



MONTHLY DENGUE UPDATES

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Ministry of Health, Sri Lanka



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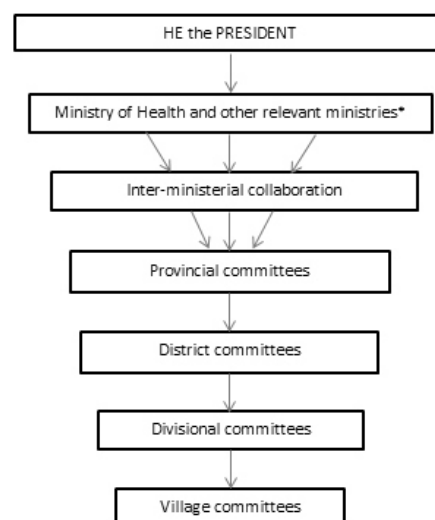
INTERSECTORAL PARTNERSHIP IN PREVENTION OF DENGUE

Dengue is one of the major public health problems in Sri Lanka. It is a vector borne communicable disease that can be prevented through appropriate preventive measures. As a nation, it is each citizen's moral responsibility to prevent dengue. We must follow the old adage "prevention is better than cure" and work towards ensuring that no further lives are lost due to dengue illness.

The current year 2021, so far has 4313 confirmed dengue patients with numbers predicted to rise. The prevailing drought conditions favour the breeding of mosquitoes in water storage containers and other often overlooked cryptic sites. With the forthcoming South-Western monsoon rains, the mosquito density is expected to increase with the proliferation of breeding places.

According to the recent entomological surveys, 40-50% of positive breeding sites of *Aedes* mosquitoes are found in discarded/covering items with water collections. The timely removal and proper disposal of solid waste are paramount to the prevention of breeding of mosquito vectors in these sites. In addition to residential houses, construction sites, schools, religious places, institutions and special places such as fisheries harbours are the prominent sites for mosquito breeding. Above facts highlight the requirement for collaboration with sectors outside health for applying effective control measures for dengue prevention. The need for community responsibility, social mobilization and actions such as premise cleaning programmes for the timely prevention of mosquito breeding in these sites must be prioritized.

The inter-sectoral collaboration programmes are led by the Presidential Task Force for the Prevention and Control of Dengue (Figure 1). They are executed by the National Dengue Control Unit (NDCU) jointly with the stakeholder ministries for the prevention and control of dengue. Under this crucial initiative, there are planned activities and responsibilities for dengue prevention activities to be carried out through schools, higher education institutes, residential houses, government and private institutions, religious places, construction sites, fisheries harbors supported by media coverage. These programmes are carried out with the cooperation of member ministries, provincial and district authorities and members of village committees.



*Education, Defense, Law and Order, Home Affairs, Provincial Councils and Local Government, Public Administration, Disaster Management, Finance, Environment & Media

Figure 1. Structure of the Presidential Task Force for the Prevention and Control of Dengue

In this structure, for sustainable impact, the members of the village committees must be guided and motivated by the Medical Officers of Health (MOOH) and the Public Health Inspectors (PHI) of their respective districts.

A guideline has been developed by the NDCU of the Ministry of Health under the purview of each ministry, defining activities with the mandate available in the NDCU website (<http://www.dengue.health.gov.lk/>). The key areas for implementation include the following:

1. Establishment of dengue control committees and ensure their functionality
2. Assignment of responsibilities to individuals for each task
3. Regular (weekly) cleanup to eliminate breeding places
4. Facilitation and strengthening of waste disposal mechanisms and waste segregation system
5. Promotion of the 3R concept (Reduce, Reuse, and Recycle)

6. Obtain technical guidance from the MOH for larval control (e.g., chemical methods, larvivorous fish etc.) in non - removable breeding places (e.g., tanks, wells etc.)

7. Ensure receipt of timely returns on cleanup activities

8. Ensure attendance and accountability at stakeholder meetings

9. Supervision, monitoring and evaluation of programmes/ activities

The above activities need to be carried out by the relevant authorities of those institutions/ premises with the collaboration of health staff at MOH office and at district and provincial levels as illustrated in Figure 2.

The sustained cooperation, active partnership and collective accountability of the relevant stakeholders for dengue prevention and control activities is integral to achieve the targeted reduction of dengue incidence and case fatality rate.

Complied by: Dr. D. S. Anoja F. Dheerasinghe – Consultant Community Physician/ NDCU and Dr. Thilanka Bandara – Medical Officer/ NDCU

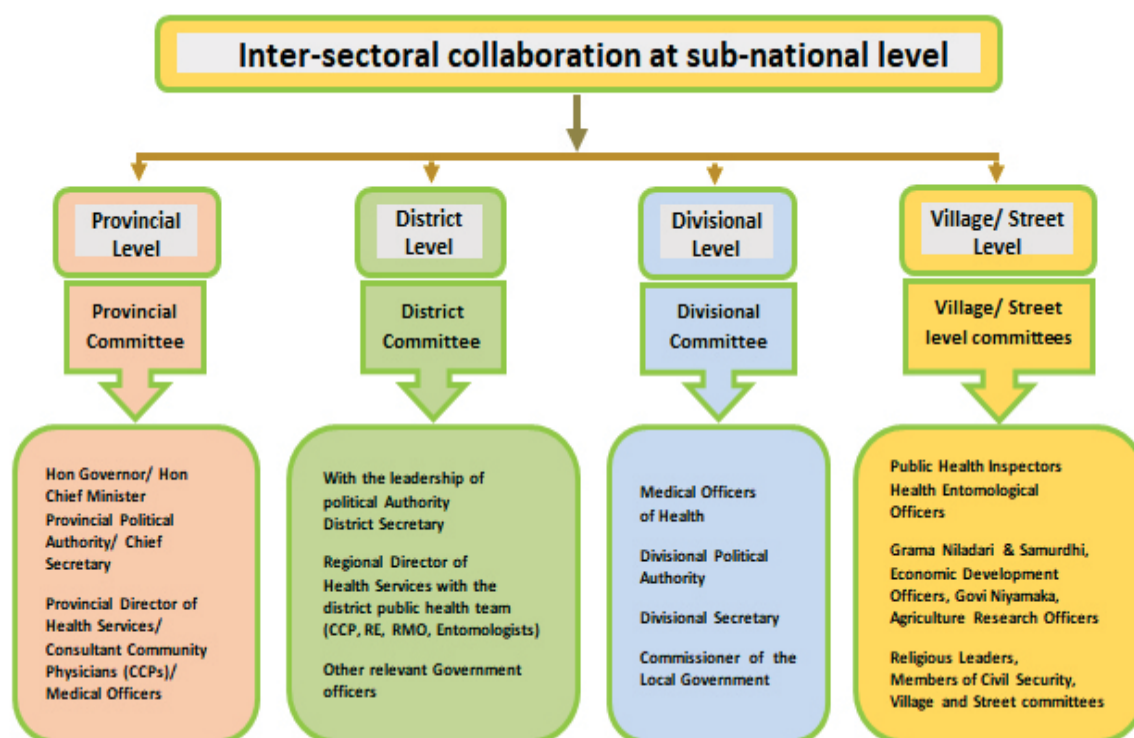


Figure 2: Structure of inter-sectoral collaboration at sub-national level

2. SUMMARY OF ENTOMOLOGICAL AND EPIDEMIOLOGICAL SURVEILLANCE DATA – JANUARY 2021

Province	District	Entomological surveillance data				Epidemiological surveillance data
		(Source - returns of entomology surveys received by NDCU)				(Source – Epidemiology Unit)
		No. of Premises			Main type of containers positive for larvae and Percentage	Number of Dengue Patients
		Inspected	Positive Found	Positive %		January
WP	Colombo	255	52	20.4	Discarded items (47.7%), *Other items (28.1%), Water storage containers (12.5%)	75
	Colombo MC	17	15	88.2	*Other items (60.9%), Concrete Slab (18.8%), Discarded items ((9.4%), Water storage containers (9.4%)	31
	Gampaha	71	29	40.8	*Other items (60.9%), Discarded items (17.6%), Water storage containers (8.1%), Natural items (8.1)	66
	Kalutara	3305	379	11.5	*Other items (45.3%), Discarded items (33.7%), Water storage containers (10.1%)	70
CP	Kandy	1672	209	12.5	*Other items (34.4%), Water storage containers (25.9%), Discarded items (33.7%)	50
	Matale	1000	38	3.8	Water storage containers (47.6%), Discarded items (39.7%), *Other items (9.5%)	11
	Nuwara Eliya	Data not received				4
SP	Galle	2200	257	11.7	*Other items (36.2%), Discarded items (27.6%), Water storage containers (16%)	16
	Hambantota	1364	162	11.9	*Other items (36.7%), Water storage containers (26.6%), Discarded items (18.1%)	15
	Matara	800	133	16.6	Discarded items (37.2%), Water storage containers (32.1), *Other items (19%)	25
NP	Jaffna	1788	245	13.7	Discarded items (33.8%), *Other items (24.2%), Water storage containers (20.9%)	32
	Kilinochchi	900	107	11.9	*Other items (59.6%), Water storage containers (19.9%), Discarded items (14.4%)	7
	Mannar	555	129	23.2	Discarded items (38.8%), Water storage containers (29.3%), *Other items (20.7%)	3
	Vavuniya	1663	182	10.9	Discarded items (45.1%), *Other items (24.6%) Water storage containers (17%)	3
	Mullativu	Data not received				2
EP	Batticaloa	3268	305	9.3	*Other items (39.6), Discarded items (17.5%), Water storage containers (15.1%)	895
	Ampara	130	18	13.8	*Other items (53.1), Water storage containers (25%) Discarded items (12.5%)	1
	Trincomalee	1300	79	5.9	*Other items (30%), Water storage containers (26.7%), Discarded items (22.5%)	9
	Kalmunai	Data not received				27
NWP	Kurunegala	2142	231	10.8	*Other items (33.8%), Discarded items (28.9%), Water storage containers (25.3%)	55
	Puttalam	1614	290	18.0	* Other items (26.3%), Water storage containers (26.3%) Discarded items (23.6%)	37

CP	Anuradhapura	366	68	18.6	*Other items (37.4%), Water storage containers (25.3%) Discarded items (15.4%)	10
	Polonnaruwa	200	24	12.0	Discarded items (36.6%), Pond and Ornamental (27.2%), *Other items (18.2%), Water storage containers (18.2%)	2
UP	Badulla	223	16	7.2	*Other items (42.9%), Water storage containers (35.7%), Discarded items (14.3%)	11
	Moneragala	2324	324	13.9	Discarded items (43.2%), *Other items (24%), Water storage containers (18.9%)	1
SGP	Ratnapura	818	63	7.7	Discarded items (51.1%), Water storage containers (15.6%), *Other items (14.4%)	24
	Kegalle	2632	162	6.2	*Other items (65.6%), Discarded items (14.7%), Water storage containers (13.9%)	19
Sri Lanka		30645	3517	11.4	*Other items (35.5%), Discarded items (28.5%), Water storage containers (21.9%)	1496

* Other items: Covering items, Temporary removed items, Pet-feeding cups, Non-used cisterns, Gutters

SUMMARY OF ENTOMOLOGICAL AND EPIDEMIOLOGICAL SURVEILLANCE DATA – FEBRUARY 2021

Province	District	Entomological surveillance data				Epidemiological surveillance data	
		(Source - returns of entomology surveys received by NDCU)				(Source – Epidemiology Unit)	
		No. of Premises			Main type of containers positive for larvae and Percentage positivity	Number of patients	
		Inspected	Positive Found	Positive %		February	Cumulative
WP	Colombo	1200	55	4.6	Temporary removed items (26%), Discarded items (22%), Ornamental items (15%)	105	180
	Colombo MC	12	10	83.3	Temporary removed items (71%), Water storage other (11%), Concrete slabs (7%)	52	83
	Gampaha	251	4	1.6	Pet feeding cups (43%), Covering items (29%), Non-used cisterns (14%), Water storage barrels (14%)	108	174
	Kalutara	1804	191	10.6	Discarded items (34%), Temporary removed (16%), Refrigerator trays (10%)	62	132
	NIHS	611	70	11.4	Discarded items (34%), Water storage other (18%), Tyres (11%)		
CP	Kandy	1510	52	3.4	Water storage barrels (29%), Discarded items (15%), Ornamental items (13%)	49	99
	Matale	900	32	3.6	Discarded items (38%), Ornamental items (21%), Water storage barrels (15%), Water storage cement tanks (15%)	5	16
	Nuwara Eliya	Summary report not received by 12.03.2021				2	6
SP	Galle	4200	443	10.5	Discarded items (29%), Ornamental items (15%), Water storage other (10%)	16	32
	Hambantota	3800	405	3.5	Discarded (29%), Ornamental (15%), Water storage other (10%)	24	39
	Matara	1100	112	10.2	Discarded items (25%), Water storage barrel (20%), Water storage other (11%), Tyres (11%), Ornamentals (11%)	24	49

NP	Jaffna	3641	128	3.5	Discarded (28%), Water storage other (19%), Ornamental (12%)	28	60
	Kilinochchi	Summary report not received by 12.03.2021				9	16
	Mannar	505	45	8.9	Discarded items (59%), water storage barrels (29%), other items (6%)	4	7
	Vavuniya	1788	140	7.8	Discarded (34%), Water storage other (18%), Tyres (11%)	9	12
	Mullativu	Summary report not received by 12.03.2021				1	3
EP	Batticaloa	2144	149	6.9	Other containers (29%-squatting pans, cement floor, sink leakage pipe outlet), Temporary removed (21%), Discarded containers 13%)	1070	1965
	Ampara	60	2	3.3	Discarded items (100%)	4	5
	Trincomalee	1342	92	6.8	Discarded items (30%), Water storage barrels (19%), Water storage other (10%), Other (10%)	28	37
	Kalmunai	100	14	14.0	Discarded items (20%), Other (20%), Tyres(10%), Temporary removed items(10%), Pet feeding cups(10%)	38	65
NWP	Kurunegala	1494	113	7.6	Discarded items (25%), Temporary removed items (11%), Water storage other (14%)	51	106
	Puttalam	375	20	5.3	Tyres (29%), Other (27%), Discarded items (11%)	35	72
NCP	Anuradhapura	165	31	18.8	Tyres (20%), Temporary removed items (20%), Discarded items (18%)	10	20
	Polonnaruwa	Summary report not received by 12.03.2021				4	6
UP	Badulla	223	16	7.2	Tyres (25%), Water storage barrels (25%), Water storage other (17%), Discarded items(17%)	2	13
	Moneragala	1799	193	10.7	Discarded items (51%), Water storage barrels (23%), Water storage cement tanks (7%)	2	3
SGP	Ratnapura	811	49	6.0	Discarded items (43%), Natural items (17%), Covering items (12%)	41	65
	Kegalle	2710	135	5.0	Discarded items (23%), Water storage barrel (19%), Tyres (12%), Ornaments (12%)	24	43
Sri Lanka		32545	2501	7.7	Discarded items (28%), Ornaments (10%), Other (10%)	1794	3290

Summaries of Adult Surveys

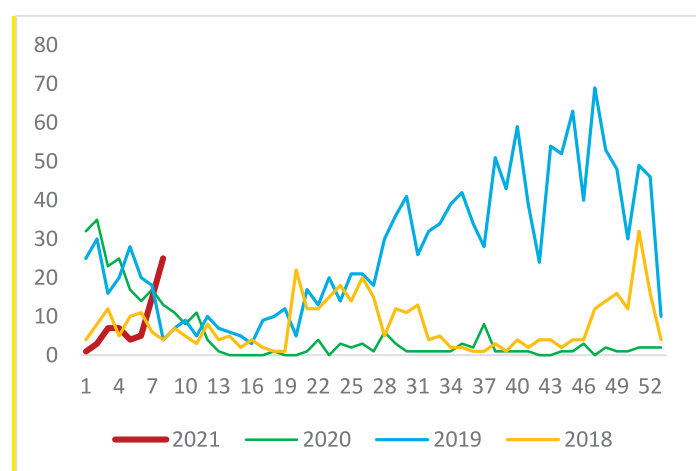
District	MOH	GN area& date of survey	Findings	
Moneragala	Moneragala	Locality: Moneragala town area 05.01.2021	Outdoor findings (8.00am-11.30am)	<i>Aedes albopictus</i> ; 11 mosquitoes
		03.02.2021	Outdoor findings (8.00am-11.30am)	00
Galle	Ambalangoda	Patabandimulla	Indoor findings (9.15am-11.45am)	<i>Aedes aegypti</i> :3 females, <i>Aedes albopictus</i> : 1 male
		Patabandimulla 20.02.2021	Indoor findings (8.30am-9.10am)	<i>Aedes aegypti</i> :3 females

Resistance monitoring

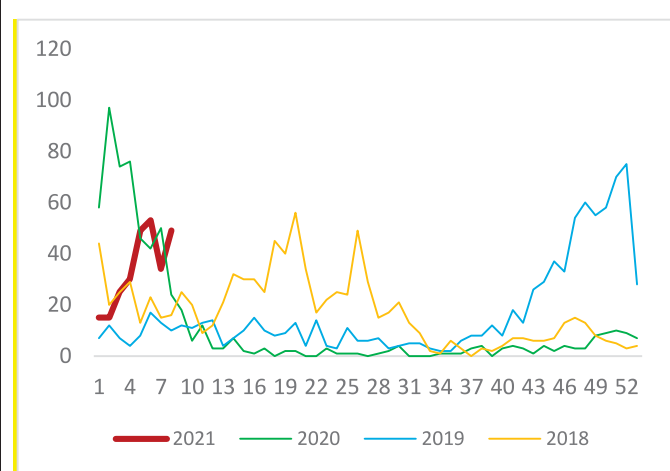
District	Sentinel site	Findings		
Moneragala	<i>Aedes aegypti</i> lab colony (F14)	0.8% Technical Malathion	Corrected mortality 40%	Control mortality 00%

Current high risk MOOH - Epidemiological trends (Source: DenSys data)

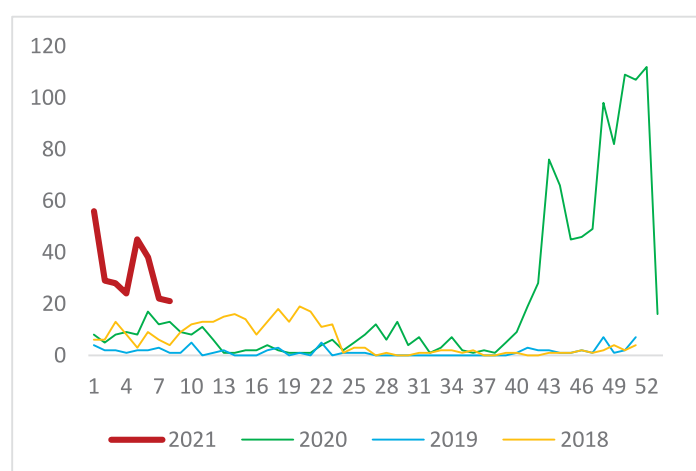
MOH Battaramulla



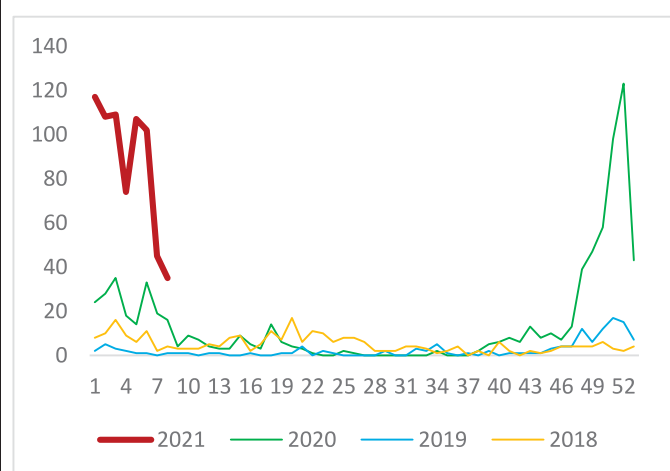
MOH Batticaloa



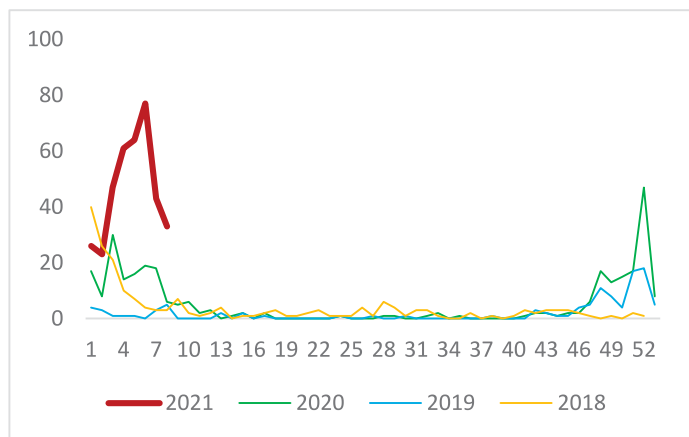
MOH Oddamavadai



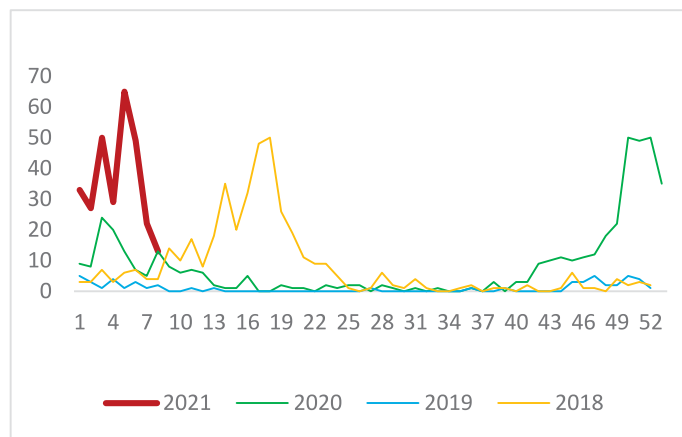
MOH Valachchenai



MOH Kattankudy



MOH Koralai Pattu Central



3. DENGUE FORECAST

Entomological forecast of high risk areas

RDHS	MOH	GN Division
Kalmunai	Kalmunai North	Pandiruppu
Galle	Rathgama	Kapumulla
Kurunegala	Kurunegala	Thalatuwa
Matara	Weliwitiya	Denipitiya

4. NEWS UPDATES

Supervision visit to Batticaloa district: 14-15th February 2021

Field supervision of high risk MOH areas was done by the NDCU teams. They also participated in the inter-sectoral meeting convened by the Hon. Governor – Eastern Province and the provincial review meeting convened by the Provincial Director of Health Services



Training on Fogging at Kandy: 22-24th February 2021

Several training sessions on fogging and fogging machine maintenance were conducted in the Kandy district with the training of more than 200 Public Health Inspectors and Saukya Karya Sahayaka.



Knowledge Sharing Sessions: 19th February 2021

The speakers for the month of February were;

Dr. Pubudu Chulasiri (CCP-Anti-Malaria Campaign)

Mr. R. Kuluppuarachchi (SHEO- NDCU)

**Meeting with Registrar of Pesticides: 02nd March 2021**

A technical meeting with the relevant stakeholders for the authorization of use of new chemicals in Integrated Vector Management in Sri Lanka.



NDCU warmly welcomes articles for **FEATURING ARTICLE** section and news updates on dengue related events for **NEWS UPDATES** column of this report.

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Comments and contributions for publication in the DUR Sri Lanka are welcome.

Prior approval should be obtained from the NDCU before publishing data in this publication.

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