



### Message from the Tonic Media Network Editorial Committee\*

Welcome to another edition of Practice Connect - a newsletter designed for you, your practice and your patients with up-to-date news and information.

#### Vaccine misperceptions spread among parents

The COVID-19 pandemic has significantly disrupted routine vaccination services worldwide, leading to a notable decline in childhood vaccination rates. This has been particularly acute in low and middle-income countries, but wealthy countries like Australia aren't immune. To learn more about the impact of the pandemic, a [study](#) was conducted by Victorian researchers to understand how COVID influenced parental perceptions of routine childhood vaccinations in Australia, examining the shifts in attitudes from 2017 to 2023.

Researchers conducted two cross-sectional online surveys. The first survey took place over a month in 2017 and the second over the same period in 2023. These surveys targeted a sample of Australian parents, ensuring a mix that represented various demographics including age, gender and socioeconomic status. The questions explored parents' beliefs about common vaccination misconceptions and their children's vaccination status.

The results showed a concerning trend: a significant increase in vaccine hesitancy among Australian parents. In 2023, 25 per cent of parents believed that children receive too many vaccines, up from 17 per cent in 2017. Beliefs in misconceptions such as vaccines causing autism rose to 14 per cent from 8 per cent, and concerns about harmful ingredients in vaccines increased to 19 per cent from 14 per cent. The study also found a decrease in the vaccination rates reported by parents, with fully vaccinated children dropping from 94% in 2017 to 87% in 2023. These shifts were more pronounced in certain demographic groups, including younger parents, single parents, and those in urban areas.

The findings highlight a growing public health concern regarding the erosion of trust in vaccinations post-pandemic. This decline in vaccination rates and increase in vaccine hesitancy could potentially lead to outbreaks of vaccine-preventable diseases. The study underscores the need for targeted public health campaigns to rebuild trust in vaccines and address the misconceptions that have become more widespread during COVID-19.

#### Further information

[Misperceptions about routine childhood vaccination among parents in Australia, before and after the COVID-19 pandemic: a cross-sectional survey study](#): Medical Journal of Australia

## **Risky behaviour for teens proves hard to change**

Our teenage years are often seen as a risky period for developing lifestyle behaviours that are factors for chronic diseases such as type 2 diabetes, cardiovascular disease and mental health disorders. The Health4Life intervention, designed collaboratively by experts in public health, education and youth engagement, aims to mitigate these risks by educating young people about healthy lifestyle choices through a school-based e-health program.

The [Health4Life study](#) was structured as a cluster randomised controlled trial involving students aged 11-14 from 71 diverse Australian schools (public, private and religious schools). The intervention consisted of six online video modules supplemented by a smartphone app, integrated into the schools' health education classes. The effectiveness of this intervention was compared to standard health education, with the aim of modifying twelve risk behaviours linked to chronic diseases. The behaviours were measured at baseline, right after the intervention, and at 12 and 24 months after the intervention.

The trial's findings indicated that Health4Life did not statistically outperform regular health education in altering any of the twelve evaluated behaviours over the two-year period. Notably, there was no significant difference in behaviors such as inadequate fruit and vegetable intake, physical activity levels and recreational screen time. The intervention also did not reduce the frequency of tobacco and alcohol use among the participants. Despite these outcomes, both students and teachers responded positively to the format and content of the Health4Life program.

The results highlight just how complex influencing adolescent behaviour can be. Although the program was well-received, the study's authors say its lack of effectiveness in significantly changing health behaviors suggests that future interventions may need to focus more on engagement strategies such as goal setting and perhaps consider the timing, duration and intensity of the content delivery. They suggest these findings underscore the need for continued innovation and evaluation in health education to ensure that interventions are both effective in changing behaviours and adaptable to the needs of young individuals.

### Further information

[The Health4Life e-health intervention for modifying lifestyle risk behaviours of adolescents: secondary outcomes of a cluster randomised controlled trial](#): Medical Journal of Australia

## **Are precision medicine treatments more effective for children with cancer**

According to the Cancer Council about 750 children aged 0-14 are diagnosed with cancer each year in Australia.

Recent advancements in paediatric cancer research have highlighted the potential of precision-guided treatment (PGT) in managing high-risk cases. This [study](#) from researchers in New South Wales delves into the efficacy of PGT for children with aggressive cancers, presenting a more targeted approach to therapy that could revolutionise outcomes for this vulnerable group.

The ZERO Childhood Cancer Precision Medicine Program's PRISM trial conducted a comprehensive analysis on 384 children diagnosed with high-risk paediatric cancers, all of whom had a predicted cure rate of less than 30 per cent. Using whole-genome sequencing and other precision medicine techniques, the trial aimed to pinpoint molecular targets that could inform tailored treatment strategies. Participants were followed for at least 18 months, and the effectiveness of PGT was evaluated against standard treatments and non-guided targeted therapies.

The study found that two thirds of the participants were given PGT recommendations and about a third received the proposed treatments. The effectiveness of PGT was notably superior. PGT led to a significant improvement in two-year progression-free survival rates (26 per cent) compared to the standard care group (12 per cent) and the group receiving unguided targeted therapies (5 per cent). These results underscore the potential of precision medicine in identifying and applying more effective treatment modalities for paediatric cancer patients.

These findings suggest PGT can substantially enhance treatment outcomes for children with high-risk cancers. By adding comprehensive molecular profiling to treatment planning, PGT personalises patient care and could lead to better survival rates and quality of life. However, the study also recognises the need for broader clinical adoption and more extensive research to refine and validate the benefits of precision medicine in paediatric oncology.

Further information

[Precision-guided treatment in high-risk pediatric cancers](#): Nature Medicine

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