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சுகாதார அமைச்சு
Ministry of Health

JOB DESCRIPTION

A. Description of position	
A1. Job Title:	Health Entomology Officer (HEO)
A2. Salary Code:	MT 6
A3. Institution:	National Dengue Control Unit/ Anti-Malaria Campaign/ Anti Filariasis Campaign/ Medical Research Institute/ National Institute of Health Sciences or Office of Regional Director of Health Services / Colombo Municipal Council/ Office of the Medical Officer of Health
A4. Department/Division:	Health
A5. Service Category:	Para medical services
A6. Grade/class:	Grade 3, 2, 1, Supra Grade

A7. Summary of job:

- Entomological Surveillance activities, species identification, assessing vector bionomics and insecticide resistance monitoring activities along with other laboratory procedures.
- Entomological forecasting of impending outbreaks
- Risk communication for prompt action

B. Role/ Responsibilities	
B1. Key Result Areas/ Key accountabilities	B2. Key Performance Indicators
1. Conduct spot, routine, sentinel and special entomological surveillance activities	1. Number of surveys per MOH area per month (adult and immature stages)
2. Forecast outbreaks based on entomological parameters. 3. Communication of risk to higher health officials in time	2. Number of routine and spot checks per month 3. Number of surveys in sentinel sites per month
4. Performance of insecticide resistance tests	4. Number of MOH areas receiving the detailed report on time (i.e. Detailed report within 5 days, after the survey activity)
5. Engaging in laboratory work	5. Number of Bio Assays for IRS/LLIN/Space spraying per year
B3. Supervisory responsibilities (direct & indirect): -	

B4 Tasks/ functions (duty list):

1. Perform his/her duties under the administrative authority of the Head of the Institution (HOI) with technical guidance and supervision from SHEO/ Entomologist/Regional Medical Officer (Malaria)/ Regional Malaria Officer, Regional Medical Officer (Filariasis), Regional Epidemiologist/ MO Epidemiology, MO - Vector borne diseases, Medical Officer of Health and Additional Medical Officer of Health), and from the Consultant Community Physicians (CCP)/other relevant Specialist.
2. Within one month of his assumption of duties, he/she should submit a survey report of his/her area to the Head of Institution (HOI), through supervisors.
3. If the HEO is in the office, should adhere to the normal office duty hours. If HEO is attached to Directorates of Special Campaigns/ Units/ Institutes (AMC, AFC, NDCU, MRI), he /she should sign the office attendance register when leaving for field and

reporting back to the institution after field work and maintain diary (Health 136). In case of conducting surveys in outstations, he / she should obtain prior approval and maintain diary (Health 136). When present at the office, he /she should sign the attendance register of the relevant unit for arrival and departure in addition to the diary.

4. The normal working hours is from 8.30 am to 4.15 pm if attached to Directorate or district level office/ from 8.00 am to 4.00 pm if attached to MOH office. Duty hours will be the duty hours of the attached institution. Saturday, Sunday and Public Holidays are off days. However, the officer shall report for work on any of the holiday on the instructions of supervising officers.
5. Should wear the uniform while on duty.
6. Shall work in the field, laboratory or office. Laboratory procedures may be done in the field when necessary.
7. Prepare a weekly/ monthly advance plan with the guidance of relevant supervisor listed in B4.1 and submit the same through Supervising Officer/s to the HOI. A copy of the approved advance programme should be sent to the relevant district disease technical focal point. Monthly advance programme should be submitted on or before the 25th of the previous month. In Headquarters of special campaigns, the advanced program should be forwarded through SHEO through Entomologist and Unit head (CCP) to the Director
8. Exhibit the weekly or monthly advance programme (approved programme of work) in the place of work accessible to the supervising officers. Prior approval should be obtained from the HOI for any deviation from the approved programme

General duties

1. Carryout entomological surveys and surveillance (sentinel and routine) adhering to the Entomology Guideline and SOPs published by the national disease control programmes.
 - a. Preparation of specimens for taxonomical identification of disease vector species
 - b. Study bionomics of disease vectors
 - c. Testing for insecticide resistance of vectors
 - d. Testing bio efficacy of vector control interventions by conducting bioassays
 - e. Identify vectors, trends on vector density and dynamics
 - f. Collection of adult mosquitoes in dwellings, surroundings, traps, other places and maintain a specimen bank.
 - g. Maintain colonies of the relevant species to obtain live specimens under the

guidance of SHEO and entomologists.

- h. Collection of larvae from all relevant mosquito breeding places for determining (1) preferential breeding places of mosquitoes and (11) efficacy of vector control measures
 - i. Collection of eggs through ovi-trap surveillance
 - j. Preparation of specimens for preservation.
 - k. Carry out an assessment of the effectiveness of vector control methods
 - l. Process and disseminate generated entomological data to the relevant authorities through supervising officers and HOI.
 - m. Present the relevant entomological data at local, district, provincial and national level meetings whenever necessary.
 - n. Be responsible for on-site source reduction and health education for sustainable behaviour.
 - o. Duties should be carried out adhering to the relevant guidelines and Standard Operational Procedures.
2. Carry out spot checks in areas where there are disease outbreaks, contact/s of reported cases, high-risk institutions etc., for guiding vector control activities and in non-outbreak areas where necessary, to generate entomological information for forecasting and guiding vector control activities.
 3. Submit a daily summary report of entomological activities to the relevant MOH/ RMO where relevant (such as for dengue entomological activities) and a detailed report of the activities should be submitted within 5 days of completion of the survey for all vector borne diseases through relevant supervising officers listed in B4.1.
 4. Conducting laboratory-based activities, including maintenance of insectaries, dissection of mosquitoes etc. and colony management, cage bioassays, performance of necessary laboratory and field testing (Indoor Residual Spraying, cage bioassays, any other technique) under the guidance and technical supervision of the relevant supervising officers.
 5. Be responsible to enter and maintain entomological data into available formats (paper based/ web based). Assist supervising officers in compilation of data and analysis as needed.
 6. Assist supervising officer/s to analyze the trends of immature (eggs, larvae and pupae) and adult survey findings to forecast future outbreaks.
 7. The Health Entomology Officer will collaborate with other field staff (PHI, PHFO etc.) and work as a team.

8. HEO should guide the team as the team leader in entomological surveys and, be responsible for its conduct, efficiency and output of work.
9. HEO shall be responsible for monitoring and ensuring proper handling of Daily Running Chart (DRC), fuel balance notes and fuel expenditure when using state vehicle for official travel when the team leader is the HEO.
10. Attend staff conferences of the institution/Office of the Medical Officer of Health (if attached to MOH). Attend any pertinent workshops/ seminars/ refresher courses/meetings etc., if called upon to do so at national or sub-national level.
11. Attend monthly/ quarterly/ annual reviews and present their work and discuss issues identified by them in the field
12. Participate in health education programmes and other field programmes pertaining to vector borne diseases.
13. Shall assist the apprentice entomological trainees in the field training and the other training programmes.
14. Contribute to the experiments, research, special trials on innovative techniques or methods relevant to the entomological field and research conducted by the institutions. Respective techniques should be used according to the relevant guidelines and SOPs.
15. Be responsible and accountable for the stocks, safety and proper use of all equipment/chemicals issued to the HEO. Should store all entomological equipment safely and free from contamination from insecticides. Shall distribute to the team as needed
16. Maintain the following formats, files, maps and inventories.
 - a. Formats
 - i. Data Collection Forms
 - ii. Entomology Field Attendance Register – maintain for other subordinate staff when required.
 - b. Files
 - i. Advance Programme
 - ii. Circulars
 - iii. Stores
 - iv. supplies
 - c. Maps - Relevant entomological maps
 - d. Inventories
17. Attend to correspondences, data recording including uploading to the web based systems, GIS mapping, analysis and interpretation under the guidance of the Entomologist and other

relevant higher officials.

18. HEOs attached to campaigns/other administrative units have to perform their field duties according to the work norms of the campaigns/ administrative units.
19. Shall perform duties related to disease conditions dengue, filaria, malaria, leishmaniasis and any other emerging disease conditions and will not be confined to performing duties only on an individual disease condition.
20. Carry out any other technical duties assigned by the supervisors and approved by the HoI.
21. Maintain safe custody of stores and equipment issued to HEOs and maintenance of equipment. Inventory books, issue orders, receipts orders should be correctly maintained.
22. Any other duties assigned by the head of institution

DUTIES RELATED TO FILARIA CONTROL

Sri Lanka has validated for eliminating lymphatic filariasis as a public health problem. Hence, to prevent low grade transmission and introduction of other forms of filariasis to the country and to the human's entomological surveillance should be continued paying attention to all possible vectors with transmission potential.

1. Identification of primary vectors for lymphatic filariasis and other relevant vector species.
2. Mapping of distribution and density of both adult and immature stages of vectors and positive trap locations.
3. Determination of vector bionomics, breeding habitats; breeding habits; resting habits; biting habits etc.
4. Plan and conduct entomological surveillance programmes to obtain wider geographical coverage with the technical guidance of technical officers (SHEO, RMO, Entomologist, CCPs). Conduct special post-surveillance programmes as and when necessary instructed by supervising technical staff.
5. Collection of vectors using mosquito sampling techniques stipulated in SOPs; indoor hand collect on, gravid and cattle baited traps, human landing catches and any other novel techniques as directed by the control programme
6. Collected adult mosquitoes by any method should be handed over to dissection laboratory or the PCR laboratory for identification as stipulated by SOPs; identification of vector species, identification of parasitic species and genetic banking
7. Collection and species identification of larvae and pupae in field

8. Study ecological factors contributing vector bionomics and density
9. Should submit reports and returns to SHEO/ Entomologist/ RMO on time.
10. Take part in research activities conducted by the headquarters, regional authority or any other party with administrative clearance by relevant authority (eg. Transmission Assessment Surveys).
11. Carry out instructions issued by the Director/ AFC from time to time with regard to all activities related to filariasis control.
12. Any other duties assigned by the head of institution

DUTIES RELATED TO MALARIA CONTROL

Entomological investigations are important for a control programme, even in a country where malaria has been eliminated. The entomological investigation are useful to identify vector tendencies in order to successfully suppress the reestablishment of the disease.

The Health Entomology Officer should conduct malaria entomological activities as follows.

1. Conducting malaria entomological surveys.
2. In addition, Aedes vectors specified for survey purposes should be assessed
3. Any significant vector findings observed related to medical entomology should be informed to RMO/Entomologist (AMCHQ) for necessary actions
4. Morphological Identification of malaria vectors (Anophelines) up to species level.
5. Contribute to determine the density of malaria vector species.
6. Contribute to determine the geographical and temporal distribution of vector species.
7. According to the requirement of the programme, carryout necessary studies on biology and ecology of malaria vectors under the relevant technical guidance and supervision.
8. Compiling available information on environmental parameters related to malaria vector.
9. Carryout dissections to determine parity and infectivity.
10. Assist to analyze the collected data based on the entomological and vector control requirements.
11. Shall assist identifying and presenting the most suitable vector control method or methods by providing entomology findings.
12. Conduct Post entomological surveys to evaluate vector control interventions.
13. HEO conduct the larval and adult susceptibility tests of insecticides and bioassays

according to standard operational procedures published by the AMCHQ.

14. Any other duties assigned by the head of institution

DUTIES RELATED TO DENGUE CONTROL

1. Shall conduct entomological surveys (Spot, routine and sentinel) according to the available latest guidelines/ updated plausible evidence and SOPs related to dengue.
2. Be responsible to conduct all related laboratory duties according to the available latest guidelines related to dengue.
3. Be responsible to carry out special and novel surveys, techniques and tests (i.e.: Insecticide resistance monitoring, cage bio-assays etc.) related to vector management, under the guidance & SOPs of higher officials.
4. Be responsible for timely entry of survey data into the information system, analysis, interpretation and dissemination of the findings.
5. Be responsible to participate in research activities conducted by the national and sub-national levels.
6. Be responsible to communicate the risk of disease transmission while conducting entomological surveillance
7. Any other duties assigned by the head of institution

C. Person Specifications

C1. Minimum Educational Qualifications:

National Diploma in Medical Entomology awarded by the School of Entomology, Ministry of Health

C2. Skills required:

1. Ability to identify medically important insects up to species level
2. Carryout vector dissections and identification of parasites where relevant
3. Ability to carry out vector surveillance on medically important vectors
4. Be able to carry out surveillance on vector abundance, competency etc.

5. Ability to carry out efficacy tests on indoor residual spraying, aerial spraying larvicides, etc.
6. Ability to perform efficacy tests on pest control insecticides Eg. household products, and repellents, coils, vaporizers, and aerosols
7. Be able to assess vector control activities using entomological parameters
8. Ability to maintain insect colonies
9. Basic IT skills

C3. Competencies (General & Career):

Relevant technical competences, ability to work as a team, community awareness, communication of risk in an effective way in relation to entomology

C4. Special circumstances affecting the job, associated risks/working conditions:

Travelling throughout the country beyond routine hours and days as per the requirements.

C5. Service Standards:

- i. Follow service minutes and recruitment criteria
- ii. Be in uniform

C6. Values and ethics:

Adhere to ethical principles

C7. Responsibility of facilities and resources:

Use existing facilities to maintain an insectary and field entomological activities.
Human resource are allocated as per the ministry recruitments.

D. Key Relationships

D1. Authorising Officer:	Director General of Health Services- Ministry of Health
D2. Reporting to:	<p>Directors of National Dengue Control Unit/ Anti Malaria Campaign/ Anti Filariasis Campaign/ Medical Research Institute/NIHS or Provincial Director of Health Services/Regional Director of Health Services/Medical Officer of Health/RMO/RFO or Chief Medical Officer of Health, Colombo Municipal Council</p> <p>Technically Supervised by: Consultant Community Physicians and Medical Officers (National level institutions, Provincial/ District level), Regional Epidemiologist (RE), Regional Medical Officer (Malaria)/ Regional Malaria Officer/ Regional Medical Officer (Filariasis)/Or any other Medical Officer assigned above responsibilities by the HoI/ MOOH, AMOOH/ Entomologist/ SHEO</p>
D3. Supporting staff:	Relevant available human resources at health institutions

D4. Approved by:



Director General of Health Services

Date: 2023.11.07

DEASELA GUNAWARDENA

Director General of Health Services

Ministry of Health

"Suwasiripaya"

385, Rev. Baddegama Wimalawansa Thero Mawatha,
Colombo 10.



Secretary of Health

Date: 10/11/2023

S. Janaka Sri Chandraguptha

Secretary

Ministry of Health

"Suwasiripaya"

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