

**GOVERNMENT OF INDIA
MINISTRY OF HEALTH AND FAMILY WELFARE
DEPARTMENT OF HEALTH AND FAMILY WELFARE**

**LOK SABHA
UNSTARRED QUESTION NO. 158
TO BE ANSWERED ON 15TH DECEMBER, 2017**

VECTOR BORNE DISEASES

- 158. SHRI R. GOPALAKRISHNAN:
SHRI NAGENDRA KUMAR PRADHAN:
SHRI RAJIV PRATAP RUDY:
SHRI B. SENGUTTUVAN:
SHRI NISHIKANT DUBEY:
SHRI RAYAPATI SAMBASIVA RAO:
SHRI RAJESH KUMAR DIWAKER:
SHRI PREM DAS RAI:
SHRI FEROZE VARUN GANDHI:
DR. ANBUMANI RAMADOSS:
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SHRI T. RADHAKRISHNAN:
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SHRI NARANBHAI KACHHADIYA:
SHRI MOHITE PATIL VIJAYSINH SHANKARRAO:
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SHRI RAJESH VERMA:
SHRI S.R. VIJAYAKUMAR:
SHRI K. PARASURAMAN:
SHRI BAIJAYANT JAY PANDA:
KUNWAR HARIBANSH SINGH:
ADV. NARENDRA KESHAV SAWAIKAR:
SHRI SUDHEER GUPTA:
SHRI GAJANAN KIRTIKAR:**

Will the Minister of **HEALTH AND FAMILY WELFARE** be pleased to state:

- (a) whether cases of Dengue, Chikungunya, Japanese Encephalitis (JE) and other Vector Borne Diseases are on the rise in the country over the last few years, if so, the details thereof and the reasons therefor;
- (b) the details of the number of cases and deaths reported in the country during the last three years and the current year State/UT-wise;
- (c) whether the Government proposes to develop any medicines under various system of medicines in the country and surveillance mechanism to check the cases of such diseases;
- (d) if so, the details thereof and progress made in this regard; and

(e) the details of other corrective measures taken/proposed to be taken and funds allocated by the Government in this regard?

ANSWER
THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND
FAMILY WELFARE
(SHRI ASHWINI KUMAR CHOUBEY)

(a) & (b): Vector borne diseases (VBD) are overall showing a declining trend over the last few years. However, the cases of Dengue, Chikungunya have increased in the last few years. This is due to involvement of newer districts and better diagnostic surveillance with establishment of sentinel laboratories across the country. The detailed State-wise situation of various vector borne diseases is given in Annexure I to VI with the reported number of cases and deaths.

(c) & (d): Development of medicines to check on vector borne diseases is a continuing process.

Action taken by the Government to combat vector borne diseases through AYUSH system of medicines is as follows.

- Central Council for Research in Ayurvedic Sciences (CCRAS) has developed AYUSH-64 for Malaria through systematic pre-clinical & clinical studies and commercialized.
- AYUSH-PJ7 for Dengue: the pre-clinical, quality assurance and safety studies have been completed while a double blind randomized clinical study has been initiated in collaboration with Indian Council of Medical Research which is actively under progress.
- AYUSH-SL is coded drug for Filariasis- the pre-clinical, quality assurance and safety studies have been completed.

Other steps taken are as under:-

- i. Treatment study for dengue in Delhi; preventive study for chikungunya; preventive, pre-clinical and treatment study for Japanese encephalitis and Malaria and multi-centric study for filarisis by Central Council for Research in Homoeopathy (CCRH)
- ii. Clinical studies on vector borne diseases namely, malaria, filariasis and kala-azar; validation of efficacy of unani formulations in such disease conditions.
- iii. Prospective case control study in dengue with Nilavembu kudineer; in vitro/in vivo evaluation of therapeutic potential of various Siddha drugs on H1N1 infection/chikungunya virus infection.

(e): The following is the general strategy for control of all six Vector Borne Diseases (VBDs) under NVBDCP:

- Early diagnosis and complete treatment (No specific drugs against Dengue, Chikungunya and J.E.)
- Integrated vector Management (Indoor Residual Spray (IRS), Long Lasting Insecticide Nets (LLIN), larvivorous fish, chemical and bio-larvicide, source reduction)
- Supportive intervention – (Vaccination only against J.E.)
- Annual MDA using DEC and Albendazole for elimination of Lymphatic Filariasis.
- IEC/ Behaviour change communication

The funds allocated by the Government in this regard are at *Annexure VII.*

Annexure-I

STATE-WISE MALARIA CASES AND DEATHS IN THE COUNTRY

S N	States / UTs	2014		2015		2016		2017*	
		Total Positive Cases	Death	Total Positive Cases	Death	Total Positive Cases	Death	Total Positive Cases	Death
1	Andhra Pradesh	21077	0	25042	0	23613	0	15544	0
2	Arunachal Pradesh	6082	9	5088	7	3128	2	1415	0
3	Assam	14540	11	15557	4	7826	6	4811	0
4	Bihar	2043	0	4006	1	5189	0	2977	2
5	Chhattisgarh	128993	53	144886	21	148220	61	109208	0
6	Goa	824	0	651	1	742	0	467	1
7	Gujarat	41608	16	41566	7	44783	6	34436	2
8	Haryana	4485	1	9308	3	7866	0	6861	0
9	Himachal Pradesh	102	0	60	0	106	0	84	0
10	Jammu & Kashmir	291	0	216	0	242	0	205	0
11	Jharkhand	103735	8	104800	6	141414	15	80415	1
12	Karnataka	14794	2	12445	0	11078	0	5768	0
13	Kerala	1751	6	1549	4	1547	2	1031	2
14	Madhya Pradesh	96879	26	100597	24	69106	3	36242	3
15	Maharashtra	53385	68	56603	59	23983	26	14997	16
16	Manipur	145	0	216	0	122	0	77	0
17	Meghalaya	39168	73	48603	79	35147	45	15024	11
18	Mizoram	23145	31	28593	21	7583	9	4982	0
19	Nagaland	1936	2	1527	3	828	0	360	1
20	Orissa	395035	89	436850	80	444843	77	336711	25
21	Punjab	1036	0	596	0	693	0	786	0
22	Rajasthan	15118	4	11796	3	12741	5	5636	0
23	Sikkim	35	0	27	0	15	0	9	0
24	Tamil Nadu	8729	0	5587	0	4341	0	4641	0
25	Telangana*	5189	0	10951	4	3512	1	2101	0
26	Tripura	51240	96	32525	21	10546	14	6224	6
27	Uttarakhand	1171	0	1466	0	961	0	508	0
28	Uttar Pradesh	41612	0	42767	0	39238	0	28361	0
29	West Bengal	26484	66	24208	34	35236	59	25753	28
30	A & N Islands	557	0	409	0	485	0	374	0
31	Chandigarh	114	0	152	1	157	0	114	0
32	D & N Haveli	669	1	418	0	375	0	278	0
33	Daman & Diu	56	0	84	0	48	0	34	0
34	Delhi	98	0	54	0	31	0	541	0
35	Lakshadweep	0	0	4	0	2	0	1	0
36	Puducherry	79	0	54	1	76	0	52	0
	Total	1102205	562	1169261	384	1085823	331	747028	98

*upto October 2017

STATE-WISE DENGUE CASES AND DEATHS IN THE COUNTRY

Sl. No.	State	2014		2015		2016		2017 (Prov till 30th Nov)	
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1	Andhra Pd.	1262	5	3159	2	3417	2	4381	0
2	Arunachal Pd.	27	0	1933	1	13	0	15	0
3	Assam	85	0	1076	1	6157	4	4346	2
4	Bihar	297	0	1771	0	1912	0	1804	0
5	Chhattisgarh	440	9	384	1	356	0	388	0
6	Goa	168	1	293	0	150	0	234	0
7	Gujarat	2320	3	5590	9	8028	14	4420	4
8	Haryana	214	2	9921	13	2493	0	4333	1
9	Himachal Pd.	2	0	19	1	322	0	442	0
10	J & K	1	0	153	0	79	1	403	0
11	Jharkhand	36	0	102	0	414	1	689	5
12	Karnataka	3358	2	5077	9	6083	8	16342	5
13	Kerala	2575	11	4075	25	7439	13	19694	36
14	Madhya Pd.	2131	13	2108	8	3150	12	2566	6
15	Meghalaya	0	0	13	0	172	0	40	0
16	Maharashtra	8573	54	4936	23	6792	33	6894	34
17	Manipur	0	0	52	0	51	1	187	1
18	Mizoram	19	0	43	0	580	0	107	0
19	Nagaland	0	0	21	1	142	0	191	0
20	Odisha	6433	9	2450	2	8380	11	4055	6
21	Punjab	472	8	14128	18	10439	15	15002	0
22	Rajasthan	1243	7	4043	7	5292	16	7768	16
23	Sikkim	5	0	21	0	82	0	659	0
24	Tamil Nadu	2804	3	4535	12	2531	5	21350	52
25	Tripura	6	0	40	0	102	0	103	0
26	Telangana	704	1	1831	2	4037	4	2773	0
27	Uttar Pradesh	200	0	2892	9	15033	42	3032	28
28	Uttrakhand	106	0	1655	1	2146	4	958	0
29	West Bengal	3934	4	8516	14	22865	45	10697	19
30	A&N Island	139	0	153	0	92	0	13	0
31	Chandigarh	13	0	966	1	1246	0	1083	0
32	Delhi	995	3	15867	60	4431	10	8896	4
33	D&N Haveli	641	1	1154	0	4161	2	1972	0
34	Daman & Diu	46	0	165	0	89	0	59	0
35	Puducherry	1322	1	771	0	490	2	4586	6
TOTAL		40571	137	99913	220	129166	245	150482	225

STATE-WISE CHIKUNGUNYA CLINICALLY SUSPECTED CASES IN THE COUNTRY

Sl. No	Name of the State	2014	2015	2016	2017 (Prov till 30th Nov)
1	Andhra Pd.	1359	817	960	1107
2	Arunachal Pd.	0	35	239	15
3	Assam	0	0	40	40
4	Bihar	0	3	566	1220
5	Goa	1205	561	337	435
6	Gujarat	574	406	3285	6749
7	Haryana	3	1	5394	240
8	J&K	0	0	1	0
9	Jharkhand	11	21	47	266
10	Karnataka	6962	20763	15666	29691
11	Kerala	272	175	129	77
12	Madhya Pd.	161	67	2280	2244
13	Meghalaya	0	78	360	200
14	Maharashtra	1572	391	7570	7182
15	Odisha	10	81	51	0
16	Punjab	2	180	4407	2472
17	Rajasthan	50	7	2506	1485
18	Sikkim	0	0	30	83
19	Tamil Nadu	543	329	86	101
20	Telangana	1687	2067	611	621
21	Tripura	34	180	311	261
22	Uttar Pradesh	4	0	2458	94
23	Uttarakhand	0	0	35	0
24	West Bengal	1032	1013	1071	1024
25	A&N Island	161	68	18	60
26	Chandigarh	0	1	2857	1652
27	Delhi	8	64	12279	901
28	D&N Haveli	0	0	0	0
29	Lakshadweep		0	0	0
30	Puducherry	399	245	463	115
Total		16049	27553	64057	58335

STATE-WISE JE CASES AND DEATHS IN THE COUNTRY

Sl. No.	Affected States/ UTs	2014		2015		2016		2017 (Provisional up to 03.12.2017)	
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1	Andhra Pradesh	0	0	0	0	0	0	0	0
2	Arunachal Pradesh	32	3	32	2	0	0	0	0
3	Assam	761	165	614	135	427	92	605	88
4	Bihar	20	2	66	12	100	25	66	10
5	Delhi	0	0	0	0	0	0	0	0
6	Goa	0	0	0	0	1	0	0	0
7	Haryana	5	1	2	0	2	0	0	0
8	Jharkhand	90	2	116	8	47	5	25	1
9	Karnataka	13	0	27	1	11	0	4	0
10	Kerala	3	2	2	1	2	0	0	0
11	Maharashtra	0	0	7	0	12	1	26	0
12	Manipur	1	0	6	0	47	1	190	11
13	Meghalaya	72	3	41	8	47	4	35	4
14	Nagaland	6	0	0	0	0	0	9	2
15	Odisha	0	0	33	2	242	42	65	0
16	Punjab	0	0	0	0	1	0	1	0
17	Tamil Nadu	36	3	53	0	51	0	87	0
18	Telengna	0	0	8	1	4	0	6	0
19	Tripura	14	0	28	4	98	1	79	0
20	Uttar Pradesh	191	34	351	42	410	73	660	76
21	Uttarakhand	2	0	2	0	0	0	0	0
22	West Bengal	415	78	342	75	174	39	129	34
Grand Total		1661	293	1730	291	1676	283	1987	226

Annexure-V**STATE-WISE KALA-AZAR CASES AND DEATHS IN THE COUNTRY**

S.No	Affected States	2014		2015		2016		2017 (up to Oct.)	
1	Bihar	7615	10	6517	5	4773	0	3519	0
2	Jharkhand	937	0	1262	0	1185	0	1184	0
3	West Bengal	668	1	576	0	177	0	118	0
4	Uttar Pradesh	11	0	131	0	107	0	92	0
5	Uttrakhand	4	0	3	0	2	0	2	0
6	Assam	1	0	1	0	0	0	0	0
7	Sikkim	5	0	5	0	1	0	0	0
8	Kerala	0	0	4	0	0	0	0	0
9	Punjab	0	0	1	0	0	0	0	0
Total		9241	11	8500	5	6245	0	4915	0

LINE LISTING OF CLINICALLY MANIFESTED CASES OF LYMPHATIC FILARIASIS

Sl.No.	LF endemic district	2014	2015	2016	2017 (Provisional up to 31.10.2017)
1	Andhra Pradesh	90019	90423	90423	90423
2	Telangana	58525	57423	66691	66691
3	Assam	2044	2189	2189	2189
4	Bihar	389972	389972	389972	390345
5	Chhattisgarh	13921	13921	15429	15429
6	Gca	118	199	199	135
7	Gujarat	6529	7153	7153	7356
8	Jharkhand	138122	164837	164838	166068
9	Karnataka	17819	19654	19654	19425
10	Kerala	16471	18462	18462	18736
11	Madhya Pradesh	8597	9926	9926	9926
12	Maharashtra	69348	74542	74542	73487
13	Orissa	116997	116997	116997	116997
14	Tamil Nadu	59131	59131	59131	59325
15	Uttar Pradesh	128191	125099	125099	128374
16	West Bengal	95407	96562	97364	97364
17	A&N Islands	194	194	194	194
18	D & N Haveli	118	118	118	118
19	Daman & Diu	136	136	136	136
20	Lakshadweep	254	254	254	254
21	Pondicherry	1304	1304	1304	1304
	Total	1213217	1248496	1260075	1264276

Annexure-VII**Allocation and Release (Cash and Commodity) under NVBDCP**

States/UTs	2014-15		2015-16		2016-17		2017-18	
	Allocation	Releases	Allocation	Releases	Allocation	Releases	Allocation	Releases
Andhra	2510.00	767.24	825.00	864.20	728.00	790.62	909.95	91.21
Arunachal	1295.00	1166.76	1274.00	1364.27	1183.00	1319.93	1183	0
Assam	3052.00	2673.05	2582.00	3260.14	2395.10	1835.00	2335.1	0
Bihar	4800.00	11474.31	3540.00	9695.23	3534.00	3742.14	3673.5	0
Chattisgarh	2990.00	1343.50	2096.00	561.92	908.00	3299.88	3364.5	2389.42
Goa	128.00	90.75	98.00	47.50	102.00	48.50	106.76	0
Gujarat	2380.00	1198.20	1072.00	1159.71	1100.00	1119.22	1259	578.73
Haryana	363.00	247.50	255.00	255.00	200.00	0.00	52	0
Himachal	140.00	99.75	104.00	0.00	26.00	0.00	45	0
J & K	155.00	89.86	92.00	91.23	94.20	71.12	99.62	43
Jharkhand	4139.50	3162.25	3945.00	5349.94	3390.00	3254.48	3370.91	1705.63
Karnataka	2320.00	1810.27	1953.00	1843.60	1759.00	1325.23	970.06	210.3
Kerala	1007.00	720.75	726.00	726.00	644.00	540.41	509.41	0
Madhya	2390.00	1796.90	2441.00	2150.64	2118.00	1618.60	1657.15	981.23
Maharashtra	2187.00	648.41	602.00	652.84	1320.00	753.24	705.8	67.23
Manipur	1142.00	907.05	917.00	979.13	1005.00	604.65	905	0
Meghalaya	1159.00	934.84	967.00	1108.88	915.00	514.06	864	0
Mizoram	1231.00	1199.05	1219.00	1392.69	1104.00	934.25	1364	0
Nagaland	1501.00	1108.92	1203.00	1314.78	1117.00	432.63	1117	0
Odisha	5170.00	2086.03	3887.00	4425.32	10037.00	7644.12	10177	2700.47
Punjab	550.00	409.31	399.00	509.29	402.00	461.99	1038.63	0
Rajasthan	990.00	1404.50	2615.00	2146.16	2180.80	784.54	1388.65	0.21
Sikkim	140.00	51.92	61.00	58.90	90.90	22.00	41.9	0
Tamil Nadu	2250.00	1561.50	1619.00	1594.00	1409.00	1379.00	1410.55	621
Telangana	0.00	429.00	3965.00	701.47	685.00	643.50	628.33	284.25
Tripura	1370.00	1353.85	1400.00	2182.72	1617.00	793.07	1617	0
Uttar Pradesh	3905.50	3808.53	3593.00	1783.67	3650.00	2971.52	3343.8	373.39
Uttarakhand	125.00	127.33	200.00	127.14	266.00	156.94	249.38	0
West Bengal	3500.00	1709.51	1801.00	1645.85	1910.00	1685.73	1600	2.86
Delhi	584.00	444.00	171.00	19.00	169.00	0.00	168.17	0
Pudducherry	56.00	39.81	49.00	108.26	51.00	36.20	51.83	22
A&N Islands	250.00	140.83	352.00	611.32	349.00	304.56	373	0
Chandigarh	96.00	56.25	80.00	79.49	77.00	92.65	60	46
D & N Haveli	98.00	29.96	96.00	96.00	107.00	100.66	100	68
Daman & Diu	72.00	39.01	67.00	68.00	71.00	35.50	66	0
Lakshadweep	54.00	0.95	47.00	47.00	36.00	18.00	41	0
TOTAL:	54100.00	45131.65	46313.00	49021.29	46750.00	39333.94	46847.00	10184.93