

The analytic framework depicts how school-based asthma self-management interventions might improve health and quality-of-life outcomes for students with asthma. Interventions would provide self-management instruction or counseling to recruited students who have asthma (Note: the impact of a school-based asthma self-management intervention will depend upon a practical process for identifying students with asthma and recruiting them to participate in the intervention). Recruited students exposed to the self-management instruction or counseling would be expected to demonstrate an increase or improvement in asthma health-related knowledge, behaviors such as adherence to their asthma management medications and avoidance of risk behaviors and exposure, and skills such as proper inhaler technique. It is postulated these outcomes would translate into improved asthma control which could include improvements in asthma symptoms both during the day and at night, decreased need for use of rescue or reliever medications, fewer days with asthma-related limitations in their activities, and improvements in measurements of lung function. Improved asthma control would be expected to result in reduced asthma morbidity, including fewer or less severe asthma exacerbations requiring urgent or unplanned visits to their medical care provider, fewer urgent visits to the emergency department, and fewer or shorter hospitalizations. In addition, improved asthma control would be expected to result in improved quality of life and fewer missed school days. Better asthma control and fewer or less severe exacerbations would be expected to result in reduced asthma-related mortality. School-based asthma self-management interventions are not postulated to have any meaningful harms. Interventions may prompt students to develop a personalized asthma action plan with their health care provider and to subsequently file these plans with their school. Potential effect modifiers include differences in the effectiveness of component activities, whether or not the family is engaged in the intervention, and group or individual format for self-management instruction. In addition, program effectiveness might differ across student characteristics such as age or grade, baseline asthma severity, family socio-economic status, and student race or ethnicity.