

Pediatric collateral damage from recreational marijuana use

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The recreational use of marijuana is now approved in seven states and the District of Columbia (1). The use of marijuana for medical purposes is legalized in more than 20 states (1). It is estimated that 13% of Americans currently use marijuana for recreational purposes (2). With this plethora of pot, it is inevitable that some nonusing bystanders will be unwittingly or unwillingly exposed to cannabis and related cannabinoids. In the report by Wilson and coworkers in this issue of *Pediatric Research* (3), the issue of secondhand exposure to marijuana smoke is described, showing another silent risk to children.

Studying the urine of children hospitalized for the treatment of bronchiolitis, Wilson and coworkers found metabolites of the psychoactive component of marijuana (3). Sadly, the ages of exposed children ranged from 1 mo to 2 y (3). The authors also found that home use of marijuana was denied by several of the parents or care providers of these exposed children in the face of biochemical data (3).

As noted by the authors, concern about the penalty of secondhand smoke exposure is not new. The consequences of secondhand tobacco smoke exposure are well known and recognized as a public health problem (4,5). Several states now have legislation to protect children from such exposure by banning smoking in vehicles that are occupied by children (4,5).

The medical consequences of secondhand smoke exposure specifically from marijuana, however, are not known, as this is a relatively new area of study for the medical community. Secondhand marijuana smoke exposure on children could affect pulmonary, neurocognitive, or other systems in ways that are not yet understood. Effects of marijuana smoke exposure on cardiovascular function, for instance, have been only recently observed (6,7). Just as it took decades for the clarion call to ring about issues related to consequences of secondhand tobacco exposure (5), it is likely that years will pass before we have a comprehensive understanding of the effects of marijuana smoke. Nevertheless, this should not be an excuse to avoid issuing strong recommendations on this issue. Thanks to Wilson and coworkers (3), we now have clear biochemical evidence that children exposed to marijuana smoke are in fact absorbing a psychoactive marijuana chemical. That is perhaps all the evidence we need.

Beyond secondhand smoke, other marijuana delivery vehicles pose overt dangers to children, especially related to the accidental ingestion of cannabis and edible products (8–12). Of concern, in states with legalized recreational marijuana use, there has been a spike in numbers of children seen in emergency room settings with symptoms due to accidental

ingestion (10). The symptoms go far beyond laughter and giggles, and include profound stupor and confusion, sometimes warranting hospitalization in intensive care units (8–12).

Amazingly, currently allowed marijuana-containing delivery forms include gummy candies and lollipops that are sure to warrant a child's interest. It is, of course, the responsibility of parents and care providers, who may have such products at home, to keep them secure and away from children. Such oversight, however, can and will break down. Thus, it is both not surprising and laudable that some state legislatures have either passed or are considering legislation banning such child-attractive delivery forms (13).

The march toward the widespread legalization of marijuana for recreational and/or medical uses is puffing along. Yet in the zeal to facilitate access to cannabis, we need to ensure that we are not also facilitating unwitting or unwilling bystander exposure, especially for the young. In the search for a reasoned balance between over- and under-regulating expanded access to products, guaranteeing the safety of children should be a basic principal.

Disclosure: None.

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Received 31 January 2017; accepted 31 January 2017; advance online publication 22 March 2017. doi:10.1038/pr.2017.36