

# IMPROVING KIDS' ENVIRONMENT



## Improving Kids' Environment: Protecting Children from Environmental Threats

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2010 Healthy Homes & Childcare Conference

November 3, 2010

Improving  
Kids'   
Environment



## About Improving Kids' Environment

- IKE is a non-profit advocacy organization that works to reduce and remove environmental threats to children's health so they can succeed
- Our mission is to:
  - identify environmental threats to children
  - ensure parents and others have access to accurate information about threats & how to prevent them
  - work with others to remove, reduce and communicate recognized, serious threats





## IKE Staff

- **Jodi Perras, Executive Director**

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- **Ashley Sims, Project Manager (Public Ally)**

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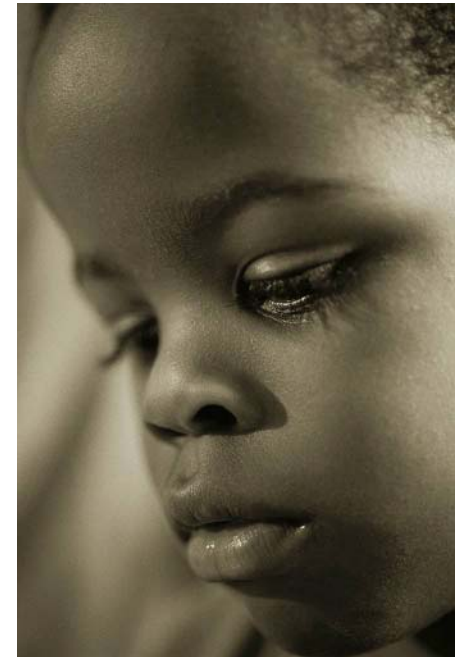
- **Julie Zimmer, Administrative Assistant**

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## Environmental Threats to Kids

- Children are not “little adults”
  - Bodies, brains & immune systems still developing
  - More susceptible to chemicals and toxins
  - Pound for pound, kids breathe more air, drink more water, eat more food than adults





## IKE's Priorities

- Lead paint and lead poisoning
- Pesticides at school and home
- Air pollution and asthma triggers
- Building coalitions and partnerships



# Lead's Impact on School Success

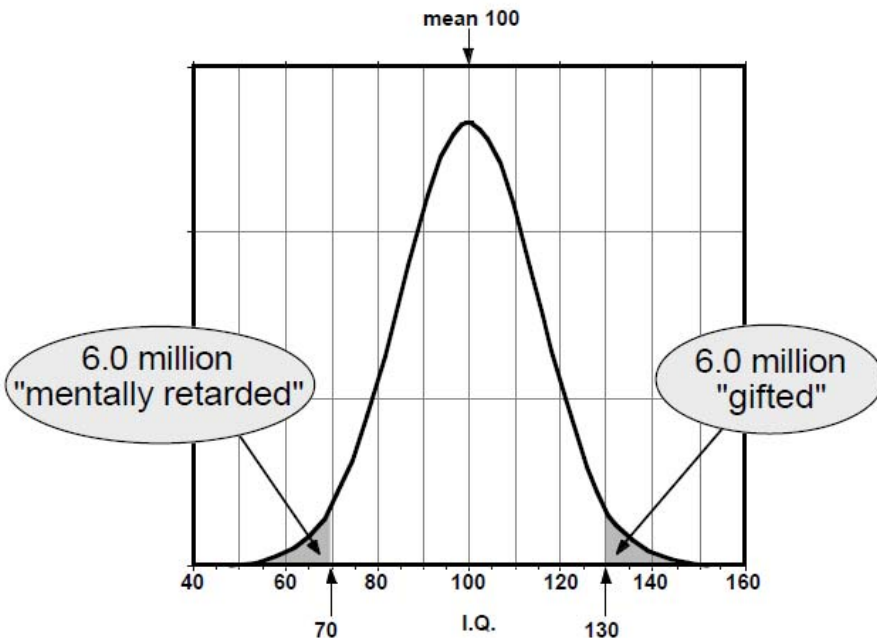
- Even low levels of lead in a child's body can cause:
  - Learning disabilities, attention deficit disorder, and decreased intelligence
  - Speech, language, and behavior problems
  - IQ scores 4-7 points lower than their peers
- No known “safe” level of lead in a child's blood



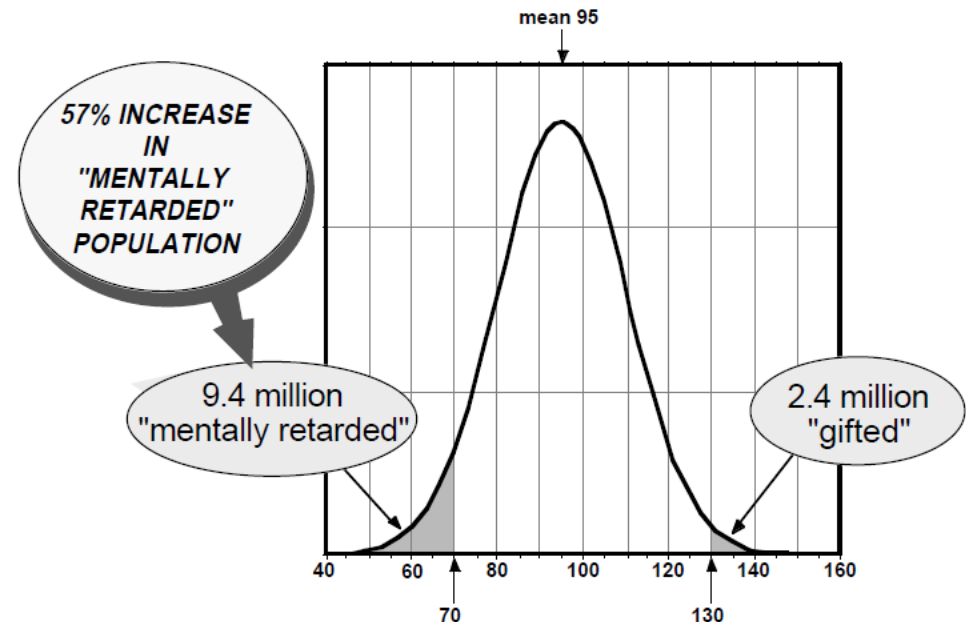
## Effects of a Small Shift in IQ

- Lowering average IQ by 5 points increases population needing special services and decreases gifted population

Original IQ Distribution

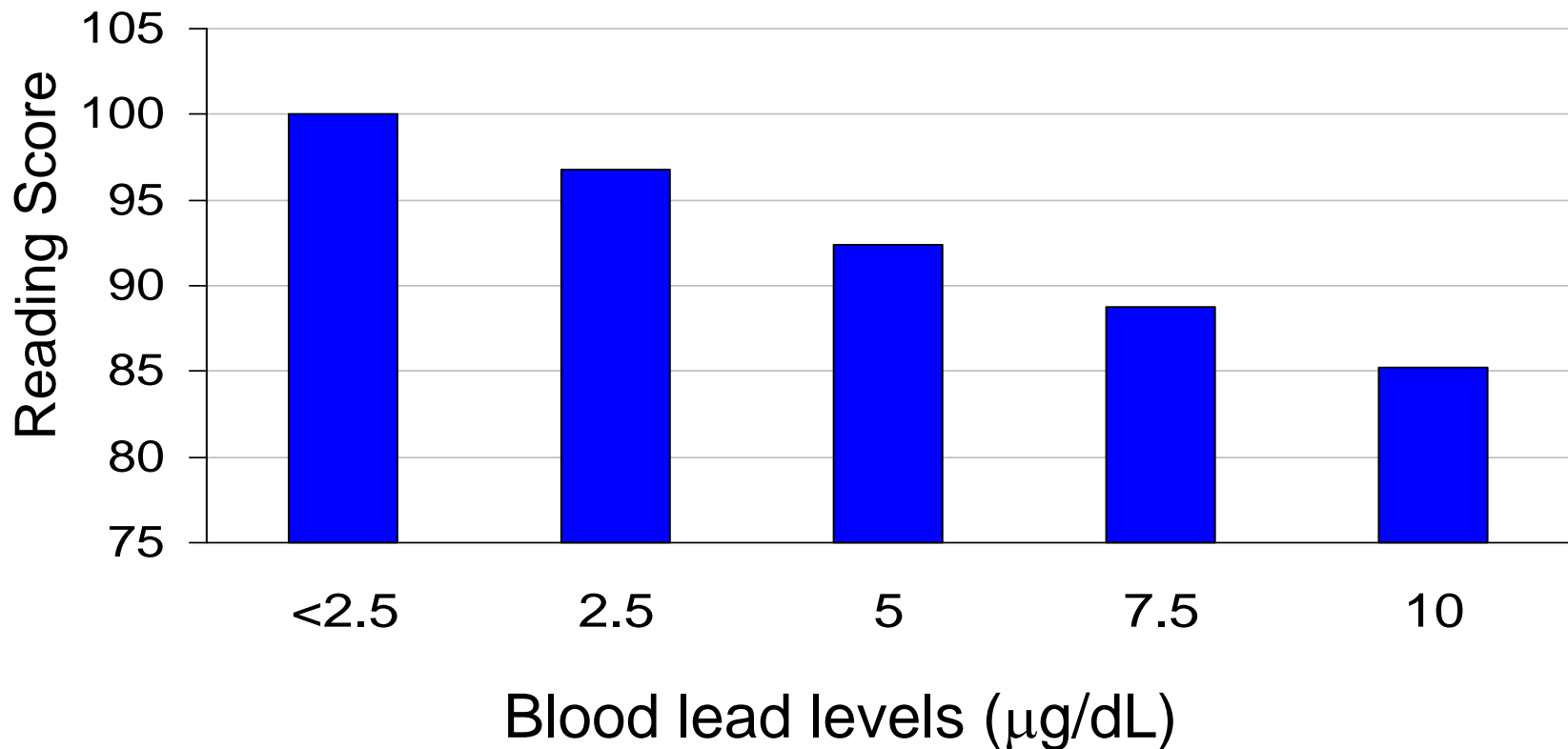


Effect of a 5 Point Shift in Average IQ



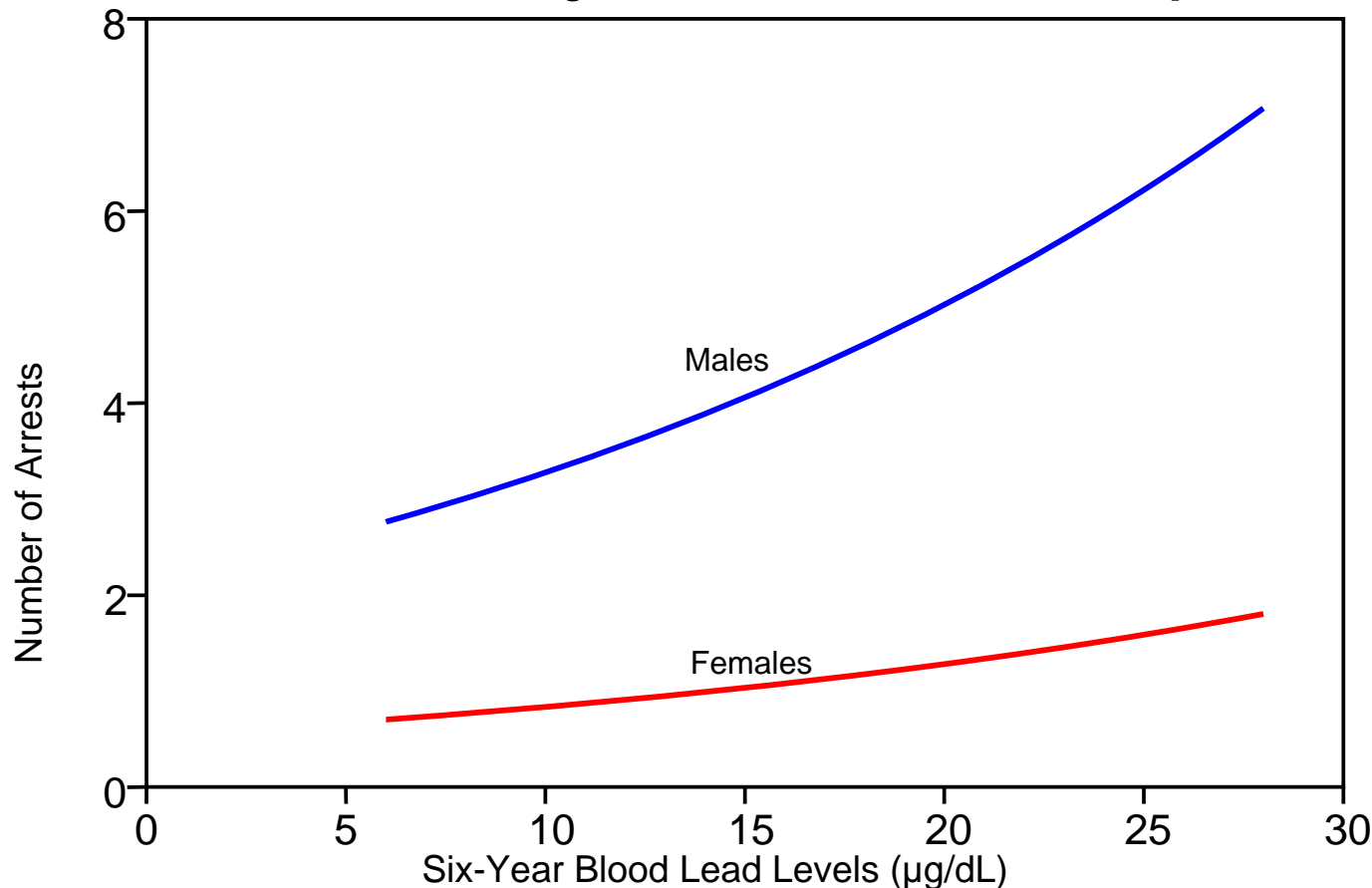


## Lead-related Reading Deficits in U.S. Children





## Number of Arrests by Childhood Lead Exposure



\* Accounting for birthweight, age, prenatal tobacco exposure, maternal age at delivery, maternal IQ, maternal arrest history, HOME Inventory.



## MCHD Lead Remediation Program

- U.S. HUD-funded program that covers 75% (~\$6,000) of the cost of lead remediation for qualifying low-income property owners
- Requires a match (~\$2,000) from the property owner
- Many eligible homeowners don't have the matching funds
- Thanks to Lead-Safe Homes Fund, IKEA now offers grants to help homeowners participate in this program





## IKE Lead-Safe Homes Fund

- IKE established the Lead-Safe Homes Fund in 2009
- Fund has received \$63,000 in donations so far
- 10 homes have been remediated or are underway
- Major donors: Nina Mason Pulliam Charitable Trust, Impact 100 Indianapolis, & Managed Health Services





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## Pesticides

- Pesticides linked to hyperactivity and permanent changes in the brain
- Common home, lawn and garden pesticides can affect children's health, including asthma, motor skills and brain development
- A study in Mexico by the University of Florida showed impaired memory, coordination and ability to draw





# Drawings of a Person

4 year olds

Pesticide Free  
**FOOTHILLS**

Pesticide Exposed  
**VALLEY**



54 mos  
female

55 mos  
female

54 mos  
female

53 mos  
female



## Pesticides & Ability to Remember

- Children told they would receive a red balloon after completing a series of games and tests
- Fewer pesticide-exposed kids remembered the promised gift 30 minutes later



	Balloon + Color	Balloon Only	Neither
Pesticide Exposed	27.3%	54.5%	18.2%
Pesticide Free	58.8%	41.2%	0%



## IKE Pesticide-related Activities

- IKE promotes integrated pest management (IPM) for schools and child care facilities, using chemical pesticides as a last resort
  - Advocacy: New rules on pesticide use in schools
  - Education: Indiana IPM Schools Coalition





## School Pesticide Rule

- 357 IAC 1-16: Pesticide Use at Schools
- Final approval from IN Pesticide Review Board in September
- Expected to go into effect by January 2011
- Purpose: to minimize the potential for pesticide exposure to students at preschools, elementary, middle schools & high schools





# Rule Does NOT Apply to:

- Daycare centers
- Home schools
- Sunday schools, private religious schools and vacation Bible schools, and any other program of a religious entity unless accredited by Indiana Department of Education



## What's Required?

- Pesticides may be used only by
  - a certified applicator; or
  - an individual operating under the direct supervision of the certified applicator
- Pesticides are not used when students are in the pesticide application area
- Pesticides are stored in locked storage areas
- Except for immediate health threats, schools provide 48 hours' advanced notice to parents & staff who request
- Schools keep records of pesticide applications.



## Pesticides Include:

- Insecticides
- Rodenticides
- Fungicides
- Herbicides/weed killers
- Over-the-counter pesticides, too
  - Ask your child's school what they are doing to prepare for the new rules





## Common Pest Problems in Schools



**Pest water sources**



**Pest entryways & habitat**



**Pest food sources**



**Over-the-counter pesticides**



# Benefits of Integrated Pest Management (IPM)

- Fewer pest complaints
- Saves money
- Creates a cleaner, healthier school environment for children and staff



## IPM Is Pest Prevention & Targeted Management

Through IPM you:

- Keep pests out
- Reduce pest-vulnerable areas
- Determine what pest you have, if you have any, then take effective, safe, pest-specific action
- Use pesticides only as a last resort





## What IPM is Not...

- NOT pesticide-centric pest management
- NOT monthly use of preventive sprays or pesticide treatments





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# Air Pollution & Asthma Triggers

## ■ Asthma is leading chronic disease among children

- 8.4% of Indiana children have asthma (2005)
- ISDH: Leading cause of missed school days

## ■ IKE programs to improve air quality

- Smart Schools Don't Idle
- Advocacy on Outdoor wood boiler rule
- Advocacy on School Indoor Air Quality Rule
- 2011 Environmental Health Summit: Indiana's Air Quality





# Smart Schools Don't Idle

- Schools voluntarily adopt idle-free zones to protect kids, especially asthma sufferers
- IKE provides free signs and outreach materials, in partnership with ISDH and City of Indianapolis
- New: Lesson plans for elementary, middle school and high schools
- More info on IKE website





## Outdoor Wood Boiler Rule

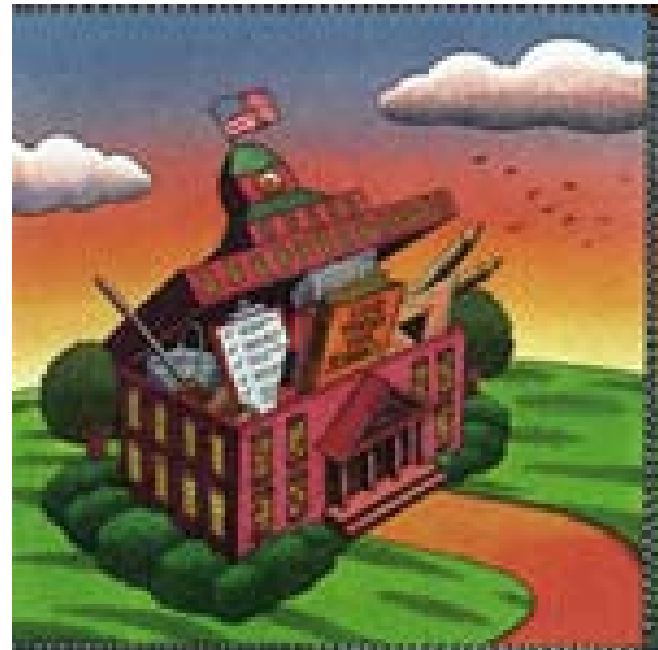
- Outdoor wood-fired units used to heat homes and businesses
- IN Air Pollution Control Board has passed preliminary rule
- Working to strengthen rule:
  - Higher stack height requirements
  - Ban use of older units May-Sept.
  - Add nuisance provision





## School Indoor Air Quality Rule

- IKE recently commented on ISDH draft rule for improving school indoor air quality
  - Vehicle idling
  - HVAC maintenance
  - Chemicals
  - Furniture
  - Construction
  - Allergens & animals





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- **Building coalitions and partnerships**



# Lead-Safe & Healthy Homes Task Force

- Began in 1999 as Lead Poisoning Prevention Task Force
- Met in April to assess progress and identify future directions:
  - Landlord-tenant issues still need to be addressed
  - Need for better awareness of lead issues (health professionals, parents, childcare providers)
  - More work needed to incorporate healthy homes issues



## Lead-Safe & Healthy Homes Task Force

### ■ Issue: Lead-Safe Homes

### ■ Vision: Childhood lead poisoning is eradicated in Indiana

### ■ Goals:

- Parents, healthcare professionals, contractors and caregivers are aware of the dangers and causes of lead poisoning
- All Indiana children in high-risk populations less than six years old are tested for lead poisoning
- Children who test above 10  $\mu\text{g}/\text{dl}$  receive assistance in reducing lead exposures and making their homes lead-safe
- Landlords and daycare providers must demonstrate that their properties are lead-safe



## Lead-Safe & Healthy Homes Task Force

- **Issue: Healthy Homes, Schools & Daycares**
- **Vision:** Homes, schools and daycares have healthy indoor air
- **Goals:**
  - Parents and caregivers have access to understandable information about healthy indoor air and its importance in preventing asthma and other illnesses
  - Schools and daycare facilities reduce asthma triggers by adopting no-idle policies, improving indoor air quality and implementing integrated pest management



## Lead-Safe & Healthy Homes Task Force

- **Issue: Injury Prevention**
- **Vision: Children are protected from injury in their homes**
- **Strategy:**
  - Identify data sources on injuries
  - Join the Indiana SAFE KIDS Coalition and support their injury-prevention efforts



## Indiana IPM Schools Coalition

- **Mission:** To make verifiable, sustainable integrated pest management the standard practice for pest management in all Indiana schools
- **Strategies:**
  - To promote to school superintendents and school board members the benefits of integrated pest management, including reduced pest management costs and a cleaner, healthier learning environment
  - To provide school facility managers and IPM coordinators with education, technical assistance and peer-to-peer sharing and networking to further the implementation of IPM in Indiana schools



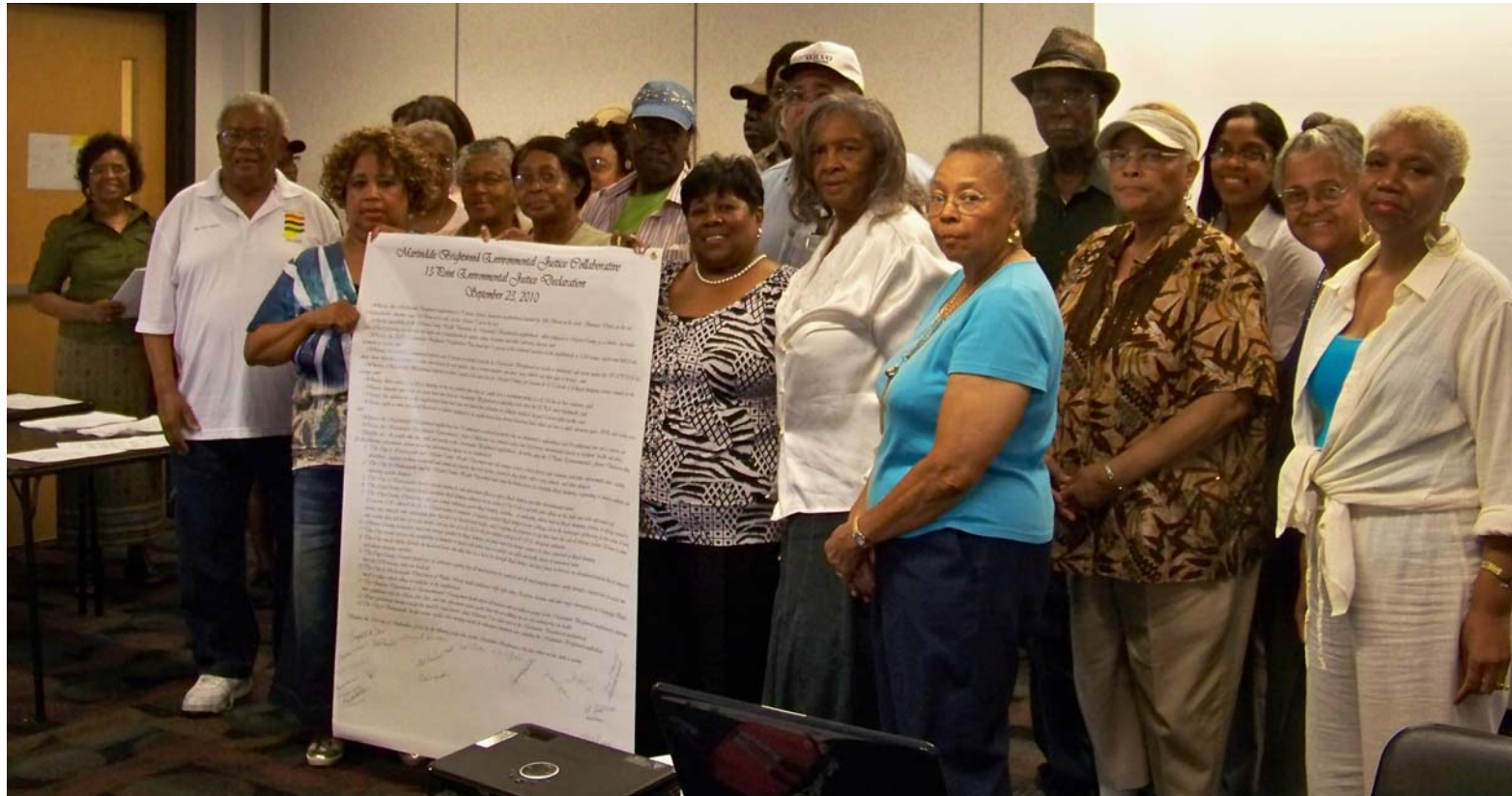
# Indianapolis Green Congregations

- *Mission: To help central Indiana faith communities become better stewards of the Earth and all its inhabitants.*
- Workshops on energy efficiency, sustainable food, starting green ministry programs, etc.





## Martindale Brightwood Environmental Justice Collaborative





## Conclusion

- Lead poisoning, air pollution, pesticides and other environmental threats can harm kids' ability to learn

- Ways you can help:

- Get involved in Lead-Safe & Healthy Homes Task Force
- Encourage schools to adopt Smart Schools Don't Idle, IPM and other clean air programs
- Promote cleaner, healthier environments in homes, schools and childcare facilities





## Thank You!

- Jodi Perras, IKE Executive Director
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