

বালুরঘাটবাসীর প্রতি পৌরসভার আবেদন :-

কীভাবে হয় ডেঙ্গু?

ডেঙ্গু ভাইরাসবাহী মশা কামড়ালে

সাধারণ ডেঙ্গুর উপসর্গ

অত্যধিক জ্বর। কখনও কম, কখনও বেশি

শরীরে গাঁটে গাঁটে ব্যথা, অবসন্নতা

প্রস্রাবে জ্বালাভাব। কম হওয়া

খাবারে অনীহা। ভাতে অরুচি

হেমারেজিক ডেঙ্গুর উপসর্গ

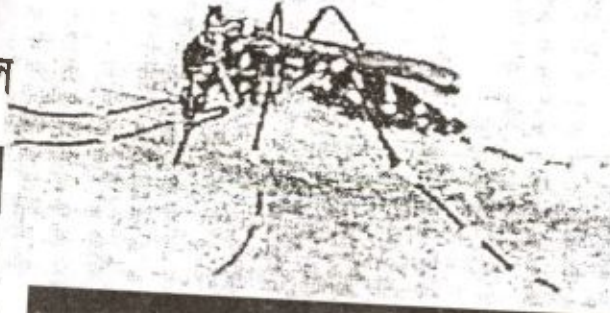
হাতের তালু, গায়ে লাল ছোপ

চোখ জ্বালা করা। চোখ লালচে হয়ে থাকা

পেটে যন্ত্রণা, অনেক সময় বমি। পাতলা পায়খানা

হাত ফেটে রক্ত পড়া

মারত্মক দুর্বলতা। কপালে অসহ্য ব্যথা



শনাক্তকরণ

উপসর্গ দেখা দিলে রক্ত পরীক্ষাই শেষ কথা

প্রতিরোধ

- বাড়ির চারধারে জল জমতে না দেওয়া
- ফুলদানি, চৌবাচ্চার জল নিয়মিত পালটানো
- বাড়ির আশপাশের নোংরা জিনিস পরিষ্কার করা
- রাতে মশারি টাঙিয়ে শোয়া
- দিনে মশা তাড়ানোর ম্যাট, কয়েল, লিকুইড ব্যবহার
- পা ঢাকা পোশাক পরা

চিকিৎসা

- প্যারাসিটামল চলতে পারে। তাড়াতাড়ি চিকিৎসকের কাছে যাওয়াই ভালো
- এমন ওষুধ চলবে না, যা রক্তে অনুচক্রিকা কমিয়ে দিতে পারে

প্রাথমিক শুশ্রূষা

- প্রাথমিক পর্যায়ে প্যারাসিটামল ট্যাবলেট
- প্রচুর পরিমাণে জল খেতে হবে। সঙ্গে তাজা ফল
- দিনে রাতে মশারির মধ্যে থাকা

মশা নিয়ে কথা

- এডিস মশা ডেঙ্গুর ভাইরাস বহন করে
- ডেঙ্গুর মশা সাধারণত দিনে কামড়ায়
- চলতে ফিরতে থাকা মানুষকে আক্রমণ করে



- সাধারণত কামড়ায় হাঁটুর নীচে
- এক নাগাড়ে কামড়ায় না। হঠাৎ হঠাৎ আক্রমণ করে
- এডিস মশার উপাস্থে সাদা ছোপ থাকে

নিজেকে তথা নিজের পরিবারকে
রক্ষা করুন ডেঙ্গুর হাত থেকে!

বালুরঘাট পৌরসভা ও আই. পি. পি - ৮ (সম্প্রঃ)

বালুরঘাট, দক্ষিণ দিনাজপুর

ম্যালেরিয়া ও বাহক পরিবাহিত রোগ ও প্রতিকার সম্পর্কে জ্ঞাতব্য বিষয়

ম্যালেরিয়া, ফাইলেরিয়া, জাপানীজ এনকেফালইটিজ, ডেঙ্গু, চিকুনগুনিয়া ও কালাজ্বর মূলত এই ছয়টি রোগকে বাহক বাহিত রোগ বলা হয় এবং এরা সংক্রামক রোগ হিসাবেও পরিচিত।

রোগের প্রাদুর্ভাবের সময় :

বাহক বাহিত রোগগুলি মূলত বর্ষাকালে ও বর্ষার ঠিক পরেই তীব্র আকারে রোগ সংক্রামণ ঘটায়।

প্রাদুর্ভাব প্রতিরোধ করার উপায় :

- ১। শোবার সময় মশারী ব্যবহার করা বিশেষ করে ঔষুধ যুক্ত মশারী ব্যবহার করতে হবে।
- ২। ট্যাঙ্ক, টায়ার, ফুলের টব, নারকেল মালা ইত্যাদিতে জমা জল সরিয়ে ফেলতে হবে।
- ৩। বসবাসের আশে-পাশে জঞ্জাল, আবর্জনা ইত্যাদি পরিষ্কার রাখতে হবে।
- ৪। বাহকের বংশবৃদ্ধি রোধ করার জন্য প্রয়োজনে স্প্রে, ফগিং এর ব্যবস্থা এবং লার্ভা খেঁকো মাছের চাষ করতে হবে।

আপনার কর্তব্য :

ঘন ঘন জ্বর, জ্বরের সঙ্গে শ্বাস কষ্ট, পেট ফুলে যাওয়া ইত্যাদি লক্ষণ শুরু হলে পৌরসভার স্বাস্থ্য কর্মী নতুবা ডাক্তারের পরামর্শ অনুযায়ী নিকটস্থ কোন স্বাস্থ্য কেন্দ্রে বা ক্লিনিকে প্রয়োজনীয় রক্তের টেস্ট করিয়ে নিন।

সময় মতো চিকিৎসা করলে রোগ মুক্তি এবং রোগের হাত থেকে নিস্তার পাওয়া যায়।

ঃ একটি জরুরী অডিয়ান ঃ

খাবার নুনে আয়োডিনের সঠিক মাত্রা আমাদের দেহস্থ আয়োডিনের ভারসাম্য ঠিক রাখে।

আয়োডিনের অভাবে গলগন্ড, থাইরয়েড এই জাতীয় রোগে ভুগতে হয়।

পৌরসভার স্বাস্থ্যকর্মীরা নুনের নমুনা পরীক্ষা অডিয়ান শুরু করেছে।

পৌরসভার হেলথ সেন্টারেও এই নমুনা পরীক্ষা চলছে।

স্বাস্থ্য ও পরিবার কল্যান দপ্তরের (দঃ দিনাজপুর)সহায়তায়

আই.পি.পি- ৮ (সম্প্রসারণ) বালুরঘাট পৌরসভা (দঃ দিনাজপুর) কর্তৃক প্রকাশিত ও প্রচারিত।

**Reporting of Dengue / Malaria / Chikunguniya / JE cases
in the year 2012 (January to December)**

under Municipal Corporation / Municipality

Sl. No.	Name & Address of the Patient including Ward No.	Age	Sex	Sample collected for Lab. Diagnosis	Diagnosis

Summary	
	No.
Total Suspected	
Total Tested	
Total Positive	

Action taken for control of Vector Borne Diseases

Activity	Remarks



OFFICE OF THE COUNCILLORS

JANGIPUR MUNICIPALITY

P.O. - Raghunathganj ❖ Dist. - Murshidabad

File No. 65

Memo No.:

3637/114/12

JM

Dated: 21/12/2012

From : The Chairman / Vice Chairman , Jangipur Municipality

To :

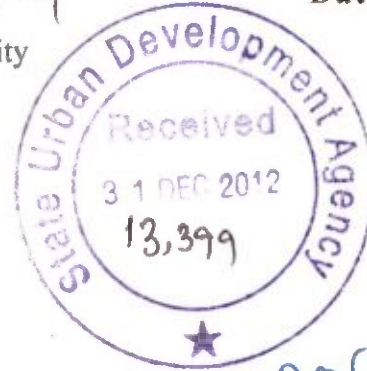
The Director, SUDA

HEALTH WING

"ILGUS BHAVAN"

H-C BLOCK, SECTOR - III,

BIDHANNAGAR, CALCUTTA-700091.



PO (H)

21/12

Sub :- preventive measure against Dengue and Chikungunya.

Memo no. :- SUDA- Health/65/08/274(127) dated- 10.12.2012

Sir/Madam,

In connection with the above sub. & memo no. dated- 10.12.2012, all the efforts are continuing to prevent dengue & Chikungunya in association with the Honourary Health Workers and other staff, related in Health Services. We are Spraying Fenthion & Temephos to destroy larvae time to time and cleaning the breeding places of mosquitoes by using Fenthion and bleaching powder. All the Health Workers are trained about Dengue & Chikungunya and they have been engaged to aware the general people about these diseases.

This is for your kind information.

Thanking you.

Yours faithfully

Chairman/E.O
Jangipur Municipality.

SUDA

STATE URBAN DEVELOPMENT AGENCY

**HEALTH WING
"ILGUS BHAVAN"**

H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal

Ref No. SUDA-Health/65/08/274(127)

Date 10.12.2012

From : Director, SUDA

To : The Municipal Commissioner, Kolkata Municipal Corporation

: The Commissioner,

..... Municipal Corporation

: The Chairman / Chairperson,

..... Municipality / NAA

Sub. : Incidence of Dengue and Chikungunya - reg.

Sir / Madam,

Enclosed kindly find herewith communication of the Under Secretary, to the Govt. of India, Ministry of Urban Development, PHE-II Section vide no. Q-1121/44/2012-PHE-II dt. 19.11.2012 addressed to the Principal Secretary, Department of Municipal Affairs on the subject mentioned above.

You are requested to take / continue with the measures for Dengue and Chikungunya control in urban areas.

Thanking you.

Yours faithfully

Encl. : As stated.


Director, SUDA

Dt. .. 10.12.2012

SUDA-Health/65/08/274(127)/1(3)

CC

1. Shri B.C. Patra, Jt. Secretary, Dept. of Municipal Affairs
2. Shri M. Chatterjee, OSD & Dy. Secretary, Dept. of Municipal Affairs
3. PA to the Principal Secretary, Dept. of Municipal Affairs


Director, SUDA



Q-11021/44/2012-PHE II
Government of India
Ministry of Urban Development
PHE-II Section

(2)
PO (H)
for immediate
action plan on dengue
10/11/12

Nirman Bhawan, New Delhi
Dated 19th November, 2012

To

Principal Secretaries in-Charge
Of Urban Development/WS/Sanitation of
All State Governments.

Sub.: Incidence of Dengue and Chikungunia-reg.

Sir/Madam,

I would like to refer to this Ministry's earlier letter No.A-16020/130/2010-Coord./PHE dated 5.1.2011 (copy enclosed for ready reference) addressed to all the State Governments, enclosing therewith a copy of the guidelines formulated by the National Vector Borne Disease Control Programme (NVBDCP), Ministry of Health & Family Welfare, requesting all the Local Bodies and other authorities falling under you to take preventive measures to prevent proliferation of mosquitoes, besides spreading awareness among masses. The State Governments are further requested to instruct all the ULBs within your State to initiate action as requested by the Ministry of Health & Family Welfare and also to building byelaws for controlling of mosquitoes.

(1)
Imp
Director SUDA
For widest
circulation
on an urgent
basis. A.R./M

Yours faithfully,

Encl.: As stated above.

A. Radharani

(A. RADHARANI)
UNDER SECRETARY TO THE GOVT. OF INDIA
Tel No.23062654 Fax No. 23062253

National Vector Borne Disease Control Programme

MEASURES FOR DENGUE & CHIKUNGUNYA CONTROL IN URBAN AREAS

1. Urban Legislative Bodies (ULB), all Municipal Corporations are to develop and implement programme for water supply, sewerage, drainage and solid waste management to keep the environment free from vector breeding.
2. Mosquito free building construction activities by introducing necessary "Building Bye Laws". (e.g. Mumbai Municipal Corporation Act 1928 for prevention of breeding during construction of developmental projects.) Anti larval measures must be taken by the construction authority and completion certificate only to be issued after proper disposal of storage tanks or dismantling such structures so that no rain water can accumulate. All developmental projects in urban and semi-urban/peri-urban areas should have clearance on anti-mosquito preventive measures after assessment by concerned Health Authorities.
3. Introducing "Civil Bye-Laws" by local bodies of cities and towns for proper disposal of refuse, junk material and solid waste material to prevent mosquitogenic conditions.
4. Orientation training of Junior Engineers, Public Health Engineering department personnel's and other Engineering staff about vector control measures and preventive measures on water stagnation to be carried out.
5. Cover storm water drainage system and maintain them periodically by way of regular cleaning, desilting and maintain adequate velocity for flow of water to avoid mosquito breeding in stagnated water.
6. Flower pots and coolers require special attention as potential breeding spots in domestic situations like government buildings, hospitals, schools, religious places, public places, cinema halls, theaters, malls, entertainment venues. Anti larval measures with Temephos granules may be applied fortnightly. Wherever possible these potential breeding spots be dried up once in a week.
7. National Centre for Disease Control (former NICD) has designed a desert cooler which does not allow mosquitoes to breed due concealed water filling compartment, for which an award of Rupees One Lakh has also been received by the Institute. The same need to be promoted especially in Govt Departments (Details enclosed).
8. Use of larvivorous fish in the water bodies such as slow moving streams, lakes, ornamental ponds, etc. is also recommended, to prevent mosquito breeding in domestic and peri-domestic areas or residential blocks and government / commercial buildings, construction sites.
9. ULBs and all Municipal Corporations should ensure regular and timely deployment of skilled manpower (breeding checkers) for the control of mosquito breeding during monsoon and post monsoon season. They should also be involved in generating regular

surveillance data on potential breeding sources and their reduction in metro cities, urban, peri-urban, semi-urban areas

10. Over flow of water from the water tanks (individual and community) should be controlled through proper floating valves. Overhead tanks should also be properly covered.
11. Proper drainage system should be provided around all public stand posts to facilitate smooth drainage of waste water.
12. Fogging using Malathion and other chemicals as per national programme guidelines shall be periodically carried out.
13. Proper sanitation including community toilets and drainage facilities should be provided in and around the slums areas as well as make and shift sites of construction workers.
14. Normally mosquito breeding is high during monsoon period & post monsoon June to September (State wise variation is possible). Hence, the vector control measures should be intensified accordingly.
15. In order to ensure community mobilization through dissemination of messages to the masses schools/children should be involved in the awareness generation programme. In this regard, introduction of course curriculum for primary and secondary level of education should be advocated with the help of Department of Education.
16. Coolers, flower pots, bird baths, pet watering dishes should be drained, scrubbed, dried regularly (once in a week) before refilling. Temephos granules may also be used to control mosquito breeding in coolers.
17. Water should not be allowed to stagnate in waste and discarded materials like thermacol sheets, discarded tyres, disposable glasses /cups etc.
18. Stored water should be stained with a clean cotton cloth and replenished again after scrubbing, cleaning and drying of the container.
19. Preparedness of the ULBs should be reviewed before the monsoon season every year and subsequently during the transmission season as & where required. Proceedings of these review meetings should be communicated to the Directorate of NVBDCP (Director, NVBDCP, 22 Sham Nath Marg, Delhi-110 054, Fax No.:011- 23968329, email – nvbdcp-mohfw@nic.in) and State Programme Officers for Vector Borne Disease Control.
20. For more detailed guidelines log on to Directorate of National Vector Borne Disease Control Programme, Dept. of HFW, Ministry of HFW, Gov, website www.nvbdcp.gov.in or email to nvbdcp-mohfw@nic.in

All the above instructions should be followed by all ULBs and all Municipal Corporations to make them aware under their jurisdiction free of Dengue and Chikungunya.



Q-11021/44/2012-PHE II
Government of India
Ministry of Urban Development
PHE-II Section

(2)
PO (H)
for immediate
action 10
of 11/12

Nirman Bhawan, New Delhi
Dated 19th November, 2012

To

Principal Secretaries in-Charge
Of Urban Development/WS/Sanitation of
All State Governments.

Sub.: Incidence of Dengue and Chikungunia-reg.

Sir/Madam,

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①
Imp
Director SUDA
For widest
circulation
on an urgent
basis. 10/11/12

D. M. SUDA

Yours faithfully,

Encl.: As stated above.

A. Radharani

(A. RADHARANI)
UNDER SECRETARY TO THE GOVT. OF INDIA
Tel No.23062654 Fax No. 23062253

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20. For more detailed guidelines log on to Directorate of National Vector Borne Disease Control Programme, Dept. of HFW, Ministry of HFW, Gov, website www.nvbdc.gov.in or email to nvbdcp-mohfw@nic.in

All the above instructions should be followed by all ULBs and all Municipal Corporations to make them aware under their jurisdiction free of Dengue and Chikungunya.

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING

"ILGUS BHAVAN"

**H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal**

Ref No.SUDA-Health/65/08/220(127)

Date 08.11.2012

From : Director, SUDA

To : The Commissioner, Municipal Corporation

The Chairman / Chairperson,

..... Municipality / NAA

Sub. : Vector Control activities in prevention of Dengue fever and Malaria.

Sir / Madam,

Enclosed kindly find herewith communication of the Principal Secretary, Department of Health & FW vide no. HS-248/12 dt. 18.10.2012 addressed to the Principal Secretary, Department of Municipal Affairs on the subject mentioned above.

You are requested to take / continue with the necessary activities in this regard.

Thanking you.

Yours faithfully

Encl. : As stated.


Director, SUDA

SUDA-Health/65/08/220(127)/1(2)

Dt. .. 08.11.2012

CC

- 1. Shri B.C. Patra, Jt. Secretary, Dept. of Municipal Affairs**
- 2. PA to the Secretary, Dept. of Municipal Affairs**


Director, SUDA

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING

"ILGUS BHAVAN"

H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091

West Bengal

Ref No. **SUDA-Health/65/08/220(127)**

Date**08.11.2012**

From : Director, SUDA

To : The Commissioner, Municipal Corporation

The Chairman / Chairperson,

..... Municipality / NAA

Sub. : Vector Control activities in prevention of Dengue fever and Malaria.

Sir / Madam,

Enclosed kindly find herewith communication of the Principal Secretary, Department of Health & FW vide no. HS-248/12 dt. 18.10.2012 addressed to the Principal Secretary, Department of Municipal Affairs on the subject mentioned above.

You are requested to take / continue with the necessary activities in this regard.

Thanking you.

Yours faithfully

Enclo. : As stated.

sd/-

Director, SUDA

SUDA-Health/65/08/220(127)/1(2)

Dt. .. 08.11.2012

CC

- 1. Shri B.C. Patra, Jt. Secretary, Dept. of Municipal Affairs**
- 2. PA to the Principal Secretary, Dept. of Municipal Affairs**

sd/-

Director, SUDA

SUDA-Health/65/08/220(127)/2(1)

Dt. .. 08.11.2012

CC

PA to the Principal Secretary, Dept. of Health & FW

RECEIVED
DEPT. OF HEALTH & FW
CALCUTTA
18.11.12

sd/-
Director, SUDA

U.17-D
30.10.12

SATISH CHANDRA TEWARY



PRINCIPAL SECRETARY

DEPARTMENT OF HEALTH & FAMILY WELFARE
GOVERNMENT OF WEST BENGAL
SWASTHYA BHAVAN
GN 29, SECTOR V, SALT LAKE, KOLKATA 700 091
PH : (033) 2357 5899, FAX : (033) 2357 7907
e-mail : prin_secy@wbhealth.gov.in



D.O. No. HS- 248/12

Dear *Alapan,*

① Date October 18, 2012

Dir (SUDA)
[Signature]

Different Municipal Corporations and Municipalities take continuous vector control activities in prevention of Dengue fever and Malaria. We are all aware, that Dengue is mostly reported from the urban cities and town. Kolkata has also reported maximum number of malaria cases in the state since last year. Both the diseases have a pattern of seasonality from the month of June to November.

②
PO (H)
For M.S. M
[Signature]

Union Cabinet Secretary conveyed a video conference with the Chief Secretaries of selected states and his team recommended a few actions in prevention of Dengue fever and Malaria to be taken from our end. The same are enumerated below:

Dengue:

1. Vector control and environmental management should be continued. The effectiveness to be tested with the non-occurrence of new dengue cases in areas where vector control measures are taken.
2. House-to house visit by health workers. During the visit they should search fever cases, refer severe cases, take necessary action for source reduction within the household and give inter personal communication for prevention of dengue.
3. Supervision and monitoring of above activities mentioned in (1) and (2) in order to get best results.

Malaria:

1. Surveillance
 - a) Active surveillance – through health workers. Use of RDK in areas with pf% five and above. The monitoring indicator is the increase in number of blood smear collection.
 - b) Ensuring supervised complete treatment (Act for pf cases and Chloroquin for pv cases) including consumption of Primaquin for pf cases
 - c) Augmented activity of passive surveillance units

2. Vector control

- a) Focussed on identified areas with high entomological index and epidemiological clustering of cases
- b) Effectiveness to be tested by epidemiological data

3. Intra-sectoral co-ordination

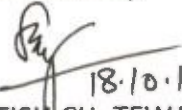
All related departments of KMC are to be involved in order to achieve maximum source reduction for vector breeding

4. Behavioural change communication - through micro-phone publicity and handbill (specially in puja pandel) in addition to the usual mode of visual and print media.

You are requested to advise municipalities and other urban bodies to take necessary steps for continuation of vector control activities till the month of November as suggested. The public health branch of the department of Health & Family Welfare and Chief Medical Officer of Health at the district level is ready to provide all sort of technical support.

With regards,

Yours sincerely,


18.10.12
(SATISH CH. TEWARY)

**Shri Alapan Bandyopadhyay,
Principal Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings, Kolkata – 700 001**

Office of the Municipal Councillors, Bhatpara

Address: 1/1, West Ghoshpara Road, P.O. Kankinara, District: North 24 Parganas. PIN-743 126]

Ph: 2581-2082, 2581-9515, 2581-9514. Fax 2581-1318. Email: bhat.09@yahoo.com & bhatparamunicipality@gmail.com

From:
Sri Arjun Singh. M.L.A.
Chairman
Bhatpara Municipality.



To,
The Director
SUDA, ILGUS Bhawan
Salt Lake City
Kol-91.

PO(H)
D
9/10/12

Ref. No. U-5/DR-1/2498

Date. 29.09.2012.

Sub: Anti Dengue / Malaria Campaign and House to House Screening for Fever in Bhatpara Municipality.

R/Sir,

As per recent order of M.A Dept, Govt. of west Bengal dated 5/9/12 (No 858/127/M.A/C-10/3S-43/2012) We have taken following measures :

1) One special meeting of all Health workers done on 14/9/2012 at katapukur H.A.U No (V). Health workers were asked to visit House to House for report about fever and anti larval measure, awareness to prevent Dengue / Malaria.

There are few fever cases reported in last 15 days mostly viral fevers.

Two cases of Malaria reported:-

I) Sukanta kundu (32/M)	Falciparum Malaria	Adds-Mondalpara Ward No-35
II) RajKumar Shaw (40/M)	Vivax Malaria	Adds-Kachari Road Ward No-9

Above patients are now fully recovered. We take doing intensive ant larval Spray all over Municipality, specially in affected area.

2) 2 Day Mobile microphone Campaign done on 12/09/2012 & 13/09/2012 all over Bhatpara Municipality area.

3) Anti Dengue / Malaria campaign is going on in local cable network for public awareness.

4) Flex Banners / Leaflets Printed.

5) Health Worker are now doing follow up activities by House to House Visit.

Thanking you.

Yours Faithfully

Chairman

Bhatpara Municipality

I. P. P.-VIII Health Programme

BAIDYABATI MUNICIPALITY

P. O.-Sheoraphuli, Dist.-Hooghly

PIN-712223

Ref. No.....

Date..... 27/9/12



To
The Dy CMOH-2
Hooghly

Director
SUDA.

Sub List of Suspected Dengue cases at Baidyabati Municipal Area.

Sir, we are hereby submitting the list of Suspected Dengue cases at our area.

Sl No	Name	Address	Test Done	Remarks
1.	Rinal K. Sanku	51/35 N.G. Road Baidyabati, Hooghly	NSI - +ve 19h & 19M - neg	PL is OK
2.	Maha Prasad	N.E Ghosh Sarani Sarbomangal Bldg, Sheoraphuli		PL advised at Medical College, Kalkata in Dengue & Wilson's Disease & Hypertension
3.	Anirban Roy	S.S Ghosh Sarani Baidyabati, Hooghly	NSI - Pos 19h & 19M - neg	PL is OK
4.	Alaya Ghosh	"	NSI & 19h - neg 19M - Reaction	It is admitted at St. Xavier's Rly Hospital
5.	Sourabh Chatterjee	"	NSI & 19M - Non Rec. 19h - Reaction	under treatment
6.	Anjan K. Chatterjee	"	NSI - Reaction 19h & 19M - Non Rec.	under treatment

[Signature]
Chairman
Baidyabati Municipality

[Signature]
Health Officer
Baidyabati Municipality

Copy to Director, SUDA for necessary return



Government of West Bengal
Office of the Director of Health Services
West Bengal

Memo No HIB/M/IM - 28-12/275

Dated 25.09.12

Chief Municipal Health Officer,
KMC, Kolkata

Handwritten notes:
V Pop
Director
SUSB
POCH
4/29/12

Sub: Analysis of Malaria Epidemiological Situation and suggested immediate actions

Sir,

Thanks for sending the weekly report of malaria epidemiological situation regularly. On analysis of report of 2nd week of the month of September 2012 an upsurge of malaria cases (total and Plasmodium Falciparum) is observed. On micro analysis ward health units in annexure I, are identified as vulnerable.

You are suggested to take following measures to arrest further upsurge of malaria cases in subsequent weeks in order to prevent an expected outbreak as well as death due to malaria.

Suggested actions

1. Surveillance
 - a) Active surveillance - through HHW and afternoon mobile clinic. Use of RDK in areas with pf% five and above. Necessary capacity building must be ensured before start of surveillance.
 - b) Ensuring supervised complete treatment (ACT for pf cases and Chloroquin for PV cases) including consumption of Primaquin for pf cases
 - c) Augmented activity of passive surveillance units
2. Vector Control
 - a) Focussed on identified areas with high entomological index and epidemiological clustering of cases
 - b) Effectiveness to be ensured by epidemiological data
3. Intra-sectoral co-ordination
All related departments of KMC are to be involved in order to achieve maximum source reduction for vector breeding
4. Behavioural change communication
Through micro-phone publicity, handbill, IPC in addition to the usual mode of visual and print media.
5. Monitoring
 - a) Daily active surveillance activities - no. of household visited, no. of fever cases identified, no. of B/S collected, No. of RDK done, No. of Positives, No. of malaria cases completed treatment
 - b) Mapping of positive cases ward health unit-wise (street and para)
 - c) Supervision of vector control activities
 - d) Intra-sectoral co-ordination meeting

The public health branch of the department of Health and family Welfare is ready to provide all sort of technical support to improve the situation. An action taken report to DDHS (Malaria) with a copy to undersigned is highly solicited.

Addl. Director of Health Services, West Bengal

Memo No

Dated

Copy forwarded for information to the

1. Principal Secretary, H&FW
2. Secretary (PHP)
3. DHS
4. DME
5. DDHS (Malaria)
6. Dr. A K Biswas, TO, SPSRC

Handwritten signature and date:
24/9/12

Addl. Director of Health Services, West Bengal

Handwritten notes:
Copy to PS to M.C., MA
✓ Prl Secy, MA -

WHU / Clinic	SLIDES COLLECTED	SLIDES EXAMINED	ANTIGEN/ RAPID TEST	POSITIVE	% of Positive	NO OF PV	% of PV	NO OF PF	% of PF	NO OF MIXED	% of Mixed
WHU-6 Chikur Dispensary (Code No. - 10001)	542	542	0	32	5.90%	32	100.00%	0	0.00%	0	0.00%
WHU-11, Hab Bagan Dispensary, Code - 10004	705	705	0	99	14.04%	95	95.96%	4	4.04%	0	0.00%
WHU-12, Nilambar Muttichayee Street, Kol. Code - 10071	336	336	0	37	11.01%	34	91.89%	3	8.11%	0	0.00%
WHU-15, Malaria Clinic, 84, Raja Dheendra Street, Kol - 6 Code - 10046	398	398	0	48	12.06%	47	97.92%	0	0.00%	1	2.08%
WHU-16 Malaria Clinic, 19A, Goabagan Street, Kol-6, Code - 10074	348	348	0	46	13.22%	46	100.00%	0	0.00%	0	0.00%
WHU-18, Malaria Clinic, 12/I, Masjid Bari Street, Kol - 6, Code - 10005	231	231	0	49	21.21%	45	91.84%	4	8.16%	0	0.00%
WHU-19, MALARIA DETECTION CENTRE, 11/A, Natherbagan Street, Kol - 6,	177	177	0	33	18.64%	30	90.91%	3	9.09%	0	0.00%
WHU-20, Malaria Clinic, 20/7b, Brindaban Basak Street, Kol - 6,	188	188	0	31	16.49%	29	93.55%	2	6.45%	0	0.00%
WHU-30, NARKELDANCA DISPENSARY, CLINIC CODE-10007	322	322	0	31	9.63%	29	93.55%	2	6.45%	0	0.00%
WHU-13	526	526	0	49	9.32%	49	100.00%	0	0.00%	0	0.00%
WHU-31	289	289	0	50	17.30%	47	94.00%	2	4.00%	1	2.00%
WHU-21 JORABAGAN MALARIA CLINIC, Clinic Code-10008	252	252	0	90	35.71%	67	74.44%	23	25.56%	0	0.00%
WHU-23 J. SIKDAR PARA STREET, Clinic Code-10057	147	147	0	53	36.05%	46	86.79%	7	13.21%	0	0.00%
WHU-24 NIMTALAGHAT STREET, Clinic Code-10059	126	126	0	42	33.33%	38	90.48%	4	9.52%	0	0.00%
WHU-25(II), BANARASHI GHOSH ROAD, Clinic Code-10056	427	427	0	128	29.98%	117	91.41%	11	8.59%	0	0.00%
WHU-26 MALARIA CLINIC, Clinic Code-10050	220	220	0	58	26.36%	52	89.66%	5	10.34%	0	0.00%
WHU-27 Sukta Street Vacc Centre, Clinic Code-10011	267	267	0	58	21.72%	57	98.28%	1	1.72%	0	0.00%
WHU-28 RAJA BAZAR, Clinic Code-10009	254	254	0	41	16.14%	40	97.56%	1	2.44%	0	0.00%

WHU / Clinic	SLIDES COLLECTED	SLIDES EXAMINED	ANTIGEN/ RAPID TEST	POSITIVE	% of Positive	NO OF PV	% of PV	NO OF PF	% of PF	NO OF MIXED	% of Mixed
WHU-39 MALARIA CLINIC, Clinic Code-10061	486	486	0	94	19.34%	76	80.85%	10	10.64%	8	8.51%
W.H.U-36, 7 NAIFAR COLONY RD, DISP.	296	296	0	43	14.53%	41	95.35%	2	4.55%	0	0.00%
W.H.U-37 BAITHAK KHAMA DISPENSARY	403	403	0	68	16.87%	65	95.59%	3	4.41%	0	0.00%
W.H.U-41	174	174	0	77	44.25%	72	93.51%	5	6.49%	0	0.00%
W.H.U-43 Bargola Clinic	200	200	0	65	32.50%	63	96.92%	2	3.08%	0	0.00%
W.H.U-45	344	344	0	161	46.80%	97	61.49%	62	38.51%	0	0.00%
W.H.U-49 S.N.PARK MALARIA CLINIC CODE NO-10013	400	400	0	59	14.75%	56	94.92%	3	5.08%	0	0.00%
W.H.U-42	220	220	0	54	24.55%	40	74.07%	14	25.93%	0	0.00%
WHU-46 Jadinath Dey Road	162	162	0	39	24.07%	37	94.87%	2	5.13%	0	0.00%
WHU-62 Hazi Md Mohosin Square	962	962	0	128	13.31%	112	87.50%	16	12.50%	0	0.00%
WHU-54 Tarkala	587	587	0	155	26.41%	141	90.97%	8	5.16%	6	3.87%
WHU-55 (VCD)	214	214	0	64	29.91%	63	98.44%	1	1.56%	0	0.00%
WHU-47	237	237	0	85	35.86%	77	90.59%	8	9.41%	0	0.00%
WHU-52	245	245	0	45	18.37%	43	95.56%	2	4.44%	0	0.00%
WHU-63	187	187	0	46	24.60%	42	91.30%	4	8.70%	0	0.00%
WHU-59 TOPSIA MALARIA CLINIC	408	408	0	103	25.25%	102	99.03%	1	0.97%	0	0.00%
WHU-59 SUNDARI MOHAN AVENUE	238	238	0	26	10.92%	26	100.00%	0	0.00%	0	0.00%
WHU-65	230	230	0	30	13.04%	30	100.00%	0	0.00%	0	0.00%
WHU-65 Tujala	271	271	0	33	12.18%	33	100.00%	0	0.00%	0	0.00%
WHU-84	238	238	0	42	17.65%	39	92.86%	3	7.14%	0	0.00%
WHU-85	244	244	0	31	12.70%	29	93.55%	2	6.45%	0	0.00%
(WARD-69) BALLYAUNGE MALARIA CLINIC	160	160	0	32	20.00%	29	90.63%	3	9.38%	0	0.00%
WHU-70	244	244	0	60	24.59%	45	75.00%	15	25.00%	0	0.00%
W.H.U-83 KALIGHAT DISPENSARY	375	375	0	48	12.80%	46	95.83%	2	4.17%	0	0.00%
W.H.U-82 CIETLA DISPENSARY	595	595	0	32	5.38%	32	100.00%	0	0.00%	0	0.00%
(WARD 71) BHOWANIPUR DISPENSARY	504	504	0	53	10.52%	45	84.91%	8	15.09%	0	0.00%

OFFICE OF THE
GAYESHPUR MUNICIPALITY
P.O. KATAGANJ, DIST. NADIA

Memo.No. :

Date: *15/9/12*

To
The Chief Medical Officer of Health-II, Nadia,
Po. – Krishnanagar, Dist. – Nadia

Sub : Reported Dengue cases

This following cases have so far been reported as attacked by Dengue to this office is submitted for your kind information and necessary action.

Sl. No.	Name of the Patient	Sex	Father's/ Husband name	Age	Adress	Treated at
1.	Titu Chowdhury	M	Dayal	20	Gayeshpur Ward No.6	Confirmed by Dy. CMOH - II
2.	Sanjit Das	M	Swapan Kumar	20	Subhaspally Ward No. 17	J.N.M. Hospital, Kalyani, Nadia.
3.	Rajat Dutta	M	Not Known	50	Gayeshpur Ward No. 9 Near Labani Club	Nurshing Home at Kolkata
4.	Akash Mukherjee	M	Subrata	07	Gayeshpur Ward No. 2	Sishu Mongal Hospital, Kolkata
5.	Sujan Saha	M	Giridhari	18	Gayeshpur Ward No. 1 Gouranga Colony	J.N.M. Hospital, Kalyani, Nadia.
6.	Parbati Ram	F	W/O, Pankaj	35	Gayeshpur Ward No. 17, N.S.S.Qtrs.	
7.	Sarojit Saha	M	Late Baldev	44	9/44-A, Gayeshpur Gayeshpur Ward No. 4	
8.	Sourav Dey	M	Kajal	17	Gayeshpur Ward No. 14, Kataganj	

GM Sny/1162(0)/12 dt. 15/9/12
Copy forwarded for information & necessary action to :-

- 1) The District Magistrate, Krishnanagar, Nadia.
- 2) The Chief Medical Officer of Health, Nadia, Sadar Hospital, Po. Krishnanagar, Nadia.
- 3) The Sub-Divisional Officer, Kalyani, Nadia.
- 4) The Asstt. Chief Medical Officer of Health, Kalyani, Nadia. J. N. M. Hospital & Medical College, Kalyani, Nadia.
- 5) The Secretary, Department of Municipal Affairs, Writers Building, Kolkata
- 6) The SUDA Director, SUDA - H - C, Sector - III, Salt Lake, Kol-98

[Signature]
Chairman
Gayeshpur Municipality
P.O. Kataganj, Nadia

[Signature]
Chairman

Chairman
Gayeshpur Municipality
P.O. Kataganj, Nadia

FA
 17/9/12
 P.O. (H)

Form - 23593184

Phone :
 Fax : 91336320443

I. P. P.- VIII / C. U. D. P. - III Health Programme
BAIDYABATI MUNICIPALITY
 P. O. - Sheoraphull, Dist. - Hooghly
 PIN-71223

Ref. No.

Date 17/9/12

To The Director SUDA

Sub: Following cases of ^{Suspected} Dengue have been detected in our Baidyabati Municipal Area. Actually there are fewer cases.

Slr, The following details for your information and necessary action:

<u>Sl. No.</u>	<u>Name</u>	<u>Address</u>	<u>Test Done</u>	<u>Remarks</u>
1.	Kunal Kr Saha	E1/55 N.G. Road Baidyabati, Hooghly	NSI - +ve (Pos) 194 } - neg 19M }	At home O.K.
2.	Anirban Roy	S.S. Nover Sarani Baidyabati, Hooghly	NSI - Pos 194 } - neg 19M }	At home better
3.	Maya Bora	S.S. Nover Sarani Baidyabati, Hooghly	NSI - neg 194 - neg 19M - Reaction	At admitted at B.R. Sinha RLY Hospital

Yours faithfully
 AJAY PRATAP SINGH
 Chairman
 Baidyabati Municipality

[Signature]
 Health Officer
 BAIDYABATI MUNICIPALITY

**GOVERNMENT OF WEST BENGAL
DEPARTMENT OF MUNICIPAL AFFAIRS
WRITERS' BUILDINGS, KOLKATA.**

No. 863 (127)/MA/C-10/3S-43/2012

Dated, Kolkata, 6th September, 2012.

From: Joint Secretary to the Govt. of West Bengal.

To : Mayor/Chairperson / *Commissioner*
Howrah..... Municipal Corporation/Municipality/NAA

Sub: Video Conference with Mayors/Chairpersons of Municipal Corporations/
Municipalities/Notified Area Authorities on 07.09.2012 (Friday) at 3 pm on
prevention of Dengue.

Sir/Madam,

I am directed to inform you that a **Video-Conference** will be held from on **07.09.2012 (Friday) at 3 pm** with the Mayors/Chairpersons of Municipal Corporations/Municipalities/Notified Area Authorities on prevention of Dengue, where the officials from Department of Health and Family Welfare, Municipal Affairs Department and State Urban Development Agency will remain present.

You are requested to kindly make it convenient to attend the Video Conference along with your concerned officials in your municipal office.

Sd/-
Joint Secretary

No. 863 (127)/1(6)/MA/C-10/3S-43/2012

Dated, Kolkata, 6th September, 2012.

Copy forwarded for information to –

1. Sri Dilip Ghosh, IAS, Commissioner, FW and Secretary, Department of H&FW, Government of West Bengal
2. Director, SUDA
3. Project Director, CMU, KUSP
4. Director of Local Bodies, West Bengal
5. OSD & Ex officio Deputy Secretary, Municipal Affairs Department
6. IT Expert, CMU, KUSP – with a request to make necessary arrangement in consultation with WEBEL


Joint Secretary

Details of procurement of DI pipes for Water Supply scheme under BRGF

Ref: Item No. 4 of 26th Meeting of Technical Committee

Vide NIQ No. : 5 dated 10.05.2012

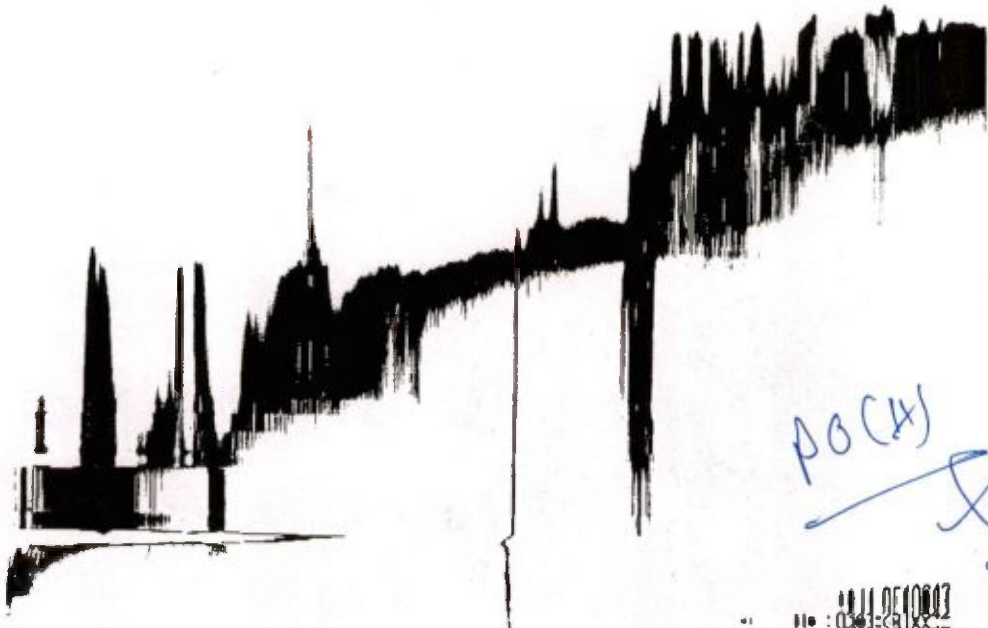
Name of ULB : Ramjibanpur

Class of Pipe	Dia of Pipe (in mm)	Quantity (in metre)	Rate (in Rs. for per metre length including laying) (As per DPR)	Lowest Quoted Rate (in Rs. for per metre length for suppling)	Amount (in Rs.)	Latest Issue Rates of KMDA (Material Sector dated 11.02.12)	Lowest Rates offered by
K7	100	24,696	1,275	640.00	1580544.00	771.00	Electrosteel Casting Ltd.
	150	18,789	1,867	937.00	17605293.00	1136.00	
	200	430	2,883	1224.00	526320.00	1455.00	Jay Balaji Industries
	250	85	3,867	1609.00	136765.00	1895.00	
	300	10	4,967	2026.00	20260.00	2410.00	
TOTAL		19314			19869182.00		
					(Say Rs. 198.69 lakh)		
K9	100	830	1506.00	745.00	618350.00	N.A..	Electrosteel Casting Ltd.
TOTAL		830	-	-	618350.00		
					(Say Rs. 6.18 lakh)		

Provision of DPR				As per Quotation		
Supplying and Laying pipes	Class	Length	Amount	Electrosteel Casting Ltd.	Jay Balaji Industries	Total
Rising Main	DI, K-9	830 mtr.	12.49 lakh	19804187.00	683345.00	20487532.00
Distribution Main	DI, K-7	44.00 km.	681.35 lakh			

(Say Rs. 204.88 lakh)

25926009



PO (H)
E
29/11

Phone No. : 0341-2511345
2511345
Fax : 0341-2511345

KULTI MUNICIPALITY

P. O. SITARAMPUR, DIST. BURDWAN, PIN - 713359

Ref. No. K.M.



Dated

To,
The
A.C.M.O.H.
Asansol

Sub : Arrangement of Blood testing and providing spraying materials and fluids.
Sir,

I am to inform you that due to increase in the cases of Mosquito bite diseases in this area also , we have started spraying programme and will also start bush cutting and drain cleaning in all wards of this Municipality. In this regard I am to inform you that to cover all 35 wards under the jurisdiction of this Municipality our infrastructure are inadequate though we are trying hard to combat with the problems. In am meeting with our Councilors it is proposed and resolved to arrange for blood testing free of cost by your Asansol Hospital and /or to organize camps for blood testing then detection of the diseases will become easy but this Municipality have no such infrastructure.

Under the above, I request you to arrange for free blood testing camps and/or to arrange for free blood testing along with providing with necessary spraying machineries and fluids to cope up with the problems.

Thanking you,

Yours faithfully,
[Signature]
Vice Chairman
Kulti Municipality

Memo No. 1742/1(3) KM

Date 7-9-12

- Copy to :
- 1. The Chief medical Officer of Health, Burdwan
 - 2. The D.C.M.O. II, Burdwan
 - 3. The Director, SUDA(Health Wing), Salt Lake City, III.GUS Bhawan, H-C Block, Sector III, Kolkata-106

[Signature]
Vice Chairman
Kulti Municipality
[Signature]
Chairman
KULTI MUNICIPALITY

HELP LINE : 12666

033 { 2685-4907 / 2683-2562 (Office)
2682-4601 (Residence)
FAX : 2683-5068

E-mail : chandernagorecorporation@yahoo.co.in
Website : www.chandernagore.org



Chandernagore Municipal Corporation, 712 136

From : **Ram Chakrabortty**
Mayor

No: 1A/3M/ C.A./2012/05

Dated: 05/09/2012

To,
The Director,
State Urban Development Agency (SUDA),
HealthWing, "ILGUS BHAVAN",
H.C.Block, Sector- III, Bidhannagar,
Kolkata-700091



Sub: Appropriate Steps to ensure Safe Water Supply,
improve Sanitation and carry out effective IEC/BCC.

Ref: Your memo No SUDA-Health/ 548/11/105(126), dated-
02.08.2012, ^{received by this office on 04.9.2012,} with a copy of letter of the Principal Secretary,
Department of Health & Family Welfare, Govt of W.B being
No. HS-161/12, dt. 06.07.2012.

Sir,


With reference to the above, I would like to inform you that considering the seriousness of water-borne diseases like "DENGU" etc. this Corporation have already taken all the preventive steps such as distribution of handbill, etc., cautioning about the diseases among the citizens by our Health Workers, improvement of Sanitation as well as cleaning of drainage by the help of the staff of Public Health of this Corporation.

It is here noted that we are always alert about the seriousness of such water borne disease. For which we are always trying to prevent and control the same on emergency measures.

Thanking you,

Yours faithfully,




Mayor
Chandernagore Municipal Corporation


05.9.12



চন্দননগর পৌর নিগম

স্বাস্থ্য দপ্তর

ডেঙ্গু ও ম্যালেরিয়া প্রভৃতি মশাবাহিত রোগ সম্পর্কে জেনে রাখা দরকার –

• ডেঙ্গু কি ?

ডেঙ্গু একটি ভাইরাসঘটিত জ্বর যা এডিস এজিপিটি ও এডিস এলবোপিকটাস নামক একপ্রকার মশার দ্বারা সংক্রামিত হয়। আমাদের দেশে তিন রকমের ডেঙ্গুজ্বর হয় – (১) সাধারণ ডেঙ্গুজ্বর, (২) রক্তক্ষরণকারী ডেঙ্গুজ্বর, (৩) ডেঙ্গুশক সিনড্রোম।

• উপসর্গ :

জ্বর, মাথা ধরা, মাংস পেশীতে ব্যাথা, গাঁটে ব্যাথা, গায়ে র্যাস (ফুসকুরি), বমিভাব ইত্যাদি সাধারণ ডেঙ্গুজ্বরের লক্ষণ দেখা যায়। রক্তক্ষরণকারী ডেঙ্গু ও ডেঙ্গুশক সিনড্রোম এই সাধারণ ডেঙ্গুজ্বরের জটিলতা যা কিছু ক্ষেত্রে প্রাণঘাতী হতে পারে।

মনে রাখবেন - ডেঙ্গু সংক্রমণকারী মশা দিনের বেলায় মানুষকে কামড়ায়।

• ম্যালেরিয়া কি ?

ম্যালেরিয়া একটি পরজীবীঘটিত রোগ। সংক্রমিত স্ত্রী অ্যানোফিলিস মশার কামড়ে মানুষ থেকে মানুষে ম্যালেরিয়া রোগ ছড়ায়। ভারতবর্ষে সাধারণ প্লাসমোডিয়াম ভাইভাক্স ও প্লাসমোডিয়াম ফ্যালসিরাম এই দুই রকমের ম্যালেরিয়ার জীবাণু বেশি দেখা যায়। প্লাসমোডিয়াম ফ্যালসিরাম খুবই বিপজ্জনক।

অ্যাসপিরিন বা আইব্রুফেন খাবেন না। ডাক্তারবাবুর পরামর্শ নিন। প্রয়োজনে প্যারাসিটামল খেতে পারেন।

মনে রাখবেন আপনার দ্রুত পদক্ষেপই জীবনরক্ষার একমাত্র উপায়।

• কিভাবে সাবধান হবেন ?

- ১। ফেলে রাখা পুরানো টায়ারে, ফুলের টবে, অব্যবহৃত পাত্রে জল জমতে দেবেন না।
- ২। বাড়ির জলাধার যেমন চৌবাচ্চার জল সপ্তাহে একদিন করে পাণ্টান।
- ৩। জলের ট্যাঙ্ক ও অন্যান্য জলাধার ঢেকে রাখুন। মনে রাখবেন পরিষ্কার জমা জলে ডেঙ্গু ও ম্যালেরিয়ার মশা জন্মায়।
- ৪। বাড়ির চারপাশ, নর্দমা প্রভৃতি পরিষ্কার রাখুন।
- ৫। কিছু কিছু মাহ মশার শুককীট খায়। জলের ট্যাঙ্ক, কুমায়, ডোবায় ঐসব ছোট ছোট মাছের চাষ করুন। জলে শুককীট মারার ঔষধ দিন।
- ৬। শরীর ঢাকা জামাকাপড় পরুন।
- ৭। দিনে পড়ার বা ঘরের কাজ করার সময় মশা তাড়ানোর ক্রীম লাগান।
- ৮। রাতে মশারী ব্যবহার করুন।
- ৯। বুলন্ত জিনিস আসবাবপত্র পরিষ্কার রাখুন।
- ১০। প্রয়োজনে অবশ্যই ডাক্তারবাবুর পরামর্শ নিন ও রক্ত পরীক্ষা করান।

নিজের বাড়ি, বিদ্যালয় সহ সর্বত্র পরিষ্কার রাখুন। মশা ও মশাবাহিত রোগ থেকে দূরে থাকুন।
সুস্থ থাকুন।। ভালো থাকুন।।





GOVERNMENT OF WEST BENGAL
DEPARTMENT OF MUNICIPAL AFFAIRS
WRITERS' BUILDINGS, KOLKATA

Po (H)
D
21/9/12

No. 858(27)/MA/C-10/3S-43/2012

Dated, Kolkata, 5th September, 2012

From : Joint Secretary to the
Government of West Bengal

To : The Mayor/ Chairperson,
..... Municipal Corporation/Municipality/NAA,
PO -, Dist -

Sub : Instructions to prevent Dengue Fever in Urban areas

Sir/Madam,

You may be aware that incidences of Dengue have been reported in various places of the State. In order to tackle the situation, I am directed to request you to take following urgent preventive measures in your municipal jurisdiction:

- 1) To take up intensive campaign and wide publicity in an informed manner immediately (in line with the campaign already taken up by the State Government) in various electronic media like Radio and Television, by way of distribution of leaflets (preferably in local vernacular), by using local cable channels, miking and by all the similar means.
- 2) No leave will be granted to the concerned Health Officers/Medical Officers and other staff associated with the urban health activities until further order.
- 3) To ensure cleanliness and eliminate the mosquito breeding places in the respective municipal areas.
- 4) Intensive house to house visit for spraying of larvacidal oil and other anti-dengue spray and to create awareness among the citizens to be ensured.
- 5) Every effort should be taken to ensure the disposal of Bio-Medical wastes in the respective urban areas.
- 6) In the course of taking up of preventive measures and awareness generation activities, apart from all categories of health workers working under various urban health programme, the services of the workers along with supervisors engaged in West Bengal Urban Employment Scheme and functionaries of three tier Community Development Services under SJSRY like Thrift and Credit Group etc may also be utilized.
- 7) All the Health Administrative Unit/OPD/ Ward level Health unit/Sub-centres in respective jurisdiction to be actively involved under the supervision of Municipal level Health and Family Welfare Committee.

- 8) All the Health Officers/Medical Officers and the municipal level health employees should be adequately trained. In case of any further training need, the same is to be ensured in consultation with the various District/Sub Divisional/Block/Municipal level hospitals and in consultation with Health and Family Welfare Department.
- 9) Utmost effort is to be given to cover the open drains in the entire municipal jurisdiction.
- 10) This is to be kept in mind that this type of fever is cyclical in nature and there is possibility of recurrence to an already affected victim. So adequate attention need to be given in those cases also.
- 11) All such preventive, awareness generating and monitoring activities are to be taken up not only in working days but also in holidays until the normalcy is restored.

I am further directed to request you to please take all such measures by way of involving the Municipal level Health and Family Welfare Committee and by way of constituting a team of dedicated persons under your active supervision and leadership.

Thanking you,

Yours faithfully
Sd/-
Joint Secretary

No. 858(127)/1(8)/MA/C-10/3S-43/2012

Dated, Kolkata, 5th September, 2012

Copy forwarded for information to:

- 1) Secretary to the Hon'ble Chief Minister, West Bengal
- 2) Joint Secretary, Health and Family Welfare Department, Swasthya Bhavan, GN - 29, Salt Lake, Sector - V, Kolkata - 91
- 3) Director, SUDA
- 4) Director of Local Bodies, West Bengal
- 5) PS to MIC, MA & UD Departments
- 6) Pr.S. Principal Secretary of this Department
- 7) PA to joint Secretary (BCP) of this Department
- 8) Cell - 10 of this Department


05/9/12
Joint Secretary

OFFICE OF THE COUNCILLORS
DUM DUM MUNICIPALITY
44, Dr. Sailen Das Sarani, Dum Dum, Kolkata-700 028

Ref. No. : 343/DDM/GR/12

Dated 4 - 9 - 2012

To
The Director,
SUDA,
Ilgus Bhawan,
Saltlake, Kolkata - 91.



PO(H)
R 9/12

Sub: Supply of larvicidal oil & Dengue diagnostic kits.

Sir,

This is to inform you that 28 Dengue positive cases are found in different wards of Dum Dum Municipal areas. The areas are as follows -

- 2 cases from ward -2
- 2 cases from ward - 3
- 9 case from ward - 5
- 2 cases from ward - 6
- 1 cases from ward - 7
- 4 cases from ward - 11
- 1 case from ward - 14
- 1 case from ward - 15
- 2 cases from ward - 16
- 1 case from ward - 17
- 3 cases from ward -22

Total 28 Cases are

You are requested to supply larvicidal oil (Pyrethrum oil with fogging apparatus) & dengue diagnostic kits with required amount as early as possible.

Thanking you.

Yours faithfully,


Chairman,
Dum Dum Municipality.

CHAIRMAN,
DUM DUM MUNICIPALITY



PANIHATI MUNICIPALITY
Office Of the Health Department
PANIHATI, NORTH 24 PARGANAS

From: The Health Officer
Panihat Municipality

Date:- September 5, 2012

To
The Director SUDA,
Health Wing, I.L.G.U.S Bhavan,
HC Block, Sector -III
Bidhan Nagar,
Kol- 700091

Sub : Updated information about Dengue effected patients of Panihat Municipality

Respected Madam,

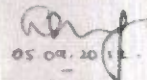
We are hereby sending you Updated information about Dengue effected patients of Panihat Municipality.

No casualty has been reported yet.

Kindly Make a note of in and oblige.

Thanking you,

Yours faith fully,




05.09.2012
Health Officer
Panihat Municipality

Updated information about Dengue effected patients of Panihati Municipality

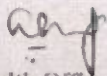
upto 05.09.2012.

Sl No	Patient Name	Age	Sex	Address	Ward No	
1	Somajit Deb	30	M	C/o Ramen Deb, Joy Prakash Nagar Colony Near Ambagan Club	2	NSI Positive
2	Anirudha Srivastva	21	M	Near Ek-Ford Road, Girja	14	NSI Positive
3	Jayanta Bhatterjee	46	M	Near Metropolitan Homeopathy College	21	NSI Positive
4	Mounatri Dey	18	F	New Colony, (House Of) Rina Some, Asim Some	12	NSI Positive
5	Abhisekh Chakraborty		M	S/o Bimal Chakraborty, A 10 Ramkrishna Park, Sodepur, Kol-110	33	NSI-IgM Positive
6	Parthasarathi Goswami		M	C/o Rita Goswami, A 83, Purbayan, Goal Park, Sodepur	33	NSI Positive
7	Paramita Goswami		F			NSI Positive
8	Jolly Dutta		F	Sodepur Peerless Nagar	3	NSI Positive
9	Sunil Chatterjee		M	Natagarh		NSI Positive
10	Mahendra Jana		M	Moti Nagar, 9681128175	15	NSI-IgM Positive
11	Parthasarathi Goswami		M	A 81 Purbayan, H.B. Town, Goal Park, Sodepur	23	NSI Positive
12	Tarasankar Kutia		M	B 76 Purbapally	17	NSI Positive
13	Bismita Das		F	Marwari Patti **	11	NSI-IgM Positive
14	Krishna Hancerjee		F	Sadbur More, 9830868120	18	NSI Positive
15	Arun Giri	29	M	Dr. Saraj Kumar Mykherjee Road, Agarpara	6	NSI-IgM Positive
16	Priyanka Dawan	20	F	Elias Road Agarpara	6	NSI Positive
17	Mrs. Sharma	54	F	Raja Basti, Ata Chakki House	2	NSI Positive
18	---			S/o Ujjal Santra, Gopal Chatterjee Road	2	NSI Positive
19	Raju Mukherjee			Joyprakash Colony	2	NSI Positive
20	Swarnapriya Biswas	13	F	Peerless Nagar, B-15/302-303	3	NSI Positive
21	Wife of Moru		F	1 No Indira Nagar, Near Mohua Sporting Club	12	NSI Positive
22	Suman Dutta,		M	S/o Sukumar Dutta, 243, A Mahajati Nagar, Agarpara, Vivekananda School, Kalyan Samiti Club	8	NSI Positive
23	Priya Agarwal	20	F	Chaya Nir Flat, AB Block, Supari Bagan,	3	IgG-IgM Positive
24	Kousik Chatterjee		M	Gopal Chatterjee Road	2	NSI Positive
25	-----			Adhikari Bari, Gopal Chatterjee Road, by Len	2	NSI Positive
26	Rabindranath Saha		M	Bankim Pally, Beside the Radha Gobinda temple	17	NSI Positive
27	Sankari Shil	26	M	W/o Bikash Shil, Mallik Para, Natagarh	35	NSI Positive
28	Manash Roy	29	M	S/o Sushil Roy, 3 No Azad Hind Nagar	27	NSI Positive
29	Koushik Paul	20	M	Kanchan Paul, Natagarh, ambikapur	21	IgM Positive
30	Malay Das	33	M	S/o Mukul Das, 492 S.N. Banerjee Road Chhola C-Block,	32	NSI Positive
31	Tannoy Sarkar	26	M	C/o Sunil Sarkar, 3-185 Azad hind Nagar, Agarpara	27	NSI Positive
32	Gaya Saha	8		C/o Gouranga saha, Ramkrishna Pally	17	IgM Positive


Health Officer
Panihati Municipality

upto 05.09.2012.

Sl No	Patient Name	Age	Sex	Address	Ward No	
33	Nirmal Barua	38		F N H.S. Barrua	32	NSI Positive
34	Koushik Chatterjee	52		Dr. Gopal Chatterjee Road Near Market	2	NSI Positive
35	Prasanta Sen	40		Nalin Deb Biswas Road, Sukchar, Kalitala Mandir	1	NSI Positive
36	Krishna Banerjee		F	Sadhur More	18	NSI Positive
37	Minali Dutta		F	Kalpna Apartment h.B. Town	31	NSI Positive
38	Tista Biswas	26	F	Purbayan Sodepur, 9830040902	33	NSI Positive
39	Panchu Raychowdhury		M	JNo Mahajati Nagar	8	NSI Positive
40	Uttam Dutta	40	M	Flat-D, 15 LIC, GOVT Housing Estate	13	NSI Positive
41	Mr. Bipan Biswas	42	M	Y/8 Housing, LIC, GOVT Housing Estate	13	NSI Positive
42	Sabyasachi Guha	30	M	C/O Sadananda Guha, 4/181C Mahajati Nagar Agurpara	9	NSI Positive
43	Subir Sarkar	40	M	Sahid Colony, Plot No- 91	13	NSI Positive
44	Swagata Murnu		F	51, LIC Park, Sodepur	23	NSI Positive
45	Pallabi Roy Chowdhury		M	D.N. Banerjee Road, Near raksha kali tala, Ghola	28	NSI Positive
46	Bijoli Mandal	30	F	C/o Kalu Mandal, Sukehar, Near Dwan Nursing Home, Niranjani Apartment, 9143372421	1	NSI Positive
47	Anima Guha	32	F	C/O Santosh Shee, Joy Gopal Chatterjee Road, Chaul Potty	5	NSI Positive
48	Mrs. Ghosh	36	F	W/O Biplab Ghosh, Tran Nath Banerjee Road, Near Buring Ghat	5	NSI Positive


 Health Officer
 Panihati Municipality

(Bequee Camp distribution chart)

MIGRATORY AREA MAP PANIHATI MUNICIPALITY



for kind attention of Dr. Gangi De

Phone : 2477-9245

RAJPUR-SONARPUR MUNICIPALITY

P. O. - HARINA VI. SOUTH 24-PARGANAS

Ref. No. Date 31/9/12

To
The A.C.M.O.H.,
Baruipur Sub Division
S-24 Pgs.



From
Dept. of Health
Rajpur-Sonarpur Municipality

Sub: Dengue Report.

1. Name of the Pt - Satyajit Sarda
2. Age : 18 yrs
3. Sex : Male
4. Address : Satyajit Sarda
670 Ganesh Sarda
Ghasara Kath Pole
Sonarpur (Ward no. 11)
5. Test done - 166 & 16m (Lab report attached)
6. Report of Test - 166 - Positive
16m - non-reactive
7. Pt. referred to hospital.

Received on 03/09/12
Contents not Checked & Verified

Tarak Shah
Receiving Clerk

Office of the A.C.M.O.H.
Baruipur Sub-Division
South 24 Parganas

Forwarded to SUDA
for information
Date 09/9/12

Perlo 31/9/12
Asst. Health Officer
Rajpur-Sonarpur Municipality

Government of West Bengal
Department of Municipal Affairs
Writers' Buildings, Kolkata - 700 001

No. 142(Sanction)/MA/P/C-10/1G-4/2012

Dated, Kolkata, the 29th day of August, 2012.

Subject : Sanction Order for Grants-in-aid for purchase of Larvicidal Oil under Basic Minimum Services Programme.

1.	Sanctioning Authority	: Principal Secretary, Municipal Affairs Department	
2.	Name of the Grantee Institution	: List enclosed [Name of the Grantee Institution at Column-3 of the enclosed Statement]	
3.	Address of the Grantee Institution	: List enclosed [Address of the Grantee Institution at Column-3 of the enclosed Statement]	
4.	Category of Grantee Institution and Category No.	: Municipal Corporation [2.(i)], Municipalities [2.(ii)], Others-Statutory Bodies [2.(iii)]	
5.	Amount Sanctioned (both in figure and words)	: Rs.1,35,15,000/- (Rupees one crore thirty five lakh fifteen thousand only)	
6.	Name of the DDO (by designation)	: List enclosed [Name of the D.D.O. at Column-1 of the enclosed Statement]	
7.	Department Code	: MA	
8.	Name of the Treasury/ Pay and Accounts Office	: List enclosed [Name of the Treasury at Column-4 of the enclosed Statement]	
9.	Nature of Grant		
	a) Recurring or Non-recurring (R or N)	: N	
	b) Capital or Revenue (C or R)	: R	
	(-Detail Head-35) (Detail Head 31)	: 31	
10.	Condition of Grant Utilisation Certificate required (Yes or No)	: Yes [The Utilisation Certificate in terms of S.R. 330A of the Treasury Rules, West Bengal, Volume-I are to be furnished by the concerned Grantee Institutions to the Principal Accountant General (A&E), West Bengal with copy endorsed to this Department and the concerned District Magistrates.]	
11.	Category of Grant	: Other Grants (02)	
12.	Purpose of Grant (Required only in case where category of Grant Purpose is 'Other')	: Not Applicable	
13.	An amount of Rs.1,35,15,000/-(Rupees one crore thirty five lakh fifteen thousand only) is hereby allotted in favour of the District Magistrates as per Column-1 of the enclosed statement from the heads of account , as detailed below :- (i) 2217-Urban Development-05-Other Urban Development Schemes-191-Assistance to Municipal Corporations-SP-State Plan(Annual Plan and XI/XII th Plan)-043-Grants for ongoing schemes of erstwhile BMS programme -V-Voted-31-Grants-in-aid-GENERAL-02-Other Grants - Rs.10,90,000/-, (ii) 2217-Urban Development-05-Other Urban Development Schemes-192-Assistance to Municipalities / Municipal Councils-SP-State Plan(Annual Plan and XI/XII th Plan)-007-Grants to Municipalities for ongoing schemes of erstwhile BMS programmes-V-Voted-31-Grants-in-aid-GENERAL-02-Other Grants - Rs.1,22,25,000/-, and (iii) 2217-Urban Development-05-Other Urban Development Schemes-193-Assistance to Nagar Panchayats/ Notified Area Committees or equivalent thereof -SP-State Plan(Annual Plan and XI/XII th Plan)-007-Grants to Notified Authorities for ongoing schemes of erstwhile BMS programmes-V-Voted-31-Grants-in-aid-GENERAL-02-Other Grants - Rs.2,00,000/-, -- from the budget provision of the financial year, 2012-2013 under Demand No.39(MA) and payable to Grantee Institution by transfer credit.		
14.	Heads of Account Code	: 2217-05-191-SP-043-31-02-V	Rs.10,90,000/-
		: 2217-05-192-SP-007-31-02-V	Rs.1,22,25,000/-
		: 2217-05-193-SP-007-31-02-V	Rs.2,00,000/-
		Total :	Rs.1,35,15,000/-
15.	Name of the Scheme	: Basic Minimum Services Programme	
16.	The amount will be drawn in T.R. Form No.	: T.R. Form No. 31	
17.	The sanctioned amount will be payable to (Name of Grantee Institution) by Transfer Credit to the Head of Account of the L/F/ PL/ Deposit Account of the Grantee Institution (Applicable only in case of Transfer Credit Bill)	: Not Applicable	
18.	Any other information	: The fund is sanctioned for purchase of Larvicidal Oil under Basic Minimum Services Programme.	
19.	This order issues in exercise of the powers delegated under Finance Department Memo. No.800-F.B. dated 31.07.2012 and with the concurrence of the Finance Department vide their U.O. No.Gr.'N'0673 dated 02.08.2011 read with U.O. No. Gr.'R'59 dated 04.08.2010.		
20.	Total released amount is within 75% of Budget Provision of the above mentioned heads of account during 2012-2013.		
21.	The Principal Accountant Generals, West Bengal & the Treasury Officers concerned and others concerned are being informed.		

Joint Secretary to the Government of West Bengal

Contd P/2

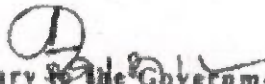
No. 142(Sanction)/1/MA/P/C-10/IG-4/2012

Dated, Kolkata, the 29th day of August, 2012.

Copy, with a copy of the statement, forwarded to the Principal Accountant General (A&E), West Bengal, Treasury Buildings, Kolkata-700 001 - for information and necessary action.

2. The information as required under para-5 of the Finance Department Memo No. 4214-F dated the 13th day of November, 1968 is given below: -

Sl. No.	Head of Account	Appropriation under the Head involved	Progressive total of expenditure during the year including expenditure now sanctioned	Balance
1.	2217-05-191-SP-043-31-02-V	Rs.2,50,00,000/-	Rs.45,90,000/-	Rs.2,04,10,000/-
2.	2217-05-192-SP-007-31-02-V	Rs.36,17,00,000/-	Rs.9,95,58,652/-	Rs.26,21,41,348/-
3.	2217-05-193-SP-007-31-02-V	Rs.33,00,000/-	Rs.8,00,000/-	Rs.25,00,000/-
	Total :	Rs.39,00,00,000/-	Rs.10,49,48,652/-	Rs.28,50,51,348/-

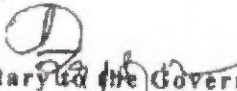

Joint Secretary to the Government of West Bengal

No. 142(Sanction)/2(154)/MA/P/C-10/IG-4/2012

Dated, Kolkata, the 29th day of August, 2012.

Copy, with a copy of the statement, forwarded for information and necessary action to the:-

- 1) Principal Accountant General (Audit), West Bengal, Treasury Buildings, Kolkata-700 001.
- 2) Finance (Gr. 'R'/'N') Department of this Government.
- 3) District Magistrate, Bankura/ Bardhaman/ Birbhum/ Cooch Behar/ Dakshin Dinajpur/ Hooghly/ Howrah/ Jalpaiguri/ Malda/ Midnapore(E)/ Midnapore(W)/ Murshidabad/ Nadia/ North 24 Parganas/ Purulia/ South 24 Parganas/ Uttar Dinajpur,
P.O., Dist.
- 4) Director of Local Bodies, West Bengal, Purta Bhavan, Salt Lake, Kolkata-700 091.
- 5) Director, State Urban Development Agency, ILGUS Bhawan, HC Block, Sector - III, Salt Lake, Kolkata - 106.
- 6) Treasury Officer, Treasury,
P.O., Dist.
- 7) Examiner of Local Accounts, West Bengal, CGO Complex, DF-Block, Sector-I, Salt Lake, Kolkata -700 064.
- 8) Mayor/ Chairman, Municipal Corporation/ Municipality/ N.A.A.,
P.O., District.
- 9) P.S. to the Minister-in-Charge of this Department.
- 10) Pr.S. to the Principal Secretary of this Department.
- 11) P.A to the Joint Secretary (BCP) of this Department.
- 12) Shri Kamal Saha, UDA, Cell-10, of this Department.
- 13) Smt Archita Das, Computer Assistant, of this Department.
- 14) Guard file of Cell - 10 of this Department.


Joint Secretary to the Government of West Bengal

STATEMENT

[Enclosure to the G.O. No.142(Sanction)/MA/P/C-10/1G-4/2012

Dated, Kolkata, the 28th day of August, 2012.]

(Rs. in lakh)

Name of the D.D.O.	Sl. No.	Name and Address of the Grantee Institution	Name of the Treasury	2217-05-191-SP-043-31-02	2217-05-192-SP-007-31-02	2217-05-193-SP-007-31-02	Total Amount Sanctioned
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Magistrate, Bankura	1	Bankura Municipality, P.O. & Dist.-Bankura	Bankura		2.00		2.00
	2	Bishnupur Municipality, P.O.-Bishnupur, Dist.-Bankura	Bishnupur		1.30		1.30
	3	Sonamukhi Municipality, P.O.-Sonamukhi, Dist.-Bankura	Bankura		1.12		1.12
District Magistrate, Bardhaman	4	Asansol Municipal Corporation, P.O.-Asansol, Dist.- Bardhaman	Asansol	3.40			3.40
	5	Dainhat Municipality, P.O.-Dainhat, Dist.-Bardhaman.	Katwa		0.52		0.52
	6	Durgapur Municipal Corporation, P.O.-Durgapur, Dist.-Bardhaman	Durgapur	3.50			3.50
	7	Kalna Municipality, P.O.-Kalna, Dist.- Bardhaman	Kalna		1.50		1.50
	8	Katwa Municipality, P.O.-Katwa, Dist.- Bardhaman	Katwa		1.50		1.50
	9	Memari Municipality, P.O.-Memari, Dist.-Bardhaman	Bardhaman		0.80		0.80
District Magistrate, Birbhum	10	Nalhati Municipality, P.O.-Nalhati, Dist.-Birbhum	Rampurhat		1.40		1.40
	11	Rampurhat Municipality, P.O.-Rampurhat, Dist.-Birbhum	Rampurhat		1.20		1.20
	12	Sainthia Municipality, P.O.-Sainthia, Dist.-Birbhum	Suri		1.00		1.00
	13	Suri Municipality, P.O.-Suri, Dist.-Birbhum	Suri		1.00		1.00
District Magistrate, Cooch Behar	14	Haldibari Municipality, P.O.- Haldibari, Dist.-Cooch Behar	Mekliganj		1.00		1.00
	15	Mathabhanga Municipality, P.O.-Mathabhanga, Dist.-Cooch Behar	Mathabhanga		0.63		0.63
	16	Mekliganj Municipality, P.O.-Mekliganj, Dist.- Cooch Behar	Mekliganj		0.75		0.75
	17	Tufanganj Municipality, P.O.-Tufanganj, Dist.-Cooch Behar	Tufanganj		0.70		0.70
District Magistrate, Dakshin Dinajpur	18	Gangarampore Municipality, P.O.-Gangarampore, Dist.-Dakshin Dinajpur	Gangarampore		0.70		0.70
District Magistrate, Hooghly	19	Arambagh Municipality, P.O.-Arambagh, Dist.-Hooghly	Arambagh		1.50		1.50
	20	Baidyabati Municipality, P.O.-Seoraphuli, Dist.-Hooghly	Serampore		1.90		1.90
	21	Bhadreswar Municipality, P.O.-Bhadreswar, Dist.-Hooghly	Chandannagore		1.50		1.50
	22	Champdani Municipality, P.O.-Baidyabati, Dist.-Hooghly	Chandannagore		1.80		1.80
	23	Hooghly-Chinsurah Municipality, P.O.-Hooghly, Dist.-Hooghly	Hooghly		2.00		2.00
	24	Konnagar Municipality, P.O.-Konnagar, Dist.-Hooghly	Serampore		1.50		1.50
	25	Rishra Municipality, P.O.-Rishra, Dist.-Hooghly	Serampore		2.02		2.02
	26	Tarakeswar Municipality, P.O.-Tarakeswar, Dist.-Hooghly	Chandannagore		1.20		1.20
	27	Uttarpara-Kotrung Municipality, P.O.-Uttarpara, Dist.-Hooghly	Serampore		2.00		2.00

Contd... P/2

(Rs. in lakh)

Name of the D.D.O.	Sl. No.	Name and Address of the Grantee Institution	Name of the Treasury	2217-05-191-SP-043 31-02	2217-05-192-SP-007-31-02	2217-05-193-SP-007-31-02	Total Amount Sanctioned
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Magistrate, Howrah	28	Bally Municipality, P.O.-Bally, Dist.-Howrah.	Howrah		2.00		2.00
	29	Howrah Municipal Corporation, 4, M.G. Road, Howrah-711 101	Howrah	4.00			4.00
District Magistrate, Jalpaiguri	30	Alipurduar Municipality, P.O.-Alipurduar Court, Dist.-Jalpaiguri	Alipurduar		1.65		1.65
	31	Dhupguri Municipality, P.O.-Dhupguri, Dist.-Jalpaiguri	Jalpaiguri		1.00		1.00
	32	Jalpaiguri Municipality, P.O. & Dist.-Jalpaiguri.	Jalpaiguri		0.80		0.80
	33	Mal Municipality, P.O.-Malbazar, Dist.-Jalpaiguri	Mal		1.00		1.00
District Magistrate, Malda	34	Old Malda Municipality, P.O.-Old Malda, Dist.-Malda	Malda		1.30		1.30
District Magistrate, Midnapore (E)	35	Contai Municipality, P.O.-Contai, Dist.-Midnapore (E)	Contai		1.50		1.50
	36	Egra Municipality, P.O.-Egra, Dist.-Midnapore (E)	Egra		1.00		1.00
	37	Haldia Municipality, P.O.-Haldia, Dist.-Midnapore (E)	Haldia		2.00		2.00
	38	Panskura Municipality, P.O.-Panskura, Dist.-Midnapore (E)	Tamluk		1.30		1.30
	39	Tamluk Municipality, P.O.-Tamluk, Dist.-Midnapore (E)	Tamluk		1.30		1.30
District Magistrate, Midnapore (W)	40	Chandrakona Municipality, P.O.-Chandrakona, Dist.-Midnapore (W)	Ghatal		1.00		1.00
	41	Jhargram Municipality, P.O.-Jhargram, Dist.-Midnapore (W)	Jhargram		1.20		1.20
	42	Kharagpur Municipality, P.O.-Kharagpur, Dist.-Midnapore (W)	Kharagpur		2.00		2.00
	43	Midnapore Municipality, P.O.-Midnapore, Dist.-Midnapore (W)	Midnapore		1.14		1.14
	44	Ramjibonpore Municipality, P.O.-Ramjibonpore, Dist.-Midnapore (W)	Ghatal		0.80		0.80
District Magistrate, Murshidabad	45	Beldanga Municipality, P.O.-Beldanga, Dist.-Murshidabad	Berhampore		1.00		1.00
	46	Berhampore Municipality, P.O.-Berhampore, Dist.-Murshidabad	Berhampore		2.00		2.00
	47	Dhulia Municipality, P.O.-Dhulia, Dist.-Murshidabad	Jangipore		1.50		1.50
	48	Jangipore Municipality, P.O.-Raghunathganj, Dist.-Murshidabad	Jangipore		1.60		1.60
	49	Kandi Municipality, P.O.-Kandi, Dist.-Murshidabad	Kandi		1.20		1.20
District Magistrate, Nadia	50	Birnagar Municipality, P.O.-Birnagar, Dist.-Nadia	Ranaghat		1.00		1.00
	51	Chakdah Municipality, P.O.-Chakdah, Dist.-Nadia	Kalyani		1.50		1.50
	52	Coopers' Camp NAA, P.O.-Coopers' Camp, Dist.-Nadia	Ranaghat			1.00	1.00

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(Rs. in lakh)

Name of the D.D.O.	Sl. No.	Name and Address of the Grantee Institution	Name of the Treasury	2217-05-191-SP-043 31-02	2217-05-192-SP-007-31-02	2217-05-193-SP-007-31-02	Total Amount Sanctioned
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
District Magistrate, Nadia	53	Gayeshpur Municipality, P.O.-Kataganj, Dist.-Nadia	Kalyani		1.58		1.58
	54	Kalyani Municipality, P.O.-Kalyani, Dist.-Nadia	Kalyani		1.10		1.10
	55	Krishnanagar Municipality, P.O.-Krishnanagar, Dist.-Nadia	Krishnanagar		2.00		2.00
	56	Nabadwip Municipality, P.O.-Nabadwip, Dist.-Nadia	Krishnanagar		2.00		2.00
	57	Ranaghat Municipality, P.O.-Ranaghat, Dist.-Nadia	Ranaghat		1.50		1.50
	58	Santipur Municipality, P.O.-Shantipur, Dist.-Nadia	Ranaghat		2.00		2.00
	59	Taherpur NAA, P.O.-Taherpur, Dist.-Nadia	Ranaghat			1.00	1.00
District Magistrate, North 24 Parganas	60	Baduria Municipality, P.O.-Baduria, Dist.-North 24-Parganas	Basirhat		0.98		0.98
	61	Baranagar Municipality, P.O.-Baranagar, Dist.-North 24- Parganas	Barrackpore		2.00		2.00
	62	Barrackpore Municipality, P.O.-Talpukur, Dist.-North 24- Parganas	Barrackpore		0.60		0.60
	63	Basirhat Municipality, P.O.-Basirhat, Dist.-North 24- Parganas	Basirhat		0.80		0.80
	64	Bhatpara Municipality, P.O.-Bhatpara, Dist.-North 24- Parganas	Barrackpore		2.08		2.08
	65	Bongaon Municipality, P.O.-Bongaon, Dist.-North 24- Parganas	Bongaon		1.70		1.70
	66	Dum Dum Municipality, P.O.-Dum Dum, Kolkata-700 028	Barrackpore		1.70		1.70
	67	Gobardanga Municipality, P.O.-Gobardanga, Dist.-North 24- Parganas	Barasat		1.00		1.00
	68	Habrs Municipality, P.O.-Habra, Dist.-North 24-Parganas	Barasat		2.00		2.00
	69	Halisahar Municipality, P.O.-Halisahar, Dist.-North 24- Parganas	Barrackpore		2.02		2.02
	70	Kanchrapara Municipality, P.O.-Kanchrapara, Dist.-North 24- Parganas	Barrackpore		2.00		2.00
	71	Khardah Municipality, P.O.-Khardah, Dist.-North 24- Parganas	Barrackpore		1.50		1.50
	72	Naihati Municipality, P.O.-Naihati, Dist.-North 24-Parganas	Barrackpore		2.00		2.00
	73	New Barrackpore Municipality, P.O.-New Barrackpore, Dist.-North 24- Parganas	Barrackpore		1.00		1.00
	74	North Barrackpore Municipality, P.O.-Barrackpore, Dist.-North 24- Parganas	Barrackpore		1.80		1.80

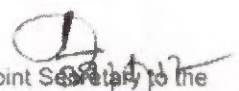
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29/10/12

(Rs. in lakh)

Name of the D.D.O.	Sl. No.	Name and Address of the Grantee Institution	Name of the Treasury	2217-05-191-SP-043-31-02	2217-05-192-SP-007-31-02	2217-05-193-SP-007-31-02	Total Amount Sanctioned
(1)	(2)	(3)	(4)	(3)	(6)	(7)	(8)
District Magistrate, North 24 Parganas	75	North Dum Dum Municipality, P.O.-Birati, Dist.-North 24-Parganas	Barasat		1.16		1.16
	76	Panihati Municipality, P.O.-Panihati, Dist.-North 24-Parganas	Barrackpore		3.00		3.00
	77	South Dum Dum Municipality, P.O.-Motijheel, Dist.-North 24-Parganas	Barrackpore		3.08		3.08
	78	Taki Municipality, P.O.-Taki, Dist.-North 24-Parganas	Basirhat		1.20		1.20
District Magistrate, Purulia	79	Jhaldah Municipality, P.O.-Jhaldah, Dist.-Purulia	Purulia		1.00		1.00
	80	Purulia Municipality, P.O.-Purulia, Dist.-Purulia	Purulia		1.70		1.70
	81	Raghunathpur Municipality, P.O.-Raghunathpur, Dist.-Purulia	Raghunathpur		1.00		1.00
District Magistrate, South 24-Parganas	82	Baruipur Municipality, P.O.-Baruipur, Dist.-South 24-Parganas	Baruipur		1.30		1.30
	83	Budge-Budge Municipality, P.O.-Budge-Budge, Dist.-South 24-Parganas	Alipore		1.50		1.50
	84	Diamond Harbour Municipality, P.O.-Diamond Harbour, Dist.-South 24-Parganas	Diamond Harbour		1.20		1.20
	85	Joy nagar Mazilpore Municipality, P.O.-Joy nagar Mazilpore, Dist.-South 24-Parganas	Baruipur		1.00		1.00
	86	Pujali Municipality, P.O.-Kalipur, Dist.-South 24-Parganas	Alipore		1.32		1.32
	87	Rajpur Sonarpur Municipality, P.O.-Harinavi, Dist.-South 24-Parganas	Baruipur		2.50		2.50
District Magistrate, Uttar Dinajpur	88	Dalkhola Municipality, P.O.-Dalkhola, Dist.-Uttar Dinajpur	Islampore		1.00		1.00
	89	Islampore Municipality, P.O.-Islampore, Dist.-Uttar Dinajpur	Islampore		1.20		1.20
	90	Kalinganj Municipality, P.O.-Kalinganj, Dist.-Uttar Dinajpur	Raiganj		1.20		1.20
	91	Raiganj Municipality, P.O.-Raiganj, Dist.-Uttar Dinajpur	Raiganj		1.20		1.20
Total :				10.90	122.25	2.00	135.15

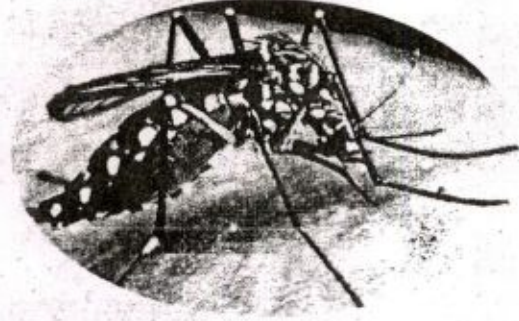
(Rupees one crore thirty five lakh fifteen thousand only)


 Joint Secretary to the
 Government of West Bengal

ডেঙ্গু ও চিকুনগুনিয়া জ্বর

সম্বন্ধে

সচেতনতা ও সাবধানতা



- ◆ ঈডিস্ ইজিপ্সাই নামক মশা ডেঙ্গু ও চিকুনগুনিয়া জ্বরের বাহক।
- ◆ সাদা ডোরা সহ এটি একটি কালো রঙের মশা এবং আকারে মোটামুটি ৫ মিলিমিটার



স্বাস্থ্য ও পরিবার কল্যাণ দপ্তর
পশ্চিমবঙ্গ সরকার কর্তৃক প্রকাশিত

আপনি কি জানেন?

ডেঙ্গু জ্বর কি?

ডেঙ্গু একটি জ্বর যা ভাইরাস ঘটিত ও ঈডিস্ ইজিঙ্গাই নামক এক প্রকার মশার দ্বারা সংক্রামিত হয়।

আমাদের দেশে কত রকমের ডেঙ্গু জ্বর হয়?

আমাদের দেশে সাধারণত দুই প্রকার ডেঙ্গু জ্বর হতে পারে-

- ১) সাধারণ ডেঙ্গু জ্বর (Classical Dengue)
- ২) রক্তক্ষরণকারী ডেঙ্গু জ্বর (Dengue Haemorrhagic Fever or DHF)

ডেঙ্গু জ্বরের উপসর্গ কি?

ডেঙ্গু জ্বরের উপসর্গ হল-

- ১) আকস্মিক তীব্র জ্বর, মাথাব্যথা, চোখের পিছনে, পেশীতে ও জোড়ে ব্যথা।
- ২) খাদ্যে অরুচি, স্বাদবোধ কমে যাওয়া।
- ৩) গা ও লালো, বমিআন, বুক ও বাহ্যে হামের মত গুটি দেখা দেয়।
- ৪) নাক, মুখ, মাড়ি থেকে রক্তক্ষরণ ও চামড়া ফেটে রক্ত পড়া।
- ৫) শ্বাসকষ্ট।

চিকুনগুনিয়া জ্বর কি ?

চিকুনগুনিয়া জ্বর ডেঙ্গুর মতই একটি জ্বর যা ভাইরাস ঘটিত ও

ডেঙ্গু ও চিকুনগুনিয়া কিভাবে ছড়ায় ?

স্ত্রী ঈডিস্ মশা দিনের বেলায় ডেঙ্গু বা চিকুনগুনিয়া রোগে আক্রান্ত রোগীকে কামড়ালে ডেঙ্গু বা চিকুনগুনিয়া রোগের জীবাণু স্ত্রী ঈডিস্ মশার শরীরে প্রবেশ করে। সেই বাহক মশা সুস্থ মানুষকে কামড়ালে সুস্থ মানুষের শরীরে ডেঙ্গু বা চিকুনগুনিয়া রোগের জীবাণু প্রবেশ করে এবং সে ডেঙ্গু বা চিকুনগুনিয়ায় আক্রান্ত হয়ে পড়ে।

জমা জলে কীভাবে মশা বংশ বৃদ্ধি করে ?

১. জমা জলে স্ত্রী মশা ডিম পাড়ে।

২. কিছুদিন বাদে ডিম থেকে মশার শূককীট বের হয়।

৩. এক সপ্তাহ বাদে শূককীট মূককীটে পরিণত হয়।

৪. মূককীট কিছুদিন পর পূর্ণাঙ্গ মশায় রূপান্তরিত হয়।

৫. জল ছাড়াই এই মশার ডিম এক বছরেরও বেশি দিন বাঁচতে পারে।

৬. ঈডিস্ মশা শুধু পরিষ্কার জলেই জন্মায় ও বংশ বৃদ্ধি করে।

৭. অব্যবহৃত বা ফেলে দেওয়া বাসন, ফুলের টব, ডাবের খোলা, খোলা ট্যাক্স, পুরানো টায়ারের জমে থাকা জলে ঈডিস্ মশা জন্মায়।

কীভাবে সাবধান হবেন ?

◆ অব্যবহৃত বা ফেলে দেওয়া বাসন, ফুলের টব, ডাবের খোলা, খোলা ট্যাক্স, পুরানো টায়ারে কখনই জল জমতে দেবেন না।

ঈডিস ইজিঙ্গাই নামক মশার দ্বারা সংক্রামিত হয়।

চিকুনগুনিয়া জ্বরের উপসর্গ কি?

চিকুনগুনিয়া জ্বরের উপসর্গ হল -

১) জ্বর, শীত-শীতভাব, মাথাব্যথা।

২) বমিভাব, বমি, গাঁটেগাঁটে তীব্র ব্যথা, বুকে পিঠে হামের মত গুটি দেখা দেয়।

৩) জ্বর কমে যাওয়ার পরেও গাঁটেগাঁটে ব্যথা কিছুকাল থাকে।

ডেঙ্গু ও চিকুনগুনিয়া রোগের কি সঠিক ওষুধ আছে?

◆ কোনও প্রকৃত ওষুধ নেই।

◆ নিজে নিজে কোনও রকম ওষুধ খাবেন না।

◆ আস্পিরিন বা আইবুপ্রোফেন খাওয়া একেবারেই চলবে না।

অবশ্যই মনে রাখবেন

১. যত তাড়াতাড়ি সম্ভব আপনার গৃহ-চিকিৎসক বা প্রাথমিক চিকিৎসা কেন্দ্রে বা নিকটবর্তী হাসপাতালে ডাক্তারী পরামর্শ নিতে হবে।

২. সঠিক চিকিৎসা না হলে কিছু ক্ষেত্রে ডেঙ্গু রোগে মৃত্যু হতে পারে।

৩. চিকুনগুনিয়া জ্বরে মৃত্যু হওয়ার সম্ভাবনা অত্যন্ত বিরল।

৪. ডেঙ্গু বা চিকুনগুনিয়ার সংক্রামক মশা দিনের বেলায় কামড়ায়।

- ◆ কুলার বা বাড়ীর অন্যান্য জলাধারের জল প্রতি সপ্তাহ পাল্টাতে হবে।
- ◆ বাড়ীর চারপাশ, নর্দমা প্রভৃতি পরিষ্কার রাখুন।
- ◆ কিছু কিছু মাছ মশার শূককীট খায়। জলের ট্যাঙ্কে, চৌবাচ্চায়, ডোবায় ঐসব মাছ চাষ করুন।
- ◆ জলে শূককীট মারার ওষুধ (Insecticide) দিন।
- ◆ শরীর ঢাকা জামা-কাপড় পরুন।
- ◆ দিনের বেলায় গায়ে মশা তাড়ানোর ক্রীম ব্যবহার করুন।
- ◆ অবশ্যই মশারি ব্যবহার করুন। ঈডিস্ মশা শেষ রাতেও কামড়ায়।
- ◆ বুলন্ত জিনিস ও আসবাবপত্র পরিষ্কার রাখুন।

নিজের বাড়ী নিজে পরিষ্কার রাখুন
 নিজের বিদ্যালয় নিজে পরিষ্কার রাখুন
 নিজের কর্মস্থল নিজে পরিষ্কার রাখুন
 স্বাস্থ্য অমূল্য সম্পদ
 তাই
 মশা বা ডেঙ্গু বা চিকুনগুনিয়াকে দূরে রাখুন

**NATIONAL VECTOR BORNE
DISEASE CONTROL PROGRAMME**

**MALARIA
DRUG POLICY**



सत्यमेव जयते

**Government of India
Ministry of Health & Family Welfare
Directorate General of Health Services**

**Directorate of
Regional office for Health & Family Welfare
49/12B, Hindusthan Park
Kolkata - 700 029**

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING

"ILGUS BHAVAN"

**H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal**

Ref No.SUDA-Health/65/08/376(4)

Date12.01.2009

From : Director, SUDA

**To : The Chairman
Panskura / Jangipur / Ranaghat / Tamluk Municipality**

Sub : Fund for Prevention of Vector Borne Diseases.

Sir,

With reference to your communication on the subject mentioned above, I am directed to inform you that there is no scope to provide fund for the purpose.

You are requested to meet the expenditure in this regard from your own fund.

Please bear with us.

Thanking you.

Yours faithfully,



Director, SUDA

SUDA-Health/65/08/376(4)/1(1)

CC

Shri D. Mitra, Jt. Secretary, Dept. of Municipal Affairs.

o/c

Dt. .. 12.01.2009



Director, SUDA

H1N1 Influenza: a pandemic threat 2009

**Public Health Branch (Directorate of Health Services),
Dept. of H & FW, Govt. of West Bengal**

Important Contact Numbers:

Public Health Branch (Directorate of Health Services), Dept. of H & FW, Govt. of West Bengal: 033-2357-1192, 033-2333-0180/ 181/ 182/ 183/ 184/ 185. Fax: 033-2357-7391

Outbreak Monitoring Cell (Control Room, NICD): 011-23921401

EMR Control room (Ministry of Health and family Welfare, Govt. of India): 011- 23061469

Important Websites:

www.wbhealth.gov.in , www.mohfw.nic.in , www.nicd.nic.in, www.who.int

Prepared for training programme on H₁N₁ Influenza for District and Sub-district level programme officers of Health & Family Welfare Department, Government of West Bengal, July, 2009.

Introduction

Influenza (Flu) pandemics are caused by new influenza viruses that have recently adapted to humans and resemble major natural disasters both in terms of recurrence and magnitude. The influenza virus, known to be circulating as a pathogen in the human population since at least the 16th century, is notable for its unique ability to cause recurrent epidemics and global pandemics. Genetic reassortments in the influenza virus cause fast and unpredictable antigenic changes in important immune targets leading to recurrent epidemics of febrile respiratory disease every 1 to 3 years consistently necessitated the development of new vaccines. Each century has seen some pandemics rapidly progressing to all parts of the world due to emergence of a novel virus to which the overall population holds no immunity.

Swine flu in pigs

Swine Influenza (swine flu) is a respiratory disease of pigs caused by type A influenza virus that regularly causes outbreaks of influenza in pigs. Swine flu viruses cause high levels of illness and low death rates in pigs. Swine influenza viruses usually circulate among swine throughout the year, but most outbreaks occur during the late fall and winter months similar to outbreaks in humans. The classical swine flu virus (an influenza type A H1N1 virus) was first isolated from a pig in 1930. H3N2 influenza viruses began circulating among pigs from 1998. The H3N2 viruses initially were introduced into the pig population from humans. Like all influenza viruses, swine flu viruses change constantly. Pigs can be infected by avian influenza, human influenza viruses as well as swine influenza viruses and hence the pigs are known to be a mixing vessel. When influenza viruses from different species infect pigs, the viruses can re-assort (i.e. swap genes) and new viruses, a mix of swine, human and/or avian influenza viruses - can emerge leading to development of new novel strain for which human beings do not have no immunity. There are four main influenza type A virus subtypes that have been isolated in pigs: H1N1, H1N2, H3N1 and H3N2. However, most of the recently isolated influenza viruses from pigs have been H1N1 viruses.

Swine flu virus spreads mostly through close contact among pigs and possibly from contaminated objects moving between infected and uninfected pigs. Symptoms of swine flu in pigs can include sudden onset of fever, depression, coughing (barking), discharge from the nose or eyes, sneezing, breathing difficulties, eye redness or inflammation, and going off feed.

Swine Flu in Human

Swine flu viruses do not normally infect humans. However, sporadic human infections with swine flu have occurred. Most commonly, these cases occur in persons having direct exposure to pigs. In addition, there have been sporadic cases of one person spreading swine flu to others. Occasional human swine influenza virus infection occurs every one to two years in the U.S., but from December 2005 through February 2009, 12 cases of human infection with swine influenza have been reported.

Swine flu outbreak

Recently, human cases of swine influenza A (H1N1) virus infection have been recently reported in several countries. This is a novel influenza A virus that has not been identified in people before, and human-to-human transmission of the virus appears to be ongoing and thus represents a real pandemic threat. WHO has upgraded the phasing of pandemic influenza from Phase -3 to Phase - 5. Influenza type A viruses are divided into subtypes and named on the basis of two proteins on the surface of the virus: hemagglutinin (HA) and neuraminidase (NA). There are 16 known HA subtypes and 9 known NA subtypes. Many different combinations of HA and NA proteins are possible. For example, an "H1N1" virus has an HA 1 protein and an NA 1 protein. Only some influenza A subtypes (i.e., H1N1, H1N2, and H3N2) are currently in general circulation among people. Other subtypes are found most commonly in other animal species.

Current Situation

The current situation regarding the outbreak of swine influenza A(H1N1) is evolving rapidly. As on 13 August 2009, 167 countries have officially reported 1,82,166 confirmed cases of swine influenza A/H1N1 infection including 1,799 deaths.

In WHO SEARO region 13,172 cases are reported. As on 24 August 2009, India reported 2,909 confirmed cases with 63 deaths. West Bengal reported 84 cases but no deaths till 25 August 2009.

WHO Phases of Pandemic alert

Phase 1 No animal influenza virus circulating among animals has been reported to cause infections in humans.

Phase 2 An animal influenza virus circulating among domesticated or wild animals is known to have caused infection in humans, and is therefore considered a specific potential pandemic threat.

Phase 3 An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human to human transmission sufficient to sustain community-level outbreaks.

Phase 4 Human-to-human transmission of an animal or human-animal influenza reassorting virus able to sustain 'community-level' outbreaks has been verified.

Phase 5 The same identified virus has caused sustained community level outbreaks in two or more countries in one WHO region

Phase 6 The **pandemic phase** is characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in **Phase 5**.

Post Peak Period

Levels of pandemic influenza in most countries with adequate surveillance have dropped below peak levels

Possible new wave

Level of pandemic influenza activity in most countries with adequate surveillance rising again

Post Pandemic Period

Levels of Influenza activity have returned to levels seen for seasonal influenza in most countries with adequate surveillance.

Influenza Surveillance

Surveillance is the foundation of all efforts to understand and control influenza. The monitoring of influenza disease patterns is essential for identification of high risk groups, planning of prevention and response activities for complications and for estimating the burden of disease in terms of health and economic impact.

It is important to use standardized case definitions that enable comparisons between different areas within a country and also between countries. There are two case definitions used by the influenza surveillance system:

1. **Influenza-like illness (ILI)** is defined (according to WHO criteria) as:

- Sudden onset of a fever over 38°C, AND
- Cough or sore throat, AND
- An absence of other diagnoses.

2. **Severe Acute Respiratory Infections (SARI)**:

For persons ≥ 5 years the definition for SARI as per the WHO protocol on rapid response:

- Sudden onset of fever over 38°C, AND
- Cough or sore throat, AND
- Shortness of breath or difficulty in breathing, AND
- Requiring hospital admission

For children <5 years old:

Definition is adapted from the program for Integrated Management of Childhood Illness (IMCI):

Any child <5 years old clinically suspected of having Pneumonia or Severe/very Severe Pneumonia and requiring hospital admission.

3. **Confirmed case** of influenza is defined as any case with laboratory test results positive for influenza virus.

Case definition of Swine Flu in Humans

A **suspected case** of swine influenza A (H1N1) virus infection is defined as a person with acute febrile respiratory illness (fever ≥ 38.0 C) with onset.

- within 7 days of close contact with a person who is a confirmed case of swine influenza A (H1N1) virus infection, **or**
- within 7 days of travel to areas where there are one or more confirmed swine influenza A (H1N1) cases, **or**
- resides in a community where there are one or more confirmed swine influenza cases.

A **probable case** of swine influenza A (H1N1) virus infection is defined as a person with an acute febrile respiratory illness who:

- is positive for influenza A, but un-subtypable for H1 and H3 by influenza RT-PCR or reagents used to detect seasonal influenza virus infection, **or**
- is positive for influenza A by an influenza rapid test or an influenza immunofluorescence assay (IFA) plus meets criteria for a suspected case, **or**
- individual with a clinically compatible illness who died of an unexplained acute respiratory illness who is considered to be epidemiologically linked to a probable or confirmed case.

A **confirmed case** of swine influenza A (H1N1) virus infection is defined as a person with an acute febrile respiratory illness with laboratory confirmed swine influenza A (H1N1) virus infection at WHO approved laboratories by one or more of the following tests:

- Real Time PCR
- Viral culture
- Four-fold rise in swine influenza A (H1N1) virus specific neutralizing antibodies.

Other Definitions

Close contact is defined within 6 feet of an ill person who is a confirmed, probable or suspected case of swine influenza A (H1N1) virus infection during the infectious period.

Acute respiratory illness is defined as illness of recent onset with least two of the following: rhinorrhea or nasal congestion, sore throat, cough (with or without fever).

High-risk group for complications of influenza is defined as a person such as:

- resident of institutions for elderly people and the disabled;
- people with certain chronic health conditions (chronic heart or lung disease, metabolic or renal disease or immunodeficiencies);
- elderly people and very young children.

Infectious period: The infectious period for a confirmed case of swine influenza A (H1N1) virus infection is defined as 1 day prior to the onset of illness to 7 days after onset.

Transmission

- Influenza viruses can be directly transmitted from pigs to people and from people to pigs.
- Human infection with flu viruses from pigs are most likely to occur when people are in close proximity to infected pigs, such as in pig barns and livestock exhibits housing pigs at fairs.
- Human-to-human transmission of swine flu can also occur. This is thought to occur in the same way as seasonal flu which is mainly person-to-person transmission through coughing or sneezing by people infected with the influenza virus.
- Disease spreads very quickly among the population especially in crowded places.
- Cold and dry weather enables the virus to survive longer outside the body than in other conditions and, as a consequence, seasonal epidemics in temperate areas appear in winter.

- People may become infected by touching/handling something contaminated with flu viruses on it and then touching their mouth or nose.
- Swine influenza viruses are not transmitted by food.
- Eating properly handled and cooked pork (at an internal temperature of $\geq 160^{\circ}\text{F}$) and pork products is safe.

Symptoms

The symptoms of swine flu in people are expected to be similar to the symptoms of regular human seasonal influenza like **fever, lethargy, lack of appetite and cough**. Some people have also reported **runny nose, sore throat, nausea, vomiting and diarrhoea**.

Diagnosis of Swine H1N1 influenza

For diagnosis of swine influenza A infection, respiratory specimen would generally need to be collected within the first 4 to 5 days of illness (when an infected person is most likely to be shedding virus). However, some persons, especially children, may shed virus for 10 days or longer.

Sample Collection & Laboratory Diagnosis

- Sample Collection: should be done by the treating doctor who is managing the case.
- Preferred respiratory samples: nasopharyngeal swab and throat swab
- Storage of Samples: all samples should be kept at 2-80C until they can be placed at -70°C .
- Transportation of Samples: Clinical samples should be transported on dry ice in triple packaging. All samples should be labeled clearly and include patient's complete information and should be sent to NIV, Pune or NICD, Delhi within 24 hours for further investigations.
- Laboratory biosafety measures should be followed for collection, storage, packaging and shipping of influenza samples.
- Available Laboratory tests:
 - Rapid Antigen Tests: not as sensitive as other available tests.
 - RT-PCR
 - Virus isolation
 - Virus Genome Sequencing
 - Four-fold rise in swine influenza A (H1N1) virus specific neutralizing antibodies.

It is important to note that samples from all cases, once the Pandemic starts, are not required to be tested.

Preventive Measures

There is currently no vaccine available against human swine influenza. One has to follow proper hand hygiene and respiratory etiquettes.

Do's and Don'ts:

- Avoid close contact with people who are having respiratory illness.
- Sick persons should keep distance from others.
- If possible, stay at home, away from work, school, and public places when you are sick.
- Cover your mouth and nose with a tissue or handkerchief when coughing or sneezing.
- If you have no tissue or handkerchief you should not clean the nose with the hands but with the cuff of your shirt or clothes.
- Washing your hands often with soap or alcohol based hand wash will help protect from germs.
- Get plenty of sleep, be physically active, manage your stress, drink plenty of fluids, and eat nutritious food.
- Persons who develop influenza-like-illness (ILI) (fever with either cough or sore throat) should be strongly encouraged to self isolate in their home for 7 days after the onset of illness or at least 24 hours after symptoms have resolved, whichever is longer.

- Persons who experience ILI and wish to seek medical care should contact their health care providers to report illness (by telephone or other remote means) before seeking care at a clinic, physician's office, or hospital.
- Persons who have difficulty breathing or shortness of breath should seek immediate medical attention and report to the nearby hospital.
- If ill persons must go into the community (e.g., to seek medical care) they should wear a face mask to reduce the risk of spreading the virus in the community.
- If a face mask is unavailable, ill persons needing to go into the community should use a handkerchief or tissues to cover any coughing and sneezing.
- Persons in home isolation and their household members should be given infection control instructions like frequent hand washing with soap and water; use of alcohol-based hand gels (containing at least 60% alcohol).
- When the ill person is within 6 feet of others at home, the ill person should wear a face mask, if available or handkerchief or tissues.
- Household contacts** who are well should:
 - o remain home at the earliest sign of illness;
 - o minimize contact in the community to the extent possible;
 - o designate a single household family member as the ill person's caregiver to minimize interactions with asymptomatic persons.
- Precautions for School children:**
 - o Schools with a confirmed or a suspected case should be considered for closure.
 - o All school or childcare related gatherings should be cancelled and encourage parents and students to avoid congregating outside of the school.
 - o Schools and childcare facilities should bar students for a time period to be evaluated on an ongoing basis depending upon epidemiological findings.
 - o Schools and childcare facilities should consult with their local or state health departments for guidance on reopening. If no additional confirmed or suspected cases are identified among students (or school-based personnel) for a period of 7 days, schools may consider reopening.
 - o Schools and childcare facilities in unaffected areas should begin to prepare for the possibility of school or childcare facility closure.
- Social Distancing Interventions:**
 - o Large gatherings linked to settings or institutions with laboratory-confirmed cases should be cancelled, for example a school event linked to a school with cases; other large gatherings in the community may not need to be cancelled at this time.
 - o Additional social distancing measures are currently not recommended.
 - o Persons with underlying medical conditions who are at high risk for complications of influenza may wish to consider avoiding large gatherings.

Swine Influenza A (H1N1) Virus: Bio-safety guideline for workers handling laboratory specimen

Diagnostic laboratory work on clinical samples from patients who are suspected cases of swine influenza A (H1N1) virus infection should be conducted in a BSL2 laboratory. All sample manipulations should be done inside a bio-safety cabinet. Viral isolation on clinical specimens from patients who are suspected cases of swine influenza A (H1N1) virus infection should be performed in a BSL2 laboratory with BSL3 practices (enhanced BSL2 conditions).

Additional precautions include:

- Recommended Personal Protective Equipment (based on site specific risk assessment)
- Respiratory protection – fit-tested N95 respirator or higher level of protection
- Shoe covers
- Closed-front gown
- Double gloves
- Eye protection (goggles or face shields)
- Appropriate disinfectants
 - o 70% Ethanol
 - o 5% Lysol

o 10% Bleach

All personnel should self monitor for fever and other symptoms of Swine influenza. Any illness should be reported to the supervisor immediately.

For personnel who had unprotected exposure or a known breach in personal protective equipment to clinical material or live virus from a confirmed case of swine influenza A (H1N1), **antiviral chemoprophylaxis** with oseltamivir for 7 days after exposure can be considered.

Waste disposal

All waste disposal procedures should be followed as outlined in the respective facility standard laboratory operating procedures.

Antiviral Treatment

Oseltamivir is the recommended drug both for prophylaxis and treatment.

Supportive therapy includes:

- IV Fluids.
- Parenteral nutrition.
- Oxygen therapy/ ventilatory support.
- Antibiotics for secondary infection.
- Vasopressors for shock.
- Paracetamol or ibuprofen is prescribed for fever, myalgia and headache. Patient is advised to drink plenty of fluids. Smokers should avoid smoking. For sore throat, short course of topical decongestants, saline nasal drops, throat lozenges and steam inhalation may be beneficial.
- Salicylate / aspirin is strictly contra-indicated in any influenza patient due to its potential to cause Reye's syndrome.

The **suspected cases** would be constantly monitored for clinical / radiological evidence of lower respiratory tract infection and for hypoxia (respiratory rate, oxygen saturation, level of consciousness).

Adult patients should be discharged 7 days after symptoms have subsided.

Children should be discharged 14 days after symptoms have subsided.

The family of patients discharged earlier should be educated on personal hygiene and infection control measures at home; children should not attend school during this period.

Antiviral Chemoprophylaxis

Prophylaxis is given to:

- All close contacts of suspected, probable and confirmed cases. Close contacts include household /social contacts, workplace or school contacts, fellow travelers etc.
- All health care personnel coming in contact with suspected, probable or confirmed cases
- Oseltamivir** is the drug of choice.
- Prophylaxis should be provided till 10 days after last exposure (maximum period of 6 weeks)

Doses (by Weight):

For weight <15kg: 30 mg (Treatment - BD for 5 days/ Prophylaxis – OD for 10 days)

15-23kg: 45 mg (Treatment - BD for 5 days/ Prophylaxis – OD for 10 days)

24-<40kg: 60 mg (Treatment - BD for 5 days/ Prophylaxis – OD for 10 days)

≥40kg: 75 mg (Treatment - BD for 5 days/ Prophylaxis – OD for 10 days)

For infants:

- < 3 months: not recommended unless situation judged critical due to limited data on use in this age group
- 3-5 months: 20 mg (Treatment - BD for 5 days/ Prophylaxis – OD for 10 days)
- 6-11 months: 25 mg (Treatment - BD for 5 days/ Prophylaxis – OD for 10 days)

Close Contacts of suspected, probable and confirmed cases should be advised to remain at home (voluntary home quarantine) for at least 7 days after the last contact with the case.

Monitoring of fever should be done for at least 7 days. Prompt testing and hospitalization must be done when symptoms are reported.



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Five Health Tips to Avoid Swine Flu

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"Swine flu" or the "H1N1" flu virus (a more technical name for the same virus) is a public health emergency that the U.S.



government is

keeping a close watch on so that people are aware, informed and prepared to take action steps to keep themselves and their families healthy and safe.

Any flu virus is particularly life-threatening to the very young, elderly and those battling disease, infection, etc. There are 5,469 people in the U.S. who have been sickened by the swine influenza and there has been six death so far, according to the Centers for Disease Control and Prevention (CDC). It's important that we keep this virus in check.

Take time to review the CDC's five, flu-safety tips, which will help you avoid swine flu (or any flu). They'll also help to ensure that the virus doesn't spread needlessly.

- **Tip #1: Stay home if you're sick.**
- **Tip #2: Avoid close contact with people who are sick.**
- **Tip #3: Wash your hands often and avoid touching your eyes, nose and mouth.**
- **Tip #4: Cover your mouth or nose with a tissue when coughing or sneezing.**
- **Tip #5: Keep up with health information in your own community.**

related links

[Swine Flu Fact Sheet](#)
[CDC: H1N1 Flu \(Swine Flu\)](#)
[Swine Flu Outbreak: What You Need to Know](#)
[Video: How to Wash Your Hands](#)

toolbox

[Weigh-In: How Active Are You?](#)
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[Portion Control: The Key to Healthy Eating](#)
[How to Read a Medicine Label](#)
[How Medicine Affects Your Body](#)

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local resources

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Do these tips sound familiar? Flu-safety basics are the exact same whether you get the human flu or the swine flu. The swine flu is a respiratory disease of pigs caused by type A influenza viruses that cause regular outbreaks in pigs. People don't usually get swine flu but infections can and do occur.

This virus spreads the exact same way that regular flu viruses spread -- person-to-person transmission through coughing, sneezing and touching of infected people or surfaces: door knobs, shopping carts, countertops, etc. So, it's also a good idea to carry your alcohol-based, disinfecting wipes, sprays and gels with you, as well.

There is some good news: First, there are antiviral medicines to prevent and treat swine flu. They may also prevent serious flu complications. Second, swine influenza viruses are not spread by food. So, you don't need to throw away or stop eating your pork or pork products. Eating properly handled and cooked pork products is still safe.

Now, if you live in areas where swine influenza have been identified ([there are 48 affected states](#)), contact a health care provider, particularly if you are worried about your symptoms. The influenza-like symptoms include: fever, body aches, runny nose, sore throat, nausea, vomiting or diarrhea. Your health care provider will determine whether influenza testing or treatment is needed.

By practicing these flu-safety basics, you'll lower your chances of getting a host of illnesses, including the swine flu.

আবেদন

Dr. Gromana
14/3

পশ্চিমবঙ্গের বীরভূম জেলার পাঁচটি ব্লক ও একটি পৌরসভা এলাকায় এবং দক্ষিণ দিনাজপুর জেলার বালুরঘাট রাজ্য মুরগী খামারের মুরগীর দেহে 'বার্ড ফু' রোগ ধরা পড়েছে। রোগ সংক্রামিত এলাকা চিহ্নিত করে সরকারের পক্ষ থেকে প্রজ্ঞাপন প্রকাশ করা হয়েছে। এছাড়াও মুর্শিদাবাদ, নদীয়া এবং বর্ধমান জেলার বিভিন্ন জায়গাতে বেশ কিছু সংখ্যক মুরগী মারা যাওয়ার খবর পাওয়া গিয়েছে। ইতিমধ্যে প্রাণী সম্পদ বিকাশ বিভাগ, স্বাস্থ্য দপ্তর ও ত্রিস্তর পঞ্চায়েতের সাথে সমন্বয় সাধন করে এই সংক্রমণের প্রতিরোধে সর্বকম প্রয়োজনীয় পদক্ষেপ গ্রহণ করা হয়েছে।

বার্ড ফু সম্বন্ধে অযথা আতঙ্কিত হবেন না এবং এই রোগ সংক্রান্ত বিষয়ে এলাকায় কোনরকম গুজব ছড়াবেন না বা গুজবে কান দেবেন না। প্রয়োজনে প্রাণী সম্পদ বিকাশ দপ্তরের স্থানীয় কার্যালয়ে যোগাযোগ করুন। সরকার প্রজ্ঞাপিত এলাকায় মুরগীর মাংস ও ডিম খাওয়া বা কেনাবেচা নিষিদ্ধ করা হয়েছে। অন্য জায়গায় যেখানে অনেক মুরগী মারা যাওয়ার খবর আছে, সেখানেও এই নিষেধাজ্ঞা মেনে চলা প্রয়োজন। এর বাইরে অন্য জায়গায় মুরগীর মাংস ও ডিম খাওয়া নিরাপদ।

তবে কিছু সতর্কতা মেনে চলার প্রয়োজন আছে, যেমন :-

- ১) কোন অসুস্থ বা মৃত মুরগীর মাংস বা ডিম খাবেন না।
- ২) মুরগী বা হাঁসের সাথে আপনার বাড়ীর বাচ্চাকে খেলতে দেবেন না।
- ৩) কোন অজ্ঞাত কারণে এলাকার মুরগী মারা গেলে সাথে সাথে স্থানীয় প্রাণী চিকিৎসককে জানান।
- ৪) কাটা মুরগীর মাংস বাড়ীতে আনার পরে ভাল করে ধুয়ে নিতে হবে।
- ৫) মুরগী / মুরগীর মাংস ধরার পরে সাবান দিয়ে ভাল করে হাত ধোবেন।
- ৬) মুরগীর মাংস বা ডিম ভাল করে ফুটিয়ে রাখতে হবে।
- ৭) মরা মুরগী ধরার সময়ে হাত প্লাস্টিক দিয়ে ঢেকে নেবেন।
- ৮) মরা মুরগী লোকালয় থেকে দূরে কোন নির্দিষ্ট জায়গায় নির্দিষ্ট পদ্ধতি অনুযায়ী পুতে ফেলুন।
- ৯) বাড়ীর চারপাশ পরিষ্কার রাখুন।

সর্বস্তরের মানুষের কাছে এ বিষয়ে সহযোগিতা কামনা করি।

ড. গ্রোমনা

TTC/s

Bill

Director (SUDA)

Ph. : 494 0486
Mobile : 9830058169

Salt lake, Kol-106

Dr

To **JANA ENTERPRISE**

All kinds of Maintenance work of Guest House or Office Canteen or Garden
(General Order Suppliers)

59/D, Hemchandra Mukherjee Road, Kolkata- 700 008

Bill No. ET 2060 of Halki ^{SUDA/08-09} Order No. _____ Date _____

Date 1/12/08 Challan No. _____ Date _____

Item Date	Quantity	PARTICULARS	Rate	Amount	
				Rs.	P.
7/11/08	65	heads tiffin Pakhal			
	1	Jar Water (200)	30.00	1950	00
			60.00	60	00
<p>Passed for payment of Rs. 2010/- (Rupees Two Thousand Ten) only to be debited towards CBPHES</p> <p><i>[Signature]</i> 12-12-08. Finance Officer State Urban Development Agency</p> <p>(Two Thousand Ten only.)</p> <p>Gross</p>					
TOTAL Rs.				2010	00

Interest will be charged @ 12% if the bill is not paid within 30 days.

E. & O. E.

Gross - Rs. 2010/-
TDS - Rs. 41/-
Net - Rs. 1969/-

For JANA ENTERPRISE

[Signature]

certified that tea, tiffin etc. has
 been served to the participants of
 the meeting held at SUDA on 7.11.08
 and the said has been consumed
 by them.

[Signature]
 11/12/08

SIAL
 Finance Officer,
 Health Wing,
 S. U. D. A.

[Faint red text, possibly bleed-through or stamp]
 passed by Government of
 Rs. 2010 (Revenue - no
 The amount (Rs. 2010) to be
 be added to work
 2010

[Faint red text, possibly bleed-through or stamp]
 2010 - Rs. 2010
 100 - Rs. 100
 Net - Rs. 1910

**Report on Preventive and Control Measures taken against Vector Borne Diseases
As on 06.11.2008**

Sl. No.	Name of the Municipality	Total Population	Mosquito Control Measures									
			Anti Larval Measures					Anti Adult Measures				
			(Breeding source Reduction through inspection and removal of source)									
No. of dwelling houses covered	No. of Schools / Institutions / Clubs covered	No. of construction sites covered	Area-wise No. of special cleaning drives given	No. of dwelling houses covered	No. of Schools / Institutions / Clubs covered	No. of dwelling houses covered	No. of Schools / Institutions / Clubs covered	No. of dwelling houses covered	No. of Schools / Institutions / Clubs covered	No. of construction sites covered		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
1	Nabadwip (31.10-06.11.2008)	115000	-	-	-	-	-	-	-	-	-	
2	New Barrackpore (03 - 06.11.08)	83183	3295	69	33	W. No. 1-3, 7-9, 10-14	2800	64	22			
3	Panihati - 05.11.2008	350000	4700	21	4	6 nos.	4700	21	4			
4	Haisahar (01-02.11.2008)	124479	1860	20	9	3	-	-	-			
5	Budge Budge - 01.11.2008	75465	2000	5/3/7	15	-	500	108/5/7	15			
6	Hooghly Chinsurah - 06.11.08	-	-	-	-	-	-	-	-			
7	Gangarampur (03 & 05.11.08)	60570	160	-	-	-	121	3	-			
8	Kharar - 03.11.2008	11500	30	1	1	-	30	3	1			
9	Memari - 03.11.2008	36207	9000	18	1200	-	-	-	-			
10	Konnagar (Nov., 2008)	-	-	-	-	-	-	-	-			

Contd. to Page - 2

Sl. No.	Name of the Municipality	Public Awareness Campaign							No. of new cases of Dengue detected		
		No. of houses inspected for breeding source reduction and IEC activities by		No. of leaflets distributed	Campaign through PA system		No. of Hoardings and banners displayed	Local Cable TV channel used	Clinical	Sero-tve	Death
		HHWs	Others		Yes/No	Yes/No					
		(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
1	Nabadwip	11726	5 (IEC)	-	Yes	-	-	2 (Malaria)	2 (P. Vivas)	Nil	
2	New Barrackpore	-	-	Yes	Yes	-	-	-	-	-	
3	Panihati	2400	2300	7000	No	-	Yes	380 (Malaria)	33 (P. Vivas) 87 (PF)	-	
4	Halisahar	1860	380	-	-	-	-	-	-	-	
5	Budge Budge	Contd.	-	10000	Yes	10	-	2 (Dengue) 2 (Malaria)	NA	-	
6	Hooghly Chinsurah	-	-	-	-	-	-	2 (Malaria)	NA	-	
7	Gangarampur	2810	195	1500	Yes	-	-	-	-	-	
8	Kharar	20	-	-	Yes	-	-	-	-	-	
9	Memari	-	-	-	-	-	-	-	-	-	
10	Konnagar	-	-	-	-	-	-	-	-	-	

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING

"ILGUS BHAVAN"

H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal

Ref No. SUDA-Health/08/24/104(59)

Date 29.10.2008

From : Director, SUDA

To : The Mayor / Chairperson

..... Municipal Corporation / Municipality
(ULBs of North & South 24 Pgs., Howrah, Hooghly, Nadia District)

Sub. : Meeting on recent outbreak of Vector Borne Diseases in Urban area.

Sir / Madam,

You may be aware that recently incidences of Vector Borne Diseases like Malaria, Dengue & Chikungunya have been reported in some of the Urban Local Bodies. In this regard a meeting is scheduled at Conference Hall of SUDA on 07.11.2008 at 2.00 p.m. to discuss the measures to be adopted to control ^{any} outbreak.

You are requested to instruct your HO (either AHO or MO wherever HO is not in position) to participate in the meeting.

Thanking you.

D/C

Yours faithfully,

✓

Director, SUDA

Dt. .. 29.10.2008

SUDA-Health/08/24/104(59)/1(1)

Copy forwarded for kind information to :

Special Secretary, Dept. of Municipal Affairs

✓

Director, SUDA



THE KOLKATA MUNICIPAL CORPORATION
 7, 5, N. BANERJEE ROAD
 KOLKATA - 700 013
 FAX - (033) (33) 2286-1434/1334
 PHONE - (033) (33) 2286-1234/1034



No. Con/Com/147/2008-2009
 October 27, 2008

From : Municipal Commissioner

To

The Secretary,
 Municipal Affairs Department,
 Government of West Bengal,
 Writers' Buildings,
 Kolkata - 700 001

Handwritten notes:
 17/11
 Dir SUDA / Dr. Goswami
 27/11

Sir,

I forward herewith an updated report prepared by the Chief Municipal Health Officer of Kolkata Municipal Corporation regarding Vector Control Activities of the Kolkata Municipal Corporation to prevent transmission of malaria and dengue in the KMC area. The report is submitted for your general perusal and information.

Yours faithfully,

Handwritten signature of Alapan Bandyopadhyay

(Alapan Bandyopadhyay)
 Municipal Commissioner

Encl. As stated above.

Handwritten notes:
 SS
 27/10/08

1. Malaria scenario in Kolkata (KMC area)

Year	No. of blood slides examined	No. of blood slides positive	Slide positively rate (%)	No. & % of Pf cases		Malarial deaths
				No.	%	
1999	279091	105474	37.8	28907	27.4	63
2000	223903	67056	29.9	11799	17.6	55
2001	232823	57870	24.8	11961	20.6	29
2002	222247	53951	24.3	7183	13.3	28
2003	230935	49504	21.4	3923	7.9	6
2004	234444	56381	24.0	3727	6.6	19
2005	345311	57674	16.7	3416	5.9	3
2006	275117	54705	19.9	4063	7.4	1
2007	177155	31577	17.8	1785	5.6	00
2008 (till 23-10-08)	187009	24837	13.2	1476	5.9	03

- This figure includes the no. of malaria cases detected at the KMC- run clinics as well as the no. of malaria cases reported by private pathological laboratories and hospitals

2. Dengue scenario in Kolkata (KMC area)

Year	No. of Cases	No. of deaths
1824(1 st outbreak of Dengue)	NA	NA
1836 (another outbreak)	NA	NA
1903 (another outbreak)	NA	NA
1904 (another outbreak)	NA	NA
1905 (another outbreak)	NA	NA
1911 (another outbreak)	NA	NA
1923 (another outbreak)	NA	NA
1963	100000	200
1981 (another outbreak)	NA	NA
1983 (another outbreak)	NA	NA
1990	70	10
1996	750	8
2004 (another outbreak)	NA	NA
2005	3546	12
2006	394	1
2007	30	0
2008 (till 23.10.2008)	76	2

3. Activities carried out by the KMC to combat malaria and dengue:

A. Early detection and prompt treatment (EDPT):

To prevent both the mortality and morbidity due to malaria, the KMC has established 81 clinics in different parts of the city and these clinics strictly follow the National strategy of giving presumptive treatment to all fever cases, irrespective of their malarial status. Till date, altogether 1,87,009 febrile patients have visited the KMC run malaria clinics, of whom 24,837 (13.2 %) proved positive for malaria. Falciparum malaria comprised 5.9 % (1476) of the total number of positive cases (Table 1). Those who proved positive for malaria were given radical treatment too.

B. Vector control activities

- Antilarval spraying: This is being done by 4-5 FWs in every ward under the supervision of a Health Sarkar at an interval of 7-15 days. In 2005 (Jan-Dec), antilarval spraying was done in and around 6,33,774 households. The figures in 2007 (Jan-Dec) and 2008 (as on 23.10.08) were 5,21,956 and around 6,46,982 respectively.
- Issuance of notices : To remove mosquitogenic conditions inside the houses, as many as 3,617 notices under Section 496 of the KMC Act, 1980, have been served upon house-owners till 23.10.08 since January this year, including notices issued to seven city-based hospitals.
- House-to-house visits

Year	Total no. of households visited
2005	3,30,000
2006	2,79,000
2007	3,50,000
2008 (till date)	7,75,607 (This includes re-do visits)

- Use of Guppy fish: Efforts to destroy mosquito larvae by guppy fish have begun. So far 24 hatcheries have been established for mass production of this fish.
- Removal of old tyres: One of the most suitable breeding site of the dengue spreading mosquito is old tyre. Since January 08, about 4850 old unclaimed tyres have been removed by the Solid Waste Management Department of the KMC at our request. Over 7900 tyres have been kept under plastic sheets with the help of their owners.

- Indoor fogging: This is done with pyrethrum (2 % extract) in and around malaria positive households (@ 1 positive household plus 50 surrounding households). During this year, 4,39,901 households have been fogged. The corresponding figures of 2007 and 2006 were: 2,85,128 and 3,11,242 respectively.
- Indoor residual spraying: This is done with cyfluthrin 10 % WP to prevent transmission of malaria and other vector-borne diseases among the slum-dwellers who cannot use bednets due to lack of space. Since 2006 altogether 8,38,895 households have been sprayed with the said insecticide. The year-wise break-up is: 3,91,538 households in 2006(Jan-Dec) , 1,25,101 households in 2007(Jan-Dec) and 3,22,294 in 2008 (till date).
- Outdoor thermal fogging: This is done by a vehicle-mounted Leco-120D using a synthetic pyrethroid called cyphenothrin. In 2007, 49 wards in all were subjected to such treatment. This year, area fogging has been done in 77 wards till date. In some of these wards, fogging was carried out more than once.

C. IEC activities:

- Distribution of leaflets: Altogether 4.5 lakh, 2.9 lakh and 5.3 lakh leaflets containing tips on how to combat malaria and dengue were distributed among the general people in 2006, 2007 and 2008 (till date) respectively.
- Putting up of hoardings: Twenty-three (23) hoardings containing messages against malaria and dengue have been put up in different parts of the city to increase people's awareness.
- Audiovisual demonstrations: To involve students in the KMC-sponsored vector-bashing programme among the students, audiovisual demonstrations have been given at a total of 107 schools so far since 2006: 15 schools in 2006, 10 in 2007 and 82 in 2008 (till date). Besides, around 559 schools have been visited so far for antilarval activities since January 2008.
- Insertion in newspapers: Attempt to increase people's awareness about malaria, dengue and other vector-borne diseases too is on. On 16.10.08, one big insertion was given in a widely circulated Bengali daily. Such IEC material was also published in newspapers of other languages between 16.10.08 and 19.10.08.

Mass awareness campaign: To increase people's awareness about malaria and dengue, a high-voltage awareness campaign was organised in ward no. 30 on 23.10.08. Besides the Hon'ble Mayor Sri Bikash Ranjan Bhattacharya and councilors of ward nos. 30, 32 & 33 – Mr. Swapan Samaddar, Ms. Rupa Bagchi and Mr. Rajib Biswas respectively – staff of health department, SWM and water supply department participated in the campaign. The campaign started at 9 am and continued till 10-30am. On 25.10.08 this sort of awareness campaign organized in ward no. 36 in presence of Hon'ble Mayor.

D. Administrative measures: Holidays and Sundays for the vector control staff of all the 141 KMC wards and Laboratory Technicians of all the 81 KMC- run malaria clinics have been cancelled. These employees have been working since 1 September 08 without availing any Sunday / holiday and will on keep working in such manner till 30 November 2008.

Meeting on Vector Control Diseases and strengthening of existing Health care services in Urban area on
25.10.2011 at SUDA Conference Hall at 3.00 p.m.

Sl. No.	Name of ULBs	NAME	SIGNATURE
1	BAIDYABATI	Dr. P. S. Bhattacharya	[Signature]
2	BALLY	Dr. S. Bhatta (HO) Dr. S. Mukherjee (HA)	[Signature]
3	BANSBERIA		
4	BARANAGAR	Dr. Ajay Kr. Mukhopadhyay	[Signature]
5	BARASAT	Dr. Tapobrata Choudhury	[Signature]
6	BARRACKPUR	Dr. P. K. Das - (H.O)	[Signature]
7	BARUIPUR		
8	BHADRESWAR	Dr. Sucheta Ranby Majumdar	[Signature]
9	BHATPARA	Dr. ASIS Kr. Choudhury	[Signature]
10	BIDHANNAGAR	Dr. N. K. Mandal HO	[Signature]
11	BUDGE BUDGE	Dr. P. S. Choudhury	[Signature]
12	CHAMPDANI		
13	CHANDANNAGAR MC	Dr. Sandip Ghosh.	[Signature] 25/10/11
14	DUM DUM	Dr. N. K. Mandal	[Signature] 25/10/11
15	GARULIA	Dr. J. S. Misra.	[Signature] 25/10/11
16	GAYESHPUR		
17	HALISAHAR	Brent	
18	HOOGHLY CHINSURAH		
19	HOWRAH MC	Kaptesh Bandyopadhyay Tushar Kanti Das	[Signature]
20	KALYANI	Kalyani Municipality	Kaptesh Bandyopadhyay
21	KAMARHATI	[Signature]	[Signature] 25/10/11
22	KANCHRAPARA		
23	KHARDAH		
24	KONNAGAR		
25	MADHYAMGRAM	Dr. Chandan Chatterjee HO	[Signature] 25/10/11
26	MAHESHTALA	Dr. S. M. Ali HO	[Signature] 25/10/11
27	NAIHATI	Dr. Nityananda Saha	[Signature] 25/10/2011
28	NEW BARRACKPUR	Jayanta Ghosh & Dr. Debashis Das	[Signature] 25/10/11
29	NORTH BARRACKPUR	Dr. Pranab Roy	[Signature] 25-10-11
30	NORTH DUM DUM	Dr. Sukha Malakar.	[Signature] 25/10/11
31	PANIHATI	Dr. Samir Kr. Sinha	[Signature]
32	PUJALI	Dr. A. K. Khanna. A.H.O	[Signature]
33	RAJARHAT GOPALPUR	Shri Gupta. Health officer	[Signature]
34	RAJPUR SONARPUR	Dr. S. B. Das Kr. Debnath	[Signature]
35	RISHRA	Anamath H.O	[Signature] 25/10/11
36	SERAMPORE	Dr. Chandan Chatterjee HO	[Signature]
37	SOUTH DUM DUM	Dr. Pankaj Kr. Gupta	[Signature] 25/10/11
38	TITAGARH		
39	ULUBERIA	Dr. S. K. Mondal H.O.	[Signature]
40	UTTARPARA KOTRUNG	Dr. Sambhu Chatterjee A.H.O	[Signature]

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING

"ILGUS BHAVAN"

H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal

Ref No.SUDA-Health/65/08(40) /188

Date 24.10.2011.....

From : Director, SUDA

To : The Mayor / Chairman

..... Municipal Corporation / Municipality
(ULBs of North & South 24 Pgs, Howrah, Hooghly , Nadia District
implementing CUDP III & or / IPP-VIII)

**Sub. : Meeting on control of Vector Borne Diseases and strengthening
of existing Health care services in Urban area on 25.10.11
at SUDA Conference Hall at 3 pm..**

Sir/ Madam,

You may be aware that recently incidence of Vector Borne Diseases like Malaria, Dengue & Chikungunya have been reported in some of the Urban Local Bodies. In this regard a meeting is scheduled at Conference Hall of SUDA on 25.10.2011 at 3.00 pm to discuss the measures to be adopted to control any outbreak. Furthermore, your requisition for immediate requirement towards improving existing Health care services will also be discussed in this meeting.

You are requested to instruct your HO (either AHO or MO wherever HO is not in position) to participate in the meeting.

Thanking you.

Yours faithfully



Director, SUDA

SUDA

HEALTH WING

SUDA-Health/65/08/88(40)/1(2)

Dt. .. 24.10.2011

- 1. Dr. K.K Mukherjee, Jt. Secretary, Department of Municipal Affairs**
- 2. PS to the Secretary, Department of Municipal Affairs**


Director, SUDA

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING

"ILGUS BHAVAN"

H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal

Ref No.SUDA-Health/65/08(40) /188

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implementing CUDP III & or / IPP-VIII)

**Sub. : Meeting on control of Vector Borne Diseases and strengthening
of existing Health care services in Urban area on 25.10.11
at SUDA Conference Hall at 3 pm..**

Sir/ Madam,

You may be aware that recently incidence of Vector Borne Diseases like Malaria, Dengue & Chikungunya have been reported in some of the Urban Local Bodies. In this regard a meeting is scheduled at Conference Hall of SUDA on 25.10.2011 at 3.00 pm to discuss the measures to be adopted to control any outbreak. Furthermore, your requisition for immediate requirement towards improving existing Health care services will also be discussed in this meeting.

You are requested to instruct your HO (either AHO or MO wherever HO is not in position) to participate in the meeting.

Thanking you.

Yours faithfully



Director, SUDA

**GOVERNMENT OF WEST BENGAL
DEPARTMENT OF MUNICIPAL AFFAIRS
WRITERS' BUILDINGS, KOLKATA.**

No.1198/MA/C-10/2S-34/2008.

Dated, Kolkata, the 30 December, 2008

From : Joint Secretary to the
Government of West Bengal.

✓ **To** : The Director, SUDA,
ILGUS Bhavan, H.C.Block,
Sector-III, Salt Lake City,
Kolkata - 700 091.

Sub : Fund for prevention of Vector Borne Diseases-reg.

Sir,

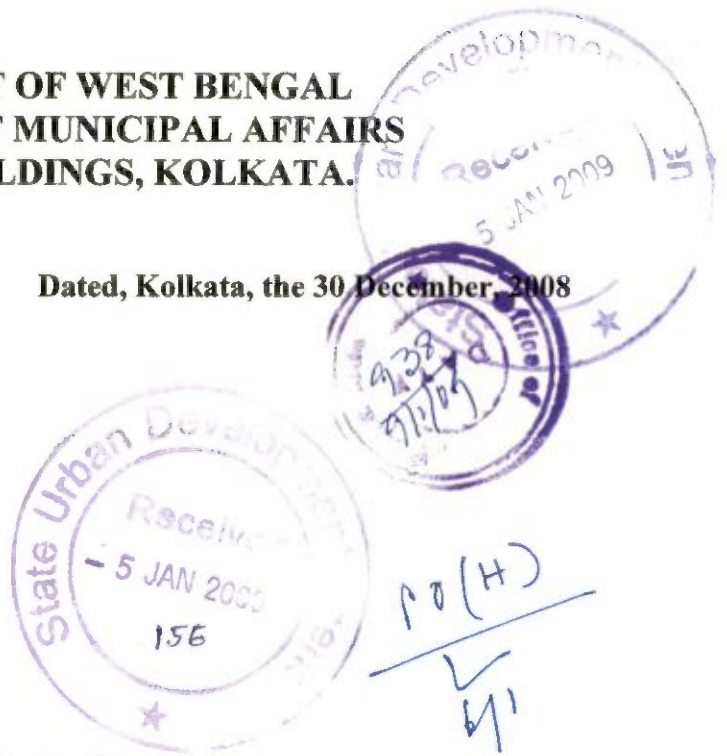
In inviting a reference to your letter No.SUDA-Health/24/08(Pt.-I)54 dated 12.12.08 on the subject noted above, it is regretted that this Department is unable to provide any fund for this purpose.

Therefore, you are requested to kindly intimate the concerned ULBs to meet the expenditure in this regard from their own fund.

Yours faithfully,


Joint Secretary.

30/12/08



SUDA**STATE URBAN DEVELOPMENT AGENCY****HEALTH WING****"ILGUS BHAVAN"****H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091****West Bengal**Ref No. **SUDA-Health/24/08(Pt. I)/54**Date **12.12.2008****From : Director, SUDA****To : The ^{Joint} Secretary
Dept. of Municipal Affairs
Writers' Building****Sub : Allotment of additional fund for Prevention of Vector Borne Diseases
i.e. Malaria, Dengue & Chikungunia.****Sir,**

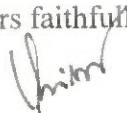
Following to the discussion held in the meeting at SUDA on 07.11.2008 with the Chairman and Health Officer of the ULBs on prevention of Vector Borne Diseases, the Chairman of Panskura, Jangipur, Ranaghat & Tamluk Municipality has placed requirement of additional fund as detailed below :

Sl. No.	ULBs	Item of Expenditure	Amount (In Rs.)
1.	Panskura	Purchase of spraying and larvicidal oil and engagement of labour	46,600.00
Sub-Total			46,600.00
2.	Jangipur	Purchase of larvicidal oil	72,000.00
		IEC i.e. Public awareness meeting, leaflets circulation, hoarding, banner, local cable TV Chanel, Miking and special cleaning drives	30,800.00
Sub-Total			1,02,000.00
3.	Ranaghat	Purchase of larvicidal oil	50,000.00
Sub-Total			50,000.00
4.	Tamluk	Purchase of larvicidal oil and spraying machine	1,27,500.00
		Labour charges	19,800.00
		IEC	18,700.00
Sub-Total			1,66,000.00
Grand-Total			7,85,400.00

As there is no such fund available with SUDA, you are requested to look into the matter towards release of fund to the respective ULBs.

Thanking you.

Yours faithfully,


Director, SUDA

তমলুক পৌরসভা

OFFICE OF THE COUNCILLORS OF TAMLUK MUNICIPALITY

স্থাপিত - ১৮৬৪ ★ Estd. - 1864

তমলুক - পূর্ব মেদিনীপুর - ৭২১৬৩৬ ★ TAMLUK - PURBA MEDINIPUR - 721636

Phone : (03228) 266007 / 267370 / 269537, Fax - (03228) 267370

প্রেরক From :

পৌরপ্রধান Chairman

তমলুক পৌরসভা

Tamluk Municipality

প্রতি To :

The Director

(Health Wings)

State Urban Development Agency

ILGUS Bhawan

H.C. Block, Sector - III

Bidhannagar, Kolkata - 700 106

স্মারক / পত্রাক Memo No. 971....

তারিখ, তমলুক,

Dated, Tamluk, The 02.12.08



Sub: Prayer for allotment of special fund to prevent Dengue, Malaria etc.

Madam,

I would like to invite your attention that Dengue, Malaria have been broken out in major area of this municipality. We have already taken up all kind of preventive measures like awaring camp, immunization, mosquito killing spray etc. For these purposes a considerable amount is to be required which is approximately Rs.1,96,000/- (Rupees One Lakh Ninety Six Thousand Only).

You may appreciate the financial position of this poor and rural municipality. It is in a helpless position to bear the cost of the above mentioned preventive measures.

In this circumstances stated above kindly to consider for allotting a special fund amounting to Rs.1,96,000/- (Rupees One Lakh Ninety Six Thousand Only) for this purpose.

I would further request you if we can incur the above mentioned expenditure for this purpose out of the fund already allotted under CBPHCS Scheme.

So I request your kind honour in view of the circumstances stated above to take necessary action for sanctioning the fund at an early date.



Yours faithfully

P. Nandy
02/12/08

(P.NANDY)

Chairman

Tamluk Municipality

TAMLUK MUNICIPALITY
TAMLUK, DIST. – PURBA MEDINIPUR

Requisition of fund for prevention of Dengue, Malaria etc.

Total number of Wards: 22 Nos.

Total area: 17.86 sq. Km.

Sl. No.	Particulars	Rate	Quantity	Total	Remarks
1.	Larva Side Oil (Mosquito Killing Oil)	Rs. 1800/Lit.	60 Ltrs.	Rs.1,08,000/-	30 Ltrs. Mosquito killing oil required for spraying one time.
2.	Burned Motor Oil	Rs. 15/Lit.	500 Ltrs.	Rs.7,500/-	125 Ltrs. Burned oil required for one time
3.	Bleaching Powder	Rs. 30/Kg.	1000 Kg.	Rs. 30,000/-	
4.	Hand spray machine	Rs. 3000/pcs.	4 Pcs.	Rs. 12,000/-	
5.	Expenditure for awareness camp	Rs. 850/ Camp	22 Camp	Rs.18,700/-	One awareness camp required for each ward
6.	Labour and Supervision Charges	Rs. 100/ Labour & Rs. 500/ Supervisor	88 Labour & 22 Supervisor	Rs. 8,800/- & Rs. 11,000/-	4 Nos. of Labour required for each ward & 1 No. of Supervisor required for each ward
			Total:-	Rs. 1,96,000/-	

(Rupees One Lakh Ninety Six Thousand Only)



P. Nandy
02/11/02
P.NANDY
Chairman
Tamluk Municipality

OFFICE OF THE MUNICIPAL COUNCILLORS OF BASIRHAT
North 24 Parganas

Ref.No.: 2095.....

Date: 25.11.08.....

From,

Narayan Mukherjee
Chairman, Basirhat Municipality

To,
The Director,
S.U.D.A. (Health Wing)
ILGUS BHAVAN,
HC Block, Sector-III,
Bidhannagar, Kolkata- 700 091

Subject: Allotment of fund for procurement of equipment as preventive measures against Malaria, Dengue etc.

Madam,

I would like to refer to the discussion in the meeting held on 07/11/2008 in your office on the above matter. In this connection I like to mention that in order to take preventive measures against the outbreak of Malaria, Dengue etc. in some areas of this Municipality procurement of Fogging machine, Fuel, as also anti Mosquito oil, Bleaching powder has become urgently necessary.

It is needless to say that the Municipality is not in a position to purchase the said articles to cover the vast area of 22 Nos. of wards under this Municipality.

I would therefore ask your favour of according sanction of a sum of Rupees at least Rs.10 lacks for the said purpose on emergent basis to cope with the alarming situation.

Thanking You.

Yours faithfully,



Narayan Mukherjee
Chairman,
Basirhat Municipality

**Daily Report on Preventive and Control Measures
taken against Vector Borne Diseases during past 24 hours.**

Name of ULB : **BASIRHAT MUNICIPALITY.**

Total Population of the ULB : **113120.**

Date of Reporting : TO FAX NO : (033) 2358 5800 by 1 P.M.

A. Mosquito Control Measures	Information to be furnished by the ULB
3. Anti Larval Measures (Breeding source Reduction through inspection and removal of source)	
i) No. of dwelling houses covered	4000 Nos.
ii) No. of Schools / Institutions / Clubs covered	25 "
iii) No. of construction sites covered	100 "
iv) Area-wise no. of special cleaning drives given	2 Km.
4. Anti Adult Measures (Fogging with Malathion / Spraying with pyrethrum)	
i) No. of Dwelling House covered	200 Nos.
ii) No. of Schools / Institutions / Clubs covered	3 Nos.
iii) No. of construction sites covered	
B. Public Awareness Campaign	
i) No. of houses inspected for breeding source reduction and IEC activities by	7000 Nos.
a) HHWs	46 "
b) Others	100 "
ii) No. of leaflets distributed	5000 "
iii) Campaign through PA system	Yes / No
iv) No. of Hoardings and banners displayed	5 Nos.
v) Local Cable TV channel used	Yes / No
C. (i) No. of new cases of Dengue / Malaria / Chikungunya detected	
c) Clinical	4 Nos.
d) Sero+ve	
(ii) No. of death due to Dengue / Malaria / Chikungunya	Nil.

Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman
BASIRHAT MUNICIPALITY
Chairman

Partha Sarathi Chatterjee

B.Com. LLB, ADVOCATE
CHAIRMAN, RANAGHAT MUNICIPALITY



Office of the Councillors of Ranaghat
Municipality (Estd. - 1864)
P.O. Ranaghat, Dist. NADIA, Pin-741201 (WB)
☎ : 03473-210030 (Off.) 210-047/221 (Resi)

Ref..... 1585/RM

Date..... 19/11/08

To
The Director,
State Urban Development Agency,
ILGUS BHAVAN, H.C.Block,
Salt Lake, Kolkata - 91.



PO (A)
26/11

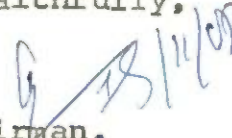
Sub :- Indent for supply of Baritee 1000

Dear Sir,

This is to inform you that each year we have to spend Rs. 1 (one) lakh ~~for~~ for purchase of Baritee 1000 for control of mosquitos. You are requested kindly to see if you can allot a fund to this Municipality for the above purpose.



Yours faithfully,


Chairman,
Ranaghat Municipality.

6577-D
20/11/08

e-mail : jmchairman17@yahoo.com

Tel: 03483 / Fax & Ph.: 266169

DFID ASSISTED HHW SCHEME

Jangipur Municipality

P.O.: Raghunathganj ★ Dist.: Murshidabad ★ PIN : 742 225

Memo No.: JM/DFID/.529/08.

Dated: 18.11.08

To
The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001



Dr. Goswami
may be considered
23/11

SS
92

Sub : Fund requisition

Sir,

From the level of Jangipur Municipality the following works and programmes as preventive and control measures against Vector Borne Diseases have been started and required finance under each programme is urgently needed for its successful.

The details are given below :

SL. No.	Works / Activities / Programme	Quantity	Expected Rate	Expected cost
1	Fenthion spraying	40 litter	Rs. 1,800.00	Rs. 72,000.00
2	Public awareness meeting	20 (1 in each ward)	Rs. 200.00	Rs. 4,000.00
3.	Leaflet circulation	30,000	Rs. 140.00	Rs. 4,200.00
4.	Hoarding	15	Rs. 2,000.00	Rs. 8,000.00
5.	Banner	40 (2 in each ward)	Rs. 5,000.00	Rs. 5,000.00
6.	Local Cable TV Channel	1 month duration		Rs. 4,000.00
7.	Miking	2 days	Rs. 300.00	Rs. 600.00
8.	Special Cleaning Drives	50 labours	Rs. 100.00	Rs. 5,000.00
Total :				Rs. 1,02,800.00

This is for your kind information and taking necessary action.

Yours faithfully

Chairman
Jangipur Municipality

SS
20/11/08

PANSKURA MUNICIPALITY

P.O.- Panskura

Dist.- Purba Medinipur Pin.- 721139

পাঁশকুড়া পৌরসভা

পোঃ - পাঁশকুড়া :: জেলা - পূর্ব মেদিনীপুর।

S.T.D. : 03228

Phone : 252312

Fax : 252005

E-Mail -Pans. munici

@yahoo.co.in

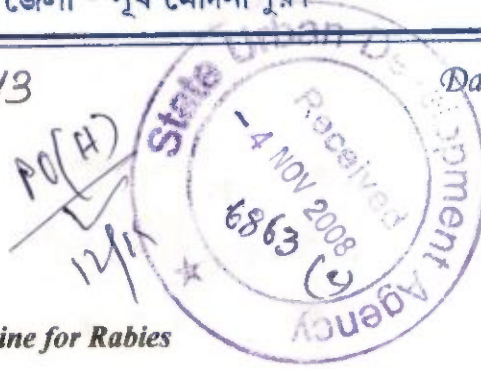
Memo No. :

PM/PHC/259/PART-II/2008/3613

Date : 31/10/08

To

The Director ,
SUDA, West Bengal
ILGUS Bhawan,
HC Block, Sector-III
Bidhannagar, Kolkata - 91.



Sub :: Purchase of Vaccine for Rabies

&

Purchase of Mosquito Control Oil etc for prevention of Malaria / Dengue etc.

Dear sir,

There is no hospital nor any Public Health Centre within this Municipality area. The Block Public Health Centre, Panskura situated at Uttar Mechogram, 6 kms away from Panskura Town is the nearest Public Health Centre which treats dog-bitten patients of this area and administers rabies vaccine. They used to do this free of cost earlier for the affected persons of both this Municipality area and Panchayet area. But now they have intimated that the said facility would be available to the people of Panchayet area only and as such for the affected people of this Municipality area this Municipality is required to make their own arrangements for the supply of Rabies Vaccine and the said BPHC will arrange for the administration of the vaccine into the affected people (dog-bitten cases).

The incidence of dog-bitten cases per month is 50 on an average and as such to serve the people we are to procure 50 vaccines of 1 ML vial (Rabipur) each @ cost of Rs. 280=00 per 1 ML vial and thus the total estimated monthly expenditure on this count would be Rs. 280/- x 50 = Rs. 14000=00 (Rupees fourteen thousand). We propose to meet this expenditure from the fund of Community Based Primary Health Care Service (CBPHCS) of this Municipality and as such we seek your approval for the same.

Secondly, for the prevention of malaria / dengue / encephalitis fever etc the purchase of the following materials with estimated cost shown against each is urgently required.

Sl. No.	Name of Materilas	Quantity	Cost
1	Aspee Spray Machine	6(six)	Rs. 9600/- @ Rs. 1600 /- per machine
2	Mosquito Killing Oil	20 Ltrs.	Rs. 25000/- @ Rs. 1250/- per ltr.
3	Engagement of Labour	05	Rs. 12,000=00 @ Rs. 80=00 per labour per day for 30 days

PANSKURA MUNICIPALITY

P.O.- Panskura

Dist.- Purba Medinipur Pin.- 721139

পাঁশকুড়া পৌরসভা

পোঃ - পাঁশকুড়া :: জেলা - পূর্ব মেদিনীপুর।

S.T.D. : 03228

Phone : 252312

Fax : 252005

E-Mail -Pans. munic

@yahoo.co.in

Memo No. :

Date :

2

It is mentioned in this connection that the matter of spraying mosquito oil etc was taken up with the BMOH, Panskura BPHC Uttarmechnogram who gave us to understand that the work was to be done by the Municipality.

We would now propose to meet the above expenditure of Rs. 46600=00 from the above mentioned CBPHC Services Scheme.

As the above mentioned issues are very urgent in nature, we would request you to kindly accord your kind sanction for meeting the expenditure from the CBPHCS fund at an early date.

Thanking you,

Yours faithfully,

Abhan

Chairman,
Panskura Municipality.

Chairman
Panskura Municipality



PAWAN AGARWAL, IAS
SECRETARY

GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS
KOLKATA - 700 001
Tel. No. 2214-3678
Fax No. 2214-3632
Email : apawan08@gmail.com
Dated - 21.10.2008

D.O. No. 948 - S/08

From : The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001

To : *The Chairman*
Chandernagore Municipality

Sub : Control of Vector borne Diseases i.e. Malaria, Dengue and Chikungunya

Sir / Madam,

You may be aware that incidences of vector borne diseases like Malaria, Dengue and Chikungunya fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the Urban Local Bodies to combat the situation.

Wide publicity may be given in order to create awareness among the citizens as to the causes and symptoms of the above mentioned diseases and measures to prevent the same. The Honorary health Workers as well as the functionaries of three tier Community Development Societies may be sensitized to create awareness among the residents within their respective working jurisdiction while the ULB may take measures to provide cleanliness and eliminate the mosquito breeding places. In this regard, the Manual on Vector Borne Diseases and its Control sent by CMU under its memo no. CMU-94/2003 (Pt. VI)/4235 (125) dt. 13.3.2008 may kindly be referred to.

Information with regard to any incident of Malaria, Dengue fever and Chikungunya cases in your ULB may be sent to the Director, SUDA in the enclosed format immediately.

Yours faithfully,

Pawan Agarwal
21/10/08
(Pawan Agarwal)
Secretary

**Daily Report on Preventive and Control Measures
taken against Vector Borne Diseases during past 24 hours.**

Name of ULB :

Total Population of the ULB :

Date of Reporting :

TO FAX NO : (033) 2358 5800 by 1 P.M.

A. Mosquito Control Measures	Information to be furnished by the ULB
1. Anti Larval Measures (Breeding source Reduction through inspection and removal of source)	
i) No. of dwelling houses covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
iv) Area-wise no. of special cleaning drives given	
2. Anti Adult Measures (Fogging with Malathion / Spraying with pyrethrum)	
i) No. of Dwelling House covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
B. Public Awareness Campaign	
i) No. of houses inspected for breeding source reduction and IEC activities by	
a) HHWs	
b) Others	
ii) No. of leaflets distributed	
iii) Campaign through PA system	Yes / No
iv) No. of Hoardings and banners displayed	
v) Local Cable TV channel used	Yes / No
C. (i) No. of new cases of Dengue / Malaria / Chikungunya detected	
c) Clinical	
d) Sero+ve	
(ii) No. of death due to Dengue / Malaria / Chikungunya	

Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman



PAWAN AGARWAL, IAS
SECRETARY

GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS

KOLKATA - 700 001

Tel. No. 2214-3678

Fax No. 2214-3632

Email : apawan08@gmail.com

Dated - 21.10.2008

D.O. No. 948 - S/08

From : The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001

To : *The Chairman,
Gayeshpur Municipality*

Sub : Control of Vector borne Diseases i.e. Malaria, Dengue and Chikungunya

Sir / Madam,

You may be aware that incidences of vector borne diseases like Malaria, Dengue and Chikungunya fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the Urban Local Bodies to combat the situation.

Wide publicity may be given in order to create awareness among the citizens as to the causes and symptoms of the above mentioned diseases and measures to prevent the same. The Honorary health Workers as well as the functionaries of three tier Community Development Societies may be sensitized to create awareness among the residents within their respective working jurisdiction while the ULB may take measures to provide cleanliness and eliminate the mosquito breeding places. In this regard, the Manual on Vector Borne Diseases and its Control sent by CMU under its memo no. CMU-94/2003 (Pt. VI)/4235 (125) dt. 13.3.2008 may kindly be referred to.

Information with regard to any incident of Malaria, Dengue fever and Chikungunya cases in your ULB may be sent to the Director, SUDA in the enclosed format immediately.

Yours faithfully,

Pawan Agarwal
21/10/08
(Pawan Agarwal)
Secretary

Daily Report on Preventive and Control Measures
taken against Vector Borne Diseases during past 24 hours.

Name of ULB :

Total Population of the ULB :

Date of Reporting :

TO FAX NO : (033) 2358 5800 by 1 P.M.

A. Mosquito Control Measures	Information to be furnished by the ULB
1. Anti Larval Measures (Breeding source Reduction through inspection and removal of source)	
i) No. of dwelling houses covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
iv) Area-wise no. of special cleaning drives given	
2. Anti Adult Measures (Fogging with Malathion / Spraying with pyrethrum)	
i) No. of Dwelling House covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
B. Public Awareness Campaign	
i) No. of houses inspected for breeding source reduction and IEC activities by	
a) HHWs	
b) Others	
ii) No. of leaflets distributed	
iii) Campaign through PA system	Yes / No
iv) No. of Hoardings and banners displayed	
v) Local Cable TV channel used	Yes / No
C. (i) No. of new cases of Dengue / Malaria / Chikungunya detected	
c) Clinical	
d) Sero+ve	
(ii) No. of death due to Dengue / Malaria / Chikungunya	

Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman



PAWAN AGARWAL, IAS
SECRETARY

GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS
KOLKATA - 700 001
Tel. No. 2214-3678
Fax No. 2214-3632
Email : apawan08@gmail.com
Dated - 21.10.2008

D.O. No. 948 - S/08

From : The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001

To : *The Chairman,
Koushiknagar Municipality*

Sub : Control of Vector borne Diseases i.e. Malaria, Dengue and Chikungunya

Sir / Madam,

You may be aware that incidences of vector borne diseases like Malaria, Dengue and Chikungunya fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the Urban Local Bodies to combat the situation.

Wide publicity may be given in order to create awareness among the citizens as to the causes and symptoms of the above mentioned diseases and measures to prevent the same. The Honorary health Workers as well as the functionaries of three tier Community Development Societies may be sensitized to create awareness among the residents within their respective working jurisdiction while the ULB may take measures to provide cleanliness and eliminate the mosquito breeding places. In this regard, the Manual on Vector Borne Diseases and its Control sent by CMU under its memo no. CMU-94/2003 (Pt. VI)/4235 (125) dt. 13.3.2008 may kindly be referred to.

Information with regard to any incident of Malaria, Dengue fever and Chikungunya cases in your ULB may be sent to the Director, SUDA in the enclosed format immediately.

Yours faithfully,

Pawan Agarwal
21/10/08
(Pawan Agarwal)
Secretary

**Daily Report on Preventive and Control Measures
taken against Vector Borne Diseases during past 24 hours.**

Name of ULB :

Total Population of the ULB :

Date of Reporting :

TO FAX NO : (033) 2358 5800 by 1 P.M.

A. Mosquito Control Measures	Information to be furnished by the ULB
1. Anti Larval Measures (Breeding source Reduction through inspection and removal of source)	
i) No. of dwelling houses covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
iv) Area-wise no. of special cleaning drives given	
2. Anti Adult Measures (Fogging with Malathion / Spraying with pyrethrum)	
i) No. of Dwelling House covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
B. Public Awareness Campaign	
i) No. of houses inspected for breeding source reduction and IEC activities by	
a) HHWs	
b) Others	
ii) No. of leaflets distributed	
iii) Campaign through PA system	Yes / No
iv) No. of Hoardings and banners displayed	
v) Local Cable TV channel used	Yes / No
C. (i) No. of new cases of Dengue / Malaria / Chikungunya detected	
c) Clinical	
d) Sero+ve	
(ii) No. of death due to Dengue / Malaria / Chikungunya	

Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman



PAWAN AGARWAL, IAS
SECRETARY

GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS

KOLKATA - 700 001

Tel. No. 2214-3678

Fax No. 2214-3632

Email : apawan08@gmail.com

Dated - 21.10.2008

D.O. No. 948 - S/08

From : The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001

To : *The Chairman,
Diamond Harbour
Municipality.*

Sub : Control of Vector borne Diseases i.e. Malaria, Dengue and Chikungunya

Sir / Madam,

You may be aware that incidences of vector borne diseases like Malaria, Dengue and Chikungunya fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the Urban Local Bodies to combat the situation.

Wide publicity may be given in order to create awareness among the citizens as to the causes and symptoms of the above mentioned diseases and measures to prevent the same. The Honorary health Workers as well as the functionaries of three tier Community Development Societies may be sensitized to create awareness among the residents within their respective working jurisdiction while the ULB may take measures to provide cleanliness and eliminate the mosquito breeding places. In this regard, the Manual on Vector Borne Diseases and its Control sent by CMU under its memo no. CMU-94/2003 (Pt. VI)/4235 (125) dt. 13.3.2008 may kindly be referred to.

Information with regard to any incident of Malaria, Dengue fever and Chikungunya cases in your ULB may be sent to the Director, SUDA in the enclosed format immediately.

Yours faithfully,

Pawan Agarwal
21/10/08
(Pawan Agarwal)
Secretary

**Daily Report on Preventive and Control Measures
taken against Vector Borne Diseases during past 24 hours.**

Name of ULB :

Total Population of the ULB :

Date of Reporting :

TO FAX NO : (033) 2358 5800 by 1 P.M.

A. Mosquito Control Measures	Information to be furnished by the ULB
1. Anti Larval Measures (Breeding source Reduction through inspection and removal of source)	
i) No. of dwelling houses covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
iv) Area-wise no. of special cleaning drives given	
2. Anti Adult Measures (Fogging with Malathion / Spraying with pyrethrum)	
i) No. of Dwelling House covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
B. Public Awareness Campaign	
i) No. of houses inspected for breeding source reduction and IEC activities by	
a) HHWs	
b) Others	
ii) No. of leaflets distributed	
iii) Campaign through PA system	Yes / No
iv) No. of Hoardings and banners displayed	
v) Local Cable TV channel used	Yes / No
C. (i) No. of new cases of Dengue / Malaria / Chikungunya detected	
c) Clinical	
d) Sero+ve	
(ii) No. of death due to Dengue / Malaria / Chikungunya	

Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman



PAWAN AGARWAL, IAS
SECRETARY

GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS
KOLKATA - 700 001
Tel. No. 2214-3678
Fax No. 2214-3632
Email : apawan08@gmail.com
Dated - 21.10.2008

D.O. No. 948 - S/08

From : The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001

To : *The Chairman,
Bongaon Municipality*

Sub : Control of Vector borne Diseases i.e. Malaria, Dengue and Chikungunya

Sir / Madam,

You may be aware that incidences of vector borne diseases like Malaria, Dengue and Chikungunya fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the Urban Local Bodies to combat the situation.

Wide publicity may be given in order to create awareness among the citizens as to the causes and symptoms of the above mentioned diseases and measures to prevent the same. The Honorary health Workers as well as the functionaries of three tier Community Development Societies may be sensitized to create awareness among the residents within their respective working jurisdiction while the ULB may take measures to provide cleanliness and eliminate the moxquito breeding places. In this regard, the Manual on Vector Borne Diseases and its Control sent by CMU under its memo no. CMU-94/2003 (Pt. VI)/4235 (125) dt. 13.3.2008 may kindly be referred to.

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21/10/08
(Pawan Agarwal)
Secretary

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Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman



PAWAN AGARWAL, IAS
SECRETARY

GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS
KOLKATA - 700 001
Tel. No. 2214-3678
Fax No. 2214-3632
Email : apawan08@gmail.com
Dated - 21.10.2008

D.O. No. 948 - S/08

From : The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001

To : *The Chairman,
Halisahar Municipality*

Sub : Control of Vector borne Diseases i.e. Malaria, Dengue and Chikungunya

Sir / Madam,

You may be aware that incidences of vector borne diseases like Malaria, Dengue and Chikungunya fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the Urban Local Bodies to combat the situation.

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Information with regard to any incident of Malaria, Dengue fever and Chikungunya cases in your ULB may be sent to the Director, SUDA in the enclosed format immediately.

Yours faithfully,

Pawan Agarwal
21/10/08
(Pawan Agarwal)
Secretary

Daily Report on Preventive and Control Measures
taken against Vector Borne Diseases during past 24 hours.

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Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman



PAWAN AGARWAL, IAS
SECRETARY

GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS
KOLKATA - 700 001
Tel. No. 2214-3678
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D.O. No. 948 - S/08

Dated - 21.10.2008

From : The Secretary
Municipal Affairs Department
Government of West Bengal
Writers' Buildings
Kolkata - 700 001

To :

Sub : Control of Vector borne Diseases i.e. Malaria, Dengue and Chikungunya


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(Pawan Agarwal)
Secretary

**Daily Report on Preventive and Control Measures
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Sanitary Inspector

Health Officer / Asstt. Health Officer

Chairman

DRAFT

Government of West Bengal
Municipal Affairs Department
Writers' Buildings, Kolkata - 700 001

No : _____

Dated : October _____, 2008

From : The Secretary
Municipal Affairs Department
Govt. of West Bengal
Writers' Buildings
Kolkata - 700 001

To : The Mayor/Chairperson
.....Municipal Corporation/Municipality/NAA
(All KMA ULBs except KMC)

Sub : Control of Vector Borne Diseases i.e. Malaria, Dengue and Chikungunya.

Sir/Madam,

You may be aware that incidences of vector borne diseases like Malaria, Dengue and Chikungunya fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the Urban Local Bodies to combat the situation.

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Yours faithfully,



Secretary
Department of Municipal Affairs
Govt. of West Bengal

Memo No.

Dated:

Copy forwarded to :

1. Project Director, CMU
2. Director, SUDA
3. DLB, W.B.


Secretary

পশ্চিমবঙ্গ সরকার

পৌর বিষয়ক দপ্তর

মহাকরণ, কলকাতা - ৭০০ ০০১

পত্র নং : '৪১১(২১৬) -এন/০৮

তারিখ : জানুয়ারী ১৫, ২০০৮

প্রেরক : প্রধান সচিব

পৌর বিষয়ক দপ্তর

প্রাপক :

Mr. howami M
h
14/3

Dr. G. G. G.
aj
14/3

মহাশয় / মহাশয়া,

অতি সম্প্রতি 'বার্ড ফ্লু' রোগটি রাজ্যের কয়েকটি জেলার গ্রামাঞ্চলে ছড়িয়ে পড়েছে। এমনকি দক্ষিণ দিনাজপুর জেলার বালুরঘাট, বীরভূম জেলার নলহাটি এবং বর্ধমান জেলার আসানসোল ও জামুরিয়া পৌর এলাকার কিছু কিছু অঞ্চলে এই রোগের সংক্রামণ ঘটেছে বলে জানা গিয়েছে। 'বার্ড ফ্লু' এভিয়ান ইনফ্লুয়েঞ্জা ভাইরাস সংক্রামণ ঘটিত রোগ, যা মূলতঃ পরিযায়ী পাখীদের মাধ্যমে হাঁস / মুরগীর মধ্যে সংক্রামণ ছড়ায়। সংক্রামিত পাখীদের দেহজাত রস এবং মল থেকে এই রোগ অন্যান্য পাখীদের মধ্যে, এমনকি মাধ্যমে মানুষের মধ্যেও ছড়িয়ে পড়তে পারে। জ্বর, সর্দি-কাশির সঙ্গে শ্বাসকষ্ট - এই রোগের উপসর্গ। ইতিমধ্যে প্রাণী সম্পদ বিকাশ বিভাগ, স্বাস্থ্য ও পরিবার কল্যাণ দপ্তর ত্রিপুরা পঞ্চায়েতের সঙ্গে সমন্বয়সাধন করে এই সংক্রামণ প্রতিরোধে প্রয়োজনীয় পদক্ষেপ গ্রহণ করেছে।

ভয়ঙ্কর সংক্রামক এই রোগ যাতে আমাদের শহর এলাকাগুলিতে ছড়িয়ে না পড়ে, তার জন্য অবিলম্বে আমাদের পৌরসভাগুলিকে যে ব্যবস্থাগুলি নিতে হবে, সেগুলি সংক্ষেপে হল :

- শহরের যেখানে পোলট্রি আছে বা হাঁস, মুরগী পোষা হয়, সেখানে পাখীদের উপর সতর্ক নজর রাখা। যদি কোনও হাঁস / মুরগী - রোগাক্রান্ত মনে হয়, তবে তৎক্ষণাত্ তা প্রাণীসম্পদ বিকাশ দপ্তরের সহায়তায় উপযুক্ত ব্যবস্থা নিতে হবে। এর জন্য

আপনি আপনার এলাকার প্রাণীসম্পদ বিকাশ দপ্তর / মহকুমাশাসক / জেলাশাসকের সঙ্গে যোগাযোগ করুন।

- আক্রান্ত এলাকার অন্য কোন পাখী অথবা শুকর জাতীয় প্রাণী হঠাৎ করে মারা যাচ্ছে কিনা নজর রাখুন। প্রয়োজনে প্রাণীসম্পদ বিকাশ দপ্তরকে সঙ্গে সঙ্গে জানান।
- আক্রান্ত এলাকার কোনও মানুষের যদি জ্বর, সর্দি-কাশির সঙ্গে শ্বাসকষ্ট থাকে তবে অবিলম্বে তাকে পৌর হাসপাতাল বা সাব-সেন্টারের ডাক্তার দিয়ে পরীক্ষা করান এবং তার পরামর্শমত সরকারী স্বাস্থ্যকেন্দ্র / হাসপাতালে ভর্তির ব্যবস্থা করুন। সরকারী হাসপাতালগুলিতে এই রোগের চিকিৎসার উপযুক্ত ব্যবস্থা গ্রহণ করা হয়েছে।
- এই রোগ যাতে ছড়িয়ে পড়তে না পারে তার জন্য পৌরসভাগুলিকে অত্যন্ত দ্রুততার সঙ্গে স্বেচ্ছা স্বাস্থ্যকর্মী (HHW) এক ত্রিস্তর সমষ্টি উন্নয়ন সমিতির সদস্যদের দিয়ে নজরদারি টিম গড়ে তুলতে হবে ও নজরদারির ব্যবস্থা করতে হবে। নজরদারি টিমে ১২ জন সদস্য ও দুজন সুভারভাইসর থাকবে। প্রতিটি নজরদারি টিমকে বার্ড ফ্লু এলাকার ৩ কি.মি. ব্যাসার্ধ এলাকার মধ্যে যেসব বাড়ী আছে, সেসব প্রতিটি বাড়ীর মানুষের উপর প্রতিদিন নজর রাখতে হবে। কোন বাড়ীতে কেউ বার্ড ফ্লু রোগের লক্ষণে আক্রান্ত হয়েছেন সন্দেহ হলে সঙ্গে সঙ্গে সাব-সেন্টারের মেডিক্যাল অফিসার / হেলথ অফিসারকে জানাতে হবে। মেডিক্যাল অথবা হেলথ অফিসার না থাকলে স্থানীয় কাউন্সিলর এক পৌরপ্রধানকে জানাতে হবে।
- আক্রান্ত এলাকার ৩-৫ কি.মি. ব্যাসার্ধ এলাকার মধ্যে নজরদারি দলকে হাঁস/মুকী সহ অন্যান্য পোয়া পাখীর উপর প্রতিদিন নজর রাখতে হবে এবং সন্দেহজনক ক্ষেত্রে

পৌরসভার হেলথ অফিসার এক হেলথ অফিসার না থাকলে স্থানীয় কাউন্সিলর ও পৌরপ্রধানকে সঙ্গে সঙ্গে খবর দিতে হবে।

- আক্রান্ত এলাকার ৫-১০ কি.মি. ব্যাসার্ধ এলাকায় দুদিনে একবার নজরদারির কাজ চালাতে হবে। কোনও হাঁস/মুকী/ পাখী রোগাক্রান্ত হয়েছে সন্দেহ হলে, অফিসে পৌরসভার হেলথ অফিসার এক হেলথ অফিসার না থাকলে স্থানীয় কাউন্সিলর / পৌরপ্রধানকে জানাতে হবে।
- প্রতিটি পৌরসভায় হেলথ অফিসার / অ্যাসিস্ট্যান্ট হেলথ অফিসার / এন্টিকিউটিভ অফিসারকে নোডাল অফিসার হিসাবে নিয়োগ করতে হবে। নোডাল অফিসার প্রতিদিন জেলার স্বাস্থ্য আধিকারিক (CMOH)-কে সংক্রমণের রিপোর্ট পাঠাবেন। রিপোর্টের একটি কপি সুডাতে পাঠাতে হবে।

বার্ড ফু সংক্রামিত এলাকায় নজরদারি ছাড়াও পৌরসভাকে অন্য যেসব ব্যবস্থা নিতে হবে সেগুলি হল :

- যেহেতু মূলত: সংক্রামণের বাহক পরিযায়ী পাখীরা, তাই পৌর এলাকায় জলাশয় ইত্যাদিতে পরিযায়ী পাখীদের উপর সতর্ক নজর রাখতে হবে।
- রোগাক্রান্ত এলাকার মুরগী / হাঁসের মাংস বা ডিম যাতে পৌর এলাকায় বিক্রির জন্য না প্রবেশ করতে পারে অথবা বাজার / দোকানে বিক্রি না হয়, সেজন্য কড়া নজরদারির ব্যবস্থা করতে হবে।
- রোগের সংক্রমণ রোধ করতে কোনও পোলট্রি মালিক বা হাঁস / মুকী পালনকারী পরিবার যাতে রোগাক্রান্ত হাঁস/মুকীসহ অন্যত্র এলাকায় না চলে যান তার জন্য সতর্ক দৃষ্টি রাখতে হবে।

- সাফাই কর্মীদের সতর্ক রাখতে হবে যাতে কোথাও একাধিক মত হাঁস /মুরগী/পাখী দেখলে, সঙ্গে সঙ্গে পৌরসভার স্বাস্থ্য আধিকারিকে খবর দিন।

প্রসঙ্গত উল্লেখ করা যাচ্ছে যে কিছু কিছু পৌরসভা মুরগীর ডিম / মাংস খাওয়ার সপক্ষে মাইকে অথবা হোর্ডিং দিয়ে প্রচার করছেন। কিন্তু এই সম্পর্কে স্বাস্থ্য ও পরিবার কল্যাণ দপ্তর প্রচারিত সতর্কবাণীগুলি মেনে চলতে আপনাদের অনুরোধ করা হচ্ছে। প্রচারিত সতর্কবাণীর একটি প্রতিলিপি সংলগ্ন করা হল। পৌরসভাগুলিকে মাইক প্রচার বা হোর্ডিং টাঙ্গিয়ে এই সতর্কবাণীগুলি পুনঃপ্রচার করতে অনুরোধ করা হচ্ছে। জনসাধারণকে সচেতন করার কাজে ওয়ার্ড কমিটি এক সমষ্টি উন্নয়ন সমিতির সদস্যদের গুরুত্বপূর্ণ ভূমিকা নিতে হবে।

স্কুলগুলিতে দুপুরের খাবারে (মিড্ ডে মিল) ডিম / মাংস বাদ দেওয়া বাঞ্ছনীয়। এ সম্পর্কে শিক্ষা দপ্তর ও সমাজকল্যাণ দপ্তর প্রচারিত নির্দেশিকা মেনে চলতে হবে।

বার্ড ফ্লু রোগের সংক্রমণ প্রতিরোধে সামান্য অস্বাস্থ্য বা শিথিলতা শুধুমাত্র আপনার এলাকার শহরবাসীই নয়, সংলগ্ন এলাকার শহরবাসী এমনকি প্রতিবেশী রাজ্যেও সংক্রমণ ছড়াতে সাহায্য করবে। তাই আসুন আমরা সবাই মিলে বার্ড ফ্লু সমস্যার মোকাবিলা করে এই রোগকে অচিরেই নির্মূল করে নাগরিকদের নিরাপদ জীবনযাত্রা সুনিশ্চিত করি।

ভবদীয়,

ক্রোড়পত্র : স্বাস্থ্য ও পরিবার কল্যাণ দপ্তর
প্রচারিত সতর্কবাণী

প্রিন্ট ও স্টাম্প

(পি. কে. প্রধান)

প্রধান সচিব

৩৪ম সংস্করণ : ২৪.৩.২০০৮

ফু

মানুষের পক্ষেও ঝাঁঝেরক আপনার পরিবারকে নিরাপদ রাখুন

আপনার অঞ্চলে যদি বার্ড ফু ছড়িয়ে থাকে, তবে আপাতত মুরগী/হাঁসের ভিমা বা মাংস খাবেন না।


- মুরগী/হাঁসের সংস্পর্শ এড়ান।
- হাঁস নিয়ে হাতি খেয়ে নিরাপদ রাখুন।
- কোনো কারণে মুরগী/হাঁস ধরতে হলে হাতে গ্লাভস বা পলিথিনের ব্যাগ জড়িয়ে ধরুন।
- মরা মুরগী/হাঁস খোঁজা: জায়গায় ফেলবেন না।
- নিউদের মুরগী/হাঁসের সঙ্গে খেলা করবেন দেবেন না।
- মুরগীর বাজারে যাবেন না।
- কোনো মসৃণাতি বা জিনিসপত্র মৃত বা অসুস্থ মুরগীর সংস্পর্শ এড়ান।
- কোনো শারীরিক সমস্যা হলে স্বাস্থ্যকর্মী/স্বাস্থ্যবিদ/স্বাস্থ্যসংক্রান্ত নোংরা জায়গা পরিষ্কার করুন।

কিছু জানানোর থাকলে স্বাস্থ্য, প্রাণীসম্পদ বিকাশ বা পঞ্চায়েত দপ্তরের আধিকারিকদের জানান।
ওজব ছড়াবেন না, ওজবে কান দেবেন না।
আসুন, আমরা সবাই মিলে বার্ড ফু'র সমস্যা মোকাবিলা করি।
স্বাস্থ্য ও পরিবার কল্যাণ দপ্তর, পশ্চিমবঙ্গ সরকার



পত্রের প্রতিলিপি অবগতি ও প্রয়োজনীয় ব্যবস্থা গ্রহণের জন্য পাঠানো হল:

- ১। শ্রী আর.এস.শুক্লা, প্রকল্প আধিকারিক, রাজ্য এইডস প্রতিরোধ ও নিয়ন্ত্রন সমিতি এবং পদাধিকারবলে সচিব
- ২। জেলা শাসক,-----
- ৩। মহকুমাশাসক-----
- ৪। মুখ্য স্বাস্থ্য আধিকারিক;-----জেলা
- ৫। মহকুমা স্বাস্থ্য আধিকারিক; -----মহকুমা
- ৬। স্থানীয় সংস্থার অধিকর্তা, পশ্চিমবঙ্গ
- ৭। নির্বাহি আধিকারিক/স্বাস্থ্য আধিকারিক,-----পৌরসভা


অধিকর্তা, সুডা

SUDA

STATE URBAN DEVELOPMENT AGENCY

HEALTH WING

"ILGUS BHAVAN"

**H-C BLOCK, SECTOR-III, BIDHANNAGAR, CALCUTTA-700 091
West Bengal**

Ref No. **SUDA-15/98(Pt. VI)/06/29(10)**

Date **28.02.2007**

From : Director, SUDA

To : The Mayor / Chairman
✓ **Siliguri / Howrah / Asansol / Durgapur Municipal Corporation**
✓ **South Dum Dum / Budge Budge / Burdwan /**
✓ **Bhadreswar / Kalyani / Maheshtala Municipality**

Sub. : Meeting on Malaria on 5th March, 2007 at 11 a.m. at Conference Hall (2nd floor), Swasthya Bhawan, Salt Lake, Kolkata - 700 091.

Sir,

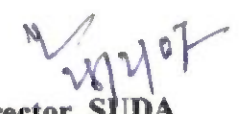
A meeting on malaria has been organized by the Dept. of Health & Family Welfare on 5th March, 2007 at 11 a.m. at Swasthya Bhawan, Kolkata - 700 091, for better coordination & linkage.

You are requested kindly to make it convenient to participate in the said meeting along with MIC / CIC (Health) and Health Officer of your ULB.

You are also requested to bring the information on ward-wise population and no. of household along with you for submission to Dept. of Health & Family Welfare.

Thanking you.

Yours faithfully,


Director, SUDA

Dt. .. 28.02.2007

SUDA-15/98(Pt. VI)/06/29(10)/1(1),

Copy forwarded for kind information to :

Jt. Director of Health services (PH & CD), West Bengal


Director, SUDA

② Asansol. ✓

~~Durgapur~~ ✓

~~Bridge Burse~~ ✓

✓ Siliguri

~~South Dum Dum~~ ✓

~~x Mayapuri~~

~~Burdwan~~

Kalyani

Chandernagor ✓

~~Horsrah~~ ✓

20 persipul

2357 1192

TA/DA

✓ ① South Dum Dum.

✓ ② Bridge Burse

✓ ③ Siliguri MIC + 100.

✓ ④ ~~NH HO~~ MIC (H). Dy. Mayu.

✓ ⑤ Asansol.

✓ ⑥ Durgapur

Fax zone

✓ ⑦ Burdwan

✓ ⑧ ~~Chandernagor~~ Bhadransar

✓ ⑨ Kalyani

Fax zone

✓ ⑩ Mahulata

PO (H)
27/2

Government of West Bengal
Directorate of Health Services
Public Health Branch
SWASTHYA BHAWAN
GN-29, Sector - V, Salt Lake
Kolkata - 700 091.



Memo No.HPH/

Dated, Kolkata, the _____, 2007.

To

1-18) The Chief Medical Officer of Health,

Sub : Meeting on Malaria on 5th March, 07 at
11.00 A.M. at Conference Hall (2nd floor),
Swasthya Bhawan, Salt Lake, Kol - 91.

You are hereby requested to send Dy.CMOH-II of your district for the above meeting with the latest performance report and expenditure statement. Discussion will be held to review the epidemiological situation of the vector borne diseases as well as initiate appropriate measures for effective containment through stake holder participation.

Mr. Deepak Gupta, Additional Secretary, Ministry of Health & F.W., Govt. of India, will preside over the meeting.

The T.A. & D.A. will be provided from GFATM fund as per Govt. of W.B. rules.

sd
Jt. Director of Health Services (PH & CD),
West Bengal

Memo No.HPH/ *1M-6-07/91(18)/16* Dated, Kolkata, the *28/2*, 2007.

Copy forwarded for information with the request to kindly make it convenient to attend the meeting.

1. The D.H.S., W.B., Swasthya Bhawan, Salt Lake, Kol-91.
2. The D.M.E., W.B., Swasthya Bhawan, Salt Lake, Kol-91.
3. The Addl. D.H.S.(AA & V), Swasthya Bhawan, Salt Lake, Kol-91.
4. The Executive Director, West Bengal Health & F.W. Samity, Swasthya Bhawan, Salt Lake, Kol-91.
5. The Sr. Regional Director, H. & F.W., 20 Gariahat Rd, Kol-19.
6. The D.D.H.S.(Malaria), Swasthya Bhawan, Salt Lake, Kol-91.
7. The A.D.H.S.(I.B.D.), Swasthya Bhawan, Salt Lake, Kol-91.
8. The A.D.H.S. (Filaria), Swasthya Bhawan, Salt Lake, Kol-91.
9. The Epidemiologist (IBD Branch), Swasthya Bhawan, Salt Lake, Kol-91.
10. The Epidemiologist (PH Branch), Swasthya Bhawan, Salt Lake, Kol-91.

11. The Assistant Malariologist, Swasthya Bhawan, Salt Lake, Kol-91.
12. The D.A.D.H.S. (PH Branch), Swasthya Bhawan, Salt Lake, Kol-91.
13. The D.A.D.H.S.(P & I), Swasthya Bhawan, Salt Lake, Kol-91.
14. The Chief Health Officer, K.M.C., Kolkata.
- 15-32. All Dy. CMOHs II
- 33-37. The Director, C.R.S., 4/2, Orient Row, Kol-17, with the request to send 4 representatives.
38. The Secretary, DBITA, Binnaguri, Jalpaiguri, with the request to attend the meeting or his representative.
39. The Secretary ITPA, Jalpaiguri, with the request to attend the meeting or his representative.
40. The Secretary, TAI, Binnaguri, Jalpaiguri, with the request to attend the meeting or his representative.
41. The Secretary, Baisakhi Sangha, 122/1G, Manoharpukur Rd, Kol-26, with the request to attend the meeting or his representative.
- 42-44. The Director, SHIS, Post-Bhangar, South 24 Pgs, with the request to attend the meeting & 2 representatives.
- 45-46. The Director, West Bengal Voluntary Health Association, 19A, Dr. Sundari Mohan Avenue, 1st Floor, Kolkata - 14, with the request to attend the meeting or his representative.
- ✓ 47-60. The Director, SUDA, Sector - III, HC Block, Ilgus Bhawan, Kolkata - 106, with the request to send the Chairman / Health Officer to attend the meeting or his representative.

Hoate
23/2/07
Jt. Director of Health Services (PH & CD),
West Bengal

**GOVERNMENT OF WEST BENGAL
MUNICIPAL AFFAIRS DEPARTMENT
WRITERS' BUILDINGS
KOLKATA - 700 001**

No. 402-S/06

Dated, the 18th October, 2006

From: The Principal Secretary-to the
Government of West Bengal

To: The Mayor/Chairperson

..... Municipal Corporation/ Municipality

(All KMA ULBs except KMC)

Sub: Dengue Fever

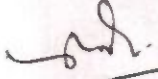
Sir/Madam,

As you are aware, the incidences of Dengue Fever cases have been reported in some parts of the State. Hence, it is essential that urgent preventive measures need to be taken up by the urban local bodies to meet the situation.

Some of the basic information with regard to Dengue Fever and its preventive are given in the Annexure. The mosquito which is the carrier of the Dengue Virus usually breed in clean collected water of artificial containers such as drums, bucket, flower vas, thrown out coconut shell, discarded automobile tyres, plastic container etc. Therefore, elimination of the breeding places of the mosquito is essential to control the disease effectively.

It is also necessary to create awareness among the local population in regard to the causes and symptoms of the disease and measures to prevent the same. The Honorary Health Workers under the municipalities/corporations as well as the Community Development Societies should be geared up to create the awareness while the local body should take measures to provide cleanliness and eliminate the breeding places. Information in regard to any incident of Dengue Fever in your ULB may be sent to Director, SUDA immediately.

Yours faithfully,


18/10/06

Principal Secretary

ডেঙ্গুজ্বর - জনসাধারণের জন্য কিছু জরুরী তথ্য

বিশ্বে ডেঙ্গুতে আক্রান্ত রুগীর সংখ্যা :

প্রত্যেক বছর কয়েক কোটি লোক ডেঙ্গুতে আক্রান্ত হয় এবং তাদের মধ্যে বেশ কিছু সংখ্যক ডেঙ্গু হেমারেজিক ফিভারে ভোগেন।

বিশ্ব স্বাস্থ্য সংস্থা (WHO)- এর হিসাব অনুযায়ী প্রত্যেক বছর ৫ কোটি মানুষ ডেঙ্গুতে আক্রান্ত হন।

ডেঙ্গু জ্বর কি?

ডেঙ্গুজ্বর এমন একটি অসুস্থ যা মশা দ্বারা ছড়িয়ে পড়ে এবং ৪টি স্বতন্ত্র (type) ভাইরাসের যেকোন ১টি থেকে এই অসুখটি হতে পারে। আগে এই রোগটিকে ব্রেকবোন (break-bone) অসুখ বলা হত কারণ এই অসুখের লক্ষণ মারাত্মক গাট ও পেশির ব্যাথা হত। স্বাস্থ্য বিশেষজ্ঞরা এই রোগটির অস্তিত্ব সম্বন্ধে ২০০ বছর বেশি সময় থেকেই জানেন।

ডেঙ্গু জ্বরের কারণ?

ঈডিস মশা ডেঙ্গু জ্বরে আক্রান্ত রুগীকে কামড়ায়, নিজে সংক্রমিত হয় এবং এই সংক্রমিত মশা যখন সুস্থ মানুষকে কামড়ায় তখন রোগটি ছড়িয়ে পড়ে। ডেঙ্গু রোগটি সাধারণত উষ্ণ আবহাওয়ার দেশে (Tropical Countries) দেখা যায় এবং এটি মানুষ ও ঈডিস ইম্ফিট নামক মশার মধ্যেই সীমাবদ্ধ থাকে। ঈডিস ইম্ফিট মশা এমন একটি মশা যা বাড়ির মধ্যেই বা বাড়ির আশেপাশে দেখা যায় এবং প্রধানত দিনের বেলাতে মানুষকে কামড়ায়।

ডেঙ্গু জ্বর কতখানি মারাত্মক?

বেশিরভাগ রুগী দুই সপ্তাহের মধ্যেই সুস্থ হয়ে যায়। কিছু অবশ্য অনেক দিন ধরেই ক্লান্ত থাকে এবং মানসিক ভাবে অবসাদগ্রস্ত থাকে।

মশা কামড়ানো এবং ডেঙ্গুজ্বরে আক্রান্ত হওয়ার সময়সীমা সাধারণত ৪ থেকে ৭ দিন (৩ থেকে ১৪ দিন)।

ডেঙ্গু জ্বরের সময়সীমা:

এক সপ্তাহ পর্যন্ত রুগী বেশ (acute) অসুস্থ থাকে, তার পরের এক থেকে দুই সপ্তাহ পর্যন্ত দুর্বলতা, গায়ে-হাতে-পায়ে ব্যাথা এবং অরুচি থাকে।

ডেঙ্গু জ্বরের প্রকারভেদ:

উপসর্গ অনুযায়ী ৩ প্রকার ডেঙ্গুজ্বর দেখা যায়। একটি হল সাধারণ ডেঙ্গু ফিভার এবং অপর দু'টি হল ডেঙ্গু হেমারেজিক ফিভার এবং ডেঙ্গু শক সিনড্রোম। এই রোগটি চারটি ভাইরাল-সেরোটাইপের যেকোনো একটির দ্বারা হয়। যে সমস্ত এলাকায় ডেঙ্গুরোগ সব সময়ই পাওয়া যায় সেখানে একজন মানুষের জীবদ্দশায় চার রকম ভাইরাল-সেরোটাইপ দিয়েই রোগটি হতে পারে।

ডেঙ্গু জ্বরের লক্ষণ:

এই রোগটি সাধারণত শুরু হয় আক্রান্ত মশার কামড়ানোর ৪ থেকে ৭ দিন পরে। লক্ষণগুলি হল নিম্নরূপ:-

- অতিরিক্ত জ্বর (১০৫ ফাঃ)
- প্রচণ্ড মাথাব্যথা

- চোখের পিছনে ব্যাথা
- তীব্র গাট এবং পেশির ব্যাথা
- বমি-বমি ভাব এবং বমি
- র্যাশ (rash)

জ্বরের ৩-৪ দিন বাদে সারা শরীরে র্যাশ বেরোতে পারে। রোগের শেষ দিকে আবার দ্বিতীয়বার র্যাশ বেরোতে পারে।

অনেক রুগীর রক্তক্ষরণ সমস্যা দেখা দেয়। এটিকে বলে ডেঙ্গু হেমোরাজিক ফিভার। এটি খুব সাংঘাতিক রোগ, যাতে রুগী মারাও যায় বিশেষত, বাচ্চারা এবং অল্পবয়সীরা।

এটি বিশেষভাবে লক্ষণীয় যে, সাধারণভাবে বাচ্চাদের এই রোগের সব রকম লক্ষণগুলি দেখা যায় না।

কি ভাবে ডেঙ্গুর সনাক্ত করা যায়?

রক্ত পরীক্ষা করে একজন চিকিৎসক অথবা স্বাস্থ্যকর্মী এই রোগটি সনাক্ত করতে পারেন। রক্ত পরীক্ষা করে এই ভাইরাসটি অথবা এর অ্যান্টিবডি ধরতে পারা যায়। ডেঙ্গু মহামারীর সময় সাধারণত রোগের লক্ষণ দেখেই রোগটি চেনা যায়। নিশ্চিত প্রশ্নের জন্য রক্ত পরীক্ষা করা প্রয়োজন।

ডেঙ্গুর চিকিৎসা:

কোন বিশেষ রকম ওষুধ এই রোগের জন্য নেই এবং বেশিরভাগ রুগী দু'সপ্তাহের মধ্যে সুস্থ হয়ে যায়। সাধারণত চিকিৎসকেরা যা উপদেশ দিয়ে থাকেন সেগুলি হল -

- পর্যাপ্ত বিশ্রাম
- প্রচুর পরিমাণ বিশুদ্ধ জল ও পানীয় গ্রহণ
- জ্বর কমানোর ওষুধ
- ক্যালামিন লোশন - র্যাশের (rash) জন্য

অ্যাসপিরিন (Aspirin) জাতীয় ওষুধ এই রোগে দেওয়া নিষিদ্ধ। জ্বর কমানোর জন্য প্রধানত প্যারাসিটামল (Paracetamol) দেওয়া হয়।

ডেঙ্গুর থেকে রক্ষা পাওয়ার পদ্ধতি:

যেহেতু এটি মশা-বাহিত রোগ তাই মশা কামড়ানোর হাত থেকে বাঁচার জন্য কিছু উপায় অবলম্বন করা উচিত। যেমন,

- রেপেলেন্ট (Repellent) জাতীয় মলম গায়ে লাগিয়ে রাখা।
- ফুলহাতা জামা-প্যান্ট, মোজা এবং জুতার ব্যবহার।
- মশা আটকানোর জন্য দরজা এবং জানালায় জাল ব্যবহার করা
- জাল-বিহীন দরজা এবং জানালা বন্ধ রাখা।
- জমা জল - যেমন ফুলদানি, পুরানো টায়ার, ডাঙা কাপ, নারিকেল-ডাবের ঝোল ইত্যাদি যেখানে মশা জন্মায় সেগুলিকে নষ্ট করে দেওয়া।

যেহেতু ঈডিস মশা প্রধানতঃ দিনের বেলায় কামড়ায় তাই সকাল থেকে সন্ধ্যার আগে পর্যন্ত এই সর্ব সাবধানতা অবলম্বন করা উচিত।

ডেঙ্গুরের ছটিলতা:

- প্রচণ্ড দুর্বলতা এবং ক্লান্তি।
- ডেঙ্গু হেমারেজিক ফিভার - এতে রক্ত করার বিভিন্ন রকম লক্ষণ দেখা যায়, যেমন নাক দিয়ে এবং পায়খানার সঙ্গে রক্ত পড়া অথবা শক (shock)।

মাঝে মধ্যে ডেঙ্গুর অন্যান্য কিছু রোগ থেকে আলাদা করে চেনা যায় না যেমন, ইনফ্লুয়েঞ্জা, হাম (Measles), রুবেলা (Rubella) ইত্যাদি। সেইকালে রক্ত পরীক্ষা করুরী হয়ে পড়ে। এই রোগ সাধারণত শিশুদের ক্ষেত্রে খুব সাংঘাতিক আকার ধারণ করে না।

ডেঙ্গুর কি ছোঁয়াচে?

না, কারণ এটি সরাসরি একজন মানুষের শরীর থেকে আর একজন মানুষের শরীরে যায় না। একমাত্র একটি মাকাত ঈডিস মশার কামড়েই একজন সুস্থ মানুষের শরীরে এই রোগটি যেতে পারে।

বিশেষ সূচনা: (১) ডেঙ্গু সন্দেহ হলে নিকটবর্তী ডাক্তার বা স্বাস্থ্যকেন্দ্রে যোগাযোগ করা বাঞ্ছনীয়।
(২) বাড়ির পরিবেশ পরিষ্কার রাখুন যাতে ঈডিস মশা না বাড়তে পারে।

Guideline on application of insecticide for Control of Dengue outbreak

1. Pre-spray (fogging) activities

1.1 Pre-spray operations include the following

- * Selection of the area to be sprayed**
- * Getting the required quantities of insecticides and equipment**
- * Training of machine operator and supervisors**
- * Information to community**

1.1.1 Selection of target area

It is essential to prepare reasonable accurate and comprehensive map of the target area. The map should identify.

- * Streets, roads, building structures, boundaries of protected areas, breeding sites etc.**
- * Areas where favourable conditions exist for vector resting / breeding like water collections, vegetation etc.**
- * Climatic conditions like direction and speed of wind; temperature; humidity fluctuation etc.**

1.1.2 Selection of insecticide

- a) For fogging :** **5 per cent malathion in Kerosene / diesel**
(1 litre of technical malathion in 19 litres of diluent)
or
0.1 per cent Pyrethrum extract in Kerosene / diesel
(1 litre 2% Pyrethrum extract mixed with 19 litres of diluent)

- b) For Spraying :** **Technical malathion**
or
0.1 per cent Pyrethrum extract for indoor space spray with portable mist blowers / aerosol generators.

Daily Report on Preventive and Control Measures
taken against Dengue during past 24 hours.

Name of ULB :

Total Population of the ULB :

Date of Reporting :

TO FAX NO : (033) 2358 5800 / 2337 0068 by 1 P.M.

A. Mosquito Control Measures	Information to be furnished by the ULB
1. Anti Larval Measures (Breeding source Reduction through inspection and removal of source)	
i) No. of dwelling houses covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
iv) Area-wise no. of special cleaning drives given	
2. Anti Adult Measures (Fogging with Malathion / Spraying with pyrethrum)	
i) No. of Dwelling House covered	
ii) No. of Schools / Institutions / Clubs covered	
iii) No. of construction sites covered	
B. Public Awareness Campaign	
i) No. of houses inspected for breeding source reduction and IEC activities by	
a) HHWs	
b) Others	
ii) No. of leaflets distributed	
iii) Campaign through PA system	Yes / No
iv) No. of Hoardings and banners displayed	
v) Local Cable TV channel used	Yes / No
C. (i) No. of new cases of Dengue detected	
a) Clinical	
b) Sero+ve	
(ii) No. of death due to Dengue	

Sanitary Inspector

Health Officer / Asstt. Health Officer


Chairman

chikenguniya rash [Inbox](#)

from **Saumendra Nath Bagchi** <saumenbagchi@gmail.com> [hide details](#)
to **Shibani Goswami** <dfidhwh@gmail.com>
date **Apr 23, 2008 10:06 AM**
subject **chikenguniya rash**
mailed-by **gmail.com**

Dear Madam,
the other day you were asking for some information on chikenguniya. ^{I am}
attaching the CD alert on the diseases.
You are requested to see the website of www.nicd.nic.in wher ^{you will see}
soft copy of all published CD alert. You may share with your mo,

Warm Regards
Bagchi S.N.
09433069040 /
033-25292638/ 033-55352350
saumenbagchi@yahoo.co.in

 February-06.pdf

CDAlert

Monthly Newsletter of National Institute of Communicable Diseases,
Directorate General of Health Services, Government of India

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CHIKUNGUNYA FEVER

INTRODUCTION

Chikungunya is a relatively rare form of viral fever caused by an alpha virus that is spread by bite of *Aedes aegypti* mosquito. The name is derived from the Swahili word meaning 'that which bends up' in reference to the stopped posture developed as a result of the arthritic symptoms of the disease. Symptoms of chikungunya fever can include sudden onset of fever, chills, headache, nausea, vomiting, joint pain with or without swelling, low back pain, and rash. This disease is almost always self-limiting and rarely fatal.

Chikungunya (CHIK) virus was first isolated from the serum of a febrile human in Tanganyika (Tanzania) in 1953. Between 1960's and 1980's the virus was isolated repeatedly from numerous countries in Central and Southern Africa as well as in Senegal and Nigeria in Western Africa. During this period, the virus was also identified in many areas of Asia. Since 1953, CHIK virus has caused numerous well documented outbreaks in Africa and South Eastern Asia, involving hundreds of thousands of people.

AETIOLOGY

Chikungunya virus is a Group IV (+) (RNA) virus belonging to family *Togaviridae* with genus *Alphavirus* and species *Chikungunya*. Several other togaviruses of the alphavirus genus (Ross river, Onyongnyong etc.) have been associated with similar syndrome.

TRANSMISSION

Chikungunya virus is most commonly transmitted to humans through the bite of an infected mosquito, specifically mosquitoes of the *Aedes* genus, which usually bite during daylight hours.

In Africa, CHIK virus appears to be maintained in sylvatic cycle involving wild primates and forest dwelling *aedes* spp. mosquitoes. Serological studies have repeatedly demonstrated the presence of antibodies in humans and primates throughout the moist forests and semi arid savannas of Africa. A vertebrate reservoir or sylvan transmission cycle has not been identified outside Africa, supporting the historical evidence that CHIK virus originated in Africa and was subsequently introduced into Asia where it is now typically associated with *Aedes aegypti* mosquitoes. Strains from Africa and Asia are reported to differ biologically indicating that distinct lineage may exist.

CLINICAL FEATURES

Chikungunya is an acute viral infection of abrupt onset, heralded by fever and severe arthralgia, followed by other constitutional symptoms and rash and lasting for a period of 1-7 days. The incubation period is usually 2-3 days, with a range of 1-12 days. Fever rises abruptly often reaching 39 to 40 degree centigrade and accompanied by intermittent shaking chills. This acute phase lasts 2-3 days. The temperature may remit for 1-2 days, resulting in a 'saddle back' fever curve.

The arthralgias are polyarticular, migratory and predominantly affect the small joints of hands, wrists, ankles and feet with lesser involvement of larger joints. Pain on movement is worse in the morning improved by mild exercise, and exacerbated by strenuous exercise. Swelling may occur but fluid accumulation is uncommon. Patients with milder articular manifestation are usually symptom free within a few weeks, but more severe cases require months to resolve entirely. Generalized myalgias as well as back and shoulder pain is common.

Cutaneous manifestations are typical with many patients presenting with a flush over the face and trunk. This is usually followed by a rash generally described as maculopapular. The trunks and limbs are commonly involved but face, palms and soles may also show lesions.

During the acute disease, most patients will have headache, but it is not usually severe. Photophobia and retroorbital pain may also occur. Conjunctival infection is present in some cases. Some patients will complain of sore throat and have pharyngitis on examination.

Although rare, the infection can result in meningo-encephalitis especially in newborns and those with pre-existing medical conditions. Pregnant women can pass the virus to their fetus. Severe cases of Chikungunya can occur in elderly, in the very young (newborns), and in those who are immuno-compromised. Chikungunya outbreaks typically result in several hundreds or thousands of cases but deaths are rarely encountered.

Differential diagnosis of chikungunya include Dengue and dengue haemorrhagic fever, Onyong-nyong virus infection and Sindbis virus infection.

MANAGEMENT OF CASES

There is no specific treatment for Chikungunya. The illness is usually self

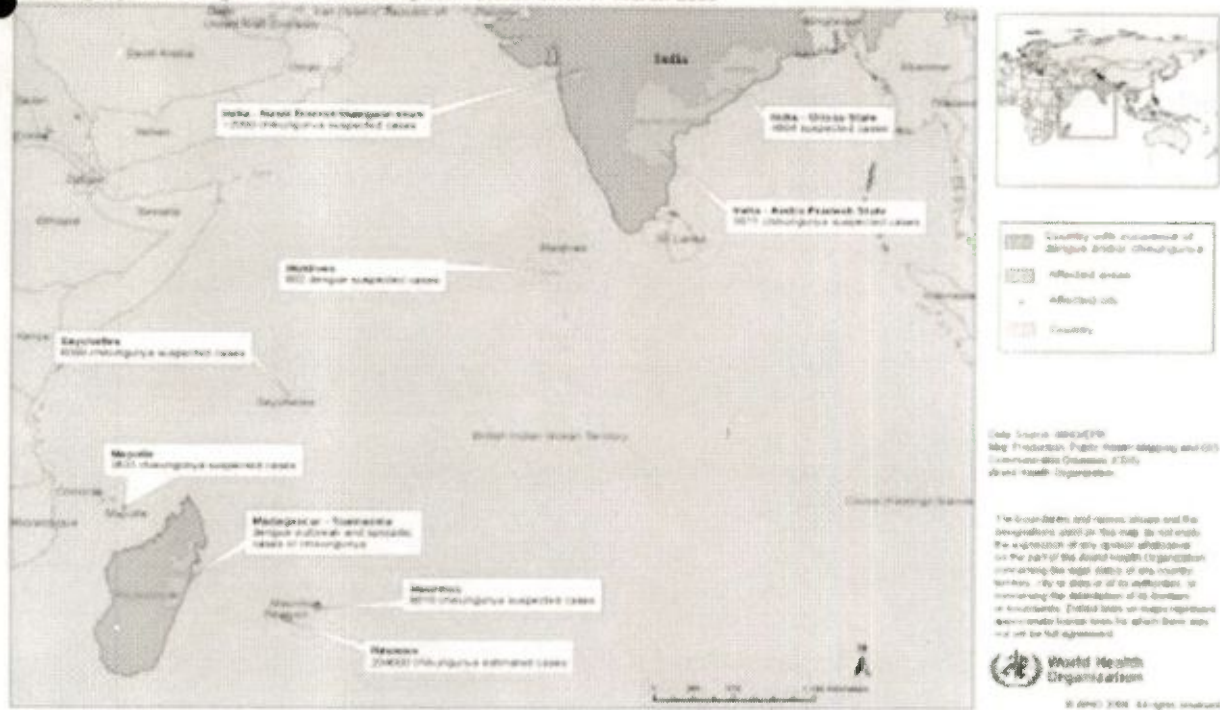
limiting and will resolve with time. Supportive care with rest is indicated during the acute joint symptoms. Movement and mild exercise tend to improve stiffness and morning arthralgia, but heavy exercise may exacerbate rheumatic symptoms. Non aspirin and non - steroidal anti inflammatory drugs are recommended. In unresolved arthritis refractory to NSAID, chloroquine 250mg is recommended.

EPIDEMIOLOGY

Global

Africa - CHIK virus is transmitted in the savannah and forests of tropical Africa by aedes mosquito that belong to the subgenera *Stegomyia* (*Aedes africanus*, *Aedes luteocephalus*, *Aedes opok*) and *Diceromyia* (*Aedes furcifer*, *Aedes taylori*, *Aedes cordellieri*). The vertebrate portion of the cycle is provided by non-human primates such as cercopithecus, monkeys or baboons which amplify and maintain virus circulation. It is thought that endemic circulation and moving epidemics in troops of primates are responsible for survival of the virus and local spillover into human population. In African villages, or rural areas these mosquitoes may then infect humans and the substantial viraemia measure suggest that humans, in appropriate setting may contribute to mosquito infection, leading to further virus amplification. This becomes particularly important when domestic breeding of *Aedes aegypti* is present in large numbers, a situation that may lead to village and large urban epidemics in Africa. The prototype CHIK epidemic which occurred in Tanzania in 1952 to 1953, resulted when *Aedes aegypti* borne disease moved through multiple villages over an expanse exceeding 5000 km. Another interesting feature of CHIK epidemiology was observed from Tanzania. In studies of individual dwellings, there was a highly significant trend for multiple cases to occur in a hut once a single case occurred. This of course, could be reflection of flight

Chikungunya and Dengue - Indian Ocean update. Status as of 17 March 2006



range of *Aedes aegypti* vectors and human habits but also is a phenomenon that could occur as a result of mechanical transmission or interrupted feeding of competent biological vectors.

Asia - Transmission in Asia follows a different pattern from that seen in Africa, being primarily transmitted from human to human by *Aedes aegypti*. Although Asian monkeys develop significant viraemia after CHIK inoculation and have been found to harbour antibodies to CHIK, they have never been shown to participate in any important way in the maintenance or amplification of the virus in the continent. CHIK activity in Asia has been documented since its isolation in Bangkok, Thailand in 1958. Other south-east Asian countries which have experienced Chikungunya outbreaks include Cambodia, Vietnam and Burma. A series of epidemics usually lasting a single year have been reported from Sri Lanka and India. Antibodies surveys indicate that CHIK has been active further east in the Pacific including Indonesia and Philippines. The first CHIK virus isolation were in Thailand from Bangkok in 1958 in a setting of intense

dengue virus activity. Antibodies surveys indicated that virus continued to be transmitted until 1962 to 1964. During this period, human infections occurred at formidable rates in Bangkok area and its environs. In 1962, an estimated 40,000 patients sought medical attention in the urban complex of 2 million inhabitants. This intensive transmission was accomplished by large population of *Aedes aegypti* breeding in water storage jars ubiquitous in Thai homes as a consequence of the lack of piped water distribution system. These mosquitoes, biting voraciously indoors, had infection rates of 0.8 to 1.4 per 1000. Similar conditions were observed through mid-1970s, before CHIK transmission nearly disappeared. CHIK antibodies were rare in Bangkok children born after 1976, and virus isolation was not obtained from febrile outpatients and haemorrhagic fever suspects tested in 1979 to 1980. The reasons for the decline in the CHIK transmission are unclear because *Aedes aegypti* were abundant and dengue transmission continued. In 1988, evidence of CHIK transmission in Thailand was obtained once again. But the subsequent

CHIKUNGUNYA OUTBREAKS IN INDIA			
Year	Locality	Important Characteristics	Reference
1963	Calcutta	<ul style="list-style-type: none"> ➤ Cases in lakhs ➤ 37% haemorrhagic manifestation ➤ Approx. 200 deaths 	ICMR Bulletin, May 1980
1964	Madras	<ul style="list-style-type: none"> ➤ Cases in lakhs ➤ 5.8% haemorrhagic manifestation 	Sarkar et al IJMR 1964 (52); 651-660
1973	Maharashtra	<ul style="list-style-type: none"> ➤ small outbreak ➤ no haemorrhagic manifestation 	
2005*	Andhra Pradesh	<ul style="list-style-type: none"> ➤ 6421 cases ➤ no haemorrhagic manifestation & deaths 	Investigation reports, NICD, Delhi
	Maharashtra	<ul style="list-style-type: none"> ➤ 34725 cases ➤ no haemorrhagic manifestation & deaths 	
	Karnataka	<ul style="list-style-type: none"> ➤ 18529 cases ➤ no haemorrhagic manifestation & deaths 	
*Ongoing			

pattern has been one of the occasional outbreaks rather than severe epidemic disease.

India

India, in 1963, experienced an outbreak of viral haemorrhagic fever in Calcutta. Chikungunya virus was responsible for extensive dengue like infection with occasional haemorrhagic manifestation. Sarkar and his colleagues isolated Chikungunya virus from cases with severe haemorrhagic manifestation.

An epidemiological study was made as one part of a multidisciplinary investigation of an epidemic of a severe febrile illness, sometimes associated with haemorrhagic manifestations and occasionally terminating in death. It began in July, became serious in August, reached a peak in November and then rapidly declined by December coincident with the end of the monsoon rains. Data from hospital records and death registers are consistent in showing that serious cases were most frequent among infants and young children, least frequent among young adults, and frequent again among adults over 40 years of age. By contrast, data from home visits suggested that milder illnesses may have been of

nearly equal frequency among children and adults, leading to a hypothesis that there was an association between age and the likelihood that an infection will eventuate in serious illness or death. It was not possible to make any reasonably precise estimate of the number of infections and mild illnesses that occurred during the course of this epidemic. However, they must have been in lakhs. Similarly, it was not possible to obtain a precise count of the number of cases requiring hospitalization, because the medical profession was unprepared to make definitive diagnosis but they may have numbered in thousands. Examination of death registers revealed that this epidemic may have resulted in nearly 200 deaths within the corporate limits of Calcutta. Thirty five of the 36 virus isolates from intracerebral inoculation of suckling mice were identified as chikungunya by 'Quick' CF test. One was tentatively recognized as a Group B virus.

The origin of this epidemic remains unknown, although purely circumstantial evidence suggests an introduction from endemic centers in the countries of south east asia. Calcutta, an important air and sea port, provides an optimal opportunity for any such introduction.

The epidemic occurring in southern India

(Vellore, Madras, Pondicherry) in 1964, provided a glimpse of another pattern of CHIK transmission in Asia which was particularly well documented because Vellore was the site of on-going dengue studies. Retrospective serological work showed that CHIK had not been active in Vellore and Madras areas for about 30 years, although Calcutta had experienced epidemic transmission the previous year. As the rainy season progressed into July, August and September, *Aedes aegypti* population increased to peak. By the end of October, only occasional human cases were seen. Numbers of *Aedes aegypti* decreased further with cool temperatures and drier weather. Same transmission season had been seen with dengue in previous years. Febrile illness usually accompanied by characteristic joint pains, varied from 8% to 86% in different neighbourhoods and correlated with *Aedes aegypti* density. Males and females were equally affected but the clinical attack rates were lower in infants. It is difficult to accurately assess the impact on Vellore but it was substantial. There were 288 laboratory confirmed CHIK infections from whom 233 virus isolations were made including one infant that died.

The activity of Chikungunya virus appeared to decline during the period 1965 to 1972. In 1973, a small localized outbreak was reported from Barsi, Sholapur district, maharashtra state. This happened after eight years of relative quiescence the cause which remains to be understood. No outbreaks were reported from India after 1973 till 2005. The human epidemics have all been in urban areas infested with *Aedes aegypti*. The role of non-human hosts in natural cycle of this virus needs further investigation.

CURRENT SCENARIO—RE-EMERGENCE OF CHIKUNGUNYA INFECTION

Global

The outbreak of Chikungunya was

discovered in Port Klang in Malaysia in 1999 affecting 27 people. From 27th February, 2005 - 28 March 2006, 3115 cases of Chikungunya have been notified by 31 physicians from a sentinel network on La Reunion. Estimations from a mathematical model evaluate that about 2,04,000 people may have been infected by Chikungunya virus since March, 2005 on La Reunion. The presenting clinical symptoms were consistent with Chikungunya infection. Since the beginning of January 2006, other countries in the South West Indian Ocean have reported Chikungunya cases: Mayotee (9 January - 10 March, 2833 suspected cases), Mauritius (1 January - 5 March, 6000 suspected cases including 1200 confirmed cases) and the Seychelles (1 January - 26 February, 8818 suspected cases). Several European countries have reported imported cases in people returning from these islands: France (160 imported cases), Germany, Italy, Norway and Switzerland.

India

After quiescence of about three decades an outbreak of Chikungunya with sporadic cases of dengue is being reported from different parts of India. A total of 6421 cases of fever have been reported from districts of Rayalseema, Nalagonda and Hyderabad in the state of Andhra Pradesh since December 2005. The attack rate varied from 2.3 to 39.1%. 386 sera samples were collected and tested at National Institute of Virology (NIV), Pune. Six samples were positive for IgM antibodies to dengue and 139 samples for IgM antibodies to Chikungunya virus by MAC ELISA. 86 samples were tested at NICD, of which 3 were positive for dengue IgM antibodies and 43 showed HI antibodies for Chikungunya virus in high titres. Out of the 10 samples tested, seven were positive for chikungunya by RT-PCR. There was increase in incidence of fever cases in Maharashtra since December 2005. 258 villages from 15 districts have reported 34,725 fever cases

till 5th April, 2006. Representative samples were collected from Malegaon, Nasik district, Beed and Latur districts. Of the 68 samples tested, 13 showed high titres of HI antibodies against Chikungunya virus and 3 were positive for IgM antibodies to Dengue virus. Similarly, 18,529 cases of fever with arthritis/arthralgia cases have been reported from seven districts (Gulbarga, Bidar, Bellary, Raichur, Tumkur, Koppal, and Chitrdurge) of Karnataka State since December 2005. Attack rate varied from 4 - 45% in different affected villages. Out of 76 sera samples collected from Bidar, 43 show IgM antibodies against Chikungunya virus at NIV Pune. None were positive for Dengue. Seven paired sera samples were tested at NICD. Of these four showed four fold difference in HI antibody titre confirming the diagnosis of Chikungunya.

Attack rates in affected States

States	Attack rate in different affected villages
Andhra Pradesh	2.3 – 39.1%
Karnataka	4 – 45%

In these States, the onset of illness has been observed to be acute with moderate to high fever, chills and associated joint pain. The joints affected are knee, ankle, wrist, elbow and small joint of hands. Lymphadenopathy and rash are not significant presentations. All ages and both sexes are affected with preponderance above 15 years age. No death due to this disease has been reported. Three to four cases from the same family report illness in 2-3 days duration. Cases have been reported from urban and peri-urban area. The piped water supply in these areas is only for half an hour duration forcing people to adopt water storage practices mainly in big cement and plastic tanks. These containers act as potential breeding places for *Aedes aegypti*. Entomological survey carried out in most affected area revealed high House, container and Breteau *Aedes* indices. The outbreak is currently on-going.

LABORATORY DIAGNOSIS

Though definitive diagnosis can only be made by laboratory means, Chikungunya should be suspected when epidemic disease occurs with characteristic triad of fever, rash and rheumatic manifestations.

Case definition

Suspect case

An acute illness characterized by sudden onset of fever with several of the following symptoms: joint pain, headache, backache, photophobia, arthralgia, rash.

Probable case

As above and positive serology (when single serum sample is obtained during acute phase or during the convalescence).

Confirmed case

A probable case with any of the following:

- Four fold HI antibody difference in paired serum samples.
- Detection of IgM antibodies
- Virus isolation from serum.
- Detection of Chikungunya virus nucleic acid in sera by RT-PCR.

Laboratories working on Chikungunya

1. National Institute of Virology, Pune
2. National Institute of Communicable Diseases, Delhi

Laboratory tests

Serological diagnosis

Virus specific IgM antibodies are readily detected by Capture ELISA in patients recovering from Chikungunya infection and they persist in excess of 6 months. No commercial tests are yet available.

Haemagglutination Inhibition (HI) antibodies appear with the cessation of viremia. All patients will be positive by day 5 to 7 of illness. Neutralization antibodies parallel HI antibody. The antigen for HI Test is available from NIV, Pune.

● Collection, storage and transportation of sample

Laboratory diagnosis depends on the quality of sample and the time when the sample is obtained during the course of the disease.

For serology

Acute sample - collected upto 5 days after the onset of illness. Convalescent or paired sample should be collected 10 - 14 days after the first sample.

For isolation of the virus and RT-PCR

Blood for isolation of virus and RT-PCR should be collected within first 5 days of illness. These samples should be immediately transported (within 48 hours) to the referral laboratory in cold preferably frozen.

Transportation

Transport specimens to the laboratory at 2 – 80C as soon as possible. Do not freeze whole blood, as haemolysis may interfere with serology test results.

If more than 24 hours delay is expected before specimen can be submitted to the laboratory, the serum should be separated from the red blood cells and stored frozen.

Vector of Chickungunya

Aedes aegypti mosquitoes are considered as vector of chickungunya virus. The vector bites humans during day time. It breeds in several types of domestic and peri-domestic water containers (metallic, plastic, rubber, cement, earthen materials, etc). This mosquito is mainly found in urban areas but during past 2 decades, due to developmental activities, it has spread to many rural areas of the country. The best way to control *Aedes aegypti* population is source reduction i.e. prevention of mosquito breeding in and around human habitation. This can be achieved by weakly change of water in water containers like coolers and other domestic vessels. Special care should

be taken to prevent accumulation of junk around human habitation and stagnation of rain water in discarded containers.

PREVENTION AND CONTROL

There is no vaccine or specific medication available against Chikungunya infection. Vector control is thus very important in controlling or preventing Chikungunya transmission. Elimination of breeding sites, or source reduction is an effective method of control. *Aedes aegypti* is typically a container habitat species and breeds primarily in artificial container and receptacles.



Aedes Mosquito

Control of mosquito breeding

- All water tanks, cisterns, barrels, trash containers, etc. need to be covered tightly with a lid.
- Remove or empty water in old tyres, tin cans, buckets, drums, bottles or from other places where mosquitoes breed.
- Clogged gutters and flat roofs that may have poor drainage need to be checked regularly.
- Water in bird baths and plant pots or dip trays should be changed at least twice each week.
- Pets water bowls need to be emptied daily.
- In ornamental water tanks/garden, larvivorous fish (e.g. gambusia, guppy) need to be introduced. They eat mosquito larvae.
- Weeds and tall grass should be cut short; adult mosquitoes look for these shady places to rest during the hot daylight hours.



- In case water containers cannot be emptied on daily/weekly basis, Temephos (1 ppm) should be applied.

Protection from mosquito bites

- Insecticide treated mosquito curtains/nets should be used. Especially children should sleep under ITNs during daytime.
- Insecticide spray should be done to kill mosquitoes. For knockdown effect, well planned fogging operations is strongly recommended with 2% pyrethrum space spray in high risk villages/wards where clustering of cases has been reported.

Surveillance

Epidemiological and entomological surveillance needs to be intensified. Reporting of fever cases is to be monitored closely.

Active surveillance by health workers using the case definitions for 'cases presenting with acute fever associated with arthralgia/ arthritis (Painful and stiff joints) is recommended to detect new cases early for treatment. This will help in identifying affected areas so that control measures may be initiated.

Vector surveillance (both adult and aquatic stages of mosquitoes) should be intensified. This will help in identifying high risk areas for initiating control measures and assessing impact.

Medical and health institutions, professional associations, private practitioners, NGOs should be involved for fever reporting and proper case management.

IEC activities

IEC activities are crucial for community sensitization and participation. People need to be educated about the disease, mode of its transmission, availability of treatment and adoption of control measures. The activities have to be identified particularly to effect changes in practice of storage of water and personal protection. They should also be reassured that this a preventable disease. People should be encouraged to use personal protective measures in the form of full sleeve clothes, use of mosquito repellent and insecticide treated mosquito net (even while sleeping during daytime)/curtains etc. They should be advised to cooperate in fogging and take measures for eliminating breeding places. Community ownership has to be encouraged in the long term for sustaining low larval and adult densities of mosquitoes and use of personal protection measures.

Special campaigns may be carried out with the involvement of mass media including local vernacular newspapers/magazines, radio and TV as well outdoor publicity like hoardings, miking, drum beating, rallies etc. Health education materials should be developed and widely disseminated in the form of posters, pamphlets, handbills. Inter-personal communication through group meetings, traditional/folk media particularly must be optimally utilized. Involvement of NGOs, Faith Based Organizations, Community Based Organizations, Women's Self-Help Groups, professional associations like Indian Medical Association, Nehru Yuvak Kendras, NSS/NCC units in schools and colleges in control activities should be promoted actively.

...about CDAIert

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Protection from Mosquito by use of chemical impregnated mosquito net.

Specification - Bed net hole - 1.22 to 1.5 mm

6-8 holes in 10 mm linear.

Nylon net preferable.

because - Drying easier, Durable and insecticide remains longer as the threads are twisted not straight.

Chemical impregnation ^{causes} ~~is for~~ neurotoxic poisoning for Mosquito.

Chemical used:-

~~1) Deltamethrin Dose - 25mg/sq meter~~

1) Deltamethrin Dose - 25mg/sq meter

2) Lambda (Cy-Halotrine) - 50mg/sq meter

Maximum

∴ 1gm of Deltamethrin (2.5%) is permissible.

Surface area of Bed net =

$$2(L+B) \times H + (L \times B)$$

Procedure - 500ml water + 10ml (2.5%) Deltamethrin
- K-Othrin oil (Bayer)
or 1 K-O Tablet (Bayer)
for single bed net.

For Double bed net - 20ml K-O oil or 2 K-O tabs
in 1 litre of water.

Precautions:- Use:- Gloves (till elbow) / goggles / Mask ~~or spectacles~~

a) Dip the net in the mixture & keep for 6-8 hours

b) Dry in shaded area over a plastic mat

* - DO NOT DRY IN SUNLIGHT.

* - SHOULD NOT BE HANGED.

A Pungent smell may remain for first 2 days
can be used for 6 months without washing.

GUIDELINES ON INSECTICIDE FOGGING FOR OUTBREAK CONTROL

1. INTRODUCTION

- 1.1. Dengue/Dengue Hemorrhagic Fever is an acute viral infection transmitted by mosquitoes, primarily by *Aedes aegypti* in India. *Aedes albopictus* is playing role in Dengue transmission in Kerala. Dengue vector mosquitoes breed in clean water in man made containers such as water coolers, used tyres, disposal cups, flower vases, solid waste and any other container in which the water stagnates for a week or more. Adult mosquitoes rest mostly indoor under furniture, inside closets etc. but also frequent peri-domestic habitats.
- 1.2. Japanese Encephalitis is caused by a virus and is transmitted through mosquitoes. So far, virus has been isolated from 17 mosquito species. Primarily 3 species of *Culex* namely, *Cx. tritaeniorhynchus*, *Cx. vishnui* and *Cx. pseudovishnui* have been found to play major role in Japanese Encephalitis outbreaks in India. The vectors of JE primarily breed in large water bodies such as paddy fields, ponds and other relatively large ground water collections rich in aquatic vegetation. Some vector species breed in other clean water collections like wells also when paddy fields are dry. These vector mosquitoes are outdoor resters and outdoor feeders and very small proportions may rest indoors mostly during adverse climatic conditions.

Japanese encephalitis is a zoonotic infection and the main reservoirs of the JE virus are pigs and water birds. Human is an incidental host and does not play role in JE transmission due to transient and low titre viremia. JE outbreaks are common where there is close interaction between these animals and human beings.
- 1.3. Malaria is caused by a protozoan parasite *Plasmodium* and is transmitted by 9 different species of *Anopheles* mosquitoes which breed in stagnant or slow running fresh water; malaria vectors breed primarily in clean water with practically no organic pollution. Adults of most of the vector species are largely indoor resting except *An. dirus* which is a forest species primarily resting outdoors. Malaria is transmitted from infected human host to another healthy person by these vector mosquitoes and no animal reservoir is involved in transmission cycle.
- 1.4. Vector Control is an important strategy for interrupting transmission especially in areas where the disease burden is high. The reduction in the densities of mosquito vectors can be achieved through several methods that include indoor residual insecticide spraying, use of insecticide treated nets, use of larvivorous fish and environmental methods. National Vector Borne Diseases Control Programme has issued separate operational guidelines for these approaches.

This document incorporates operational guidelines for insecticide fogging intended for use by health personnel responsible for training the operators and supervising their work. It is important that guidelines are properly used so that the limited resources are used effectively.
- 1.5. The guidelines cover the following topics
 - * Concept of integrated vector management.
 - * Use of insecticide fogging as a vector control measure
 - * Pre-spray (fogging) activities.

- ** Selection of target area
- ** Calculation of insecticide requirements etc.
- ** Training of machine operators and supervisors
- ** Information to community
- * Spray (fogging) operations
- * Post spray (fogging) activities
- * Routine maintenance of equipment
- * Reports and records
- * Transportation and safe handling and storage of insecticides
- * Supervision

2. CONCEPT OF INTEGRATED VECTOR MANAGEMENT

- 2.1. Integrated Vector Management is the basic approach adopted for management of vectors of diseases of public health importance. The essential requirement of this approach is availability of more than one method of control, which can be utilized in a cost effective manner.
- 2.2. Source reduction of a vector and improved sanitation through health education are fundamental means of environmental management to control several vectors. Other control measures serve as supplement. Several types of environmental management, such as drainage of mosquito breeding sites, filling of pits, prevention of water stagnation or promoting personal protection through use of screened windows and mosquito nets are some of the examples.
- 2.3. Biological control of vectors, through use of predators and pathogens, particularly larvivorous fish *Gambusia affinis* and *Poecilia reticulata* (Guppy), has been a useful ecofriendly vector control approaches. Larvivorous fish can be used in ponds, unused wells etc.
- 2.4. The insecticides are used judiciously and selectively in carefully identified areas which depends on the epidemiological and entomological parameters. Chemical control methods are essentially supplement to basic sanitation and environmental management even when they are employed as principal means, to achieve rapid and maximum control of a vector. This approach includes use of different vector control options keeping in consideration objective, vector behaviour, area involved, selection of effective vector control option, cost effectiveness etc. The available chemical control options include.
- * Selective indoor residual insecticide spray in high risk areas
 - * Promotion of use of nets preferably Insecticide Treated Mosquito Nets (ITMN).
 - * Selective chemical control of vector larvae/py/ae (aquatic developmental states)
 - * Space spray/aerosol application/fogging

3. USE OF FOGGING AS A VECTOR CONTROL MEASURE

- 3.1. "Fog" is an aerosol spray having a distribution of droplets with a volume median diameter (VMD) in the range of below 50 microns (mostly 5-15 microns), and where the number of

Contd-----P/3.

droplets per unit volume is such that visibility is reduced. Thermal fog reduces visibility to great extent and may pose traffic hazard. Fogging has been listed as the last option in chemical control methods because of the limitations associated with this strategy that include.

- * Temporary stay of fog in the environment with no residual effect
- * Effect primarily on adult mosquitoes that come in contact of the fog
- * Repeated application need
- * High costs
- * Effect on vectors highly dependent on climatic factors like wind velocity and its direction, humidity, temperature etc.
- * Speed of the movement of fogger carrying vehicle or spraymen
- * Dispersal of fog
- * Quality of fogging equipment.

However, fogging has been found useful in specific situations such as control of vectors, particularly in outbreak situations of diseases like Dengue/DHF.

Effective application of vector control requires use of the proper application technique and suitable application equipment for the local conditions. The type of coverage of the target area depends on the species of vector and its bionomics and on the level of disease control required. The duration of control measures should be limited to the disease transmission period to keep cost low as possible. Good planning and management, training of operators in application technique, and the efficient calibration and use of equipment are crucial factors for attaining proper insecticide application.

In view of the above, fogging is not a preferred option for vector control and needs to be discouraged as a routine method. The fogging could be resorted to only for epidemic containment as a temporary, contingent supplement to the other epidemic prevention and containment measures. It must be used only for a limited period in clearly identified area.

3.2. Types of Fogging Methods

3.2.1. Ultra Low Volume (ULV) Spray

In Ultra Low Volume application, Minimum volume of liquid insecticide formulation is applied per unit area. This provides maximum effectiveness against target vectors. Most organo-phosphorous insecticides in their technical form can be applied as ULV spray. Under the public health programme, presently technical malathion is used for this purpose.

The insecticide is broken down into small droplets of a volume median diameter (VMD) below 50 microns with an objective of producing a cloud of insecticide droplets that remain suspended in air for an appreciable time and driven under the influence of wind. The optimum droplet size for mosquitoes is < 20 microns with higher density since it provides

Maximum efficacy due to better penetration in to the body of the vectors. Since no diluent is used, the technique is more cost-effective than thermal fogging but it does not generate a visible fog.

The ground equipments mostly used for ULV spray include portable motorized knapsack blowers and cold aerosol generators.

Advantages of ULV spray (Cold Fog)

- * Relatively less use of insecticide and minimal amount of diluent; mostly ready to use formulation reducing operator exposure
- * Low fire hazard and relatively more environmental friendly
- * Efficient application because of use of finer size droplets at higher density with less volume of insecticide
- * Practically no visibility reduction due to ULV fog.

The cold fog is not visible like thermal fog but this is not a technical disadvantage.

3.2.2 Thermal Fogging

The technique is based on the principle that insecticide is vaporized, which condenses to form a fine cloud of droplets on contact with cooler air when it comes out of the machine. The insecticide is vaporized at a very high temperature inside the machine. Once the fog comes out of the machine, it tends to spread in different directions by mixing with wind. The insecticide of choice for fogging is malathion/pyrethrum because of relative lower mammalian toxicity and being biodegradable so these do not persist in environment for longer durations. Thermal fogging is psychologically more acceptable as it generates a highly visible fog. The most common and preferred types of equipment include portable thermal fogger and mist blowers. Vehicle mounted machines have limitation of their use restricted to areas with communicable roads only.

Although thermal fogging produces more dense and perceptible insecticide cloud, it is much more expensive and epidemiologically less effective than ultra low volume spray.

Advantages of thermal Fog

- * The spray formulation contains lesser active ingredient of insecticide in a large volume of diluent thereby reducing operator exposure to insecticide
- * Easily visible fog

Though thermal fog has advantage of being visible, the disadvantages outweigh this aspect:

- * Formulation contains large volume of diluent (organic solvents) which make operation expensive due to high cost of solvent and application
- * Thick fog causes reduced visibility and traffic hazards
- * Burning of large volumes of diluent may not be environmental friendly
- * Very high temperatures of machine operations and use of organic solvents (highly inflammable) poses serious risk of fire hazards

3.3. Indications for fogging

3.3.1. Dengue outbreak containment

Fogging to be resorted to only for an outbreak control situation when considered very necessary. Indoor pyrethrum fogging is to be undertaken on fortnightly basis for maximum 3 rounds. Indoor space spray may be considered only if operationally feasible (as a contingent measure for containing outbreak) in situations of high densities of mosquitoes and clustering of cases in the area. It has to be used as a supplement to other vector control measures for a limited period. The primary focus for dengue vector control should be on source reduction.

Appropriate equipment must be selected. Portable equipments are more effective and less expensive than vehicle mounted.

While delimiting target area, it is necessary to identify epicenter of outbreak with proper investigation keeping in view the day biting habits of the vectors. Areas with high House Index (> 10) should be delimited and priority to be given to those areas which have indications of viral activity.

3.3.2. For Malaria outbreak containment

Fogging is not a method of choice and has a very limited indication for the control of malaria outbreaks. Not only it is very expensive, but it is much less effective against most of the efficient malaria vectors which are less active during dusk as compared to Dengue (*Aedes sp.*) & JE (*Culex sp.*) vectors. Malaria vectors become more active in middle of the night and their populations are more dispersed in their daytime resting places making it difficult to reach when fogging is done during dusk. Fogging is to be resorted to only for an outbreak control situation, when considered very necessary, in urban situation. It has to be used as a supplement to other vector control measures for a very limited period.

Fogging has been found to be effective in special situations like congregation of vulnerable population groups from low endemic areas moving to high endemic areas with vector having outdoor biting habits, difficult areas where troop movement under defence establishments take place. Based on necessity of resorting to fogging in such specialized circumstances, it could be considered for a limited period operation.

3.3.3 For Japanese Encephalitis outbreak containment

In JE outbreaks, secondary human cases are not frequently reported in the same village and the diseases distribution is rather scattered; relatively few cases over vast areas, and the man is an accidental host as well as dead end in transmission cycle. Vectors do not pick up infection from human hosts. JE vectors are mostly outdoor resting and outdoor feeding. Keeping in view the epidemiological features of JE, vector behaviour and limitations of outdoor fogging, Fogging is not recommended as an outbreak containment measure against JE.

4. Pre-spray (fogging) activities

4.1. Pre-spray operations include the following

- * Selection of the area to be sprayed
- * Getting the required quantities of insecticides and equipment
- * Training of machine operators and supervisors
- * Information to community

4.1.1. Selection of target area

It is essential to prepare reasonably accurate and comprehensive map of the target area. The map should identify.

- * Streets, roads, building structures, boundaries of protected areas, breeding sites etc.
- * Areas where favourable conditions exist for vector resting/ breeding like water collections, vegetation etc.
- * Climatic conditions like direction and speed of wind; temperature; humidity fluctuation etc.

4.1.2. Selection of insecticide, requirements of equipment, manpower and material

The insecticide is selected on the basis of its biological effectiveness against the vector concerned, its likely effect on target and non-target organisms, its hazard to humans, threat to the environment posed by its proposed use, cost, transportation requirements and availability of suitable application equipment. Under NVBOCP, presently malathion and pyrethrum formulations are in use for fogging applications;

For thermal fogging: 5 per cent malathion in kerosene/diesel
(1 litre of technical malathion in 19 litres of diluent)

or

0.1 per cent pyrethrum extract in Kerosene/
diesel (1 litre 2% Pyrethrum extract mixed
with 19 litres of diluent)

For ULV Spray: technical malathion

or

0.1 per cent pyrethrum extract for indoor
space spray with portable mist blowers/
aerosol generators.

The application rate of insecticide with most of this equipment is generally < 0.5 litres per hectare and requirements can be worked out on this basis. Mostly the effective application is about 330 ml per hectare, however, it varies with type of machine used.

A wide range of aerosol application equipment is commercially available. However, preference should be given to properly designed equipment that is easy to use, has minimum power requirements, causes minimal loss of pesticide and subsequent contamination of the environment and that does not contaminate the operator with the insecticide used.

power-operated mist-blowers and aerosol generators are recommended for outdoor aerosol application for control of vectors of dengue/ J.F. Japanese encephalitis and malaria. For indoor application, hand-operated aerosol applicators/portable aerosol generators and mist-blowers are recommended.

Appropriate equipment must be selected. Portable equipments are more effective and less expensive than Vehicle mounted ones. The area to be covered must be decided keeping in view the flight range of vectors involved. Usually a maximum of 1-1.5 km radius from the epicenter of outbreak is considered adequate.

The actual requirements would depend on the type of equipment, its output and area coverage per hour of operation in relation to target area. Such information is provided with the equipment and must be considered carefully while planning the operations. The manpower requirement is also dependent on the type of equipment. Most of the portable mist blowers/foggers can be operated by one person, yet it is desirable to make a team of 2 operators to facilitate transportation of insecticides, spares etc., and maintenance of records of operations.

While using thermal fogging as a method, availability of fire extinguisher particularly if using vehicle-mounted foggers is important. Availability of fire extinguisher with all kinds of thermal fogger is desirable.

4.1.3. Preparation of a plan for advance intimation is extremely important and appropriate messages should invariably include:

- * date and time of operation in target areas
- * necessity for residents to keep doors and windows open to allow fog to enter likely vector habitats
- * covering of edibles etc. to prevent mixing of insecticide droplets of fog
- * preventing smoking and ignition of any kind within the vicinity of fog to safeguard against risk of fire hazard etc. if thermal fogging is being done

4.1.4. Training

Training is an important pre-spray activity. Fogging is a very specialized and skilled job and hence it is necessary that operators and supervisors are optimally trained in equipment handling and maintenance, safe handling of pesticides, technique of fogging operation, planning, implementation, monitoring and evaluation as well as communication skills to ensure community involvement.

4.2. Spray Operations

4.2.1. Spray timing

The essential requirement of an effective fogging operation is that the fog of insecticide droplet remains suspended in air for an appreciable time so that the vector comes in contact with a lethal dose of insecticide and gets killed. Thus the timing of spray is selected keeping in consideration behaviour of mosquito vector and climatic conditions.

The meteorological conditions have a direct influence on effectiveness of fogging operations and are of considerable importance when fog is released outdoors. Wind speed, humidity, temperature and rainfall are very crucial climatic conditions that influence impact of aerosol application. High winds disperse fog too quickly and render it ineffective. Similarly rainfall during or shortly after aerosol application does not allow fog to remain suspended. Due to high temperature in the day, convectional air movement may not allow aerosol to penetrate vector habitats whereas very high humidity restricts dispersal and makes fog to settle down quickly. The ideal climatic conditions for aerosol application are :

- * Wind speed should be 1-5 m/sec with turbulent conditions

- * Greater down-wind drift when the air temperature a few metres above the ground is higher than at ground level (early morning and late evening)
- * No rains just before and during aerosol application and no likelihood of rain soon after fogging i.e. clear sky conditions

The most suitable time is the evening and early mornings when relatively suitable climatic conditions exist and the mosquito vectors are most active.

4.2.2. Precautions while doing indoor fogging

Effectiveness of spray operations largely depends on accessibility of preferred resting sites of the vectors to ensure that the droplets come in direct contact with the vectors to cause lethal effects; and also the fact that operations are carried out safely without posing any health risks. To ensure this, following precautions must be taken.

- * The fog should reach all possible resting sites of vectors. This is particularly very crucial while targeting Dengue vectors which prefer to rest in dark corners, underneath the hanging objects and other difficult to reach places within a household.
- * All electric switches, heating and cooking equipment must be put off and allowed to cool before undertaking fogging
- * All Water containers and foodstuffs etc. must be well protected from exposure to fog.
- * All animals and human beings should remain outside and stay there for at least 30 minutes after spray. They should enter only after the household is well ventilated.
- * All doors and windows should be closed before spray and kept closed for at least 30 minutes for maximum efficacy.
- * Begin fogging from most interior place and move away from fog while covering the area.
- * Fog must be dry before release into the household. It can be checked by placing machine at ground and observing the area immediately in front of nozzle. It should not be wet.

4.2.3. Precautions while doing indoor fogging

While undertaking outdoor fogging, besides precautions mentioned above, there is a need to take in to consideration the climatic conditions, traffic, movement of operator to ensure that the fog enters all possible resting sites and places frequented by the vector.

- * The doors and windows of all shelters should be kept open to allow penetration of fog so that it could reach all possible resting sites of vectors.
- * Fogging should not be done if its raining or wind velocity is high
- * All electric switches, heating and cooking equipment must be put off and allowed to cool before undertaking fogging
- * All water containers and foodstuffs etc. must be well protected from exposure to fog.
- * All animals and human beings should remain outside and stay there for at least 30 minutes after spray. They should enter only after the household is well ventilated.
- * All doors and windows should be closed before spray and kept closed for at least 30 minutes for maximum efficacy.

- * The nozzle of ULV equipment must be kept upwards at an angle to ensure that barriers like boundary walls, fence etc. do not prevent entry of spray cloud inside the shelters.
- * The distance between shelters and operator should be kept minimum to allow fog penetration in shelters.
- * The down wind side of the spray area should be treated first, working systematically from downwind to upwind.
- * The dead end road must be sprayed only on the way out to avoid exposure to spray cloud.

4.2.4. Operation and Maintenance of Equipment & Safe Handling

Selected equipment must be correctly adjusted and operated by properly trained personnel. Preventive maintenance of equipment is of prime importance. Operation and maintenance manual for each piece of equipment must be kept available for consultation and preferably translated in local languages. Supervisory persons should be made responsible to ensure maintenance of equipment.

All equipments must be inspected and damaged or loose parts be replaced immediately. The equipment should be tested in simulated condition. It should be cleaned and dried. A proper record should be maintained for the equipment and spares. All personnel using, or supervising the operations must be properly trained in operation and maintenance including routine techniques essential for maintenance after day's operation, which primarily include.

- * Removal and safe disposal of any insecticide remaining in the equipment
- * Thorough flushing of equipment at least 3 times with clean diluents. The rinsing may be kept safely for future use while diluting technical grade insecticide with diluents subsequently
- * Careful inspection of equipment and reporting of any damaged/defective or missing part for immediate repair/replacement.
- * Check availability of appropriate tools and spares

The operators should be properly trained in safe handling of insecticides and application equipment and should strictly follow the safety precautions. All equipments used should conform to general and specific recommendations with regard to design and maintenance. Equipment with appropriate quality standards and specification should only be used. Regular, systematic inspection should be done to ensure that there are no leakage from faulty valves, gaskets or hoses etc.

4.3. Reports and records

Records maintenance is an important requirement of any operation for supervision, daily work planning, monitoring and evaluation. The formats for maintaining records for portable foggers are given in ANNEXURE-1 to ANNEXURE-3.

4.4. Transportation, Safe handling and Storage of Insecticides

Safe handling of insecticide is of utmost importance to prevent exposure and consequent health hazards. Following precautions should be taken.

4.4.1. Transportation

Insecticide should be transported in properly sealed and labeled containers. Insecticide should be transported separately and not along with general items and should never be transported in vehicles carrying food items. Since the insecticide formulation used for fogging are highly inflammable, precaution should be taken to avoid leakage and possible fire.

4.3.2. Safe handling

While using insecticide for preparation of formulation, filling of tanks of the equipment and washings of the equipment, it is necessary to use appropriate gloves etc. to avoid direct contact.

4.3.3. Storage

- * Container must be labeled as per standard procedures laid down by Central Insecticide Board indicating clearly the mark of poison, the name of chemical, the name of manufacturer, date of manufacture and date of expiry. The label should be in English and Hindi/local language and should also indicate the possible measures in the event of contamination besides mention of antidote.
- * Insecticides should be stored in a well-ventilated room at ambient temperatures away from direct sunlight. These should be kept away from reach of children and animals. No food item should be kept in the same room.
- * The storeroom should have a prominently displayed sign of caution used for poisonous or hazardous substances and the room should be kept properly locked.
- * Containers should be well stacked to avoid possibility of spillage. The principle of "first in first out" should be followed and care should be taken to ensure that stocks do not date expire.
- * Stocks and issue registers should be kept up to date. Access to the insecticide should be restricted to authorized persons only.

* Eating, drinking, smoking or igniting anything that may lead to a spark, should be strictly prohibited in the vicinity of insecticides and during fogging operations.

4.3.4. Disposal of remains of insecticides and empty packaging

In fogging operations, the remains of insecticides are never wasted and can be used in subsequent operations. Hence the insecticide should be kept properly in labeled containers. In thermal fogging operations, even the washings of the equipment should be done with the diluent and the same is stored properly for use in subsequent formulation preparation.

4.4. Health Monitoring

The insecticides used in fogging operations are relatively safer with lower mammalian toxicity and with no prolonged residual effect because of being biodegradable. However, organo-phosphorus compounds viz. malathion affects acetyl-cholinesterase levels on prolonged exposure. Since fogging is done on a contingent basis and not as a regular and repeated operation, such risk to machine operator is minimal. However, acetylcholinesterase level monitoring may be done if there is any indication and considered necessary.

4.5. Supervision, Monitoring & Evaluation-process and performance indicators

It is important to ensure close supervision of fogging operation besides making provision of impact monitoring and evaluation through appropriate process and performance indicator including bioassay technique and periodic vector susceptibility status assessment as per standard WHO techniques.

4.5.1. Monitoring should be an ongoing activity to measure the effectiveness of an operation and thus involves identifying the problems and introducing the solutions to ensure quality and progress of operations in relation to set targets. For an outbreak control, the fogging operations are primarily directed to kill adult vectors to reduce the risk of infective bites and with an overall objective of reducing the vector densities.

4.5.2. The optimal fogging operations would also require monitoring of critical factors that determine the effectiveness of a fog. These include:

Droplet Size

Fogging is effective only when the droplets remain airborne for appreciable time to ensure that flying insects come in contact. This time dependent on the speed at which the droplets fall by gravity and some get deposited on horizontal surfaces. Thus the mass of the droplet determines the speed of fall; bigger the droplets, faster is its fall. Droplets of size more than 30 μ in diameter do not remain airborne for sufficient time. The optimal droplet size for space spray to get maximum effect is usually 10 to 20 μ for mosquitoes. Further, smaller droplet size increases the density of droplets (number of droplets per 1 ml of spray) in the fog and makes it more effective because it increases chances of contact being made with a flying insect.

The most common method of monitoring droplet size is Volume Median Diameter (VMD). It is the number (droplet size in μm) that divides the spray in two equal parts by volume, one half containing droplets smaller than this diameter and the other containing larger droplets of diameter higher than VMD. However, VMD does not indicate range of droplet sizes in the spray. The procedure for determining VMD is given in ANNEXURE-4.

Number Median Diameter (NMD) is the other parameter that divides spray in two equal parts by number of droplets. Half of the droplets are smaller than this number and half larger. It is more difficult to measure and value varies with different methods.

Span is the range of droplet sizes in a spray. The ideal value of Span is > 2 . It can be determined from the diameter of the 90 per cent value (V_{90}) by volume minus the 10 per cent value by volume (V_{10}) divided by the VMD.

$$\text{Span} = \frac{V_{90} - V_{10}}{\text{VMD}}$$

While monitoring of droplet size is important to ensure effectiveness, the most critical factor is the maximization of droplets in the optimal size range, which is 10-20 μm for mosquitoes.

Flow Rate

The Flow Rate is the discharge of insecticide formulation from the nozzle per unit time (usually per minute). The VMD generally increase in Flow Rate in most of the equipments used for ULV/Thermal fogging. However, in some equipment, regulating air pressure can control it. It is therefore important to monitor the range of droplet size at different Flow Rates to decide the optimal value and to ensure that machine is operated at the flow rate the gives best combination of droplet size and droplet numbers.

Flow rates should be monitored and calibration of machine done before putting a machine for field application and periodically after every 25 hours of operations, and also whenever major maintenance is performed.

Spray Concentration

It is essential to monitor that the recommended concentration of the insecticide formulation is applied in the field at a given application rate. Any dilution must be compensated with an increase in volume of spray per unit area so as to get the optimal application rate. Since for killing, a flying insect must get a lethal dose of insecticide in the droplets that come in contact. Thus lower concentration of insecticide formulations, larger numbers of droplets are required to come in contact with the insect to get a lethal dose. Ultra-Low Volume sprays are thus better since lower volumes (usually < 2 litres per hectare) are applied.

Wind Speed & Direction

Wind speed and direction have a direct influence on fog drift and the likelihood of a flying insect getting a lethal dose of insecticide and therefore these are important parameters for monitoring. Spray should not be done when wind speed is greater than 15 Km/hour as it renders spray ineffective. Since wind direction decides the drift of fog. Optimally fog operator should move perpendicular to the wind direction keeping in view the fact that this should lead to fog drifting towards desired sites/houses etc. where the mosquitoes are most likely to come in contact with fog.

Time of application

Space treatments should, as far as possible, coincide the timing of peak flight activity of the vector mosquitoes and thus should be decided keeping in consideration the vector behaviour. Timing is very important for outdoor fogging. Most insects are more active in dusk/dawn and thus late evening/early morning fogging is done.

Dengue vectors are more active in morning and afternoon and are found mostly indoor. Timing is not very important for indoor space spraying which is recommended for Dengue outbreak control. However, for best results, early morning and late afternoon indoor space spray should be ensured for adult dengue vector control.

4.5.3 Process (Operational) Indicator for Space Spraying

- * Coverage
- * Area of influence
- * Resources Utilized
- * Cost.

4.5.4 Impact (Entomological) Indicator for Space Spraying

- * Human Biting Rate - may not show significant change when method is applied for short duration for outbreak containment only
- * Adult Mosquito Density
- * Parous Rate - may not show significant change when method is applied for short duration for outbreak containment only, shows change only when spraying continued for at least a few weeks in an area
- * Insecticide susceptibility status