IVRS developed for this study provided an optimal method for collecting detailed analyzable-ready data without adding additional visits to the trial while providing subjects a convenient and user-friendly method of reporting.

**IMPACT OF ALLERGY AND ASTHMA BOTH SEPARATELY AND CONCOMITANTLY ON LOST HOURS FROM WORK**

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**OBJECTIVES:** The purpose of this study was to determine asthma and allergy disease burden among members of an employer directed health plans. Specifically, we were interested in understanding the impact on total lost days from work among members who have allergies only, asthma only, and both allergies and asthma.

**METHODS:** The study design was descriptive, cross-sectional, and used self-reported measures. All employees of participating employer groups were asked to complete a questionnaire and return it to a third party for processing and to assure confidentiality. We measured lost work hours by asking members about past month absenteeism, partial lost days, and lost productivity at work (presenteeism) on days when the condition was worse than normal.

**RESULTS:** Of 13,000 questionnaires sent, we received 4,295 for a 33% response rate. Forty-four percent (n = 1901) of responders reported having allergies only. The majority (85%) of persons with asthma also reported having allergies; 303 who had both allergies and asthma and 58 who had asthma only. Employees with asthma only reported the fewest average monthly missed hours from work, 8.5, while employees with allergies missed 15.8 hours. Employees with both allergies and asthma missed 29.2 hours during the past month. While the asthma sufferers accounted for fewer lost work hours compared to the other two groups, their lost hours were more likely due to time away from work whereas hours lost among employees with allergies were most likely due to decreased productivity.

**CONCLUSIONS:** The significant number of lost hours from work (due to absenteeism, partial missed days, or lost productivity) resulting from allergies and asthma represent a significant disease burden for employers and employees. Estimated annually, employees with asthma, allergies, and allergies/asthma cost employers $1,938, $3,602, and $6,638, respectively.

**ASTHMA & RESPIRATORY DISEASES/DISORDERS—Quality of Life Presentations**

**PAR15**

**CULTURAL ADAPTATION AND VALIDATION OF CHILDHOOD ASTHMA QUESTIONNAIRE VERSION B (CAQ-B) FOR SINGAPORE CHILDREN**

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**OBJECTIVES:** To culturally adapt and validate a disease specific HRQoL questionnaire, CAQ-B for childhood asthma in Singapore.

**METHODS:** CAQ-B was adapted after pre-testing in asthmatic children. Changes to the UK and Australia versions were made to reflect the Singapore school systems, culture, language and climate. A cross-sectional validation was conducted. All asthmatic patients attending the Specialist Respiratory Clinic in KK Women’s and Children’s Hospital without other co-morbidities that significantly affect their HRQoL were invited to participate.

**RESULTS:** The adapted CAQ-B was validated in 96 patients (40 females and 56 males) with a mean age of 8.7 ± 1.1 years (range: 7–11 years). Most children have no difficulty understanding and completing the questionnaire. The median time to complete a questionnaire was 10 minutes. Internal consistency obtained was slightly lower than UK and Australia (Cronbach’s alpha = 0.29–0.76). However, this increased to comparable levels (Cronbach’s alpha = 0.57–0.76) when two items with confusing phrasing and one item on reading enjoyment were removed. The Passive Quality of Living Scale improved from 0.29 to 0.57 when the item regarding reading was eliminated.

**CONCLUSIONS:** Asthma Questionnaire (CAQ-B) is a simple and acceptable HRQoL to children and parents. The adapted version appeared to be reliable and valid. However, further investigation is needed to determine the internal structure of the scales by factor analysis.