

**Eastern Equine Encephalitis and West Nile Virus Management Plan
for Homeless Populations
Bureau of Homeless and Housing Services
May, 2008**

Homeless populations may be at higher risk for Eastern Equine Encephalitis (EEE)/West Nile Virus (WNV) and other mosquito-borne diseases due to their increased exposure to the outdoors and their limited access to preventive measures. Healthcare providers, outreach workers and state-funded shelters should vigorously promote prevention methods including the use of insect repellents, especially for homeless persons over the age of 50. Repellent use for homeless populations requires several special considerations:

Cost

Access to insect repellents among persons with limited financial resources may be problematic. The Department of Health and Human Services (DHHS) and some local health departments may be able to assist with repellent supplies or may have recommendations for lower cost products. Local businesses that sell repellents may also be able to assist shelters.

Correct Use of Repellent

The ability to follow directions and use the product safely is a concern if the product is made available for personal use. A repellent containing 30% or less of DEET (N, N-diethyl-meta-toluamide) is a very safe product when used as directed. While DEET can be reapplied when a person is still outdoors, most products recommend bathing when returning indoors. Alternate repellents containing Picaridin, Oil of Lemon Eucalyptus, or IR3535 can also be used.

Use of Repellent on Clothing

Repellents with DEET or permethrin can be used on clothing and tents, which may be particularly useful for homeless populations. Protection from one permethrin application can last as long as six weeks, even through several launderings. Permethrin should not, however, be used directly on the skin.

DHHS Strategy

Mitigation

Prior to the start of each mosquito season, the Bureau of Homeless and Housing Services (BHHS) will survey all state-funded shelters (see Appendix 1) and outreach agencies (see Appendix 2) to assess the need for repellent.

The BHHS will, within budget limitations, assist in providing DEET and permethrin repellent where determined appropriate to state-funded shelters and outreach agencies (see Appendix 3).

The BHHS, Division of Public Health and the New Hampshire Coalition to End Homelessness (NHCEH) will coordinate the dissemination of products, pamphlets and posters to all Continuums of Care, state-funded shelters, advocates and consumers at the June New Hampshire Coalition to End Homelessness meeting.

The BHHS, Division of Public Health and the NHCEH will work together to provide direct training to homeless persons, outreach workers and state-funded shelters to ensure to the maximum extent practical, the correct method of DEET application and product safety (see Appendix 4). Training will include symptom observation, prevention methods, trash and standing water removal and the need to seek medical care for those afflicted.

The BHHS will maintain and periodically update contact lists of outreach workers and state-funded shelters.

DHHS will work with municipal officials and local law enforcement agencies on discouraging the placement of unsheltered homeless into high-risk areas such as close proximity to rivers and high breeding areas.

The Division of Public Health will provide weekly arbovirus surveillance updates to the BHHS.

Response

The BHHS will work with the Commissioner's Office and Public Health to:

1. notify outreach workers and state-funded shelters of an EEE/WNV incident in the affected area;
2. direct outreach workers to ensure to the maximum extent practical, that unsheltered homeless persons in the affected area are informed of the incident, have sufficient repellent, and are encouraged and assisted with finding available shelter if requested;
3. to assist in the relocation of unsheltered homeless from an affected area if determined by the Commissioner;
4. direct outreach workers to notify and help relocate unsheltered homeless from areas that are to be sprayed as determined by the municipality; and
5. facilitate constant communication with all interested parties as to current conditions and recommendations.

Assessment

At the end of the mosquito season, the BHHS will facilitate an assessment from all interested parties as to the effectiveness of the plan and to discuss areas for improvement.

APPENDIX 1

State-Funded Shelters

Linda Harvey
Laconia Area Community Land Trust
658 Union Avenue
Laconia, NH 03246-2549
(603) 524-0747
lharvey@lactl.org

Captain Leslie Flanders
The Salvation Army
Carey House
177 Union Avenue
Laconia, NH 03246
(603) 524-1834
leslie_flanders@use.salvationarmy.org

Christine Brehm
Community Improvement Associates
463 Washington Street
Keene, NH 03431
(603) 313-0793
christine@cianh.com

William Marcello
Southwestern Community Services
PO Box 603
Keene, NH 03431
(603) 352-7512
bmarcello@scshelps.org

Jill Gorman
Tri-County CAP
Tyler Blain House
56 Prospect Street
Lancaster, NH 03584
(603) 788-2344
jgorman@tccap.org

Michael Cryans
Headrest
14 Church Street
Lebanon, NH 03766-1642
(603) 448-4872
mike.cryans@headrest.org

Maryse Wirbal
Nashua Pastoral Care Center
7 Concord Street
Nashua, NH 03064
(603) 886-2866
www.nashuanpcc.org

Kim Giles
Bridge House
260 Highland Street
Plymouth, NH 03264-3602
(603) 536-7631
kimpemibridgehouse@verizon.net

Michael Ostrowski
Child and Family Services of NH
PO Box 448
Manchester, NH 03105
(603) 668-1920
ostrowskim@cfsnh.org

Maureen Beauregard
Families in Transition
122 Market Street
Manchester, NH 03101
(603) 641-9441
mbeau@fitnh.org

Joanne Bresnahan
Greater Nashua Council on Alcoholism
Keystone Hall
Pine Street Extension
Nashua, NH 03060
(603) 881-4848
j.bresnahan@keystonehall.org

Peter Kelleher
Harbor Homes
45 High Street
Nashua, NH 03060
(603) 882-3616
p.kelleher@harborhomes.org

Craig Everett
Helping Hands Outreach Ministries
PO Box 3551
Manchester, NH 03105-3551
(603) 623-8778
craig@hh-oc.org

Lisa Christie
Nashua Soup Kitchen and Shelter
PO Box 3116
Nashua, NH 03061-3116
(603) 889-7770
lisansks@verizon.net

Fred Robinson
New Horizons for New Hampshire
199 Manchester Street
Manchester, NH 03103
(603) 668-1877
fred.robinson@newhorizonsfornh.org

Mary Sliney
The Way Home
214 Spruce Street
Manchester NH 03103
(603) 627-3491
mary@thewayhomenh.org

Robert O'Connell
My Friends Place
368 Washington Street
Dover, NH 03820
(603) 749-3017
mfp368@aol.com

Jerome Madden
The Friends Emergency Housing Program
30 Thompson Street
Concord, NH 03301
(603) 228-1462
jmadden@friendsprogram.org

Lorrie Dale
The Salvation Army
McKenna House
100 South Fruit Street
Concord, NH 03301
(603) 225-5587
lorrie_dale@use.salvationarmy.org

Grace Mattern
NH Coalition Against Domestic and
Sexual Violence
PO Box 353
Concord, NH 03302-0353
(603) 224-8893
grace@nhcadsv.org

Chris Sterndale
Cross Roads House
600 Lafayette Road
Portsmouth, NH 03801
(603) 436-2218
chris@crossroadshouse.org

Toni Trotzer
New Generation
PO Box 676
Greenland, NH 03840
(603) 436-4989
office@newgeninc.org

APPENDIX 2**HOMELESS OUTREACH INTERVENTION PROGRAM**

Provider Information	Outreach Worker Contact Information	Supervisor Contact Information
Community Action Program Belknap-Merrimack Counties, Inc. PO Box 1016 Concord, NH 03301-1016	Roger Beauchamp County Served: Merrimack Phone: 225-1107 Fax: 225-9242 Hours: Tue, Wed, Thursday 8:30 am - 4:30 pm (Merrimack) Monday & Friday 8:00 am - 4:30 pm (Belknap) After hours: Homeless Hotline Contact supervisor with grievance.	Joia Hughes Housing Rehabilitation and Grant Specialist Phone: 225-1107 Email: JHughes@bm-cap.org Fax: 225-9242
Community Action Program Belknap-Merrimack Counties, Inc. 121 Belmont Road Laconia, NH 03246	Mike Bernier County Served: Belknap Phone: 524-0381 Fax: 524-0355 Hours: Tues, Wed, Thursday 8:30 am - 4:30 pm (Belknap) Monday & Friday 8:30 am - 4:30 pm (Merrimack) After hours: Homeless Hotline Contact supervisor with grievance.	Joia Hughes Housing Rehabilitation and Grant Specialist Phone: 225-1107 Email: JHughes@bm-cap.org Fax: 225-9242
Rockingham Community Action 7 Junkins Avenue Portsmouth, NH 03801	Justine Shea County Served: Rockingham Phone: 431-2911 (Tuesday, Thursday & Friday) 893-9172 (Monday & Wednesday) Fax: 431-2916 Hours: Mon-Fri 9:00 am - 4:30 pm After hours: Homeless Hotline Contact supervisor with grievance.	Lisa Couture Outreach Program Director Phone: 430-4934 Email: lcouture@rcaction.org Fax: 431-2916
Southern NH Services, Inc PO Box 5040 Manchester, NH 03108	Patrick L. Carney County Served: City of Manchester Phone: 668-8010, ext. 6121 Fax: 645-6734 Hours: Mon-Fri 9:00 am - 6:00 pm After hours: Homeless Hotline Contact supervisor or Greg Schneider with grievance.	Tony Epaphras Phone: 668-8010, ext. 6120 Email: Tepaphras@snh.org Fax: 645-6734
Southern NH Services, Inc 123 W. Pearl Street Nashua, NH 03060	Kathy Paquette County Served: Hillsborough-South Phone: 889-7477 Hours: 10:00 am – 6:00 pm After hours: Homeless Hotline Contact supervisor or Greg Schneider with grievance.	Tony Epaphras Phone: 668-8010, ext. 6120 Email: Tepaphras@snh.org Fax: 645-6734
Southwestern Community Services PO Box 1338 96-102 Main Street Claremont, NH 03743	Mary Hall County Served: Sullivan Phone: 542-4539 Fax: 542-4539 Hours: Mon-Fri 8:30 am - 4:30 pm After hours: Resident Manager at Shelter (542-6849) Contact supervisor with grievance.	Laurie Jewett Homeless Services Director Phone: 719-4290 Email: ljewett@scshelps.org Fax: 352-3618
Southwestern Community Services PO Box 603 69Z Island Street Keene, NH 03431	Karen Bednarski Area Served: Peterborough, Hancock, Bennington, Antrim, Frankestown, Greenfield, Greenville, Hillsborough, New Ipswich, Mason, Temple, Sharon and Cheshire county. Phone: 719-4243 Fax: 352-3618 Hours: Mon-Fri 8:30 am - 4:30 pm After hours: Resident Manager at Shelter (357-1654) Contact supervisor with grievance.	Laurie Jewett Homeless Services Director Phone: 719-4290 Email: ljewett@scshelps.org Fax: 352-3618

Provider Information	Outreach Worker Contact Information	Supervisor Contact Information
Strafford County CAC 270 County Farm Road PO Box 160 Dover, NH 03820-0160	Teresa Lombardi County Served: Strafford Phone: 516-8153 Fax: 749-3718 Hours: Mon-Fri: 9:00 am – 5:00 pm After hours: Homeless Hotline Contact supervisor with grievance.	Richard Hayes Director Phone: 749-1334 Email: Rhayes@straffcap.org Fax: 749-3718
Tri County CAP 73 Main Street Lancaster, NH 03584	Jenn Doolan County Served: Coos Phone: 788-2683 Fax: 788-4407 Hours: Mon-Fri 8:00 am - 4:00 pm After hours: Homeless Hotline Contact supervisor with grievance.	Joie Finley-Morris Homeless Programs Coordinator Phone: 443-6150 Fax: 443-6151 Hours: Mon-Fri 8:00-4:00
Tri County CAP PO Box 12 57 Mechanic St. Suite 5 Lebanon, NH 03766	Joie Finley-Morris & Alan Emery County Served: Southern Grafton Phone: 443-6150 Fax: 443-6151 Hours: Mon-Fri 8:00 am - 4:00 pm After hours: Homeless Hotline Contact supervisor with grievance	Kathy McCosh EHCCO Manager Phone: 752-7105 Email: kmccosh@tccap.org Fax: 752-8041 Hours: Mon-Fri 7:00-3:00
Tri County CAP 448 White Mtn. Hwy Tamworth, NH 03886	Nancy Armstrong County Served: Carroll Phone: 1-888-842-3835 or 323-7400 Fax: 323-7411 Hours: Mon-Fri 8:00 am – 4:00 pm After hours: Homeless Hotline Call supervisor with grievance.	Joie Finley-Morris Homeless Programs Coordinator Phone: 443-6150 Fax: 443-6151 Hours: Mon-Fri 8:00-4:00
Tri County CAP 111 Easton Valley Road Franconia, NH 03580 224 Main St. Littleton, NH 03561	Woody Miller County Served: Northern Grafton Phone: 444-0184 E-mail: tamaracktennis@earthlink.net Home/Fax: 823-5656 (call prior to sending fax) Hours: Mon-Fri 8:00 am - 4:00 pm After hours: Homeless Hotline Call supervisor with grievance.	Joie Finley-Morris Homeless Programs Coordinator Phone: 443-6150 Hours: Mon-Fri 8:00-4:00

APPENDIX 3**Bureau of Homeless and Housing Services
West Nile Virus EEE Prevention Program
2008**

Agency	child	single	cases
Bridge House	10		1
Child and Family Services of NH			2
Community Improvement Associates			1
Cross Roads House			3
Families In Transition			
Harbor Homes including Keystone Hall			1
Headrest			1
Helping Hands			
Laconia Area Comm. Land Trust	4	4	
My Friends Place	4		2
Nashua Pastoral Care	10		2
Nashua Soup Kitchen and Shelter			2
New Generation		2	
New Hampshire Coalition Against Domestic and Sexual Violence	14		7
New Horizons for NH			1
Salvation Army Concord			1
Salvation Army Laconia	3	2	
Southwestern-Claremont	8		4
Southwestern-Keene	8		4
The Friends Emer. Housing Program	3	4	
The Way Home			
Tri-County CAP – Tyler Blain House			1
PATH PROGRAM			3
HOIP PROGRAM	24		3
Total Bottles for Children in 2008	88		
Total Single Boxes for Adults		12	
Total Cases for Adults			39

APPENDIX 4

How Often You Should Re-apply Repellents

Follow the directions on the product you are using. Sweating or getting wet may mean that you need to re-apply more frequently.

Q. How does the percentage of active ingredient in a product relate to the amount of protection it gives?

A. Typically, the more active ingredient a product contains the longer it provides protection from mosquito bites. The concentration of different active ingredients cannot be directly compared (that is, 10% concentration of one product does not mean it works exactly the same as 10% concentration of another product).

DEET is an effective active ingredient found in many repellent products and in a variety of formulations.

- A product containing 23.8% DEET provided an average of 5 hours of protection from mosquito bites.
- A product containing 20% DEET provided almost 4 hours of protection.
- A product with 6.65% DEET provided almost 2 hours of protection.
- Products with 4.75% DEET were able to provide roughly 1 1/2 hour of protection.

Products containing Picaridin, Oil of Lemon Eucalyptus, and IR3535 provide the same level of protection as products with lower concentrations of DEET.

These examples represent results from only one study and are only included to provide a general idea of how such products may work. Actual protection will vary widely based on conditions such as temperature, perspiration, and water exposure.

Hint: Applying permethrin to your clothing ahead of time will give you even greater protection.

Remember – if you are getting bitten, do something about it!

Choose a repellent that you will use consistently. Also, choose a product that will provide sufficient protection for the amount of time that you will be spending outdoors. Product labels often indicate the length of time that you can expect protection from a product. If you are concerned about using insect repellents, consult your health care provider for advice.

Q. Can insect repellents be used by pregnant or nursing women?

A. Other than the routine precautions noted earlier, EPA does not recommend any additional precautions for using registered repellents on pregnant or lactating women.

Q. What are some reactions to be aware of when using insect repellents containing DEET?

A. Products containing DEET are considered to be safe when used according to the manufacturer's directions. In some instances, the use of repellents that contain DEET may cause skin reactions. Eye irritation can occur if the product gets in the eye. If you suspect a reaction to a product, discontinue use, wash all affected areas, and contact a medical provider. If the product gets in the eyes, flush with water and consult a health care provider. If you go to a doctor, take the product with you. Products should not be ingested.

General Consideration for Using Repellents Safely on Children

No more than 30% DEET should be used on adults and children.

The American Academy of Pediatrics (AAP) recommends that repellents with DEET should not be used on infants less than two months old.

The label for products containing Oil of Lemon Eucalyptus specifies that they should not be used on children under the age of three years.

When using repellent on a child, apply it to your own hands and then rub them on your child. Avoid children's eyes and mouth and use it sparingly around their ears.

Never use repellents over cuts, wounds, or irritated skin.

Do not apply repellent to children's hands. (Children may tend to put their hands in their mouths.)

Keep repellents out of reach of children.

Do not apply repellent under clothing.