

Key Study Findings:

Both children's diabetes and oncology camps have been challenged to define their value.

Based on the experience of children's diabetes camps, it would be beneficial for asthma camps to see this as an opportunity to increase the use of best practices, measure their impact, refine their procedures, and take asthma camps to the next level.

Children's asthma camps provide a variety of experiences that children with asthma could not receive anywhere else, including:

- Feeling of normalcy
- Opportunity for intensive asthma education
- Opportunity for a total camp experience
- Independence from their parents/primary caregiver
- Opportunity for kids to be kids
- Opportunity to build the child's socialization skills, self-confidence, and self-esteem

Stakeholders perceived that asthma camps are valuable for a variety of reasons, including:

- Provide intensive asthma education for children with asthma
- Opportunity for interaction with peers
- Opportunity to experience a camp specifically for them
- Further the development of the child
- The sponsoring organization and asthma community receive benefits from asthma camp such as connections to the medical community, ambassadors for asthma, and a feel good experience

The **moderate to high level of evidence** regarding children's asthma camps, in the published and unpublished literature, indicates that asthma camps can increase parent and child asthma knowledge, increase a child's locus of control, improve their self-efficacy and attitude about their disease, improve their asthma-related behavior and pulmonary function measures, and improve their metered dose inhaler and peak flow meter technique. The literature also indicates that asthma camps decrease child's anxiety, symptoms, exacerbations, school absences, emergency department visits, and hospitalizations. Two studies indicated cost-savings of over \$2,000 per child in the year following asthma camp participation.

Camps are managed by organizations with extensive experience and by minimal paid staff.

Camp is an institutionalized tradition within many organizations. Of camps responding to the online survey, 62% reported more than 10 years of experience. Of camps who responded to the online survey and who have a designated staff person whose responsibility is to direct camp activities, 75% have an employed coordinator at or less than 0.3 FTE. Camps are also staffed by a variety of health care professionals who have volunteered their time and expertise.

While campership is decreasing annually, campers are most often returning campers and from limited income families. The average number of campers per camp has consistently decreased since 2000. In 2004, less than half of campers (45.2%) were new (first time campers).

54.8% of camps reported that at about two-thirds (61%) of their campers were from limited income families.

The components of asthma education are fairly consistent across camps, while the duration of education, curricula used, and use of asthma action plans is not. While almost all camps cover asthma basics, types of asthma medications and how they work, when to take asthma medications, what to do in case of an asthma episode, and triggers, “how to use your asthma action plans” is not taught consistently. This could be due to the fact that less than half (46.6%) of camps require an asthma action plan prior to attending camp. A standard asthma education curriculum was used by less than half of camps. The average number of hours of group or individual asthma education varied greatly from 0-2 hours to more than 8 hours.

Parents are not familiar with what asthma education camps are teaching to their children. Half of camps reported that they provide parent/care provider education through brief sessions pre-camp or at the time of drop-off or pick-up. Few camps provided sibling education. Based on interviews with parents, parents do not understand what education is provided to their child during asthma camp. Therefore, parents may not be able to reinforce these messages after camp or follow through with their role in asthma management.

Through the generous support from pharmaceutical companies, the verification of a family’s socioeconomic status prior to providing financial assistance, charging a registration fee, and seeking out health plans to cover members’ registration fees, asthma camps should be able to balance their budgets. The average 2004 camp expenditures (\$35,805) and average income (\$35,097) reported were virtually equal. Pharmaceutical companies provide generous support for camps. The 2004 average per camp pharmaceutical contribution per camp was \$4,860. Only seven camps indicated they required verification of family’s socioeconomic status prior to providing financial assistance. The remaining camps indicated that financial support was provided simply based on parent request. Only 15 camps (20.5% of respondents) indicated that they do not have a camp registration fee.

A variety of local camp evaluations and research projects have been conducted.

While the majority of camps conduct some type of evaluation, it is primarily limited to participant satisfaction and process evaluation. Forty-seven camp directors indicated through the online survey that they conducted one or more of the following types of camp evaluation:

- Pre-post test of children’s asthma knowledge and skills
- Pre-post (or simply post-test) of parent’s asthma knowledge
- Post-camp participant and/or parent satisfaction survey
- Evaluation of the asthma education content and delivery

Only six camps reported that they conducted some type of impact evaluation, such as pulmonary function testing or cost-benefit analysis.

At least eight asthma camps have closed in recent years for a variety of reasons, including:

- Inability to recruit new campers
- Lack of financial resources
- Change in organizational focus away from direct service
- Camp facility closed and inability to identify another appropriate facility

- Intentional mainstreaming of children with asthma into existing, non-specialty camps.

Stakeholders reported a variety of impacts that would occur if their organization quit sponsoring asthma camps.

- Organizations would lose a fundraising opportunity
- The sponsoring organization's public image would be negatively impacted
- Sponsoring organizations may lose their volunteer base
- Closing asthma camps would significantly impact children with asthma