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West Virginia EPI-LOG

Grilling outdoors safely

Don't let foodborne illness spoil the picnic

Here at the height of summer, grills have been "fired up" all around the state for the endless number of cookouts, picnics and various other outdoor activities. One of the most important things you can do to keep your family safe from foodborne illnesses, such as E.Coli, Salmonella and others, is to use proper handling and cooking practices for all meat and poultry during your gatherings.

Proper handling starts as soon as you return home from the store. Be sure to quickly refrigerate or freeze meat and poultry products. The refrigerator should be 40F or lower and the freezer 0F or lower.

There are several things you can do before actually cooking that will help ensure the safety of your food. Raw meat and poultry should be thawed in the refrigerator and should be done one or two days before you will cook the food. If you use the microwave, be sure to use the "defrost" setting and then cook the food right away. Always wash your hands for at least 20 seconds before and after you touch food and be sure to use warm water and soap. Keep the juices from raw meat and poultry away from other foods. If you use cutting boards, it's best to set one aside to use only for raw meat, poultry and seafood. If you only have one cutting board, be sure to wash it with hot, soapy water before you go on to the next food.

*(See **Grilling Safely**, page 4)*

Statewide Disease Facts & Comparisons

A quarterly publication of the West Virginia Division of Surveillance and Disease Control

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Division of Surveillance & Disease Control

AIDS Surveillance	(304) 558-2987
AIDS Prevention	(304) 558-2195
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TB Control	(304) 558-3669

WEST VIRGINIA Department of Health & Human Resources
West Virginia Bureau for Public Health

Joe Manchin III, Governor
Martha Walker, Secretary (DHHR)

West Virginia AIDS and HIV Infection Cases by Age Group, Gender, Race and Risk Behavior Cumulative through June 30, 2007*

Characteristic	AIDS		HIV		Total	
Age Group~	#	%	#	%	#	%
Under 5	9	1	4	1	13	1
5-12	3	<1	0	0	3	<1
13-19	16	1	45	6	61	3
20-29	235	16	262	36	497	22
30-39	629	42	251	34	880	40
40-49	431	29	120	16	551	25
50 and Over	168	11	49	7	217	10
Total	**1491**	**100**	**731**	**100**	**2222**	**100**
Gender						
Male	1241	83	517	71	1758	79
Female	250	17	214	29	464	21
Total	**1491**	**100**	**731**	**100**	**2222**	**100**
Race						
White	1174	79	441	60	1615	73
Black	296	20	269	37	565	25
Other/Unknown	21	1	21	3	42	2
Total	**1491**	**100**	**731**	**100**	**2222**	**100**
Risk Behavior						
Adult						
MSM	808	55	324	45	1132	51
IDU	227	15	136	19	363	16
MSM/IDU	78	5	17	2	95	4
Coagulation Disorder	41	3	5	1	46	2
Heterosexual Contact with Known Risk	173	12	120	17	293	13
Heterosexual Contact with Unknown Risk	33	2	30	4	63	3
Transfusion/Transplant	36	2	6	1	42	2
No Identified Risk/Other**	82	6	89	12	171	8
Subtotal	**1478**	**100**	**727**	**100**	**2205**	**100**
Pediatric						
Coagulation Disorder	1	8	0	0	1	6
Mother HIV Positive	12	92	4	100	16	94
Subtotal	**13**	**100**	**4**	**100**	**17**	**100**
Total Adults & Pediatrics	**1491**	**100**	**731**	**100**	**2222**	**100**

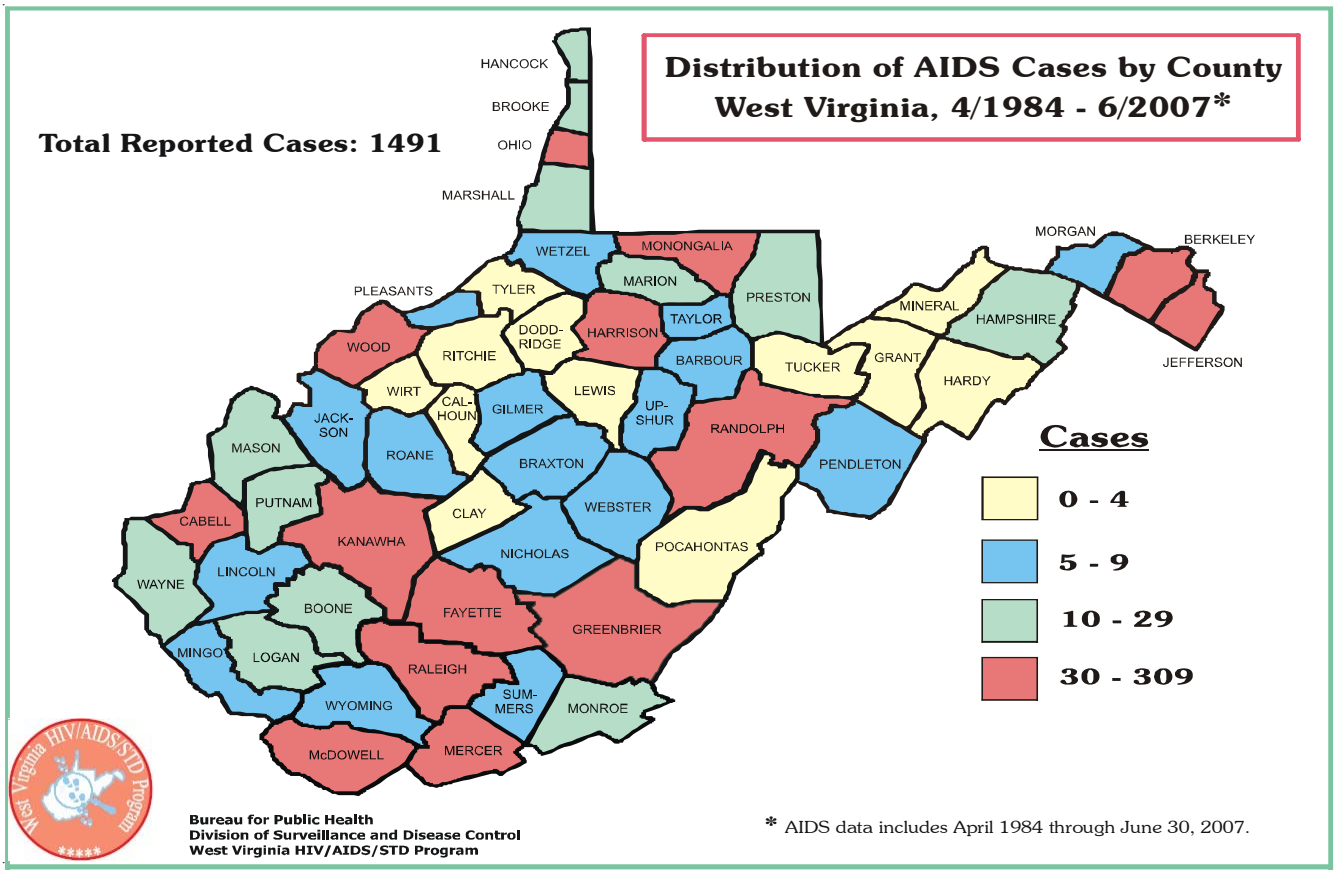
MSM = **M**en having **S**ex With **M**en; **IDU** = **I**njecting **D**rug **U**ser

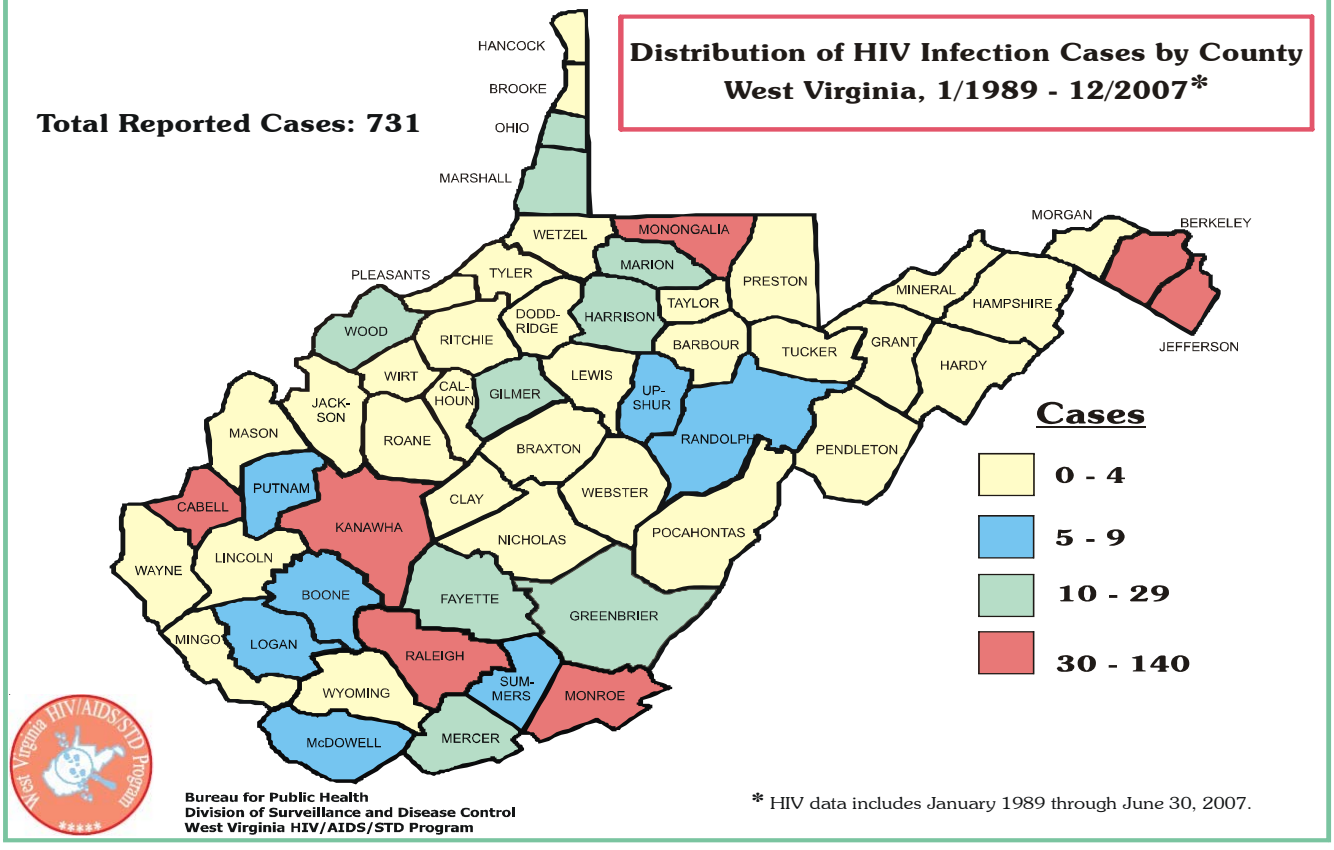
* AIDS data includes April 1984 through June 30, 2007;
HIV data includes January 1989 through June 30, 2007.

** Other risk behavior includes cases reported with no risk identified due to death or person moving away. These cases are closed due to inability to follow-up.

~ Age group intervals depicted in the table above may not be uniform due to:
a) Small number of cases in the under 13 age groups.
b) Cases twelve years of age and under are pediatric cases.
c) 13-19 being the adolescent age group.

Note: Percent in columns may not add up to 100% due to rounding.


Distribution of AIDS Cases by County
West Virginia, 4/1984 - 6/2007*
Total Reported Cases: 1491
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
MONONGALIA
MARION
PRESTON
PLEASANTS
TYLER
DODD-RIDGE
HARRISON
TAYLOR
WOOD
RITCHIE
BARBOUR
TUCKER
GRANT
MINERAL
HAMPSHIRE
MORGAN
BERKELEY
JEFFERSON
HARDY
WIRT
CAL-HOUN
GILMER
LEWIS
UP-SHUR
RANDOLPH
JACK-SON
MASON
ROANE
BRAXTON
PENDLETON
PUTNAM
CLAY
WEBSTER
CABELL
KANAWHA
NICHOLAS
POCAHONTAS
WAYNE
LINCOLN
BOONE
FAYETTE
GREENBRIER
MINGO
LOGAN
RALEIGH
SUM-MERS
MONROE
WYOMING
McDOWELL
MERCER
Cases
0 - 4
5 - 9
10 - 29
30 - 309
Bureau for Public Health
Division of Surveillance and Disease Control
West Virginia HIV/AIDS/STD Program
* AIDS data includes April 1984 through June 30, 2007.


Distribution of HIV Infection Cases by County
West Virginia, 1/1989 - 12/2007*
Total Reported Cases: 731
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
MONONGALIA
MARION
PRESTON
PLEASANTS
TYLER
DODD-RIDGE
HARRISON
TAYLOR
WOOD
RITCHIE
BARBOUR
TUCKER
GRANT
MINERAL
HAMPSHIRE
MORGAN
BERKELEY
JEFFERSON
HARDY
WIRT
CAL-HOUN
GILMER
LEWIS
UP-SHUR
RANDOLPH
JACK-SON
MASON
ROANE
BRAXTON
PENDLETON
PUTNAM
CLAY
WEBSTER
CABELL
KANAWHA
NICHOLAS
POCAHONTAS
WAYNE
LINCOLN
BOONE
FAYETTE
GREENBRIER
MINGO
LOGAN
RALEIGH
SUM-MERS
MONROE
WYOMING
McDOWELL
MERCER
Cases
0 - 4
5 - 9
10 - 29
30 - 140
Bureau for Public Health
Division of Surveillance and Disease Control
West Virginia HIV/AIDS/STD Program
* HIV data includes January 1989 through June 30, 2007.

*(**Grilling Safely**, continued from page 1)*

When it is time to cook your meat or poultry, the most important thing you can do to keep away foodborne illness is to have an accurate food thermometer. You should only eat ground beef patties that have been cooked to an internal temperature of 160F. When a ground beef patty is cooked to 160F throughout, it can be safe and juicy, regardless of color. Poultry needs to be cooked to an internal temperature of 165F to make sure it is safe to eat.

The only way to be sure that the meat is cooked to a temperature high enough to kill harmful bacteria is to use a food thermometer. Color is NOT a reliable indicator. Just because a hamburger or piece of chicken looks "done" does not mean that it was cooked properly.

The final step in keeping away foodborne illness this grilling season is to correctly take care of those leftovers! Food left out for two or more hours can begin to grow bacteria. Put leftovers into the refrigerator or freezer as soon as you finish eating. Put them in shallow dishes so that they cool faster and eat them in the next few days, before they go bad.

Grilling and enjoying food during outside events is one of the most integral parts of summer activities. Following these few food handling and preparation guidelines will help keep you and your guests enjoying them all season long!

Further information can be found at the following websites:

http://www.foodsafety.gov
http://www.fsis.usda.gov
http://www.fda.gov

An overview of West Virginia's 2007 mosquito surveillance plan

(adapted from Virginia's mosquito surveillance plan)

Mosquito surveillance should be the mainstay of regional surveillance programs for arboviruses. An effective mosquito surveillance program provides an estimate of vector species abundance and distribution. This data is used to estimate risk levels, guide control operations, and to evaluate control methods. Laboratory testing of mosquitoes for arbovirus infection provides information on the relative risk to humans and animals. This plan addresses practices that can be used to aid in the establishment of vector surveillance programs in regions of the state where little or no vector control work is being done.

A universally applicable arbovirus surveillance system does not exist, thus, local mosquito surveillance systems should be tailored according to (1) the probability of arbovirus activity, and (2) the resources available for surveillance (CDC, 2003). Because resources for arboviral surveillance are currently limited in the State of West Virginia (one Public Health Entomologist, five local health departments in training) and three temporary college student interns, surveillance will initially be limited to epidemiological responses to confirmed cases of disease in humans and animals and to complaints of intense mosquito activity from the public. Based on suggestions from CDC Division of Vector-Borne Infectious Diseases Arboviral branch we are not trapping mosquitoes around La Crosse cases in 2007 with the exception of occasional trapping for academic purposes. This season, resources will be prioritized towards areas of the state where La Crosse encephalitis is endemic and where emerging cases have been identified.

Follow-up of La Crosse cases will include community clean-ups and public outreach to the community surrounding the positive case. West Nile surveillance will include setting an array of gravid traps in large metropolitan (population dense) areas. Traps will be set on Mondays and collections will be made on Tuesday, Wednesday and Thursday. All samples from an individual trap will be pooled from a week's collection. All Culex mosquitoes will be pooled together, regardless of species and submitted for virus testing.

Objectives

This plan for mosquito surveillance, will serve as guidance for local jurisdictions that are developing mosquito and arboviral surveillance. The goals of mosquito surveillance are numerous and serve to obtain the following information about their local mosquito populations:

1. Identification of the mosquito species that are present in a region;
2. Identification of mosquito species that are the cause of local citizen complaints, and determining whether they are important vector species;
3. Identification and mapping of mosquito breeding habitats for larval control purposes;
4. Defining the geographic area affected by mosquitoes originating from identified habitats and the geographic area that needs to be treated for adult mosquito control;
5. Determining the population density and the desired threshold for control of a local mosquito species;
6. Determining when local mosquito populations are at an appropriate developmental and/or behavioral stage to apply control measures;
7. Determining the effectiveness of local mosquito control measures;
8. Determining whether vector mosquito species are present in an area, and whether they are infected with arboviruses;
9. Determining the mosquito infection rate for arboviruses in a vector species population; and
10. Determining the seasonal activity patterns of local mosquito species;

Surveillance Plan

The West Virginia Public Health Entomologist will coordinate and encourage collaboration among the Local Health Departments (LHDs) to carry out mosquito

*(See **Mosquitos**, page 6)*

*(**Mosquitos**, continued from page 5)*

surveillance and will assist in the education of government officials on aspects of mosquito control. In addition, after a confirmed case of arboviral disease (humans or animals) has been identified or there is a complaint of substantial mosquito activity, and the Public Health Entomologist has been contacted, a site visit consisting of an inspection and adult and/or larval surveillance (to include identification of the species present and their testing for arboviruses) will be conducted.

Citizen Complaints

If the public is informed about whom to call, citizen complaints about adult mosquito activity or about potential breeding habitats are useful in mosquito surveillance. Maintaining records of citizen complaints can contribute toward identification and mapping mosquito problem areas. When areas are identified through citizen complaints, the Public Health Entomologist is to be notified. The use of citizen complaints can be especially useful when establishing a new surveillance program in an area where the mosquito breeding habitats and/or areas within adult mosquito flight range have not yet been identified. Citizen complaints can be investigated through visitation and direct observation, trapping, aspiration of adult mosquitoes and larval dipping in identified habitats.

A portion of citizen complaints misidentify the source of the mosquitoes, or are unfounded and so it may take a person with some knowledge of mosquito biology to question the complainant and get the complete or pertinent facts. Obtaining detailed information (enter on complaint form) from the caller (e.g., what time the mosquitoes were active, whether they were biting, what their biting behavior was, how large the mosquitoes were, what the mosquitoes looked like, whether there are any suspected breeding grounds near by, etc.) will help screen complaints and avoid unnecessary investigations. For example, adult mosquitoes are relatively small and are generally difficult insects to observe, so people do not normally notice them unless they are biting. Therefore, if the insects noticed by the complainant were not trying to bite or biting, it is unlikely that they were mosquitoes. Questioning the complainant about the time of day mosquitoes are biting is a useful screening tool. For example, Asian tiger mosquitoes are one of relatively few mosquito species that bite during the daytime (daylight hours) and because some complaints in West Virginia are related to Asian tiger mosquito activity, determining that the mosquitoes are biting during daylight hours will provide an indication that the problem mosquitoes are likely Asian tiger mosquitoes. Also, Asian tiger mosquitoes only breed in containers (not in puddles or ground pools) and because they generally do not move far, they probably originate from a container on the complainants property, or from one that is on a neighbor's property. Therefore, if the complainant is indicating that the mosquitoes originate from a nearby farm pond or ditch, the person taking the complaint will be able to know that is unlikely.

Site Visits

Whenever an environmental health person or the Public Health Entomologist is visiting the dwelling of the person with a probable or confirmed case of arboviral disease, or area suspected to be that at which transmission occurred, that person should observe the area looking for all potential mosquito breeding habitats (i.e. barrels, buckets, tarps, boats, ornamental ponds, old appliances, toys, trash, or any other item that may hold as little as a tablespoon of water). When infested habitats are encountered they should be noted on the mosquito surveillance field form and their location recorded and a GPS reading (latitude longitude and reference datum) taken for the site. Larval habitats should be dumped after sampling. If homeowners are home, habitats and larval samples should be shown to the homeowner. This provides an opportunity for educating the property owner or occupant on how to eliminate a potential or existing mosquito problem.

Surveillance

Mosquito surveillance involves the application of numerous different strategies and practices. A variety of methods are used to trap mosquitoes in the field because different mosquito species have their own characteristic behaviors and biology and cannot all be collected by the same method. Also, larval mosquitoes occupy a different habitat than adult mosquitoes, so collection methods for larvae are

*(See **Mosquitos**, page 7)*

*(**Mosquitos**, continued from page 6)*

much different than those used for adults. Appropriate species (see list of vectors and consult with a Public Health Entomologist) of adult mosquitoes will be collected, pooled and submitted to the West Virginia Office of Laboratory Services (OLS) for arboviral testing. Surveillance should be utilized for determination of risk as well as for planning, execution, and evaluation of control options.

Adult Surveillance

As it is usually the adult female mosquito that carries and transmits disease, many surveillance techniques have been devised to collect adult female mosquitoes and to monitor or record their activities. Techniques include the use of trapping, mechanical aspirator collections, and documentation of mosquito activity through citizen complaints. Trapping is widely used, but day-to-day success may be variable due to variation in environmental conditions such as wind, air temperature, and rainfall and/or trap location. Several different types of traps are used and each type is used to trap certain species of mosquitoes. Some mosquito species are not attracted to traps and must be collected by some alternative means. It is often advisable to use several types of traps (e.g., gravid and CDC-light traps) at a single trap site to collect a representative sample of the species active at that location. Data on the trapped mosquitoes should be maintained to create a historical record of mosquito species found in association with a variety of habitats in different parts of a jurisdiction. Although many methods for collecting adult mosquitoes exist, the initial surveillance program in West Virginia will rely on only two sampling methods (CDC light trap and Reiter gravid trap). However, it may be useful to collect adults by aspirating.

For complete details about West Virginia's 2007 mosquito surveillance protocol (including trapping, collection, and reporting procedures), call the West Virginia Infectious Disease Epidemiology Program (IDEP) at 1-800-423-1271.

*The **West Virginia EPI-LOG** is published quarterly by the West Virginia Department of Health and Human Resources, Bureau for Public Health, Office of Epidemiology & Health Promotion, Division of Surveillance and Disease Control. Graphic layout by Chuck Anziulewicz. Please call the Division of Surveillance & Disease Control at (304) 558-5358 if you need additional information regarding any article or information in this issue, or if you have suggested ideas you would like to contribute for a future issue.*