

**The Hospital for Sick Children
Technology Assessment at SickKids (TASK)**

EXECUTIVE SUMMARY

**WILL THE GROWTH SPURT CONTINUE? TRENDS IN CHILD HEALTH
ECONOMIC EVALUATION: 1980 TO 2013**

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

SUMMARY

Introduction

Economic evaluations conducted as part of health technology assessments in pediatric populations have unique features compared to those conducted in adults. The Pediatric Economic Database Evaluation (PEDE) project includes a comprehensive database of pediatric health economic evaluations published since 1980. The objective was to identify significant trends over time as well as methodological gaps to improve the quality of future studies and evidence for decision-making.

Methods

Medical and grey literature were searched for pediatric economic evaluations, key characteristics were extracted, frequencies were tabulated and selected cross-tabulations were performed. Differences in study characteristics between early (1980 and 1999) and late (2000 and 2013) pediatric economic evaluations were assessed using a chi-squared statistic.

Results

A total of 2630 pediatric economic evaluations were published between 1980 and 2013 with an average annual growth rate of 15%. Substantially more cost-effectiveness analyses (CEAs) and cost utility analyses (CUAs) were published compared with cost benefit analyses (CBAs) and cost minimization analyses (CMAs) (64.5% and 24.0% versus 7.7% and 3.7%, respectively). This trend was consistent regardless of the type of intervention, disease or age group studied. A trend toward higher proportions of CUAs and CEAs was evident in the later period (χ^2 $p < 0.0001$). Other significant trends included more publications in health economics/policy journals and sub-specialty journals in the later period (χ^2 $p < 0.0001$), a higher proportion of studies of preventive interventions in the later period (χ^2 $p < 0.0001$), and more studies in children and fewer in perinates in the later period (χ^2 $p < 0.0001$). Overall the most common disease class studied was infectious diseases (29%).

Conclusions

The field of pediatric economic evaluation continues to grow in volume and methodologic complexity. While CUAs have increased, the quality of CUAs remains unknown. Although most studies are in infectious disease, the volume of publications may not align with emerging child health priorities and target populations, such as adolescent health, injury, developmental disabilities, mental health, and the use of personalized medicine. Increasing economic evaluations in these areas will enhance pediatric decision-making.