

## 12. NATIONAL VECTOR BORNE DISEASE CONTROL PROGRAMME

### NATIONAL ANTI MALARIA PROGRAMME

The National Malaria Control Programme is being implemented in Tamilnadu since 1950s. Due to the successful implementation of this Programme, the incidence of Malaria has declined considerably in Tamilnadu. However, Malaria continues to be a major problem in certain pockets of Ramanathapuram, Paramakudi, Thoothukudi, Dharmapuri, Krishnagiri, Tiruvannamalai and Kanyakumari Health Unit districts. Malaria cases are detected through active and passive surveillance and immediate treatment is given at doorsteps.

In 1990, 1,20,000 cases were reported as against 22,389 cases in 2007 which is 81% less. Among the total cases reported, 40.4% were reported from rural areas in 1990, which was reduced to 31.8% in 2007. But, 59.6% cases reported from urban areas in 1990 was increased to 68.2% in 2007. The main reason for this is Chennai Corporation which contributes to 91.6% of urban cases as against 8.4% which is reported from other urban areas like Thoothukudi, Erode, Vellore, Salem, Thiruvallur & Thiruvottiyur.

- ❖ *Since 2003, only 4 deaths occurred due to Malaria and 2 among them were imported from Andhra Pradesh.*
- ❖ *On an average, 1 in 3,193 persons are affected by Malaria annually. Also, 58 persons are infected every day by Malaria.*

### NATIONAL FILARIA CONTROL PROGRAMME

The National Filaria Control Programme is being implemented in this state since 1957. The filarial disease control activities are carried out in 43 urban areas. In these urban areas, 25 Control Units, 44 Night Clinics are functioning. 42 Filaria and Malaria Clinics are functioning besides the Control Unit and Night Clinic in endemic areas. DEC tablets are supplied by the Government of India. The entire operational cost is met by the state. The Programme is being implemented in the 12 endemic districts.

- ❖ *On an average, one in 8,40,000 persons are affected by Filaria annually.*
- ❖ *During 1998, 30 persons were affected during every 5 days by Filaria. But, during 2008, only one person is affected in every 5 days.*

### SINGLE DOSE MASS DEC DRUG ADMINISTRATION PROGRAMME

Mass Drug Administration Programme with DEC tablets was conducted in Cuddalore district as a Pilot Programme during 1996. During 1997, the MDA-DEC Programme was extended to 12 Filarial endemic districts. From 2000 onwards, Albendazole tablets were co-administered along with DEC in 6 Revenue Districts. Due to heavy rain during 2005 and 2006, the Programme was not conducted. In 2007, the MDA-DEC

Programme was conducted in 14 endemic districts viz. Kanchipuram, Tiruvallur, Cuddalore, Villupuram, Trichy, Perambalur, Pudukkottai, Tiruvannamalai, Thanjavur, Tiruvarur, Ariyalur, Kanyakumari, Nagapattinam and Vellore. Besides these districts, certain villages of Tirunelveli, Thoothukudi, Karur, Krishnagiri, virudunagar and Madurai and 64 wards in Chennai Corporation are also included 2.64 crores of population was covered under this Programme with the co-ordination of various Govt. departments. MDA Programme is proposed to be conducted during 2009-10.

- ❖ *Single dose mass Drug Administration Programme is conducted in Tamilnadu in the Filariasis endemic districts from 1998 upto 2009. The mf rate has been reduced from 0.88 to 0.14 in 2009.*
- ❖ *Morbidity management for LF cases are being given since 1998 with training on Foot Hygiene.*
- ❖ *35,000 Morbidity Management Kits are handed over to the LF patients. Hydrocele operations are conducted at Medical College Hospitals and PHCs to reduce the suffering of the patients.*

### **JAPANESE ENCEPHALITIS DISEASE CONTROL PROGRAMME**

Japanese Encephalitis has emerged as an important Public Health problem in the state during the last few years. Health Unit Districts like Perambalur, Kallakuruchi, Villupuram, Cuddalore, Tiruvannamalai and Madurai reports Japanese Encephalitis cases. Japanese Encephalitis Control Units at Cuddalore, Villupuram, Perambalur with the Monitoring Units at headquarters are carrying out Japanese Encephalitis vector control activities. Japanese Encephalitis immunization programme was carried out in selected villages in Perambalur district with killed mouse brain vaccine from 1994 onwards with state funds.

During 2007, Japanese Encephalitis vaccination programme was conducted using Single dose SA-14-14-2 vaccine in Villupuram, Cuddalore and Virudunagar districts with the financial assistance of Government of India for the children between 1 and 15 years age group targeting 18,19,000 children.

During 2008, it was extended to Perambalur, Trichy, Madurai and Tiruvarur districts and 13.5 lakhs children were benefitted.

During 2009, it is proposed to be conducted in Tiruvannamalai and Thanjavur districts.

In addition to this, vector density monitoring, Fogging operation, collection of Serum samples from the suspected cases and dispatching to the identified Laboratories for diagnosis regularly in endemic districts. Study of Viral activity in the JE vectors in co-ordination with CRME, Madurai.

- ❖ *One in 3,75,500 persons are affected by AES annually. Among this it was confirmed Serologically one in 1 crore population is affected by JE. This is by way of JE vaccination.*
- ❖ *Also, only one person is affected by JE(AES) in every 2<sup>nd</sup> day now. This status is being sustained since 2003.*
- ❖ *And, the case fatality rate was 22% during 2003 and the same has been reduced to 0 during 2007 and the same status is sustained till now.*

## LEPTOSPIROSIS CONTROL PROGRAMME

Leptospirosis is caused by Spirochetes and water contamination with urine of infected rodents is the source of infection. All the districts in Tamilnadu except Udthagamandalam and Thoothukudi are endemic for Leptospirosis. The disease is more common during rainy season. The patient will die due to liver and kidney complications if they are not diagnosed and treated early.

In Tamilnadu, 7 Lepto clinics are functioning in Tiruvallur and Madurai districts for early diagnosis and treatment of cases. Rapid diagnostic kits have been supplied to these Lepto Clinics, Zonal Entomological Teams and the Institute of Vector Control and Zoonoses, Hosur for investigation during outbreak.

In Tamilnadu, Villupuram and Trichy districts have been identified under Pilot Project for control and prevention of Leptospirosis. Necessary training has also been rendered.

- ❖ *During 2004, on an average, 10 cases per day were reported and the same has been reduced to 3 to 4 cases now.*

## DENGUE CONTROL PROGRAMME

Dengue is a viral disease which manifests itself as Dengue Fever, Dengue Haemorrhagic Syndrome and Dengue Shock Syndrome. Dengue virus is transmitted by Aedes mosquitoes which bite during the day time. They breed in small water collections in the discarded artificial containers such as plastic cups, buckets, tyres, coconut shells etc. Dengue cases are reported in almost all the districts in Tamilnadu except Udthagamandalam. ELISA based Diagnostic Kits are supplied to all the Zonal Entomological Teams. There are 13 Sentinel Surveillance Hospitals identified in 12 Medical Colleges and IVC&Z, Hosur for early diagnosis and treatment.

- ❖ *Besides the Sentinel Surveillance Hospital, case Diagnosis is done in King Institute of Preventive Medicine, which is the Apex Laboratory.*
- ❖ *During 2003, on an average, 4 to 5 cases per day were reported and the same has been reduced to 2 cases now and the reduction rate is 61%.*
- ❖ *Also, the Case Fatality Rate during 2003 was 0.56 as against 0.47 during 2008.*

## CHIKUNGUNYA FEVER

Chikungunya was first reported in Tamilnadu at Chennai Corporation in 1964. After 42 years, in 2006, the fever had spread from neighbouring states to all the districts in Tamilnadu except Nilgiris and 64,802 cases were reported. Though more no. of cases were reported in Kerala and Karnataka during 2007, major outbreak was prevented in Tamilnadu through inter-sectoral co-ordination and reported only 45 confirmed cases. Subsequently various control measures were taken as below.

- ✍ Monitoring of fever cases & larval density through online system
- ✍ Students were trained for source reduction activities
- ✍ 13 Sentinel Surveillance Centres established with diagnostic facilities
- ✍ Special Environment clean Campaign organized frequently
- ✍ Government sanctions fund to appoint 3,850 Mazdoors @ 10/ Block during pre and post monsoon period for the control of Chikungunya and Vector borne diseases.

❖ *Since 2006, around 100 confirmed cases are reported per annum and no death has been reported so far.*

### **ZONAL ENTOMOLOGICAL TEAMS**

Zonal Entomological Teams are functioning in 9 Zones in Tamilnadu which are as follows.

1. Vellore
2. Cuddalore
3. Thanjavur
4. Dindigul
5. Virudunagar
6. Salem
7. Coimbatore
8. Tiruchirapalli
9. Tirunelveli

**Table 12.1. INCIDENCE OF MALARIA CASES - 2008**

S.No.	Name of the HUD	MYE Population-2008	Cases due to Malaria - 2008	Incidence Rate/ 1000 Popn.
1	Aranthangi	722367	5	0.01
2	Chennai	4711961	13503	2.87
3	Cheyyar	938705	79	0.08
4	Coimbatore	2827097	0	0.00
5	Cuddalore	2404663	40	0.02
6	Dharapuram	1226697	0	0.00
7	Dharmapuri	1421022	216	0.15
8	Dindigul	1181617	824	0.70
9	Erode	1546378	0	0.00
10	Kallakuruchi	1483372	32	0.02
11	Kancheepuram	1295418	4	0.00
12	Karur	995468	8	0.01
13	Kovilpatti	606821	259	0.43
14	Krishnagiri	1748930	15	0.01
15	Madurai	2708632	100	0.04
16	Nagapattinam	1570415	122	0.08
17	Nagarcoil	1731538	97	0.06
18	Namakkal	1618678	78	0.05
19	Palani	860498	6	0.01
20	Paramakudi	594059	275	0.46
21	Perambalur	1263794	13	0.01
22	Poonamallee	442178	0	0.00
23	Pudukkottai	834365	9	0.01
24	Ramanathapuram	643745	2567	3.99
25	Saidapet	1921189	59	0.03
26	Salem	3340978	54	0.02
27	Sankarankoil	1370351	8	0.01
28	Sivaganga	1193696	19	0.02
29	Sivakasi	1200786	1	0.00
30	Thanjavur	2335216	80	0.03
31	The Nilgiris	800222	0	0.00
32	Theni	1126679	4	0.00
33	Thiruvallur	2691103	627	0.23
34	Thiruvarur	1220354	28	0.02
35	Thoothukudi	1050775	537	0.51
36	Tiruchirapalli	2581084	71	0.03
37	Tirunelveli	1516547	18	0.01
38	Tirupattur	1973352	212	0.11
39	Tiruppur	2004644	1	0.00
40	Tiruvannamalai	1352396	441	0.33
41	Vellore	1834615	511	0.28
42	Villupuram	1627113	116	0.07
43	Virudhunagar	687107	7	0.01
	<b>State Total</b>	<b>67206625</b>	<b>21046</b>	<b>0.31</b>

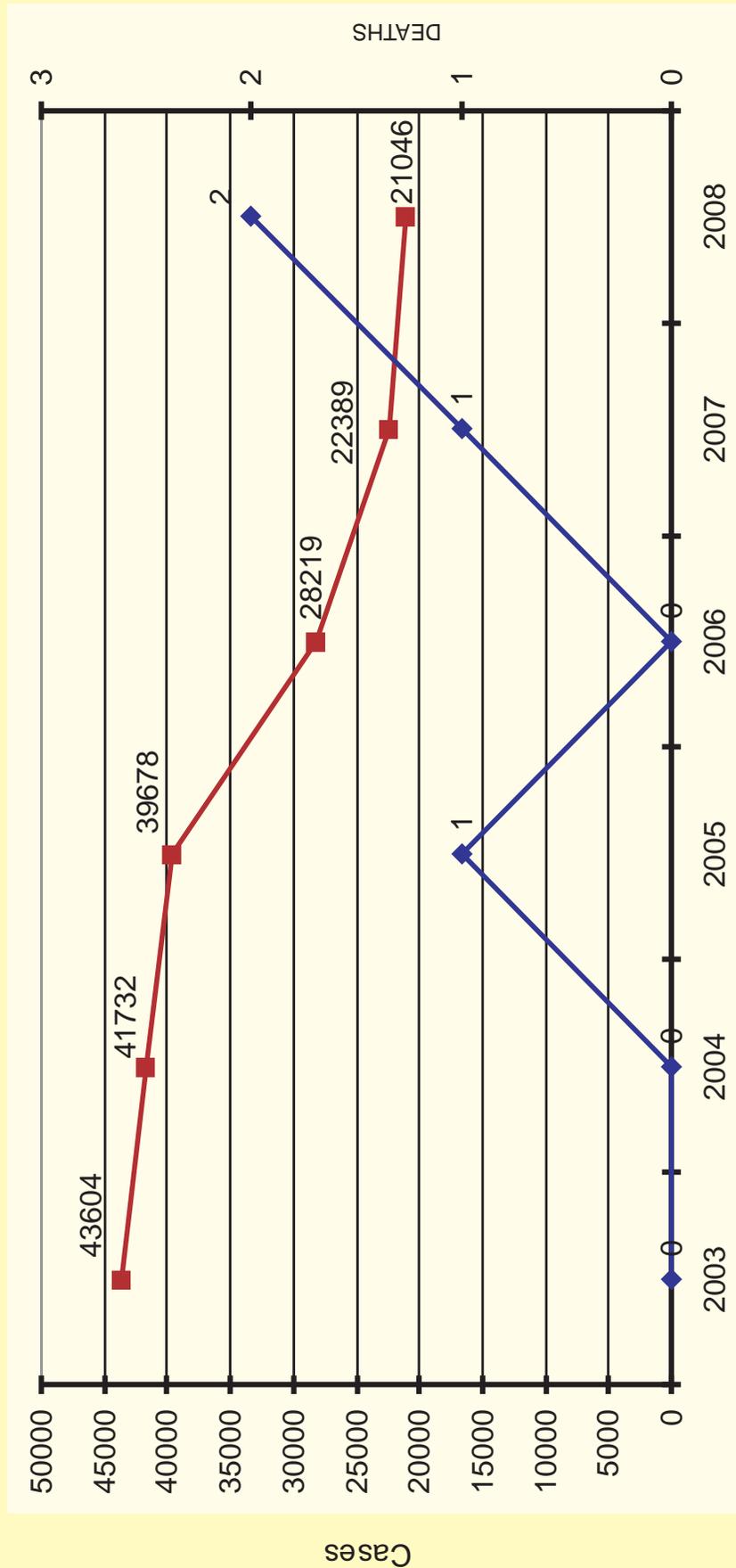
**Table 12.2. ANNUAL BLOOD SMEAR EXAMINATION RATE(ABER)  
ANNUAL PARASITE INDEX(API), SLIDE POSITIVITY RATE (SPR)**

S.No.	Name of the HUD	MYE Population-2008	Total no. of Blood Smear Collection (BSE)	Annual Blood Smear Examination Rate (ABER)	Total no. of Blood Smears +ve for Malaria Parasite	Annual Parasite Incidence (API)	SPR (%)
1	Aranthangi	722367	66173	9.16	5	0.01	0.008
2	Chennai	4711961	233454	4.95	13503	2.87	5.784
3	Cheyyar	938705	143589	15.30	79	0.08	0.055
4	Coimbatore	2827097	250244	8.85	0	0.00	0.000
5	Cuddalore	2404663	331544	13.79	40	0.02	0.012
6	Dharapuram	1226697	75038	6.12	0	0.00	0.000
7	Dharmapuri	1421022	173882	12.24	216	0.15	0.124
8	Dindigul	1181617	118989	10.07	824	0.70	0.693
9	Erode	1546378	161225	10.43	0	0.00	0.000
10	Kallakuruchi	1483372	202625	13.66	32	0.02	0.016
11	Kancheepuram	1295418	73842	5.70	4	0.00	0.005
12	Karur	995468	83260	8.36	8	0.01	0.010
13	Kovilpatti	606821	48147	7.93	259	0.43	0.538
14	Krishnagiri	1748930	128601	7.35	15	0.01	0.012
15	Madurai	2708632	227566	8.40	100	0.04	0.044
16	Nagapattinam	1570415	145441	9.26	122	0.08	0.084
17	Nagarcoil	1731538	126564	7.31	97	0.06	0.077
18	Namakkal	1618678	146196	9.03	78	0.05	0.053
19	Palani	860498	103676	12.05	6	0.01	0.006
20	Paramakudi	594059	105733	17.80	275	0.46	0.260
21	Perambalur	1263794	138937	10.99	13	0.01	0.009
22	Poonamallee	442178	0	0.00	0	0.00	0.000
23	Pudukkottai	834365	97253	11.66	9	0.01	0.009
24	Ramanathapuram	643745	123431	19.17	2567	3.99	2.080
25	Saidapet	1921189	130098	6.77	59	0.03	0.045
26	Salem	3340978	206444	6.18	54	0.02	0.026
27	Sankarankoil	1370351	98893	7.22	8	0.01	0.008
28	Sivaganga	1193696	197180	16.52	19	0.02	0.010
29	Sivakasi	1200786	80200	6.68	1	0.00	0.001
30	Thanjavur	2335216	282606	12.10	80	0.03	0.028
31	The Nilgiris	800222	52997	6.62	0	0.00	0.000
32	Theni	1126679	83260	7.39	4	0.00	0.005
33	Thiruvallur	2691103	230571	8.57	627	0.23	0.272
34	Thiruvarur	1220354	212982	17.45	28	0.02	0.013
35	Thoothukudi	1050775	115795	11.02	537	0.51	0.464
36	Tiruchirapalli	2581084	223441	8.66	71	0.03	0.032
37	Tirunelveli	1516547	120836	7.97	18	0.01	0.015
38	Tirupattur	1973352	135342	6.86	212	0.11	0.157
39	Tiruppur	2004644	124505	6.21	1	0.00	0.001
40	Tiruvannamalai	1352396	197123	14.58	441	0.33	0.224
41	Vellore	1834615	218384	11.90	511	0.28	0.234
42	Villupuram	1627113	216563	13.31	116	0.07	0.054
43	Virudhunagar	687107	67596	9.84	7	0.01	0.010
	<b>State Total</b>	<b>67206625</b>	<b>6300226</b>	<b>9.37</b>	<b>21046</b>	<b>0.31</b>	<b>0.334</b>

**Table 12.3. ANNUAL FALCIPARUM INCIDENCE (AFI) - 2008**

S.No.	Name of the HUD	MYE Population-2008	Total Positive	Total Pf	Pf %	AFI (per 1000 Popn)
1	Aranthangi	722367	5	0	0.0	0.00
2	Chennai	4711961	13503	50	0.4	0.01
3	Cheyyar	938705	79	4	5.1	0.00
4	Coimbatore	2827097	0	0	0.0	0.00
5	Cuddalore	2404663	40	4	10.0	0.00
6	Dharapuram	1226697	0	0	0.0	0.00
7	Dharmapuri	1421022	216	46	21.3	0.03
8	Dindigul	1181617	824	0	0.0	0.00
9	Erode	1546378	0	0	0.0	0.00
10	Kallakuruchi	1483372	32	4	12.5	0.00
11	Kancheepuram	1295418	4	0	0.0	0.00
12	Karur	995468	8	0	0.0	0.00
13	Kovilpatti	606821	259	7	2.7	0.01
14	Krishnagiri	1748930	15	1	6.7	0.00
15	Madurai	2708632	100	28	28.0	0.01
16	Nagapattinam	1570415	122	2	1.6	0.00
17	Nagarcoil	1731538	97	1	1.0	0.00
18	Namakkal	1618678	78	2	2.6	0.00
19	Palani	860498	6	1	16.7	0.00
20	Paramakudi	594059	275	17	6.2	0.03
21	Perambalur	1263794	13	0	0.0	0.00
22	Poonamallee	442178	0	0	0.0	0.00
23	Pudukkottai	834365	9	0	0.0	0.00
24	Ramanathapuram	643745	2567	216	8.4	0.34
25	Saidapet	1921189	59	0	0.0	0.00
26	Salem	3340978	54	11	20.4	0.00
27	Sankarankoil	1370351	8	1	12.5	0.00
28	Sivaganga	1193696	19	3	15.8	0.00
29	Sivakasi	1200786	1	0	0.0	0.00
30	Thanjavur	2335216	80	5	6.3	0.00
31	The Nilgiris	800222	0	0	0.0	0.00
32	Theni	1126679	4	2	50.0	0.00
33	Thiruvallur	2691103	627	6	1.0	0.00
34	Thiruvarur	1220354	28	1	3.6	0.00
35	Thoothukudi	1050775	537	78	14.5	0.07
36	Tiruchirapalli	2581084	71	13	18.3	0.01
37	Tirunelveli	1516547	18	1	5.6	0.00
38	Tirupattur	1973352	212	20	9.4	0.01
39	Tiruppur	2004644	1	0	0.0	0.00
40	Tiruvannamalai	1352396	441	48	10.9	0.04
41	Vellore	1834615	511	162	31.7	0.09
42	Villupuram	1627113	116	3	2.6	0.00
43	Virudhunagar	687107	7	2	28.6	0.00
	<b>State Total</b>	<b>67206625</b>	<b>21046</b>	<b>739</b>	<b>3.5</b>	<b>0.01</b>

**Chart 32. CASES AND DEATHS OF MALARIA - TAMILNADU  
2003 TO 2008**



■ Cases ◆ Deaths

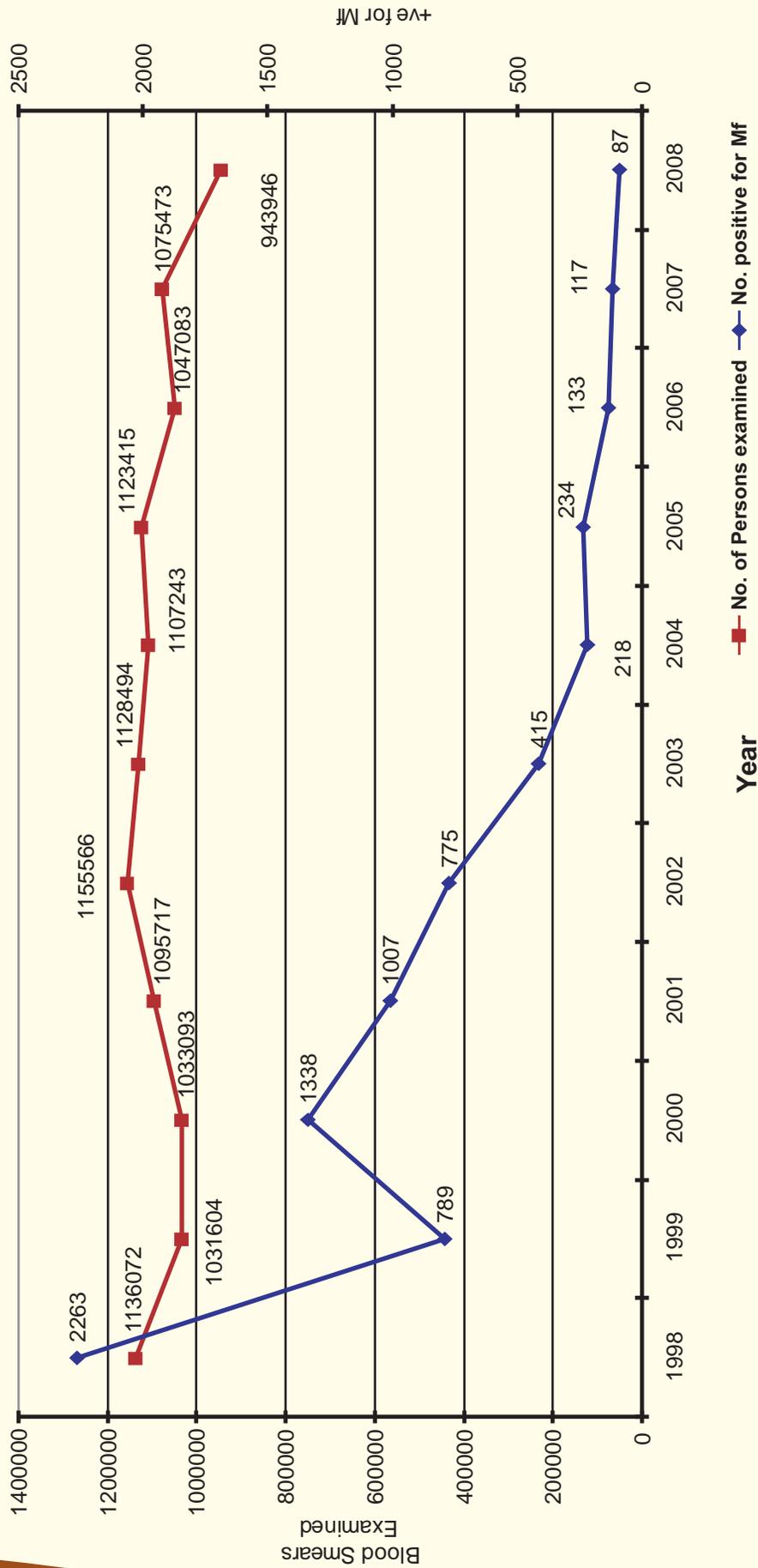
Source : NVBDCP

**Table 12.4. FILARIASIS 2008**

S.No.	Unit	BSE			MF Positive			MF Rate			Disease			Disease Rate			Endemicity Rate		
		CU	NC	T	CU	NC	T	CU	NC	T	CU	NC	T	CU	NC	T	CU	NC	T
1	Chengalpet	129029	104385	233414	4	12	16	0.003	0.011	0.007	0	0	0	0	0	0	0.003	0.011	0.014
2	Vellore	115543	145363	260906	6	19	25	0.005	0.013	0.01	0	4	4	0	0.003	0.003	0.005	0.016	0.021
3	Chidambaram	68425	52395	120820	1	6	7	0.001	0.011	0.006	0	0	0	0	0	0	0.001	0.011	0.012
4	Kumbakonam	113145	90155	203300	4	13	17	0.004	0.014	0.008	0	0	0	0	0	0	0.004	0.014	0.018
5	Nagercoil	22624	87297	109921	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Veeravanallur	9971	-	9971	15	0	15	0.15	0	0.15	2	0	2	0.02	0	0.02	0.17	0	0.17
<b>TOTAL</b>		<b>458737</b>	<b>479595</b>	<b>938332</b>	<b>30</b>	<b>50</b>	<b>80</b>	<b>0.007</b>	<b>0.01</b>	<b>0.009</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>0.02</b>	<b>0.003</b>	<b>0.023</b>	<b>0.183</b>	<b>0.052</b>	<b>0.235</b>

CU: Control Unit  
 NC: Night Clinic  
 T: Total

**Chart 33. FILARIA - BLOOD SMEARS EXAMINED, +VE FOR MF- TAMILNADU  
1998 TO 2008**

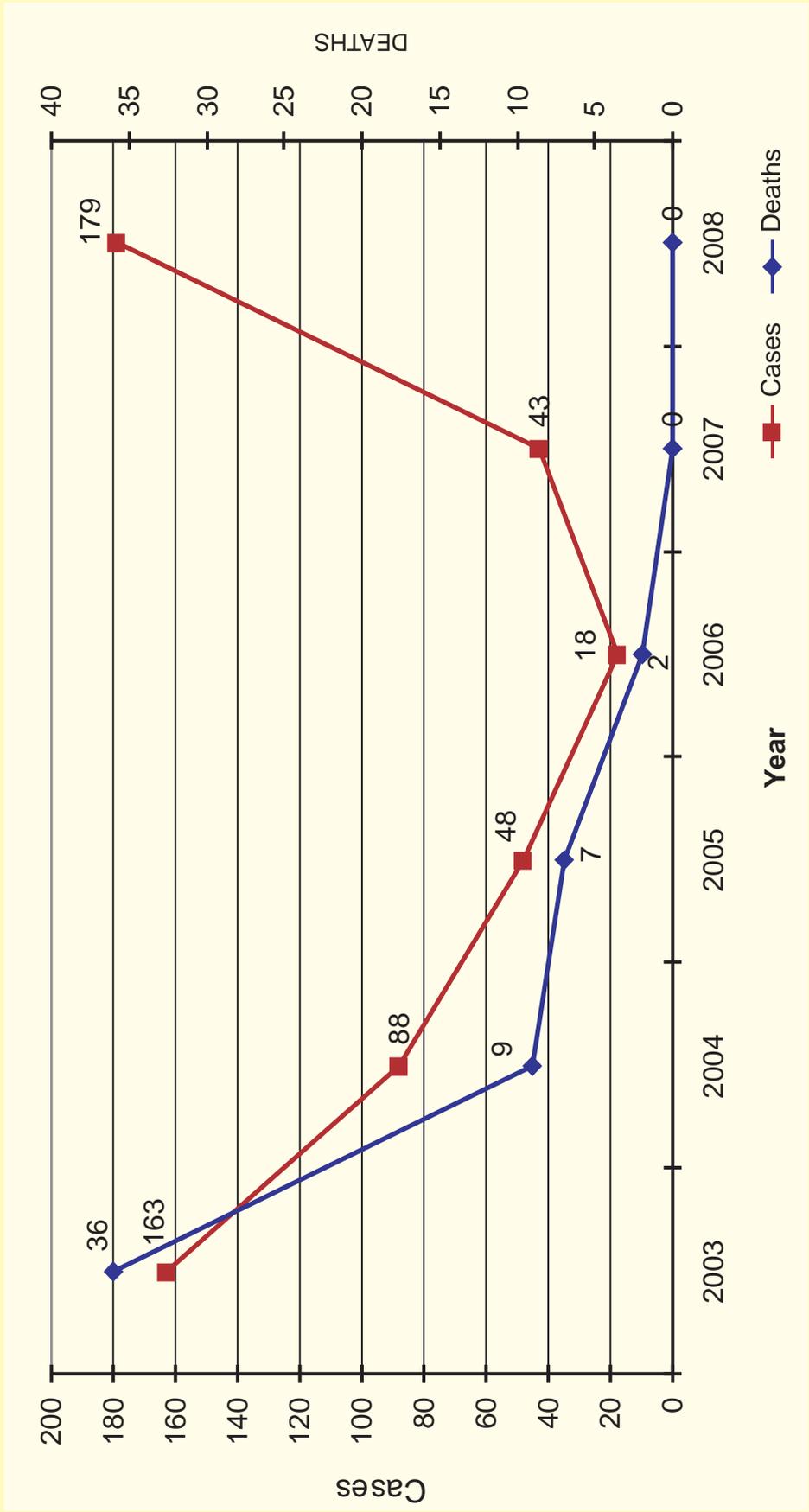


Source : NVBDCP

**Table 12.5. JAPANESE ENCEPHALITIS - 2008**

S.No.	Name of the HUD	2008	
		Cases due to JE	AES
1	Aranthangi		
2	Cheyyar		
3	Coimbatore		
4	Cuddalore		13
5	Dharapuram		
6	Dharmapuri		
7	Dindigul		
8	Erode		
9	Kallakurichi		6
10	Kancheepuram		
11	Kanniyakumari		
12	Karur		
13	Kovilpatti		
14	Krishnagiri		
15	Madurai	1	70
16	Nagapattinam		
17	Namakkal		
18	Palani		
19	Paramakudi		
20	Perambalur	3	10
21	Poonamallee		
22	Pudukottai		1
23	Ramanathapuram		
24	Saidapet		
25	Salem		
26	Sankarankoil		
27	Sivaganga		
28	Sivakasi		
29	Thanjavur		
30	Theni		3
31	Thiruppur		
32	Thiruvallur		1
33	Thiruvannamalai	1	3
34	Thiruvarur		
35	Tiruchirapalli	2	57
36	Tirunelveli		
37	Tirupattur		
38	Tuticorin		
39	Uthagamandalam		
40	Vellore		
41	Viluppuram		15
42	Viruthunagar		
	<b>State Total</b>	<b>7</b>	<b>179</b>

**Chart 34. CASES AND DEATHS OF JAPANESE ENCEPHALITIS - TAMILNADU  
2003 TO 2008**

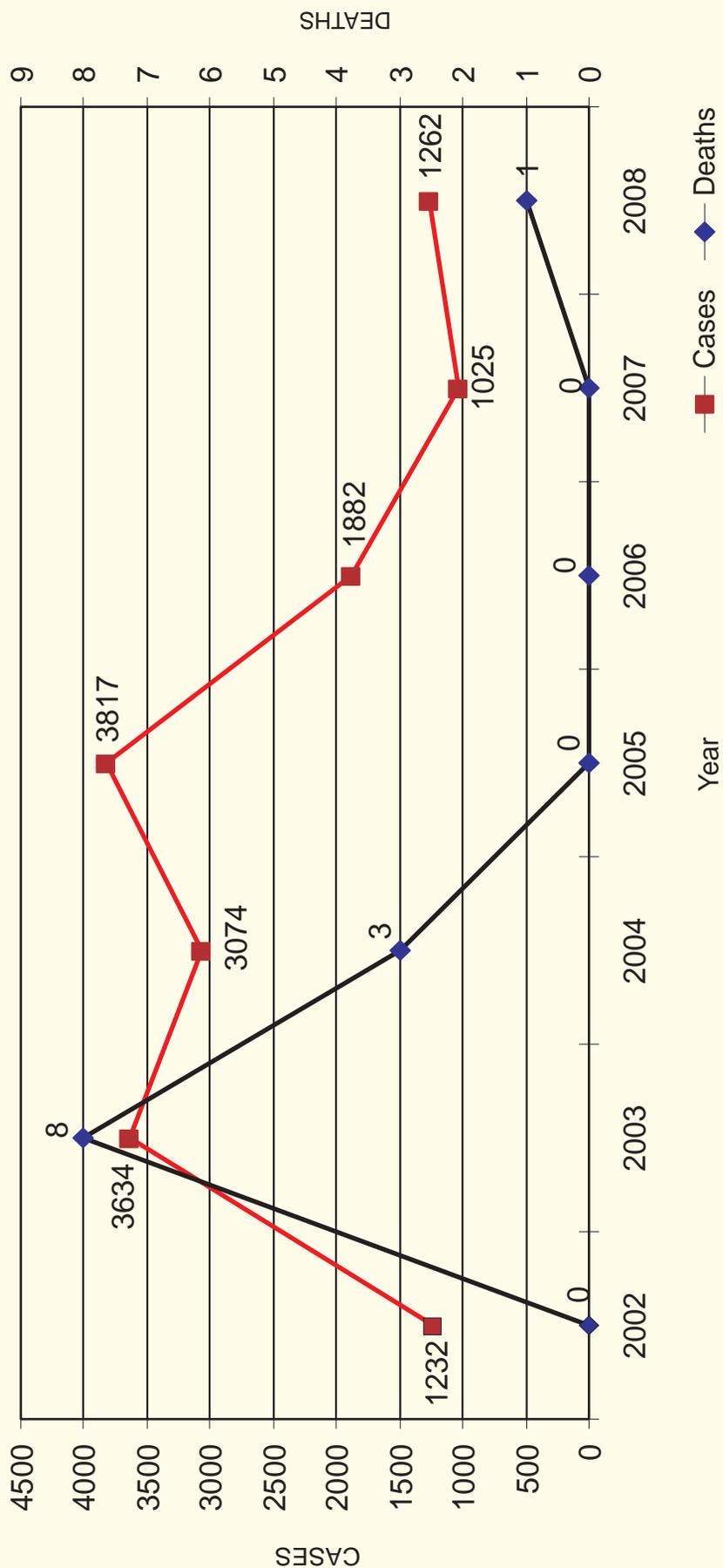


Source : NVBDCP

**Table 12. 6. LEPTOSPIROSIS - 2008**

S.No.	Name of the HUD	MYE POPULATION - 2008	Cases	Deaths	Incidence Rate / 1000 Pop.
1	Aranthangi	722367	0	0	0.00
2	Chennai	4711961	0	0	0.00
3	Cheygar	938705	14	0	0.01
4	Coimbatore	2827097	18	0	0.01
5	Cuddalore	2404663	20	0	0.01
6	Dharapuram	1226697	0	0	0.00
7	Dharmapuri	1421022	0	0	0.00
8	Dindigul	1181617	0	0	0.00
9	Erode	1546378	2	0	0.00
10	Kallakuruchi	1483372	16	1	0.01
11	Kancheepuram	1295418	0	0	0.00
12	Karur	995468	0	0	0.00
13	Kovilpatti	606821	1	0	0.00
14	Krishnagiri	1748930	46	0	0.03
15	Madurai	2708632	181	0	0.07
16	Nagapattinam	1570415	13	0	0.01
17	Nagarcoil	1731538	0	0	0.00
18	Namakkal	1618678	0	0	0.00
19	Palani	860498	1	0	0.00
20	Paramakudi	594059	0	0	0.00
21	Perambalur	1263794	0	0	0.00
22	Poonamallee	442178	24	0	0.05
23	Pudukkottai	834365	0	0	0.00
24	Ramanathapuram	643745	0	0	0.00
25	Saidapet	1921189	17	0	0.01
26	Salem	3340978	4	0	0.00
27	Sankarankoil	1370351	0	0	0.00
28	Sivaganga	1193696	16	0	0.01
29	Sivakasi	1200786	0	0	0.00
30	Thanjavur	2335216	35	0	0.01
31	The Nilgiris	800222	0	0	0.00
32	Theni	1126679	5	0	0.00
33	Thiruvallur	2691103	664	0	0.25
34	Thiruvarur	1220354	32	0	0.03
35	Thoothukudi	1050775	0	0	0.00
36	Tiruchirapalli	2581084	23	0	0.01
37	Tirunelveli	1516547	0	0	0.00
38	Tirupattur	1973352	58	0	0.03
39	Tiruppur	2004644	5	0	0.00
40	Tiruvannamalai	1352396	38	0	0.03
41	Vellore	1834615	9	0	0.00
42	Villupuram	1627113	20	0	0.01
43	Virudhunagar	687107	0	0	0.00
	<b>State Total</b>	<b>67206625</b>	<b>1262</b>	<b>1</b>	<b>0.019</b>

**Chart 35. CASES AND DEATHS OF LEPTOSPIROSIS - TAMILNADU  
2002 TO 2008**



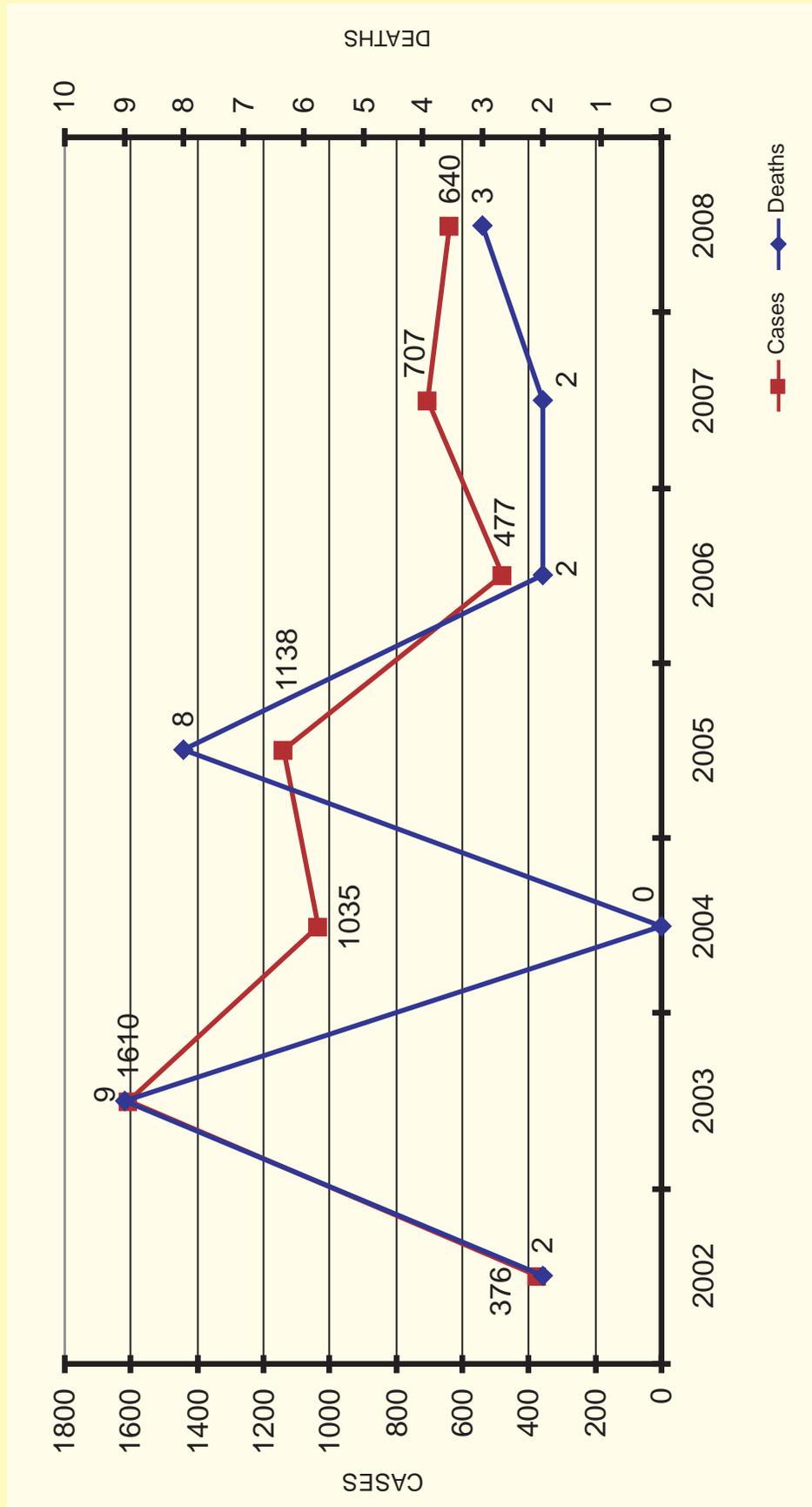
Source : NVBDCP

**Table 12.7. DENGUE - 2008**

S.No.	Name of the HUD	MYE POPULATION 2008	2008		Incidence Rate / 1000 Pop.	CFR
			Cases	Deaths		
1	Aranthangi	722367	0	0	0.00	0
2	Chennai	4711961	60	0	0.01	0
3	Cheyyar	938705	8	0	0.01	0
4	Coimbatore	2827097	57	0	0.02	0
5	Cuddalore	2404663	24	0	0.01	0
6	Dharapuram	1226697	2	0	0.00	0
7	Dharmapuri	1421022	0	0	0.00	0
8	Dindigul	1181617	5	0	0.00	0
9	Erode	1546378	16	0	0.01	0
10	Kallakuruchi	1483372	0	0	0.00	0
11	Kancheepuram	1295418	2	0	0.00	0
12	Karur	995468	54	0	0.05	0
13	Kovilpatti	606821	0	0	0.00	0
14	Krishnagiri	1748930	11	0	0.01	0
15	Madurai	2708632	7	0	0.00	0
16	Nagapattinam	1570415	0	0	0.00	0
17	Nagarcoil	1731538	18	1	0.01	5.6
18	Namakkal	1618678	21	0	0.01	0
19	Palani	860498	3	0	0.00	0
20	Paramakudi	594059	0	0	0.00	0
21	Perambalur	1263794	19	0	0.02	0
22	Poonamallee	442178	2	0	0.00	0
23	Pudukkottai	834365	17	0	0.02	0
24	Ramanathapuram	643745	0	0	0.00	0
25	Saidapet	1921189	10	0	0.01	0
26	Salem	3340978	29	0	0.01	0
27	Sankarankoil	1370351	0	0	0.00	0
28	Sivaganga	1193696	0	0	0.00	0
29	Sivakasi	1200786	0	0	0.00	0
30	Thanjavur	2335216	0	0	0.00	0
31	The Nilgiris	800222	0	0	0.00	0
32	Theni	1126679	20	0	0.02	0
33	Thiruvallur	2691103	4	2	0.00	50
34	Thiruvarur	1220354	1	0	0.00	0
35	Thoothukudi	1050775	0	0	0.00	0
36	Tiruchirapalli	2581084	149	0	0.06	0
37	Tirunelveli	1516547	2	0	0.00	0
38	Tirupattur	1973352	43	0	0.02	0
39	Tiruppur	2004644	17	0	0.01	0
40	Tiruvannamalai	1352396	4	0	0.00	0
41	Vellore	1834615	25	0	0.01	0
42	Villupuram	1627113	10	0	0.01	0
43	Virudhunagar	687107	0	0	0.00	0
	<b>State Total</b>	<b>67206625</b>	<b>640</b>	<b>3</b>	<b>0.01</b>	<b>0.5</b>

NOTE: Incidence Rate / 1000 Population

**Chart 36. CASES AND DEATHS OF DENGUE - TAMILNADU  
2002 TO 2008**



Source : NVBDCP

**Table 12.8. CHIKUNGUNYA - 2008**

S.No.	Name of the HUD	MYE POPULATION - 2008	No. of cases found +ve - 2008	Incidence Rate / 1000 Pop.
1	Aranthangi	722367	0	0.00
2	Chennai	4711961	0	0.00
3	Cheyyar	938705	0	0.00
4	Coimbatore	2827097	0	0.00
5	Cuddalore	2404663	0	0.00
6	Dharapuram	1226697	0	0.00
7	Dharmapuri	1421022	6	0.00
8	Dindigul	1181617	0	0.00
9	Erode	1546378	0	0.00
10	Kallakuruchi	1483372	7	0.00
11	Kancheepuram	1295418	0	0.00
12	Karur	995468	15	0.02
13	Kovilpatti	606821	0	0.00
14	Krishnagiri	1748930	5	0.00
15	Madurai	2708632	0	0.00
16	Nagapattinam	1570415	0	0.00
17	Nagarcoil	1731538	0	0.00
18	Namakkal	1618678	0	0.00
19	Palani	860498	0	0.00
20	Paramakudi	594059	0	0.00
21	Perambalur	1263794	0	0.00
22	Poonamallee	442178	0	0.00
23	Pudukkottai	834365	0	0.00
24	Ramanathapuram	643745	0	0.00
25	Saidapet	1921189	4	0.00
26	Salem	3340978	10	0.00
27	Sankarankoil	1370351	0	0.00
28	Sivaganga	1193696	0	0.00
29	Sivakasi	1200786	0	0.00
30	Thanjavur	2335216	3	0.00
31	The Nilgiris	800222	0	0.00
32	Theni	1126679	0	0.00
33	Thiruvallur	2691103	0	0.00
34	Thiruvarur	1220354	0	0.00
35	Thoothukudi	1050775	0	0.00
36	Tiruchirapalli	2581084	0	0.00
37	Tirunelveli	1516547	0	0.00
38	Tirupattur	1973352	13	0.01
39	Tiruppur	2004644	0	0.00
40	Tiruvannamalai	1352396	4	0.00
41	Vellore	1834615	4	0.00
42	Villupuram	1627113	0	0.00
43	Virudhunagar	687107	0	0.00
	<b>State Total</b>	<b>67206625</b>	<b>71</b>	<b>0.001</b>

**Chart 37. CASES OF CHIKUNGUNYA - TAMILNADU  
2006 TO 2008**



Source : NVBDCP