

දුරකථන) 2698475
தொலைபேசி) 2698490
Telephone) 2698507

ෆැක්ස්) 2692913
பெக்ஸ்) 2694860
Fax)

විද්‍යුත් තැපෑල)
மின்னஞ்சல் முகவரி) ostmaster@health.gov.lk
e-mail)

වෙබ් අඩවිය)
இணையத்தளம்) www.health.gov.lk
website)



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சுவசிரிபாய
SUWASIRIPAYA

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My No.) DPRD/OP/03 - 1 /2018

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சுகாதார, போசணை மற்றும் சுதேச மருத்துவ அமைச்சு
Ministry of Health, Nutrition & Indigenous Medicine

To All
Provincial Directors of Health Services
Regional Directors of Health Services
All Directors of Teaching /Provincial General Hospitals
All Medical Superintendents of District General / Base Hospitals
All Medical Officers in Charge of Divisional Hospitals
All Medical Officers of Health

Health and Emergency Response - Flood and landslide 2018

Due to the heavy showers experienced in most parts of the county during the past few days, several landslides have occurred and large land areas in most parts of the country have been flooded. The health sector has to be on the alert and be proactive to mitigate any communicable disease threat while ensuring urgent and prompt response is provided to minimize further suffering for the people affected.

The health institutions should assist in the Provincial/District emergency response plans which are coordinated by the District Disaster Management Units. Please bring to the notice of all staff in your Province/District/Institution to ensure that the following urgent actions are taken during this emergency period.

- Take urgent steps to prevent the spread of communicable diseases due to floods, based on the latest instructions, guidelines and formats issued by the Epidemiology Unit. Disease surveillance information in flood-affected areas needs to be sent on the daily basis to the Epidemiology Unit and the Disaster Management Unit. "
- Ensure that the guidelines given in the circular letter 02-08/2011 dated 12/10/2011 on implementation of MCH/FP services in flood affected areas in emergency phase and Guideline on feeding infants and children 1-5 years during emergency situation are implemented.

Further to the above the following should be implemented with immediate effect.

1. All temporary camps should be assigned with a camp coordinator preferably a public health inspector, a public health midwife (if PHI not available). The name and contact details should be sent to the Disaster Management Unit.

2. A daily situation report should be submitted by the camp coordinator to the respective MOH who should send a consolidated report daily to the Regional Director of Health Services, Provincial Director of Health services and the Disaster management unit of the Ministry of Health.
3. Public Health Inspector should ensure food safety, water safety, sanitation and environmental safety measures and report the status in the daily statement. Any communicable disease reported should be investigated immediately and steps taken to mitigate the spread of disease.
4. All pregnant mothers in displaced settings in their third trimester of pregnancy should be admitted to the nearest hospital and provided antenatal/ essential obstetric care until such time that these mothers can return to their place of residence.
5. Medical teams should be deployed at least twice a day to provide basic treatment for those displaced and in temporary shelters.
6. Instruct all Regional Medical Supplies Division to provide essential drugs directly to the temporary shelters to facilitate the provision of basic medical services.
7. Emergency Ambulances transport facilities should be made available 24/7 to transport any patient from the temporary shelters to a referral hospital.
8. Establish routine maternal and child health activities for the displaced communities early and plan for comprehensive maternal and child health services including immunization for the population who are permanently displaced.

For any urgent clarification and support contact the hotline 011 3071073 of the Disaster Management Unit, Ministry of Health.

Dr. Anil Jasinghe

Director General of Health Services

Copy: Secretary Health
Addl. Secretary (MS 1)
DDG (PHS) I & II
Chief Epidemiologist
Director MCH
Director HEB
Director Nutrition

Dr. Anil Jasinghe
Director General of Health Services
Ministry of Health, Nutrition & Indigenous Medicine,
"Suwasiripaya"
385, Rev. Baddegama Wimalawansa Thero Mawatha,
Colombo 10.



Epidemiology Unit- Ministry of Health

231, De Saram Place, Colombo 01000, Sri Lanka
Tele: (+94 11) 2695112, 4740490, 4740491, 4740492 2681548 Fax: (+94 11) 2696583
email: chepid@slt.net.lk, epidunit@slt.net.lk Web: www.epid.gov.lk



Epid / 22 / 2017

23rd May 2018

Provincial Director of Health Services – Southern Province / Western Province / Sabaragamuwa Province/ North-western / Central

Regional Director of Health Services – Galle / Matara / Colombo / Kaluthara / Rathnapura / Kegalle / Gampaha / Badulla / Puttalam / Nuwaraeliya

PUBLIC HEALTH MEASURES TO BE ADOPTED IN THE EVENT OF FLOODS

Due to the prevailing adverse weather condition in the country the above provinces and districts are experiencing emergency situations. As a result a number of internally displaced people are living in temporary shelters. Prevailing flood and heavy rains will pollute the water resources and food supply in those areas.

The annexed guidelines are recommended to minimize the adverse public health impact and prevent the spread of communicable diseases among the displaced population living in temporary shelters. (These documents are also available on the Epidemiology Unit Website: www.epid.gov.lk)

All Regional Epidemiologist are requested to communicate with the Epidemiology Unit on daily basis during the emergency situation to provide an update and get any additional support needed from the unit.

.....
Dr. Anil Dissanayake
Chief Epidemiologist

Dr. S.A.R. Dissanayake
Chief Epidemiologist/Director
Epidemiology Unit
231, De Saram Place,
Colombo 10.

Copy: Director General of Health Services
Deputy Director of General (Public Health Services)1
Director Disaster Preparedness and Response Division
Director MCH / FHB
Director HEB
Provincial CCPs
Regional Epidemiologists of above districts



Epidemiology Unit- Ministry of Health
231, De Saram Place, Colombo 01000, Sri Lanka
Tele: (+94 11) 2695112, 4740490, 4740491, 4740492 2681548 Fax: (+94 11) 2696583
email: chepid@slt.net.lk, epidunit@slt.net.lk Web: www.epid.gov.lk



PUBLIC HEALTH MEASURES TO BE ADOPTED IN THE EVENT OF FLOODS

The main responsibility of prevention of communicable diseases and disease surveillance lies with the local public health staff (MOH, RE, RDHS and PD) while technical guidance, will be provided by the Epidemiology Unit.

1. Safe water

Need to address - safety, adequacy, supply and source

The water supply measures in short term emergencies involving population displacement and temporary shelters are considered.

- Identify sources of water (eg: wells, pipe borne, tube wells, external supply)
- Co-ordinate with the Divisional Secretary and local government authorities to ensure continuous and adequate supply of safe drinking water
- Adequate water storage tanks should be supplied for proper storage of water.
- First priority is to provide adequate supply of water. The water supplied should be adequately treated. Chlorinated water should be ideal and need to be monitored regularly. In special situations of disasters as in floods, PHI should involve in super chlorination of water.
- If pipe-borne water is not available, water to be collected in tanks or barrels and chlorinated adequately to ensure safety in drinking water.
- Train a group leader in water sanitation. If facilities are available, make arrangements for boiling and proper storage of water at least for children.
- Advise and supervise correct methods of storage and usage of water for different purposes

2. Ensuring safety of food

Need to address – safety, adequacy, nutrition (Satisfaction and acceptance also to be considered)

- PHI should co-ordinate with the Divisional Secretary to ensure that food supplied by local authorities and other sources are hygienically prepared before distribution during early recovery period.
- Ensure all food supplies to the displaced are hygienically stored, prepared and distributed.
- Strictly monitor the preparation of food in food handling establishments.
- Establish a food preparation place within the camp as soon as possible and maintain safety practices.
- Educate food handlers on food safety practices and personal hygienic measures.
- PHI should supervise regularly the food preparation practices carried out within the temporary shelter.
- Common food preparation practices at the initial stage may be divided into several groups with time should be encouraged but regular monitoring of food preparation sites should be supervised. Upgrading of the knowledge on nutritious and hygienic preparation of food should be carried out.
- Storage facilities for raw materials should be provided and adequately maintained. It is the responsibility of the PHI to supervise and maintain activities regularly.

3. Sanitary facilities

Identify sanitary facilities existing in the camp.

- Ensure adequate sanitary facilities for the displaced within the camp. Where necessary, make arrangements to construct an adequate number of temporary latrines.
- PHI of the area should involve in the assessment of the adequacy of toilets. Shallow or deep trench latrines or temporary pit latrines should be prepared depending on the situation.

- The latrines should be sited at least 30 meters away from any water source. If the ground water is not abstracted, the distance may be reduced depending on the availability of space.
- Need to get the opinion of users also in construction of latrines at the design stage to get the maximum co-operation for proper maintenance.
- Ensure proper disposal of excreta of infants, babies and disabled. Distribute potties for children. Train and educate to discard all excreta and empty potties to latrine pit.
- Ensure cleanliness of toilets. PHI should monitor regularly the cleanliness. Prepare and make available adequate amount of TCL, soap and cleaning equipment to latrines.
- Make arrangements for continuous and adequate water supply and soap for washing purposes.

4. Disposal of refuse

- The number and size of the refuse containers need will vary depending on the situation. The area PHI should co-ordinate with the local authority on the supply of requirements in maintaining proper refuse disposal within the temporary shelter.
- Identify a suitable method of garbage disposal. Co-ordinate disposal of garbage by sanitary burial or burning in suitable adjacent areas of temporary shelters.
- If garbage is removed daily by the local authorities using tractors, ensure enough containers (garbage bins) are made available in the temporary shelters for collection of garbage.
- Co-ordinate with the local authority on regular removal of garbage.
- Train to collect and sort garbage. Dispose in separate containers.
- Make arrangements for refuse storage, collection and transport and regular monitoring by the PHI.
- Control flies, insects and rodents by proper use of physical and chemical methods (insecticides and TCL powder).
- Train to ensure cleanliness in and around the camp.

5. Waste water management

- Waste water from kitchen, bath areas and laundering is considered here.
- Quantity and nature of waste water problem should be assessed. Disposal options depending on the situation should be considered.
- Co-ordinate with the local authority for proper disposal of waste water produced within the temporary shelter. (eg: Infiltration into soaking pit, diversion into a drain or open channels)
- Should not allow stagnation within the temporary shelter or should not allow drainage through dwellings.

6. Treatment and management of minor ailments

- Co-ordinate with the local medical institutions/authorities to establish mobile medical teams to visit temporary shelters for the displaced daily and provide treatment.
- Conduct mobile health clinics daily at early recovery phase, and 2-3 days time per week later.
- Pre-plan the health clinic. Eg: age-wise or gender-wise categorization, area for treatment for minor ailments, referrals for follow up for chronic/non communicable diseases, screening for communicable diseases.
- Issue a personal health record for each person to continue and follow up throughout the period of stay in temporary shelters which will facilitate identification of diseases early and prevention of multiplication of treatment.
- Direct and co-ordinate all volunteer health teams and health facilities through the MOH office of the area.

7. Prevention and control of potential outbreaks

Disaster affected people are particularly vulnerable to communicable diseases which are directly related to environmental health and behaviours. Public education and provision of information in behavioural changes should be carried out to reduce the occurrence and spread of communicable diseases.

- Water quality surveillance for bacteriological testing should be continued weekly in an epidemic related to water and during early phase of recovery of the disaster. Otherwise monthly surveillance will be adequate. Samples should be collected according to the national norms.

- Diarrhoea will result due to contaminated drinking water, food or poor sanitation and unhygienic practices. Prompt action must be taken to ensure early treatment and prevention of further spread. Maintain hygienic practices.
- In case of contagious diseases such as acute respiratory tract infections, eye infections and chickenpox patients should be isolated if facilities are available and referred to the area hospital if necessary. In case of spreading respiratory tract infections contact Epidemiology Unit and MRI for necessary technical support for prevention of spread and viral studies for accurate diagnosis.
- Some disaster conditions give rise to increase in the populations of vector or nuisance species, usually insects and rodents. People living in temporary shelters are specially exposed and prone to diseases spread by vectors. Steps should be taken to control mosquito breeding to prevent and control mosquito borne diseases such as Dengue, Malaria and JE. Ensure maintenance of environmental sanitation. Appropriate advice will be provided by the Epidemiology Unit whenever necessary.
- Promote camp leaders and mobile medical teams to report notifiable diseases and other contagious diseases to the local public health staff as early as possible.
- In the event of any vaccine preventable disease, contact the Epidemiology Unit, Regional Epidemiologist or MOH of the area.
- Routine age appropriate vaccination procedure should be continued through mobile clinics by the area field public health staff.

8. **Prophylaxis for Leptospirosis**

- With the receding of water levels, displaced population starts to go back to their residences. There may be a risk of contact with *Leptospira* contaminated water due to following reasons during this period.
 - The current water levels make the water shallow and muddy
 - The people will be going to their residences shortly and will start cleaning the homes, thereby increasing the possibility of exposure.
- Doxycycline chemoprophylaxis is recommended (**where the disease prevalence is already known to be high**) as follows.

- Doxycycline 200mg stat dose (which will be effective for one week)
- Doxycycline can be taken with or without food, preferably with a full glass of water. **It is contraindicated in,**
 - Age <12 years
 - Pregnancy
 - Lactating mothers
 - The presence of previous allergy
- Doxycycline is generally not prescribed to patients with significant liver or kidney diseases. In case of any doubt, advice may be sought from the consultant physician of the nearest hospital.

9. Disease surveillance

Major steps in communicable disease surveillance after disaster,

- (1) Vigilance on occurrences of communicable diseases.
- (2) Carry out field investigation of rumors and notifications of outbreaks of diseases.
- (3) Do relevant laboratory investigations to obtain definitive diagnoses and support for epidemiological investigations.
- (4) Provide epidemiological information to decision makers.
- (5) Strengthen and continue surveillance during and after the recovery phase.

- MOH/PHI should visit temporary shelters daily to inquire into unusual occurrences of disease events/outbreaks. Leaders in temporary shelters should be contacted daily and be inquired about specific communicable diseases and unexpected occurrences of diseases. If any field health staff member received information or a rumour on infectious disease he/she should inform the MOH without delay. The suspected patient of the temporary shelter is visited by the PHI and relevant additional information is obtained from the patient, his/her medical records, his/her family, others in the temporary shelter and the environment. The MOH also should visit the temporary shelter and investigate where necessary. Suspected cases of communicable diseases

should be isolated within the temporary shelter if facilities are available or otherwise arrangements made to isolate in the area hospital to prevent spread. If doubtful cases are present, the MOH of the area should take action to prevent the spread of the disease and confirm the case. Necessary technical advice should be obtained from the Regional Epidemiologist, consultants in regional hospitals and the Epidemiology Unit. Obtain assistance from regional laboratories to confirm the disease which is essential for prevention of spread of diseases.

- MOH should collect communicable disease surveillance data from each temporary shelter in the given format (Annexure 1).
- MOH should consolidate the above data daily and send a consolidated report to RE (Annexure 2) and RE should consolidate it by MOH area and send it to the Epidemiology Unit daily (annexure 3).
- Routine surveillance system should be continued (notification, investigation, prediction and early detection of outbreaks) and returns should be maintained (H399, H 411a and special investigations)
- In addition general information regarding the flood affected area should be filled by the RE in duplicate and one copy to be kept at RDHS office and one to be sent to the Epidemiology Unit (Annexure 4).



DISEASE SURVEILLANCE IN FLOOD AFFECTED AREAS

Annexure 1

MOH Area :

PHI Area :

Name of Camp / Shelter :

Disease	No of Cases							Total No. of Cases
	__/__/20__	__/__/20__	__/__/20__	__/__/20__	__/__/20__	__/__/20__	__/__/20__	
Watery Diarrhoea								
Dysentery								
Enteric Fever								
Viral Hepatitis								
Chickenpox								
Measles								
Acute Respiratory Tract Infection (RTI)								
Conjunctives								
Skin Diseases								
Leptospirosis								
Dengue								
Others								

Note :

- If there are any deaths, state the probable cause of death
- To be filled in duplicate by the PHI by visiting the camp daily. One form is to be kept in the camp and the other at the PHI office.

Signature :

Date :



Epidemiology Unit- Ministry of Health

231, De Saram Place, Colombo 01000, Sri Lanka

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email: chepid@slt.net.lk, epidunit@slt.net.lk Web: www.epid.gov.lk



DISEASE SURVEILLANCE IN FLOOD AFFECTED AREAS

Annexure 3

District :

Date : / /

MOH Area	Watery Diarrhoea	Dysentery	Enteric Fever	Viral Hepatitis	Chickenpox	Measles	ARTI	Conjunctives	Skin Diseases	Leptospirosis	Dengue	Others

Note :

- If there are any deaths, state the probable cause of death
- To be filled in duplicate by RE. One form to be sent to the Epidemiology Unit daily and the other to be kept with him / her.

Signature :

Date :



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email: chepid@sltnet.lk, epidunit@sltnet.lk Web: www.epid.gov.lk



INFORMATION ON FLOOD AFFECTED AREAS

Annexure 4

District		
Date of update		
MOH areas affected		
Total No. of families affected		
No. of IDP camps		
No. of families displaced		
No. of person displaced		
No. of affected medical institutions		
Major activities carried out		
Other information		
Any additional assistant required		

Signature of the reporting officer

Designation

Date