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SIERRA LEONE

Smarter PCV spending. More protection against RSV.

Pneumonia is a leading killer of children under five in Sierra Leone, causing 1,700 deaths in 2024 according to UNICEF. Pneumococcus and respiratory syncytial virus (RSV) are leading bacterial and viral causes of childhood pneumonia respectively.

Sierra Leone already vaccinates children against pneumococcus with pneumococcal conjugate vaccine (PCV). Now, a new maternal RSV vaccine offers the opportunity to protect babies against RSV too.

Sierra Leone is currently exploring optimizing its PCV program by switching product or by reducing doses, both of which would generate savings to help fund this additional protection.

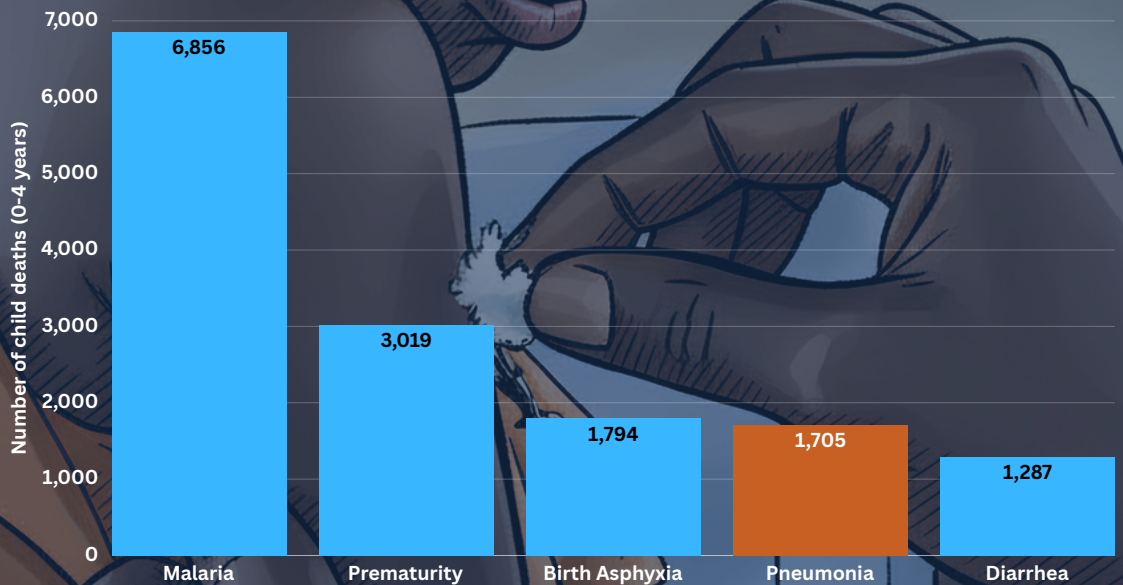
This brief uses the new PCV-OPTIMISE tool, developed at the University of Melbourne, Australia, to estimate the savings to Sierra Leone and to Gavi, the Vaccine Alliance from these PCV optimization options.

It also presents the latest estimates of Sierra Leone's RSV burden, underscoring the case for reinvesting PCV 1+1 savings in maternal RSV vaccination.

Better together, these two vaccines will help Sierra Leone prevent more pneumonia, reduce hospitalizations, and save more children's lives - while making existing resources go further.



LEADING CAUSES OF CHILD DEATH IN SIERRA LEONE, 2024



Source: United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), 2026

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PCV PROGRAM AND COVERAGE IN SIERRA LEONE, 2021-2025

- *Prevenar 13*
- *4 dose vial*
- *Introduced 2011*
- *3+0 schedule*

Source: View-hub by IVAC

PCV Coverage	2025	2024	2023	2022	2021	Average
PCV (3 doses)	93%	93%	93%	93%	90%	92%

Source: WHO, UNICEF Estimates of National Immunization Coverage (WUENIC), 2026

PCV OPTIMIZATION SAVINGS

PCV-OPTIMISE compares the costs of Sierra Leone's current PCV program - three doses of Prevenar 13 - between 2026 and 2030, with three optimization scenarios.

Here are the results (all numbers rounded):

1. Switching to three doses of Pneumosil reduces costs from US$15 million to US$11 million, saving US$4.4 million (29%). Sierra Leone saves US$0.3 million and Gavi saves US$4.1 million. This option requires 3% less cold-chain space.

2. Switching to two-doses (1+1) of Prevenar 13 reduces costs from US$15 million to US$10 million, saving US$5 million (33%). Sierra Leone saves US$0.7 million and Gavi saves US$4.5 million. This option requires 34% less cold-chain space.

3. Switching to two-doses (1+1) of Pneumosil reduces costs from US$15 million to US$7 million, saving US$8 million (53%). Sierra Leone saves US$1 million and Gavi saves US$7 million. This option requires 56% less cold-chain space.

Sierra Leone is in Gavi's *initial self-financing* phase where the government pays 7% of PCV program costs with Gavi covering 93%.



Countries planning both a PCV product and a schedule change should pursue a staged transition, with the sequence determined by national vaccine authorities based on local evidence and program readiness.

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PCV AND RSV MATERNAL VACCINE

PCV and maternal RSV vaccines are better together because they strengthen protection against major bacterial and viral causes of pneumonia, especially during babies' vulnerable first six months.

Research suggests that protection against these two pathogens may be mutually reinforcing: pneumococcal vaccination has been associated with fewer RSV hospitalizations, while a French study linked RSV prevention using the antibody nirsevimab to fewer hospitalizations for invasive pneumococcal disease.

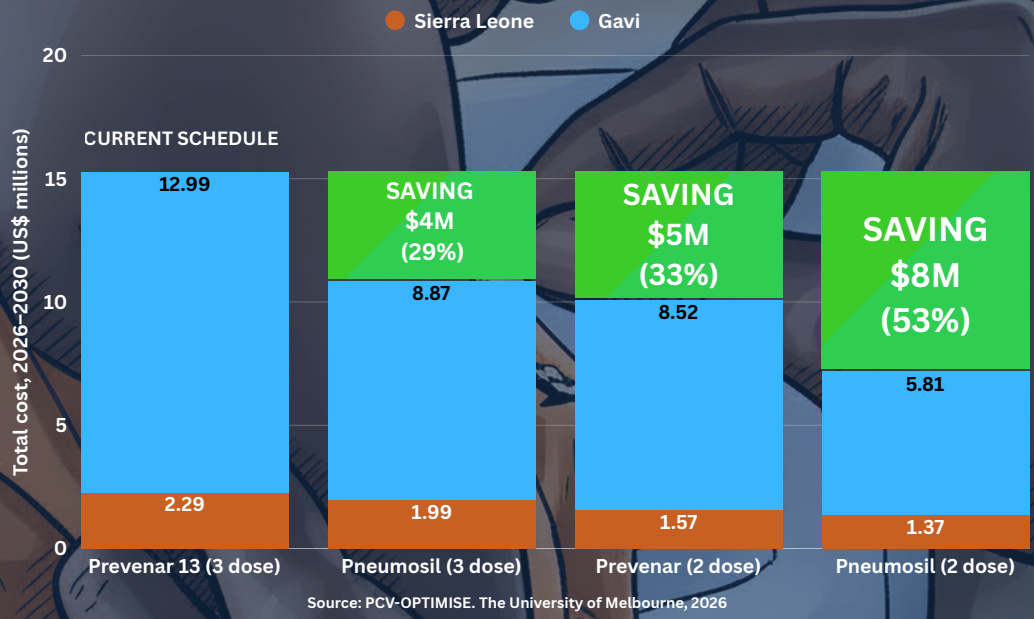
The estimated US$5 million savings from switching to two-dose Prevenar create an opportunity for Sierra Leone to reap these gains by introducing maternal RSV vaccination.

At a price of US$3.50 per dose, these savings could purchase maternal RSV vaccine for all 1.25 million pregnancies during 2026–2030, leaving US$0.8 million toward delivery, wastage, and freight.

Realizing this opportunity would require Gavi to make its share of PCV savings available to support maternal RSV vaccination—giving Sierra Leone a practical route to protect more children with existing resources and advance national child survival goals.



PCV OPTIMIZATION SAVINGS IN SIERRA LEONE, 2026-2030



Source: PCV-OPTIMISE. The University of Melbourne, 2026

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WHY IS RSV PREVENTION SO IMPORTANT FOR SIERRA LEONE?

Over the next decade RSV will sicken an estimated 570,000 children under five in Sierra Leone, hospitalizing 39,000 and killing 5,700, absent introduction of the new prevention tools.

This not only places a heavy burden on families but also on the health system, as hospital wards fill with sick children during RSV season each year.

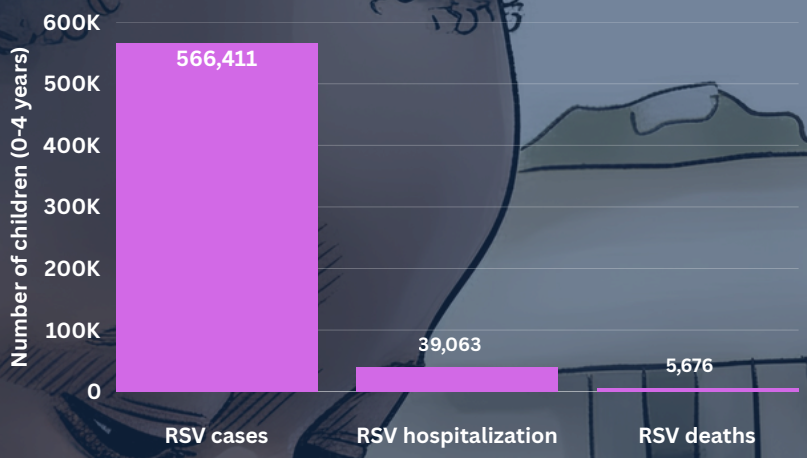
In a clinical trial, maternal RSV vaccination resulted in 70% fewer babies developing severe RSV disease during their first six months, with an exploratory analysis reported 31% fewer hospitalizations for pneumonia from any cause.

In real-world studies, maternal RSV vaccination was associated with 85% fewer RSV hospitalizations in England and 87% fewer RSV intensive care admissions among babies under six months in Argentina.

The World Health Organization recommends all countries introduce either maternal RSV vaccination, given from 28 weeks of pregnancy onwards, or a long-acting antibody for infants.

Gavi accepts applications from eligible countries, including Sierra Leone, for support to introduce maternal RSV vaccination.

RSV BURDEN AMONG CHILDREN IN SIERRA LEONE, 2026-2035



Source: Clark, AD et al, 2026 (unpublished, forthcoming)

Explore PCV-OPTIMISE!

This brief was prepared by the Every Breath Counts Coalition for the Better Together campaign. To learn more, visit StopPneumonia.org.

November 2026

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