

# Therapy for babies with signs of autism can cut long-term disability costs

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Pre-emptive therapies can help babies showing early signs of autism. Credit: "Baby Child" by Josh Willink is marked with CC0 1.0.

New research evaluating the potential cost savings of a therapy for babies displaying early autism signs has predicted a three dollar return to

Australia's National Disability Insurance Scheme (NDIS) for every dollar invested in therapy.

Published in the journal *JAMA Network Open*, the health economic study drew on the results of a landmark multi-center randomized clinical trial that reported the world's [first evidence](#) that a therapy commenced in infancy ([iBASIS-VIPP](#)) could reduce early [developmental disability](#) to the point where a childhood clinical autism diagnosis was two-thirds less likely.

Now, researchers from the University of South Australia (UniSA) and Telethon Kids Institute, in partnership with the University of Manchester, La Trobe University, Griffith University and the University of Western Australia, have used this clinical trial data to model downstream cost implications for children up to age 13.

Modeling downstream disability support costs to the NDIS system, they predicted that use of the iBASIS-VIPP therapy during infancy would return a net [cost savings](#) of \$10,695 per child, representing a three-to-one return on investment by age 13.

Lead author, UniSA's Professor Leonie Segal, Chair, Health Economics and Social Policy, says the estimated cost savings are conservative as they only covered support costs to the NDIS until a child turned 13, and did not consider cost savings to other systems (for example, health, education, parental employment).

"By investing in services early in life for babies showing early autism signs—and thereby reducing levels of disability—the study predicted a net cost savings of \$10,695 per child by age 13 years," Prof. Segal, a health economist, says.

"The modeling also predicted that savings in support costs associated

with disability would balance out therapy costs shortly after the child turned five—just four years after delivery of the therapy.

"The findings clearly argue the case that investing in early support for babies represents a good investment for the whole community."

Telethon Kids Institute's Prof Andrew Whitehouse—the Angela Wright Bennett Professor of Autism Research at Telethon Kids and the University of Western Australia and Director of CliniKids—says autism is not typically diagnosed until three years of age.

"However, therapies commencing during the first two years of life—when the initial signs of development difference are observed, and the brain is rapidly developing—can positively impact developmental outcomes in later childhood," Prof. Whitehouse says.

He says many services used the presence or absence of a diagnosis as a "trigger" for funding and [therapy](#), but this study reinforces the potential value of therapies prior to a diagnosis.

"Disability associated with autism has cost and quality of life implications for families and may result in extra government spending on areas such as health, education, disability services, and income support," Prof. Whitehouse says.

"Reducing disability associated with autism can relieve hardship to the individual, and in the process relieve costs to the individual, their family, and the broader systems that support them. At a time when NDIS sustainability is of great importance to everyone, these findings are very significant."

Prof. Segal says a challenge for health and disability systems globally is how to allocate finite funding to best support people with a disability,

including autistic children and their families.

"Optimal resource allocation requires an understanding of the benefits versus costs of potential therapies, especially to inform at what age to provide supports," she says.

"The study, together with the earlier work on which it builds, provides evidence that pre-emptive therapies are a feasible, effective and an efficient clinical pathway."

Prof. Whitehouse says given that in Australia more than a third of all participants in the NDIS have an autism diagnosis, the implications of these findings are enormous.

"I want to make it crystal clear that this is about finding the best use of funds to create the best outcomes for children," he says.

"The discovery of therapies that reduce the disability experienced by children will often mean that that child requires fewer supports in later childhood. This is fantastic news for the child, their family and the systems that support kids and families.

"This study is about how to provide the right supports to kids and families at the right time and in the right amount. Understanding this is critical in helping to structure systems to [support](#) kids and families when they need it."

**More information:** Estimated Therapy Costs and Downstream Cost Consequences of iBASIS-Video Interaction to Promote Positive Parenting Intervention vs Usual Care Among Children Displaying Early Behavioural Signs of Autism in Australia, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.5847](https://doi.org/10.1001/jamanetworkopen.2023.5847)

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