

**NATIONAL MALARIA CONTROL PROGRAM
ROTARIANS AGAINST MALARIA
AUTONOMOUS REGION OF BOUGAINVILLE
MARCH 7th– 22nd 2024**

QUARTER ONE FIELD TRIP REPORT

Name of Officer: Brenda Fisaura
Destination: AROB
Date travelled to AROB: 7th March 2024
Date visit ended: 22nd March 2024
Date returned to POM 25th March 2024 (flight disruptions on 23rd March)
Nights away from the office: 18 nights

Type of documents attached: Air tickets/ boarding passes and Acquittals

PHA Assisting Officers: Mr. Absalom Masono (Malaria Program Officer)
RAM Assisting Officer: Ms. Racheal Puton (HMMO)

Purpose of Travel: Q1 Supervisory Visits to facilities and distribution of Malaria testing kits, Mala1 drugs and Primaquine as well Antenatal nets for the facilities



Onsite refresher training with staffs is always mandatory. Pictured is Home Based Malaria Management Officer Ms. Racheal Puton going through the Malaria reporting tools with Nursing Officer Sr. Jacklyn Semoso and CHW Cathleen Manri

OBJECTIVE:

This is the first quarter trip of 2024, to carry out the routine Malaria Health Facilities Supervisory visits and Drug Distribution in the Autonomous Region of Bougainville.

The main objectives;

- Visit all accessible HFs and ensure that there is adequate supply and **NO STOCK OUT** of Malaria Rapid Diagnostic Test (mRDT) kits, Artemisinin-based Combination Therapy (ACT), Primaquine (PQs) and other malaria commodities including Antenatal Care (ANC) nets in all HFs,
- Ensure that all Malaria suspected cases are correctly tested and diagnosed and complete treatment is given to those positive confirmed cases as per National Malaria Treatment Protocol. And that all data is recorded and Reported timely on the National Health Information System (NHIS),
- Ensure that inaccessible HFs still receive their share of malaria commodities based on reports and consumption needs despite not been visited,
- Strengthen Continuous Quality Improvement (CQI) activities in the region.

PEOPLE MET WITH DURING Q1 VISIT

- Health Secretary for AROB Health Department Mr. Clement Totavun
- Executive Director Health Service Standard – Dr. Ruling Pokote
- Lawrencia Kumis – Environmental Health Manager, ABG Health Department
- Buka Hospital Pharmacy OIC Mr. Edward Nanatsi
- Buin Health Centre Pharmacist Mr. Isaiah Norg
- Regional Pharmacist Ms. Gwendoline Kolonga
- Health Department NHIS Data entry officer – Priscila Tserum
- Catholic Church Health Service Monitoring & Evaluation Officer – Mr. Fabian Sembi
- House Hold Malaria Management Officer Ms. Racheal Puton
- Deputy Principal of Arawa Nursing College and Tanamalo CHW Principal
- All officers in charge and staffs on duty of facilities visited in Q1

1. BACKGROUND INFORMATION OF MADANG PROVINCE

Historically the region was known as the North Solomon's Province. Conflict over the Panguna Mine became the primary trigger for the Bougainville Civil War (1988- 1998), which resulted in the deaths of up to 20,000 people. A peace agreement however was developed and resulted in the creation of the Autonomous Bougainville Government.

AROB is located 1,000 kilometres east of the mainland national capital of Port Moresby. It is the most remote of Papua New Guinea's 21 provinces with Buka Town as its current capital after the civil war. It consists of two large islands, Bougainville (8,646 square kilometres) and Buka (598 square kilometres), separated by a narrow passage, as well as many small islands. The Emperor Range, with its highest peaks at Balbi (9,000 feet [2,743 metres] and Bagana, both active volcanoes, occupies the northern half of the island, and the crown prince range occupies the southern half. Coral reefs fringe the shore. The region has an estimated population of 249,358 people (2011 national census).

AROB is divided into three main districts (North Bougainville, Central Bougainville and South Bougainville) which accommodates a total of currently forty functional health facilities which provides health services to the entire population. There are also aid posts, clinics and community health posts located in the catchments which operate directly under the main health centres. The health care service delivery is provided by a combination of government, private facilities, church facilities and Non-Government Organisations (NGO).

Most of the health facilities are accessible by road with only 10% of it being accessed by dingy and can only be so depending on the weather conditions. Few difficulties include poor road infrastructure especially in the inlands of South Bougainville district during wet season often makes it difficult to travel through and reach the facilities. Refer to map of AROB below.

Figure 1. Map of Autonomous Region of Bougainville



2. DISCRPTIONS OF FACILITIES IN EACH DISTRICTS (REGIONS)

Buka Region

Buka Region has a total of **14 functional reporting facilities**. Five facilities; **Nissan HC, Caterets SC, Skotolan SC, Sipai SC and Kuraio SC** are sea accessed. Nissan and Caterets takes 4 to 5 hours to reach as they are located on the outer islands and is accessed when the weather and the sea is fine. The other three sea accessed facilities takes less than 2 hours to reach from Buka Town. The remaining 9 facilities; **Buka Hospital, Buka Urban Clinic, Gagan**

SC, Hanahan SC and Lemanmanu SC are accessed via road on Buka Island and **Hantoa SC, Kunua HC, Tearouki HC and Kekesu SC** are reached by road on main Bougainville Island. This quarter the team visited all facilities except Nissan HC and Caterets SC only.

Central Region

Central region has a total of **10 reporting facilities**. These facilities are **Wakunai HC, Ruruvu SC, Manetai SC, Arawa HC, Koromira SC, Kodora CHP, Kakusida CHP, Panguna SC, Orami CHP and Paruparu SC**. All these facilities are accessed by vehicle except for Paruparu SC, as it will take to travel by vehicle and then tracking for 2-3 hours and **that is why our team has not yet visited this particular facility**. Ruruvu SC is also visited if the road condition is good. This quarter all facilities were visited except for Paruparu SC.

South Region

This region has a total of **16 reporting facilities**. 14 of these facilities (**Oria SC, Tabago SC, Turiboiru SC, Buin HC, Lenoke SC, Piano SC, Katuhkuh SC, Konga SC, Monoitu SC, Tonu SC, Boku SC, Morotona HC, Sovele SC and Singkodo SC** are accessed through road but during wet seasons they are almost impossible to reach as the roads leading to most of these facilities in the south deteriorates too quickly during the raining season. The remaining two facilities which are **Piva HC and Karato CHP** are accessed by boat from Buka Island. Piva HC takes almost 3 to 4 hours by dingy from Buka town to reach Torokina beach front then travel by vehicle for less than 30mins to finally reach the facility. Karato SC is also the same but instead of vehicle, one has to track again for another hour or so to reach the facility and that is why our team has not yet visited this particular facility. This quarter visit the team could not reach 2 facilities. Singkodo SC due to deteriorated road condition the team turned back. Staff were reached over the phone and advised that they have sufficient stock on hand. Karato due to inaccessibility the team could not reach. Boku SC however was reached by the team but the only officer attached at the facility was not around. The team waited for an hour until we left.

3. SUMMARY OF SUPERVISORY 2024 Q1 HEALTH FACILITY VISIT

Table1. Distribution of Health Facilities in the Province, their accessibility and the dates the team visited.

DISTRICT	HEALTH FACILITY	AGENCY	ACCESSIBILITY STATUS	ACCESSIBILITY	DATE OF VISIT
NORTH	Buka UC	Government	Accessible	Road	08/03/24
NORTH	Gagan SC	Catholic	Accessible	Road	08/03/24
NORTH	Hanahan SC	Government	Accessible	Road	09/03/24
NORTH	Kekesu SC	United Church	Accessible	Road	11/03/24
NORTH	Kunua HC	Government	Inaccessible	Road	10/03/24
NORTH	Kuraio SC	Catholic	Accessible	Sea	14/03/24
NORTH	Lemanmanu SC	Government	Accessible	Road	09/03/24
NORTH	Nissan HC	Government	Inaccessible		Not visited
NORTH	Selau (Hantoa) SC	Government	Accessible	Road	11/03/24
NORTH	Sipai SC	Catholic	Accessible	Sea	14/03/24
NORTH	Skotolan SC	United Church	Accessible	Sea	16/03/24
NORTH	Buka HO	Government	Accessible	Road	08/03/24
NORTH	Tearouki HC	Catholic	Accessible	Road	11/03/24
NORTH	Carterets SC	Government	Inaccessible	Sea	Not visited
CENTRAL	Arawa DH	Government	Accessible	Road	12/03/24
CENTRAL	Manetai HC	Catholic	Accessible	Road	12/03/24
CENTRAL	Panguna HC	Government	Accessible	Road	14/03/24
CENTRAL	Ruruvu SC	United Church	Inaccessible	Road	11/03/24
CENTRAL	Wakunai HC	Government	Accessible	Road	12/03/24
CENTRAL	Paruparu SC	Government	Inaccessible	Road	Not visited
CENTRAL	Koromira HC	Catholic	Accessible	Road	13/03/24
CENTRAL	Kakusida CHP	Government	Accessible	Road	13/03/24
CENTRAL	Orami CHP	Government	Accessible	Road	14/03/24
CENTRAL	Kodora CHP	Government	Accessible	Road	13/03/24
CENTRAL	Buin HC	Government	Accessible	Road	17/03/24

CENTRAL	Katuhkuh SC	Government	Accessible	Road	16/03/24
CENTRAL	Konga SC	Government	Accessible	Road	16/03/24
CENTRAL	Lenoke SC	Government	Accessible	Road	16/03/24
CENTRAL	Monoitu SC	Catholic	Accessible	Road	15/03/24
CENTRAL	Morotona HC	Catholic	Accessible	Road	14/03/24
CENTRAL	Piano SC	Catholic	Accessible	Road	17/03/24
CENTRAL	Piva (Torokina) SC	Government	Inaccessible	Sea then road	14/03/24
CENTRAL	Sovele SC	Catholic	Accessible	Road	15/03/24
CENTRAL	Tabago SC	Catholic	Accessible	Road	Not visited
CENTRAL	Tonu SC	United Church	Accessible	Road	15/03/24
CENTRAL	Turiboiru SC	Catholic	Accessible	Road	18/03/24
CENTRAL	Oria SC	Government	Accessible	Road	18/03/24
CENTRAL	Boku HC	Government	Accessible	Road	15/03/24
CENTRAL	Singkodo SC	Government	Accessible	Road	Not visited
CENTRAL	Karato CHP	Government	Inaccessible	Sea then track	Not visited

Table 2. Shows the coverage rate for both accessible and overall facilities in Autonomous Region of Bougainville.

	Quarter 1
Total number of HF's	40
Total Accessible Facilities	33
Total Inaccessible Facilities	7
Total Accessible Facilities Visited	32
Total Facilities Visited	35
% Coverage (Accessible)	97%
% Coverage (Total Facilities)	87.5 %

As per the summarized table above, the target for this quarter 1 was to visit all 33 accessible facilities and 4 inaccessible facilities. The team managed to reach 32 accessible facilities and only 3 inaccessible facilities. This gave an overall coverage rate of 87.5% of total facilities visited and 97% coverage rate for accessible facilities in the region visited.

Table 3: Plan for hard to reach facilities not visited

No.	Health Facility	Q1 supplies status	Reasons for not conducting a single facility visit
1.	Nissan HC	Sufficient stock on hand currently – SIC notified to pick up supplies whenever she travels into town	Inaccessible facility. 3-4 hours' travel depending on the sea current status. AROB Health Secretary advised team not to visit. Instruct to advise staffs to pick supplies in town.
2.	Karato CHP	OIC/SIC will have to be notified to pick up Q1 supplies whenever traveling into town.	Inaccessible facility. Travel by boat from Buka about 3 hours and then track Otherwise positivity rate is low so staff should notify once current stock on hand is running low
3.	Paruparu SC	Staff to be notified by PMS to collect supplies in Buka town or Arawa Pharmacy once stock is low	Inaccessible facility. Travel by vehicle from Arawa Town for 1 – 2 hours and then track
4.	Tabago SC	Staff will pick up in Medical Transit Store	Several killings in the area facility is located in therefore team did not travel to the facility.
5.	Singkodo SC	Sufficient stock on hand which will keep facility till Q2– confirmed via phone	Deteriorated road condition due to continuous rain

All facilities not visited, their quarter 1 supplies are not prepacked but are kept at the Medical Transit House with the rest of the buffer supplies. It will be packed and handed to the staffs when they come to the transit store to pick up. All Officers In charge of these facilities have already been notified via phone.

4. RDTS AND ACT SUPPLIES PROCURED REPORT

This quarter, the 4-month GF supplies for AROB were consigned early into the Region prior to the start of Q1 visit. Total of 22 cartons of ACTs and RDTs received by the Malaria team on the ground. There was also sufficient buffer stock available as well before the start of the quarter 1 distribution.

Table 4: Provided below is the receiving quantity.

CARTON #	NUMBER OF CARTONS	ITEM	QUANTITY PER CARTON (box)	TOTAL QUANTITY	TOTAL IN BASIC UNITS (blisters)	BATCH #	SOURCE	EXPIRY DATE
1 to 13	1	RDT	40	520				
14	1	ACT 12	48	48	1440	7254177	GF	JAN-25
15	1	ACT 18	24	24	720	7254366	GF	JAN-25
16 to 19	4	ACT 24	24	96	2,880	7254202	GF	JAN-25
20	1	ACT 6	29	20	870	7254176	GF	DEC-24
		ACT 12	17	17	510	7254177	GF	JAN-25
21	1	RDT	35	35	875		GF	
22	1	ACT 18	19	19	570	7254366	GF	JAN-25
		ACT 24	1	1	30	7254202	GF	JAN-25

Table 5: Quantity distributed per facility during quarter 1 visit. Quantity supplied according to the current stock available at the facility

DATE	FACILITY	STOCK OUT	STOCK OUT	STOCK OUT	STOCK OUT	STOCK OUT	STOCK OUT
08/03/2024	ELUTUPAN AP	10	0	0	0	0	0
08/03/2024	BUKA HOSPITAL	0	0	7	9	14	0
09/03/2024	LEMANMANU HC	12	0	0	0	0	0
10/03/2024	KUNUA HC	21	1	1	1	1	0
11/03/2024	HANTOA HC	10	0	0	0	0	0
11/03/2002	TEAROUKI HC	30	1	2	2	4	0
11/03/2024	KEKESU SC	16	0	0	0	0	0
11/03/2024	RURUVU SC	4	0	0	1	1	0
12/03/2024	WAKUNAI HC	10	1	1	1	2	0
12/03/2024	MANETAI SC	10	0	0	0	0	0
12/03/2024	ARAWA HOSPITAL	94	2	4	3	8	0
13/03/2024	KOROMIRA HC	10	1	2	1	2	0
13/03/2024	KODORA CHP	6	1	0	1	0	0
14/03/2024	PANGUNA HC	10	0	0	0	0	0
14/03/2024	ORAMI CHP	6	0	0	0	1	0
14/03/2024	MOROTONA HC	7	0	1	1	1	0
14/03/2024	POLONAVUA CHP	7	1	1	1	1	0

15/03/2024	SOVELE HC	7	0	1	1	1	0
15/03/2024	MONOITU HC	7	1	0	0	1	0
16/03/2024	KONGA SC	6	0	1	0	1	0
16/03/2024	KATUKUH SC	0	0	1	0	1	0
16/03/2024	PIANO SC	6	0	1	1	1	0
16/03/2024	LENOKE SC	6	0	1	0	1	0
17/03/2024	BUIN HC	40	0	0	3	7	0
18/03/2024	TURIBOIRU HC	2	0	0	0	0	0
18/03/2024	ORIA SC	5	0	0	0	0	0

Throughout the visit all facilities did not have any stock out of ACTs/RDTs for more than 2 weeks. All had sufficient stock on hand during the visit. Only Kunua HC, Tearouki, Kekesu SC, Manetai SC, Arawa District Hospital, Kodora CHP, Panguna HC, Orami CHP, Lenoke SC and Oria SC had the last RDT used at the Outpatient during the visit. All facilities were supplied with 4 months' supply of stock. No facilities had nil stock of ACTs when the team arrived.

5. SUMMARY OF FINDINGS

a) Stock Situation

• Stock Management

Most of the facilities visited are not up to date in keeping stock cards maintained despite continuous emphasis on the importance of keeping track of commodities. Updating stock cards are often seen as an extra work load to maintain. Only a few facilities such as Gagan SC, Hantoa SC, Ruruvu SC, Wakunai HC, Arawa Dist. Hospital, Koromira SC, Kodora CHP, Kuraio SC, Skotolan SC and Buin HC are constantly maintaining stock cards. Although it is not on a weekly basis but when stock at each section at the facilities run out and new stock is issued out then that is when the stock card is updated. There were few stock rotations done as per tabled below

Facilities items rotated from	ITEM	Batch #	Expiry Date	Total Quantity	Facility Items Rotated to
Elutupan Aid Post (Lemanmanu HC Catchment)	ACT 12	AIAPH004	03/2024	24 box (30blisters/box)	3 box to Arawa Hospital, 10 box to Hantoa HC, 5 box to Kekesu SC and 6 box to Tearouki HC
	ACT 24	AIAPH002	03/2024	1 box	Kekesu SHC
Konga SC	ACT 12	AIAPH004	03/2024	22 blisters	Arawa Dist. Hospital
Piano SC	RDT	HD06B003D	07/2024	6 box (25 cassettes/box)	Arawa Dist. Hospital
	ACT 24	AIAPH006	08/2024	12 blisters	
Lenoke SC	ACT 6	AIAPH00	05/2024	30 blisters	Arawa Dist.Hospital
	ACT 24	AIAPH002	03/2024	30 blisters	
Oria SC	ACT 24	AIAPH002	03/2024	13 blisters	Arawa Dist.Hospital
	PQ (13.2mg)	200721	06/2024	24 containers	

Almost all facilities have received one order from the AMS in the past 3 months and there was no major stock out of RDTs, ACTs and Primaquine.

• Antenatal Care Nets

The continuous LLIN distribution to vulnerable group includes; ANC, boarding schools, prisons and displaced populations. The distribution of LLINs to all antenatal clinics in AROB is ongoing and the team ensures that each distribution is consistent without disruption. Accountability of the nets distributed to pregnant ladies at the facility level is still an issue. The team have since taken a step in ensuring that facilities requesting for new bales of nets should do so with submission of the antenatal registers to confirm and account for previous nets issued out before any new stock of bales can be supplied.

The opening balance for this year 2024 is **3,550 nets (71 bales of 50 nets each)**. From January up till current, the team have distributed a total of **650 nets (13 bales)**. The current stock on hand at the end of RMC Q1 visit is **2,900**

nets (58 bales of 50 nets each). All nets are expected to be distributed to all facilities providing ANC service by mid this year and also to few boarding schools especially in the hot spot malaria areas.

This quarter only Arawa Nursing school was delivered with 200 nets for the boarding students. Bougainville Technical College and Koromira Vocational Boarding School have been advised to pick up boarding school nets in Arawa District Hospital once their school truck travels into Arawa town.

b) Intermittent Preventative Treatment in Pregnancy (IPTp)

Intermittent Preventative Treatment of malaria in pregnancy with Sulfadoxine-pyrimethamine (Fansidar) is the current ongoing prophylaxis as per World Health Organization (WHO) guidelines. All facilities providing antenatal care are supplying pregnant woman with a total of 3 doses of Fansidar during antenatal care, spaced one month apart after 16 weeks of being pregnant till delivery. Currently in all facilities visited, there is sufficient stock of Fansidar still available.

All facilities visited, the team have noted that the record for first doses supplied to pregnant ladies are captured in the Antenatal Care Register Book while the 2nd and the 3rd dose as observed in few facilities have it written in the client's health record book instead and not in the ANC register book. However, there are quite a number of facilities who keeping all records in the ANC registers for both the 1st, 2nd and 3rd doses. These facilities include Buka Urban Clinic, Kunua HC, Tearouki HC, Ruruvu SC, Wakunai HC, Manetai SC, Arawa District Hospital, Kakusida CHP, Orami CHP, Morotona HC, Sovele SC, Tonu SC, Monoitu SC, Piano SC, Lenoke SC, Buin HC and Turiboiru SC. The team during the visit have instructed the staffs to keep all 3 doses in the ANC register book and will follow up in 2nd visit to ensure that they have done so.

Serial No.	General Condition	HT	Temp	HR	RR	BP	Weight	Uterine Size	Fetal Position	Placenta	Amnion	Lochia	Contraction	Delivery Date	Delivery Method	APGAR 1	APGAR 5	Weight at Birth	Length at Birth	Head Circumference at Birth	Sex
1																					
2																					

Tearouki HC ANC Registers capturing all 3 doses of IPTP

Serial No.	General Condition	HT	Temp	HR	RR	BP	Weight	Uterine Size	Fetal Position	Placenta	Amnion	Lochia	Contraction	Delivery Date	Delivery Method	APGAR 1	APGAR 5	Weight at Birth	Length at Birth	Head Circumference at Birth	Sex
1																					
2																					

Piano SC ANC Register only capturing 1st IPTP dose

c) Malaria Microscopy

There are only 4 reporting facilities; Buka Hospital, Arawa District Hospital, Buin HC and Sovele SC whom are performing Malaria Parasite Slides Examination in the Region. The distribution of Malaria Microscopy in the Region is uneven and also there is no trained malaria microscopist at this registered facilities performing MPS. North District has 1 facility only, Central District has only 1 and South District with 2 facilities. There is still a challenge for cases which needs confirmation with MPS. There is an absolute decline in Malaria Parasite Slides (MPS) performance due several reasons

- Buka Hospital Laboratory: There is definitely man power issue thus no MPS are usually done
- Arawa District Hospital Laboratory: MPS is done but not captured in the monthly NHIS reports despite countless emphasis.
- Buin HC Laboratory: No power connection to the Lab thus no MPS done

Currently Sovele HC is the only facility doing MPS amongst the 4 mentioned facilities and is up to date in entering datas and submitting through the NHIS. But since February, the reagents have run out and the lab technician will need to restock again at Buka Hospital meanwhile all cases are treated according to the RDT result.

All microscope at each of the facility are in good condition and there are sufficient reagents and slides available during our visit at the rest of the other 3 facilities. All staffs performing MPS at these mentioned facilities do take part in the External Quality Assurance (EQA) program except for Buka General Hospital in which they are expected to send required number of slides every quarter to Central Public Health Laboratory (CPHL). There is however poor feedback

response from CPHL to provide timely competency rate of each staff performance thus few staffs competency is always questioned.

For the past 2 months till current, no record of MPS at all is captured in the NHIS. All lab officers will be included in the CQI training as well to ensure that they know the importance of data reporting

d) Malaria School Surveys

This year the school surveys will be conducted again and the Provincial Malaria Supervisor will be taking the lead in this. This survey will be conducted in both the dry and wet season targeting a total of 6 schools. Two schools in each of the districts will be surveyed. The schools to be surveyed will be the same ones surveyed in 2022 as they are the selected sentinel sites for the ongoing survey. The surveys for this year will be conducted in April - May and in October – November.

6. HOME BASED MANAGEMENT OF MALARIA (HMM)

Kekesu SC and Tearouki HC are the only 2 facilities to date that has the Home Based Malaria Management Volunteer Program in AROB currently. Since the start of this program in November of 2022 up till now the HMM officer Ms. Racheal Puton has trained a total of 58 volunteers. Last year 2023, there was one drop out but a replacement was taken on board and trained in the 2nd batch training held in November. The target set for Ms. Puton for 2023 was to train 100 volunteers however due to limited time as a result of attending the Annual Learning and Reflection Meeting held in Port Moresby she was unable to achieve the target set.

This year, Ms. Puton will train 64 new volunteers to complete the target set last year. All these volunteers to be trained will be under Hantoa SC catchment. So far this year

- Current existing CMVs total is 57 after a volunteer passed away in early February.
- HMMO Ms. Puton has conducted a supervisory visit in February for both Kekesu SC and Tearouki HC catchment volunteers. Total of 44 volunteers were visited and datas collected while the remaining 13 volunteers due to funeral arrangement for the late CMV member, HMMO only collected their datas and ensure that they have sufficient stock on hand.
- Ms. Puton (HMMO) conducted a refresher training for the 2nd batch of volunteers (18 volunteers) trained under Tearouki catchment of last year from March 18th to 22nd March 2024. AROB Health Department was part of the visit and assisted with vehicle for officers to use. This refresher was prioritized due to malaria registers not correctly filled out and monthly reports not submitted on time. After this refresher, the team is expecting an improvement.

Although HMM program has had a tremendous effect on the disease burden in the catchment areas that this program has been rolled out, it is the tracking of HMM datas in the NHIS that is seen to be an issue. Most particularly;

- Individual CMV datas that are submitted late to facility OICs long after the facility submits its monthly NHIS report is often not monitored/ included and in most cases the datas are not captured eventually.
- There is no field in the NHIS specifically for CMV datas thus we cannot see the actual data from CMVs alone and from facility itself as well.

7.HOSPITAL VISIT

In PNG almost all of the Provincial Hospitals have issues in maintaining consistent reporting of malaria datas. Buka General hospital also has its fair share of issues. This quarter the team did the usual routine visit to all wards to check up on malaria reporting tools and assess datas collected

- Medical Records

The in-charge of Medical records with her team are always on their toes every end of the month to collect all reports from each sectional heads to compile overall NHIS report however there is still issues as most sectional heads do not submit report on time thus it contributes to the delay in submission of Monthly reports to the PHIO. The required date of NHIS submission is every 7th of the new month, however there is always a delay. The NHIS monthly report for January was already submitted to the Information office already while for the month of February is yet to be compiled and submitted.

- Laboratory

The laboratory is not performing MPS at all. This was the result as stated by the Laboratory Officer in charge, “No man power or specialised malaria microscopist to perform the MPS”. Malaria Laboratory Register book

was available but with no data entry. All reagents as well as slides are available for testing and there was no major stock out.

- Pharmacy

The pharmacy is connected to the Provincial Medical Transit Store with easy access on both sides. Stock take is done and drugs are kept in order. The only issue noted is excess RDTs and ACT 6 was supplied from AMS Kokopo. This push factor used will cause commodities to be supplied in large quantity and will result in drugs expiring without being used because of overstocked. The monthly reports to Medical Records is always on time

- Wards

All wards visited that perform RDT in their unit includes, Paediatric Ward, General Out Patient, Gynaecology & Obstetric Ward and Medical Ward.

- General Outpatient has a new unit manager, Mr. Itamai. As observed, the Malaria Register Book was filled out correctly without out any discrepancies. There were no clinical cases noted as well for the month of March so far. Reports are submitted on time to the Medical Records
- The rest of the wards are also following the malaria treatment protocol and up to date in recording the malaria datas. All reports are submitted on time except for Paediatric Ward whom is always submitting reports late to the medical records

8. CONTINUOUS QUALITY INITIATIVE (CQI) TRAINING

This quarter the objective was to conduct a CQI training on the Malaria Program for both Arawa Nursing School as well as Tanamalo CHW School. Due to many issues identified during facility visit from Testing, Treatment and Tracking of Malaria, the team decided to target the nursing colleges first hand and then to facility staffs at each districts during the year. Both Schools administration accepted the training and stated that this was the first of having health programs running trainings at the institutions although they have requested countless times. The current standard treatment book used across has no updated information thus staffs as well as students were very interested in the updated treatment protocol.

Institution	Total Students Attended	Staffs Attended
Arawa Nursing School	93	6 (Deputy Principal + 5 Tutors)
Tanamalo CHW School	50	4 (Principal + 3 Tutors)

Even though CQI is yet to be conducted, the continuous onsite refresher training with one to one staffs on duty at facilities during the visits is mandatory and is still being conducted. Facility staffs are regularly provided with up dated treatment protocol as well as identifying discrepancies with NHIS malaria data reporting and discussing those with the appropriate staffs. Most often issues discussed are on

- Importance of stock card maintenance and how to fill it up
- Updating ANC LLIN registers and account for nets provided to the clinics
- Up to date with the updated treatment protocol
- Monthly NHIS reporting discrepancies noted.



CQI Training at Arawa Nursing School



CQI Training at Tanamalo SCHW School

9.MALARIA REPORTING TOOLS

Projected below is the NHIS reports capturing malaria data from January to December 2023. Note that all facilities have no outstanding reports for the 12 months' period except for Boku HC.

Autonomous Region of Bougainville Province

MALARIA REPORT January to December 2023

Date Printed: 24/03/2024 15:40:05

Code	Facility	No of reports	OUTPATIENT		INPATIENT		DEATHS		Slides Examined			RDT Examinations			
			Clinical	RDT	Clinical	RDT	Clinical	RDT	No. Exam	+ve %	+ve % falcip	No. Exam	+ve %	+ve % falcip	Failed
200201	Buka UC	12	0	0	0	0	0	0	0	0	0	0	0	0	0
200202	Gagan SC	12	40	29	0	0	0	0	1	0	0	318	9.4	7.2	0.3
200203	Hanahan SC	12	6	103	0	10	0	0	1	100	100	543	19.7	14.7	0.6
200204	Kekesu SC	12	0	1536	2	0	0	0	0	0	0	3668	43.5	20.7	1.9
200205	Kunua HC	12	5	126	0	1	0	0	0	0	0	291	44.7	33.0	0
200206	Kuraio SC	12	32	284	0	2	0	0	0	0	0	530	51.9	29.6	0
200207	Lemanmanu SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200208	Nissan HC	12	23	132	0	0	0	0	0	0	0	241	46.1	31.1	0
200209	Selau (Haniba) SC	12	30	556	0	1	0	0	2	0	0	1897	30.7	18.1	0.5
200210	Sipai SC	12	57	273	1	0	0	0	0	0	0	601	46.1	19.0	1.2
200211	Skotolan SC	12	22	159	0	0	0	0	0	0	0	292	15.1	11.0	0
200212	Buka HO	12	484	650	8	2	1	1	2	0	0	5580	11.8	7.7	0.1
200213	Tearouki HC	12	83	1215	6	9	0	1	0	0	0	2563	46.4	29.9	0.6
200214	Carterets SC	12	6	5	0	1	0	0	0	0	0	136	3.7	3.7	0
NORTH BOUGAINVILLE District		156	788	5068	17	26	1	2	6	16.7	16.7	16660	30.0	17.3	0.7
200101	Arawa DH	12	455	425	8	0	1	0	1	0	0	982	36.6	17.0	0.2
200103	Manetai HC	12	16	178	0	1	0	0	0	0	0	557	32.3	11.7	2.5
200104	Panguna HC	12	8	11	0	0	0	0	0	0	0	56	21.4	16.1	0
200105	Ruruvu SC	12	0	56	1	0	0	0	0	0	0	235	28.1	13.6	0
200107	Wakunai HC	12	44	229	1	0	0	0	2	0	0	746	34.3	24.3	1.5
200108	Paruparu SC	12	0	4	0	0	0	0	0	0	0	108	4.6	4.6	0
200102	Koromira HC	12	83	366	2	5	0	0	0	0	0	731	32.6	2.7	0
200109	Kakusida CHP	12	57	19	5	3	0	0	0	0	0	237	8.4	5.5	0
200110	Orami CHP	12	30	29	0	0	0	0	0	0	0	138	21.7	18.1	0
200111	Kodora CHP	12	28	21	0	0	0	0	0	0	0	172	12.8	4.7	0
CENTRAL BOUGAINVILLE District		120	701	1338	17	9	1	0	3	0	0	3962	30.0	13.3	0.7
200301	Buin HC	12	3	63	1	0	0	0	0	0	0	208	16.8	6.3	0
200302	Katukuh HC	12	7	2	1	0	0	0	0	0	0	2	0	0	0
200303	Konga SC	12	0	56	0	0	0	0	0	0	0	133	15.8	5.3	0.8
200305	Lenoke SC	12	1	12	0	0	0	0	0	0	0	128	12.5	10.2	0
200306	Monoitu SC	12	17	32	1	7	0	0	0	0	0	295	13.2	8.8	0.7
200307	Moratona HC	12	0	34	1	4	0	0	0	0	0	258	21.3	8.9	0.4
200308	Piano SC	12	34	29	2	3	0	0	0	0	0	328	7.0	6.1	4.3
200309	Piva (Torokina) SC	12	5	68	0	2	0	0	0	0	0	352	16.8	11.6	1.1
200310	Sovele SC	12	0	48	4	17	0	1	90	54.4	41.1	382	5.2	2.9	0
200311	Tabago SC	12	110	37	6	23	0	0	0	0	0	242	16.5	13.6	0
200312	Tonu SC	12	55	40	7	1	0	0	0	0	0	234	17.1	15.0	0
200313	Turiboiru SC	12	13	31	0	1	0	0	0	0	0	315	10.5	4.4	0
200314	Oria SC	12	12	20	0	3	0	0	0	0	0	159	11.9	10.7	0.6
200315	Boku HC	11	0	0	0	0	0	0	0	0	0	47	0	0	0
200317	Sinkodo SC	12	0	6	0	3	0	0	0	0	0	45	20.0	13.3	0
200318	Karato CHP	12	0	2	0	0	0	0	0	0	0	52	7.7	7.7	0
SOUTH BOUGAINVILLE District		191	257	480	23	64	0	1	90	54.4	41.1	3180	13.0	8.3	0.7
Autonomous Region of Bougainville Province		467	1746	6886	57	99	2	3	99	50.5	38.4	23802	27.8	15.4	0.7

AROB is one of the Provinces that are performing very well in submitting NHIS/ENHIS reports to the Provincial Information Team on time. During the visit, all facilities stated that all reports are always submitted no later than the 7th of the new month and always saves a copy for the facility, which the team verified.

From the NHIS report, it is seen that Lemanmanu HC has no reported data for malaria from January to December. However, there are 2 Aid Posts still operating in the Lemanmanu catchment which continues to do testing and treating of patients. Obviously the datas were not captured and this has been raised and discussed with the PHIO to find ways to capture the missing datas.

Tabled below is the NHIS Report from January to February. All facilities have confirmed to have submitted January and February report to the Provincial Team already. The reports are still being verified thus as seen most facilities have a zero indicating no reports as yet. Once verified then the team will upload.

Autonomous Region of Bougainville Province

MALARIA REPORT January to February 2024

Date Printed: 24/03/2024 15:40:19

Code	Facility	No of reports	OUTPATIENT		INPATIENT		DEATHS		Slides Examined			RDT Examinations			
			Clinical	RDT	Clinical	RDT	Clinical	RDT	No. Exam	+ve %	+ve % falcip	No. Exam	+ve %	+ve % falcip	Failed
200201	Buka UC	1	0	0	0	0	0	0	0	0	0	0	0	0	0
200202	Gagan SC	1	0	0	0	0	0	0	0	0	0	33	0	0	0
200203	Hanahan SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200204	Kekesu SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200205	Kunua HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200206	Kurzio SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200207	Lemanmanu SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200208	Nissan HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200209	Selau (Hantoa) SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200210	Sipai SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200211	Skololan SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200212	Buka HO	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200213	Tearouki HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200214	Carterets SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTH BOUGAINVILLE District		2	0	0	0	0	0	0	0	0	0	33	0	0	0
200101	Arawa DH	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200103	Manetai HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200104	Panguna HC	1	0	0	0	0	0	0	0	0	0	0	0	0	0
200105	Ruruvu SC	1	0	2	0	0	0	0	0	0	0	0	0	0	0
200107	Wakunai HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200108	Paruparu SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200102	Koromira HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200109	Kakusida CHP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200110	Orami CHP	1	0	1	0	0	0	0	0	0	0	23	4.3	0	0
200111	Kodora CHP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CENTRAL BOUGAINVILLE District		3	0	3	0	0	0	0	0	0	0	23	4.3	0	0
200301	Buin HC	1	3	5	0	0	0	0	0	0	0	0	0	0	0
200302	Katukuh HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200303	Konga SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200305	Lenoke SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200306	Monoitu SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200307	Moratona HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200308	Piano SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200309	Piva (Torokina) SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200310	Sovele SC	1	0	3	0	0	0	0	0	0	0	27	11.1	7.4	0
200311	Tabago SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200312	Tonu SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200313	Turiboitu SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200314	Oria SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200315	Boku HC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200317	Sinkodo SC	0	0	0	0	0	0	0	0	0	0	0	0	0	0
200318	Karato CHP	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTH BOUGAINVILLE District		2	3	8	0	0	0	0	0	0	0	27	11.1	7.4	0
Autonomous Region of Bougainville Province		7	3	11	0	0	0	0	0	0	0	83	4.8	2.4	0

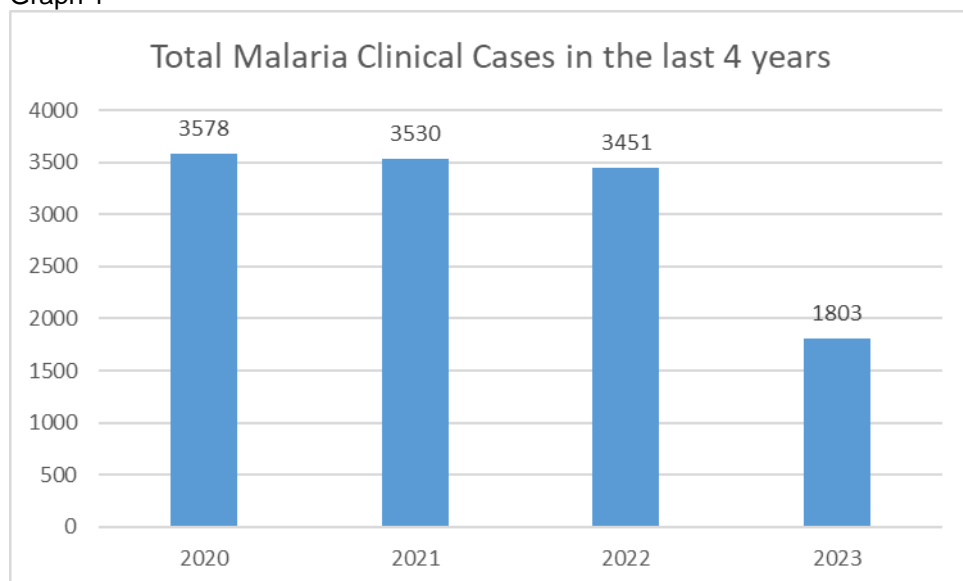
10.MALARIA OVERVIEW

AROB is one of the Provinces with lesser malaria burden compared to other Provinces. Malaria cases in AROB is mostly common in both North and Central Bougainville whereas the southern part of the region has almost zero cases of malaria. Few cases are seen but most often this are imported cases.

The low malaria burden is due to various reasons including the geographical setting, the weather pattern and also the vegetation makeup. The Malaria causing mosquito Anopheles is well known to live in humid conditions and rainfall areas in which AROB has some areas ideal for that.

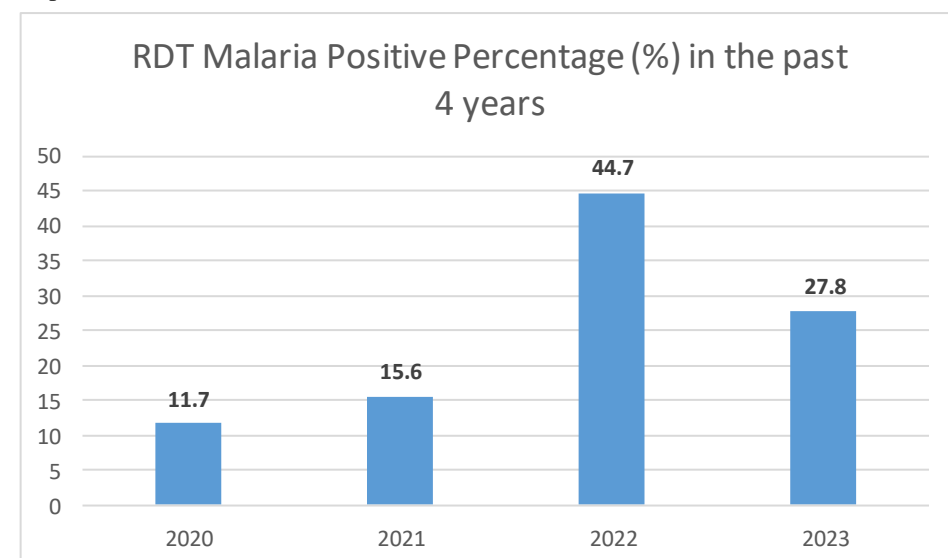
The graphs below show the trend of Malaria situation in the Province in the last 4 years (2020 – 2023) as per NHIS reports. **Source; ENHIS 24/03/2024 15:42:35**

Graph 1



Graph 1 shows that there has been a slow decrease in Clinically diagnosed Malaria cases between 2020 – 2022, however there was obvious fall in 2023. Despite continuous visit and emphasis there is still clinical diagnosis been reported. This clinical cases needs to be verified because the malaria registers been collected throughout all the visits do not contain much clinical cases as projected through the NHIS reports.

Graph 2



Graph 2 shows an obvious increase in the positivity rate between 2021 and 2022. After 2022, the rate dropped.

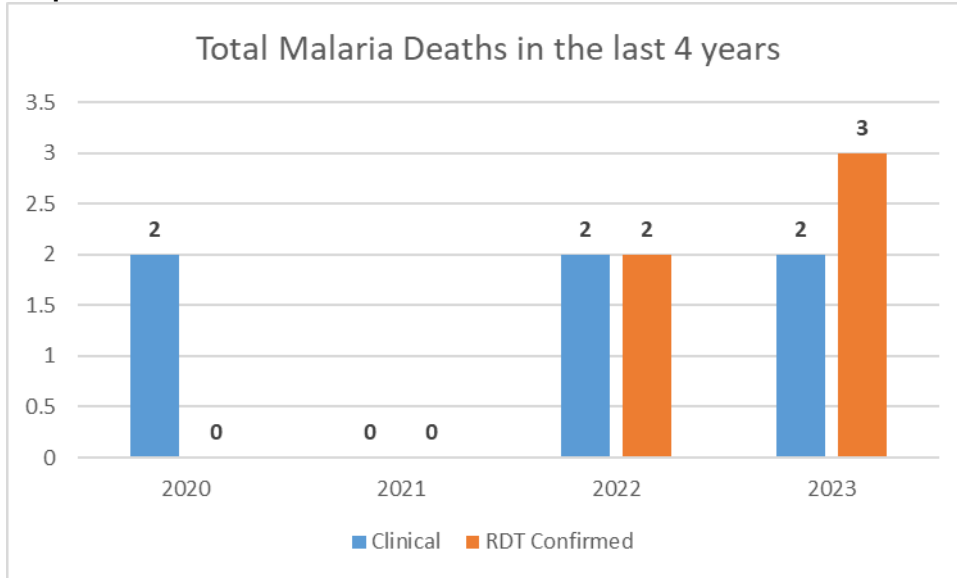
This could reflect the inclusion of the Home Based Management of Malaria (HMM) program in AROB in the month of September in which 22 volunteers were trained at Kekesu and immediately rolled out the program. Kekesu SC in 2022 had the highest positivity rate compared to other facilities in that year and the rate doubled as well for the same facility compared to previous years. HMM program drastically increased testing and reporting of malaria cases from patients right in the remote communities who previously didn't have the access to any nearby HFs within at least 2-hours walking distance. However, the sudden increase observed in 2022 could be caused by various contributing factors listed below:

- Malaria patients not completing treatment and hence being readmitted after 3-4 weeks' post-treatment,

- LLINs distributed towards the end 2021 may be losing their efficacy by 2022, as well as most people staying up late into the night for various social activities and getting bitten by mosquitoes before finally going to bed,
- 2022 National General Elections had caused an influx of people travelling between provinces and districts thus co-infecting each other

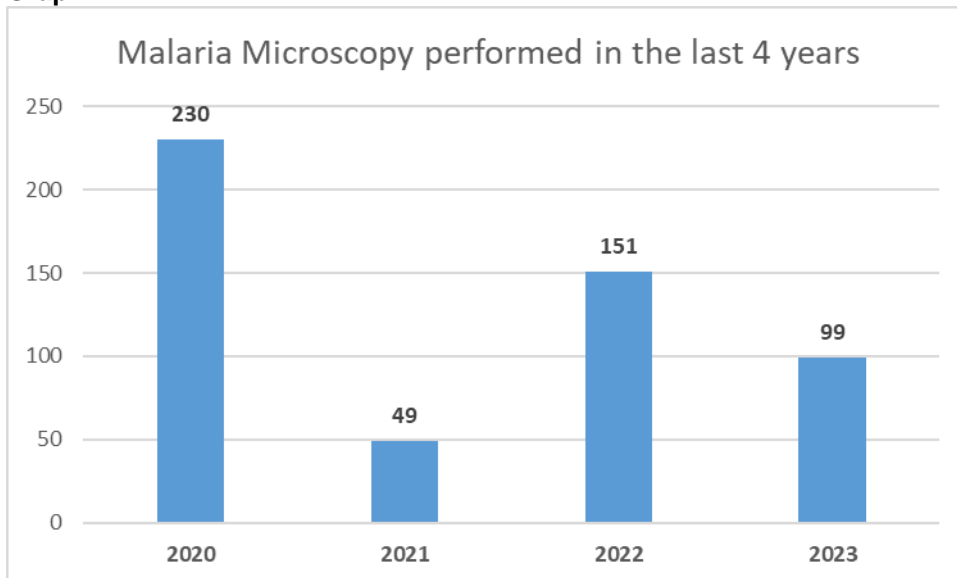
The reduction noted in 2023 could be the result of LLINs distributed in late 2022 and early 2023 which could mean that the net efficacy was still very effective.

Graph 3.



Graph3 shows the malaria deaths reported in the last 4 years. From the graph it can be noted that between 2020 to 2021 there were no deaths confirmed by RDT. The deceased could have presented with clinical features of malaria thus the final diagnosis was made under clinical. Increased RDT confirmed deaths reported from 2022 to 2023 are mostly combination of other complications rather than malaria alone. Thereby if a death is a result of another complication but malaria was also diagnosed the final diagnosis will also have malaria and the monthly report will include that death as malaria caused as well.

Graph 4.



Graph 4 shows the total microscopy performed between 2020 and 2023. From the graph it can be seen that there is no steady performance of microscopy in the 4-year period. There are few factors that can conclude this

- Reporting tools are often not kept up to date thus obvious missing data
- Availability of reagents or slides affecting the performance
- Continuous Power outage in AROB is a major challenge as well affecting the performance

10. PROGRAM VEHICLE

Currently there is no assigned Program vehicle in the Region. All facility visits conducted are with the aid of local hire cars. Most of the budget is used up for vehicle hire as well as dingy hire for sea accessible facilities. It is very expensive to continue to hire.

This quarter 1 visit, Ako Baa local hire car was used to visit facilities on both Mainland AROB and Buka Island. While the dingy engaged to visit sea accessible facilities was provided by AROB Health Department. The never ending support from AROB Health Department is truly appreciated.

11. ACHIEVEMENTS

- There was sufficient stock kept by the Malaria team to maintain the facilities from November 2023 to February 2024. As such no stock out of commodities were noted from anyone facilities.
- Successfully visited all 32 accessible facilities and distributed the quarter 1 RDTs/ACTs and Primaquine together with the Antenatal Care Nets on time
- 4 inaccessible facilities were successfully visited as well this quarter and malaria commodities were supplied to them on time.
- Managed to rotate soon to expire RDTs, ACTs as well as sufficient Primaquine from over stocked facilities to Arawa District Hospital as well as Tearouki HC to be used up without wastage.
- Successfully conducted 2 x Continuous Quality Initiative (CQI) training at both Nursing Colleges in AROB.
- Finally scheduled meeting with Catholic Church Health Service and met with Mr. Fabian Sembi (M&E Officer) and provided sensitization on Malaria Program Activities in the region. Needs support from all partners to work together for the common goal and that is to help eliminate the malaria burden by 2030

8. CHALLENGES / ISSUES

- Clinical diagnosis is still being done by many health care staffs in the facilities despite emphasis and continuous refresher training provided to officers on duty during quarterly visit.
- Poor monitoring of clinical cases performed in facilities by Malaria team in the Region. There shouldn't be any clinical cases as RDTs are always supplied without any delay. The malaria team in the region should be on their toes to monitor this and advocate to all facility staffs to put a stop to clinical diagnosis as continuous clinical diagnosis will definitely lead to drug resistance.
- Microscopy performance is poor in all four MPS Microscopy laboratory.
- ACTS/RDTS and ANC nets are provided to Elutupan Aid Post to share with Lontis Aid Post which both are serving under the catchment of Lemmananu HC (although it is closed). These Aid Posts do testing, treating patients and tracking the malaria datas but for the whole year of 2023 there has been no record in the NHIS on malaria even though malaria registers at these facilities have records of tests performed.
- Continuous rain has caused multiple river banks to flood which continue to affect the traveling schedule. Although the team spent half of the night near a river, we still manage to visit facilities by taking risks and crossing the rivers. Road deterioration as well is a major issue imposing greater repair and maintenance challenge for local vehicles.
- Unable to track 2nd and 3rd doses of IPTP in pregnant ladies at few facilities

9. RECOMMENDATIONS

- PMS and RMC to closely monitor clinical cases reported every month through NHIS and raise it up with responsible OICs.
- Prioritized conducting CQI training at the district level (3 districts/regions) for OICs/ laboratory technicians and officers assisting in compiling reports for facilities in Q2, Q3 and Q4 of 2024. Aid Posts staffs to attend as well.
- Malaria team in the Region to take the lead to focus on improving Malaria Microscopy reporting and data quality of facilities who are performing MPS (Buka Hospital, Arawa District Hospital, Buin HC and Sovele HC).
- Provincial Malaria officer to confirm with the Provincial Information Officer about the reporting pathway for the Aid Posts under the catchment of Lemmananu. Until then no ACTs/RDTs will be supplied to either Elutupan or Lontis Aid Posts.
- During this visit both Malaria Program Officer and Malaria Coordinator went through with staffs on keeping track of all IPTP doses on the ANC register. The team will have to **continue to monitor** this to ensure that staffs understand the importance and take the responsibility to keep track of these doses.

10.ACKNOWLEDGEMENT

This 1st quarter supervisory visit to AROB has been great. Although there were issues beyond our control which prevented the team to visit other planned facilities, the team continued on and ensured that all reporting facilities receive their quarterly supplies. Your support in one way or the other and practical advice have been greatly acknowledged for the successful completion of this visit. Many thanks to;

- The Health Department Health Secretary, Mr. Clement Totavun and his staffs for their continuous support in both logistics and technical advice to ensure the program continues to run in the region.
- Many thanks to AROB Malaria Program Officer Mr. Masono for his support throughout quarter one routine visit to all road accessible facilities and ensuring that staffs adhere to the Test, Treat and Track of malaria cases.
- Thankful also to HMMO Ms. Racheal Puton for always assisting facilities with stock replenishment and attending to their requests whenever they are in town and both the PMS and RMC cannot be reached.
- And to All hard working OICs and staffs of district health facilities in the region, thank you for always working together to control malaria in the region.

Thank you



Malaria team at Lemanmanu HC. HMMO and RMC run through with the reporting tools



Team visit Kodora CHP



A CHW at Sovele HC doing an RDT on a suspected malaria case



AROB Malaria Officer doing facility checklist with Wakunai HC SIC Sr. Kusa



Mr. Masono making sure SIC of Panguna HC Sr. Otori fills out the ANC LLIN Register correctly



Boku HC. Team arrived but no staff available. All doors locked



Mr. Masono checking the malaria stock on hand as well as expiry dates



Team at Orami CHP



Mr. Masono ensuring SIC of Katukuh SC fill in correct information on the LLIN ANC Register



Mr. Masono going through the reporting tools with OIC of Koromira SC HEO Dorothy



Mr. Masono explaining the importance of keeping track of IPTP in the ANC Register Book



Flooded river in Buin caused team to be stranded on the river bank from 2pm to 10pm in the night



Mr. Masono explaining to Sr. Gani at Piano SC on how to fill the ANC LLIN Register



RMC checking malaria commodities with the SIC in Panguna HC dispensary



HMMO Ms. Puton running through with the staff at Torokina HC on correctly filling out the register books



SIC Sr. Cecilia Kaian filling out the registers during the visit



RMC at Sovele HC. Going through the reporting tools available and the required information to be filled out



Torokina HC ambulance assisting the team



RMC with OIC of Tearouki HEO Ambigail highlighting issues noted



RMC with SIC at Monoitu HC discussing issues noted on ANC registers



PHA staff accompanying HMMO to visit Skotolan SC. Discussing the different RDTs used with the 2 staffs



RMC with Sr. Miringtoro at Kodora discussing the drugs available



RMC doing stock check at Monoitu Dispensary



HMMO and RMC had a brief meeting with CCHS Monitoring and Evaluation Officer at Catholic Health Office- Buka