

Introduction: Chronic school absenteeism among children with asthma has increased since the COVID-19 pandemic and is associated with increased risk for a number of adverse outcomes across multiple domains, including health, behavior, and development.

Approach: We used group model building to inform a pilot school-based intervention that will begin in Fall 2025. We engaged 29 community members in key informant interviews and 3 sets of group model building workshops (GMB) including parents, teachers, teachers, public health workers, and clinic-based health professionals. Reference modes were based on administrative data from schools and electronic health records.

Results: The resulting causal loop diagram highlighted the centrality of having complete and accurate asthma action plans, addition of asthma symptom burden as an important community-endorsed outcome in addition to pre-defined attention to school absenteeism. A simulation was developed to guide intervention planning with additional input from school health leaders, nurses, and parents.

Discussion: The GMB workshops led to strategies for improving the management of asthma and reducing school absenteeism. First, addressing the stock inventory problem of maintaining an adequate supply of albuterol. Second, providing parent education resources for addressing multiple systemic factors. The process influenced clinical practices and intervention planning, refining assumptions for a pilot trial, and fostered stakeholder engagement.