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Dear :

Enclosed is the first Injury Policy Brief from the Policy Core of the Injury Research Center (IRC) at the Medical College of Wisconsin. The IRC is a comprehensive federally funded research center dedicated to reduce the burden of injury in Midwest Region V states (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin). IRC injury briefs are intended to bring the best research available to decision makers as they consider how to address critical public health safety issues. One of the Center's aims is to foster the process of "evidence-based" policy decision-making, bringing research solutions to communities in an effort to save lives and health care dollars while improving the quality of life for citizens in the Great Lakes Region.

Our first brief entitled: **Reducing Fire Fatalities, Injury and Property Loss: The Case for Fire-Safe Cigarettes**, outlines how policy calling for the sale of fire-safe cigarettes can reduce the burden of unnecessary death, injury, and financial losses associated with cigarette-related fires in the Midwest Region V states.

Should you have any questions or would like additional information, please feel free to contact us at the Injury Research Center. We look forward to partnering with decision-makers {interested groups}* in an effort to safeguard the health of our communities.

Sincerely,

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Reducing Fire Fatalities, Injury and Property Loss: The Case for Fire-Safe Cigarettes

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Summary

Fire-Safe Cigarette, State Legislation

- Will decrease the number of structure fires, save lives, hardship, and dollars
- Have no direct economic impact on the tobacco industry or consumer.
- Move the tobacco industry to produce only fire-safe products.
- Help reduce the widening socioeconomic health disparity gap.

Table 1. Great Lakes Region Impact Reported, Cigarette Ignited Structure Fires, 2001-2005

State	Incidents	Deaths	Injuries	Property and Content Loss (dollars)	Percent of Fire Departments Reporting (2001-05, range)
IL	2166	39	221	\$17,381,546	40-85%
IN*	488	18	72	5,617,023	92%
MI	977	25	137	24,012,188	77-92%
MN	1820	49	222	40,137,290	89-95%
OH	4,895	88	655	51,966,644	> 90%/yr.
WI**	-	-	-	-	7-54%

Data source and reporting regulation: IL - Office of the State Fire Marshal, mandatory; IN - Dept of Homeland Security, Fire Safety Division, voluntary; MI - Bureau of Fire Services, voluntary; MN - State Fire Marshal Division, mandatory; OH - Fire Marshal, Fire Prevention Bureau, mandatory; WI - Wisconsin Department of Commerce, Division of Safety and Building, voluntary. *IN-limited to residential structures. % FDS reporting figure only for 2005. **WI unable to report limited data collected.

Introduction

The illness caused by smoking cigarettes and breathing secondhand smoke is well known and continues to result in costly premature deaths and chronic disease. Structure fires ignited by smoking materials are an additional burden to our communities with cigarettes causing more U.S. residential fire deaths each year than any other ignition source.¹ Nationally, in 2002, lighted tobacco products caused 14,450 residential fires, 520 deaths, 1,330 injuries and \$371 million in residential property damage.² Like secondhand smoke, "secondhand injury" is also a concern; one of every four smoking related fire deaths in 2002 happened to individuals other than the smoker, with 34% being children.^{1,3} Cigarette ignited fires also add to the national health disparity gap, affecting people in lower socioeconomic groups much more frequently than those with greater income levels.⁴ The burden of cigarette ignited fires can however, be immediately reduced if legislative policy required the tobacco industry to only manufacture "fire-safe" cigarettes. "Fire-safe" or reduced ignition propensity cigarettes are designed to self-extinguish when left unattended, decreasing the risk of fires and the resulting deaths and injury.^{5,6}

Cigarette Fire Incidence

Even though cigarette ignited fires have declined each year since 1980 these events still represent a significant public health burden. The general decline in the population's tobacco use, impact of flame resistant mattress and fabric material, and the use of smoke detectors are all contributing factors for this decreasing trend.¹ However, the fatality and property loss toll from cigarette-ignited fires remains far greater than for any other ignition source. Cigarette related fires account for 19% of residential fire fatalities and 9% of injuries.² Table 1 lists fire incidence and resulting morbidity, mortality, and property and contents loss for the Great Lake Region states from 2001-2005.

Many human factors are associated with cigarette ignited fire deaths. In 2003 they included:

- Sleeping – 50%
- Alcohol or drug impairment – 33 %
- Being older than 65 years of age – 38%.

Most cigarette fire deaths occur between 2:00 and 3:00 AM, and most

deaths occur when fires start in the living room, family room or den. Many occur when someone dozes while smoking, dropping a lit cigarette on flammable clothing or furniture.

Data

Nationwide, fire incidence data is collected through the National Fire Injury Reporting System (NFIRS). NFIRS relies on local fire departments reporting data to a state-based agency. The accuracy of the cigarette fire burden for each state is dependent on the number of fire departments reporting data and the quality of the reports. States choose to mandate reporting or request data be submitted voluntarily. The data in Table 1 clearly under-represents the true nature of cigarette-ignited fires for states in the Great Lakes Region, yet even with this underestimation, the public health burden is still significant. Although data for Wisconsin is not reported, there is no reason to believe the weight of the problem is any less significant than the situations described for the surrounding states.

Fire-Safe Cigarettes: A Policy Intervention

Injury prevention and control science includes both active and passive approaches to reduce an injury burden. Passive approaches include interventions

that offer benefits regardless of human behavior.

An example is car air bags and their deployment during a motor vehicle crash. Given the human factors associated with cigarette-ignited fires and the recognized increased risk of injury for smokers in general⁷, a passive prevention approach for cigarette fires through fire-safe cigarette policy is appropriate and will add to an overall reduction in death and injury. Several states and Canada have recognized that people will not extinguish their cigarettes 100% of the time, and mandated the sale of fire-safe cigarettes. Oregon was the first state to introduce legislation in 1979; over 15 years elapsed with an estimated 7,500 lives lost, before any state successfully moved the policy forward when the State of New York passed fire-safe legislation in August, 2000. New York's law went into effect July 2003, followed by Vermont legislation effective May of 2006. At this time, 14 states have now passed fire safe cigarette legislation and 20 others have introduced such policy.⁸ Table 2 lists legislative efforts for states in the Great Lakes Region.

All current state legislation and Canada's regulation are based on the same fire-safe performance standard established by the New York state law. State uniformity allows the same product to be sold in multiple states, avoiding the production costs of meeting different requirements. The concept of uniformity led at least one cigarette corporation (Phillip Morris) to support federal legislation in hopes of avoiding the costs associated with meeting multiple state standards.⁹ As more states adopt the same standard it is conceivable that the cigarette industry will make a "business decision" to produce only fire-safe products; such a decision would not only improve the fire prevention environment here in the U.S., but also wherever US cigarette products are sold around the globe.

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Impact

Legislating the use of fire-safe cigarettes will lead to a decrease in fires, associated loss of life, injury and lost dollars. In a review of cost savings associated with 84 different types of injury prevention interventions, fire-safe cigarettes scored among those with the highest benefit-cost ratio.¹⁰ Potential concerns of the tobacco industry and smokers regarding consumer acceptance, sales volume, brand availability and price associated with a "fire-safe" product, all proved to be unfounded in a 2005 Harvard review of the New York State policy.⁹ Fire-safe cigarettes do not appear to be any more or less toxic than current cigarettes. It will be prudent however to follow the long-term health effects of this new product.⁹

State	Legislation
IL	Passed (Effective, Jan 2008)
IN	None
MI	Introduced, HB #2225, #2225A
MN	Passed (Effective, Dec 08)
OH	None
WI	None

Reducing Health Disparities

States adopting fire-safe cigarette mandates will also impact the socioeconomic (SES) disparity noted for cigarette-ignited fires. It is not surprising that lower SES groups experience a higher incidence of cigarette-ignited fires given the group's higher rates of smoking.¹¹ Lower SES populations may also have financial barriers to safeguarding their homes with smoke detectors, or flame resistant living materials, and lack the social support needed to consistently adopt and practice personal smoking behaviors that reduce the chance of cigarette-ignited fires. The "passive" nature of the fire-safe cigarette product compliments other prevention strategies and provides an independent measure of protection regardless of circumstance and behavior.

Conclusion

Evidence supports state legislation mandating the sale of fire-safe cigarettes. Fire-safe policies will

decrease the incidence of fires in our communities and protect our citizens from the effects structure fires leave behind.

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