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Community Lead Awareness Partnership (CLAP) for Healthy Kids

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Background



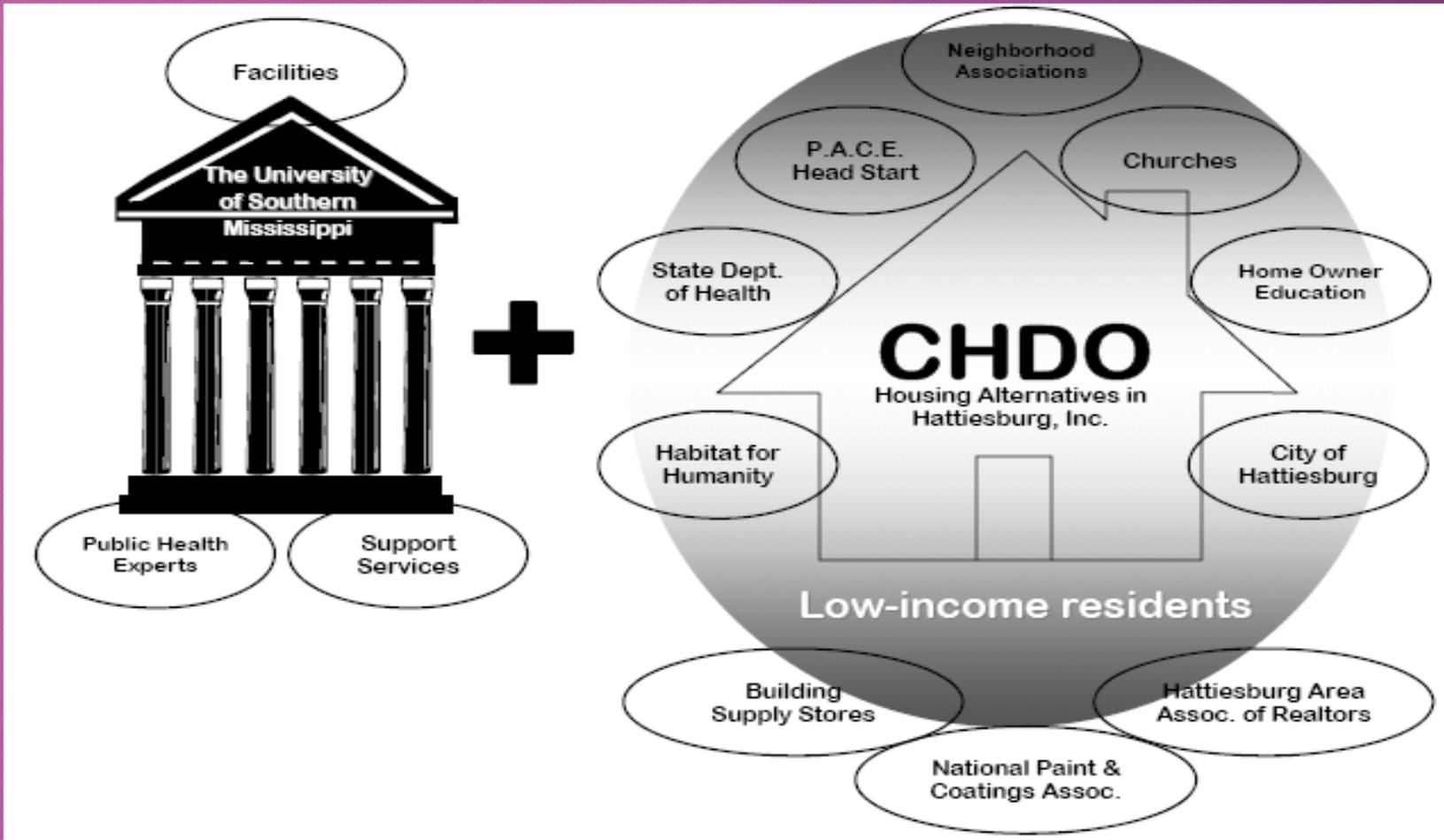
- Globally, 26% of deaths among under-5 children are due to preventable environmental factors.
- The EPA recognizes lead poisoning as one of the most preventable health tragedies for children.
- Unfortunately, some populations and geographic areas remain at disproportionately high risk for lead exposure.

Objectives



- Identify population at-risk of lead poisoning in Mississippi.
- Offer educational intervention programs in one of the most affected areas to improve awareness and knowledge of the people
- Evaluate the effectiveness of the outreach and community-based training programs

Community-Based Participatory Research (CBPR)



CLAP for Healthy Kids

- We developed a CBPR program
- Title of program: **C**ommunity **L**ead **A**wareness **P**artnership (CLAP) for Healthy Kids in Mississippi.
- Our slogan was “CLAP for Healthy Kids”
- Distributed brochure and leaflets



Our Community Partners



- MS State Department of Health Lead Poisoning Prevention and Healthy Home Program (LPPHHP)
- National Paint and Coatings Association (NPCA)
- Community Housing Development Organizations (CHDO)
- Hattiesburg City Government
- Head Start Program
- Faith-based organizations
- Day-care centers
- Public schools and kindergartens
- Home buyers
- Local Contractors
- Realtors

Community Advisory Board (CAB)

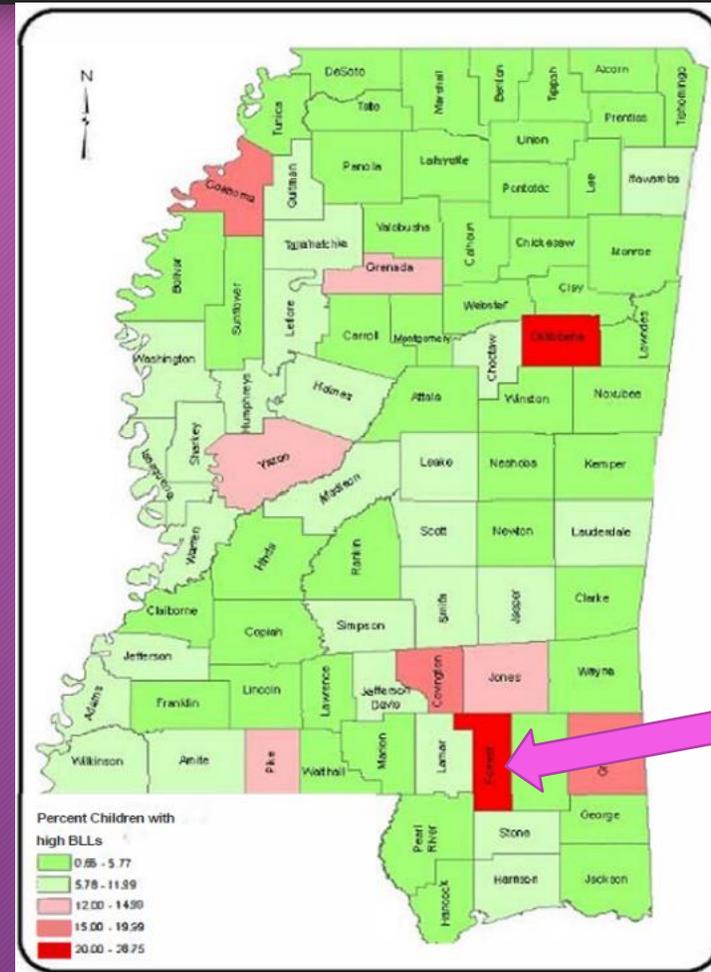


- Represented all community partners
- Met every quarterly
- Developed the project goal and objectives
- Discussed problems encountered
- Developed strategies
- Monitored the project activities
- Maintained liaison with the community

Objective 1: Identify the High-Risk Populations in Mississippi



- Secondary data analysis: blood lead levels (BLLs) of 42,372 Medicaid (low-income) children in Mississippi
- GIS mapping of percent of children with high BLLs
- Forrest County had the highest percentage of children with high BLLs
- The intervention project was, therefore, conducted in the Forrest County of Mississippi



Forrest County

Secondary Data



- MSDH identified 23 of 82 counties (28%) of Mississippi at “high-risk”
- In our analysis of 42,372 children’s data, blood lead levels (BLLs) were significantly higher in African Americans compared with Whites (5.6% vs. 3.1%, respectively, $p < 0.001$)
- There was a significant but weak correlation between BLL and housing units ≥ 50 years old ($r = 0.10$, $p < 0.001$)

Secondary Data (contd.)



- The median household income was inversely but weakly correlated with BLLs ($r = -0.12$, $p < 0.001$)
- BLLs were inversely correlated with the median rent ($r = -0.086$, $p < 0.001$) and median value of the house ($r = -0.091$, $p < 0.001$), meaning that the poor were at higher risk of lead poisoning
- On an average, 26% of Mississippi children live below the national poverty level
- This explains the need for addressing the prevention activities focused to the poor and minority communities in Mississippi

Goal 1: Health Promotion by Conducting Community-Based Outreach



- Activity 1: Provide health education materials, educational training and presentations to community organizations, child-care centers, and faith-based communities.
- Measureable Outcomes:
 - Identify 3 primary sources of lead
 - Identify lead as a poison found in the environment and demonstrate at least 2 behaviors which will help prevent lead poisoning
 - Identify at least 3 complications – behavioral, physical, and psychological

Goal 1 contd.



- Activity 2: Partner with local home-builder retail stores (such as Home Depot and Lowe's) to host hands-on training on lead poisoning prevention.
- Measurable Outcomes: At least 50% report the hands-on training was useful for prevention from lead contamination.

Goal 1 contd.



- Activity 3: Encourage all realtors to take the U.S. Department of Housing and Urban Development (HUD)'s free online Lead-Based Paint Visual Assessment Training.
- Measureable Outcomes: 90% of participants report that they will use information obtained in the training.

Goal 2. Encourage health promotion by conducting community-based training activities on childhood lead poisoning prevention.



- Activity 1: Conduct home-buyer education classes that include curriculum on lead poisoning prevention.
- Measureable Outcomes: At post-test, 75% of the participants are able to:
 - Identify 3 primary sources of lead
 - Identify lead as a poison found in the environment and demonstrate at least 2 behaviors which will help prevent lead poisoning
 - Identify at least 3 complications of lead poisoning – behavioral, physical, and psychological

Goal 2 contd.



- Activity 2: Provide intensive training on lead-safe work practices to inspectors, contractors, and Do-It-Yourself (DIY) workers.
- Measureable Outcomes: 75% of participants will report at follow-up survey that they use information obtained during the training.

Goal 2 contd.



- Activity 3: Provide training in lead-safe work practices and compliance with Toxic Substances Control Act (TSCA) Section 1018 to rental property owners.
- Measureable Outcomes: At follow-up, 60% of participants will report that they use the information presented at the seminar.

Major Findings: Impact of Major Training Activities



Mode of Training	Participants	Outcome
Health Fairs	467	Distributed 1,000 educational materials (leaflets and brochures)
Community Events	469	Appeared at 25 events; The City Mayor proclaimed the CLAP activities
Kindergarten Class	241	Sesame Street video on lead prevention. Students received a certificate of completion
Hands-on Training at retail stores	25	92% reported the training was useful or very useful
HUD Online Training to Realtors	220	59.4%, 67.9%, 65.1% identified soil, car batteries and paint as sources of lead in the environment, respectively
HUD Online Training to Inspectors, Contractors, DIY workers	75	62.3%, 48.1% and 58.5% identified three complications of lead poisoning -- behavioral, physical and psychological, respectively
	295	Mean posttest score was significantly higher than the pretest scores (7.47 ± 2.07 vs. 6.60 ± 1.68, p = 0.04, respectively)
Home Buyers' Training	91	90% mentioned the training was useful or very useful

Conclusions



- The outreach programs and trainings offered by *CLAP for Healthy Kids* were successful in improving knowledge of the community people on lead poisoning prevention.
- Least successful - Among the programs offered by the project, the number of participants at home-building retail stores were not satisfactory ($n = 25$).
- Most successful - of all the programs, the EPA/HUD's online free Lead Based Paint Visual Assessment Training ($n = 295$).
- **A comprehensive educational strategy** addressing multiple groups of people was probably the key to success of the project.
- Similar culturally appropriate programs should be adopted in “high-risk” populations for the alleviating the problem of lead poisoning.

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