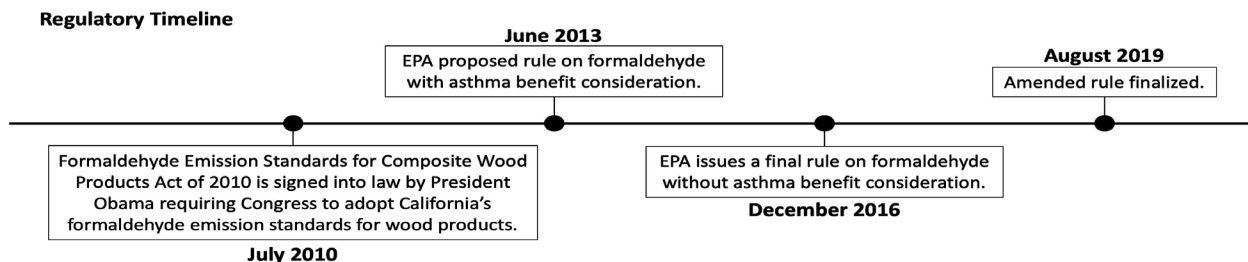


The Navigation Guide in Action

Exposure to Formaldehyde and Asthma Outcomes

The Problem:

In the U.S., asthma affects approximately 23 million people, including 6 million children, impacting approximately 8% of both children and adults. For the last few decades government agencies have explored the relationship between exposure to formaldehyde and asthma, but recent ongoing risk assessment and regulatory actions for formaldehyde **have not considered asthma as an outcome**.

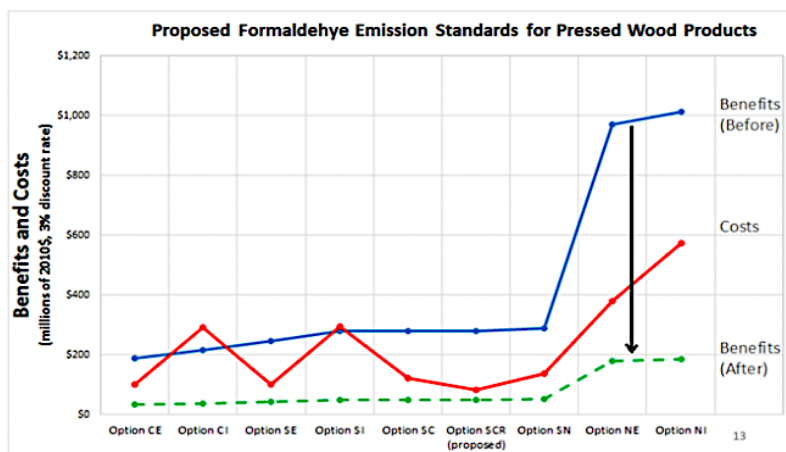


The Method:

We used the Navigation Guide Systematic Review method to conduct a systematic review of human studies to evaluate the evidence of formaldehyde influencing incidence and symptoms of asthma and the monetary benefits, if any, of reducing asthma cases from the proposed EPA rule that reduces formaldehyde levels in pressed wood products.

The Results:

EPA benefits valuation before and after removing asthma and infertility benefits



Benefit-cost analysis*

Benefits	Proposed rule	Costs
\$231 million	>	\$76.5 million
OMB-modified rule		
\$34 million	<	\$76.5 million
Adding NavGuide benefit estimates		
\$124 million	>	\$76.5 million

Benefits outweigh costs

*This represents a midpoint

Our systematic review found “**sufficient**” evidence supporting associations between childhood and adult formaldehyde exposures with asthma diagnosis and symptoms. OMB making EPA omit asthma from the benefit-cost analysis will significantly underestimate the true value of regulating formaldehyde in pressed wood products. If EPA considered formaldehyde’s impact on asthma, we estimate it would lead to 1,197 fewer asthma cases (8% decrease), with total economic benefit of ~\$90 million annually.

Using an improved method to evaluate evidence via systematic review like the Navigation Guide creates a more robust, bottom line summary that will support better decisions to improve health.

