

## **Abstract**

**Background:** The prevalence of Autism Spectrum Disorder (ASD) is rising. Despite ASD screening guidance from The American Academy of Pediatrics (AAP), real-world practice includes issues such as long wait lists to see a specialist doctor. This can cause an economic burden in the ASD diagnostic process and treatment.

**Objective:** To evaluate cost of the ASD diagnostic process in a tertiary hospital.

**Methods:** A questionnaire-based study covering 76 parent-child dyads, and ASD children aged six or under. Direct, non-direct medical, and indirect costs were collected either by a questionnaire or documented hospital costs from 2018-2022.

**Result:** The median total cost of ASD diagnosis from the societal perspective was 3,096 (SD 4,495) baht/individual, which included direct non-medical costs (52%), direct medical costs (40%), and indirect costs (8%). The mean cost of ASD diagnosis from the patient and provider's perspective were 2,558.5 (SD 4,183) and 815.9 (SD 934) baht/individual, respectively. The direct non-medical costs included accommodation fees, meals, and transportation fees. The direct medical cost included medical service, developmental assessments, hearing tests and eye examinations. The two major components of direct medical costs were a hearing test and medical. A subgroup analysis between patients living in Bangkok and other provinces showed a statistically significant difference in the cost of accommodation, transportation, meals, total direct costs, and total costs.

**Conclusion:** Our study showed that direct non-medical costs, especially the transportation fee, was a major component of the cost of ASD from the perspective of patients and society. A heightened potential of the health care providers and compiling hospital visits should alleviate the burden of families.

**Keywords:** Autism, Autism spectrum disorder, direct cost, non-direct cost, diagnosis