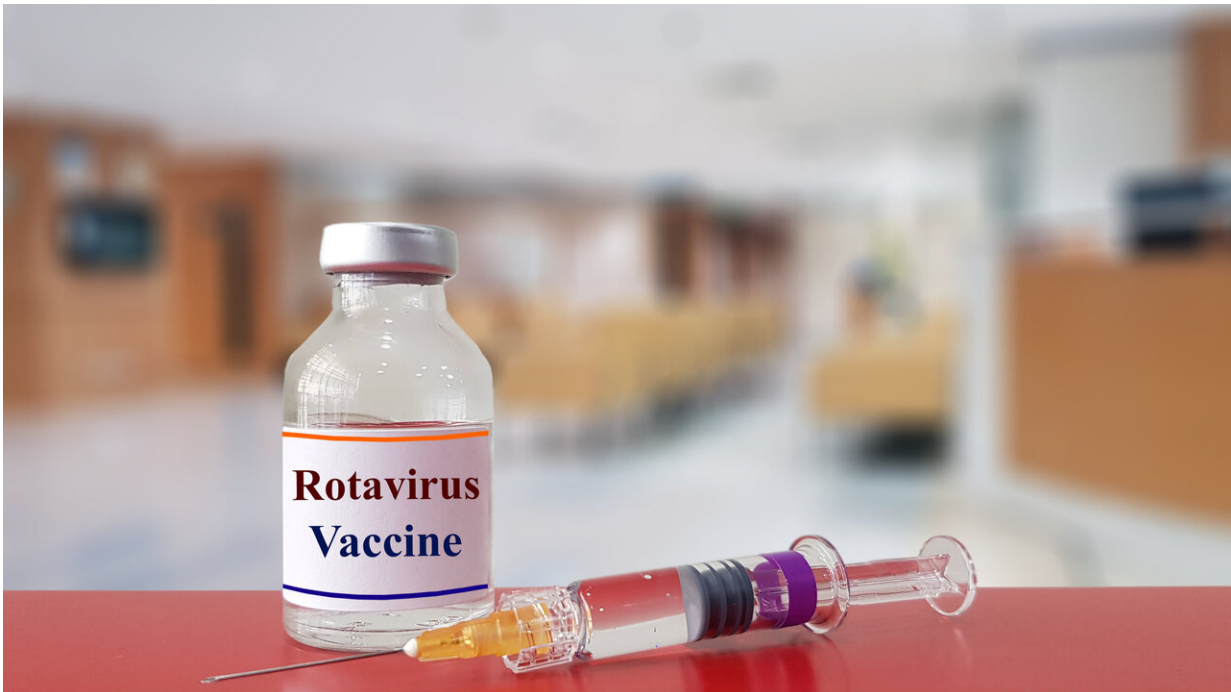


Rotavirus vaccination leads to reduced hospitalizations, fewer infant deaths

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Vaccination against rotavirus has led to a significant decrease in hospitalizations and deaths of children due to severe diarrhoea in the Western Pacific region, a new study has found. Credit: MCRI

Vaccination against rotavirus has led to a significant decrease in hospitalisations and deaths of children due to severe diarrhoea in the Western Pacific region, a new study has found.

The research, led by the Murdoch Children's Research Institute (MCRI) and published in *BMC Infectious Diseases*, showed the substantial impact of the rotavirus [vaccine](#) on inpatient and outpatient hospital attendances and child deaths in the Pacific Island country of Kiribati, despite high rates of malnutrition.

MCRI Professor Fiona Russell said the study looked at the impact of rotavirus vaccination on young [children](#) two years after its roll-out in Kiribati in 2015. The study provided convincing evidence for ongoing vaccination in Kiribati and other low-middle income countries with [poor sanitation](#) and inadequate cold storage chains, she said.

"Kiribati has one of the highest child death and malnutrition rates in the Pacific, which is due to the substantial challenges with the provision of safe drinking water and effective sanitation," she said.

"Kiribati introduced rotavirus vaccination following a series of confirmed rotavirus diarrhoea outbreaks, with up to 70 per cent of cases affecting children under five."

Kiribati is the first country to document the effects of rotavirus vaccination in the Western Pacific region.

The study found acute gastroenteritis inpatient admissions decreased by 37 per cent and outpatient presentations by 44 per cent in children aged under five years. Inpatient severe acute malnutrition admissions also decreased by 24 per cent.

Importantly, the study also reported a 44 per cent and 64 per cent decline in acute gastroenteritis contributing to all under-five admissions and deaths, respectively.

Rotavirus is the most common cause of severe diarrhoea in children

worldwide and kills about 215,000 children each year.

Almost all unvaccinated children will have experienced one or more rotavirus diarrheal episodes, regardless of their living conditions, by the age of five.

Professor Russell said the research would provide evidence for other policy makers in the Asia-Pacific region to consider introducing the vaccine.

"Very few countries in the Asia- Pacific have a rotavirus vaccine in their national immunisation programs, despite good data showing the vaccine's benefits," she said.

More information: Jana Lai et al, Temporal decline in diarrhea episodes and mortality in Kiribati children two years following rotavirus vaccine introduction, despite high malnutrition rates: a retrospective review, *BMC Infectious Diseases* (2020). [DOI: 10.1186/s12879-020-4874-6](https://doi.org/10.1186/s12879-020-4874-6)

Provided by Murdoch Children's Research Institute

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