

Sustainable Introduction of New Vaccines in Pacific Island Countries as a Comprehensive Package to Improve Child Survival



**ROTARY GIVE EVERY CHILD A FUTURE
ANNUAL REPORT**

9 August 2021

SUMMARY

Title	Sustainable Introduction of New Vaccines in Pacific Island Countries as a Comprehensive Package to Improve Child Survival
Countries	Cook Islands, Kiribati, Nauru, Niue, Samoa, Tokelau, Tonga, Tuvalu and Vanuatu
Region	Pacific Island Countries
Time Frame	January 2019 - December 2021
Total Programme Budget	US\$2,448,360
Utilized amount as of 30 June 2021	US\$780,956.54
Donors	Rotary International
Reporting period	July 2020 - June 2021
Specific Expected Results to be achieved with this funding	<ul style="list-style-type: none"> - New vaccines successfully introduced in the selected countries - Uninterrupted supply of new vaccines, immunization devices and other essential supplies - Strengthened national cold chain systems
Date of report	09 August 2021
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Cover photo: Six-week-old Rosalia Toiaki getting vaccinated against rotavirus at Princess Margaret Hospital, Tuvalu. ©UNICEFPacific/2021/Ronny

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ACRONYMS AND ABBREVIATIONS

C4D	Communication for Development
DPT	Diphtheria, Pertussis and Tetanus
EVM	Effective Vaccine Management
HMIS	Health Management Information System
HPV	Human papillomavirus vaccine
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
JIMT	Joint Incident Management Team
JRF	Joint Reporting Form
PCV	Pneumococcal Conjugate Vaccine
PICTs	Pacific Island Countries and Territories
RV	Rotavirus Vaccine
VII	Vaccine Independence Initiative

1. EXECUTIVE SUMMARY

This report provides an update on progress accomplished from July 2020 to June 2021 on the project: *The Sustainable Introduction of New Vaccines in Pacific Island Countries as a Comprehensive Package to Improve Child Survival*. The objective of the project, which is being implemented in Cook Islands, Kiribati, Nauru, Niue, Samoa, Tokelau, Tonga, Tuvalu and Vanuatu, is to reduce under-five mortality by protecting children and communities from vaccine-preventable diseases (pneumonia, diarrhoea and cervical cancer) through the introduction of three new vaccines: pneumococcal conjugate vaccine (PCV), human papillomavirus vaccine (HPV) and rotavirus vaccine (RV).

The project has three result areas: 1) improving policy; 2) strengthening service delivery; and 3) health promotion. Progress has been made since the submission of the last report. However, the COVID-19 pandemic has placed additional challenges on delivering routine health services, including immunization, in Pacific Island Countries and Territories (PICTs).

Activities under result area 1 included developing new vaccine introduction operational plans for each country. This also provided an opportunity to update child health cards to include the three new vaccines.

Result area 2 involves a range of activities designed to strengthen the health system to deliver more effective and efficient immunization services. UNICEF procured the remaining vaccine refrigerators and associated supplies in Cook Islands, Nauru, Niue and Tokelau. This will expand cold chain capacity and enable countries to stock and maintain vaccine supplies at the service delivery level. UNICEF also procured PCV, HPV and RV vaccines for Cook Islands and Nauru, PCV and RV for Tokelau, and RV vaccines for Kiribati. The vaccines will protect more than 3,848 children in these countries from these vaccine-preventable diseases.

Result area 3 involves health promotion and messaging. UNICEF worked with ministries of health in eight countries (Cook Islands, Nauru, Niue, Samoa, Tokelau, Tonga, Tuvalu, and Vanuatu) to conduct rapid formative assessments on routine immunization. These assessments will provide health care workers with an understanding of the challenges and barriers to routine immunization when introducing new vaccines into the immunization programmes. UNICEF also developed communication strategies in the eight countries to equip health care workers to reach out to communities and correct false beliefs, rumours and concerns that prevent people from getting vaccinated. UNICEF developed training materials to build the capacity of health care workers and religious leaders on communication for immunization, focusing on interpersonal communication and community mobilization. UNICEF also worked with ministries of health to develop and implement mobilization and communication messages for the new vaccines. This will aid health care workers in building trust and generating demand for the new vaccines.

2. SITUATION UPDATE

Globally, UNICEF estimates that up to 1 million additional child deaths can be anticipated as an indirect impact of COVID-19. This is echoed in the Pacific where there have been disruptions to essential health services across the Pacific, including immunization. In many PICTs, there has been a marked drop in immunization coverage between 2019 and 2020, as evidenced by country Joint Reporting Forms (JRFs). Countries made the difficult decision to delay the introduction of the three new vaccines (PCV, RV and HPV) due to the overwhelming burden that the COVID-19 pandemic has placed on health care workers. This leaves children at risk from preventable diseases, such as measles, pneumonia and diarrhoea (Samoa is facing a rotavirus outbreak at the time of writing this report). Multiple disease outbreaks would be catastrophic for small island nations already battling COVID-19. UNICEF is advocating that countries invest in childhood vaccination and maintain essential services, including immunization programmes, to ensure every child is reached.

Vaccine hesitancy continues to be reported in all countries. Reasons for hesitancy include:

- Lack of access to immunization services;
- Safety concerns or illness;
- Religious and cultural beliefs;
- Social media influence;
- Lack of knowledge; and
- Negative media coverage.

Interruption of essential services, including immunization

In the Pacific, the COVID-19 pandemic has been unprecedented in its scale and impact. The pandemic has necessitated a range of measures, including temporarily closing health facilities, travel restrictions, social distancing and, in more extreme cases, lockdowns. The consequences of these measures have been significant and widespread, including disrupting routine immunization services. Even though some PICTs have resumed the provision of immunization services, uptake remains slow due to several factors, including fear of contracting COVID-19, restricted access to health facilities and reduced health facility hours. UNICEF's role in providing technical assistance, through the Joint Incident Management Team (JIMT), for the continuation of essential health and nutrition services has been instrumental in responding to this unprecedented situation. UNICEF continues to advise countries on the balance between vaccinating children with life-saving vaccines, while also protecting against COVID-19.

Vaccine availability

The limited availability of commercial airfreight capacity suitable for delivering vaccines caused by COVID-19 has put UNICEF's ability to ensure the timely delivery of vaccines and vaccine-related supplies at risk. Despite recent increases in freight flights, a reduction in passenger flights and travel restrictions on shipments are causing a 31 per cent decrease in global air cargo capacity. This has negatively impacted the timely delivery of vaccines worldwide.

Since the start of the COVID-19 pandemic, UNICEF has monitored the impact the crisis has had on shipping and logistics, as well as on the sourcing of vaccines and other essential supplies. UNICEF is currently working with global freight forwarders to prioritize the shipment of vaccines, including analysing available options to maintain timely delivery. Despite these efforts, there remains a real risk that upcoming vaccine shipments will be delayed if the current logistics disruptions persist.

3. PROGRESS AGAINST RESULTS

The project comprises three result areas: 1) national capacities enhanced to strengthen immunization policy and legislation in nine PICTs; 2) health system capacities strengthened to deliver quality immunization services that are adapted to climate change in nine PICTs; and 3) caregivers in nine PICTs have improved knowledge and skills to adopt recommended immunization practices. This report details progress made against result areas from July 2020 to July 2021, and an overview of risks and mitigation efforts. An update of the results framework is included as an annex.

Result 1: National capacities enhanced to strengthen immunization policy and legislation in nine PICTs

Activities within result area 1 focused on the provision of technical support in updating national immunization policies to include three new vaccines (PCV, RV and HPV) and a costed implementation plan for the introduction of the vaccines to enable countries (Nauru, Niue, Tokelau, Cook Islands, Samoa, Tonga, Tuvalu and Vanuatu) to calculate the medium- and long-term impact of the new vaccines on national budgets and programme expenditures.

UNICEF worked with countries to develop operational guidelines for PCV, RV and HPV, which are currently being reviewed by the ministries of health for endorsement. The guidelines will provide health care workers with information on the optimal introduction of PCV, RV and HPV. These guidelines will also build the capacity and boost the confidence of health care workers in introducing the new vaccines. UNICEF also assisted countries to update their child health record cards.

Result 2: Health system capacities strengthened to deliver quality immunization services that are adapted to climate change in nine PICTs

Result area 2 involves a range of activities to strengthen the health system to deliver efficient and accessible immunization services. Indicators for this result area include:

- Stock-outs reported for new vaccines at national level;
- Percentage of health facilities reporting no stock-outs of new vaccines;
- Number of children vaccinated with new vaccines; and
- Percentage of health facilities providing immunization services with new vaccines.

Procurement

Cold chain equipment has been procured and received in all countries. Kiribati, Samoa, Vanuatu, Tonga and Tuvalu have received their vaccines, while the other countries are awaiting delivery from Fiji.

Cook Islands

UNICEF procured three additional vaccine refrigerators, five cold boxes, 20 vaccine carriers and 295 ice packs to expand cold chain capacity to safely store the new vaccines. UNICEF also procured 1,200 vials of PCV, 300 vials of HPV bivalent and 800 vials of RV monovalent. These vaccines will benefit more than 218 children in Cook Islands, increasing their protection against the three communicable diseases.

Kiribati

UNICEF procured 7,200 vials of RV to protect more than 3,249 children from rotavirus infection. UNICEF also procured 5 cold boxes, 80 vaccine carriers and 735 ice packs to expand the cold chain capacity to safely store the new vaccines.

Nauru

UNICEF procured 1,350 vials of PCV, 300 vials of HPV bivalent, and 900 vials of RV monovalent. These will benefit more than 326 children in Nauru. UNICEF also procured 10 vaccine carriers and 32 ice packs to expand the cold chain capacity to safely store the new vaccines.

Niue

Awaiting on final data of procurement to confirm.

Tokelau

UNICEF procured 150 vials of PCV and 100 vials of RV monovalent. These will protect more than 55 children in Tokelau.

Tonga

Awaiting on final data of procurement to confirm.

Tuvalu

UNICEF procured 50 freezer tags, 20 fridge tags, 520 ice packs and 20 voltage stabilizers to expand cold chain capacity to safely store the new vaccines.

Vanuatu

UNICEF procured 20 voltage stabilizers and 301 freezer tags to support cold chain capacity to safely store the new vaccines.

Samoa

UNICEF procured 702 ice packs and 27 cold boxes to expand cold chain capacity to safely store the new vaccines.

Health Worker Training

UNICEF completed the development of vaccination health worker training program, adapted for each country. UNICEF and its government partners have completed the training of trainers and health care workers on Integrated Management of Childhood Illness (IMCI) and new vaccine introduction in Tuvalu and Tonga. The training includes developing the capacity of health workers on each of the three vaccines, diseases prevented, best practices for communicating key messages with caregivers, as well as responding to vaccine hesitancy and adverse events following immunisation (AEFI).

Cook Islands, Nauru, Niue, Tokelau, Samoa and Vanuatu are scheduled for training in Q3 2021.

Vaccine Roll Out

The roll out of the introduction of rotavirus, pneumococcal conjugate, and human papilloma virus (HPV) vaccines has been delayed this year due to prioritisation of responding to the COVID-19 pandemic and rolling out the COVID-19 vaccine in the Pacific. Each Pacific Island country has focused rolling out their COVID-19 vaccination program as a priority due the global pandemic and short expiry date of the vaccines. The introduction of the COVID-19 vaccine in the Pacific has so far seen successful results. As of 29 June, Niue reached 73% of its population with one dose of the COVID-19 vaccine, while Nauru has reached 69%, Cook Islands 56%, Tuvalu 41%, Tonga 27%, Samoa 25%, and Vanuatu 8%. The Cook Islands have fully vaccinated 52% of its population, followed by Nauru 17%, Tonga 6.5%, Samoa 2.6% and Niue 2%.

Following roll out of the COVID-19 vaccine, the introduction of rotavirus, pneumococcal conjugate, and human papilloma virus (HPV) vaccines will commence. Roll out is planned for Q3 2021, with Tuvalu, Tonga and Samoa planned for July 2021 and Cook Islands, Nauru, Niue and Vanuatu planned for September 2021.

Result 3: Caregivers in nine PICTs have improved knowledge and skills to adopt recommended immunization practices

Result area 3 focuses on strengthening the demand for immunization services. Key indicators include:

- Development of communication and social mobilization plans for the introduction of new vaccines; and
- Number of mothers and caregivers receiving messages on the Integrated Management of Childhood Illness (IMCI), including the three new vaccines.

UNICEF worked with ministries of health to conduct rapid formative assessments on routine immunization including the introduction of new vaccines in eight countries: Cooks Islands, Nauru, Niue, Samoa, Tokelau, Tonga, Tuvalu and Vanuatu. These assessments will provide health care workers with an understanding of the barriers to routine immunization and help them mitigate these risks. Initial results indicate the following:

- There is willingness to receive routine vaccines and high overall acceptance of additional childhood vaccines.
- Among caregivers of children under 5 years of age and between 8 and 12 years of age, the most common barriers to vaccination reported were distance to a clinic and wait times.
- The main sources of information related to routine child immunization are health care workers, family friends and neighbours.

UNICEF worked with ministries of health in Cook Islands, Niue, Nauru and Tokelau to develop communication strategies to address vaccine hesitancy and highlight the benefits of immunization. This will equip health care workers to correct false beliefs, rumours and concerns that prevent people from getting immunized, thereby potentially increasing vaccination. In Cook Islands, Nauru, Niue and Tokelau, UNICEF developed training materials to build the capacity of health care workers, community and religious leaders on communication for immunization, focusing on interpersonal communication and community mobilization. Health care workers will, in turn, use the knowledge and skills learned to communicate effectively with caregivers and communities about childhood immunization.

UNICEF also built the capacity of ministries of health to develop and implement mobilization and public communication messages for the new vaccines. This will help health care workers build trust in the new vaccines among those who question them.

4. LESSONS LEARNED

Several lessons learned were noted over the reporting period, including:

- Infection prevention and control (IPC) is a critical element of providing quality essential health services and should be integrated into the introduction of new vaccines as a foundational element, especially training and supervision components
- COVID 19 has severely restricted the ability of UNICEF to engage face to face in countries. With the threat of climate change, it will be important to continue to have reduced travel by investing in digital health solutions generally and in strong online training and assessment platforms.

5. WORK PLAN PROGRESS

Activities	Update
Output 1: National capacities enhanced to strengthen immunization policy and legislation, particularly in nine countries.	
Update immunization policy, guidelines	Developed and shared with all countries. Awaiting endorsement from ministries of health. Delayed as COVID-19 pandemic has put a strain on ministries of health. UNICEF will continue to work virtually and maintain visibility.

Activities	Update
Update Vaccine Independence Initiative (VII) policy, including credit ceiling	All countries have updated their VII policies and have endorsed an increase in their VII credit ceiling.
Advocate for sufficient budget allocation in national budgets	Advocacy will continue to promote increased domestic resource allocation for immunization. UNICEF is undertaking a vaccine costing exercise to support this advocacy.
Generate evidence on the economic benefits of sustaining new vaccines	Delayed as deployment of in-country technical assistance is on hold until borders reopen. UNICEF will work as much as possible with countries remotely.
Advocate for increasing share of new vaccines costs to be borne by government	Advocacy will continue to promote increased domestic resource allocation for immunization.
Output 2: Health system capacities strengthened to deliver quality immunization services that are adapted to the impacts of climate change, particularly in nine countries.	
Develop new vaccine introduction plans	Completed.
Forecast national requirements for vaccines and other supplies	Completed for 2021.
Procure vaccines and supplementary supplies	Completed.
Deliver vaccines and vaccination supplies	Cook Islands: all three vaccines procured, delivery pending for PCV and RV Nauru: All three vaccines procured, delivery pending Niue: All three vaccines procured, delivery pending Tokelau: All three vaccines procured, delivery pending Kiribati, Samoa, Vanuatu, Tonga and Tuvalu have received their vaccines
Effective vaccine management (EVM) assessments	Delayed as deployment of in-country technical assistance is on hold until borders reopen. Conducting such assessments remotely is challenging and tend to yield poor quality results. UNICEF is exploring the best method of conducting EVM assessments with remote technical assistance.
Develop EVM improvement plans	To be carried out following the EVM assessments.
Implement EVM improvement plans	To be carried out following the EVM assessments.
Train trainers and health care workers on IMCI and new vaccine introduction	Completed in Tuvalu and Tonga in May 2021. Other countries scheduled for Q3 2021.
Procure and deliver cold chain equipment	Completed.

Activities	Update
Maintain database of cold chain equipment	Cold chain inventory completed.
Conduct microplanning	Delayed as deployment of in-country technical assistance is on hold until borders reopen. UNICEF will work as much as possible with counties remotely.
Conduct supportive supervision	Delayed. UNICEF will work as much as possible with counties remotely.
Conduct integrated outreach	Delayed. UNICEF will continue to provide guidance remotely as countries continue pre-existing outreach programmes.
Integrate new vaccines into national health management information systems (HMIS)	Delayed. UNICEF will work as much as possible with counties remotely.
Conduct post-introduction assessments	To be conducted in year 3.
Output 3: Caregivers in nine PICTs have improved knowledge and skills to adopt recommended immunization practices.	
Design communication strategies	Completed.
Develop and produce information, education and communication (IEC) materials	Completed.
Conduct community mobilization activities	Activities to follow the design of the communication strategy and the capacity-building of health workers.
Identify key stakeholders to communicate on immunization/IMCI	Completed.
Build capacity of health workers to counsel caregivers on immunization/IMCI	Completed.

6. CHALLENGES

Several challenges have been encountered during the reporting period, including:

1. Gaining traction on the urgent need to import vaccines and immunization consumables in-country has proven challenging given global COVID-related border restrictions and the reduction in international flights. UNICEF is highlighting the importance of immunization as an essential health service and advocating for countries to prioritize the importation of vaccines on any suitable incoming flights.
2. The logistical and human resource challenges related to conducting EVM assessments, with a focus on system strengthening, has led to delays in implementing this aspect of the project. This, coupled with the need for qualified and senior national clinicians to carry out the observations, has been challenging.

7. FUND UTILIZATION

With a total programme budget of US\$2,448,360, utilization as of 30 June 2021 was US\$780,956.54.

8. KEY ACTIVITIES FOR THE NEXT SIX MONTHS

The following activities will be implemented over the next six months (July - December 2021):

- Build the capacity of health workers on the new vaccines using the training modules;
- Launch and roll-out the introduction of the three new vaccines in health care centres;
- Provide accompaniment for supportive supervision and on-the-job training; and
- Community mobilization.

9. EXPRESSION OF THANKS

UNICEF Pacific is grateful for the partnership with Rotary International that has contributed towards improving child survival through the introduction of new vaccines in the Pacific. Contributions from Rotary are making a significant difference in the health, safety and well-being of children in the Pacific. UNICEF looks forward to continued partnership and cooperation with Rotary and extends its sincere gratitude.

ANNEX 1: COUNTRY-SPECIFIC PROGRESS UPDATE

Outcome	By 2022, children in the Pacific, particularly the most vulnerable, increasingly benefit from quality and resilient health and nutrition services and care practices			
Indicator	At least 90% of surviving infants receiving diphtheria, pertussis and tetanus (DPT)3 vaccines			
	Country	Baseline	Target	Progress to date (JRF 2019)
	Cook Islands	99%	99%	98%
	Kiribati	81%	90%	97%
	Nauru	91%	95%	96%
	Niue	99%	99%	99%
	Samoa	90%	95%	68%
	Tokelau	99%	99%	98%
	Tonga	96%	98%	100%
	Tuvalu	94%	97%	92%
	Vanuatu	80%	90%	90%
Result 1	National capacities enhanced to strengthen immunization policy and legislation in nine PICTs			
Indicator	National EPI policy, including new vaccines, updated			
	Country	Baseline	Target	Progress to date
	Cook Islands	No	Yes	Yes
	Kiribati	No	Yes	Yes
	Nauru	No	Yes	Yes
	Niue	No	Yes	Yes
	Samoa	No	Yes	Yes
	Tokelau	No	Yes	Yes
	Tonga	No	Yes	Yes
	Tuvalu	No	Yes	Yes
	Vanuatu	No	Yes	Yes
Indicator	Costed implementation plan for introduction of new vaccines available			
	Country	Baseline	Target	Progress to date
	Cook Islands	No	Yes	Yes
	Kiribati	No	Yes	Yes
	Nauru	No	Yes	Yes
	Niue	No	Yes	Yes
	Samoa	No	Yes	Yes
	Tokelau	No	Yes	Yes
	Tonga	No	Yes	Yes
	Tuvalu	No	Yes	Yes
	Vanuatu	No	Yes	Yes
Result 2	Health systems capacities strengthened to deliver quality immunization services that are adapted to climate change in nine PICTs			

Indicator	Zero stock-outs reported for new vaccines			
	Country	Baseline	Target	Progress to date
	Cook Islands	No	Yes	Not yet measurable as activities have recently begun.
	Kiribati	No	Yes	
	Nauru	No	Yes	
	Niue	No	Yes	
	Samoa	No	Yes	
	Tokelau	No	Yes	
	Tonga	No	Yes	
	Tuvalu	No	Yes	
	Vanuatu	No	Yes	
Indicator	Percentage of health facilities reporting no stock out of vaccines			
		Baseline	Target	Progress to date
		0	80%	No stock-outs reported
Result 3	Caregivers in nine PICTs have improved knowledge and skills to adopt recommended immunization practices			
Indicator	Communication and social mobilization plans for the introduction of new vaccines exist			
	Country	Baseline	Target	Progress to date
	Cook Islands	No	Yes	Yes
	Kiribati	No	Yes	Yes
	Nauru	No	Yes	Yes
	Niue	No	Yes	Yes
	Samoa	No	Yes	Yes
	Tokelau	No	Yes	Yes
	Tonga	No	Yes	Yes
	Tuvalu	No	Yes	Yes
	Vanuatu	No	Yes	Yes
Indicator	Number of mothers and caregivers receiving messages at least once on IMCI, including three new vaccines (annually)			
	Country	Baseline	Target	Progress to date
	Cook Islands	No	438	Indicator has not been measured to date
	Kiribati	No	3,649	
	Nauru	No	534	
	Niue	No	50	
	Samoa	No	7,683	
	Tokelau	No	50	
	Tonga	No	3,855	
	Tuvalu	No	367	
	Vanuatu	No	9,937	