

U.S. Environmental Protection Agency Region 6

Children's Environmental Health

*Seventh Annual Program Highlights Report
October 2016 – September 2017*



Protecting Children Where They Live, Learn, and Play

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Program Summary

The Children's Environmental Health (CEH) Program addresses a variety of issues across the five-state region (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas), slightly varying program focus from year to year.

From 2012 to 2015 there was a strong emphasis on Healthy Homes and community health fairs. Efforts were also focused on training child care providers and providing technical support to the Health and Wellness Alliance of Dallas as they leveraged dozens of organizations across North Texas to address childhood asthma. Since 2015, resources have shifted to support the US/Mexico border region by training health care providers, school nurses, and others on relevant children's health environmental health issues. In 2017, The Office of Children's Health Protection provided funding for a joint initiative between Regions 6 and 9 to address CEH issues along the border. Also in FY17 lead poisoning prevention has been a significant part of planning children's health activities; the implementation of those activities will occur in FY18. A few highlights from 2017 include:

- Received \$70,000 in additional funding from the national program office to develop a (Region 6/9) grants solicitation to address children's health along the Border. Both regions leveraged funds from their regions with the intent of providing multiple grants to communities. Five grants are expected to be awarded and announced during Children's Health Month (October) FY18.
- Region 6 Lead Based Paint and Children's Health Program added \$60,000 to the Pediatric Environmental Health Specialty Unit (PEHU) leveraging base funding to address lead poisoning prevention (Healthy Homes and Lead in Drinking Water) training for multiple audiences in Texas and New Mexico.
- In partnership with the PEHSU, 146 school nurses, coaches and health professionals were trained at the Healthy Schools Symposium in El Paso.
- More than 70 EPA staff, renovation contractors, and citizens were trained in Texas and Louisiana in ways to address environmental health risks to children.
- More than 1,150 items pertaining to flood clean up and children's health materials were distributed in response to Hurricane Harvey.
- Region 6 came in "third place" in the AQI Spring Challenge registering several new programs for the AQI Flag Program to raise awareness about air quality. In all, 27 new programs were established.
- The circuit rider, visited rural communities in the Texas panhandle, northeast, and west Texas and attended community events in Pampa, Dimmitt, Perryton, Sunray and Colorado City. She provided outreach material at health fairs, back to school fairs, fall festivals. In FY17, the circuit rider visited 235 communities, 175 city offices, 6 schools, 5 health departments, and 14 community events

Coordinating Across Programs

In addition to key focus areas, the CEH Coordinator works on day-to-day activities representing the Region on both internal and external workgroups, providing guidance and technical assistance, staffing outreach events, developing partnerships and communicating EPA's message on protecting children's health.

- The Department of Health and Human Service's Administration for Children and Families (ACF) hosts quarterly meetings of the Region 6 Federal Interagency Working Group. EPA generally leads a brief discussion about children's environmental health and how to incorporate messages and training into other Federal programs aimed at children. ACF's new Regional Administrator, LaKesha Pope Jackson recently expressed an interest in working with EPA to provide environmental health training for some programs.
- In FY17, the CEH Coordinator recently completed three years of participating on the Steering Committee of the Health and Wellness Alliance for Children, a program of Children's Health hospital in Dallas. EPA guidance on healthy homes and asthma triggers are fully incorporated into current programming.
- The Coordinator initiated the Healthy Schools Symposium with the Pediatric Environmental Health Specialty Unit (PEHSU) in the spring of 2017, participating on the planning committee, attending the two-day event in El Paso, and presenting to a group of El Paso pediatricians in July, 2017.
- The Ninth Annual Scientific Symposium, "Emerging Science of Endocrine Disrupting Chemicals and the Unborn Child," was hosted by the Children's Environmental Health Institute (CEHI) in Austin, Texas on March 29th. The symposium attendees included representatives from state and local government, academic institutions, non-profit organizations and industry. The CEH Coordinator represented EPA at the symposium.
- The CEH and Lead Based Paint coordinators provided outreach materials for Earth Day at Fair Park and sent several boxes of publications to El Paso for Border CEH Earth Day activities. Coordinated division volunteers with OW and set up booth for Earth Day in Dallas.
- In May, the CEH Coordinator organized a webinar to promote the AQI Flag program during Asthma and Allergy Awareness Month. Flags were purchased with CEH funding and provided free to new registrants via several venues in Hood county, El

Coordinating Across Programs

Paso and Quitman, Texas and Albuquerque. Region 6 came in third in the national AQI Challenge with nine new registrations.

- In the spring, the Coordinator responded to a citizen inquiry about reported high rates of childhood cancer in Cherokee County, Oklahoma. Nineteen children had reportedly been diagnosed with cancer in that county in the past two years; two children had died. Then, coordinated with ATSDR and PEHSU to notify the Oklahoma State Department of Health.
- The Coordinator participates in the monthly CEH national all-regions call and also the HQ monthly staff meeting, periodically attends joint schools/CEH conference calls, lead disparities calls, US/Mexico Border program calls, and Bridging Gaps meetings.
- The Coordinator participated on the *Making A Visible Difference in Communities* team, doing work in Pineville/Alexandria, LA coordinating a CEH Healthy Homes training early in FY17.
- For the tribal summit meetings, the coordinator either presents on CEH topics or has provided guidance and presentation content to others for breakout sessions.
- In response to Hurricane Harvey, the CEH Coordinator communicated with Region 4 to obtain educational materials for distribution during the emergency response to the gulf coast region and also debriefed with response staff on next steps for continuing assistance to the gulf area.
- The CEH Coordinator is responsible for setting goals and measures, collecting data from all regional programs and addressing national children's health measures, and entering into a spread sheet twice a year.
- During special emphasis months such as Asthma and Allergy Awareness Month, Children's Health Month (October), the CEH Coordinator partners with the Regional Science Council and others to bring in guest speakers.
- Partner with Environmental Education, Environmental Justice, and US/Mexico Border program to review grants.

Children's Health Month (October 2016)

EPA recognizes October as Children's Health Month. This past year, the Children's Health Program supported several initiatives targeted at multiple audiences to recognize the special vulnerabilities of children.

- Throughout the month Region 6 promoted CEH messages on social media to encourage people to protect children from risks to their health caused by environmental contaminants.
- Dr. Brett Roth presented the impacts of pesticide exposure on children's health during the QA/QC training on October 18, 2016. His presentation was attended by about **20 staff** and managers.
- Region 6 and the Pediatric Environmental Health Specialty Unit at Texas Tech co-sponsored A Healthy Homes training on October 21, 2016. Training was part of the initiative, *Making A Visible Difference in Communities* that occurred in Pineville/Alexandria, Louisiana. The event was attended by 20 people.
- Region 6 partnered with EPA's Office of Air Quality Planning and Standards to produce a webinar promoting the AQI School Flag Program on October 27, 2016. The webinar targeted areas in Louisiana that are in non-attainment status for air quality and will encouraged schools, fire stations and community based organizations to adopt the flag program.
- Region 6 completed the sixth *CEH Annual Highlights Report for FY16* during October. Region 6 is the only Region to compile an annual report. Most of the children's health measures are captured in a spread sheet for the annual strategy. The Regional report provides more details on specific activities.
- The lead based paint program worked with headquarters and the city of El Paso to provide no-cost Repair Renovation and Painting (RRP) renovator training as part of lead poison prevention week. Region 6 certified a total of **30 renovation contractors** during the two training classes held in city of El Paso facilities on October 28-29, 2016. The city of El Paso provided lunch for attendees. In addition, announcements were placed in local newspapers and on radio stations to raise awareness about the RRP certification program. Region 6 plans to partner with the Pediatric Environmental Health Specialty Unit in FY18 to provide additional RRP training.

Southwest Center for Pediatric Health Partnership

The Southwest Center for Pediatric Environmental Health at Texas Tech University in El Paso is a key partner for the Region 6 Children's Health Program. Jointly funded by EPA and ATSDR, this group of physicians and public health professionals known as the Pediatric Environmental Health Specialty Unit (PEHSU) provides expertise in support of EPA's core mission to protect children's health. The PEHSU performs dozens of activities throughout the year. A few highlights of their work in FY17 follows.

An integral part of the PEHSU's role is to provide ongoing training for students, promotoras, new mothers and pregnant women and others. In January, the PEHSU hosted a half-day workshop for promotoras that focused on asthma awareness and smoking cessation; **40 promotoras participated**. The PEHSU also presented a *Healthy Homes* Workshop in Alexandria, Louisiana in October as part of the *Making a Visible Difference in Communities* project; **20 people attended the training**. The PEHSU is planning to train pediatric environmental health elective students and emergency medicine residents through educational activities/rotations and coached health professionals on home screenings in the coming year.

The PEHSU works to enhance professional education opportunities/presentations such as "Pills and Thrills that Kill V", a local medical toxicology conference providing CEUs to health professionals. Also, planning began in 2017 for the development of two e-modules on radiation focusing on ionization radiation during pregnancy, and the effects on children and adolescents. Both will be stand-alone modules designed for health professionals.

The PEHSU raises awareness about their role in protecting children's health. This year, they were promoted during local and national events, social media, and by local consultants. They present at local, regional, national, and international conferences on pediatric environmental health topics, offer media outlets pediatric environmental health information through interviews, press releases, and other services and Publish journal abstracts, articles, and book chapters on pediatric environmental health topics. Further, they produced Two short animated videos, "They Mysterious Case of Lead" were produced for the lay community, specifically young children, on the dangers of lead. The videos, posted in October 2016, are available in both English and Spanish and follow a child-friendly story about potential lead exposures.

Working in the community, the PEHSU engages parents and children through community events such as "Poison Jungle Safari", health fairs, and workshops. The PEHSU has also developed a Zika and Breastfeeding flyer (English and Spanish) to educate health professionals and the lay community about the safety of breastfeeding if the mother has the Zika virus.

In FY18 Region 6 and the PEHSU plan to collaborate on more Healthy Homes training and a workshop focusing on lead in drinking water.

Air Quality Flag Program

The goal of the Air Quality Flag Program is to alert organizations to the local air quality forecast and to promote actions to protect people's health, including those with asthma. Each day the participating organization raises a flag that corresponds to how clean or polluted the air is. The color of the flag matches EPA's Air Quality Index (AQI): green, yellow, orange, red, and purple. On unhealthy days the information can be used to adjust physical activities to help reduce exposure to air pollution, while still keeping people active.

The AQI Flag Program was designed originally for schools and it is supported by a complete curriculum with activities, fact sheets, posters, program guidance, and information for parents. More recently, it has been expanded to include not only schools, but community based organizations, hospitals, libraries, fire stations, and other organizations.

In FY17, Region 6 promoted the AQI Flag Program in several venues including the following:

- Regional Tribal Operations Committee meeting in Dallas, TX
- School Nurses Association meeting in Albuquerque, NM
- During Asthma and Allergy Awareness Month (AQI Spring Challenge)
- Healthy Schools Summit in El Paso, TX
- Through the Environmental Education program email sent to promote Children's Health Month

In addition, the AQI Flag Program was presented at the Region 6 Sustainability Day in 2016 and 2017. Region 6 also participated in the AQI Challenge in both 2016 and 2017, coming in third place both years.

Results

As a result of these efforts **28 organizations registered** to participate in three states (New Mexico, Oklahoma, and Texas) raising the visibility of air quality issues across the Region and further protecting children's health from poor air quality.

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|------------------------------------|----|
| Spring challenge | 9 |
| El Paso School Nurse conference | 4 |
| El Paso schools Summit | 11 |
| Oklahoma | 2 |
| State Program Office (Brownsville) | 1 |
| Irving school | 1 |



Children's Health on the Border

The Region 6 Children's Health Program coordinates with the US/Mexico Border program on an ongoing basis to provide consultation on children's health messages, provide materials for community events, or to review proposals for funding through the border program.

Children living along the US/Mexico Border are especially vulnerable to health impacts from environmental risks. Many live in *colonias*, or unincorporated towns with sub-standard housing conditions, poor water quality, improper solid waste disposal, poor indoor and outdoor air quality, mismanagement of pesticides, chemicals and other issues that threaten children's health. The border region covers 1,500 linear miles with San Diego on the western end and Brownsville on the eastern end; El Paso is roughly half way between the two cities.

The Children's Health program has made the border region a priority in the past two years, hosting **four symposia** since 2015, which are summarized below.

The first symposium took place over two days on September 24-25, 2015 in El Paso, Texas on the campus of Texas Tech and was hosted by the Southwest Center for Pediatric Environmental Health (SWCPEH). Continuing education credits were provided to participants. Over one hundred doctors, nurses, promotoras, and public health professionals attended the two-day event in which thirty experts presented on issues such as asthma, lead and mercury exposure, climate change impacts on children's health and a dozen other topics. Simultaneous English/Spanish translation was provided for all the presentations.

The second symposium was held fourth months later in San Diego (Region 9) on January 27, 2016 and included a roundtable discussion on next steps.

The third symposium, was held in Brownsville, Texas on August 25, 2016 and was the first symposium to be broadcast over a live web feed so participants from other cities could view plenary sessions. In addition to the symposium, a Healthy Homes course was offered in conjunction with the event to offer training on the relationship between housing and public health.

In FY17, the fourth symposium was held on July 26-27, 2017 in El Paso. The goal was to complement/supplement the broader CEH Symposium held in 2015. The Healthy Schools Symposium focused exclusively on school environmental health and was hosted again by the Southwest Center for Pediatric Environmental Health. The audience for the 2017 Healthy Schools Symposium was school coaches, nurses, and other health professionals. Continuing educations credits were offered for the school nurses.

Children's Health on the Border

2017 Results and Feedback

This year's symposium resulted in **146 people** being trained in multiple topics pertaining specifically to healthy schools. At the end of the training, participants provided feedback on the symposium with very positive results.

Of the 25 people who attended the symposium 92 percent responded that the speaker's knowledge, organization, and effectiveness were excellent. And 80 percent ranked the overall educational quality of the symposium as being *excellent*. In addition, 88 percent stated that as a result of their participation in the activity, they would make changes in their classroom or school setting. On day two, evaluation results were similar. Of the 116 people who responded, 85 percent ranked the speaker's knowledge, organization, and effectiveness as *excellent*. And 78 percent ranked the overall educational quality of the symposium as being *excellent*. Finally, of the participants who responded to the evaluation on the second day, 95 percent stated that as a result of their participation, they would make changes in their classroom or school setting.



The outcomes from these combined events produced several results. First, the number of people trained during the four symposia totaled more than **536 people** over five days of training. Subsequently, these “change agents” will take the training they received back to their communities and share with parents, teachers, patients, and other who care for children, ultimately reaching thousands of border residents and improving the environmental health of kids who live in border communities.

Finally, these combined events resulted in coordination between the Regional CEH and Border offices, the Office of Children's Health Protection, and the Office of International and Tribal Affairs to request additional resources be devoted to this area with the hope of increasing the scope and reach of children's health work along the border in years to come.

Children's Health on the Border

2017 Children's Health Request for Proposals

In addition to the number of people trained, the symposia also laid the foundation for cementing key partnerships with the Region 6 Pediatric Environmental Health Specialty Unit, located at Texas Tech in El Paso, EPA's Region 9 Children's Health and Border programs, the Office of Children's Health Protection (OCHP) and the Office of International and Tribal Affairs.

OCHP provided **\$70,000 in additional funding** for Regions 6 and 9 to be used specifically to support prenatal environmental health education, healthy childcare education, environmental health youth summits, and pediatric environmental health risks in southern California, Arizona, New Mexico, and Texas communities. Regions 6 and 9 added additional program resources to the OCHP money with the goal of leveraging the funds to award more grants.

Proposals were reviewed the last week in September and grantees were selected. In FY18, Regions 6 and 9 hope to announce **more than \$170,000** to a total of **five CEH grantees** during the month of October--Children's Health Month.

October is Children's Health Month



Addressing the Impacts of Lead Based Paint on Children's Health

The Centers for Disease Control (CDC) has determined that no level of lead in blood has been identified as being safe for children. Additionally, CDC recommends public health actions be initiated for children with a reference level of 5 micrograms of lead per deciliter of blood. Elevated blood lead levels in children are due mostly to ingesting contaminated dust, paint and soil, but other sources of lead exposure include ceramics, drinking water pipes and plumbing fixtures, consumer products, batteries, gasoline, solder, ammunition, imported toys, and cosmetics. In 2010, an estimated 535,000 children had a blood lead level of 5 µg/dL. The number of children affected by lead poisoning has decreased significantly from 4.7 million in 1978 mostly due to phasing out of lead in gasoline between 1973 and 1995 and the reduction in the number of homes with lead-based paint from 64 million in 1990 to 38 million in 2000. Still, about 24 million homes have significant lead-based paint hazards.

Lead exposure in young children can result in lowered intelligence, reading and learning disabilities, impaired hearing, reduced attention span, hyperactivity, delayed puberty, and reduced postnatal growth. Blood lead levels are higher for children ages 1-5 years old from lower-income families and for certain racial and ethnic groups. The Region 6 lead based paint program addresses lead poisoning prevention through several indicatives.

The Lead Based Paint Program

In 2017, the lead based paint program **funded \$50,000** for the New Mexico Department of Health to study applying for authorization to run both the 402 (abatement) & Renovate, Repair & Paint (RRP) lead programs.

The Circuit Rider program has also been funded by the lead program for several years. In 2017, the Circuit Rider traveled to rural areas with outreach material that addresses asthma, lead, and other children's health issues. She focused her travels in West Texas, the Texas Panhandle, Eastern New Mexico and Northeast Texas and was subsequently invited by local authorities in Pampa, Dimmitt, Perryton, Sunray, and Friona to return for community events, back-to-school and health fairs, and summer expos. In total, the circuit rider visited **235 communities**, 175 city offices, 6 schools, 5 health departments, and 14 community events.

Addressing the Impacts of Lead & Pesticides on Children's Health

Additional Lead Poisoning Prevention Activities

In FY17/18. The Children's Health Coordinator represents the Region on the national Monthly Lead Disparities Team call and coordinates internally on lead poisoning prevention issues. The Lead Based Paint Coordinator manages grants to states and tribes and runs the outreach component of the program, including responding to citizen inquiries. Coordinating on key goals to protect children's health, they have leveraged resources to accomplish the following:

- Develop and fund **five RRP and Healthy Homes training** events to be conducted by the Pediatric Environmental Health Specialty Unit in FY 2018 to be held in Texas, New Mexico, Arkansas, and Louisiana. The lead program has funded the training for **\$30,000**.
- Both programs, along with Indoor Air, contributed about **\$52,000** in resources to help fund the **children's health border project** which will address lead exposure, indoor air pollution, asthma, and other CEH issues.

In addition, Bridging Gaps is a new initiative that will address lead in drinking water. The Regional Children's Health Program has funded the initiative for **\$29,200**. Region 6 will partner with the PEHSU to reach out to schools and child care facilities in Texas regarding the benefits of testing encouraging them to use EPA's 3T outreach materials. The initiative calls for schools to launch their own proactive campaigns of education, prevention, testing and remediation to minimize the threat of lead exposure from drinking water and to help ensure the safety of both the children and adults that use their facilities.

Integrated Pest Management

Exposure to pesticides can also be extremely dangerous to children's health. Accidental poisoning can cause severe acute and chronic health effects, including blurred vision, headache, nausea, sweating, and tremors. Some pesticides can attack the respiratory and central nervous systems, even causing death. In Region 6, the Integrated Pest Management (IPM) program seeks to reduce exposure to pesticides by promoting the use of IPM in schools. In 2017, the IPM program conducted **25 separate pesticide safety and IPM in school activities** which included 15 wholesale focused outreach events attended by **964 people**. The audience for these events were school district administrators, school nurses, facilities management, stakeholder state/tribal/federal agency staff, and associated professional organization members from across the region.



Environmental Asthma Triggers

Asthma

More than 6 million children in the U.S. have asthma, disproportionately affecting African American children. EPA's role in addressing asthma is to educate parents, school personnel, childcare providers, and others about environmental triggers. EPA publishes educational materials, provides technical assistance for homes and schools, coordinates with a national partnership network, and provides some funding to support education on environmental management of asthma triggers. In 2017, Region 6 focused efforts on the following:

Region 6 sponsored an asthma mobile unit in 2016/17 providing **\$25,000** in funding for the Better Breathers of Dallas, whose goal is to educate parents, children, and other caregivers about asthma in environmental justice communities.

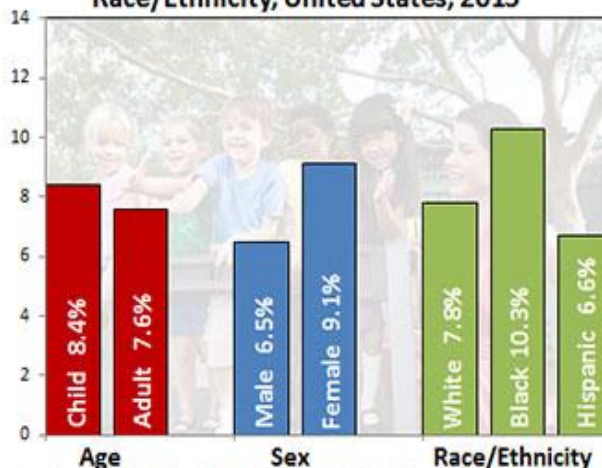
In FY17, Indoor Environmental Air Quantity staff finalized a one-year **\$24,000** noncompetitive award to the University of Texas Health Science Center at Tyler for the Breath of Life Mobile Pediatric Asthma Clinic which is deployed to schools to diagnose and provide routine treatment to children with asthma.

The Indoor Air Coordinator spoke at several venues including the University of Texas Health Science Center at San Antonio for their annual respiratory care symposium where **400 people** were trained in Asthma Awareness and Indoor Environmental Programs and at the 46th Annual Texas Society for Respiratory Care Conference in Waco Convention Center in Waco, Texas. Over **400 respiratory care specialists** received training in Asthma Awareness.

Green Dallas and EPA's Office of Environmental Quality hosted a Clean Air Action Day on June 23, 2017. Over **200 residents were in attendance** and received asthma materials pertaining to school integrated pest management (IPM), green and healthy homes, and the EPA asthma community network website.

The Dallas Police Department hosted a "Let's Talk" youth forum at the AT&T Performing Arts Center on July 27, 2017. EPA grantee, Positive Breathing Asthma Mobile Clinic offered asthma education resources to assist **300 families** learn to manage asthma.

Current Asthma Prevalence Percents by Age, Sex, and Race/Ethnicity, United States, 2015



Source: National Health Interview Survey, National Center for Health Statistics, Centers for Disease Control and Prevention

<https://www.cdc.gov/asthma/asthmaadata.ht>

Responding to Severe Weather Events

Outreach Materials

Extreme weather includes heat waves, tropical storms and hurricanes, floods, and droughts. Hurricane Harvey smashed into the gulf coast during the final days of August 2017 leaving horrendous flooding and devastation across the region. Children are more vulnerable than adults in disaster situations because they rely on others to care for them. They need specialized medical care during and after disasters because of their size and their differences in bodily systems and psychology.

Region 6 activated the Emergency Operations Center in response to Hurricane Harvey, deploying staff to assist with community efforts, water quality testing, and clean up. The CEH Coordinator sent web links to External Affairs for children's health information and hard copy brochures and flyers that specifically address children's health issues related to flooding. More than **1,152 items** were provided to the emergency response team to support their efforts which included:

- Mold Remediation in Schools and Commercial Buildings 100
- Flood Cleanup and the Air in Your Home (English and Spanish) 425
- *Moho, Le Humedad y Su Hogar* (Mold, Humidity and Your Home) 225
- Tips to Protect Children from Environmental Risks 123
- Air Pollution and Pregnancy 279

Pediatric Environmental Health Support

EPA's Children's Health Program supports an ongoing partnership with the PEHSU at Health at Texas Tech in El Paso. Jointly funded by the Agency for Toxic Substances and Disease Registry, they serve as the PEHSU for the five states in Region 6, providing a toll-free number, and pediatric expertise, consultation, and physician referral for children's environmental health issues. They also provide training for school nurses, health care providers, public health professionals, child care providers, and parents on pertinent topics such as healthy homes and healthy schools. Requests for training can be submitted through the children's health coordinator. Fact sheets with information relevant to the Hurricane can be downloaded on their website <http://www.swcpeh.org/resources/factsheets.aspx>

The PEHSU is also available via their toll free number for additional assistance by calling 888-901-5665 or by emailing swcpeh@ttuhsc.edu.