

HEALTH EDUCATION LEAD POISONING (H.E.L.P.) On-Line Professional Development CEU Course Series

Module # 1 - Supplementary Readings Dr. Herbert Needleman

2006- 2008 DVD Educational Series Health Education Lead Poisoning Initiative: <i>Educational Implications of Childhood Lead Poisoning</i> CT State Legislative Informational Forum Series May 9, 2006 <i>CT-N and FEA, Inc. All Rights Reserved</i>	
	H Health E Education L Lead P Poisoning
Keynote Presenter from University of Pittsburgh School of Medicine: <i>Dr. Herbert Needleman</i> Dr. Needleman is a researcher and nationally renowned expert on childhood lead poisoning and its impact on learning and behavior.	
Overview of DVD Presentation: This 2006 - 2008 Health Education Lead Poisoning (HELP) Initiative DVD provides a medical and educational presentation on the devastating impact of childhood lead poisoning. A parent's testimony of a child who was lead poisoned at age two and continues to face formidable learning and behavioral challenges through out his preschool and elementary school experiences is included.	
Conference sponsors: The Connecticut Health Foundation, Inc., Connecticut Department of Public Health, Connecticut Department of Education, Connecticut Commission on Children, Foundation for Educational Advancement, Inc., State Education Resource Center, and the University of Connecticut Healthy Environments for Children Initiative.	
DVD Production by: Connecticut Network (CT-N), Foundation for Educational Advancement, Inc., Moving Pictures, Inc., Full Gospel, Interdenominational Church Media Department, and Simpson Communications	
Funded by: Connecticut Health Foundation, Inc. and FEA	

- 1) **Biographical Sketch: Heinz Award / Shared Ideals Realized 2nd Annual Award Recipient**
- 2) **Pittsburg Medical Journal (2001): Houses of Butterflies** by Rebecca Skloot - Dr. Herbert Needleman took on the Disease of where we live and work.
- 3) **Toxic Truth “A Scientist, A Doctor and the Battle over Lead”** by Lydia Denworth - Publisher: Beacon Press © 2008
- 4) **University of Pittsburgh Research Shows Early Lead Exposure may be**
- 5) **Significant Cause of Juvenile Delinquency: Testimony of the Division of Criminal Justice - Public Health Committee - March 5, 2007 - S.B. No. 1340***
Presented by: Judith R. Dicine, Supervisory Assistant State’s Attorney

****This Senate Bill Successfully became CT Law entitled: Act 07-2 "An Act Concerning the Prevention of Childhood Lead Poisoning"***

The Heinz Awards

Shared Ideals Realized

ENVIRONMENT:

Herbert Needleman, M.D.

2nd Annual Heinz Award Recipient



Dr. Herbert Needleman receives the Heinz Award in the Environment for his extraordinary contributions to the understanding and prevention of childhood lead poisoning.

A pediatrician and child psychiatrist at the University of Pittsburgh Medical Center, Dr. Needleman is distinguished as a researcher who, having determined the developmental implications of excessive exposure to lead, has worked tirelessly and at great personal cost to force governments and industry to confront the implications of his findings. While this has made him the target of frequent attacks, he has fought off his critics with courage, tenacity and dignity. Dr. Needleman continues his work today, despite having already played a key role in one of the greatest environmental health gains of modern times – a five-fold reduction in the prevalence of lead poisoning in American children.

In the 1970s, Dr. Herbert Needleman conducted a study while at the Harvard Medical School that provided the first clear evidence that lead, even at very low levels, could affect a child's IQ. And, in a series of follow-up studies, he determined that lead poisoning had long-term implications for a child's attentiveness, behavior, and school success.

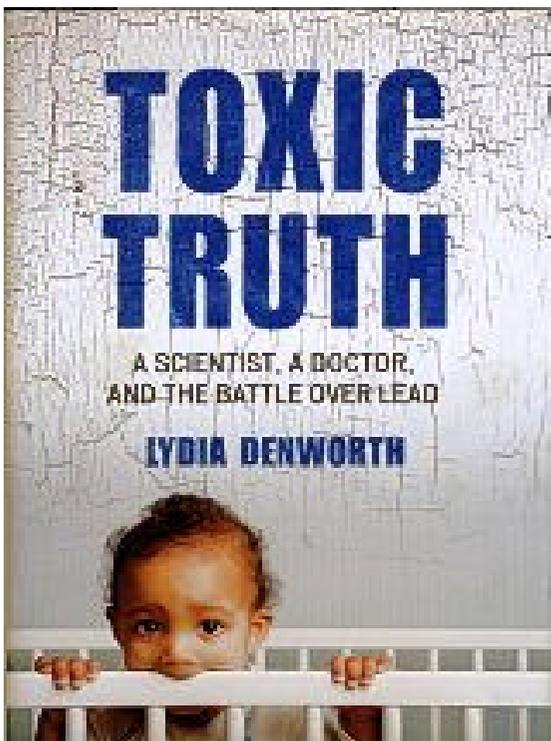
Despite the significance of his findings, Dr. Needleman never assumed that his studies spoke for themselves, or that the job of interpreting them for policy makers and the general public belonged to someone else. Having identified a preventable affliction harming millions of children, he set about the process of educating everyone – from parents to government advisory committees – on the dangers of childhood lead poisoning. After extensive scientific review, his findings spurred the Centers for Disease Control to issue guidelines for the diagnosis and management of lead poisoning in children.

Dr. Needleman's work was instrumental in the decisions made by the Environmental Protection Agency to mandate the removal of lead from gasoline and by the Consumer Product Safety Commission to ban lead from interior paints. Additionally, Dr. Needleman's studies prompted the Department of Housing and Urban Development to remove lead from thousands of housing units across the country. The results, in public health terms, have been dramatic, with average blood lead levels in this country dropping an estimated 78 percent from 1976 to 1991.

It is not surprising that Dr. Needleman's work made him a frequent target of criticism by the lead industry, or that he was once forced to defend himself against charges of scientific fraud and misconduct. Not only was he exonerated, but he fought for and won the right for those accused of such charges to an open hearing with legal representation – a right that has benefited the entire scientific community.

Dr. Needleman is a superb medical educator and writer who remains committed to the cause of eradicating pediatric lead poisoning. The founder of the Alliance to End Childhood Lead Poisoning, an education and advocacy organization, he continues to work today on one of the most difficult issues in environmental health – reducing the hazards of lead-based paint in the homes of those living in the inner city.

Note: This profile is excerpted from the commemorative brochure published at the time of the awards' presentation.



"Toxic Truth"

A Scientist, A Doctor, and The Battle Over Lead"

Lydia Denworth

Beacon Press: <http://www.beacon.org/productdetails.cfm?PC=2009>

Dr. Herbert L. Needleman, a University of Pittsburgh professor, trained pediatrician, psychiatrist and researcher noted for his seminal work with childhood lead poisoning, plays a starring role in the new book by former Newsweek reporter Lydia Denworth, "Toxic Truth: A Scientist, a Doctor, and the Battle over Lead."

The scientist in the book is geochemist Clair Patterson, who in 1949 at the University of Chicago was struck by the amount of lead that he found contaminating his samples while using uranium-lead dating to accurately calculate the age of the earth.

Both men took on one of the biggest public health crises of the 20th century: lead poisoning.

Dr. Needleman has been a professor of psychiatry and pediatrics at Pitt's School of Medicine and the Western Psychiatric Institute & Clinic of UPMC since 1981, but he made his name in the 1970s as the first researcher/doctor to discover cognitive effects in children who had been exposed to lead. Though the children had no visible signs of lead poisoning, they had significantly lower scores on IQ tests. Studies by Dr. Needleman and others led to the removal of lead from gasoline, paint and many other products.

In a 1996 Pittsburgh study of 301 children, those with the highest concentrations of lead -- still below government-recommended safe levels -- had test scores showing more aggression, attention disorders and delinquency. Six years later, those findings were extended to show that the average bone lead levels in 190 adjudicated delinquents were higher than normal controls. Those results suggested that between 18 and 38 percent of all delinquency in Allegheny County could be due to lead.

His work continues. He collaborated on a report from Pitt's Graduate School of Public Health and the medical school that was published in the January issue of Neuropsychology. It suggests that both the developing brain and aging brain can suffer from lead exposure. For older people, the report said, a buildup of lead from earlier exposure may be enough to result in greater cognitive problems after age 55.

Housing in the vicinity
of Pittsburgh's new
highway, June 1950.



HERB NEEDLEMAN TOOK ON THE DISEASE OF

WHERE WE LIVE AND WORK | BY REBECCA SKLOOT

HOUSES OF BUTTERFLIES

After Frank Durr died in a straightjacket in 1924, workers at the DuPont Deep Water plant thought they knew what killed him. They figured it was the same thing that killed William McSweeney—whose sister called the police for help after he went home sick from his work at a similar Standard Oil facility, then woke up the next morning violently insane. He died in a straightjacket, too. Fifteen others did as well, and the dead men shared one more feature: They all had worked in a House of Butterflies—a building for tetraethyl lead synthesis—so named because its workers were known for brushing hallucinated insects from their bodies.

In the early 1920s, in an attempt to outdo Ford's Model T, General Motors mounted efforts to find an agent that would quiet the Cadillac, whose knocking engine kept it lagging in popularity. What they came up with—an old compound Germans had developed called tetraethyl lead—silenced knocking engines and inspired a burgeoning new product: Ethyl Gas. But shortly after mass production of leaded gasoline had begun, workers in Deep Water, New Jersey, and at two other plants started developing a mysterious and often fatal illness. New York and New Jersey responded quickly, banning leaded fuel and ceasing its production at the plants, but their action was only temporary. After a six-hour Surgeon General's meeting, the ban was lifted, production resumed, and

lead soon found its way into everyday use, fueling more than half a century of heated debate.

Twenty-five years after the deaths of Durr, McSweeney, and others, the 2 p.m.-break whistle echoed along the Delaware River behind Deep Water, and Herbert Needleman filed out with the other workers. Needleman, a second year medical student at the University of Pennsylvania paying his way through school, had soaked through his clothes in the plant's heat, which usually topped 100 degrees by early morning. He peeled off his elbow-length rubber gloves and headed outside for a cigarette. Every day

when the break whistle blew, Needleman and

PHOTO OF GIRL | LISBOHN, CARNEGIE LIBRARY
PORTRAIT OF NEEDLEMAN | FRANK WALSH



PHOTOGRAPH

other men would swarm across a field, far from the plant and its explosives, into wooden smoking shacks with glowing cigar lighters embedded in the walls. There, Needleman would smoke and check out his coworkers. In the corner, a few older men sat staring blankly into space, moving slowly and clumsily. If they spoke, their voices were distant and empty. One day, when Needleman asked other workers the story behind these men, they all shook their heads. “Oh yeah,” one told him, “those guys worked in the House of Butterflies.”

Needleman joined the University of Pittsburgh School of Medicine in 1981, leaving Harvard University to join Pitt’s Departments of Psychiatry and Pediatrics. Calling professor Needleman a leader in the field of lead research would be an understatement. (The champion of preventive medicine has long since kicked the smoking habit, by the way.) He has spent much of his career attempting to convince others that exposure to lead, even at low doses, has tragic effects on individuals and society. Though few deny that high doses of lead are toxic, its low-dose effects have been passionately debated. If you ask Needleman where arguments against

a deep sigh when he talks about lead and its effects. “Lead does so many things to human biology, we don’t even know which ones are most important,” he says. It affects neurotransmitters responsible for nerve conduction, causes leaky capillaries, kills brain cells, affects RNA transferase and transcription of the genome, and that’s just an abbreviated list. “There are thousands of articles out there,” he says, “and so many effects that could be critical, we don’t really know what’s what,” and then he pauses. “We just know that the more you look for brain effects, the more you find them, even at very low doses.”

Needleman recalls how in 1960, according to the Centers for Disease Control and Prevention, a child needed at least 60 micrograms of lead per 100 milliliters of blood to be officially identified as poisoned. Back then, 20 percent of inner city children had blood lead levels of 40 to 50 micrograms per 100 milliliters, and they were considered normal. This made no sense to Needleman. *Listen*, he said, *if we know for a fact that high-dose lead poisoning causes obvious problems—like coma, retardation, and death—why should we assume that*

bone biopsy, which would not have been acceptable for hundreds of seemingly healthy children. But when a child loses a tooth, Needleman realized, it’s like a spontaneous, pain-free biopsy. He got a \$500 grant from the federal government, took a chunk of it to the local bank, and converted it into silver Kennedy half-dollars. Then he had little badges made up that said “I gave.” With his half-dollars and badges, Needleman worked with the schools to collect teeth from several locations—some from Philadelphia’s “lead belt” on North Broad Street, a hot spot for poisoning, others from areas that rarely reported lead poisoning. Those teeth, Needleman established, were good markers for lead levels.

That got him an invitation to Harvard, where he would show the world lead’s subtle destructive powers. In 1979, in a study on Massachusetts children, he determined their life-long accumulation of lead and examined whether that correlated with their IQs. He found that children with higher accumulations of lead also had, on average, five or six fewer IQ points than those from the same neighborhood, ethnic background, and eco-

“Her disease was where she lived, and why she was allowed to live there.”

the danger of low-dose lead exposure come from, he’ll tell you it’s the lead industry—an entity he has fought through several turbulent decades. The battle starts with Needleman’s first academic paper, and spans through scientific misconduct charges brought against him (by researchers who served as paid expert witnesses for the lead industry), to his work today.

As for the scientific misconduct charges, the committee that investigated him regarding the allegations directed Needleman to correct and clarify published reports of certain methodological aspects of his work and to make available to any interested scholars his complete data set on his tested subjects. More importantly, the committee asserted that the conclusions from his data were robust. Needleman had not engaged in scientific misconduct. Further, his early findings on subclinical lead exposure have since been confirmed by similar studies in Australia and elsewhere. And his efforts to de-lead America in the name of public health, even in the face of scalding controversy, have won him prestigious honors such as the Dana and Heinz Awards.

As for halting the effects of low-level lead exposure, Needleman has had a few victories, but at 73, it’s a fight that still consumes him.

Rubbing his eyes gently, Needleman lets out

lower levels cause no injury to a child’s brain? He has asked this question repeatedly for about five decades. Almost every time he does, he designs a study to examine it from a new angle. (Today, the toxic lead level is defined as 10 micrograms per 100 milliliters, and still 21 percent of inner-city children have lead levels above that, according to Needleman.)

In the ’70s, Needleman’s community mental health office was what used to be a living room in an old brownstone in an impoverished section of Philadelphia. Each morning Needleman stared through his office window into a primary schoolyard across the street. It was full of poor kids, mostly minorities, who lived in turn-of-the-century houses with peeling lead paint. As they giggled and ran by his window, Needleman started to think to himself, *How many of those kids aren’t going to make it because they are lead poisoned? And what other damage might they suffer from lead’s toxins?* To find out, first he needed a better measuring stick. Lead is a bone-seeker—like calcium, it migrates into bone, where it accumulates. So if a child were exposed to lead during, say, the first three years of life, a blood-level test at four might not show any lead. At the time, the only accurate test of long-term lead exposure was a

nomie status with lower accumulations.

“That study,” says Philip Landrigan, professor and chair of community and preventive medicine at Mt. Sinai School of Medicine, in New York, “really changed the whole way the world thinks about lead poisoning.”

“He really made the world consider the possibility that subclinical exposure to environmental pollutants could have a serious societal impact,” notes David Bellinger of Harvard Medical School, who has collaborated on studies with Needleman.

“These low-level exposures may not result in a child who is clinically ill, but he showed that there is a more subtle impact: It reduces the child’s quality of life, and when the effect of lead is projected across the whole population, it has a cumulative impact that’s really substantial. It’s shifting the whole distribution of cognitive level a bit toward the lower end.” Needleman calls this the subtle dumbing down of America; he doesn’t take it lightly.

When people hear the story of Needleman working at Deep Water and seeing lead-poisoned workers from the House of Butterflies, they are likely to say, *Oh, that explains why he’s anti-lead.*

Herbert Needleman focused the nation's attention on the dangers of low-level lead exposure, especially its relation to lower IQs. His latest studies show that children exposed to lead are more likely to become delinquent.



But actually, it doesn't. For Needleman, the significance of that day at Deep Water did not hit him until years later, after an experience with a young Hispanic girl changed his understanding of lead poisoning and its causes.

It was the early 1960s, Needleman was a self-proclaimed "cocky" resident at Children's Hospital of Philadelphia, and a young girl, we'll call her Vanessa, was admitted to his ward with severe lead poisoning. She had eaten the lead-based paint peeling from her inner-city home, and her story was all too common. Her brain had swollen to a point where she was dangerously near death. She didn't cry, didn't smile, just lay there, comatose. Needleman treated her with EDTA, a chelating agent and the only drug available to counter lead poisoning. Soon, she woke up crying, and Needleman breathed a small sigh of relief. Within a few days, she smiled the sweetest smile Needleman can remember. He felt proud, even smug. When he knew the girl was going to make it, he turned to her mother and calmly told her she had to move from her home.

"If Vanessa eats more paint," he said, "there's no question she'll be brain damaged."

Her mother shot Needleman an angry look and snapped, "Where can I go? Any house I can afford will be no different from the house I live in now."

Needleman's smugness vanished. "I realized," he says, "that it wasn't enough to make a diagnosis and prescribe medication. I'd treated her for lead poisoning, but that was not the disease—the disease was much bigger and caused by forces embedded in the child's life. Her disease was where she lived and why she was allowed to live there."

Historically, childhood lead poisoning has been a problem for minorities and low-income families. "There's much more lead in poor, black, and Hispanic neighborhoods because of the kinds of houses they live in," Needleman points out. "There are middle-class white kids who are affected, but the rate is five to six times higher in the poor neighborhoods." Today, old paint is the most important factor, but for several decades, lead in gasoline compounded the problem. After the deaths at Deep Water and other plants, there was a brief moratorium on leaded gasoline. Soon after though, lead became a major component of everyday life in America, most notably as an additive to gasoline and paint.

In 1973 alone, as Needleman puts it, "200,000 tons of lead were blowing out of the exhausts of American cars each year." He thought this

was a crime. The more studies he conducted, the more deleterious effects from lead he found. Through governmental committees, editorials, and other means, Needleman and other researchers fought against leaded gasoline for 40 years.

"Dr. Needleman was a key figure in persuading the Environmental Protection Agency to take lead out of gasoline," says Landrigan. "That single action of taking lead out of gasoline has brought a 90 percent reduction in blood lead levels in children of this country."

Needleman wants to do the same for leaded paint. He says, "See, if you de-lead a house, that house is safe forever. It's not just the kid who's living there you're protecting—it's any kid who moves in. And in the poor neighborhoods, during the lifetime of that house, there may be 10 different families in there, so you're protecting all those children." Then he pauses. "In a way," he whispers, "it's a bargain."

"People say we can't afford to do it. We

"Dr. Needleman was a key figure in persuading the EPA to take lead out of gasoline. That single action . . . has brought a 90 percent reduction in blood lead levels in children of this country."

can't afford not to do it. The actual cost-benefit analysis done by the Public Health Service shows that, in terms of avoided health costs and special education fees, there will be a \$28 billion savings for de-leading all the houses. So there are a lot of good reasons to do it: moral, ethical, and practical reasons."

When moral and ethical motivations are involved, it seems Needleman will go to any lengths to right a situation, and it's not unlikely for him to upset a few people along the way. As an antiwar activist during the Vietnam War, for example, he traveled overseas to rescue wounded Vietnamese children and bring them to the United States for medical care. He and Benjamin Spock, the famous pediatrician who was a mentor for Needleman, spent their share of time together, including one night in jail for an antiwar protest. During all of this, Needleman kept up his fight against lead.

While at Harvard, Needleman studied newborns, taking blood from umbilical cords to determine prenatal lead exposure. He found that even at very low doses, infants born with higher lead levels had slower neurobehavioral

development than those from the same backgrounds with less exposure in the womb.

Later, at Pitt, Needleman and his colleagues reexamined kids from the famous Harvard IQ study that he had conducted 11 years earlier. Those kids, at 17- or 18-years-old, were more likely to be dyslexic, drop or flunk out of high school, and get arrested if their lead levels surpassed 10 micrograms.

Most of the lead studies to date, including Needleman's, have focused on IQ, but he doesn't think that's the most important factor. "I think lead affects attention, behavior, and impulsivity," he says, quickly pointing out that this isn't a new idea. Another mentor, Randolph Byers at Children's Hospital in Boston, first saw this connection in a few patients referred to him for aggressive behavior during the '40s. But Needleman is the first to explore this connection through in-depth studies.

In 1996, Needleman conducted his first delinquency study; it involved several hundred children. He measured their bone lead levels and collected reports of aggression and delinquency from the subjects, their parents, and their teachers. With this study, Needleman showed an association between lead and delinquency. For him, the next logical step was to see if lead affected arrest rates. He identified about 200 adolescents who'd been sentenced to time behind bars and a control group of teens from local high schools with no arrest records. He measured the lead stored in their bone, using a relatively new non-invasive technique called X-ray fluorescence spectroscopy, and found that, controlling for race and socioeconomic class, mean lead levels in delinquents were significantly higher.

"Well," he says with a tisk, "that's a lot of delinquency. And the thing about lead toxicity is, it's completely preventable." He shakes his head. "Of all the causes of delinquent behavior, this is probably the easiest one to get at. If you just take lead out of the houses, then people won't get poisoned, and a significant amount of delinquency might well disappear. Just think of what that would do for our society."

"Lead, as Herb has said so many times, is a simple problem," says Bellinger. "We know where it is, how it gets into the body, and the damage it can do. In some ways, it's a bellwether of our abilities as a society to address these problems." ■

UNIVERSITY OF PITTSBURGH RESEARCH SHOWS EARLY LEAD EXPOSURE MAY BE A SIGNIFICANT CAUSE OF JUVENILE DELINQUENCY

PITTSBURGH, Jan. 6, 2002 — Children exposed to lead have significantly greater odds of developing delinquent behavior, according to a [University of Pittsburgh](#) researcher. Results of the study, directed by Herbert Needleman, M.D., professor of child psychiatry and pediatrics, were published in the January 6, 2002 issue of *Neurotoxicology and Teratology*.



Dr. Needleman, known for his groundbreaking studies on the effects of lead exposure on children that were instrumental in establishing nationwide government bans on lead from paint, gasoline and food and beverage cans, examined 194 youths convicted in the Juvenile Court of Allegheny County, Pa., and 146 non-delinquent controls from high schools in Pittsburgh. Bone lead levels, measured by K X-ray fluorescence spectroscopy of the tibia, showed that the delinquent youths had significantly higher mean concentrations of lead in their bones – 11.0 parts per million (ppm) – compared to 1.5 ppm in the control group.

“This study provides further evidence that delinquent behavior can be caused, in part, by childhood exposure to lead,” said Dr. Needleman. “For years parents have been telling their pediatricians that their children’s behavior changed after they were lead poisoned, and the children became irritable, overactive and aggressive. These results should be a call to action for legislators to protect our children by requiring landlords to not simply disclose known instances of lead paint in their properties, but to remove it.”

While this study is the first to show that lead exposure is higher in convicted delinquents, it is part of a growing body of evidence linking lead to cognitive and behavioral problems in children. In 1996, Dr. Needleman published a study of 300 boys in Pittsburgh public schools and found that those with relatively high levels of lead in their bones were more likely to engage in antisocial activities like bullying, vandalism, truancy and shoplifting. In 1979, Dr. Needleman, using measurements of lead in children’s teeth, concluded that children with high lead levels in their teeth, but no outward signs of lead poisoning, had lower IQ scores, shorter attention spans and poorer language skills.

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Testimony of the Division of Criminal Justice

Public Health Committee - March 5, 2007 - S.B. No. 1340

Testimony of the Division of Criminal Justice

In Support of:

S.B. No. 1340 (RAISED) AN ACT CONCERNING A COMPREHENSIVE PLAN TO ERADICATE CHILDHOOD LEAD

POISONING * **This Senate Bill Successfully Became CT Law entitled: Act 07-2 "An Act Concerning the Prevention of Childhood Lead Poisoning"** Act 07-2 "An Act Concerning the Prevention of Childhood Lead Poisoning"

Presented by Judith R. Dicine, Supervisory Assistant State's Attorney, Housing Matters - Joint Committee on Public Health - March 5, 2007

The Division of Criminal Justice supports in its entirety Raised Bill 1340, An Act Concerning a Comprehensive Plan to Eradicate Childhood Lead Poisoning. This legislation is required to implement key elements and recommendations of the State's federally mandated Plan to Eliminate Childhood Lead Poisoning in Connecticut by 2010.

The State of Connecticut Department of Public Health reports that lead poisoning is one of the most common pediatric health problems in our state today. Pediatric lead poisoning can take place when a child swallows or breathes in lead contaminated dust or materials, such as lead paint chips. Once lead poisoning occurs, damage to a child's health can be permanent. The direct effects of pediatric lead poisoning can include development of reading disabilities, attention deficit, hyperactivity and behavioral problems (Needleman 2004, Brown 2002). Lead poisoned children require ongoing special medical care and can require special education assistance. The indirect effects of pediatric lead poisoning relate not only to the child, but to many others in ways difficult to quantify. Of special interest to the Division of Criminal Justice are the recent studies which have shown that an estimated 10% of juvenile delinquency can be attributed to lead poisoning (Korfmacher 2003). Juvenile delinquents have been found to be five times more likely to have elevated levels of lead in their bones (Needleman 2002). The cost of juvenile delinquency to the people of Connecticut is extensive: Citizens are victims of criminal behavior, which leads to complaints to municipal or state police departments, which may lead to arrest, referral to court, associated placements in residential treatment, and lost taxable income. The state Department of Public Health's Plan to Eliminate Childhood Lead Poisoning in Connecticut by 2010 is contained in Raised Bill 1340, and will work to eliminate pediatric poisoning in the first instance, thereby averting these resulting damages.

We respectfully highlight certain points of Raised Bill 1340:

- Raised Bill 1340 provides for universal screening of Connecticut children to detect elevated levels of lead. The Division of Criminal Justice fully supports this important measure as it is useful not only for early detection and medical treatment, but also for the prevention of further poisoning by the identification of the sources of lead hazards through the related investigations triggered by elevated lead level detection. Raised Bill 1340 also moves towards aligning Connecticut with the more stringent recommendations of the Center for Disease Control, by lowering the intervention level by the local director of health with a child poisoned by lead to 15mg/dl from the current 20mg/dl in certain confirmed cases; based on medical studies which show that even small amounts of lead in the body are unsafe.
- Lead-based paint hazards remain the primary source of lead poisoning exposure to children. The U.S. Centers for Disease Control and Prevention views that the comprehensive control of potential lead hazards in the housing stock is a key component in addressing the lead poisoning issue. Since lead paint was made illegal for residential use only in 1978, Connecticut's aging housing stock contains a significant amount of lead-based paint hazards. In fact, data shows that close to half of our housing stock was built before 1960. Owner occupied property is commonly well maintained, since the owner is both personally involved with and the beneficiary of good maintenance of the property. However, rental properties enormously vary in their maintenance by owners.

Current Connecticut law states that paint in rental properties may not be in deteriorated condition; but there is no requirement, even in very aged housing, that deteriorated paint be corrected in a lead safe method, with the exception of when a property is under the order of a municipal director of health. Only a small percentage of housing ever gets under the direction of an order from a municipal director of health. As a result, lead hazards are often mismanaged, such as by

a child can accidentally and easily be poisoned from it. Raised Bill 1340 establishes that deteriorated paint in residential rental property must be corrected using lead-safe work practices. These work practices are established methods in use by the U.S. Department of Housing and Urban Development, already in use on all federally subsidized housing in Connecticut. Raised Bill 1340 would also authorize the Department of Public Health to promulgate regulations to control abrasive paint removal from the exterior of buildings and structures that may contain lead-based paint. No such limitation exists under current law, and is needed to provide the commissioner and local directors of health with the ability to safeguard the public from these uncontrolled and thereby unsafe methods of exterior lead paint removal, avoiding the kind of neighborhood contaminations that have occurred many times in Connecticut. Finally, Raised Bill 1340 also establishes a crucial lead safe account in the General Fund, for purpose of providing financial assistance and loans for the remediation or removal of paint chips by an abrasive method like sanding, which frees lead dust and chips into the air and onto floors where removal of lead from residential real property.

In closing, Raised Bill 1340 is the comprehensive focus Connecticut needs to reach the necessary and attainable goal of preventing pediatric lead poisoning in our state. The Division of Criminal Justice supports Raised Bill 1340 and would be pleased to provide any additional information or answer any questions the Public Health Committee may have. Thank you.

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