



West Virginia

EPI-LOG

Promoting public health in the digital age

If you hit the streets of any large city and ask people what “public health” means, you may hear answers such as “hand-washing.” You may even get that deer-in-the-headlights look as someone responds, “Is that some government agency that spies on the public?”

To see how public health professionals deal with this group of people, let’s explore how advancements in the digital age can be used to educate the public about public health and avert misunderstandings.



In the digital age that we live in, your children and their children will probably know more about digital usage than you ever will. It is said that your child will respond quicker to a text message than a phone call. To speak the language of the younger generation, you have to text like them. You might say to yourself, “Sure, I know how to text.” But do you really? The world of text-messaging is replete with codes and abbreviations – so many in fact that if you Google “text message abbreviations,” you’ll get over 10,000 listings on the subject (at least when this article was written!).

You may wonder how text-messaging can be used in public health. Consider how the Centers for Disease Control uses texting. If you visit the CDC’s website, you can send a text message with your ZIP code and receive a

(See *Digital Age*, page 4)

Statewide Disease Facts & Comparisons

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

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

Reported Count of Infectious Disease Cases, by Year of Onset, in West Virginia (1998-2007)

Disease	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	TOTAL
AMEBIASIS	0	2	0	1	1	3	0	2	1	0	10
ANTHRAX	0	0	0	0	0	0	0	0	0	0	0
BOTULISM INFANT	0	0	0	1	0	0	2	0	1	1	5
BRUCELLOSIS	0	0	0	0	0	0	0	0	0	0	0
CAMPYLOBACTERIOSIS	104	82	105	92	106	105	109	88	121	98	1010
CHICKENPOX-RELATED DEATH	0	0	0	0	0	0	0	0	0	0	0
CHOLERA	0	0	0	0	0	0	0	0	0	0	0
CRYPTOSPORIDIOSIS	3	3	3	2	3	4	6	21	20	12	77
CYCLOSPORA	0	3	0	0	0	0	0	0	0	0	3
DENGUE FEVER	0	0	0	1	0	0	1	1	0	0	3
DIPHTHERIA	0	0	0	0	0	0	0	0	0	0	0
ESCHERICHIA COLI, SHIGA TOXIN-PRODUCING (STEC)	14	16	15	11	12	8	4	7	17	19	123
EHRlichiosis	0	0	0	0	0	0	0	2	1	0	3
ENCEPHALITIS, LA CROSSE	46	16	40	44	40	23	30	15	18	11	283
ENCEPHALITIS, ST. LOUIS	0	0	0	0	0	0	0	0	0	0	0
GIARDIASIS	93	95	76	83	79	65	65	54	57	51	718
HEMOPHILUS INFLUENZAE, INVASIVE	7	8	15	16	20	17	24	29	27	30	193
HANTAVIRUS	0	0	0	0	0	0	1	0	0	0	1
HEMOLYTIC UREMIC SYNDROME, POST-DIARRHEAL	1	0	0	0	0	1	0	3	2	0	7
HEPATITIS A	9	51	52	30	24	38	5	4	6	11	230
HEPATITIS C, ACUTE	11	19	22	15	3	25	21	22	24	18	180
HEPATITIS D	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS E	0	0	0	0	0	0	0	0	1	0	1
INFLUENZA-RELATED DEATH IN AN INDIVIDUAL LESS THAN 18 YEARS OF AGE	0	0	0	0	0	0	0	0	0	0	0
LEGIONELLOSIS	2	0	5	6	0	27	13	27	20	21	121
LEPTOSPIROSIS	0	0	1	1	0	1	0	0	1	1	5
LISTERIOSIS	6	1	5	6	1	7	5	8	14	3	56
LYME DISEASE	14	19	34	19	26	32	41	55	28	84	352
MALARIA	2	4	4	1	3	4	2	3	3	1	27
MEASLES	0	0	0	0	0	0	0	0	0	0	0
MUMPS	0	0	1	0	0	3	2	0	24	3	33
NEISSERIA MENINGITIDIS, INVASIVE	18	9	17	15	5	7	7	8	12	3	101
ORTHOPOX INFECTION	0	0	0	0	0	0	0	0	0	0	0
PERTUSSIS (WHOOPING COUGH)	8	5	1	6	35	28	51	53	66	32	285
PLAGUE	0	0	0	0	0	0	0	0	0	0	0
POLIOMYELITIS	0	0	0	0	0	0	0	0	0	0	0
PSITTACOSIS	0	0	0	0	0	0	0	0	0	0	0
Q-FEVER (COXIELLA BURNETII)	0	0	0	0	0	0	0	0	0	1	1
RABIES, ANIMAL	77	115	114	141	175	82	74	74	125	85	1062
RABIES, HUMAN	0	0	0	0	0	0	0	0	0	0	0
ROCKY MOUNTAIN SPOTTED FEVER	3	1	3	1	2	6	7	10	4	6	43
RUBELLA, INCLUDING CONGENITAL SYNDROME	0	0	0	0	0	0	0	0	0	0	0
SALMONELLOSIS	179	190	179	185	172	153	245	215	171	231	1920
SHIGELLOSIS	8	8	26	8	13	5	12	2	5	172	259
SMALLPOX	0	0	0	0	0	0	0	0	0	0	0
STAPHYLOCOCCUS AUREUS WITH GLYCOPEPTIDE-INTERMEDIATE (GISA/VISA) OR GLYCOPEPTIDE-RESISTANT (GRSA/VRSA) SUSCEPTIBILITIES	0	0	0	0	0	0	0	0	0	0	0
STREPTOCOCCAL TOXIC SHOCK SYNDROME	1	0	6	5	2	5	3	6	9	5	42
STREPTOCOCCUS, GROUP A, INVASIVE	10	29	26	28	21	40	34	27	29	27	271
STREPTOCOCCUS, GROUP B, INVASIVE	2	4	2	3	2	33	47	61	72	81	307
STREPTOCOCCUS PNEUMONIAE, INVASIVE	21	43	71	107	143	228	239	242	216	238	1548
TETANUS	3	0	1	1	0	0	1	0	0	0	6
TRICHINOSIS	0	0	0	0	0	0	0	0	0	0	0
TULAREMIA	0	0	0	0	1	0	0	0	1	0	2
TYPHOID FEVER	1	0	1	0	0	0	0	0	0	1	3
VIRAL HEMORRHAGIC FEVERS	0	0	0	0	0	0	0	0	0	0	0
WEST NILE VIRUS	0	0	0	0	4	2	0	0	1	0	7
YELLOW FEVER	0	0	0	0	0	0	0	0	0	0	0
YERSINIOSIS	7	2	1	3	0	0	1	0	1	4	19
Total	650	725	826	832	893	952	1052	1039	1098	1250	9317

NOTE: West Virginia Infectious Disease Epidemiology Program recently published the 2007 Reportable Infectious Disease Annual Report on the website: <http://www.wvdep.org/SurveillanceData/2007AnnualReportTableofContents/tabid/1803/Default.aspx>. This annual report includes all infectious diseases except tuberculosis, sexually transmitted diseases including viral hepatitis B, and HIV/AIDS. The report is listed by disease group such as vaccine preventable diseases, invasive bacterial diseases, influenza and influenza like illness, hepatitis C, food and waterborne diseases, zoonoses, special project and 2007 outbreak report. ☒

**Confirmed and Probable Cases by Month Reported to WVEDDS
(PROVISIONAL)
January 1, 2008 to June 30, 2008
West Virginia**

This report includes only those cases reported to WVEDDS for which case status has been confirmed by the West Virginia Bureau for Public Health.

Report generated on September 10, 2008.

Condition	Jan	Feb	March	April	May	June	Total
Amebiasis	0	1	0	0	0	0	1
Animal Bites	143	105	115	133	59	105	660
Anthrax	0	0	0	0	0	0	0
Botulism	0	0	0	0	0	0	0
Brucellosis	0	0	0	0	0	0	0
Campylobacteriosis	1	4	4	3	11	20	43
Cholera	0	0	0	0	0	0	0
Cryptosporidiosis	1	1	0	2	2	1	7
Cyclospora Infection	0	0	0	0	0	0	0
Dengue Fever	0	1	0	0	0	0	1
Diphtheria	0	0	0	0	0	0	0
Ehrlichiosis	0	0	0	0	0	0	0
Encephalitis, LaCrosse (California Group)	0	0	0	0	0	2	2
Giardiasis	1	7	6	7	0	4	25
Haemophilus influenzae, Invasive Disease	1	5	1	1	1	3	12
Hantavirus Disease	0	0	0	0	0	0	0
Hemolytic Uremic Syndrome, Postdiarrheal	0	0	0	0	0	0	0
Hepatitis A, Acute	1	0	0	2	0		3
Hepatitis C, Acute	0	0	0	2	4	4	10
Hepatitis E	0	0	0	0	0	0	0
Legionellosis	1	2	0	0	2	4	9
Leptospirosis	0	0	0	0	0	0	0
Listeriosis	0	0	1	0	0	0	1
Lyme Disease	0	0	1	0	2	5	8
Malaria	0	0	0	0	0	0	0
Measles (Rubeola)	0	0	0	0	0	0	0
Meningococcal Disease, Invasive	0	0	1	0	0	1	2
Monkeypox	0	0	0	0	0	0	0
Mumps	0	1	0	0	0	0	1
Pertussis	0	0	1	0	2	0	3
Plague	0	0	0	0	0	0	0
Poliomyelitis	0	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0	0
Q Fever	0	0	0	0	0	0	0
Rabies, Human	0	0	0	0	0	0	0
Rocky Mountain Spotted Fever	0	0	1	0	0	2	3
Rubella (German Measles)	0	0	0	0	0	0	0
Rubella, Congenital Syndrome	0	0	0	0	0	0	0
Salmonellosis	16	14	6	11	18	15	80
Shiga toxin-producing E.Coli (STEC)	3	2	1	3	4	4	17
Shigellosis	0	0	1	3	1	2	7
Smallpox	0	0	0	0	0	0	0
Staphylococcus aureus (GISA/VISA)	0	0	0	0	0	0	0
Staphylococcus aureus (GRSA/VRSA)	0	0	0	0	0	0	0
Streptococcal Disease, Group A Invasive	3	3	6	2	4	6	24
Streptococcal Disease, Group B Invasive	1	6	8	2	8	7	32
Streptococcal Toxic Shock Syndrome	1	0	2	1	0	3	7
Streptococcus pneumoniae, Invasive- drug resistant	3	11	18	14	18	5	69
Streptococcus pneumoniae, Invasive (<5 years old)	0	0	2	1	1	1	5
Tetanus	0	0	0	0	0	0	0
Toxic Shock Syndrome	0	0	0	0	0	0	0

(*Digital Age*, continued from page 1)

text back telling you where you can go for HIV testing. Keeping public health officials, the general public and health care offices informed of health alerts, changes to websites, and up-to-date reports of natural disasters within the state or country would be another use for texting. Of course, like most things digital there are some drawbacks. Not all people living in this country have cell phones or other devices that receive text messages – not only from the CDC but other services such as the Emergency Broadcast System.

Another medium that's been sweeping the internet with more than a billion hits a day are video posting channels such as YouTube and Joost. Such websites allow for people to post anything from vacation videos to how to make bottle rockets. This medium can play an extremely valuable role in the promotion of public health. Let's face it: Television time can be expensive and not even as effective as internet video. Search for health videos on YouTube, and you'll find thousands of entries. Want to show someone a shy person how to put on a condom or give him advice about HIV? Just direct him to an internet video he can watch on his laptop.

Such instructional videos on the internet can benefit more than the public; they can also be used as teaching tools for new employees. In the digital age, this medium has the power to reach a previously unreachable audience. It should be noted, however, that even internet videos still require digital cameras to produce, and this can be an expense some agencies may have trouble meeting in these tough economic times.

Text-messaging and internet video are powerful tools with which to reach tech-savvy audiences, but there is still a significant portion of the population that is lacking broadband internet and cell phones. While cell phone use is increasingly common even in rural West Virginia, many internet users in this state still rely on dial-up internet services that do not handle internet video well. If we are not careful, we may pass up the people who need our services the most. We must continue to promote public health messages through other media and our local DHHR offices. Local welfare offices can also help, since the majority of their clients do not have access to digital tools.

Recently the Association of Schools of Public Health (www.asph.org) launched a campaign called, "What is Public Health?" The goal of the campaign is to create awareness among the general public regarding public health and how much public health contributes to daily life. For more information, you can access the campaign's website at www.thisispublichealth.org. (See screen shot above.)



this? ☒

Microsoft CEO Steve Ballmer once said that, "The number one benefit of information technology is that it empowers people to do what they want to do. It lets people be creative. It lets people be productive. It lets people learn things they didn't think they could learn before, and so in a sense it is all about potential." Where will the West Virginia Bureau for Public Health fit into

Sexually transmitted disease 2007 report now available

The annual Centers for Disease Control and Prevention (CDC) report of statistics and data for sexually transmitted diseases in the United States is now available. CDC estimates that approximately 19 million new infections occur each year with almost half of them among young people 15 to 24 years of age. Reported cases of chlamydia and gonorrhea combined were approximately 1.5 million in 2007, but the majority of cases continue to go undiagnosed. Additionally, the CDC reported persistent racial disparities across all reportable STDs with African Americans bearing a heavy burden. These diseases continue to be the most commonly reported infectious diseases in West Virginia and the nation and pose persistent and preventable threats to fertility in the United States. Syphilis increased again in 2007, as it has each year since 2000, and remains a serious threat to the health of gay and bisexual men. To reduce the toll of STDs and protect the health of millions of Americans, expanded prevention efforts are urgently needed. CDC supports a comprehensive approach to STD prevention through screening, treatment, and behavioral interventions, with a focus on reducing health disparities, especially those occurring among racial and ethnic groups. *Sexually Transmitted Disease Surveillance, 2007* is available at <http://www.cdc.gov/std/stats07>. ☒

West Virginia AIDS and HIV Infection Cases
by Age Group, Gender, Race and Risk Behavior
Cumulative through December 31, 2008*

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	47	6	63	3
20-29	246	16	276	36	522	22
30-39	655	41	256	33	911	39
40-49	463	29	129	17	592	25
50 and Over	190	12	57	7	247	11
Total	1582	100	769	100	2351	100
Gender						
Male	1318	83	549	71	1867	79
Female	264	17	220	29	484	21
Total	1582	100	769	100	2351	100
Race						
White	1239	78	476	62	1715	73
Black	320	20	272	35	592	25
Other/Unknown	23	1	21	3	44	2
Total	1582	100	769	100	2351	100
Risk Behavior						
Adult						
MSM	853	54	343	45	1196	51
IDU	244	16	134	18	378	16
MSM/IDU	82	5	17	2	99	4
Coagulation Disorder	42	3	4	1	46	2
Heterosexual Contact with	193	12	130	17	323	14
Transfusion/Transplant	32	2	4	1	36	2
No Identified Risk/Other**	124	8	133	17	257	11
Subtotal	1570	100	765	100	2335	100
Pediatric						
Coagulation Disorder	0	0	0	0	0	0
Mother HIV Positive	12	100	4	100	16	100
Subtotal	12	100	4	100	16	100
Total Adults & Pediatrics	1582	100	769	100	2351	100

MSM = Men having Sex With Men; IDU = Injecting Drug User

* AIDS data includes April 1984 through December 31, 2008;

HIV data includes January 1989 through December 31, 2008.

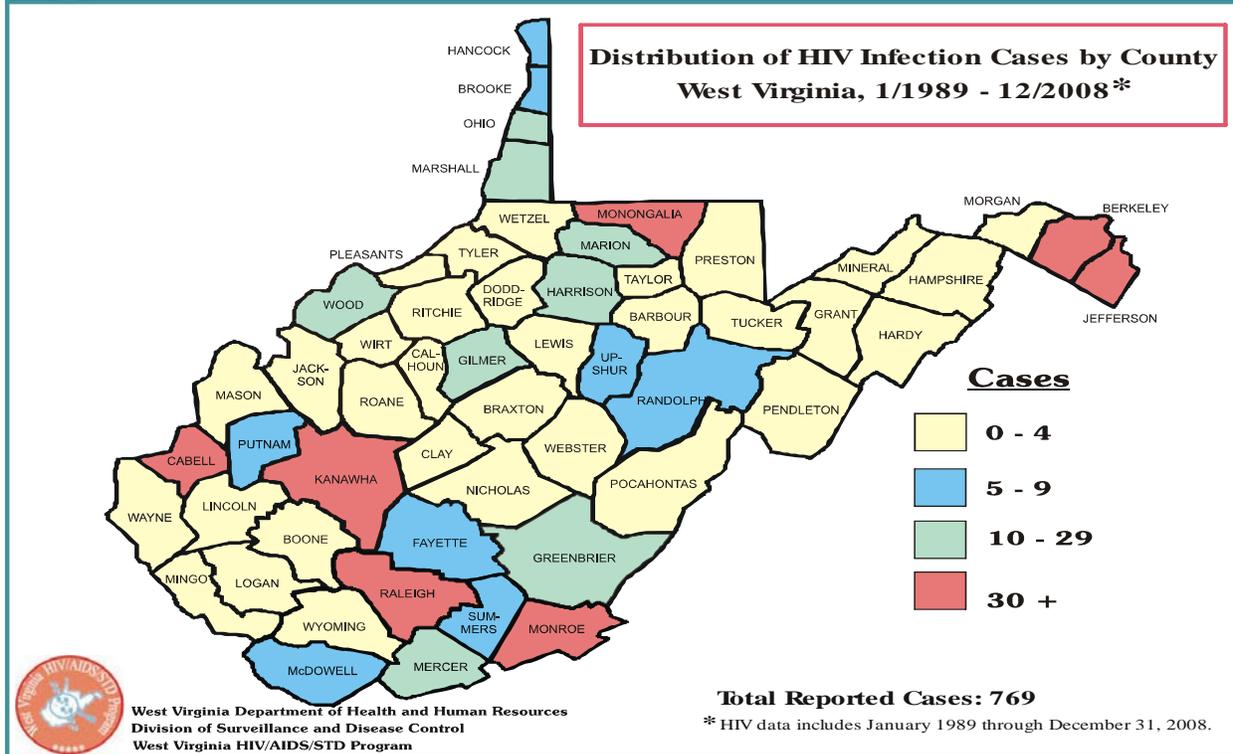
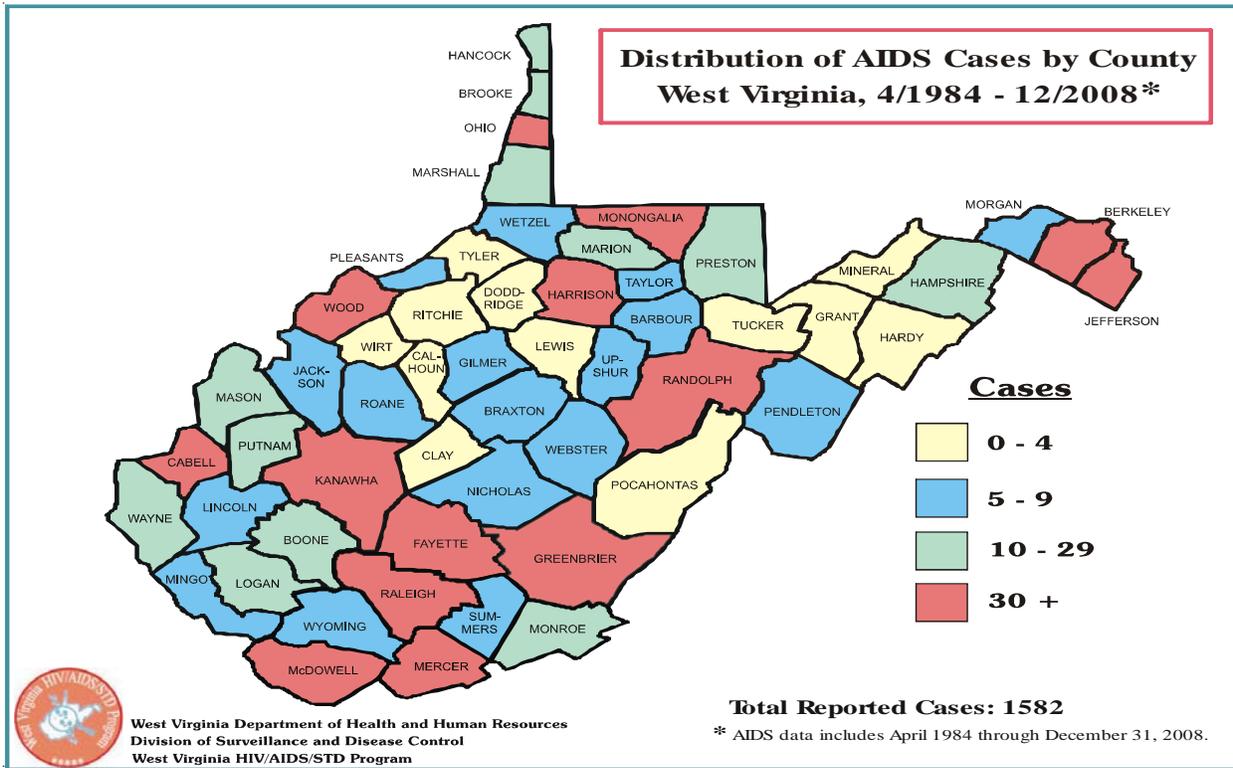
~ Age group intervals depicted in the table above may not be uniform due to:

a) Small number of cases in the under 13 age groups.

b) Cases twelve years of age and under are pediatric cases.

** 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.

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



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.