VECTOR BORNE DISEASES

AHMEDABAD MUNICIPAL CORPORATION
VECTOR BORNE DISEASES

MOSQUITO:
- MALARIA
- DENGUE FEVER
- CHIKUNGUNIYA
- ZIKA FEVER
- FILARIASIS
- JANAPES ENCEPHALITIS

SANDFLY:
- KALA AZAR
Malaria Prevalence in India

Malaria Cases
- 0 - 3000
- 3000 - 11000
- 11000 - 24000
- 24000 - 47000
- 47000 - 74000
- 74000 - 249000

Map showing the distribution of malaria cases across different regions of India.
AHMEDABAD CITY - MALARIA CASES
(since 1991 : ACD + PCD)

POSITIVES
PF

Data before 1991 is of Active Case Detection (Malaria Deptt.) only, thereafter Passive Case Detection Agencies (Hospitals) cases too were included to know true incidence, Since May 2007 including New West Zone data.
MALARIA CONTROL STRATEGIES

- Source Reduction
- Community Participation
- Early Diagnosis and Prompt Treatment with RDT
- Follow up of complete treatment
- Intra and extra domestic activities
ANNUAL BLOOD SMEAR EXAMINATION RATE:

ABER = \frac{\text{No. of blood smears collected during the year}}{\text{Population covered under surveillance}} \times 100

BSC in 2018: >15 Lacs
CHALLENGES

• MIGRATORY POPULATION.

• URBANIZATION.

• CONSTRUCTION SITES.

• OPEN PLOTS.

• INCOMPLETE TREATMENT

• LACK OF AWARENESS AND BEHAVIOUR CHANGES.
DENGUE PREVALENCE IN AMC

Case

Year:
- 2012: 1575
- 2013: 2165
- 2014: 2852
- 2015: 1079
- 2016: 3135

Note: The trend shows a significant increase in cases from 2014 onwards.
• Dengue & Chikunguniya diagnosis facility at each UHC.

• Serum sampling has increased many folds in recent years.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Sample Tested</th>
<th>Den +Ve</th>
<th>Seropositivity %</th>
</tr>
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<tbody>
<tr>
<td>2006</td>
<td>903</td>
<td>146</td>
<td>16.2</td>
</tr>
<tr>
<td>2007</td>
<td>1826</td>
<td>220</td>
<td>12.0</td>
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<tr>
<td>2008</td>
<td>2579</td>
<td>326</td>
<td>12.6</td>
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<tr>
<td>2009</td>
<td>2116</td>
<td>265</td>
<td>12.5</td>
</tr>
<tr>
<td>2010</td>
<td>4309</td>
<td>574</td>
<td>13.3</td>
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<tr>
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<td>10.1</td>
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<tr>
<td>2012</td>
<td>5942</td>
<td>513</td>
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<td>2013</td>
<td>8848</td>
<td>677</td>
<td>7.7</td>
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<tr>
<td>2014</td>
<td>8246</td>
<td>636</td>
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<tr>
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<td>42251</td>
<td>1769</td>
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<tr>
<td>2017</td>
<td>31473</td>
<td>970</td>
<td>3.1</td>
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<tr>
<td>2018</td>
<td>42255</td>
<td>2594</td>
<td>6.1</td>
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THE ZIKA OUTBREAK
Outbreaks of the virus have been reported in Africa, the US, Asia and the Pacific

- Zika virus was first identified in Uganda in 1947
- Large outbreaks were reported in French Polynesia in 2013
- Large outbreaks were reported in Brazil in 2015

Zika footprint in India

- October 2018 Third outbreak in Jaipur, Rajasthan
- May 2017 Three cases of Zika virus disease were reported in Bapunagar area, Ahmedabad, Gujarat
- July 2017 Second outbreak from Krishnagiri district, Tamil Nadu

Rajasthan: 159 cases
Zika Cases In 2018,

- Rajasthan : 159 Cases
- Madhya Pradesh : 159 Cases
- Gujarat: 1 Case

One case of Zika was reported from Udaynagar, Amariawadi ward, Ahmedabad.
Catchment Area for Control Measures.
HOUSEHOLD SURVEY FOR FEVER CASE DETECTION.

- Houses Surveyed: 6,63,300
- RDT / BSC Taken: 5917
- Houses Fogged: 1,25,608
MAIN STRATEGIES TO CONTROL OUTBREAK

A. Anti Mosquito Measures

- Massive Indoor Fogging require in affected area to control transmission of infection through Adult Mosquitoes.
Main Strategies to Control Outbreak

B. Anti Larval Measures

- Intra & Extra domestic activities required to prevent breeding in containers to kill Larva & Pupa.
SCREENING IN THE AFFECTED AREAS

Total Antenatal Screening :- 13,564
Blood Sample taken from ANC women: 429

To Find The Possibility Of Infection

Total 506 Aedes Mosquito Samples sent to NIV Pune and all samples are negative for Zika
• Live Demo of Mosquito life cycle in Schools and Society
• Awareness Play in Schools and Societies
Ahmedabad registers Zika virus case

The first case of Zika virus in Gujarat this year has been reported from Ahmedabad. A woman from Anamawadi, who was admitted to Civil Hospital with fever and gynaecological issues on October 22, tested positive for the vector-borne disease on Friday.

The government immediately took steps to counter the risk of local transmission on a massive scale in Anamawadi. Commissioner of Health Jayanti Bhati asked people to stay calm as the mortality rate in such cases is negligible. "Zika virus spreads through mosquitoes that also carry dengue and chikungunya virus. So the best way to stop its spread is to control the mosquitoes. However, women in their first three months of pregnancy need to be cautious."

Speaking about the patient, Municipal Commissioner Vijay Nehra said: "She was admitted for gynaecological issues. Since she had mild fever, doctors took her blood samples to check if she had dengue or malaria. But she tested negative. Then her samples were sent to National Institute of Virology in Pune. On Friday, NIV confirmed she was infected with Zika virus. But the woman has already recovered and has been discharged."

He added, "As we considered it a suspected case of Zika, we did not wait for the NIV report. Instead, we formed 100 teams and have screened over 7.33 lakh people since October 22. We found 257 pregnant women suffering from fever. Their samples have been sent to the laboratory. Out of these, 135 have been cleared."

Zika virus detected in Gujarat: Woman tests positive in Ahmedabad

By Machuri Adnal | Published: Monday, October 29, 2018, 16:08 [IST]

Zika Outbreak Spreads To Gujarat, Woman Tests Positive In Ahmedabad

Health authorities in Rajasthan have detected 147 cases of Zika since September, officials say.

All India | Agence France-Presse | Updated: October 28, 2018 20:49 IST

Gujarat confirms one zika case in Ahmedabad

TNM | Oct 27, 2018, 04:51 AM IST

AHMEDABAD: The state health department on Friday confirmed that one woman from Amravati area of the city has tested positive for zika virus by the National Institute of Virology (NIV), Pune.
RESULT OF EXTENSIVE EFFORTS

- No any new case
- No any zika infection in mosquito
- All antenatal Negative for zika

Entomological Survey AMRAIWADI-EAST ZONE

- AMC-EZ-22.10.2018
- AMC-EZ-23.10.2018
- AMC-EZ-24.10.2018
- AMC-EZ-25.10.2018
- AMC-EZ-26.10.2018
- AMC-EZ-27.10.2018

Graph showing the trend of indicators over time.
ENTOMOLOGICAL SURVEY - BAPUNAGAR

BAPUNAGAR-NORTH ZONE

AMC-NZ-29.10.2018
AMC-NZ-30.10.2018
AMC-NZ-31.10.2018
AMC-NZ-01.11.2018
AMC-NZ-02.11.2018
AMC-NZ-03.11.2018
UNPRECEDENTED SUCCESS

• By Controlling Spread of Infection to others
• Public Awareness
• Strict Monitoring

LEARNING LESSON

Community Participation Is Important