Comprehensive Multi-Year Plan for Immunization

2016 to 2020

Solomon Islands

March 2016

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ACRONYMS

AHC	Area health centers
DFAT	Australian Department of Foreign Affairs and Trade
EPI	Expanded Programme on Immunization
Gavi	Gavi, the Vaccine Alliance
HCC	Honiara City Council
Hep-B	Hepatitis B vaccine
HIS	Health Information Systems
HPV	Human Papilloma Virus Vaccine
IPV	Inactivated Polio Vaccine
JRF	WHO/UNICEF Joint Reporting Format
MCV	Measles Containing Vaccine
MFAT	New Zealand Ministry of Foreign Affairs and Trade
MRV	Measles Rubella Vaccine
MHMS	Ministry of Health and Medical Services
NACC	National Advisory Committee on Children
NAP	Nurse Aid Posts
NRH	National Referral Hospital
PCV13:	Pneumococcal Conjugate Vaccine 13-valent
Penta	Pentavalent vaccine: DPT- Hepatitis B-HiB
PHC	Primary Health Care Clinics (includes AHCs, RHCs, and NAP)
PHCS	Primary Health Care Strategy
RMNCAH	Reproductive Maternal Child Adolescent Health
ROTA	Vaccine: Rotavirus Vaccine
RCHD	Reproductive and Child Health Division
RHC	Rural Health Center
SIG	Solomon Islands Government
TT:	Tetanus Toxoid Vaccine
Td:	Tetanus Diphtheria Vaccine

BACKGROUND

1.1 Country Profile

Solomon Islands is a double-chain archipelago of more than 900 islands in the south-west Pacific Ocean, east of Papua New Guinea and north of Vanuatu. Its total land mass of 28 400 square kilometers (km2), or 11 000 square miles, is widely scattered over 1.3 million km2 of the Pacific Ocean, with most of its smaller islands uninhabited. The capital city, Honiara, is located on the island of Guadalcanal. The ethnic groups consist of Melanesians (94.5%), Polynesians (3%), Micronesians (1.2%) and others (1.3%).

The country is divided into nine provinces and Honiara City Council (HCC). The estimated total population is 578,741(1) with 85,823 children under the age of five, and 18,031 under one year in 2015 (1).The country is highly dependent on subsistence farming and fishing, and 84% of the population lives in rural areas. The gross domestic product (GDP) in 2009 was US$ 1256 per capita. Life expectancy at birth is 64.9 for males and 66.7 for females (1). Although Solomon Islands has made good progress in the achievement of MDG 4 where under 5 mortality (U5MR) rate is 31 per 1000 live births and infant mortality rate (IMR) of 26 per 1000 live births (2) the country is still the highest in U5MR among the Pacific Island Countries.(3) Coverage with the first dose of measles-containing vaccine (MCV1) among one-year-olds is 77 (JRF)%,while coverage with three doses of combined diphtheria–pertussis–tetanus–hepatitis B–*Haemophilus influenzae* type b vaccine, or Pentavalent-3 (DPT-HepB-Hib), is 88% (2011).
Over the last few decades, the people of Solomon Islands have suffered from public health emergencies and disasters with increasing frequency and severity. The geographical location of the country, characteristics of the islands, weak health infrastructure and population vulnerability have exposed the people to hazards of tropical cyclones, flash flooding, Earthquakes and tsunami, outbreaks of diarrheal disease, dengue fever, rubella and measles. Since 2009, Solomon Islands experienced five natural disasters including big flash flooding in April 2014.
The levels of formal health system in the country include Ministry of Health and Medical Services at national level and Provincial Health Directorates which run and oversee the hospitals and Primary health care service delivery. At the zonal level, the Area Health Centre (AHC) is the highest level of primary health care clinic, usually staffed by five health workers (registered nurses or nurse aids) and provides basic outpatient and inpatient care. Rural Health Centre (RHC) generally has two staff, while Nurse Aid Post (NAP) is a small clinic staffed by one nurse aid. Approximately three-quarters of the population (74.3%) lives within one hour's travel time from the nearest health facility. Immunization services along with other primary health care services are delivered by a network of over 300 clinics – AHC, RHC, and NAP and by outpatient clinics based at provincial and the national hospitals. Registered nurses and nurse aids are the primary staff delivering immunization services

1.2 Political and socio-economic context/trends

Solomon Islands has been a constitutional monarchy and member of the Commonwealth of Nations, headed by Queen Elizabeth II, since attaining Independence, in 1978. The Monarch's representative in the Solomon Islands is the Governor General who is chosen by the Parliament

and serves a five-year term. Solomon Islands is a parliamentary democracy with a Unicameral National Parliament, comprising 50 members, each of whom represents a single-member geographic constituency.

Members of Parliament are elected using a "first-past-the-post" system for a four-year term but the Parliament may be dissolved earlier, and a new election held, if a majority of Members so decide (DFAT, 2014). Suffrage is universal for those aged 18 or over. The Prime Minister is elected by the Parliament and chooses the other Members of Cabinet. Each Ministry is headed by a Cabinet Minister. The senior career public servant in a Ministry is known as the Permanent Secretary. The most recent national election was held in November 2014. Preparations are currently underway for the next national election in 2018.Solomon Islands also has a system of provincial government. Each of the Country's nine provinces has its own elected Provincial Assembly which is empowered to pass ordinances that are not in conflict with national policy or legislation. Each Provincial Assembly is headed by an Executive which is, in turn, led by the Provincial Premier. Provincial Ministers are also appointed with specific portfolio responsibilities. The Provincial Secretary is the senior public servant at the Provincial level. Provincial governments are largely responsible for local services such as road maintenance and municipal services.

The national government is Responsible for the national functions of the state, which include policing, Schools and health service delivery. The Solomon Islands economy is based largely on subsistence agriculture Supplemented by cash cropping (cocoa and palm oil), fishing, forestry and mining. Most manufactured goods and all petroleum products are imported, although the country has substantial deposits of lead, zinc, nickel and gold which remain largely unexploited. Recent years have seen rapid growth in exports of timber which have led, in turn, to concerns that the rate of logging is unsustainable. For example, economic growth was over 10% in 2007 and 2011, but declined by nearly 5% in 2009 (IMF, 2014). Data from the 2009 Population and Housing Census, suggest that some 81 000 Solomon Islanders were in paid employment with a further 88 000 classified as "subsistence workers" and 41 000 "unpaid workers". The overall labor force participation rate was 63% (SISO, 2011b). According to the DHS (5), 40% of women and 77% of men aged 15 to 49 reported being regularly employed within the previous 12 months. The largest source of employment was the agricultural sector which provided 32% of total employment for women and 40% for men (1a-b) The country's total GDP was just under US$ 1.1 billion in 2013, making it one of the 17 smallest economies in the world, albeit one that is now classified as a lower-middle income country by the World Bank. The country is also highly aid dependent.

1.3 National Health care system

The levels of the formal health system in Solomon Islands include:

- **National**: Ministry of Health and Medical Services (includes the National Referral Hospital and National Medical Store)
- **Provincial**: Honiara City Council (HCC) plus and Provincial Health Directorates. The latter run and/or oversee a total of ten hospitals in 9 provinces. Guadalcanal province is serviced directly by the national referral hospital and the Good Samaritan Hospitals.

- **Area or (Medical) Zone: Area Health Centres** (AHC: n=33 including four Urban Health Clinics). AHC is the highest level primary health care clinic, typically staffed by five health workers (registered nurses or nurse Aids) and provide basic outpatient and inpatient care
- **Rural Health Centre (RHC)** (n=105) / **Nurse Aid Post** (NAP) (n=164): RHCs generally have two staff, while NAPs are small clinics staffed by one nurse aid. Officially NAPs are under the supervision of the nearest RHC, however in practice both are often overseen directly by the AHC

Seven of the nine provinces have a public hospital: Guadalcanal Province is serviced by the National Referral Hospital/Good Samaritan Hospital, and Rennell / Bellona Province has no hospital. Additionally, there is one private hospital in the Western Province, one in Malaita Province and one in Choiseul Province. This gives a total of eight public and three private hospitals throughout the country. The public hospital in Choiseul has recently upgraded from health centre status, while the Central Province Hospital is still without a doctor.
The health response needs to be tailored to the needs of specific locations. These range from geographically isolated islands such as Rennell and Bellona, to heavily populated areas of Malaita and urban Honiara. In Honiara, for instance, 100 per cent coverage has been attained for immunization and skilled birth attendance, unlike any other province. While this is good news coverage in HCC is due to population movement, and is inflating the figure for Honiara. The challenge in the capital is not only the availability of health services, but the need to move towards appropriate use of existing health services. The National Referral Hospital (NRH) redevelopment creates this opportunity. At present NRH is being used for both PHC and referred services a primary health care service, instead of specializing in referred services. Part of the solution to the pressure on NRH is to improve service coverage in the provinces.

1.4 National Health Strategic Plan 2016-2020:

The National Health Strategic plan of the Ministry of Health and Medical Services (MHMS) for the period 2016 to 2020, focuses on implementation(4). Immunization is listed as a priority intervention and listed as number one in the 2016-2020 National Health Strategic Plan. The Country's vision for health remains unchanged, as do the objectives of improved child and maternal health outcomes, addressing communicable diseases and responding to non-communicable diseases. Recognizing that Progress over the previous five years has been slow, the new plan identifies the approach to take, to improve the health of the people. This involves identifying priority interventions and making sure they reach the whole population. Parts of the health system are showing good progress, in other areas there appears to be little or no progress. The malaria and tuberculosis (TB) threats are decreasing. Most women when giving birth are attended by a skilled birth attendant. Also, some support services show improvement. Supplies distribution improved, audit and financial control improved and health information systems improved. Over the last period the resources available at the provincial level have increased.
Considerable challenges remain. The country is unlikely to reach the child survival MDG, a major imported measles outbreak occurred in 2014and many children remain malnourished. The contraceptive needs of many women are not met. The number of visits to health facilities is static.

The performance differs between provinces. Some provinces have high contraceptive use; high immunization rate and nearly 100 per cent supervised births. This level of performance now needs to be reached in all the provinces, for all priority conditions, and across all Area Health Centers (AHCs) within provinces. In other provinces the immunization coverage needs to be improved.

1.5 Expanded Programme on Immunization in SI+EPI Schedule.

The National Expanded Program on Immunization (EPI) policy has been revised in 1995, 2008 and in 2015 (6). Since the 2008 revision there have been significant achievements, challenges and changes for EPI in the Solomon Islands.

- Declared polio free, in conjunction with the other countries in the Western Pacific Region in 2000 and has remained polio-free since then.

- Endemic measles transmission was most likely interrupted in Pacific island countries and areas, following coordinated measles supplementary immunization activities (SIAs) since 1997. However, a nationwide imported measles outbreak occurred in 2014. Prior to this, the last measles outbreak occurred in 1994.

- Haemophilus influenzae type b **(**Hib) vaccine was introduced into the national immunization program as part of a pentavalent vaccine in July 2008. This has protected many children from pneumonia and bacterial meningitis caused by Hib.

- Measles-Rubella (MR) vaccine was introduced in 2012**,** replacing measles only vaccine, after nationwide supplementary immunization activities (SIAs) were conducted successfully for more than 64 000 children aged 12–59 months integrated with Vitamin A and Albendazole.

- Pneumococcal conjugate vaccine 13-valent (PCV 13) was introduced into the national immunization program in February 2015 to prevent diseases and reduce under-5 deaths due to pneumococcal bacteria.

- In line with the Polio Eradication and Endgame Strategy, inactivated polio vaccine (IPV) was introduced nationwide in October 2015.

- Human papilloma virus (HPV) vaccine demonstration project in two provinces (Honiara City and Isabel) targeting school age girls (9–12 years) to protect against cervical cancer was initiated in April 2015.

The Government of the Solomon Islands recognizes EPI as the most important strategy to reduce sickness and death among children. However, the need to achieve and sustain high immunization coverage for all vaccines persists.

As stated in the National EPI Policy revised and updated in 2015 the **aim** of the EPI in the Solomon Islands, remains to improve infant, child and maternal survival and health by preventing, controlling or eliminating targeted vaccine-preventable diseases.

1.5.1 Immunization schedule for infants and children

All infants are to be fully immunized against tuberculosis, diphtheria, tetanus, whooping cough, polio, measles, hepatitis B and Haemophilus influenzae type b disease, and pneumococcal pneumonia and meningitis according to the following routine vaccination schedule in Table 1.

Table 1Routine immunization schedule for all infants and Women of Childbearing age

Vaccination for Infants					**Women of Childbearing age**	
When to give	**Vaccine**				**Dose**	**When to Give**
Birth	Hep B	BCG			TT/Td1	At first contact or as early as possible during first pregnancy
6 weeks	Penta 1	OPV 1	PCV 1		TT/Td2	At least one month after first TT/Td1
10 weeks	Penta 2	OPV 2	PCV 2		TT/Td3	At first contact of 2nd pregnancy
14 weeks	Penta 3	OPV 3	PCV 3	IPV	TT/Td4	At first contact of 3rd pregnancy
12 months	MR 1				TT/Td5	At first contact of 4th pregnancy
Primary School (Class 1)	Td	OPV				

1.5.2 Immunization schedule for pregnant women

To prevent maternal and neonatal tetanus, pregnant women should be immunized according to the schedule in Table 2. Immunization should be supplemented by the promotion of clean deliveries by trained birth attendants, nurses and midwives.

1.5.3 Immunizations for health-care workers

Health-care workers are at high risk for acquiring certain infectious diseases, such as hepatitis B, measles and rubella. They can also spread these diseases to their patients (e.g. measles, rubella, seasonal influenza). Thus, vaccinating health-care workers is vital to protecting both the health-care workforce and the public.

- This policy applies to all health-care workers. A health-care worker is any person working in a health facility, including doctors, dentists, nurses, nurse aides, midwives, pharmacists, laboratory workers, cleaning/utility staff and supporting staff. Medical, nursing, midwife, pharmacy and dental students in pre-service training are also included as health-care workers.

- Every health-care worker should receive three properly-spaced doses of hepatitis B vaccine and one dose of measles-rubella containing vaccine. As new vaccines are added to the immunization programe, the Ministry of Health and Medical Services may consider if these new vaccines should be included as part of the health-care worker vaccination programme. Screening for antibodies prior to vaccination is not recommended.
- Vaccination of health-care workers should follow the schedule in Table 2.

Table 2 Immunization schedule for health-care workers

When to give	Hepatitis B*	Measles-rubella
0 months	X	X
One months after first dose	X	
At least six months after first dose	X	

*Minimum interval between vaccinations is one month.

- Vaccination should be given during pre-service training (medical and nursing schools) prior to contact with patients.
- Prior to employment, health-care workers should present documentation of vaccination against hepatitis B and MR, and if they have not been vaccinated they should receive the vaccinations before starting work (first dose of hepatitis B and MR).
- All health-care worker vaccinations should be documented in a vaccination card given to the worker and retained in their employment records.

The New Policy provides guidance also on some additional aspects of Immunization services provision such as:

- Vaccine and administration and immunization safety:- Adverse events following immunization(AEFI) monitoring and contraindications;
- Implementation: Diseases surveillance and outbreak control.
- Immunization data management.

1.6 Integrated delivery as part of the RMNCAH programme.

The National Mother and Child Health Plan (NMCHP) describe a balanced and integrated program that incorporates almost all of the 23 essential interventions proven to reduce child mortality in low income countries. The Plan emphasizes the strong immunization services that has been developed over years and sustained despite the recent civil conflict.

Monitoring and supporting the implementation of the NMCHP, as well as of the EPI program, is among the TORs of the National Interagency committee for family health whose official purpose is to determine strategic directions in order to accelerate achievements against paternal, maternal, newborn, child and adolescent health and nutrition issues in the Solomon Island through enhanced collaboration and coordination by government, non-government organizations, private sector and development partners.

An additional opportunity in the Solomon Islands is offered by the recent development of **a UN joint program (16) on Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH),** which aims at:

- Strengthening the Health System through RMNCAH,
- Improving selected services of RMNCAH services and outcomes:
- Developing an improved UN business model.

Specifically on component two above, concrete financial support appears to be allocated to EPI, to ensure increased coverage in all provinces and improved reporting; most of the effort of this program aiming at strengthening the health system, will also be beneficial to EPI.

1.7 Performance of cMYP in the Solomon Islands

1.7.1 Implementation of key activities planned in the "Solomon Islands National Plan for Immunization 2011-2015"

Table 3 Situation Analysis on EPI in Solomon Islands (1): Review of the status of implementation of Key Activities planned in the "Solomon Islands National Plan for Immunization 2011-2015"

■: implementation year (planned in cMYP, 2011-2015)
○: done / being done, ◎: completed, ×: not done / postponed, △: planned

Key activities	2011	2012	2013	2014	2015
A. Strengthening Routine Immunization Programme					
1. Strengthen the capacity of the AHC Supervisors through MLM training	○	○	x	x	x
2. Micro-planning workshops for the Provincial EPI Coordinators and AHC Supervisors		○	x	○	○
3. Revision of the supportive supervision check-list					○
4. Supervisory follow-up in priority AHCs by the Provincial EPI Coordinator	x	○	x	x	○
5. Develop a system to monitor the vaccination coverage at AHC level and identify AHCs with low vaccination coverage and weak EPI activities	x	x	x	x	x
6. Improve the quality of EPI data management at AHC and RHC through National EPI Review and on-site supportive supervision by the Provincial EPI Coordinators and AHC Supervisors	x	x	x	○	○
7. Institute the system for regular monitoring and monthly feed-back on vaccination coverage and EPI activities from the national and provincial to AHC level	x	x	x	x	x
8. Annual EPI Review by the national level	x	○	x	○	○
Vaccine supply quality and logistics					
9. Update cold chain inventory annually	○	○	x	○	○
10. Improve and monitor stock management at provincial and AHC levels	x	○	x	○	○
11. Replacement of cold chain equipment >10 year old	○	○	x	○	○
12. Replacement of gas refrigerator with solar refrigerator	○	○	x	○	○
13. Procurement of one 21 feet fiberglass boat for 27 AHCs	○	○	x	○	x
14. Procurement of one 4WD for selected 5 provinces (one per year)	x	○	x	x	x
15. Training on vaccine and logistics management for AHC	x	○	x	○	○

Key activities	2011	2012	2013	2014	2015
16. Set up a monitoring vaccine wastage network at sentinel sites	x	x	x	x	x
Advocacy and communications					
17. Conduct ICC meeting quarterly	o	o	o	o	o
18. Conduct National Child Health Day integrated with other child health intervention e.g. Vit.A, deworming, hand washing, malaria, etc.	x	o	x	o	o
19. Plan and implement outreach strategy	x	x	x	x	x
Programme management					
20. Build financial planning and management capacity	x	x	x	x	x
21. Review policies for outreach immunization services	x	x	x	x	o
22. Develop policies for regular supportive supervision from province to AHCs	x	x	x	x	o
23. Organize regular biannual EPI review meeting with provincial staff to review EPI performance					Δ
24. Conduct regular meeting with national medical store to review the vaccine management and distribution	o	o	o	o	o
B. Accelerated Control & Elimination of Specific Diseases					
Measles Elimination					
25. Improve MV1 coverage (target coverage >90%) through strengthening on-site supportive supervision by provincial EPI coordinators and AHC supervisors and conduct of mass media campaign and National Child Health Day	x	x	x	x	x
26. Conduct Measles Follow-up Campaign every three years (target coverage >95%)		o		o	o
27. Improve the quality of AFR surveillance activities including intensive investigation of suspected cases	x	x	o	o	o
Accelerated Hepatitis B control					
28. Improve quality of recording and reporting HepB-birth at all maternity facilities through training for midwives and clinic nurses and on-site supportive supervision by provincial EPI coordinators and AHC supervisors	x	x	x	x	o
29. Improve awareness on the importance of hospital delivery and on-time HepB-birth among parents, caregivers, the community and the health staff through conduct of mass media campaign and National Child Health Day	x	x	o	o	o
30. Conduct hepatitis B seorsurvey	x	x	x	x	x
Maintaining Polio-Free Status					
31. Improve OPV1-3 coverage (target coverage >90%)	o	x	x	x	x

Key activities	2011	2012	2013	2014	2015
32. Maintaining the quality of AFP surveillance activities	x	x	o	o	o
C. Surveillance					
33. Active surveillance for AFP, measles and MNT in all districts	o	X	o	o	o
34. Integrate measles / polio laboratory support, training, logistic and supplies	x	x	o	o	o
35. Regular monitoring of meningitis and pneumonia admissions in national and provincial hospitals	x	x	o	o	o
36. Establish sentinel surveillance sites for Hib and other potential diseases for which new vaccines may be available	x	x	x	x	x
D. Injection safety					
37. Improve district reporting of AD supply and use	o	o	o	o	o
38. Start monitoring health care waste disposal including safe disposal of AD syringes	x	x	x	x	x
39. Hold consultation on and develop a national policy on health care waste disposal including safe disposal of AD syringes		x	x	o	
E. Evaluation of new and underutilized vaccines					
40. Evaluation of disease burden due to pneumococcal vaccine					
41. cost-effectiveness analysis of pneumococcal vaccine					
42. National consultation on introduction of pneumococcal vaccine	x	x	o	o	o
43. Prepare vaccine inventory management and IEC activity			o	o	o
44. Actual introduction of pneumococcal vaccine into the routine immunization programme					o

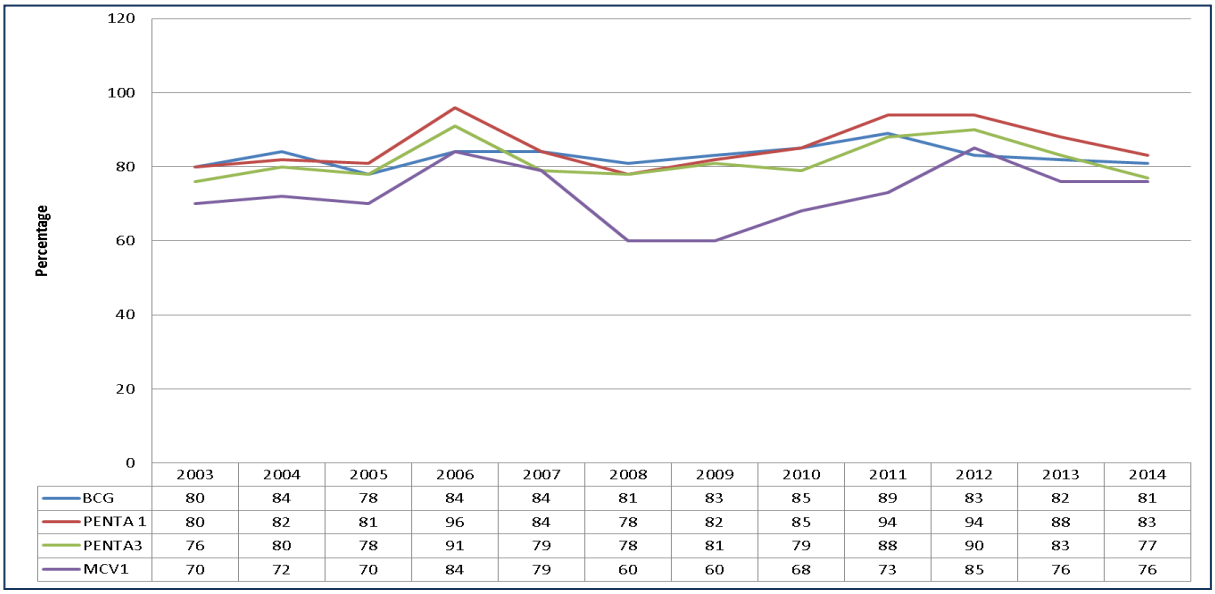
1.8 Routine Immunization Performance

1.8.1 Immunization coverage

Table 4 Immunization coverage (%) among one-year-olds, 1990–2014[1]

Antigen	1990	2000	2009	2010	2011	2012	2013	2014
Measles	70	87	60	68	72	77	68	76
DPT3	77	82	81	79	93	83	84	77
Hep B 3		77	81	79	76	90	84	77
Hib3			84	83	93	83	84	77

[1] *Source:* MHMS & WHO/UNICEF JRF www.who.int/immunization/monitoring_surveillance/data/en/



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
BCG	80	84	78	84	84	81	83	85	89	83	82	81
PENTA 1	80	82	81	96	84	78	82	85	94	94	88	83
PENTA3	76	80	78	91	79	78	81	79	88	90	83	77
MCV1	70	72	70	84	79	60	60	68	73	85	76	76

Figure 1 Routine Immunization coverage, Solomon Islands, 2003-2014.Source: 2013 Joint Reporting Form WHO/UNICEF, MHMS, Solomon Islands

During the last decade, year's routine immunization has not improved in the Solomon Islands. The data collected by WHO/UNICEF Joint Reporting Form (JRF) from 2003 to 2014 indicated a decline of coverage by all antigens in 2013 compared to 2012. In 2014 Penta 3 decreased by 7% but MCV1 increased by 9% compared with the coverage in 2013.

The national drop-out rate in 2014 using the indicator of Penta1-Penta 3 was 6%; while the drop-out rate using Penta 1-MCV1 was 8%. The highest drop-out of Penta1-MCV1 was seen in Renbel 47% followed by HCC 42% and the Western Province 12% and Temotu 11%.The other provinces have a drop-out rate of less than 10 %.

1.8.2 Immunization services

The EPI program is under the National Reproductive and Child Health Division of MHMS. It has a National EPI Manager and each province has a provincial child health coordinator, who is in charge of managing EPI in the Province. EPI collaborates with the Pharmacy Division for procurement of vaccines and logistics, and for maintenance and distribution of cold chain including fridges, cold boxes, vaccine carriers and spare parts to vaccine distribution centers (VDC) such as hospitals and health centers throughout the country. Routine immunization of infants and pregnant mothers is carried out by nurses and midwives at the hospitals, and at 300 Primary Health Centers: Area Health Centers, Rural Health Clinics, and Nurse Aid Posts at fixed sites once a week. Outreach activities are inadequate and are conducted on ad hoc basis. Vitamin A and albendazole have been distributed along with vaccines during clinics, outreach tours and campaigns.

Table 5 Number of health facilities by province, Solomon Islands, 2014

Province	Health facilities				Total
	Hospitals	AHC	RHC	NAP	
Central	1	3	4	15	23
Choiseul	2	1	10	13	26
Guadalcanal	1	6	13	24	44
HCC	1 (NRH)	4	6	6	17
Isabel	1	4	12	23	40
Makira	1	3	14	22	40
Malaita	2	4	25	44	75
Temotu	1	1	5	11	18
Western	2	5	22	32	61
National	**12**	**31**	**111**	**190**	**344**

During the last ten years routine immunization has stagnated and not improved in the Solomon Islands. The data collected by WHO/UNICEF Joint Reporting Form (JRF) from 2003 to 2013 indicated a decline of coverage by all antigens in 2013 compared to 2012. In 2014 Penta 3 decreased further by 7% but MCV1 increased by 9% compared with the coverage in 2013. As coverage rates seem to, more or less, correspond to the % of population having access to health facilities within one hour distance (74%, according to National Health Development Plan 2016-2020), it would appear logical to try and improve coverage in low performing areas and zones**, by increasing outreach services provision**. Essential as part of the effort would be to improve micro planning of services provision through the Reach Every District (RED) reach every community (REC) approach. Outreach immunization services, have not been implemented to scale previously, and this has limited achievements in the previous cMYP of Solomon Islands covering the period 2011-2015 (7)

1.8.3 Immunization demand

As shown above (figure 3), at least three provinces need to improve the dropout rate Penta1-MRV1 and a concerted effort at community level to increase demand will be needed. To this end improved involvement and partnerships with local Faith Based Organizations and NGOs will be necessary. Additional FBOs and NGOs would need to participate in the Family Health Coordinating Committee.

1.8.4 Immunization equity

As it appears that only 20% of Provinces have Penta3 coverage higher than 80% it is necessary to increase the overall amount of outreach services to reach the currently underserved populations. Due consideration will be given to develop a specific High Risk plan for the identification of the unreached communities and populations. It is a major issue the fact that the last Household Level Coverage survey was performed long time ago (2009).Important information to decide coverage improvement strategies and approaches will be available as soon as the results of the latest DHS 2015, will become available in early 2016.

1.8.5 New Vaccines introduction

The country has introduced some new vaccines between 2012 and 2015. Pentavalent (DPT-HepB-Hib) vaccines were introduced in 2012 with Gavi support. Pneumococcal conjugate vaccines (PCV) and Inactivated polio Vaccine (IPV) were introduced in 2015 also with Gavi support. The Honorable Minister of Health launched PCV in February and IPV was launched in October 2015. As pneumonia is a leading cause of morbidity and mortality in Solomon Islands, PCV introduction will help reduce the disease burden of pneumonia and consequently reduce child mortality. IPV was introduced as part of the global polio eradication initiative and as an end game strategy.

As part of the cervical cancer prevention strategy for the country supported by Gavi and other development partners, a HPV pilot demonstration was also launched in April 2015 in two provinces of Isabel and Honiara City Council targeting girls aged 9-12 years old through school and out-of-school strategies. Costing of the HPV pilot project and evaluations are being conducted in 2016 to guide decision for future scale up. This will fit into the national cervical cancer prevention and control strategy. Supporting the government, WHO and UNICEF have been working closely with PATH and ACCF for introduction of HPV demonstration project in HCC and Isabel Provinces.

The new immunization policy recommends the introduction of a second dose of Measles Rubella vaccine for infants at 18 months of age, into the national EPI schedule. The country is also considering scaling up HPV vaccination to all provinces after evaluation of the pilot and also introducing rotavirus vaccines into the national EPI schedule.

1.8.6 Demand generation & communication

Among the achievements of the current GAVI HSS grant is the conduct of immunization week advocacy with catch-up activities. Consultations with partners showed that the knowledge of the general population on immunization is still poor. This is mainly due to the lack of or insufficient information campaigns especially in low performing areas. One factor is the lack of staff even to provide basic services. Consultations for the development of the new GAVI HSS proposal for the period 2017-2021, have shown that civil society including churches, NGOs and the Red Cross can actually work at the community level to enhance communication and information and generate demand for immunization. Such partnerships must be strengthened in low-performing communities. Provincial and zone managers must have stronger capacity to facilitate, guide and monitor these partnerships. Churches and some NGOs also have volunteer community health workers who can disseminate information and identify families and children. Where there are existing facilities, routine immunization should be strengthened.

Interviews have noted that the main hindrance to service delivery is difficult access in remote areas because of poor road conditions or the need to take boats. In some cases, no financial capacity for transportation becomes a barrier. A study is currently being conducted to assess demand-side issues to health seeking and factors that affect health care demand. This study will guide the development of the National EPI Communication Strategy in 2016 and is

expected to give more observations on how demand or supply side factors could increase demand for health care.

Partnerships with churches and civil society have contributed to health information and communication, health education and advocacy, mobilization of communities and support for the delivery of basic health services including immunization. The MHMS is starting the Partnership Coordination Unit to facilitate strategic collaboration among development partners and ensure that all health activities are in line with the national agenda.

1.8.7 Program management

As highlighted by several review reports (10-11-12), major issues of routine EPI program management and the way forward can be summarized as follows:

EPI/IMCI technical committee

The existing EPI/IMCI technical committee composed of Ministry of Health and Medical Services, UNICEF and WHO should regularly monitor EPI activities, coverage and challenges at national, provincial, zonal and health facility level and forward practical solutions to strengthen routine immunization program in the country. The committee should continue to monitor and further implement the International EPI Review and EVM assessment recommendations of 2012. The committee should plan to conduct regular EPI review meetings at national and provincial level to address issues and map the way forward. The EPI committee has now become the Family Health coordinating Committee and due consideration is being given to expand its membership to include more FBOs and NOGs.

Routine EPI micro plans

There is a need to develop routine EPI micro plans for identified priority areas at national, provincial and zonal levels. Currently there is no routine EPI micro plan at all levels. Mapping of hard-to-reach and undeserved areas and strategizing to address issues remains an unresolved challenge as well as the need to improve forecasting at provincial and national level, to avoid stock-outs. There is lack of vaccine stock management and vaccines or diluents have been observed out of stock in health facilities. There should be a plan for adequate buffer stock.

Vaccination strategy

Currently the fixed vaccination sites in health facilities provide vaccination only once a week and this is inadequate and should be increased to at least to twice a week. In some provinces vaccinations are given on other days if requested by parents. Outreach activities are minimal, underfunded and are carried out only on ad hoc basis seriously hindering progress of routine immunization. Establish outreach vaccination sites through conducting microplanning for outreach activities for each health facility including ear marked sufficient budget, target population, selection of sites and number of vaccination sessions per month and active involvement of the community.

Conduct Periodic Intensification of Routine Immunization during Child Health Day (September) and World Immunization Week (April).

Supervision

The supervision and monitoring at provincial and zonal level is inadequate due to lack of microplanning, funding and transportation. EPI monitoring charts are available in booklets, but graphs are not properly done. The target population is not known at the level of health facilities and charts are incomplete and are not posted on the wall. Regular monitoring of immunization registers, EPI monitoring charts, vaccine stock register and temperature monitoring charts should be strengthened.

Develop a national plan fully costing needs for supervision and conduct regular supportive supervision from national to provincial and from provincial to zonal and health facility levels with on-the-job training.

Review and update supervisory checklist to be used as a monitoring tool to identify causes of poor performance in order to suggest actionable solutions.

Clarify roles and responsibilities of zonal supervisors.

Defaulter/drop-out tracing

The drop-out rate is very high particularly in HCC, Malaita and Central Islands. Defaulter tracing mechanism is in place but need strengthening in order to minimize drop-outs and missed opportunities and improve coverage. Currently there is no defaulter tracing mechanism. Find out the reasons for drop-outs and determine solutions by involving supervisors and community leaders. Conduct health education, social mobilization and communication activities. Trace defaulters using immunization register, immunization reminder box and drop-out rate monitoring chart and carry out house-to-house visit by health workers or social mobilizers.

Law and regulation: in this area one identified issue is the lack of a legislation supporting the identification of a line item for immunization in the government budget

The yearly EPI work plan is funded by Government even if the funds are provided by DFAT and as a positive development all provinces appear to have an annual EPI work plan. The issue is the inability to follow through all the steps of the planning cycle and implement plans successfully.

Lastly only on one occasion the issue of EPI was debated in parliament, which was when the last measles outbreak occurred in 2014.

Capacity building

1. There is need for regular basic refresher EPI training. There is knowledge gap in routine EPI among health workers.

Target population for routine immunization

2. Coordinate with the province to estimate the provincial number of target children based on multiple sources of data e.g. “Immunization Registry”, “Monthly Report of Health Activities” and records of births of the National Referral Hospital and provincial hospitals.
3. Strengthening the national system of birth registration.

Solomon Islands had a successful experience of introduction of new vaccines. In 2015; PCV, HPV and IPV have been introduced in February, March and in September /October 2015 respectively. Synergies with new vaccines in revising forms and guidelines together, training and social mobilization have been underlined.

MR second dose

Solomon Islands is one of three PICs without a second measles dose in its schedule, with the 2014 MCV1 coverage estimate by WHO-UNICEF at 76 per cent, and never having achieved 80 per cent MCV1 coverage for three consecutive years. Measles SIAs are conducted when the number of susceptibles increase to more than one birth cohort. With the current immunization coverage this happens once in three years. In 2003, many provinces conducted a third round of SIAs. This involved delivering measles vaccine to all children and catch-up vaccination with all the other vaccines. Then a follow-up SIA targeting all children aged one to four years, was carried out in 2006 and 2009 and 2012) Endemic measles transmission was thought to have been interrupted in the Pacific Islands following coordinated SIAs. In 2014 an imported measles outbreak occurred in Solomon Islands and a total of 4406 suspected and confirmed measles cases were reported. 38 cases were confirmed by serology. The genotype, was B3, which is circulating in Port Moresby where the index case came from.

1.9 Vaccine Management and Cold Chain

An Effective Vaccine Management Assessment (EVMA) was conducted in August 2012 to help improve the quality management of vaccines from national store down to the service delivery level. Such an assessment is also mandatory for receiving GAVI support for new vaccines.

The first assessment of vaccine management, using the Effective Vaccine Store Management (EVSM) tool at the national level and Vaccine Management Assessment (VMA) tool below the national level was conducted in 2009. The average score for the national level was 60% and at other levels was 48%.

Following the assessment, a series of recommendations were generated to improve the system in Solomon Islands. Recommendations have been implemented partially and the implementation rates need to be accelerated.

The 2012 EVM involved 10 Provincial vaccine store cold chain/vaccine managers and 15 EPI supervisors from national and province level. The central vaccine store, 9 Province vaccine stores (PVS), 18 Area Health Centre (AHC) Vaccine stores, and 16 Rural Health Centres / Nurse-aid-Posts (RHC-NAP) were assessed. The results were consolidated and analysed by the team leaders with the guidance of a consultant and are based on consensus reached by all the EPI co-ordinator, Cold Chain co-ordinator and all the EPI Supervisors / team members. The performance scores of each indicator for the different levels, the central vaccine store (CVS), the consolidated scores for 9 province vaccine stores (PVS), 18 Area Health Centres (AHCs) and 16 Rural Health Centre (RHCs) that were assessed is given in the table below.

WHO recommends achieving 80% performance for each of the nine indicators. However almost of the scores did not reach the recommended levels. The consolidated scores are shown in Table below. The last column in the Table provides the average. It is noted that none of the indicators have reached the recommended levels. Six of the nine indicators fall in critical level,

Table 6 Consolidated scores of EVMA (0-70% in red and >90% in green)

#	Indicator	Consolidated Scores				
		National	9 PVS	18 AHCs	16 RHCs	Average
1	Vaccine Arrival Process	71%	NA	NA	NA	71%
2	Vaccine Storage Temperature	39%	66%	57%	54%	57%
3	Storage Capacity	83%	67%	77%	67%	71%
4	Building, CC Equip. & Transport	78%	69%	68%	75%	71%
5	Maintenance & Repair	56%	57%	61%	42%	53%
6	Stock Management	34%	43%	34%	26%	33%
7	Distribution	36%	56%	42%	73%	56%
8	Vaccine Management Practices	50%	46%	23%	45%	36%
9	MIS & Supportive Functions	56%	25%	17%	NA	21%

As recommended by the EPI review of 2012 a replacement plan is being implemented in which all the provinces are involved, to replace gas operated refrigerators with solar powered units. The implementation of this plan is reported as slow due to administrative difficulties to clear refrigerators at central level and hence slow distribution to the provinces.
The next Effective Vaccine Management assessment is planned to be conducted in 2017.

1.10 Vaccines Preventable Disease Surveillance

Although surveillance of vaccine preventable diseases remains one of the weakest aspects of the EPI program in the Solomon's, more recently from 2012/2013 better collected and organized surveillance information has become available to program managers and policy makers**.** This was further strengthened during the measles (2014)and rubella (2012) outbreaks.

1.10.1 Acute Fever and Rash (AFR) surveillance/Measles Outbreak

In June 2014, an imported measles outbreak occurred in the Solomon Islands. Surveillance for AFR cases was strengthened A total of 4,406 suspected and confirmed measles cases was reported during the outbreak out of which 38 cases have been positive for measles specific IgM antibody and the genotype was B3, the same genotype circulating in Port Moresby from where the index case came. There were 9 measles-related deaths with a case fatality rate of 0.2%. The major burden of disease was in children under 1 year and in 15 to 19 year olds. The epicenter of the outbreak was Honiara, where 80% of the cases were reported. The outbreak started in Honiara, then spread to Guadalcanal and then to all provinces of the country. The outbreak was interrupted by end of 2014

Table 7 Distribution of measles cases by province, Solomon Islands, 2014

Province	Cases	Percent total	Rate per 10,000 population
Honiara	2590	56%	357.3
Guadalcanal	1073	23%	102.2
Malaita	752	16%	48.7
Western	46	1%	5.3
Renbell	45	1%	131.9
Isabel	102	2%	34.8
Makira	23	0%	5.1
Temotu	10	0%	4.2
Central	7	0%	2.4
Choiseul	6	0%	2.0
Total	**4654**	**100%**	**80.4**

1.10.2 Rubella outbreak

In 2012, there was a significant rubella outbreak in every province in Solomon Islands. Although very little information is known about the rubella outbreak in 2012, there were over 400 cases of AFR reported through the national syndromic surveillance system. The true number of cases could be much higher.. In 2013, congenital rubella syndrome (CRS) cases were identified at the National Referral Hospital in Honiara. Using the WHO case definitions, 13 cases of CRS were reported. Six cases had serological testing and two cases were confirmed IgM positive and four cases were IgM negative. The mothers were between 20 and 36 years of age. Three of the 6 mothers who were interviewed recalled a rash illness in the first trimester of pregnancy. Rubella/CRS is targeted for elimination. In 2014 one case of CRS was detected during active case search in the National Referral Hospital

MR campaign was conducted in 2012 and first dose MR vaccine was introduced in the routine EPI in 2013. The time of introduction of the second dose MR in the routine EPI is being discussed by the EPI technical committee and it has not yet been finalized.

1.10.3 Acute Flaccid Paralysis (AFP) and Neonatal Tetanus (NT) surveillance

The Solomon Islands was declared polio free, in conjunction with other countries in the Western Pacific Region in 2000. Incidence of polio and neonatal tetanus has been sustained at zero level. Solomon Islands adopted the global strategy for polio eradication and has been implementing the strategies since then. Maintaining polio free status till achievement of global polio eradication is one of the strategies of the multi-year immunization plan of the country.

To strengthen the VPD surveillance, refresher training on VPD surveillance was conducted starting 2013. Over the last five years starting 2011 through 2015, Solomon Islands reported three, zero, one, six and nine AFP cases (non-polio AFP rates 1.5, 0, 0.5,3 and 4.5 respectvely) through Hospital Based Active Surveillance (HBAS) system. WHO has been supporting active case search and clinician sensitization in National Referral Hospital in Honiara, Good Samaritan Hospital in Guadalcanal, Kilu'ufi Hospital in Malaita, Boala Hospital in Isabel and Gizo Hospital in Western Province. .Neonatal tetanus case was not detected during active search.. Clinician sensitization was conducted during active cases search.

A surveillance officer to support VPD surveillance is now available in the MHMS. One other professional is assigned to work on surveillance and sits in the office of WHO surveillance unit. There are two surveillance systems viz Hospital based active surveillance (HBAS) and syndromic surveillance systems. The purpose of HBAS is to report AFP, AFR and NT cases. The HBAS has 5 sentinel sites in 3 provinces andneeds further strengthening. Active case search supported by WHO in 2014 revealed four AFP cases were missed in national referral and one case was also missed in Kilu'ufi Hospital in Malaita. The syndromic surveillance system has 9 sentinel sites in 6 provinces and does not report AFP and neonatal tetanus which are targeted for eradication and elimination respectively. Four provinces have no surveillance system in place.

The syndromic surveillance system reports Acute Fever and Rash, Diarrhea, Influenza-like Illness, Prolonged Fever and dengue-like illness. Each syndrome has a case definition and a threshold for action. The number of cases (including zero reports if there have been no cases) arereported on weekly basis. Unusual Events are also included in the report. The purpose of syndromic surveillance is to detect and respond to outbreaks on time. The table below depicts the nine sentinel sites of syndromic surveillance..

Table 8 Syndromic surveillance

SNo.	Province	Name of sentinel sites	Number of sentinel sites
1	Honiara City Council (HCC)	National Referral Hospital (NRH)	4
		Mataniko AHC	
		Kukum AHC	
		Rove AHC	
2	Malaita	Kilu'ufi Hospital	1
3	Western	Gizo Hospital	1
4	Guadalcanal	Good Samaritan Hospital	1
5	Choiseul	Taro Hospital	1
6	Temotu	Lata Hospital	1
Total			**9**

Actions needed to strengthen VPD surveillance

1. Strengthen the technical capability of the surveillance officer within the National Ministry of Health and Medical Services who supports the national coordinator.
2. Further strengthen the VPD surveillance in all the provinces.
3. Establish surveillance unit; identify provincial surveillance officer/focal person and at least one HBAS sentinel site each in the four provinces without surveillance system in a phased manner. The Provincial Health Services will identify the respective provincial surveillance officer

Table 9 HBAS new sentinel sites in four provinces

S. No.	Province	Name of sentinel sites	Number of sentinel sites
1	Central Islands	Tulagi Hospital	1
2	Makira	Kirakira Hospital	1
3	Isabel	Boala Hospital	1
4	Renbell	Tingoa AHC	1
Total			**4**

Immunization safety: Auto disable (AD) syringes are used everywhere for immunization. .
The National AEFI system has developed AEFI guidelines and capacity building of staffs done at all levels and guidelines available in the clinics. Serious adverse events have not been reported and investigated. The AEFI system needs strengthening and health facilities to be encouraged to submit monthly reports including zero reports.
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1.11 Summary of EPI Review Findings and Recommendations

Table 10 Summary of findings and recommendation of EPI review

Findings	Recommendations
Each province provided different estimates for the number of target children based on review of"Immunization Registry" compared to the Government based on the 2009 Census with the national birth rate	Establish a national system of birth registration
The cold chain system has been established from national to health center levels in Solomon Islands. However some health centers had either no or non-functional refrigerator.	Reassess the cold chain status of health facilities, develop a replacement plan with costing, and designate and protect the budget planned for maintenance at health facility level.
	Forecast and procure vaccines based on targets and needs
(i) Outreach, (ii) supervision, and (iii) transportation of vaccines & supplies are underfunded, which are seriously hindering further improvement of EPI in Solomon Islands	Develop a national EPI plan including costings for outreach, supervision and transportation at subnational level and earmarking sufficient funds for the above needs for each province.

Information and data available for EPI are both inconsistent (particularly vaccination coverage) and not fully utilized. Data management capacity is weak at both national and sub-national levels	Strengthen data management at all levels.
No protocol for adverse event following immunization (AEFI) has been developed	Develop national guidelines and conduct training for health staff from national to health centre levels on AEFI management and reporting.
Appropriate equipment for disposal of immunization waste is not available at health centers	Provide waste disposal equipment (e.g. drums, incinerators) to health facilities, and strengthen capacity-building at all levels
Micro-planning has been initiated properly by HCC while not observed in other provinces	• Ensure all health facilities develop EPI microplans to identify and vaccinate more eligible children.
Supervision, particularly on-site “supportive” supervision, has been not yet established systematically in all provinces	Strengthen regular supportive supervision.

1.12 National Immunization Priorities, Objectives and Milestone for Solomon Islands 2016-2020

Based on situational analysis conducted in section 2 of this document, current program performance and lessons learnt from implementation of the previous cMYP 2010-2015, the immunization program has proposed its priorities in line with the Solomon Islands National Health Strategic Plan 2016-2020. The table below contains the priorities with key objectives of the EPI program for 2016-2020 which will guide the development of the overall activities and timelines for the period 2016-2020.

Table 11 showing national immunization priorities, objectives and milestones for 2016-2020

National Priority or Key Issues	Current Performance	Objectives	Milestones
Immunization coverage	DPT/Penta 3 Coverage stagnating at around 75-80% for almost a decade. Few outreaches happening.	Improve Penta3 and other vaccines coverage >90% in all zones by 2020	**2017**: 50% of low performing zones achieve Penta3 coverage of >80% **2020**: >90% coverage and all provinces conducting outreaches
New Vaccines Introduction	From 2012 to 2015 Pentavalent, PCV, IPV and HPV demo has been introduced. Measles and diarrhea outbreaks in 2014 and 2015 respectively	Introduce Measles Second Dose, Rotavirus vaccines and HPV Nationwide	2018: HPV, Rota and MSD vaccines introduced
Human Resource	>15% of clinics closed due to shortage of human resources	Ensure >90% of clinics have skilled vaccinators at any given time	**2020**: >90% of clinics have human resource to provide quality immunization
Capacity Building	EPI not part of health workers curriculum and more health workers need training on immunization.	Continuously build health worker immunization capacity annually and orient new health workers on EPI	**2020**: All health workers have received training/orientation on EPI
Supportive Supervision	More supervision from National team and less by provincial and zonal	Ensure at least quarterly supervisory visits by national and provincial teams	**2018**: Atleast one provincial visit by national team to each of the provinces **2020**: All provinces conduct quarterly supervision to all clinics
Updated Policies	National immunization policy;	Relevant Immunization Policy	**2018**: National immunization

	vaccine and cold chain policy and the comprehensive Multiyear Plan under review. Zero dissemination of policy documents.	documents are updated and disseminated to health workers	Policy & Vaccine Cold Chain Policy updated and disseminated.
Planning and Coordination	National and provinces have annual EPI plans. Family Health Committee/ICC meets 4 times a year. Review meetings not happening at the provinces.	Strengthen planning and coordination of Immunization program at national and provincial levels	**2018**: All provincial teams have quarterly EPI review meetings **2018**: Very strong coordination between national and provincial EPI teams
High Level Advocacy	Parliament and cabinet not regularly updated on immunization program performance except during the 2014 measles outbreak.	Ensure regular interaction and engagement of National Parliament and Provincial MPs	**2020**: Both National and Provincial MPs are fully engaged in Immunization
Financial Sustainability	About 53% of vaccine budget funded by government. No line item for vaccines in the national budget as yet.	Increase government ownership and sustainable funding for the program	**2018:** Budget line for vaccines in national budget **2020**: National and Provincial government funding for immunization program is >80%
Vaccines and Supplies	Regular supply with no stock outs at the national level. Occasional stock outs lower levels	Maintain uninterrupted vaccines supply at national and provincial levels	**2020**: No stockouts reported at the national and provincial levels.
Cold Chain and Logistics	About 60% of clinics have functional cold chain equipment with more than half being gas fridges.	Increase cold chain capacity to sufficient levels	**2018**: Gas fridges replaced in 5 provinces **2020**: > 85% cold chain capacity
Waste Disposal	Injection and other health waste disposal policy and plan available.	Update vaccine waste management policy and disseminate	2017: Policy review conducted
Routine VPD Surveillance	Five sentinel sites available with only one reporting regularly. AFP detection rate good.	Strengthen and expand VPD surveillance system	**2018**: Two more sentinel sites established **2020**: five new sentinel sites established
Immunization data quality	Some discrepancies between administrative and survey coverage figures. DHIS2 data	Improve data quality and use of data for action	**2018**: DHIS2 data used for reporting and action

	needs to be complete and timely		National immunization coverage survey conducted
Immunization safety and AEFI monitoring	Vaccines currently bundled with syringes. AEFI system needs to be active.	Strengthen AEFI monitoring system	**2017**: AEFI system fully active and operational-all provinces reporting.
Demand generation activities	Routine immunization commutation plan not available	Increase demand and community ownership of immunization services	**2017**: Communication strategy & high risk plan for EPI developed and being implemented

1.13 National Objectives, Strategies, Key Activities and Timeline

This section constitutes the actual cMYP work Plan for the period 2016-2020 and describes appropriate key activities for each strategy that contributes to achieving the set Objectives by EPI Program Component; a related implementation timeline is also included.

Table 12 showing the National Immunization Objectives, Strategies, key activities and timelines for 2016-2020

Objectives	**Strategies**	**Key activities**	**Year**				
			2016	**2017**	**2018**	**2019**	**2020**
1. Improve Penta3 and other vaccines coverage >90% in all zones by 2020	1.1 Using the RED/REC approach, perform more outreaches, with microplanning at zonal and provincial levels, nationally supported.	1.1.1. Map high risk/hard to reach areas	X	X	X	X	X
		1.1.2. Strengthen RED strategy capacity for priority provinces and zones.	X	X	X	X	X
		1.1.3. Support the development and implementation of routine micro plans in low performing provinces and sub provincial level up to AHCs.	X	X	X	X	X
		1.1.4 Support clinics to conduct at least one extensive outreach session per quarter	X	X	X	X	X
	1.2 Intensified outreach efforts through RED/REC	1.2.1 Develop micro plans and conduct outreach activities at clinics	X	X	X	X	X

		1.2.2 Monitor antigen coverage quarterly	X	X	X	X	X
		1.2.3 Perform periodic (quarterly at provincial & annually at national) reviews	X	X	X	X	X
	1.3 Explore innovative strategies at increasing and improving service deliveries	1.3.1 Identify innovative strategies for improving immunization coverage	X	X	X	X	X
		1.3.2 Implement new strategies to improve vaccination	X	X	X	X	X
2. Introduce Measles Second Dose, Rotavirus vaccines and HPV Nationwide	2.1 Request donor Gavi support and conduct a nationwide MSD introduction by 2017	2.1.1 Apply for Gavi support and introduce MSD	X	X	X		
	2.2 Request donor Gavi support and conduct a nationwide HPV introduction by 2017 or 2018	2.2.1 Based on CBA report, apply to Gavi and scale up HPV vaccine nationwide		X	X		
	2.3 Request donor Gavi support and conduct a nationwide Rota introduction by 2017 or 2018	2.3.1 Apply to Gavi and introduce Rotavirus vaccine	X	X	X		
3. Ensure >90% of clinics have skilled vaccinators at any given time	3.1 Health worker recruitment and capacity development in immunization service delivery	3.1.1 continue to advocate to management in MHMS to fill vacant positions	X	X	X	X	X
		3.1.2 Develop and implement a standard training package for newly enrolled staff.	X	X	X	X	X
		3.1.3 Ensure curriculum reviews in Medical and Allied health sciences schools	X	X	X	X	X
4. Continuously build health worker immunization capacity annually and orient new health workers on EPI	4.1 Refresher training and orientation for health workers delivering EPI services	4.1.1 Annual regular refresher training for health workers	X	X	X	X	X
5. Ensure at least quarterly	5.1 Ensure adequate	5.1.1 Supportive supervision	X	X	X	X	X

supervisory visits by national and provincial teams	supportive supervisory visits takes place	plans developed and implemented by national and provincial teams					
	5.2 Regularize use of revised supervisory checklist	5.2.1 Quarterly reports of visit are prepared and submitted regularly	X	X	X	X	X
6. Relevant Immunization Policy documents are updated and disseminated to health workers	6.1 Keeping relevant immunization policy documents up to date	6.1.1 Revise and update EPI and vaccine policies with latest recommendations	X	X	X	X	X
		6.1.2 Print and disseminate to all immunization health workers	X	X	X	X	X
	6.2 A health worker vaccination schedule to include Hep-B and MR vaccines	6.2.1 Engage MHMS & relevant health worker councils on need for vaccinations	X	X			
		6.2.2 Develop a plan of implementation	X	X	X		
		6.2.3 Vaccinate all health workers at point of recruitment with MR and Hep. B vaccines		X	X	X	X
		6.2.4 Catch up vaccination for all health workers		X	X		X
7. Strengthen planning and coordination of Immunization program at national and provincial levels	7.1 Improve monitoring component of Planning, through development of ME framework as part of Plan.	7.1.1 Develop a cMYP Monitoring and Evaluation framework for Immunization	X				
		7.1.2 Use framework to regularly monitor program implementation	X	X	X	X	X
	7.2 Improve quality of planning cycle at provincial level	7.2.1 Develop a provincial M&E framework as part of Plan.	X				
		7.2.2 Use framework to regularly monitor program implementation at provincial level.	X	X	X	X	X
	7.3 Maintain the practice of the Yearly work plan (Annual Operational Plans) funded by Gov't	7.3.1 Develop and implement Annual Operational Plans for EPI at National and Provincial levels	X	X	X	X	X
	7.4 Maintain current	7.4.1 Convene quarterly	X	X	X	X	X

	practice of Family Health Committee quarterly meetings.	meetings of the ICC/Family Health Committee with minutes					
	7.5 Include FBO, NGOs, and Rotary as members of Family health committee.	7.5.1 Identify focal person from FBO and NGO to be a member of FHC, ensure participation	X	X	X	X	X
	7.6 To perform a comprehensive international EPI program Review five years after the last one in 2012	7.6.1 Discuss and engage stakeholders	X	X			
		7.6.2 Develop a plan and conduct review		X	X		
8. Ensure regular interaction and engagement of National Parliament and Provincial MPs	8.1 MHMS to prepare a Cabinet Discussion Paper	8.1.1 Annual presentations to the parliament to stimulate discussions and engagement	X	X	X	X	X
9. Increase government ownership and sustainable funding for the program	9.1 Budget line item in Gov't Budget for vaccines	9.1.1 Create a vaccines budget line item in the budget	X	X			
	9.2 Sustain Government financing for traditional vaccines	9.2.1 Regularly commit funding for traditional vaccines	X	X	X	X	X
	9.3 Increase Government Financing for new vaccines	9.3.1 Gradually increase government spending for new vaccines	X	X	X	X	X
10. Maintain uninterrupted vaccines supply at national and provincial levels	10.1 Maintain no vaccine stock outs at the national medical stores	10.1.1 Ensure timely and accurate vaccine forecasting	X	X	X	X	X
	10.1 Improve stock reliability at provincial/peripheral level	10.1.1 On the job and refresher vaccine management training for all provincial officers	X	X	X	X	X
		10.1.2 Ensure timely and adequate distribution plans to the provinces and clinics	X	X	X	X	X
		10.1.3 Support and monitor use of stock record books and inventory management.	X	X	X	X	X
		10.1.4 Intensify supervision of staff vaccine management skills	X	X	X	X	X
11. Increase cold chain	11.1 Continue	11.1.1 Increase number of PHC	X	X	X	X	X

capacity to sufficient levels	implementing recommendations of 2012 EVMA	facilities with more than 80% score as per last EVM					
		11.1.2 Continue replacement of Gas fridges in health facilities	X	X	X	X	X
		11.1.3 Improve the Percentage of provinces with adequate numbers of appropriate and functional cold-chain equipment	X	X	X	X	X
	11.2 Conduct EVMA in 2017	11.2.1 Develop EVMA plan for 2017		X			
		11.2.2 conduct assessment and develop report/improvement plan		X			
	11.3 Prioritize procurement and installation of new CCEs in hard to reach areas	11.3.1 Procure and distribute passive and active (long holdover) cold chain equipment	X	X	X	X	X
	11.4 Effective cold chain maintenance plan	11.4.1 Regular routine and corrective cold chain maintenance	X	X	X	X	X
	11.5 Provide additional transportation boats to all provinces and cars to at least 5 provinces	11.5.1 Procure ad distribute boats to provinces	X	X	X	X	X
		11.5.2 Procure and distribute cars to select provinces	X	X	X	X	X
		11.5.3 Fuel and other maintenance costs	X	X	X	X	X
12. Update vaccine waste management policy and disseminate	12.1 Reflect EPI needs in the current hospital waste management policy	12.1.1 Revise existing policy to make it specific for EPI, in collaboration with National Infection control unit	X	X			
		12.1.2 Produce and disseminate revised policy to health workers		X	X	X	
	12.2 Ensure increased availability of disposal equipment	12.2.1 Procure distribute and install waste disposal equipment	X	X	X	X	X
13. Strengthen and expand VPD surveillance system	13.1 Exceed the expected surveillance indicators for AFP and AFR	13.1.1 Recruit Surveillance Officer to support sentinel sites	X				
		13.1.2 Conduct active Hospital based surveillance refresher	X		X		X

		training for HBAS officers					
		13.1.3 Expand number of sentinel sites to 1 per province and ensure regular reporting		X	X	X	X
	13.2 Improve lab support for investigation of suspected measles cases	13.2.1 Establish regular link with NRH laboratory to support investigation of suspected cases	X	X	X	X	X
	13.3 Increase the number of hospitals where perinatal audit work performed	13.3.1 Identify suitable professional at National level that can support the field units	X	X	X		
		13.3.2 Start Perinatal audit work at Central Hospital		X	X	X	X
14. Improve data quality and use of data for action	14.1 Support the Health Information System Unit to strengthen data quality and reporting	14.1.1 Strengthen capacity of child health information Officer through funds and logistics support	X	X	X	X	X
	14.2 Validate Immunization data through reviews and surveys	14.2.1 Conduct data quality reviews	X	X	X	X	X
		14.2.2 To perform a national immunization household coverage survey		X			
15. Strengthen AEFI monitoring system	15.1 Strengthen implementation of guidelines on AEFI surveillance and capacity building of health professionals						
		15.1.2 Conduct AEFI training in the province and sub provincial level.	X	X	X	X	X
	15.2 Regular reporting of AEFI and investigations	15.2.1 Monitor monthly reporting of AEFI including zero reporting	X	X	X	X	X
		15.2.2 Ensure serious AEFI cases reported and investigated	X	X	X	X	X
16. Increase demand and community ownership of immunization services	16.1 Through development and implementation of IEC plan and effort, achieve	16.1.1 Develop communication strategic plan	X	X			
		16.1.2 Rollout implementation		X	X	X	X

	higher levels of demand	of communication plan					
	16.2 Implement Key communication and demand generation activities	16.2.1 Annual launch of immunization week in province and region levels.	X	X	X	X	X
		16.2.2 Conduct child health days	X	X	X	X	X
	16.3 Develop and implement one National High risk plan for disadvantaged communities	16.3.1 Map hHigh risk communities through GIS approach	X	X			
		16.3.2 Develop and cost high risk plan	X	X	X		
		16.3.3 Implement high risk plan			X	X	X

1.14 Monitoring and Evaluation Framework

Table 13 Monitoring and Evaluation Framework

Priority Areas	Indicators	Source of Data	Baseline	Targets				
			2014	2016	2017	2018	2019	2020
Immunization Coverage	Penta3 vaccine coverage	DHIS2 & Administrative Reports	77%	87%	90%	92%	95%	**99%**
	MR vaccine coverage	DHIS2 & Administrative Reports	76%	87%	90%	92%	95%	**99%**
	Number of provinces with DPT1-DPT3 drop-out rate <10%	DHIS2 & Administrative Reports	6	7	7	7	8	**9**
	Number of provinces with DPT1-MR drop-out rate <10%	DHIS2 & Administrative Reports	5	6	6	7	8	**9**
New Vaccines Introduction	Nationwide HPV vaccines introduction	DHIS2 & Administrative Reports	(2 provinces)	None	Yes	Yes	Yes	Yes
	Nationwide MSD vaccines introduction	DHIS2 & Administrative Reports	No		Yes	Yes	Yes	**Yes**
	Nationwide Rota vaccines introduction	DHIS2 & Administrative Reports	No	No	Yes	Yes	Yes	**Yes**
Human Resource	Proportion of clinics with skilled Vaccinators	DHIS2 & Administrative Reports	80%	85%	87%	90%	92%	**95%**
	Curriculum review to incorporate EPI	School curricula	No	Yes	Yes	Yes	Yes	**Yes**
Capacity Building	Orientation package for new health workers	Administrative data	No	Yes	Yes	Yes	Yes	**Yes**
	Annual refresher for health workers	Training reports	Yes	Yes	Yes	Yes	Yes	**Yes**

Supportive Supervision	Number of Provinces with supportive supervision plans	Administrative reports	5	9	10	10	10	**10**
	Number of Provinces conducting quarterly supervision	Administrative reports	3	8	10	10	10	**10**
Updated Policies	cMYP up to date	Administrative reports	No	Yes	Yes	Yes	Yes	**Yes**
	Proportion of clinics with updated National Immunization Policy	Administrative reports	0%	100%	100%	100%	100%	**100%**
	Proportion of clinics with updated National Vaccine Cold Chain policy	Administrative reports	0%	100%	100%	100%	100%	**100%**
	Health worker vaccination schedule implemented	Administrative reports	No	Yes	Yes	Yes	Yes	**Yes**
Planning and Coordination	Number of provinces conducting quarterly EPI review	Administrative reports	0	5	7	9	10	**10**
	cMYP M&E framework developed and monitored	Administrative reports	No	Yes	Yes	Yes	Yes	**Yes**
	Provinces with >80% implementation of AOPs	Administrative reports	0	5	7	9	10	**10**
High Level Advocacy	Annual presentation of EPI performance to Parliament	Administrative reports	No	Yes	Yes	Yes	Yes	**Yes**
Financial sustainability	Budget line for vaccines in the national budget	Administrative reports	No	Yes	Yes	Yes	Yes	**Yes**
	Proportion of national and provincial government funding for immunization	Administrative reports	25	40%	55%	70%	85%	**90%**
Vaccines and Supplies	Vaccine stock outs at national level	Administrative reports	No	No	No	No	No	**No**
	Number of provinces with vaccine stock outs	Administrative reports	3	1	0	0	0	**0**
Cold Chain & Logistics	Number of gas fridges replaced	Administrative reports	10	10	10	10	10	**20**
	National cold chain capacity	Administrative reports	60%	70%	75%	80%	85%	**90%**

	EVMA Improvement plan implementation rate[2]	EVMA Improvement Plan Report	50	70%	30%	50%	70%	**80%**
	Number of provinces with 5 or more new boats or truck for service delivery	Administrative reports	3	5	6	7	8	**9**
	Number of Provinces visited by the Cold Chain Manager in a year	Administrative reports	0	6	8	10	10	**10**
Waste Disposal	Updated Waste Management Plan	Administrative reports	No	Yes	Yes	Yes	Yes	**Yes**
	Provinces with proper injection waste disposal equipment (incinerators)	EVMA Improvement Plan Report	2	5	6	8	10	**10**
Routine VPD Surveillance	Number of functional HBAS sites	Surveillance reports & DHIS 2	5	6	7	8	10	**10**
	Monthly regular reporting of HBAS data	Surveillance reports & DHIS 2	50%	80%	100%	100%	100%	**100%**
Immunization data quality	Number of provinces with timely and complete data	DHIS 2	2	6	7	8	9	**10**
	Data quality reviews conducted	DHIS 2 & Administrative report	No	Yes	Yes	Yes	Yes	**Yes**
	National Immunization Coverage survey conducted	Coverage Survey report	No	No	Yes	Yes	Yes	**Yes**
Immunization Safety and AEFI monitoring	Number of provinces reporting and investigating AEFI	DHIS 2 & Administrative reports	0	6	8	10	10	**10**
Demand Generation Activities	EPI communication strategy developed and implemented	Strategy Document/ Administrative Report	No	Yes	Yes	Yes	Yes	**Yes**
	National High Risk Plan developed and implemented	Administrative report	No	Yes	Yes	Yes	Yes	**Yes**

[2] New EVMA to be conducted in 2017 and implementation starts in 2018

COSTING AND FINANCING OF THE IMMUNIZATION PROGRAM

The Solomon Islands Immunization program benefits from both government and partner support. Core funding of the system and the human resources needed for health care service delivery are borne largely from the SIG core resources and some Australian DFAT funds through the Health System Strengthening Program (HSSP) bilateral support. Gavi funding constitutes the largest operational funds support to the program with additional resources from UNICEF and WHO.

Vaccine and supplies cost are paid for by government and DFAT resources with Gavi supporting the new and underutilized vaccines streams. However, as traditional vaccines are much cheaper than new vaccines, Gavi funding for the cost of vaccines and supplies constitute a major proportion of the overall vaccines cost. At present, there is no budget line item for vaccines and no legislation identifying sources of public revenue for Immunization financing, however the MHMS has showed its readiness and commitment to pursue these vigorously. Approximately 60% of total routine vaccination spending is financed by Government funding (as transaction of aid funds from DFAT)

1.15 Costing of the Multi Year Plan

The Multi-Year Plan was costed using the 2014 cMYP costing and financing tool. Data sources included document references listed in this cMYP and particularly the EVMA 2012, the EPI program review of 2012 and the GAVI HSS draft proposal for the period 2017-2020 and the Gavi Joint Appraisal mission report of June 2014. The information was used to Identify and quantify immunization specific inputs and some health system costs. Guided assumptions were made in preparing the costing:

1. Coverage targets and wastage rates, which are used to calculate the future costs of vaccines and injection supplies were estimated for the following: BCG, bOPV, DTP-HepB-Hib, TT+ (Children), TT+ (Pregnant women), PCV, HPV,MRV, Rotavirus, IPV.
2. National EPI Technical officer and VPD surveillance officer will have the same gross monthly wage as the National EPI coordinator.
3. There will be no additional central level personnel recruitment beyond 2016.

The following assumptions were made with regards to the financing:

1. For the baseline year, all categories which were left with a funding gap, after the country provided basic information on funding and funding sources, for cost categories, were assumed to have been filled by the government.
2. All donor financing for the year 2016, is based on the annual operational plan.
3. Donor financing for the years 2017-2020 is based on the Gavi HSS proposal, as well as the assumed continuation of WHO, UNICEF and a Joint UN RMNCAH funding in the same categories and in the same amounts. This funding is expected but is not necessarily secured.
4. All future years funding gaps after donor support are assumed to be filled by the government either directly or by generating more partner support.

1.15.1 Baseline Cost Profile – Routine

The baseline year for the Solomon Islands 2016-2020 cMYP is 2014. The table below summarizes the costs for the baseline year 2014. The table shows that the total baseline cost of the cMYP is US$ 1,123,785 excluding the cost of SIAs. Personnel costs are the highest cost in 2014.

Table 14 Baseline Costs for Routine Immunization, 2014

Cost category	**Baseline Year 2014**	
		US$
Traditional Vaccines	$	89,212.00
Underused Vaccines	$	-
New vaccines	$	80,000.00
Injection supplies	$	14,876.00
Personnel	$	663,876.00
Transportation	$	22,573.00
Other routine recurrent costs	$	208,782.00
Vehicles	$	-
Cold chain equipment	$	-
Other capital equipment	$	44,466.00
Routine Immunization Activities	**$**	**1,123,785.00**
Supplemental immunization activities	**$**	**629,540.00**

A graphical presentation of the baseline cost (Figure 3) shows personnel costs are 59% of the total costs as described above. Other routine recurrent costs contribute 19% of the costs; Vaccines and injection supplies are the third biggest cost items with the new vaccines accounting for 7% of the costs and traditional vaccines contributing to 8 % of the costs. All other categories each account for less than 5 % of the total costs of the plan.

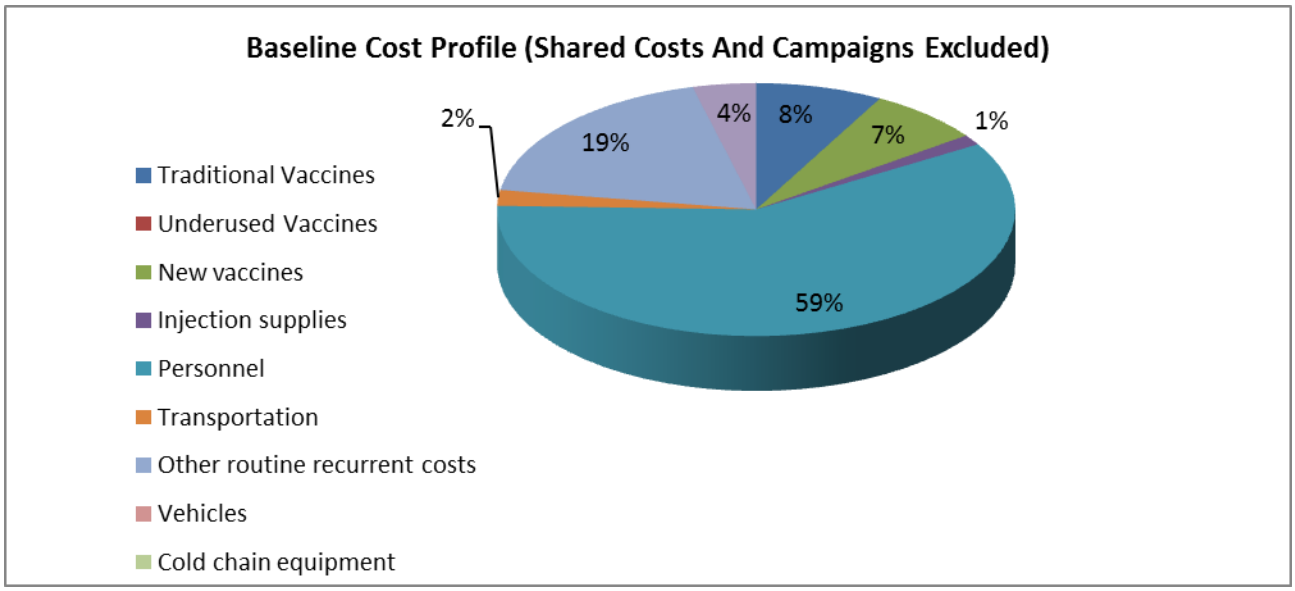

Figure 2 Graphical presentation of Baseline Costs for Routine Immunization

1.15.2 Projection of Future Resource Requirements

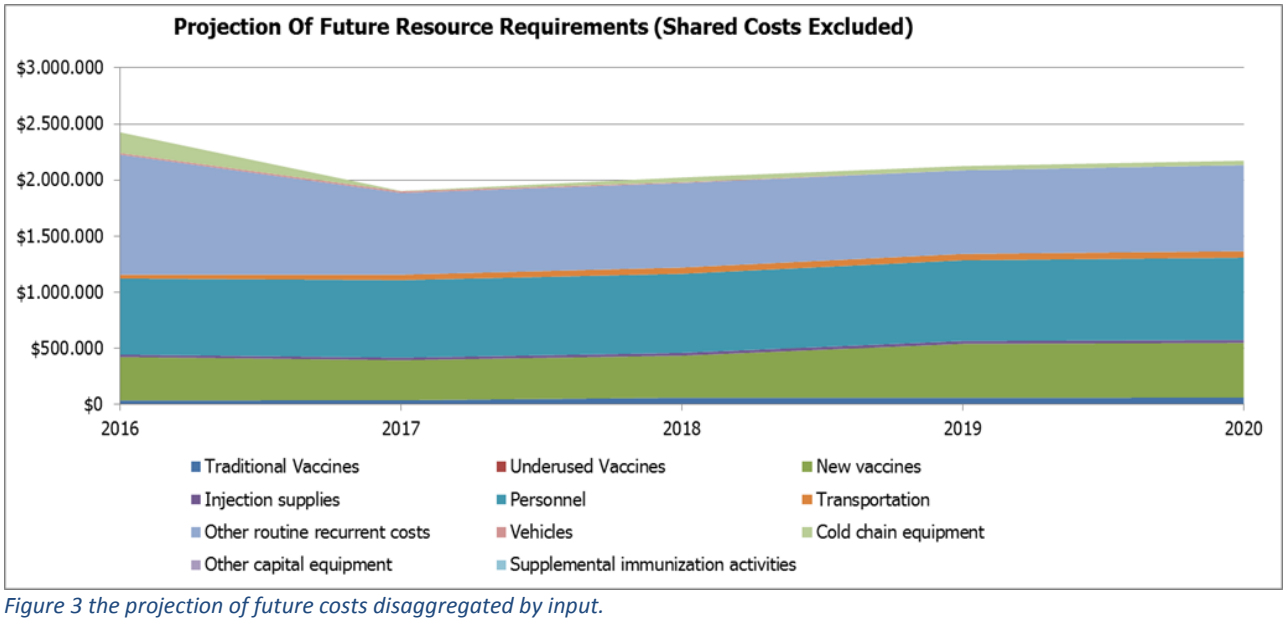

Figure 3 the projection of future costs disaggregated by input.

Similarly, figure 4 and table 16 shows the costs for the 5 years period and for each input in the program. As can be seen in the graph and the table, the personnel costs are the

biggest contributor as this component, includes salaries for health workers; other routine recurrent costs and per diem costs, for supervision and monitoring as well as outreach services provision. Per diem costs are the biggest driver for the personnel costs.

The costs for traditional vaccines approximately doubles by the year 2020, this is in part due to increases in population size as well as ambitious but attainable increases in coverage targets for multiple vaccines, over the 5 year period. .The costs for the new vaccines progressively increase and are approximately 10 times higher than the cost of traditional vaccines. Overall, the projected costs of the plan amount to US$ 10,650,176.

Table 15 Projection of Future Resource Requirements (Shared Costs Excluded)

Projection Of Future Resource Requirements (Shared Costs Excluded)

Cost category	2016	2017	2018	2019	2020
Routine recurrent costs	**US$**	**US$**	**US$**	**US$**	**US$**
Traditional Vaccines	$37.514	$38.750	$61.448	$59.852	$62.327
Underused Vaccines	$0	$0	$0	$0	$0
New vaccines	$386.163	$356.394	$374.221	$481.032	$486.643
Injection supplies	$21.768	$22.835	$24.975	$25.852	$26.851
Personnel	$677.153	$690.696	$704.510	$718.600	$732.972
Transportation	$35.277	$48.480	$55.824	$56.940	$58.079
Other routine recurrent co	$1.069.032	$728.478	$753.240	$745.032	$767.176
Vehicles	$14.280	$14.566	$7.428	$0	$0
Cold chain equipment	$184.620	$2.497	$41.705	$38.102	$38.864
Other capital equipment	$0	$0	$0	$0	$0
Supplemental immunizati	$0	$0	$0	$0	$0

1.15.3 Multi Year Planning – Costing by Program Components

Table 3 below summarizes the costs of the cMYP by programmatic area. The main cost drivers of the plan are personnel and other recurrent routine costs. The recurrent costs refer particularly to per diems for supervision, intensified microplanning and outreach services provision. These are driven by the per diem costs for supervision and monitoring. Vaccine supply cost are high especially because of the introduction of new vaccines.

In Solomon Islands 2016-2020 cMYP the costs for SIAs are relatively small with the exception of 2017 and 2020 where they increase compared to previous years due to the national campaigns for MRV that are scheduled for those years. These are, however, not accompanied by a rise in the advocacy and communication costs for the activities that will enable a successful conduct of the campaigns.
Costs of service delivery average about US$ 750,000 per year throughout the plan. They largely reflect the salary costs of personnel who carry out immunization related activities at all levels of the health system.

Table 16 Multi-Year Plan Costing by Programmatic Area

Year	Vaccine supply and logistics (routine only)	Service delivery	Advocacy and Communication	Monitoring and disease surveillance	Program management	Supplemental immunization activities (SIAs)	Total direct costs
2014	267.954	680.976	51.600	35.472	87.782	3.138.932	4.262.717
2016	719.142	706.849	127.194	42.913	829.709	0	2.425.807
2017	511.458	733.483	133.899	57.505	466.349	0	1.902.695
2018	595.540	754.527	136.577	58.655	478.053	0	2.023.352
2019	671.466	769.617	139.309	59.828	485.189	0	2.125.410
2020	689.889	785.010	142.095	61.025	494.893	0	2.172.912
Total	**3.187.495**	**3.749.486**	**679.075**	**279.926**	**2.754.193**	**0**	**10.650.176**

1.16 Financing the Multi Year Plan

1.16.1 Baseline Financing Profile

It is important to note that the figures shown in figure 8 below, are for routine immunization and SIAs, with shared health system costs excluded. The biggest contributor to the in the baseline year was GoU , contributing over 53% of the overall funding in 2014. These funds were mainly directed towards the by government financing for staff costs as part of the broader HRH workforce as well as financing for traditional vaccines. Financing from WHO, UNICEF andDFAT came in varying quantities and served primarily to cover routine recurrent costs of immunization and the SIAs.

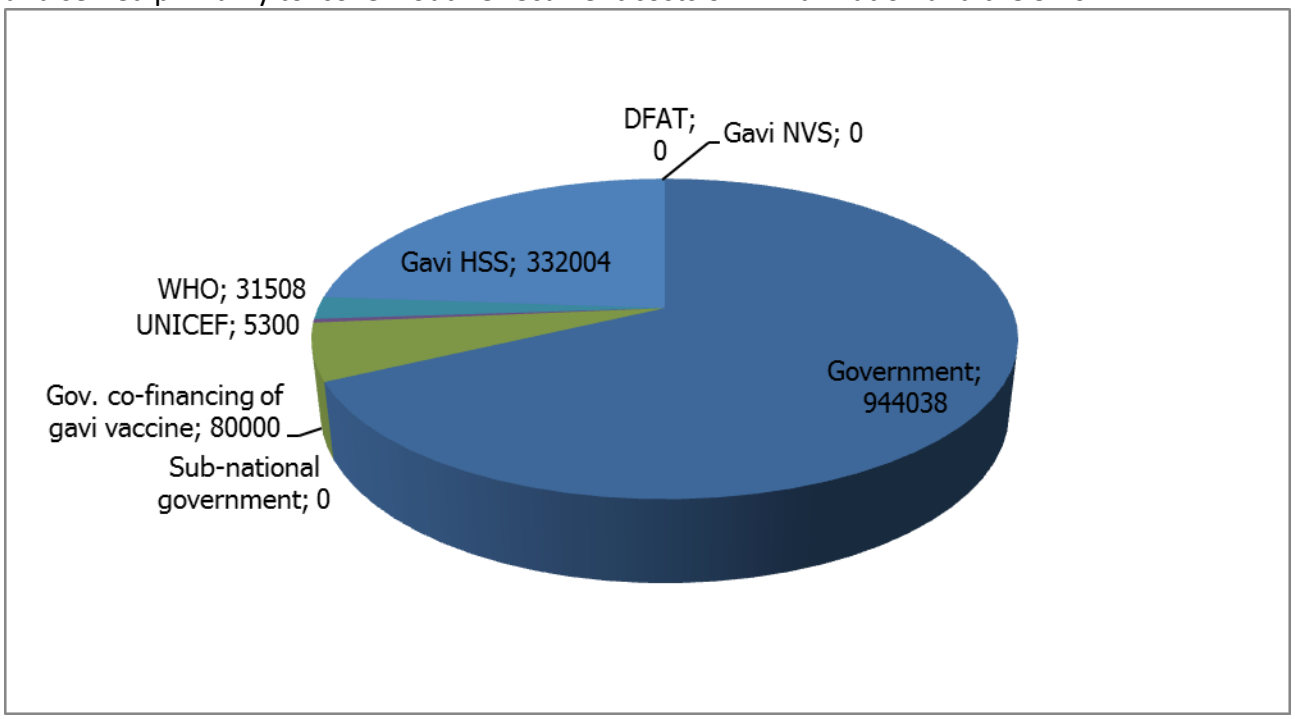

Figure 4 Proportion of Funding by Source (Government or Partners) ; Baseline Financing profile for Solomon Islands (shared costs and campaigns excluded)

Table 18 shows future resource requirements, the amount of financing per annum by source, and the funding gap for the CMYP cMYP across the life of the plan. Commitments from SIG, WHO, UNICEF, GAVI and DFAT are available but commitments from other potential donors are not reflected as yet in the analysis. With the available financing, it is clear that there is some funding gap for the plan that exists. The implication for this, is that the government will have to engage in resource mobilization strategies in order to meet the costs of delivering the plan.

Table 17 Future resource requirements, financing and funding available for 2016-2020

Secured Funding:	2016	2017	2018	2019	2020
	US$	US$	US$	US$	US$
Government	$1,321,112	$1,072,429	$1,204,670	$1,232,317	$1,337,445
UNICEF	$206,952	$0	$0	$0	$0
WHO	$7,968	$0	$0	$0	$0
Joint UN	$18,480	$0	$0	$0	$0
Gavi HSS	$672,687	$622,790	$638,530	$638,530	$638,530
DFAT	$0	$0	$0	$0	$0
Gavi NVS	$355,305	$324,057	$288,753	$322,737	$255,739
Total secure funding	$2,539,862	$1,914,837	$2,026,125	$2,084,059	$2,121,207
Total resources needed:	$2,245,537	$1,892,182	$1,959,292	$2,031,542	$2,070,878

In interpreting the results of this analysis, it is important to note that funds from Gavi – (a big EPI partner) are not completely reflected in the analysis. This is despite the fact that there are active grants that are available in the country for implementation of immunization activities. From the assumptions made in the costing and financing, no funding gap will be apparent over the five year period (2016-2020).

1.17 GAVI support to Solomon Islands

During the period of 31 May 2015 to 6 June 2015, a multi-partner GAVI Alliance mission (UNICEF, WHO, GAVI Secretariat) visited the Solomon Islands to assist the government to assess experiences and future trends in GAVI Alliance support. As an outcome of this visit much progress has been made in conceptualizing a more efficient and sustainable service delivery platform, by integrating immunization within RMNCAH planning and budgeting at all levels. 2015 marked the first year of integrated planning at the Provincial level, though zonal and facility level integration of 'Reach Every Child' activities (e.g. microplanning, outreach) has yet to be achieved. Significant progress has been made in integrating RMNCAH data into the new DHIS II system , which already

include immunization data GAVI HSS implementation has been delayed, with a growing realization, that system strengthening activities lacked a framework to structure and reinforce steps to integrate services, improve performance and reinforce results-based monitoring. The figures below show the financial implications in light of the SIG Co financing commitments in new vaccine introductions.

Table 18 Gavi Co-financing obligations (2016 – 2020)

GAVI Co-financing projections- SIG co-financing Commitment					
In US$	**2016**	**2017**	**2018**	**2019**	**2020**
Pentavalent	34,000	62,699	77,517	92,837	108,731
Pneumococcal	39,500	59,849	86,639	111,558	140,614
HPV national	-	14,227	27,140	35,662	44,700
Rotavirus	-	-	-	27,763	47,366

A new HSS proposal has now been developed and, if approved, will constitute a major additional financial support to EPI Sol Islands. The HSS program, valued at US$ 3,141,447.37 will be aligned with the time cycle of the next national Health Plan (2016-2020), and is timed to commence with the next pooled funding cycle of the Health Sector Support program in 2017 and up to 2021. At present this is not yet secured funding but it seems appropriate to factor it into the forecasted financial resources of the cMYP 2016-2020.

The Gavi New Vaccine support over the cMYP period 2016 – 2020 will see the introduction of three new Gavi supported vaccines including HPV, Rotavirus and Measles 2nd dose in the form of MR. In 2015 the Solomon Islands was given special dispensation by Gavi to remain in the Preparatory Transition Co-financing group for 2 additional years, meaning they will move into the Accelerated Transition Phase in 2017 and will no longer be eligible to apply for NVS in 2018. It is then expected that the country will become fully Self-Financing in 2022. Until this point the Gavi co-financing amounts will gradually be increased over time.

1.18 Financial Sustainability

In Solomon Islands Immunization funding is largely dependent on resources from development partners. Government resources are sustainable albeit inadequate. Resources from development partners, especially to support vaccines, cold chain, and essential logistic and program management improvements are significant. Hence, the system of immunization financing in its current state, is not particularly sustainable to achieve and maintain high coverage rates through routine immunization.

The proposed cMYP 2016-2020 innovative strategies include a mix of sustained mobilization of (local and external) additional resources, increase in reliability of resources, and strategies to increase program efficiency. Some of the areas for consideration for generating additional resources include (but are not limited to): additional resources from the government budget for the health sector; additional resources from the Ministry of Health budget for immunization; increased resource

input from decentralized local governments; and additional external resources from current and new partners (including the private sector). Increasing the reliability of available resources requires commitment from the different funding sources (government and development partners).

In line with the cMYP, detailed rolling annual plans that cover the key priorities/activities for the different actors will be developed, costed, and show funding from the different sources by having each funder reflect what they will be supporting in the annual plan. Once this is in place, modalities for channeling of funds will be defined in order to minimize delays and bureaucracies in resource flows to service providers. There will also be annual plans and budgets for immunization.

1.19 Mobilizing Resources

The EPI will pursue several strategies to secure additional resources locally to support and sustain the immunisation program performance, these include:

1. Creation of a budget line item for Immunization in the government budget for the health sector;
2. Additional resources from the Ministry of Health budget for immunization;
3. Increased resource input from decentralized local governments;
4. Resources from local partners, civil society organizations and non-governmental sources;
5. Additional external resources from current and new partners;
6. Additional partners from the private sector.

The program shall seek to mobilise additional resources from these donors that have shown willingness to support immunization activities in the past, and identify and advocate among potential new donors for more resources.

1.20 Program Efficiency

Improved efficiency of the program shall also be pursued. Maintaining low levels of vaccine wastage offers significant efficiency gains for the program, more so with the use of the high cost vaccines. It is envisioned that vaccine wastage needs to be minimized especially for for the new and under-utilized vaccines for cost savings. This shall primarily be capacity building in vaccine management, putting in place a vaccine wastage monitoring system, and ensuring optimal functioning of the cold chain system. In addition to the reduction in wastage, the change to solar operated fridges shall contribute to reduce operational costs of cold chain operations.

Further rationalization of outreach services shall be sought, with integration with other programs carried out as is feasible UNJP RMNCAH program. Mobilization efforts shall be enhanced to increase immunization at each session, reducing unit costs for immunization per child.

PUTTING THE cMYP INTO ACTION

As shown in the tables 13 and 14 and in the Monitoring and Evaluation framework (Annex II) the following activities are key to ensure that the Solomon Islands 2016-2020 cMYP is implemented according to the proposed timeline:

1) Recruit at least two more professionals at the national EPI central level unit;
2) Ensure Legislation on immunization financing, establishing line item for vaccines in national health budget;
3) Revising the 2016 EPI AOP (18) to ensure that all the key priority activities of the 2016-2020 cMYP are included and duly budgeted;
4) Providing adequate support to provinces to enable them to complete the planning cycle of their EPI Plans;
5) Ensuring an expanded membership of the FHCC and the use of the cMYP Monitoring and evaluation framework as the Committee monitoring tool for every quarterly session;
6) Ensuring a good partnership with the UN joint program on RMNCAH with major focus on microplanning for RED/REC approaches;
7) Ensuring the highest possible endorsement in the Solomon Islands Gov't, of this cMYP, to guarantee Political commitment in line with the statements of the Policy on UNIVERSAL HEALTH COVERAGE and ROLE DELINEATION OF HEALTH SERVICES and of the National Health Strategic Plan 2016-2020.