

NATIONAL VECTOR CONTROL PROGRAM 2018 - 2019 OPERATIONAL PLAN								
2018-2019 Vector Control Program Primary Targets:								
- 10% reduction in incidence of Dengue, Zika, and Chikungunya vs 2017 baseline - 20% reduction in Malaria cases vs 2017 baseline								
Strategic Objective 1: Integrated Health Services Based on Primary Health Care for Improved Health Outcomes								
OUTPUT 1:		DISEASES OF MAJOR PUBLIC HEALTH CONCERN PREVENTED AND / OR CONTROLLED (Malaria, Dengue, Zika, Chikungunya)						
COMPONENT ACTIVITY		PREVENTION, SURVEILLANCE, TREATMENT						
ACTIVITY 1.1	Malaria Elimination Planning							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR	TIMELINE	COMMENTS
1.1.1	Revision of Strategic Plan for Malaria Elimination	Chief of Operations PAHO Vector Control TA CHAI-Clinton Health Access Initiative	Vector Control Unit	Vector Control Unit	Once	% of district programs implementing Malaria Elimination Plan	JAN - JUN	
1.1.2	Re-orientation of malaria surveillance system through sensitization of healtcare workers	PAHO Consultant PAHO Vector Control TA Chief of Operations		Vector Control Unit	Once		JAN - MAR	
1.1.3	Micro-planning for active Malaria Foci	Chief of Operations	Vector Control Unit - Toledo, Stann Creek, Cayo	Vector Control Unit - Toledo, Stann Creek, Cayo	Once		APR - JUN	
1.1.4	Development of work plan for Regional Malaria Elimination Initiative (RMEI) - administered by the Inter American Development Bank (IDB)	Chief of Operations		Vector Control Supervisor	Once	NONE	JAN - MAR	
1.1.5	Investigation and classification of Malaria Foci	Chief of Operations		Vector Control Unit	As needed	% malaria foci classified	N/A	Appropriate interventions based on classification
1.1.6	Development of malaria stratification maps - vulnerability and receptivity maps	GIS Technician PAHO Vector Control TA Chief of Operations		Vector Control Unit	Once	NONE	FEB - MAR	
1.1.6	Maintenance of a case database - line listing for Malaria Elimination	Chief of Operations			Ongoing	NONE	N/A	
1.1.7	Assessment of current Voluntary Collaborators (vc's) distribution and conduct recruitment of new vc's to replace those inactive		Regional Health Management Teams	Vector Control Unit	Ongoing	NONE	N/A	
ACTIVITY 1.2	Radical Treatment of Confirmed Malaria cases, reporting, surveillance, follow up							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
1.2.1	Adherence to National Malaria Guidelines - investigation, follow up, case response, treatment, surveillance	Chief of Operations		Vector Control Unit	Ongoing	% of cases investigated, classified and treated	N/A	
1.2.2	Investigation and classification of all Malaria Cases within 48 hours of diagnosis	Chief of Operations		Vector Control Unit	As needed		N/A	Reviewed by Chief of Operations. Copy of investigation form and narrative report sent to Chief of Operations See case reponse section in National Malaria Guidelines
1.2.3	Monitor compliance of Radical Treatment - 100% complete supervision of cases	Chief of Operations		Vector Control Supervisor	On going	% of cases with complete surpervised treatment	N/A	14 Days Semi-supervised Chloroquin/Primaquin schedule. Both at Public and Private Health Facilities
1.2.4	Daily monitoring of suspected Chloroquine resistant cases of P. falciparum			Microscopist, Vector Control Supervisor, Chief of Staff	On going	% p falciparum cases monitored for treatment efficacy	N/A	As per National Malaria Guidelines - treatment with appropriate antimalarial drug, and monitoring of parasetemia as per protocol
1.2.5	Monitor Fever Case Surveillance (Active and Pasive). ABER (Annual Blood Examination Rate) MINIMUM of 7% in communites w/ transmission and MINIMUM of 5% per district w/ no transmission		Regional Health Management Teams	Vector Control Unit	On going	ABER reported per district	N/A	Increase active case detection, especially in communities with Malaria cases over the past 3 years, communities with high incidence of fever cases, at at the various health facilities. Routine testing of both febrile and non-febrile persons in high risk groups such as immigrants in the agricultural industry (eg. banana & citrus workers in South and cane farmers in North and West)
	Monitoring ratio of Active and Passive slide collection: recommended 20% Active and 80% Passive	Chief of Operations	Regional Health Management Teams	Vector Control Supervisor	On going	% of active vs. passive slides	N/A	
1.2.6	Forecasting, Procurement and distribution of supplies to Malaria labs	Chief of Operations & Central Medical Stores			Once	% of supplies procured - verified through BHIS	OCT - DEC	Tender Process: review tender list and factor in buffer stock for outbreaks Procurement of supplies not in tender
1.2.7	Maintain stock of anti-malaria medication for drug resistant or complicated cases and prophylaxis	Chief of Operations			As needed	% of supplies procured - verified through BHIS	N/A	Artemisin Combination Therapy (ACT - Coartem) and Quinine Mefloquine for travellers to endemic regions with known chloroquine resistance
ACTIVITY 1.3	Improved quality of diagnosis							
		RESPONSIBLE						

		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR	TIMELINE	COMMENTS
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
1.3.1	Development of Senior Microscopist Post w/ responsibility for training and quality assurance	Chief of Operations			Once	NONE	JAN - JUN	Ms. Olympia Ramclam - Microscopist - Southern Health Region - certified validator by PAHO
1.3.2	TBF Quality Control Monitoring.	Chief of Operations		Designated Senior Microscopist, other Microscopists, vector Control District Supervisor	Monthly	% of district programs participating in in-country quality control program	N/A	
1.3.3	Assess proficiency of Microscopists through PAHO Quality Assurance Program and through Refresher Workshops	Chief of Operations		Designated Senior Microscopist (Southern Health Region)	Once	Completion of external quality assurance program yearly assessment	N/A	Yearly shipment of 20 panels (slides) sent from regional reference lab for Malaria in Honduras w/ support of PAHO
1.3.4	Development of Malaria Microscopy S.O.P.	Chief of Operations CML Director PAHO Vector Control TA			Once	NONE	APR - JUN	
Strategic Objective 1: Integrated Health Services Based on Primary Health Care for Improved Health Outcomes								
OUTPUT 2:		Integrated Vector Management to reduce polulation of vectors that transmit Malaria, Dengue, Chikungunya and Zika						
COMPONENT ACTIVITY		VECTOR CONTROL						
ACTIVITY 2.1	Dengue, Chikungunya, Zika Prevention and Control							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
2.1.1	Monitor entomologic indexes (Container Index, Breteau, House Index)	Chief of Operations		Vector Control Supervisor	On going	House, Container Index: low risk - below 1% medium risk - below 3% high risk - above 5% Breteau Index - positive containers per 100 houses low risk - below 5 high risk - above 49	N/A	
2.1.2	Implementation of new Aedes reporting system by public health Zones	Chief of Oeprations/BHIS Unit	Regional Health Teams	Vector Control Unit	On going	NONE	JAN -MAR	for the monitoring of productivity reporting tool for management for risk stratification and management of resources
2.1.3	Piloting of mobile based data collection and GIS to monitor aedes infestation levels	Chief of Oeprations/BHIS Unit/Belize Vector and Ecology Center		Vector Control Unit	On going	NONE	APR - JUN	Cayo, Orange Walk and Corozal selected as piloting sites Funded by Public Health England
2.1.4	Distribution of bed nets and repellent to pregnant women for Zika prevention		Regional Health Teams	Vector Control Unit/MCH	On going	# of nets & repellent distributed	N/A	distributed to only to women willing to participate in program and will utilize net
2.1.5	Implementation of ovi-trap program for monitoring of insecticide resistance - in collaboration with Mexico INSP	Chief of Operations		Vector Control Unit	On going	NONE	N/A	
ACTIVITY 2.2	ULV spraying in all six districts							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
2.2.1	ULV spraying based based on risk indicators (entomologic indices, vector density, biting rates, epidemiological data)	Chief of Operations		Vector Control Unit	As needed	None	N/A	
2.2.2	Monitor maintenance of spraying equipment	Chief of Operations		Vector Control Supervisor	On going	None	N/A	As per Vector Control Equipment Maintenance Manual
2.2.3	Build relationships with municipalities to support with spraying operations		Regional Health Teams	Regional Health Teams	On going	None	N/A	Assist Regions in developing partnerships / alliances with other stakeholders for ULV spraying
2.2.4	Make projections and monitor stocks of insecticides and Equipment for ULV spraying	Chief of Operations & Central Medical Stores			Yearly	None	OCT - DEC	Through tender process
2.2.5	Calibration of ULV equipment with DC4 droplet calibration device	Chief of Operations		Vector Control Unit	Yearly	NONE	JAN - MAR	
ACTIVITY 2.3	Larviciding							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
2.3.1	Monitor entomological indexes pre and post intervention	Chief of Operations		Vector Control Supervisor	On going	NONE	N/A	House Index, Container Index, Breteau Index

		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR	TIMELINE	COMMENTS
2.3.2	Recommendation of appropriate larvicides for procurement and monitoring of supplies	Chief of Operations			On going	NONE	N/A	Through tender process
ACTIVITY 2.4	Indoors Residual Spraying (IRS) (in all six districts and in priority localities)							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
2.4.1	Procurement of spraying supplies and equipment	Chief of Operations & Central Medical Stores			Once	NONE	APR - JUN	As part of Tender Process for MOH
2.4.2	Implementation and monitoring of IRS in malaria foci under surveillance	Chief of Operations		Vector Control Unit	bi-annually	% of malaria foci covered by IRS	APR - MAY OCT - NOV	IRS to be conducted minimum of every 4 - 6 months (preferably every 4 months) Standard: > 80% of the houses
2.4.3	Distribution & re-distribution of LLIN's - long lasting insecticide treated bednets in communities with transmission of Malaria over past 3 years			Vector Control Unit	As needed	% of malaria foci utilizing LLIN's	APR - MAY OCT - NOV	Standard: > 80% of the houses
2.4.4	Identification of sentinel sites for entomological studies, insecticide resistance testing and assessment of bed net quality and effectiveness	Chief of Operations		Vector Control Unit	once	% of districts monitoring insecticide resistance and vector population	N/A	To be supported by Belize Vector and Ecology Center in Orange Walk. Keep vector list updated conduct insecticide resistance testing yearly
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OUTPUT 3:		Advocacy, Communication, Partnerships and Collaboration						
COMPONENT ACTIVITY		HEALTH PROMOTION						
ACTIVITY 3.1	Vector borne diseases (Dengue, Chikungunya and Zika)							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
3.1.2	Dengue, Chik-V and Zika audio-visual spots airing	Chief of Operations/HECOPAB		Regional Health Management Teams	As needed	NONE	N/A	Dengue health education to general public
3.1.3	Support community meetings: Malaria, Dengue, Chik-V, Zika	Chief of Operations/HECOPAB	Regional Health Management Teams	Vector Control Supervisor	As needed	number of community meetings held	N/A	Coordination with HECOPAB and aimed at high risk communities
3.1.4	Reproduction of printed educational material for Dengue, Malaria, Chikungunya and Zika	Chief of Operations/HECOPAB			As needed	NONE	APR - MAY	To be shared at Schools, Open Days and Fairs
3.1.5	Sensitization of public on prevention of Dengue, Chik-V and Zika through TV & Radio appearances	Chief of Operations/HECOPAB	Regional Health Management Teams	Vector Control Supervisor	As needed	NONE	JUN - AUG	To be shared at Schools, Open Days and Fairs
ACTIVITY 3.2	Implementation of Communication for Behavioural Impact (COMBI) Strategy to Combat Vector Borne Diseases							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
3.2.1	Development of district COMBI plan	Vector Control/HECOPAB	Vector Control/HECOPAB	Vector Control/HECOPAB	As needed	% districts using COMBI for Dengue, Chik-v, and Zika prevention	JAN - MAR	Funding through Moh Headquarters
3.2.2	Implementation of district COMBI plan	Vector Control/HECOPAB	Vector Control/HECOPAB	Vector Control/HECOPAB	As needed		APR - DEC	Funding through Moh Headquarters
ACTIVITY 3.3	Celebration of International Days							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
3.3.1	Participation in celebration of International Health Days: Health Fairs , Open Days, Talk shows, Web publications, news releases, etc.	Env. Health Unit/HECOPAB	Env. Health Unit/HECOPAB	Env. Health Unit/HECOPAB	Yearly	NONE	N/A	World Health Day, Malaria Day in the Americas, Caribbean Mosquito Awareness Week
OUTPUT 4:		INSTITUTIONAL STRENGTHENING						
COMPONENT ACTIVITY		STAFFING						
ACTIVITY 4.1	Provide adequate staffing and national and regional levels							
		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR		COMMENTS
4.1.1	Create the post of Vector Control Technician to serve as assistant to Chief of Operations	Chief of Operations			Once	NONE	APR - JUN	
4.1.2	Create the post of: Vector Control Supervisor - Orange Walk Microscopist - Orange Walk Senior Microscopist - Southern Health Region	Chief of Operations			Once		APR - JUN	Entire northern region has 1 vector control supervisor based out of Corozal. Orange Walk needs its own supervisor. Entire northern region has 1 microscopist working out of Corozal and the workload is overburdening. Orange Walk needs its own microscopist. Senior microscopist to serve as reference microscopist and person in charge of quality control

		RESPONSIBLE						
TASKS		NATIONAL	REGIONAL	DISTRICT	FREQUENCY OF TASK	INDICATOR	TIMELINE	COMMENTS
COMPONENT ACTIVITY		TRANSPORT and EQUIPMENT						
ACTIVITY 4.2	Provide adequate transport for spraying operations and surveillance							
4.2.1	Assess condition of current vector control vehicles and submit request for procurement based on need	Vector Control Chief of Operations			Once	NONE	APR - JUN	minimum of 2 fully working pickup trucks needed per district
4.2.2	Procurement of ULV machines	Vector Control Chief of Operations and NEMC			Once	NONE	APR - JUN	Procurement of 6 Leco 1800E ULV machines
4.2.3	Procurement of Pressurized Pumps	Vector Control Chief of Operations and NEMC			Once	NONE	APR - JUN	36 Hudson xPert pressurized pumps w/ spare parts
4.2.4	Procurement of Thermal Foggers	Vector Control Chief of Operations and NEMC			Once	NONE	APR - JUN	Procurement of 24 Igeba T-F34 or SwingFog SN-50
COMPONENT ACTIVITY		TRAINING						
ACTIVITY 4.3	Vector Control Staff Training in Necessary Competencies							
4.3.1	Participation of at least 1 vector control officer per district in Basic FETP Course	EPI Unit			Once	Number of officers trained in FETP	N/A	
4.3.2	Training of vector control officers in safe use and application of pesticides for public health	Pesticides Control Board			Once	Number of officers trained in safe use and application of pesticides for public health	N/A	curriculum currently being developed by the PCB