of prevention in holistic care, e.g. discount for taking course incentive</td>
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<th>Compelling Issue: Funding for remediation is unavailable</th>
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<tr>
<td><strong>Recommended Actions:</strong></td>
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<tr>
<td>1. Identify and recruit community champions to prohibit smoking in multi-family facilities, provide assistance (legal/education) to family to force landlords to make changes</td>
</tr>
<tr>
<td>2. Encourage physician involvement to communicate to landlord triggers that increase asthma exacerbations (letter)</td>
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<tr>
<td>3. Develop Healthy Homes Recognition Program (multi-family)</td>
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**Top Action:** Utilize two existing programs, Healthy Homes and Green Ribbon Schools, to incorporate asthma prevention in multi-family and school settings.

**Bold Goal:**

By 2015, establish incentive-based Healthy Homes Recognition Program for low-income multi-family dwellings that will incorporate asthma prevention and 20 multi-families will be recognized by 2018.

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<tr>
<th>Building Block: <strong>Community Engagement</strong></th>
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<tr>
<td><strong>Workgroup Members Participating in Building Block: Community Engagement</strong></td>
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<tr>
<td>LaShonda Y. Brown</td>
</tr>
<tr>
<td>Chair, Texas Early Learning Council</td>
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<tr>
<td>Director, Texas Head Start State Collaboration Office and Texas Early Childhood Professional Development System, Children’s Learning Institute (CLI)</td>
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### Building Block: Community Engagement

#### Compelling Issue: Partnership Development/Coordination of Community Leaders

**Recommended Action:**
1. Identify targeted sectors for community engagement in the management of asthma
2. Assess and compile resources/services from within the various sectors
3. Identify community engagement activities and opportunities
4. Identify backbone organization to facilitate the partnership – shared goal

#### Compelling Issue: Communication Strategy/Advocacy

**Recommended Actions:**
1. Empower community members (those who need services) to advocate for needs
2. Advocate for early childhood licensing agencies to monitor for asthma reduction practices (include environmental health)
3. Provide training/tools to advocate
4. Empower community to ask for “nurse” in local school
5. Enlist community leaders to advocate
6. Develop common messages for stakeholders to advocate

#### Compelling Issue: Assess/Improve State of Knowledge

**Recommended Actions:**
1. Educate the school boards and community leaders
2. Sponsor community forums and health fairs
3. Partner with media and utilize social media
4. Provide appropriate cultural and literacy levels of print materials
## Compelling Issue: Stronger Legislation/Policy

**Recommended Actions:**

1. Create school district level guidelines/regulations and/or incentives to address issues associated with increased asthma – such as idling vehicles close to school district or siting of new schools.
2. Adopt school district level policies to serve as a platform for regional education.

## Bold Goal:

By March 2014, develop a coordinated, multi-sector coalition that includes at least 15 community sectors.
Appendix

* Participant Roster by Sector Representation

* Participant Workbook including Participant Photos and Profiles

* Houston Roundtable Compilation by Stacy Murphy, Facilitator for the Roundtable Discussion, and Schools Coordinator for the U.S. Environmental Protection Agency (EPA) Region 6. This compilation also includes the following Five Speaker Slide Presentations:

**Richard Corsi**, PhD
E.C.H. Bantel Professor for Professional Practice
Civil, Architectural and Environmental Engineering
Cockrell School of Engineering

**Jacqueline E. Mosby**, MPH
Acting Director, Office of Children's Health Protection
United States Environmental Protection Agency

**Paul Garbe**, DVM, MPH
Chief of the Air Pollution and Respiratory Health Branch, National Center for Environmental Health at the Centers for Disease Control and Prevention, Director, CDC’s National Asthma Control Program

**Paula Selzer**, MPP
Regional Children’s Environmental Health Coordinator
US EPA, Region 6

**Jasmine J. Opusunju**, DrPH, MSEd, CHES
Program Coordinator
CAN DO Houston

**Click here to view or download**

* The Health and Wellness Alliance for Children’s Common Agenda
  **Executive Summary**  **Click here to view or download**
  **Full Report**  **Click here to view or download**

* President’s Task Force on Environmental Health Risks and Safety Risks to Children: Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities  **Click here to view or download**
**Roundtable Location:**
Houston Department of Health and Human Services
8000 North Stadium Dr. 2nd Floor
Houston TX, 77054

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**Participant Roster**

<table>
<thead>
<tr>
<th>Representative</th>
<th>Invitee</th>
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<tbody>
<tr>
<td><strong>Program Chair</strong></td>
<td><strong>Martin I Lorin</strong>, MD, Professor, Baylor College of Medicine, Attending Physician, Texas Children's Hospital, CEHI Board Member</td>
</tr>
<tr>
<td><strong>Early childhood education representative</strong></td>
<td><strong>LaShonda Brown</strong>, Chair, Texas Early Learning Council Director, Texas Head Start State Collaboration Office and Texas Early Childhood Professional Development System, Children’s Learning Institute (CLI)</td>
</tr>
<tr>
<td><strong>Environmental health researcher</strong></td>
<td><strong>Rebecca Jensen Bruhl</strong>, DrPH, MPH, MEM, Assistant Professor, General Internal Medicine, Associate Director, Environmental Health Service Section of General Internal Medicine, Baylor College of Medicine</td>
</tr>
<tr>
<td><strong>Faith community representative</strong></td>
<td><strong>Katy Butterwick</strong>, Senior Program Associate, Center for Collaborative Leadership, Episcopal Health Charities</td>
</tr>
<tr>
<td><strong>School facility maintenance professional</strong></td>
<td><strong>William Cooper</strong>, Facilities Manager, Houston Independent School District (HISD), Indoor Air Quality Committee Chair for HISD</td>
</tr>
<tr>
<td><strong>Researcher/expert in indoor pollution</strong></td>
<td><strong>Richard Corsi</strong>, PhD, PE – ECH Bantel Professor for Professional Practice. Department of Civil, Architectural and Environmental Engineering, The University of Texas at Austin, President, 12th International Conference on Indoor Air Quality and Climate, International Society of Indoor Air Quality &amp; Climate</td>
</tr>
<tr>
<td><strong>School Environmental Health Expert</strong></td>
<td><strong>Jules R. Elkins</strong>, PhD, Lecturer, University of Texas at Austin, Department of Geography and the Environment, and School Health Advisory Council (SHAC) member</td>
</tr>
<tr>
<td><strong>Pediatrician with expertise in asthma and respiratory diseases</strong></td>
<td><strong>Harold J. Farber</strong>, MD, MSPH, FAAP, FCCP, Associate Professor of Pediatrics, Pulmonary Section, Baylor College of Medicine, Attending Physician, Texas Children's Hospital, Associate Medical Director, Texas Children’s Health Plan</td>
</tr>
<tr>
<td>Role</td>
<td>Name</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>School nurse with experience in addressing asthma and other respiratory diseases</td>
<td>Ruby Ferguson, MSN, BSN, RN, Retired Houston ISD School Nurse, Professional Education Coordinator and Immediate Past President, Texas School Nurses Organization</td>
</tr>
<tr>
<td>Centers for Disease Control (CDC) representative</td>
<td>Paul Garbe, DVM. MPH, Chief of the Air Pollution and Respiratory Health Branch, National Center for Environmental Health at the Centers for Disease Control</td>
</tr>
<tr>
<td>Researcher/expert in outdoor pollution</td>
<td>Winifred J. Hamilton, PhD, SM, Director Environmental Health Service, Assistant Professor, General Internal Medicine, Baylor College of Medicine, Adjunct Faculty, Rice University</td>
</tr>
<tr>
<td>NGO representative with focus on asthma and other respiratory diseases, prevention and management</td>
<td>Rachel M. Harris, MHA, MPA, Director of Environmental Health, American Lung Association, Plains-Gulf Region, Inc.</td>
</tr>
<tr>
<td>School health representative</td>
<td>Gwen Johnson, RN, MED, Manager, Health and Medical Services, Houston Independent School District, Hattie Mae White Educational Support Center</td>
</tr>
<tr>
<td>Harris County education representative</td>
<td>Greg Lookabaugh, Senior Manager of Facilities Planning, Harris County Department of Education</td>
</tr>
<tr>
<td>Federal US Environmental Health Protection (EPA) representative</td>
<td>Jacqueline Mosby, MPH, Acting Director, Office of Children's Health Protection, United States Environmental Protection Agency, Washington, DC</td>
</tr>
<tr>
<td>Harris County public health representative</td>
<td>Bakeyah Nelson, PhD, Public Health Analyst, Office of Policy and Planning, Harris County Public Health and Environmental Services</td>
</tr>
<tr>
<td>Community engagement representative with a focus on public health</td>
<td>Jasmine J. Opusunju, DrPH, MSEd, CHES, Program Coordinator, CAN DO Houston, Past President and Advocacy Committee Chair for the Texas Society for Public Health Education</td>
</tr>
<tr>
<td>Expert in environmental epidemiology and exposure to environmental toxicants and asthma</td>
<td>Loren Raun, PhD, Department of Statistics Faculty, Rice University, Senior Environmental Analyst, Bureau of Air Quality Control, City of Houston</td>
</tr>
<tr>
<td>Role</td>
<td>Name</td>
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<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>City of Houston public health representative</td>
<td><strong>Brenda Reyes</strong> MD, MPH, CGMS, Chief, Bureau of Community &amp; Children’s Environmental Health at the Houston Department of Health and Human Services, Assistant Professor, Baylor College of Medicine</td>
</tr>
<tr>
<td>School board member or administrator from an area with a high percentage of school-age children with asthma and other respiratory diseases</td>
<td><strong>Manuel Rodriguez Jr.</strong> Second Vice President, District III Houston ISD Board of Education</td>
</tr>
<tr>
<td>Adult with asthma</td>
<td><strong>Kai Sanders</strong>, MEd, AE-C, Inpatient Hospital Asthma Educator, Texas Children’s Hospital</td>
</tr>
<tr>
<td>Primary care pediatrician currently practicing in a geographic area with high environmental pollution</td>
<td><strong>Everett Sandles</strong>, MD, Texas Children’s Pediatrics North Shore</td>
</tr>
<tr>
<td>Faith Community Representative</td>
<td><strong>Sister Damien Savino</strong>, FSE, Faculty, Catholic Studies and Chair, Environmental Science and Studies, University of St. Thomas</td>
</tr>
<tr>
<td>Representative from Federal/Regional Environmental Health Protection (EPA)</td>
<td><strong>Paula Selzer</strong>, MPP Regional Children’s Environmental Health Coordinator, US EPA Region 6</td>
</tr>
<tr>
<td>Researcher/expert in environmental pollution in school, both indoor and outdoor</td>
<td><strong>Vincent Torres</strong>, MSE, PE, MAC, President, Austin ISD Board of Trustees Associate Director, Center for Energy &amp; Environmental Resources The University of Texas at Austin, CEHI Board Member</td>
</tr>
<tr>
<td>Built Industry for children’s spaces representative</td>
<td><strong>Mike Wells</strong>, AIA, NCARB, Architect and Senior Advisor, Center Development Of Bright Horizons Family Solutions, CEHI Board Vice Chair</td>
</tr>
<tr>
<td>Forum Support Staff</td>
<td><strong>Janie D. Fields</strong>, MPA, Executive Director, Children’s Environmental Health Institute <strong>Sarah Jones</strong>, Program Manager, Children’s Environmental Health Institute <strong>Stacy A. Murphy</strong>, EPA Region 6 Schools Coordinator</td>
</tr>
</tbody>
</table>
Participant Workbook

Houston Initiative and Roundtable Discussion: The Environment Related to Asthma and Respiratory Disease in Pre-School and School-Age Children

Coordinated by
Children's Environmental Health Institute

Saint Susie Charitable Foundation
Welcome

As Chair of the Steering Committee for the Houston Roundtable, The Environment Related to Asthma and Respiratory Disease in Pre-school and School-age Children, it is my pleasure to extend to all of you—presenters, participants, sponsors and supporters—a most cordial welcome and an expression of appreciation for your time and effort on behalf of this project. All of you have a part in helping this Roundtable meet the challenge of developing recommendations to help governmental agencies, organizations, facilities, and individuals work together to address environmental factors that cause, trigger or exacerbate asthma and other respiratory conditions in children in the Houston Greater Metropolitan Area.

I would like to thank the United States Environmental Protection Agency, Region 6, Saint Susie Charitable Foundation, the Texas Children’s Health Plan, Kirksey Architects, Reliant, and the Southwest Center for Pediatric Environmental Health, whose financial support made this activity possible. In addition, I want to thank Dr. Brenda Reyes and the Houston Department of Health and Human Services who have provided the meeting facilities, as well as assistance in planning. I also would like to thank Janie D. Fields, Executive Director, Children’s Environmental Health Institute and Sarah Jones, Program Manager, whose tireless efforts made this Roundtable a reality. And I offer a special note of appreciation to our moderator, Stacy A. Murphy, EPA Region 6 Schools Coordinator, who has been instrumental in planning this conference and who will lead us in our discussion as we work towards our goal of mitigating the burden of asthma and other respiratory diseases on children in the Greater Houston Metropolitan Area by finding ways to improve and integrate our efforts to lessen environmental factors that negatively impact these disorders.

It is our expectation that this Roundtable will facilitate communication and exchange of ideas among a host of organizations, agencies and individuals dedicated to improving the health of children everywhere, as well as in the Greater Houston Area. Further, we see this Roundtable as a beginning and hope that participants will be motivated to continue these efforts long beyond today.

Thank all of you for coming and welcome.

Martin I Lorin, MD
Professor of Pediatrics
Baylor College of Medicine
Attending Physician, Texas Children’s Hospital
Senior Teaching Faculty, Texas Children's Hospital Simulation Center
Project Goal

Develop a set of recommendations to serve as essential core elements, in action plans to decrease environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in Greater Houston.

Roundtable Task

To build on our collective strengths 1) to identify essential core elements that will support policies and action plans designed to decrease environmental health risks contributing to asthma and respiratory disease in pre-school and school-age children and 2) to successfully leverage community engagement in the process.

Roundtable Objectives

- Assess core elements of existing policies and action plans designed to address environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in Greater Houston.
- Identify missing pieces of essential core elements in existing policies designed to address environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in Greater Houston.
- Identify and utilize expertise within the Greater Houston to increase the efficacy of asthma prevention and intervention programs targeting pre-school and school-age children.
- Identify successful strategy models to promote effective and sustainable policies and action plans designed to decrease environmental exposure triggers that exacerbate asthma and other respiratory diseases in pre-school and school-age children in Greater Houston.

The project will support the following initiatives:

**President’s Task Force** on Environmental Health Risks and Safety Risks to Children: Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities.

**Healthy People 2020 Objectives** for Respiratory Disease

**US EPA** FY2011-2015 Strategic Plan Goal 4 - Ensuring the Safety of Chemicals and Preventing Pollution - Objective 4.1: Ensure Chemical Safety. Specifically, proposed activities will increase the number of people taking all essential actions to reduce exposure to indoor chemical and environmental hazards and protect children’s health from chemical and environmental risks.
### Roundtable Agenda

**Note:**

*We will begin and end on time.*

*There will be scheduled breaks with refreshments.*

*Sessions may be recorded.*

> Never doubt that a small group of thoughtful, concerned citizens can change the world. Indeed it is the only thing that ever has.

> Margaret Mead

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Task</th>
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<tbody>
<tr>
<td>7:00 – 8:30</td>
<td>Registration and Breakfast</td>
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<tr>
<td>8:30 - 12:00</td>
<td><strong>Welcome and Introductions</strong> (Dr. Martin Lorin, Texas Children’s Hospital, CEHI)</td>
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<td></td>
<td><strong>Goal, Task and Objectives</strong> (Janie Fields, CEHI)</td>
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<td><strong>Day at a Glance</strong> (Stacy Murphy, EPA)</td>
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<td><strong>Leadership Voices: Addressing Environmental Health and Safety Risks to Children</strong></td>
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<td><em>Existing &amp; Emerging Knowledge on IAQ in Schools</em> (Dr. Rich Corsi, UT at Austin)</td>
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<td><em>Charge from the President’s Task Force on Environmental Health Risks and Safety Risks to Children</em> (Jacqueline Mosby, EPA)</td>
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<td><strong>CDC National Asthma Control Program</strong> (Dr. Paul Garbe, CDC)</td>
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<td><strong>Gaps and Barriers</strong> (Group Exercise)</td>
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<td><strong>Essential Core Elements: Laying the Foundation</strong> (Stacy Murphy)</td>
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<td><strong>Common Agenda and Community Engagement</strong> (Paula Selzer, EPA and Dr. Jasmine Opusunju, Can Do Houston)</td>
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<td><strong>Establishing Bold Goals</strong> (Stacy Murphy)</td>
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<td>12:00 – 1:00</td>
<td>Lunch</td>
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<tr>
<td>1:00 – 4:30</td>
<td><strong>Pacing Action Towards Your Bold Goals</strong> (Group Exercise)</td>
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<tr>
<td></td>
<td><strong>Leaving in Action</strong> (Stacy Murphy)</td>
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</table>
Ground Rules

- Please comply with the Discussion Group Roles.
- Audible cell phones are discouraged in the meeting. Please mute phones.
- Please identify yourself by name when asking questions in the larger group.

Brainstorming Instructions

Phase 1

- Report to your assigned Building Block area
- Define discussion group roles
- Use the flip chart to capture recommended actions for one Compelling Issue
- 4 rotations for brainstorming (10 min each, 40 minutes total)
- Address a new Compelling Issue for each Building Block

Phase 2

- 5th Rotation – Return to your original station
- Discuss and record recommendations
- Use one worksheet for each Compelling Issue
- Prepare to report during full Roundtable discussion
- 40 minutes to complete report

Discussion Group Roles

Each group will identify someone to fill the following roles.

**Facilitator** - Keeps the group focused on the work. Leads the group through work session exercises. Helps identify how to best deploy the group’s assets and makes sure everyone is heard and is able to contribute to the discussion and final product.

**Recorder** - Takes notes of the group’s discussion and keeps the group organized. Makes sure that all the ideas are captured and that the final script is ready to report out.

**Time Keeper** - Makes sure the group is using the work time efficiently and keeps the group on schedule. The time keeper should pay particular attention to schedule changes announced at the podium.

**Spokesperson** - Presents the group’s final script to the full audience.
Welcome: Goal, Task, and Objectives

What do you hope to achieve today?

What talents and proficiencies do you bring to the discussion?

Leadership Voices: Addressing Environmental Health and Safety Risks to Children

What factor(s) serves as your action catalyst to improve asthma outcomes?

What calls to action did you hear from the opening speakers?

Gaps and Barriers

Use the chart below to create solutions for the Gaps and Barriers identified during this session

<table>
<thead>
<tr>
<th>Gaps/Barriers</th>
<th>Why the Gap/Barrier Exists</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
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</table>
### Essential Core Elements: Laying the Foundation

Use the chart below to capture key issues to be addressed under each Building Block.

<table>
<thead>
<tr>
<th>Environmental Health Triggers</th>
<th>Health Care and Health Consequences</th>
<th>Economic Considerations</th>
<th>Community Engagement</th>
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</table>

### Common Agenda and Community Engagement

Use the chart below to capture the key elements for creating a common agenda and effective community engagement.

<table>
<thead>
<tr>
<th>Common Agenda</th>
<th>Community Engagement</th>
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</thead>
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</tbody>
</table>
**Bold Goals**

Bold Goal Formula: By \( X \) time, \( Y \) change will happen in \( Z \) amount.

The Bold Goal identified for Environmental Health Triggers is:


The Bold Goal identified for Health Care and Health Consequences is:


The Bold Goal identified for Economic Considerations is:


The Bold Goal identified for Community Engagement is:


**Pacing Action Towards Your Bold Goals**

Use the chart below to identify actions you will take to achieve each Bold Goal.

<table>
<thead>
<tr>
<th>Actions</th>
<th>Environmental Health Triggers</th>
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<tbody>
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</table>

<table>
<thead>
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</table>
Leaving in Action

Declaration for Action and Results

I am committed to creating safe, healthy, and sustainable environments where all children, regardless of age, race, economic status, or ethnicity can thrive. The result I intend to achieve is:

_________________________________________________________________________

_________________________________________________________________________

The two most compelling Building Blocks that assert what is possible under this declaration are:

_______________________________________________________________________

and ___________________________________________________________________

The near-term actions I will take to improve asthma outcomes in my community are:

1) ___________________________________________________________________

2) ___________________________________________________________________

3) ___________________________________________________________________

The requests and offers I will make in my community are:

_____________________________________________________________________

_____________________________________________________________________

_____________________________________________________________________
Program Chair

Martin Lorin, MD, is Professor of Pediatrics at Baylor College of Medicine and an attending physician at Texas Children’s Hospital. Dr. Lorin received his medical degree from the New York University College of Medicine, following which he completed his Pediatric Residency at Albert Einstein College of Medicine and Jacobi Hospital, in New York City. After this he completed a fellowship in pediatric pulmonology at Albert Einstein College of Medicine and at Columbia University College of Physicians and Surgeons. Dr. Lorin came to Texas Children’s Hospital in 1978, and since then he has been actively involved in medical education as well as in clinical pediatrics. He is the author of Review of Pediatrics (Appleton and Lange), The Febrile Child (John Wiley and Sons), and The Parents Book of Physical Fitness for Children (Atheneum), as well as a number of chapters in pediatric text books and numerous articles in medical journals. Dr. Lorin has a long standing interest in environmental health and has a record as a successful teacher in this area. He is a member of the Board of Directors of The Children’s Environmental Health Institute, in Austin, Texas. 832-824-1173, milorin@TexasChildrensHospital.org

Facilitator

Stacy Murphy has been with the U.S. Environmental Protection Agency (EPA) Region 6 for seven years and serves as the Schools Coordinator for the region. His focus is the dissemination of detailed guidance on the proven strategies, organizational approaches and leadership styles that are fundamental to improving school environments. Mr. Murphy’s experience includes project management, program development, facilitation, and providing training through EPA’s Clean, Green, and Healthy Schools Initiatives. 214-665-7116, murphy.stacy@epa.gov

CEHI Staff

Janie D. Fields, MPH, is Co-founder and Executive Director of the Children’s Environmental Health Institute. Previously, Ms. Fields served for 14 years as the first Executive Director of the Children’s Trust Fund of Texas. Ms. Fields was a founder and president of the National Alliance of Children’s Trust and Prevention Funds. She has extensive background experience in public/private administration, program design and policy development. She has served on numerous U.S. Federal Advisory Committees, state and national boards. 512-657-7405, Janie.fields@cehi.org

Sarah Jones is co-founder and Program Manager for the Children’s Environmental Health Institute. Prior to this, Ms. Jones spent 11 years with the Children’s Trust Fund of Texas as a Contract Specialist and Program Manager, and owned and operated a Bed and Breakfast. Ms. Jones enjoys raising her family of three young children and her volunteer work at her church and children’s schools. 512-657-7405, sarah.jones@cehi.org
LaShonda Y. Brown is the Director for the Texas Head Start State Collaboration Office and the Texas Early Childhood Professional Development System, housed within the Children’s Learning Institute (CLI). In these roles, she is responsible for working with Head Start grantees and other stakeholders throughout the state and nation to focus on ten priority areas including: child care, health and mental health care, welfare, services for children with disabilities, community service activities, services to homeless children, family literacy services, education and professional development. In November 2009, Ms. Brown was appointed by Governor Rick Perry to serve on the Texas Early Learning Council and in August 2012 she was appointed chair of this Council. Prior to joining CLI, Ms. Brown served the children, families and professionals in the field of early childhood education in Texas for nearly 15 years. Those roles included being a teacher, center director, and advocate. In 2001 she joined the Texas Association for the Education of Young Children and was promoted to Executive Director in 2002. She was also the project manager for the Healthy Child Care Texas Project at the Health and Human Services Commission. 713-500-3835, LaShonda.Brown@uth.tmc.edu

Rebecca Jensen Bruhl, DrPH, MPH, MEM, is Associate Director of the Environmental Health Service and Assistant Professor in the Department of Medicine, Section of General Internal Medicine at Baylor College of Medicine. Dr. Bruhl is working to strengthen and expand environmental health assessment and management services at Baylor and in the community, with a particular focus on children and adults with asthma. Dr. Bruhl completed her Doctor of Public Health degree at The University of Texas School of Public Health (UTSPH), in the Department of Epidemiology, Human Genetics, and Environmental Sciences in May 2012. While she was working on her degree, she also served as staff scientist at the Mickey Leland National Urban Air Toxics Research Center where she managed a portion of the Center’s research portfolio. Prior to moving to Houston, Dr. Bruhl conducted research in the Department of Environmental and Occupational Health at the George Washington University School of Public Health in Washington, DC. Dr. Bruhl previously earned master’s degrees from Yale University in both public health (School of Epidemiology and Public Health) and environmental management (School of Forestry and Environmental Studies). 713-798-1078, Rebecca.J.Bruhl@bcm.edu

Katy Butterwick joined the Episcopal Health Charities as Senior Program Associate in 2012 bringing 13 years’ experience in the nonprofit field including 10 years in communications and fund development. At the Charities she is part of the new Center for Collaborative Leadership and has primary responsibility for development and implementation of the Collaborative Leadership Academy (CLA). Unique in Houston, CLA increases community impact on systemic health issues by developing the collaborative capacity of nonprofit leaders. 832-355-5138, kbutterwick@sleh.com

William D. Cooper is Facilities Manager with the Houston Independent School District. Mr. Cooper has currently been with the Environmental Services Division of HISD for the past 29 years. His positions and programs have included HISD/EPA Tools for Schools IAQ Coordinator, DSHS Asbestos Individual Management Planner, DSHS Asbestos Inspector, DSHS Mold Assessment Technician, DSHS Lead-Based Paint Inspector, EPA (RRP) Lead Certified Program, and EPA Schools Chemical Cleanout Program. 713-676-9230, wcooper@houstonisd.org
Richard L. Corsi, PhD, PE, is the ECH Bantel Professor of Professional Practice in the Department of Civil, Architectural and Environmental Engineering at The University of Texas at Austin. He received his B.S. degree in Environmental Resources Engineering from Humboldt State University, and his M.S. and Ph.D. degrees in Civil Engineering from The University of California, Davis. Dr. Corsi’s research focuses on sources, physics and chemistry of indoor air pollution, and human exposure to and control of indoor air pollutants. He has served as principal investigator on over 70 research projects dealing with issues as wide ranging as pollutant interactions with indoor materials, building disinfection chemistry, decontamination of methamphetamine-challenged homes, toxic chemical formation and releases from dishwashers, and chemical emissions from microcomputers and moth crystals. Dr. Corsi has served as advisor to over 65 graduate and 45 undergraduate students. His team has published over 250 journal/conference papers, and has been featured on The Nature of Things, National Geographic, The Economist, Business Week, National Wildlife, Prevention, Men’s Health, Redbook, National Public Radio’s Science Friday, the Academic Minute, and more. He has received numerous awards for teaching and commitment to students, including the Senate of College Councils Professor of the Month for the University of Texas at Austin campus. He was President of Indoor Air 2011, an international conference for indoor air researchers that was attended by 1,000 delegates from 47 countries. Dr. Corsi enjoys working with behaviorally-challenged dogs and writing music for acoustic guitar. 512-475-8617, corsi@mail.utexas.edu

Jules R. Elkins, PhD, is a Lecturer at the University of Texas at Austin, Department of Geography and the Environment. Her background is as an environmental economist, where she seeks to bring the analytical tools and methods of that discipline to look at the issues of environmental health. A main research focus of hers is healthy indoor environments for children. Dr. Elkins serves on an elementary School Health Advisory Council (SHAC) and is consulting with the Eanes School District in Austin to provide policy recommendations for best practices in managing food allergies, asthma, and chemical sensitivities within the school environment. Another research focus is healthy building. As an exercise in pushing the envelope of healthy building, she recently completed construction of her family home for which she is seeking certification from the Living Building Challenge (https://ilbi.org/lbc). This certification is widely considered the most advanced measurement of sustainability in the built environment possible today. Her goal was not only to create a ‘green’ home and seek to obtain net zero energy, but more importantly to create as healthy a home as possible using conventional building techniques. The house was featured on the Austin Institute of Architects 2012 Tour of Homes where it was featured as Austin Energy’s Green Home, it received a 2012 EcoHome Magazine Design Award, and the 2012 GreenBuilder Magazine Healthy Home of the Year Award, and was recently featured in Austin Home Magazine entitled, “Home is Where the Health Is.” Dr. Elkins teaches courses on environmental health, children’s environmental health, and livable and sustainable cities. Dr. Elkins also serves on the CEHI Board. 512-590-4679, jules@austin.utexas.edu

Harold J. Farber, MD, MSPH, FAAP, FCCP, is an Associate Professor of Pediatrics, Pulmonary Section, Baylor College of Medicine and Texas Children’s Hospital in Houston, Texas. He serves as Associate Medical Director for Texas Children’s Health Plan. His is a member of the American Academy of Pediatrics Julius B Richmond Center of Excellence Tobacco Consortium and a member of the steering committee of the American Academy of Pediatrics Section on Tobacco Control. He is the author of Control Your Child’s Asthma: A Breakthrough Program for the Treatment and Management of Childhood Asthma, a co-author of the American College of Chest Physicians Tobacco Dependence Treatment Toolkit 3rd Edition and first author of the chapter on Treating Tobacco Dependence in the American Academy of Pediatrics Textbook, Pediatric Pulmonology. With over 30 articles in the peer reviewed scientific literature, his research has focused on asthma and the impact of second hand tobacco smoke on childhood asthma. Dr. Farber considers community collaborations an important tool in maintaining the respiratory health of children. 832-822-3935, hjfarber@texaschildrens.org
Ruby Ferguson, MSN, BSN, RN, retired after 17 years at a Houston ISD school nurse. She is the Professional Education Coordinator for the Texas School Nurses Organization and also the Immediate Past President of that organization. Ms. Ferguson is a graduate of the first nursing class of Houston Baptist University and also has Masters in Religious Education and a Master of Science in Nursing. Ms. Ferguson is involved in multiple civic, Christian, and Nursing Organizations including NASN, TSNO – Region IV, and Riceville Mt. Olive Baptist Church. fergie947@aol.com

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Roundtable Meeting Location:
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