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West Virginia
EPI-LOG

Statewide Disease Facts & Comparisons

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Vaccine shortages prompt schedule changes

Many types of vaccines administered in the United States are currently in short supply. These include tetanus and diphtheria vaccine (Td); diphtheria, tetanus, and acellular pertussis vaccine (DTaP); 7-valent pneumococcal conjugate vaccine, Prevnar (PCV-7); chickenpox vaccine (Varivax); and measles, mumps, and rubella vaccine (MMR).

The Centers for Disease Control and Prevention (CDC) and the West Virginia Bureau for Public Health have issued recommendations for the prioritization of Td, DTaP, and Prevnar. At the time of this publication, there has been no contingency recommendation made with regard to either MMR or chickenpox vaccines.

In June, 2001, the CDC and Bureau for Public Health issued a recommendation for healthcare providers to delay all routine Td booster shots until 2002. Now in 2002, the recommendation still stands and is likely to remain at least another 6 months (See Figure 1, page 2). Until further notice, Td use should be reserved for the following groups:

- Persons traveling to countries where the risk for diphtheria is high
- Persons requiring tetanus vaccination for prophylaxis in wound management
- Persons who have received less than three doses of any vaccine containing tetanus and diphtheria toxoids
- Pregnant women who have not been vaccinated with Td within the preceding ten years

The prioritization recommendation for Prevnar vaccine is more complicated than those for other vaccines. The highest priority for Prevnar vaccination should be given to infants less than 12 months of age and children aged 1 through 5 that are at increased risk for pneumococcal disease. Children aged 2-5 years that are not at increased risk for pneumococcal disease should have their prevnar vaccination deferred. If the Prevnar shortage is particularly severe, the next group for whom providers should consider deferring vaccination is healthy children aged 1-2 years who are receiving catch up vaccinations and healthy children who have completed a primary series and need only a booster dose.

The shortages of DTaP are less severe than those of Td and Prevnar and are classified as spot shortages. Most providers in West Virginia have

*(See **Vaccines**, page 3)*

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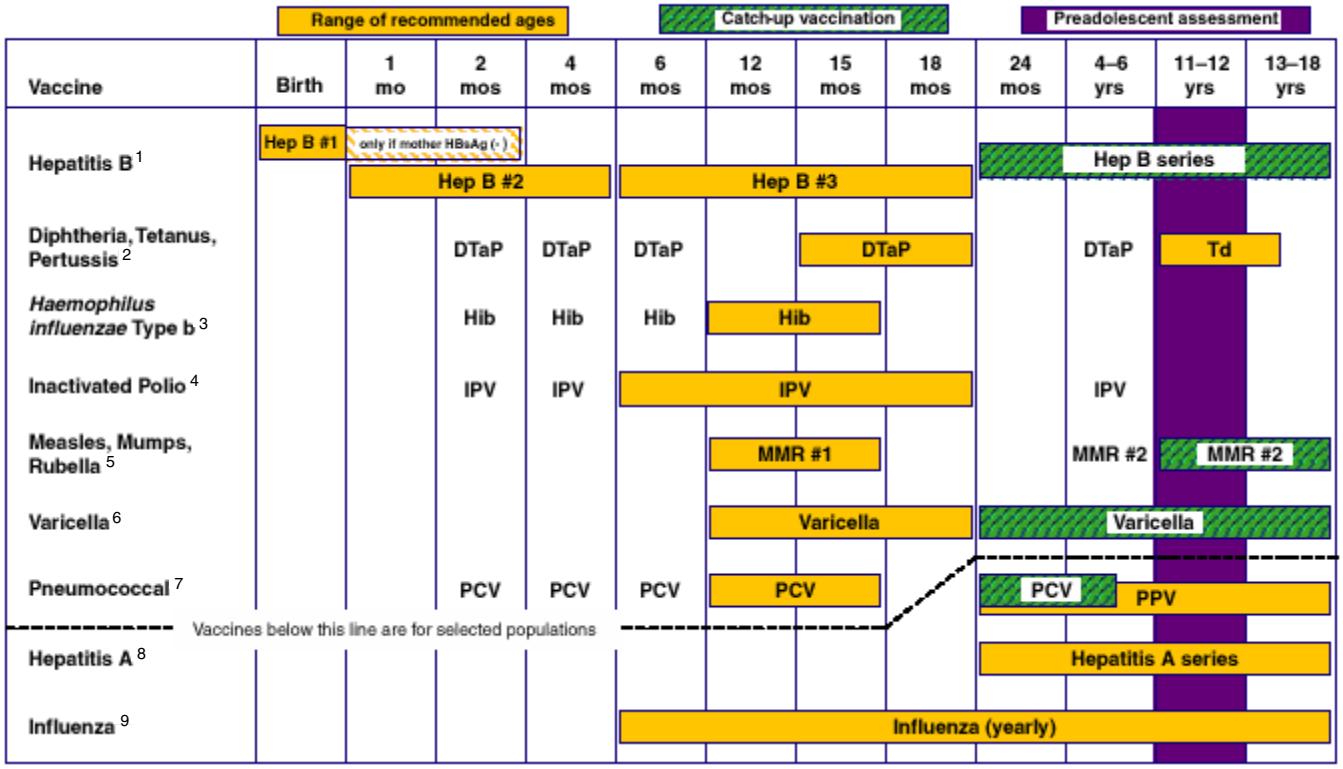
FIGURE 1. Recommended childhood immunization schedule* — United States, 2002



1. **Hepatitis B vaccine (Hep B)**. All infants should receive the first dose of hepatitis B vaccine soon after birth and before hospital discharge; the first dose may also be given by age 2 months if the infant's mother is HBsAg-negative. Only monovalent hepatitis B vaccine can be used for the birth dose. Monovalent or combination vaccine containing Hep B may be used to complete the series; four doses of vaccine may be administered if combination vaccine is used. The second dose should be given at least 4 weeks after the first dose, except for Hib-containing vaccine which cannot be administered before age 6 weeks. The third dose should be given at least 16 weeks after the first dose and at least 8 weeks after the second dose. The last dose in the vaccination series (third or fourth dose) should not be administered before age 6 months.
Infants born to HBsAg-positive mothers should receive hepatitis B vaccine and 0.5 mL hepatitis B immune globulin (HBIG) within 12 hours of birth at separate sites. The second dose is recommended at age 1-2 months and the vaccination series should be completed (third or fourth dose) at age 6 months.
Infants born to mothers whose HBsAg status is unknown should receive the first dose of the hepatitis B vaccine series within 12 hours of birth. Maternal blood should be drawn at the time of delivery to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than age 1 week).
2. **Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP)**. The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15-18 months. **Tetanus and diphtheria toxoids (Td)** is recommended at age 11-12 years if at least 5 years have elapsed since the last dose of tetanus and diphtheria toxoid-containing vaccine. Subsequent routine Td boosters are recommended every 10 years.
3. ***Haemophilus influenzae* type b (Hib) conjugate vaccine**. Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB ® or ComVax ® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4 or 6 months, but can be used as boosters following any Hib vaccine.
4. **Inactivated polio vaccine (IPV)**. An all-IPV schedule is recommended for routine childhood polio vaccination in the United States. All children should receive four doses of IPV at ages 2 months, 4 months, 6-18 months, and 4-6 years.
5. **Measles, mumps, and rubella vaccine (MMR)**. The second dose of MMR is recommended routinely at age 4-6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and that both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by the 11-12 year old visit.
6. **Varicella vaccine**. Varicella vaccine is recommended at any visit at or after age 12 months for susceptible children, i.e. those who lack a reliable history of chickenpox. Susceptible persons aged >13 years should receive two doses, given at least 4 weeks apart.
7. **Pneumococcal vaccine**. The heptavalent pneumococcal conjugate vaccine (PCV) is recommended for all children age 2-23 months. It is also recommended for certain children age 24-59 months. **Pneumococcal polysaccharide vaccine (PPV)** is recommended in addition to PCV for certain high-risk groups. See *MMWR*. 2000;49(RR-9):1-35.
8. **Hepatitis A vaccine**. Hepatitis A vaccine is recommended for use in selected states and regions, and for certain high-risk groups; consult your local public health authority. See *MMWR*. 1999;48(RR-12):1-37.
9. **Influenza vaccine**. Influenza vaccine is recommended annually for children age > 6 months with certain risk factors (including but not limited to asthma, cardiac disease, sickle cell disease, HIV, diabetes; see MMWR. 2001;50(RR-4):1- 44), and can be administered to all others wishing to obtain immunity. Children aged ≤12 years should receive vaccine in a dosage appropriate for their age (0.25 mL if age 6-35 months or 0.5 mL if age ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive two doses separated by at least 4 weeks.

*(**Vaccines**, continued from page 1)*

had sufficient quantities of DTaP since Spring, 2001. Providers who feel that at any given time their supplies are inadequate should defer the fourth dose of DTaP. If any other doses need to be deferred beyond the fourth dose, then the fifth dose should be the next dose to defer. The highest priority for DTaP should be given to the first three doses because pertussis is most severe among children less than one year of age and because of the importance of getting three doses of vaccine containing tetanus and diphtheria toxoids.

Immunization providers are urged to keep records of deferred vaccinations so that those patients can be recalled for their vaccinations when sufficient vaccine becomes available.

For more information regarding countries where the risk for diphtheria is high or for more information about which diseases or conditions constitute an increased risk for pneumococcal disease, please call the West Virginia Immunization Program at 1-800-642-3634; or visit the Immunization Program website at www.wvdhhr.org/immunizations/home.htm or the National Immunization Program website at www.cdc.gov/nip.

New STD cases mixed in 2001

In 2001, cases among men and women increased slightly for gonorrhea and chlamydia while syphilis cases decreased. Based on preliminary data, chlamydia increased from 2,144 to 2,343 cases; gonorrhea increased from 644 to 731 cases, while syphilis dropped to a record low of 8 early cases from the previous low of 13. The nine percent rise in the number of new cases of chlamydia identified was evenly distributed among both genders

Severe outcomes from chlamydial infections in women include ectopic pregnancies, pelvic inflammatory disease and sterility. For this reason, screening efforts for chlamydia and gonorrhea have been targeted towards women with the treatment and referral of sex partners to prevent further spread. In 2002, the AIDS/STD program will begin a urine-based testing program for chlamydia and gonorrhea to target the male population.

West Nile virus surveillance in West Virginia, 2001

During 2001 West Nile virus continued to expand into areas that previously were not positive in 2000. Currently 27 states and the District of Columbia; Ontario, Canada; as well as the Caribbean Cayman Islands are reporting positive incidents of West Nile. During most of the 2001 surveillance year, West Virginia concentrated West Nile surveillance in the eastern panhandle of the state. This was seen as the most likely point of entrance in the state, with both Pennsylvania and Maryland to our east having positive West Nile cases.

As the surveillance season progressed neighboring states to our west also began to report West Nile in their arbovirus surveillance. As a result West Nile surveillance in West Virginia was expanded statewide during the last week of August. During the 2001 surveillance season a total of 169 dead birds were reported to the local health departments. A total of 28 dead birds were submitted for virus testing, 25 were negative for the virus and the remaining 3 were unsuitable for testing. A total of 16 counties submitted birds for testing. Dead bird surveillance for the 2002 surveillance season is tentatively scheduled to begin in early May.

In addition to dead bird surveillance, mosquito surveillance will be carried out in the 2002 season. Adult mosquito surveillance will use both CDC miniature light traps and CDC gravid traps. The CDC gravid traps target female *Culex* mosquitoes that have blood fed, giving the ability to test the mosquitoes for the West Nile virus. Mosquito surveillance is tentatively scheduled to begin in late March.

Hepatitis C in prison

Pilot project includes West Virginia

Hepatitis C is a growing concern in our prison system. In November of 2001, one prison reported 15 cases of hepatitis C among its inmates.

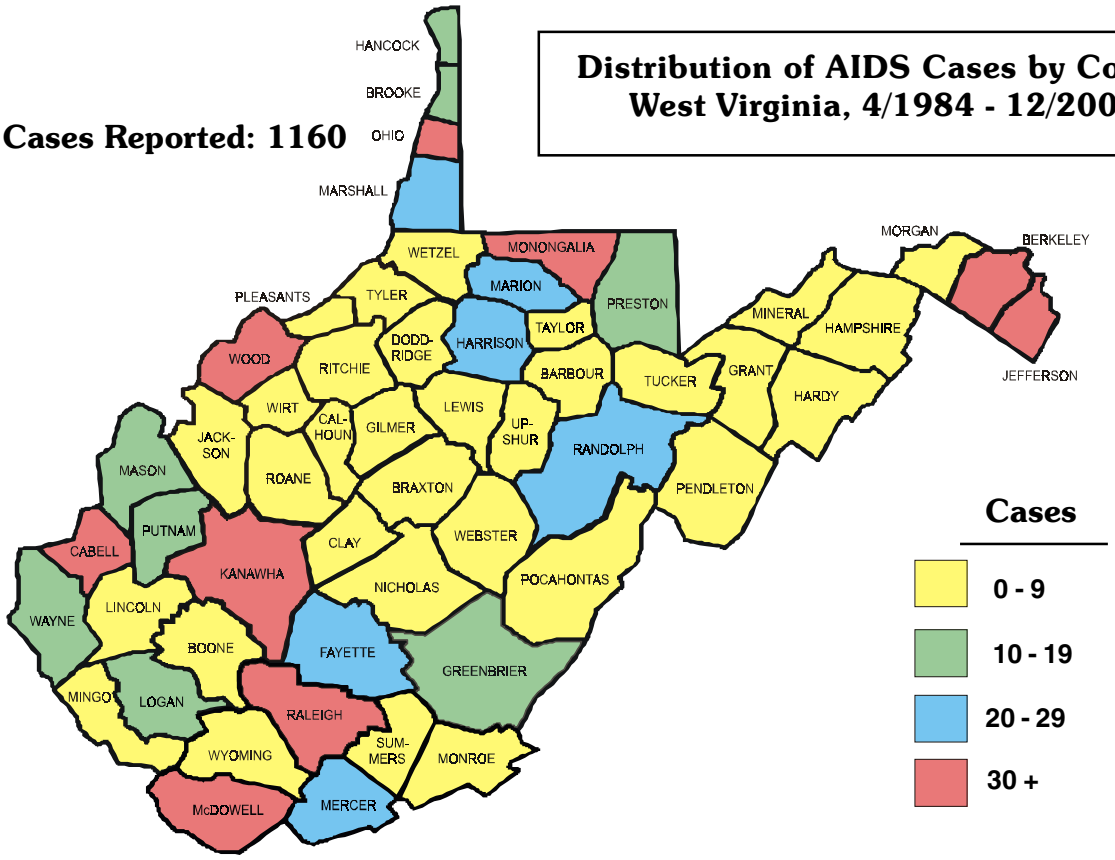
Hepatitis C is a disease that affects the liver. It is spread by contact with the blood of an infected person. Most persons who get hepatitis C carry the virus for the rest of their lives. Research indicates that the majority of prison inmates with the virus also have a history of injecting drug use. It is estimated that 4 million Americans are infected, and 85% of all infections develop into chronic infection. If left untreated, hepatitis C infection can lead to cirrhosis, liver failure, and liver cancer.

The West Virginia Bureau for Public Health is involved in a pilot project to train correctional officers about hepatitis C. Chuck Hall and Shelia Ware, both educators with the DSDC-AIDS Program, attended the National Corrections Conference in Albuquerque, New Mexico, this past November, and Chuck Hall was instrumental in getting West Virginia included in this pilot project. Both educators will be visiting the prisons in West Virginia and doing training on the hepatitis C virus.

Anyone with questions about hepatitis C should contact the Bureau for Public Health at 1-800-642-8244.

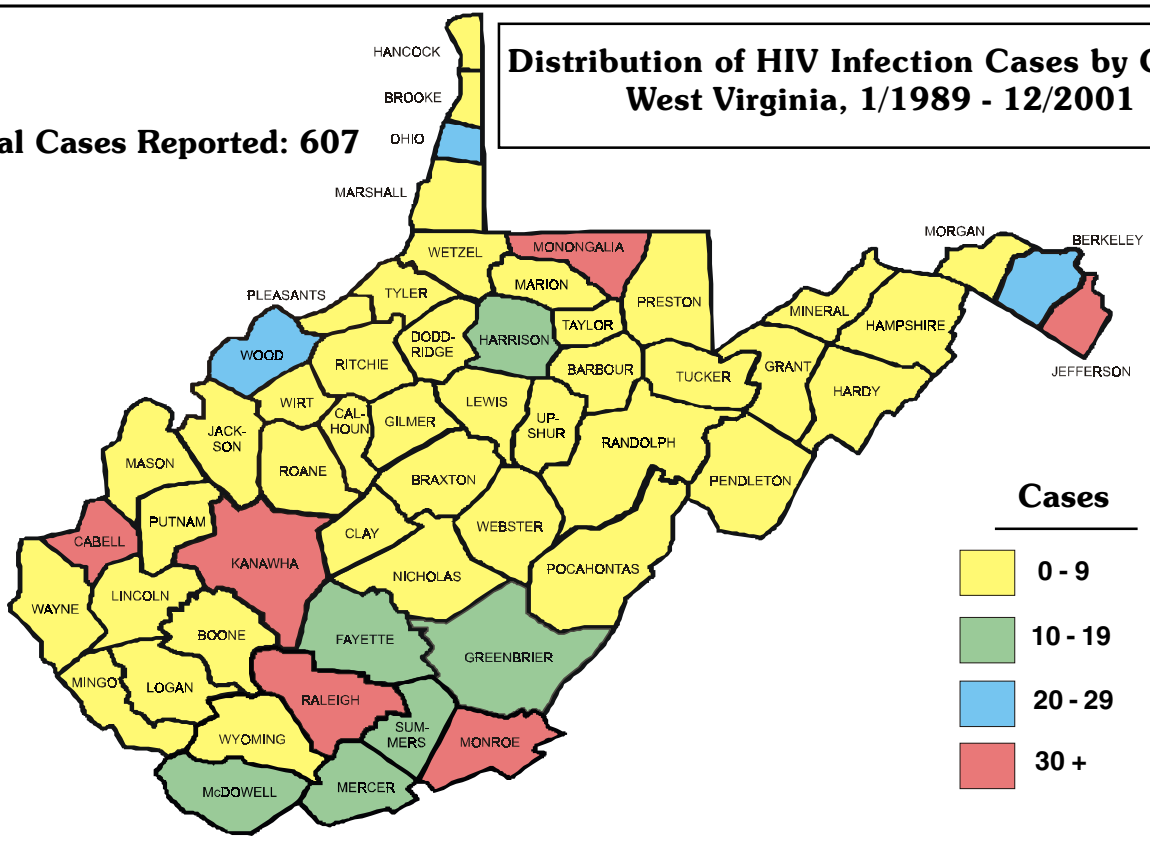
Distribution of AIDS Cases by County West Virginia, 4/1984 - 12/2001

Total Cases Reported: 1160



Distribution of HIV Infection Cases by County West Virginia, 1/1989 - 12/2001

Total Cases Reported: 607



West Virginia AIDS and HIV Infection Cases by Age Group, Gender, Race and Risk Behavior Cumulative through December 31, 2001*						
Characteristic	**AIDS**		**HIV**		**Total**	
Age Group	**#**	**%**	**#**	**%**	**#**	**%**
Under 5	8	0.7	7	1.2	15	0.8
5-12	2	0.2	1	0.2	3	0.2
13-19	9	0.8	29	4.8	38	2.2
20-29	206	17.8	229	37.7	435	24.6
30-39	516	44.5	226	37.2	742	42.0
40-49	305	26.3	87	14.3	392	22.2
50 and Over	114	9.8	28	4.6	142	8.0
Gender						
Male	999	86	443	73	1442	82
Female	161	14	164	27	325	18
Race						
White	933	81	364	59	1297	73.4
Black	213	18	214	37	427	24.2
Oher/Unknown	14	1	29	4	43	2.4
Risk Behavior						
Adult						
MSM	648	56	259	43	907	52
IDU	187	16	113	19	300	17
MSM/IDU	68	6	19	3	87	5
Coagulation Disorder	38	3	8	1	46	3
Heterosexual Contact	112	10	95	16	207	12
Transfusion/Transplant	34	3	6	1	40	2
No Identified Risk	4	0	4	1	8	0
Other^	59	5	95	16	154	9
Subtotal	**1150**	**100**	**599**	**100**	**1749**	**100**
Pediatric						
Coagulation Disorder	1	11	0	0	1	6
Mother HIV Positive	9	89	8	100	17	94
Subtotal	**10**	**100**	**8**	**100**	**18**	**100**
TOTAL CASES	**1160**	**100**	**607**	**100**	**1767**	**100**

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

***** AIDS data includes April 1984 through December 31, 2001, and HIV data includes January 1989 through December 31, 2001.

^ Other risk behavior includes cases reported with no risk identified that have been closed to follow-up.

West Virginia Cancer Registry to participate in CDC study of oral pharyngeal cancer

The West Virginia Cancer Registry has been awarded funding by the Centers for Disease Control and Prevention for a study of oral pharyngeal cancer in West Virginia. This project, conducted in collaboration with Monica Fisher, MPH, PhD and Steven Jubelirer, MD, both of West Virginia University, and Mary Emmet, PhD of CamCare Health Education and Research Institute, will improve knowledge of the incidence of and survival patterns associated with oral/pharyngeal cancers.

The 1994 to 1998 average annual age-adjusted incidence rate of oral/pharyngeal cancer was 13.5 per 100,000 for men and 4.8 per 100,000 for women. An average on 143 West Virginia men and 65 West Virginia women were newly-diagnosed with oral/pharyngeal cancer each year during that period. More than half (54%) of the cancers were relatively advanced at the time of diagnosis, having spread to regional lymph nodes or more distant body structures. Over 90% of the oral/pharyngeal cancers were diagnosed in persons 45 years of age or older. Mortality from oral/pharyngeal cancer in West Virginia is similar to that in the United States as a whole. In 1997, age-adjusted mortality per 100,000 was 3.2 for West Virginia (3.8 for the United States) and 1.3 for West Virginia women (1.4 for the United States).

Both tobacco use and excessive alcohol use are well-established risk factors for oral/pharyngeal cancers. According to the 1998 Behavioral Risk Factor Surveillance System survey, West Virginia had the third highest percentage of current cigarette smoking among adults, at 27.9%, compared to 22.9% nationwide. West Virginia ranked second in the nation for smokeless tobacco use (among the 13 states asking about it), with 29.1% of adults reporting that they had used smokeless tobacco at some time during their lives. On the other hand, West Virginia's rates of heavy alcohol consumption (5 or more drinks on a single occasion) are similar to the national average. Thus while West Virginians have higher than average rates of tobacco use, West Virginia rates of oral/pharyngeal cancer incidence and mortality are similar to the national average.

The newly-funded oral/pharyngeal cancer study will help determine why, despite the high rates of risk factors, more cancers are not reported. It will include:

- Re-abstracting of all reported oral-pharyngeal cancer cases from 1995 to 1999 to ensure completeness and accuracy.
- Review of pathology reports from 1998 to 1999 and survey of dentists to determine the usefulness of reports from pathology laboratories in detecting oral pharyngeal cancer.
- Evaluation of methods for estimating incidence of and mortality associated with oral pharyngeal cancers.

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