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BLUEPRINT *for* KENTUCKY'S CHILDREN

ISSUE BRIEF SERIES

The Blueprint for Kentucky's Children is a unified policy agenda for child advocates across the Commonwealth. Our goal is to make Kentucky the best place to be young.

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KENTUCKY YOUTH ADVOCATES

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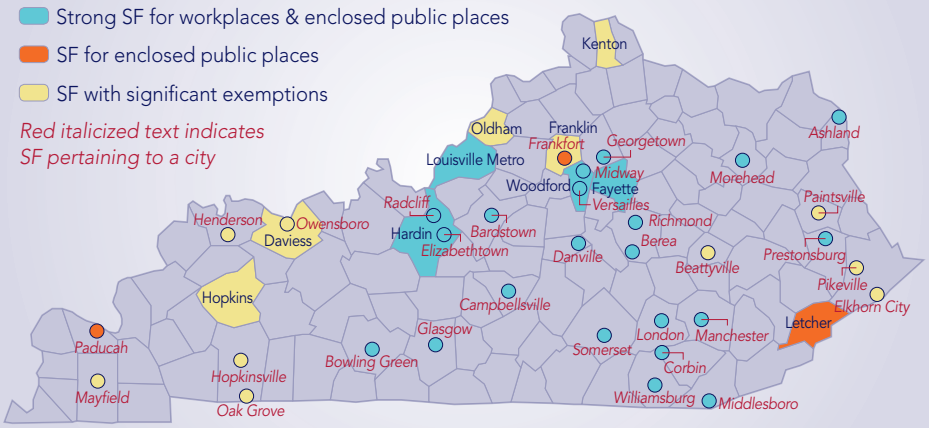
Clearing the Air for All Kentucky Children

All children deserve to breathe clean air and be healthy, yet approximately 69 percent of Kentucky's children live in a community that does not offer them strong protections from secondhand tobacco smoke in workplaces and other enclosed public places.[1] In 2013, more than 28,000 babies were born to Kentucky mothers living in communities without strong protections from secondhand smoke,[2] thereby increasing their risk for poor birth outcomes. Kentucky can reduce exposure to secondhand smoke by children, teens, and pregnant women, and reduce smoking during pregnancy, by joining the 24 other states[3] with a strong statewide smoke-free workplace law. Community and statewide laws ensure all pregnant women, teens, and children have the opportunity to work and fully participate in their communities without exposure to the dangers of tobacco smoke.

The Dangers of Exposure to Tobacco Smoke

The devastating effects of smoking cigarettes have been well-known for decades, but fewer people are aware of the dangers of secondhand smoke. According to the U.S. Surgeon General, "there is no safe level of exposure to tobacco smoke," because "when individuals inhale cigarette smoke, either directly or secondhand, they are inhaling more than 7,000 chemicals: hundreds of these are hazardous, and at least 69 are known to cause cancer." These toxins enter the bloodstream via the lungs and are carried throughout the body, causing damage to the lungs and blood vessels.[4]

Strength of Smoke-free Laws in Kentucky Communities, October 1, 2015



Source: Kentucky Center for Smoke-free Policy, University of Kentucky College of Nursing.

CLEARING THE AIR

Researchers have begun studying electronic cigarettes and have found the aerosol they emit (commonly called vapor) contains significant amounts of nicotine, though some of the levels are lower than those of conventional cigarettes.[5] The nicotine from electronic cigarettes is also deposited on surfaces, resulting in thirdhand exposure for those that come in contact with it.[6] In addition to nicotine, e-cigarettes also emit chemicals that are known to be toxic to human cells and cause cancer, as well as ultrafine particles that are known causes of lung and heart disease.[7,8,9]

Kentucky has the second highest rate of adult smoking in the nation (26.5 percent)[10] — exposing children, and adults who choose not to smoke, to a significant amount of tobacco smoke in the 87 counties without any smoke-free ordinances covering workplaces or other public places.[11] Residents of rural areas are particularly vulnerable to exposure to tobacco smoke. Studies have found that rural areas have higher rates of smoking, and adults in rural communities are more exposed to tobacco smoke at work and have less protection in the form of smoke-free policies than those living in suburban or urban areas, even after adjusting for gender, age, race/ethnicity, marital status, education, and household income.[12]

The Danger to Pregnant Women and Their Babies in Public Places and Workplaces

More than 28,000 babies were born in 2013 to Kentucky mothers living in communities without strong protections from secondhand smoke in public places and workplaces.[13] Pregnant women exposed to secondhand smoke are more likely to have babies born with a low birthweight (less than 5.5 pounds).[14] Babies born at a low birthweight face increased risk for serious health problems as newborns,[15] developmental and intellectual disabilities, cerebral palsy, and vision and hearing loss.[16] Additionally, low birthweight babies are 25 times more likely than those born at normal weights to die within their first year of life.[17] The health consequences of being born at a low birthweight continue into adulthood, with increased risk for hypertension, heart disease, diabetes, and obesity.[18] Kentucky's rate of low-weight newborns is among the worst in the nation, ranking 39th of 50.[19]

With the highest rate in the nation of births to mothers who smoked during pregnancy in 2013, Kentucky (at 22 percent) not only suffers from the poor health outcomes for mother and baby, but also experiences a significant financial cost from healthcare expenses.

Exposure to secondhand smoke is one cause of sudden infant death syndrome (SIDS).[20] Also, new research found an association between exposure to secondhand smoke during pregnancy and atrial fibrillation (an irregular heart rate and a common cause of stroke) in offspring during adulthood. This association was even stronger in adults without other risk factors for atrial fibrillation, suggesting secondhand smoke may be directly connected to the development of this heart condition.[21]

The Danger to Children

For children, exposure to secondhand smoke is found to cause middle ear disease, respiratory symptoms and illnesses, and impaired lung functioning.[22] The vast majority of studies looking at the association between exposure to secondhand smoke and cognitive outcomes in children found that increased exposure is also associated with poor academic achievement and neurocognitive performance.[23]

Children with asthma are particularly sensitive to secondhand smoke as it is a common trigger for asthma attacks.[24] Kentucky is ranked 41st in the nation for children with asthma problems.[25] Trips to the emergency room for difficulty breathing due to asthma are very common among children. Asthma is the third-leading cause of hospitalization for children in Kentucky.[26] In 2012, there were nearly 1,800 inpatient hospitalizations of Kentucky children due to asthma, resulting in more than $20 million in hospital charges.[27] Studies have found significant declines in inpatient asthma hospitalization rates of children following the implementation of comprehensive smoke-free laws.[28,29] During the 32 months after Lexington's smoke-free law was enacted, emergency department visits due to asthma declined by 18 percent for children.[30]

The Danger to Teens in the Workplace

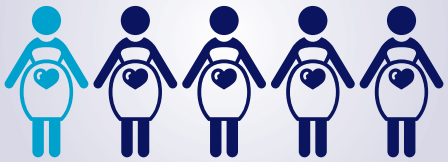
The approximately 77,000 employed Kentucky teens ages 16-19 (33 percent of that age group)[31] need protection from tobacco smoke in the workplace. In addition to the above-mentioned risk of respiratory problems due to exposure to secondhand smoke, employees are also at risk of absorbing nicotine through thirdhand smoke – the residual toxins left on indoor surfaces by tobacco smoke. Over time, nicotine (and other components of tobacco smoke) is deposited and re-emitted from indoor surfaces even after cigarettes have been extinguished, and can result in substantial nicotine exposure levels.[32] Early studies on animals indicate that thirdhand smoke exposure has negative implications for human health.[33]

The Danger of Smoking during Pregnancy

It can be especially difficult to quit smoking when tobacco use is prevalent in your community. Smoking is sometimes used by pregnant women as a way to cope with stress, but the health consequences for mother and baby are severe. Smoking during pregnancy can cause problems with the placenta, ectopic pregnancy (in which the fertilized egg implants outside the uterus), preterm delivery, fetal growth restriction, and some congenital anomalies such as cleft lip.[34] Smoking during pregnancy is also associated with miscarriage and stillbirth, and babies whose mothers smoked during pregnancy are 2.7 times more likely to die from SIDS.[35] A study using 2002 data from 49 states estimated 23-34 percent of SIDS deaths were attributable to maternal smoking during pregnancy.[36]

With the highest rate in the nation of births to mothers who smoked during pregnancy in 2013,[37] Kentucky (at 22 percent) not only suffers from the poor health outcomes for mother and baby, but also experiences a significant financial cost from healthcare expenses. Kentucky spends $5.6 million on neonatal services directly related to maternal smoking.[38] A 2002 national study estimated that maternal smoking adds $724 to the average neonatal cost of a birth, as there is increased probability that infants born to smoking mothers will require Neonatal Intensive Care Unit (NICU) services during their hospital stay.[39] With three of every four births to a Kentucky mother who smoked during pregnancy being paid for by Medicaid,[40] Kentucky cannot afford to sustain a high maternal smoking rate.

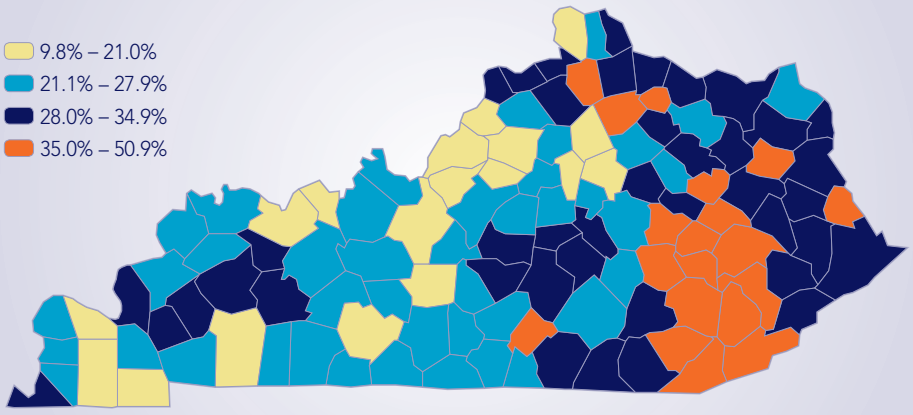
More Than 1 in 5 Kentucky Babies Born to Mothers Who Smoked during Pregnancy, 2013



Source: KIDS COUNT Data Center.

During 2011-2013, county rates of smoking during pregnancy varied widely, from more than 40 percent in 5 counties, to less than 14 percent in Fayette, Jefferson, and Oldham Counties.[41] Fayette and Jefferson Counties have had strong, county-wide smoke-free ordinances in place since 2008, and Oldham County has had a smoke-free ordinance in place since May 2007.[42]

Smoking during Pregnancy Rates, 2011–2013



Source: Kentucky Cabinet for Health and Family Services, Vital Statistics Branch.

Smoke-free Policies are an Effective Solution

As there is no risk-free level of exposure to secondhand smoke, smoke-free policies are vital to protecting the health of children, teens, and pregnant women in workplaces and public places. Smoke-free policies have been found effective in reducing exposure to secondhand smoke and the prevalence of tobacco use, including the initiation of tobacco use among young people.[43] A study that followed adolescents and young adults from 1997 to 2007 found that comprehensive state and local smoke-free workplace policies reduce the odds of youth initiating smoking. To achieve the same effect via cigarette taxes, the state would have to increase the current tax by an additional $1.57 (on top of the current state cigarette tax of 60 cents).[44]

Indoor smoke-free policies are also effective at reducing maternal smoking during pregnancy, regardless of individual socio-demographic characteristics.[45,46] Consequently, smoke-free policies also reduce the prevalence of preterm births (a common reason for low birth weight).[47]

Smoke-free laws benefit businesses by improving the health of employees and reducing health care costs.[48,49] In Kentucky, health care costs due to smoking are estimated to be $1.7 billion annually. Smoking costs the state Medicaid program approximately $487 million per year.[50]

For all of the above reasons, a growing number of states have implemented statewide smoke-free legislation. Twenty-four states have comprehensive, statewide smoke-free laws that cover all workplaces, restaurants, and bars.[51] It is important that smoke-free legislation include language protecting all workers, as research has shown that once smoke-free laws are passed, they 'stick' and are rarely strengthened later on.[52] Only comprehensive smoke-free laws are effective in protecting all workers from the dangers of exposure to secondhand smoke.

After Georgia passed a partial law that exempted bars and private smoking rooms, many workers in restaurants and bars remained unprotected from the health dangers secondhand smoke.[53]

Guidance from Healthcare Professionals

During pregnancy, a woman has many regularly scheduled check-ups with medical professionals. Healthcare providers can be a resource for expecting and new mothers, and all patients who smoke and need help quitting or have quit and need help preventing a relapse. A 2008 study of Kentucky mothers who reported smoking during pregnancy found that for almost 60 percent their healthcare provider did not spend time counseling them on how to quit smoking.[54] All pregnant women should be assessed for tobacco use, provided education on the dangers of smoking to mother and baby, and offered resources for tobacco treatment. Education on the dangers of secondhand smoke while pregnant and postpartum is also important.

In recognition of the negative health and economic impacts of smoking while pregnant, Medicaid in Kentucky covers the delivery of tobacco treatment for pregnant women, as well as others.[55] For those not on Medicaid, the Kentucky Cabinet for Health and Family Services' Tobacco Prevention and Cessation Program provides free resources for Kentuckians seeking help to quit smoking.[56]

Recommendations

Reducing exposure to secondhand smoke and maternal smoking during pregnancy would significantly improve the health of Kentucky's infants, children, and adolescents. Specifically, Kentucky needs more citizens protected through smoke-free policies in their communities or a statewide smoke-free workplace law. Kentucky also needs to bolster the promotion and usage of tobacco treatment resources by pregnant women and tobacco prevention programs by adolescents.

RESOURCES TO **STOP SMOKING**

Quit Now Kentucky

- FREE smoking cessation counseling by phone, 7 days a week from 8:00 a.m. – 1:00 a.m. EST
- FREE online tools, information, coaching, and networking with others trying to quit

Call 1-800-QUIT-NOW (1-800-784-8669) or visit https://www.quitnowkentucky.org/.

Lung HelpLine

- FREE help from registered nurses, respiratory therapists, and smoking cessation experts, Monday-Friday from 8:00 a.m. – 10:00 p.m. EST

Call 1-800-LungUSA (1-800-586-4872) and select option 2.

SmokefreeTXT

- FREE mobile text messaging service (message and data rates may apply)
- 24/7 encouragement and advice for 6 to 8 weeks

Visit http://smokefree.gov/smokefreetxt or text the word QUIT to 47848 from your mobile phone.

Freedom from Smoking® Online

- FREE online smoking cessation modules for adults. Visit www.ffsonline.org.

Cooper Clayton Smoking Cessation Classes

- 12 week program to help cope with the withdrawal of nicotine
- Education, skills training, group support, and nicotine replacement therapy

Contact a local health department for more information.

Enact strong, effective smoke-free workplace laws. Smoke-free workplace laws can help encourage all smokers, including mothers, to quit smoking. With strong smoke-free laws, air quality improves, the health of workers, youth, and citizens in the community improve, and exposure to secondhand smoke decreases.[57] Additionally, smoke-free policies can help reduce the prevalence of tobacco use, increase the number of tobacco users who quit, reduce the initiation of tobacco use among youth, and reduce the rate and occurrence of morbidity and mortality.[58] If we can prevent youth from initiating tobacco use, we can greatly improve the health status of our state and save billions in healthcare costs.

Recommend evidence-based tobacco treatment programs to women who smoke during pregnancy. Resources exist for doctors and medical practitioners to use with patients to reduce smoking during pregnancy. The U.S. Public Health Service Clinical Practice Guideline *Treating Tobacco Use and Dependence* presents research and recommends best practices in clinical practice for health professionals in providing tobacco treatment.[59] Expanded use of this guideline with pregnant patients and women of childbearing age would reduce smoking during pregnancy and result in fewer babies born with adverse birth outcomes. Health care providers can also give patients a copy of the Kentucky Center for Smoke-free Policies' card on how to access tobacco cessation benefits through their health insurance provider.[60]

Conclusion

Too many Kentuckians live in communities where it is difficult to avoid exposure to tobacco smoke, and our youngest citizens are the ones most vulnerable to the dangers of secondhand smoke. Strong smoke-free laws for worksites and other public places are a proven, no-cost solution for health protection and promotion.

Percentage of births to mothers who smoked while pregnant (2011-2013) and number of inpatient hospitalizations of children due to asthma (2010-2012)

	% of births to mothers smoking while pregnant	# of child inpatient hospital stays due to asthma
Kentucky	**22.5%**	**5,957**
Adair	24.8%	22
Allen	23.1%	10
Anderson	24.1%	16
Ballard	22.4%	*
Barren	24.1%	51
Bath	34.9%	5
Bell	37.3%	293
Boone	18.6%	18
Bourbon	25.2%	11
Boyd	29.9%	89
Boyle	28.8%	33
Bracken	33.4%	*
Breathitt	38.2%	34
Breckinridge	25.0%	13
Bullitt	18.2%	88
Butler	24.8%	8
Caldwell	28.2%	9
Calloway	21.0%	33
Campbell	28.7%	6
Carlisle	22.6%	5
Carroll	31.7%	14
Carter	31.3%	38
Casey	32.0%	20
Christian	16.8%	42
Clark	28.3%	20
Clay	41.9%	45
Clinton	27.8%	16
Crittenden	23.7%	9
Cumberland	27.0%	10
Daviess	19.5%	119
Edmonson	21.5%	8
Elliott	42.9%	5
Estill	37.4%	8
Fayette	13.0%	261
Fleming	27.0%	7
Floyd	34.5%	117
Franklin	22.9%	36
Fulton	30.0%	109
Gallatin	30.1%	*
Garrard	28.9%	8
Grant	35.8%	10
Graves	20.2%	89
Grayson	27.7%	36
Green	25.2%	14
Greenup	26.2%	37
Hancock	17.6%	*
Hardin	17.6%	141
Harlan	39.1%	97
Harrison	35.3%	12
Hart	19.9%	21
Henderson	22.2%	58
Henry	24.5%	13
Hickman	25.0%	32
Hopkins	29.0%	45
Jackson	38.4%	17
Jefferson	13.3%	1,919
Jessamine	23.2%	27
Johnson	31.0%	178
Kenton	27.8%	47
Knott	34.5%	18
Knox	35.4%	28
LaRue	22.0%	22
Laurel	31.9%	71
Lawrence	33.6%	55
Lee	50.9%	*
Leslie	39.7%	18
Letcher	32.4%	41
Lewis	31.0%	7
Lincoln	31.2%	21
Livingston	30.8%	8
Logan	22.2%	13
Lyon	29.9%	*
McCracken	20.7%	46
McCreary	34.4%	11
McLean	29.1%	12
Madison	22.8%	59
Magoffin	32.2%	61
Marion	31.5%	17
Marshall	23.7%	19
Martin	36.7%	30
Mason	31.9%	20
Meade	25.0%	26
Menifee	36.6%	*
Mercer	27.9%	10
Metcalfe	27.4%	11
Monroe	23.6%	29
Montgomery	23.8%	12
Morgan	29.1%	7
Muhlenberg	29.6%	51
Nelson	23.0%	34
Nicholas	33.9%	7
Ohio	24.7%	28
Oldham	9.8%	57
Owen	31.8%	6
Owsley	42.9%	11
Pendleton	32.4%	*
Perry	35.6%	95
Pike	31.3%	112
Powell	32.3%	*
Pulaski	27.1%	36
Robertson	46.5%	*
Rockcastle	27.7%	15
Rowan	31.0%	16
Russell	36.0%	23
Scott	18.1%	17
Shelby	20.6%	44
Simpson	26.0%	12
Spencer	15.9%	18
Taylor	28.8%	31
Todd	22.2%	*
Trigg	27.5%	12
Trimble	31.3%	10
Union	26.5%	11
Warren	15.9%	62
Washington	25.2%	10
Wayne	29.0%	14
Webster	22.4%	29
Whitley	34.2%	43
Wolfe	37.7%	13
Woodford	17.5%	17

Data sources: Kentucky Cabinet for Health and Family Services, Vital Statistics Branch, and Office of Health Policy. Birth data processed by the Kentucky State Data Center.

*=County data is suppressed when there were fewer than five instances during the timeframe.

Endnotes

1 Using child population data from the U.S. Census Bureau, 2010 Decennial Census, 31.6 percent of Kentucky's children ages 0-17 live in areas covered by a strong smoke-free ordinance for workplaces and public places, as classified by the Kentucky Center for Smoke-free Policy list at http://www.mc.uky.edu/tobaccopolicy/Ordinances/SFLawsRegsOCT2015.pdf.

2 Using 2013 live births data from the Kentucky Vital Statistics Branch, 25,180, of the 53,849 births with known county of residence for the mother, reside in a county in which a strong smoke-free ordinance for workplaces and public places is present, as classified by the Kentucky Center for Smoke-free Policy list at http://www.mc.uky.edu/tobaccopolicy/Ordinances/SFLawsRegsOCT2015.pdf.

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