



Childhood Asthma Leadership Coalition

January 19, 2016

Regulations Division, Office of General Counsel
Department of Housing and Urban Development
451 7th Street SW, Room 10276
Washington, DC 20410-0500

Re: Instituting Smoke-Free Public Housing; Docket No. FR 5597-P-02 RIN 2577-AC97

Dear Secretary Castro:

The *Childhood Asthma Leadership Coalition* (CALC) convened in June of 2012 with a primary purpose of engaging diverse stakeholders to advance policy proposals that will improve childhood asthma management and symptom prevention. Relying on a strong foundation of evidence-based policy analysis to inform its work, one of CALC's policy goals is to reduce asthma triggers in homes and communities. As exposure to secondhand smoke (SHS) is one of the most significant triggers of asthma attacks among children – especially for low income and minority children – we are particularly supportive of policies that promote reduced exposure to secondhand smoke.

We commend the U.S. Department of Housing and Urban Development (HUD) for its proposal to require all public housing agencies (PHAs) to implement a smoke-free housing policy. HUD's leadership in recent years has contributed to hundreds of PHAs going smoke-free, and this new proposed policy will go a long way towards protecting low income children from the dangers of tobacco smoke in their own homes. However, we urge HUD to expand its proposed smokefree policy to protect children where they play outdoors on public housing property, and to expand its definition of tobacco products to include e-cigarettes and waterpipe tobacco. In addition, we strongly believe that the only way to fully protect children living in federally-assisted multifamily housing is to adopt a nationwide smoke-free policy covering all multifamily housing under HUD's control, including units in mixed-finance buildings.

While we recognize the wide range of adverse health effects related to secondhand smoke exposure in multiunit housing – including lung cancer, heart disease, respiratory infections, sudden infant death syndrome, and public safety concerns from residential fires – we focus our comments on the detrimental impact secondhand smoke exposure has on children with asthma.

Secondhand tobacco smoke is a significant public health hazard, greatly contributing to the burden of childhood asthma. According to the Centers for Disease Control and Prevention, in 2013, 9.3% of children were affected by asthma,¹ making asthma the single most common chronic condition among children in the United States. Asthma is disproportionately prevalent among residents of federally-assisted public housing. Low-income and minority children – the populations who are most likely to live in public housing² – bear the greatest burden of the disease.³ One in three children with asthma lives in poverty, and the rate of asthma is significantly higher among African-American and Puerto Rican children.⁴ The poorest children, whose family's income is below 100% of the federal poverty line (FPL),



have an asthma prevalence of 11.2%, compared to just 7.3% asthma prevalence among children above 200% FPL.

Unfortunately, childhood asthma cannot be cured and symptoms may continue into adulthood. While symptoms usually can be controlled with guideline-based management, reducing exposure to environmental pollutants that trigger or exacerbate childhood asthma symptoms is one of the best ways to combat this burdensome and pervasive chronic condition. According to the Surgeon General, secondhand smoke (SHS) is a major asthma trigger and one of the most significant contributors toward asthma prevalence and morbidity:⁵

- Children who are exposed to SHS are at a greater risk for developing asthma, and if they already have asthma, they are more likely to experience increases in the severity of their symptoms, with subsequent increases in asthma-related medical care.^{6,7,8,9}
- A 2015 systematic review of 1,945 studies found that *children with asthma and SHS exposure were twice as likely to be hospitalized for asthma* than children with asthma but without SHS exposure.¹⁰ SHS exposure also was significantly associated with emergency department or urgent care visits, increased asthma symptoms, and poorer asthma control.¹¹
- The Environmental Protection Agency (EPA) has estimated that over *one million* episodes of increased asthma symptoms in children are associated with environmental tobacco smoke exposure each year.^{12,13,14}

The reason SHS causes such significant asthma morbidity in children is that a child's developing body and lungs are especially vulnerable to the health effects of environmental pollutants.¹⁵ Children with asthma are more likely to be affected by cigarette exposure compared with adults,^{16,17} and, according to the Surgeon General, there is no safe level of SHS exposure – even brief exposure can cause immediate harm to children.¹⁸ Protecting children from the harmful effects of tobacco smoke exposure, therefore, should be a major priority of federal policy.

We applaud HUD for taking a fundamental step toward eliminating involuntary exposure to tobacco smoke in PHAs. Addressing smoking in multifamily housing is a significant opportunity to protect children from asthma. The home is the main source of SHS exposure for children, as approximately 25 percent of children live with a smoker.¹⁹ Household smoking is associated with a significantly increased risk of pediatric asthma: *children who live in smoking households show a rate of asthma 44% higher* than children in nonsmoking households.^{20,21}

Even where children live in a nonsmoking household, they are not safe from tobacco smoke exposure given the ease at which SHS can infiltrate other units in multifamily housing, slipping through air ducts, ventilation systems, elevator shafts, electrical lines, and cracks in walls and floors.^{22,23} Multiunit housing is a significant source of SHS exposure for children, and puts children at an increased risk of developing asthma and exacerbating asthma symptoms.

Children living in publically-funded housing bear a unique burden of SHS exposure: public housing residents smoke at a rate almost twice as high as residents of non-public housing, meaning that children in public housing are more likely to live with a smoker or experience exposure to SHS from other units.^{24,25,26,27} Studies show that the majority of nonsmoking units in public housing buildings where



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smoking is allowed have detectable air nicotine levels.^{28,29,30,31} This research documents the harsh realities of the daily exposure to tobacco smoke that residents of multiunit buildings face.

HUD's proposal to require PHAs to implement a smoke-free policy is an important step toward protecting vulnerable children from the harmful effects of SHS exposure. Where public housing smoking bans are in place, studies show an increase in smoking cessation and substantial reductions in air nicotine levels, leading to reduced SHS exposure.^{32,33,34} These improvements in indoor air quality are only achieved by total, building-wide bans – partial smoke-free policies (e.g. banning smoking in hallways or common areas, or allowing “grandfathering” of current smokers in their units) are not sufficient to protect residents from the harms of SHS exposure.³⁵

We applaud HUD for initiating rulemaking to require building-wide smoking bans for all PHAs, and we strongly encourage HUD to finalize this rule.

We applaud HUD's proposal to set a smoke-free perimeter around PHA buildings (§ 965.653(a)), but we encourage HUD to study whether it is appropriate to make the entire grounds owned by the PHA smoke free (§ 965.653(b))

The proposed rule restricts smoking in outdoor areas within 25 feet from public housing and administrative office buildings, but leaves it to the discretion of each PHA as to whether they will designate additional outdoor areas as smoke-free or whether they will make their entire grounds smoke-free. While we applaud HUD's efforts make in and near PHA buildings smoke-free, we urge HUD to study whether it is appropriate to extend smoke-free policies to all grounds owned by the public housing agency.

We note that studies have shown that concentrations of secondhand smoke in many outdoor areas are often as high as in indoor areas and that the risks posed by such exposure can be significant.³⁶ Drifting tobacco smoke – even outdoors – can trigger an asthmatic attack. There is no “risk-free” level of SHS exposure,³⁷ and a 25 foot perimeter around buildings may be inadequate to protect children who play on playgrounds or use other recreation areas outside of the public housing building itself. We urge HUD to study this issue to determine whether setting a smoke-free campus policy is appropriate.

We strongly urge HUD to include waterpipe tobacco and e-cigarettes under the definition of tobacco products -- § 965.653(c)

HUD specifically asks whether the proposed smokefree policy in PHAs should be extended to electronic cigarettes (e-cigarettes) and waterpipe tobacco smoking. The Childhood Asthma Leadership Coalition *strongly* urges HUD to extend this regulation to cover these harmful products, given their hazardous chemical composition, rising use in the US, common misconceptions about their safety, and their link to childhood asthma.

- ***E-cigarette*** use is increasing in the U.S. Although marketed as a safer alternative to smoking tobacco that only produces harmless water vapor, e-cigarettes are not emission-free.³⁸ Recent measurements of the chemical emissions from e-cigarettes indicate the following chemicals are inhaled by users and exhaled into the environment where second hand exposures occur: glycols, formaldehyde, nitrosamines, nicotine, and flavorants.³⁹

While e-cigarettes may produce smaller exposures relative to tobacco cigarettes,⁴⁰ data shows that the vapor released or exhaled from e-cigarettes is a source of secondhand exposure to nicotine.^{41,42,43,44} Persons exposed to e-cigarette vapor secondhand can also be exposed to substantial amounts of harmful chemicals, including fine and ultrafine particles that can be deposited in the deeper parts of the lung and may harm the respiratory system and exacerbate or increase the risk of acquiring asthma.⁴⁵

- **Waterpipe tobacco** smoking is more and more common among populations of all ages, and is falsely thought to be harmless.^{46,47} The chemical composition of waterpipe tobacco smoke contains toxicants in quantities similar or even higher than cigarette smoke.^{48,49,50,51} Not surprisingly, second hand smoke from waterpipes is very harmful.^{52,53} Multiple studies have documented the presence of significant quantities of carbon monoxide, aldehydes, polycyclic aromatic hydrocarbons, ultrafine particles and respirable particulate matter in second hand waterpipe smoke.^{54,55,56,57,58} Waterpipe smoke may be even more dangerous than cigarette smoke, as waterpipe smoking results in higher emissions of these toxic chemicals than do cigarettes.⁵⁹ Even more concerning is that a waterpipe smoking session typically occurs over a longer period of time than occurs when smoking a regular cigarette, exposing the smoker and passive bystanders to more smoke over an extended timeframe.⁶⁰

The toxic substances found in waterpipe smoke have been linked to cancer, heart and lung diseases, and exposure to waterpipe smoke is associated with childhood asthma.^{61,62}

While waterpipe and e-cigarette use have not been studied as intensively as cigarette smoking, research on patterns of smoking, chemical composition of emissions, and the associated health effects support the idea that exposure to waterpipe and e-cigarette smoke is harmful. Given the danger that e-cigarettes and waterpipe smoke pose to health, the World Health Organization has urged countries to introduce tougher regulations on the use of these tobacco products, including banning the use of these devices indoors.^{63,64}

E-cigarettes and waterpipe smoke emit dangerous chemicals into the air and need to be regulated in the same manner as tobacco smoking to protect vulnerable children and others exposed to secondhand smoke. ***We strongly urge HUD to include waterpipe tobacco and e-cigarettes under definition of tobacco products under § 965.653(c).***

We urge HUD to extend these policies to all mixed-financing units.

HUD's current proposed smokefree policy is not applicable to dwelling units in mixed-finance buildings. We ask that HUD reconsider this proposed policy. HUD should extend the smokefree housing policy to all mixed-financing units, giving equal protection to the children living there.

As more and more adults are protected from secondhand smoke due to federal, state and local smokefree policies in workplaces and other public places, children are not afforded these same regulatory protections in their homes.⁶⁵ While the prevalence of voluntary home no-smoking policies has increased over time, low-income children are much less likely to be protected by a home smoking



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ban.^{66,67} Children spend a greater portion of their time at home than do adults,⁶⁸ and should be afforded the same protections – the same access to clean indoor air – as adults have in the places they spend their day.

Allowing smoking of any kind to continue in publically-financing housing is a misconceived policy that protects smokers' actions over protecting children's health. Children are the most vulnerable of all public housing residents and the least able to take actions to protect themselves from harmful indoor air toxins. A smoke-free policy for all public housing units – even those part of a mixed-financed project – is the only way to ensure that all children who depend on public housing are protected from the dangers of secondhand smoke.

Regulatory Impact Assessment. Our organizations request that HUD amend its regulatory impact assessment (RIA) to correctly reflect the decrease in lost productivity that will result from fewer asthma exacerbations in individuals who live in public housing. Asthma is one of the nation's leading causes of school absenteeism and when children miss school, their parents miss work.^{69,70} As a result, asthma has a tremendous economic toll -- \$3.8 billion annually – caused by lost productivity resulting from missed school and work days.⁷¹ The RIA seems to overlook this important indirect cost associated with the burden of asthma.

Thank you for your attention to this critical public health issue. We look forward to working with HUD to promote healthy living environments for all children, free of exposure to secondhand smoke. If you have any questions or would like to contact the Childhood Asthma Leadership Coalition, please contact Mary-Beth Malcarney at mbharty@gwu.edu.

Sincerely,

Association for Asthma Educators
Association of Clinicians for the Underserved
Asthma and Allergy Foundation of America
Asthma Regional Council of New England
Children's National Medical Center
First Focus
Green & Healthy Homes Initiative
Healthy Schools Network
National Association of School Nurses
Nemours Children's Health System
School-Based Health Alliance
Trust for America's Health

¹ Centers for Disease Control and Prevention. Asthma surveillance data. Available at:

<http://www.cdc.gov/asthma/asthmadata.htm>. Published 2014. Accessed December 27, 2015.

² U.S. Department of Housing and Urban Development, Resident Characteristic Report available at:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/systems/pic/50058/rcr.

³ Homa DM. Disparities in nonsmokers exposure to secondhand smoke in the United States, 1999-2012. *Mortality and Morbidity Weekly Report* February 3, 2015.



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