

# Outbreak of Chikungunya Virus in Bangladesh in November-2011

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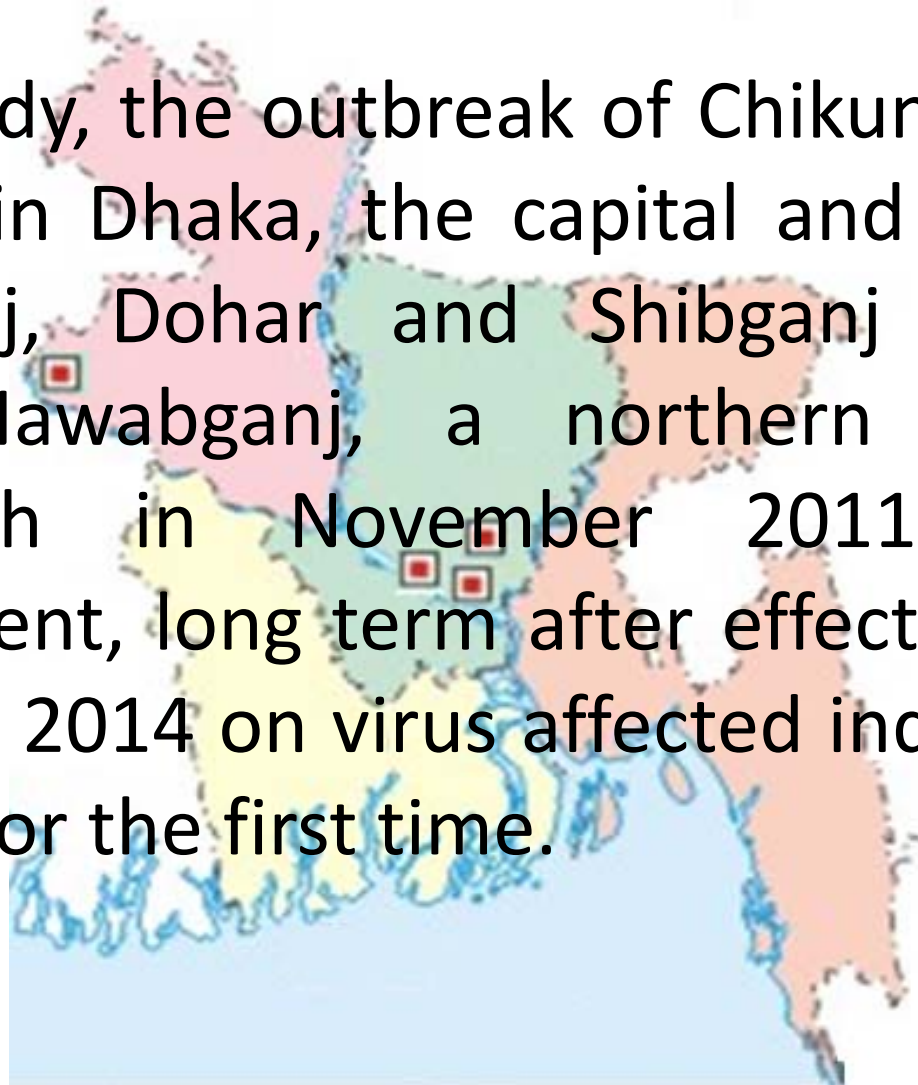
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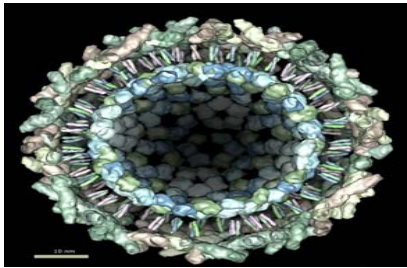
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**Sustaining Change in Community Health**

# Summary

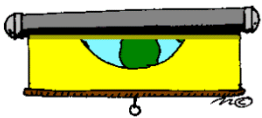
In this study, the outbreak of Chikungunya virus detected in Dhaka, the capital and its suburbs Nababgonj, Dohar and Shibganj upazila of Chapai Nawabganj, a northern district in Bangladesh in November 2011 with its management, long term after effects up to first quarter of 2014 on virus affected individuals are reported for the first time.



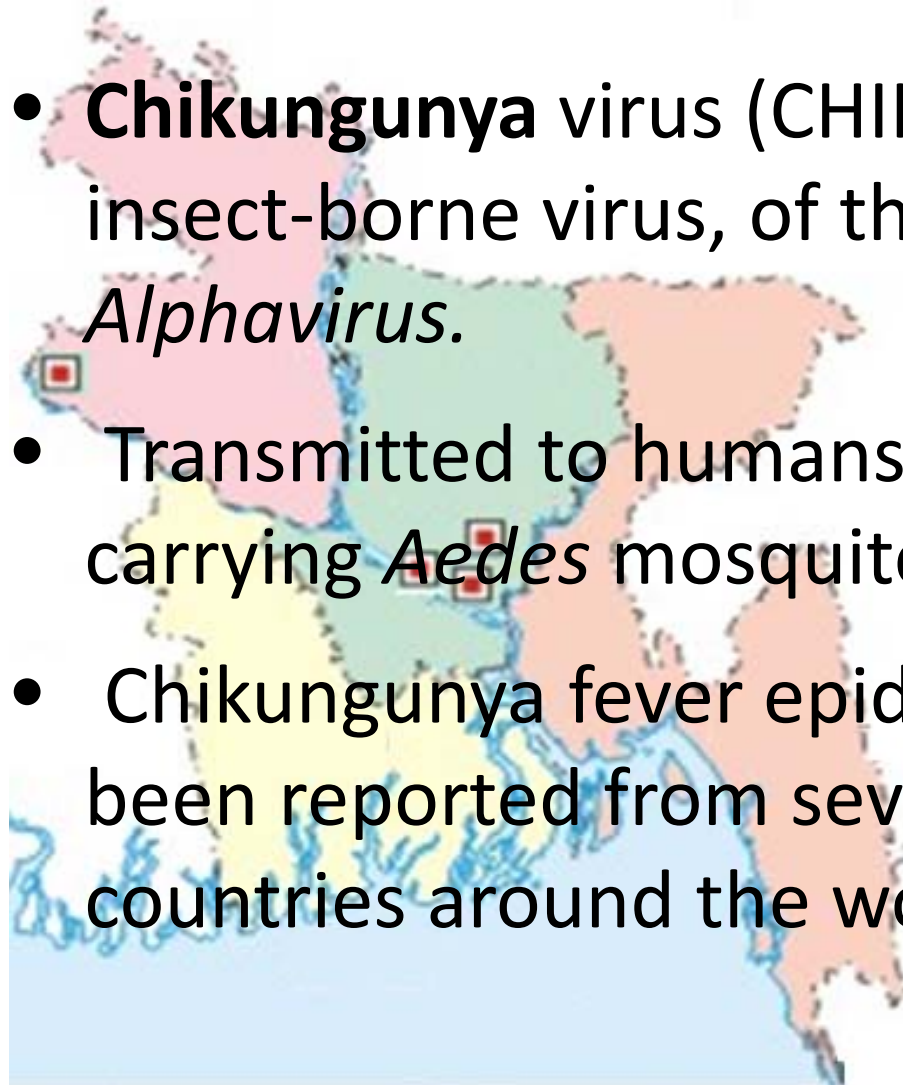
# Introduction



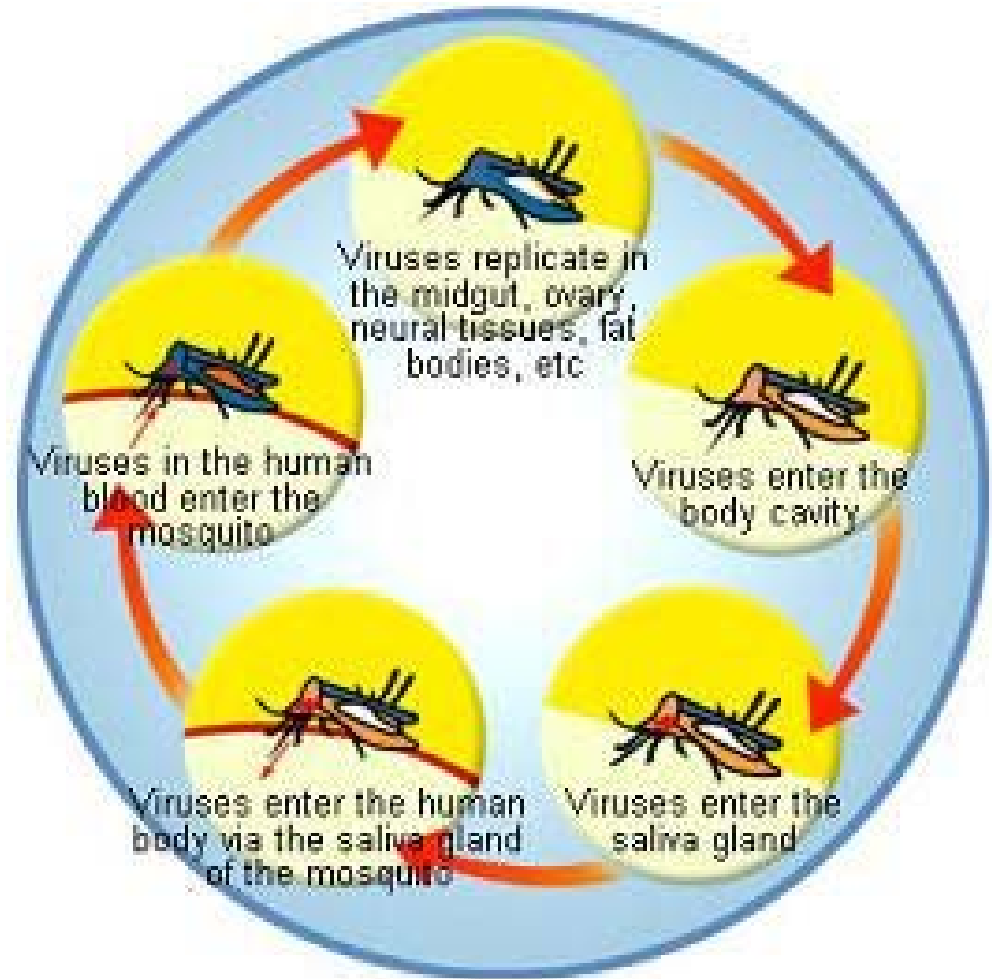
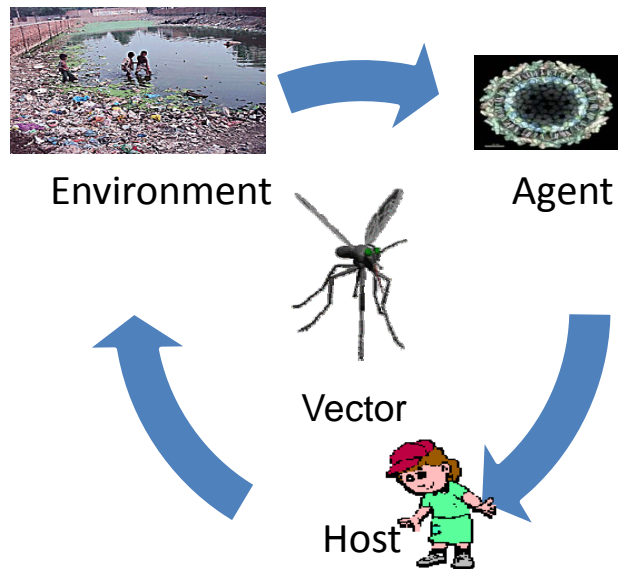
Chikungunya alphavirus  
(family: Togaviridae)



- **Chikungunya** virus (CHIKV) is an insect-borne virus, of the genus *Alphavirus*.
- Transmitted to humans by virus-carrying *Aedes* mosquitoes.
- Chikungunya fever epidemics have been reported from several countries around the world.



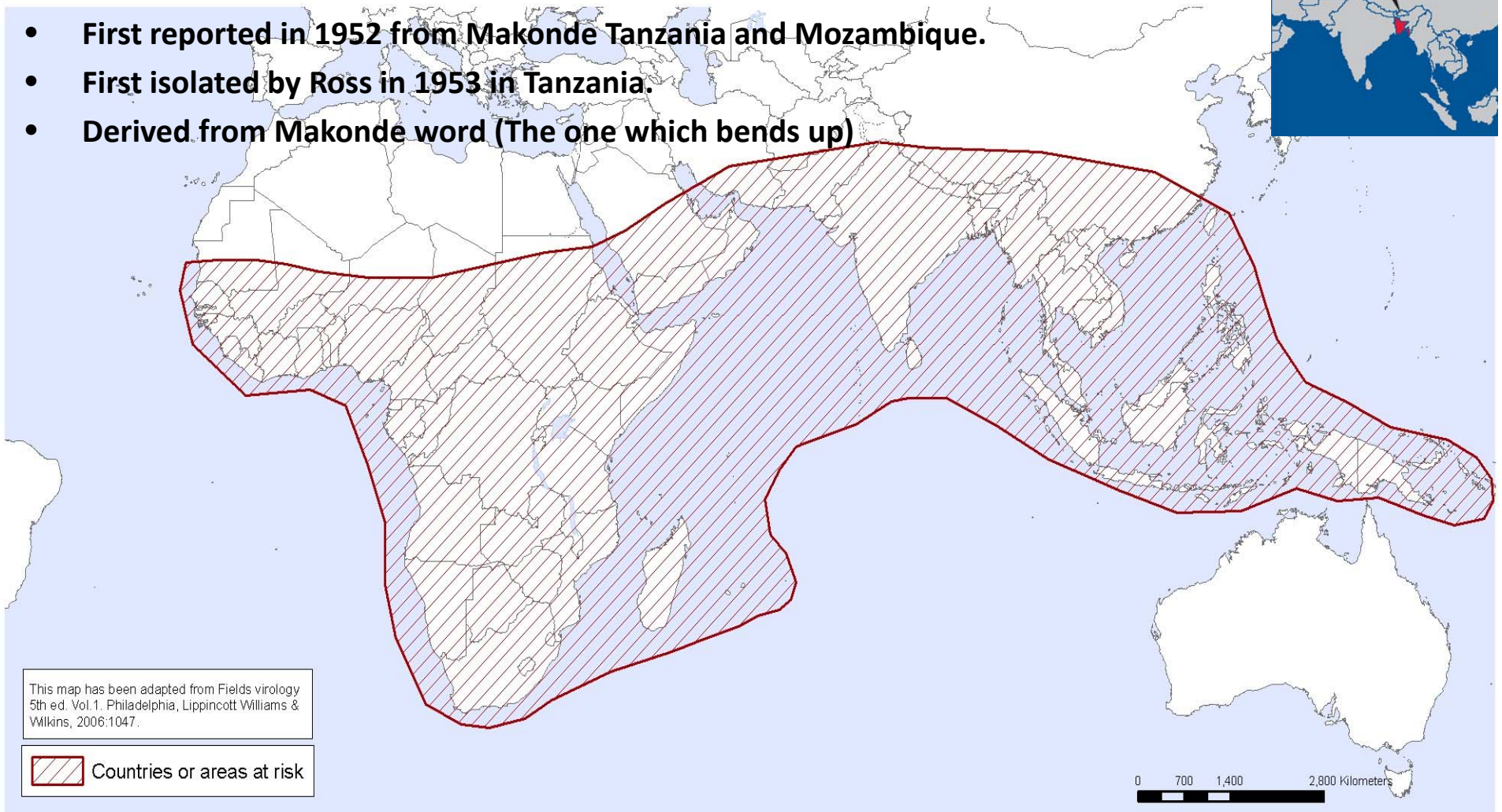
# Epidemiological Triad



- **Incubation period:** 4 to 7 days
- A clinical triad of '**fever, rashes and arthralgia**' is suggestive of chikungunya fever.

# Epidemiology Chikungunya, countries or areas at risk

- First reported in 1952 from Makonde Tanzania and Mozambique.
- First isolated by Ross in 1953 in Tanzania.
- Derived from Makonde word (The one which bends up)



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Map Production: Public Health Information and Geographic Information Systems (GIS)  
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First Outbreak in Poba , Rajshahi in 2008 (32 Confirmed)



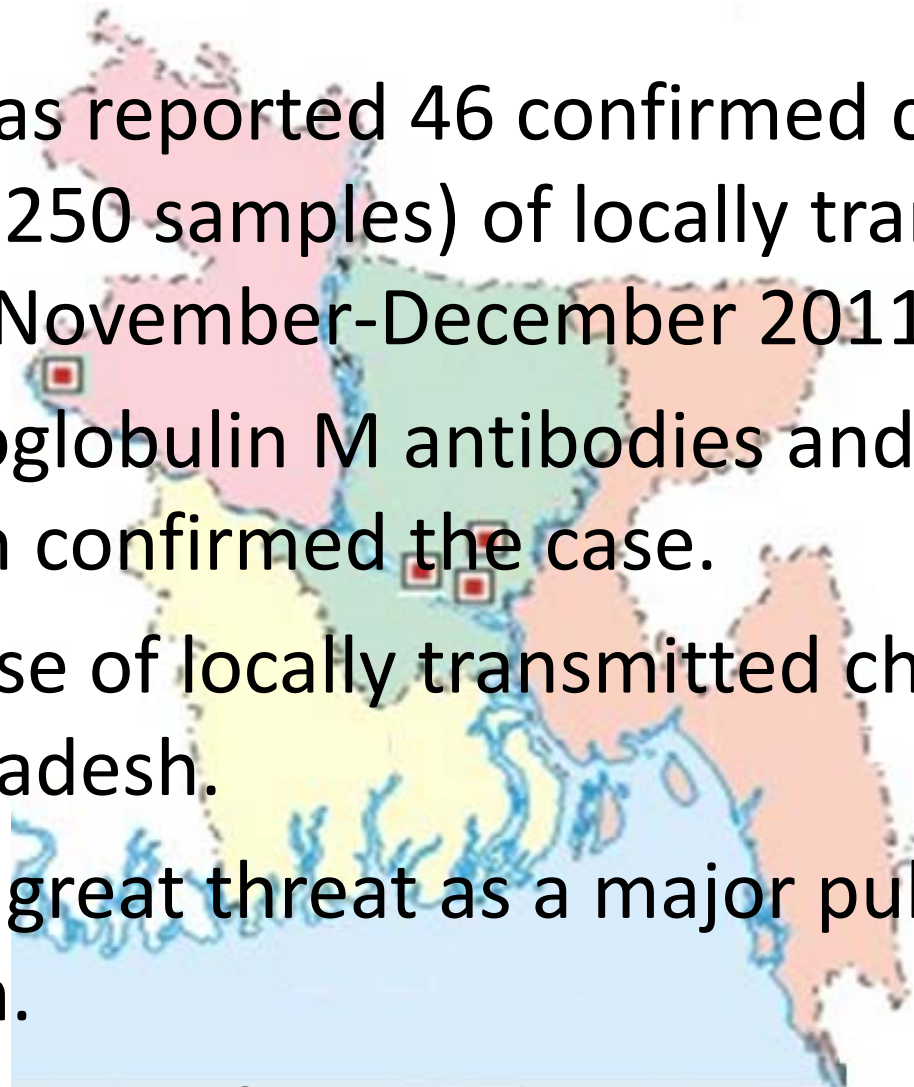
Second Outbreak in Sathia , Pabna in 2009



Third Outbreak in Dhaka, Dohar, Nababgonj and Shibgonj in 2011 (46 Confirmed)

# The case: Chikungunya Outbreak in 2011

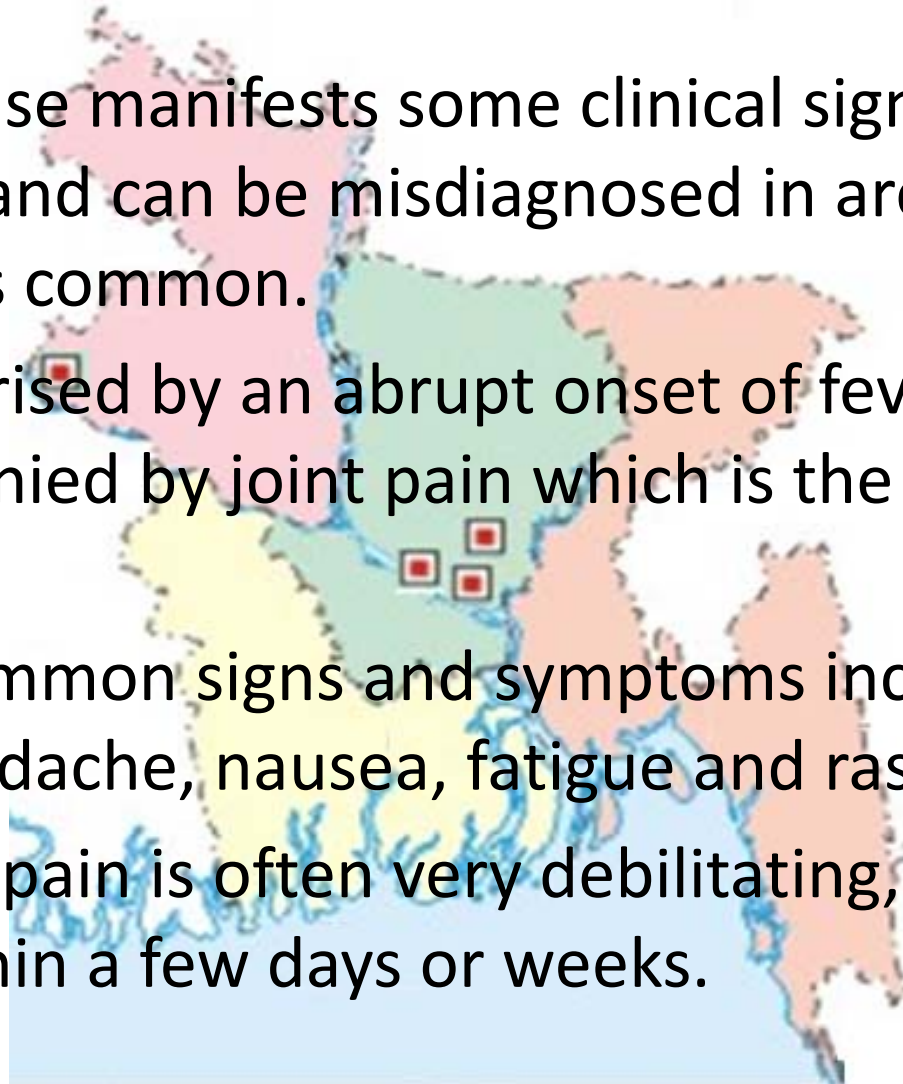
- IEDCR has reported 46 confirmed cases (among 250 samples) of locally transmitted virus in November-December 2011.
- Immunoglobulin M antibodies and virus isolation confirmed the case.
- Third case of locally transmitted chikungunya in Bangladesh.
- Posed a great threat as a major public health problem.



IEDCR= Institute of Epidemiology Diseases Control and Research

# The case: Chikungunya Outbreak in 2011 (Continued)

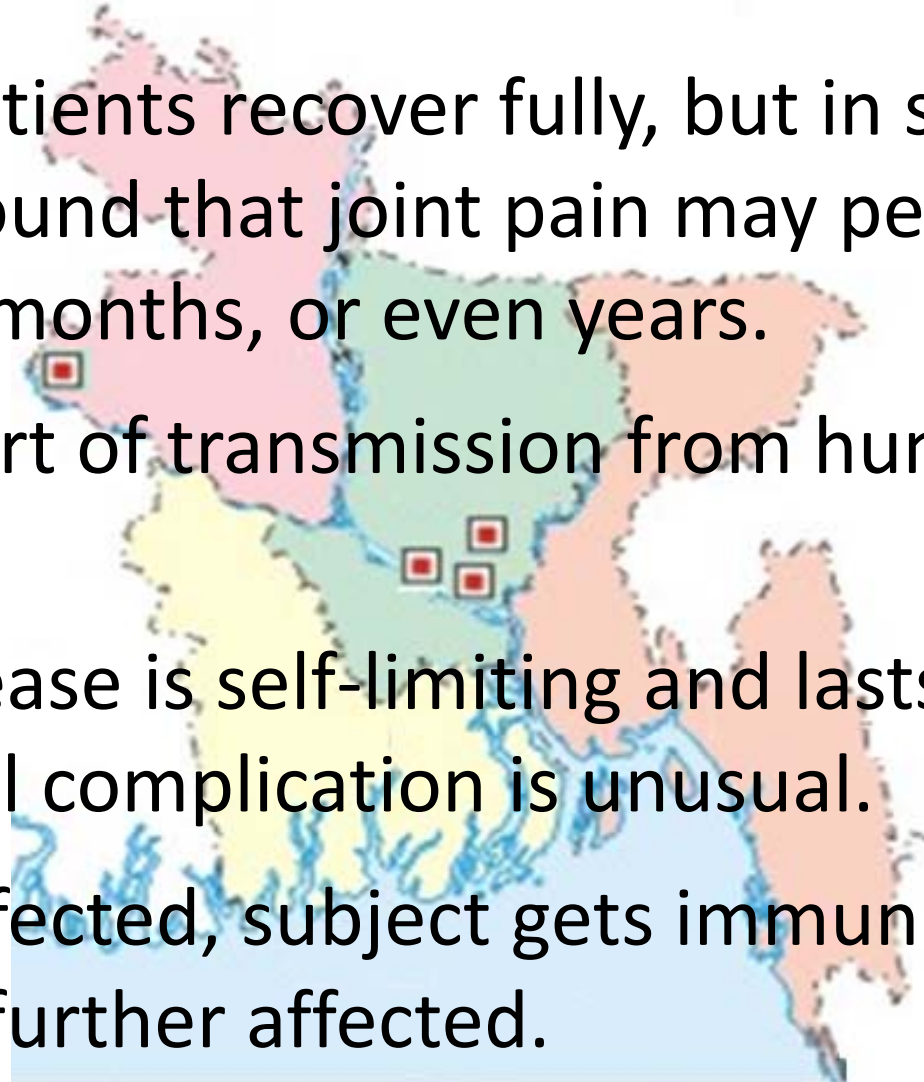
- The disease manifests some clinical signs as of dengue, and can be misdiagnosed in areas where dengue is common.
- Characterised by an abrupt onset of fever frequently accompanied by joint pain which is the prominent feature.
- Other common signs and symptoms include muscle pain, headache, nausea, fatigue and rash.
- The joint pain is often very debilitating, but usually ends within a few days or weeks.





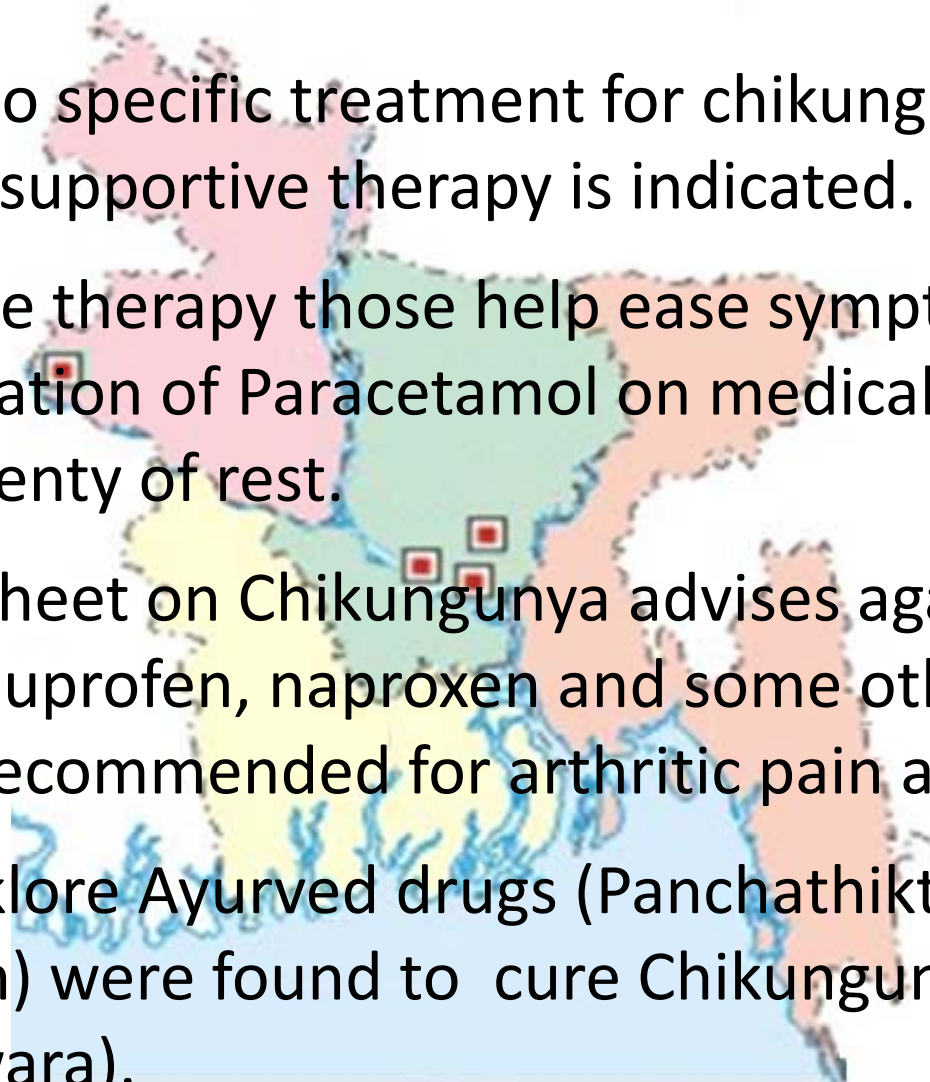
# The case: Chikungunya Outbreak in 2011 (Continued)

- Most patients recover fully, but in some cases it was found that joint pain may persist for several months, or even years.
- No report of transmission from human to human.
- The disease is self-limiting and lasts 1-10 days. Any fatal complication is unusual.
- Once affected, subject gets immunity against getting further affected.



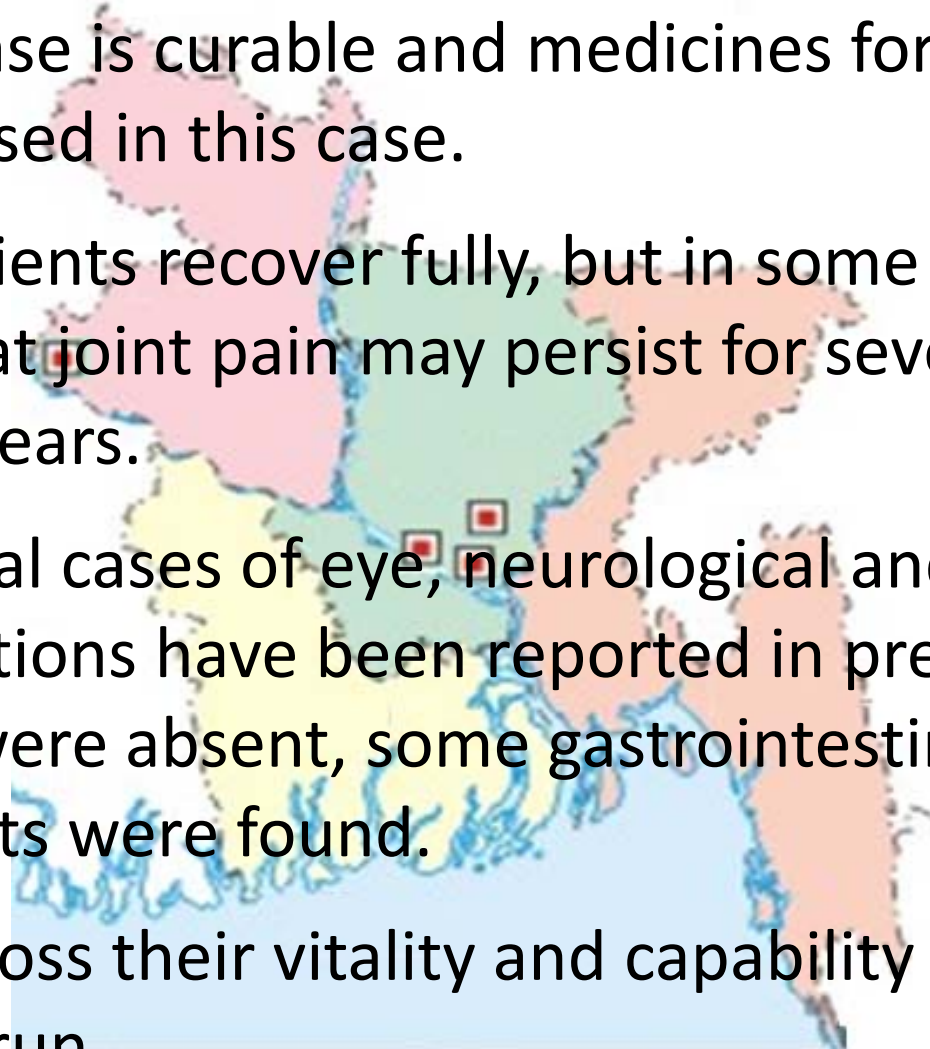
# The case: Chikungunya Outbreak in 2011 (Treatment)

- There is no specific treatment for chikungunya. Intensive supportive therapy is indicated.
- Supportive therapy those help ease symptoms, such as administration of Paracetamol on medical advice and getting plenty of rest.
- The fact sheet on Chikungunya advises against using aspirin, ibuprofen, naproxen and some other NSAIDs that are recommended for arthritic pain and fever.
- Some folklore Ayurved drugs (Panchathiktha Kashayam) were found to cure Chikungunya (Sandhijwara).



# The case: Chikungunya Outbreak in 2011 (Impact)

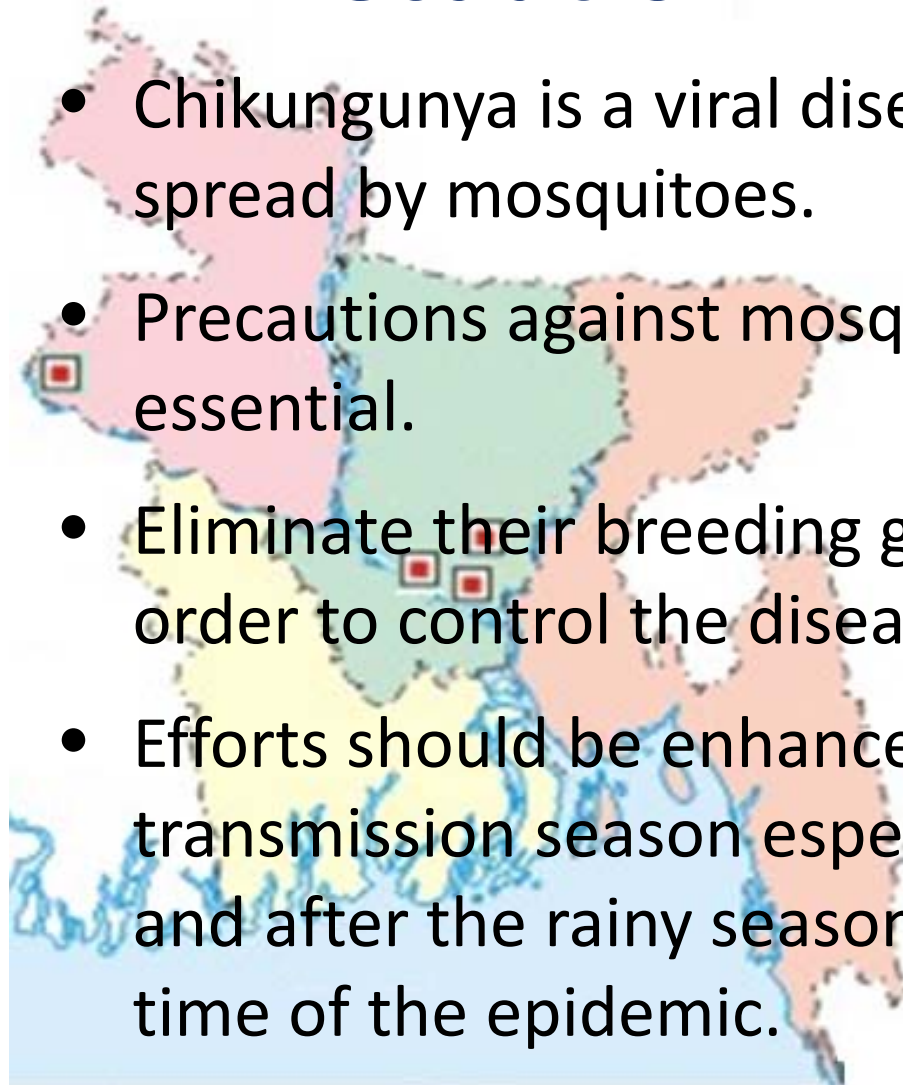
- The disease is curable and medicines for ordinary fever is used in this case.
- Most patients recover fully, but in some cases it was found that joint pain may persist for several months, or even years.
- Occasional cases of eye, neurological and heart complications have been reported in previous reports were absent, some gastrointestinal complaints were found.
- Patients loss their vitality and capability of work in the long run.



# Chikungunya: Prevention and Precaution



- Chikungunya is a viral disease that is spread by mosquitoes.
- Precautions against mosquito bites are essential.
- Eliminate their breeding grounds in order to control the disease.
- Efforts should be enhanced before the transmission season especially during and after the rainy season and at the time of the epidemic.





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