



# EPIDEMIOLOGY BULLETIN

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## REPORTABLE DISEASE TRENDS

The number of cases of each officially reportable disease received by the State Health Department during 1981 was compared with the annual mean number of cases for the decade 1972-1981. Diseases for which there was an increase in cases of one standard deviation or more during 1981 were: aseptic meningitis, campylobacter infections, encephalitis, hepatitis B, meningococcal disease, animal rabies, salmonellosis, and shigellosis. A decrease in reported cases of the same magnitude was noted for: hepatitis A, leptospirosis, pertussis, rubella, tetanus, tuberculosis, and typhoid fever.

Officially reportable diseases are those which, when diagnosed, are required by law to be reported to public health officials. Over the last decade considerable progress has been made in the control of some of these diseases. In December 1979, for example, the global eradication of smallpox was certified (1). Other diseases, such as hepatitis B and wildlife rabies, have been more difficult to control, and have led to the development of new vaccines (2,3). Finally, several illnesses such as legionellosis, Kawasaki's disease and the toxic shock syndrome (TSS), were only first recognized during the past five to fifteen years. Because of these changes, we have summarized the reportable disease trends in Virginia for the last decade.

During 1981, the greatest number of case reports was for gonorrhea (22,108), syphilis (1,760), and salmonellosis (1,572). At the opposite extreme, no cases of diphtheria, murine typhus, poliomyelitis, smallpox, or tetanus were reported. For each disease, the number of cases reported during 1981 was compared with the annual mean number of reported cases for the decade. Eight diseases had increased, seven had decreased, and 21 had remained unchanged (Table 1). Smallpox and human rabies were not included in the table because no cases were reported during the decade.

The disease trends reported here were based on total cases reported, rather than incidence rates. It should, therefore, be kept in mind that the Virginia population increased from 4,649,494 persons in 1970 to 5,346,818 persons in 1980, an increase of 15 percent (4).

Although more cases of aseptic meningitis were reported during 1981 than during any other year in the past decade, no consistent trend was noted. Case totals have fluctuated widely from year to year in Virginia, as they have nationally (5). The reason for the increase during 1981 was not determined.

Reported cases of hepatitis A decreased while those of hepatitis B increased, during 1981. These trends were consistent throughout the decade, and reflect national trends (6). These trends may be an artifact of the effect of HBsAg testing, which first became available in 1972. Cases of hepatitis B not due to blood trans-

Reportable Disease Trends for 1981

Increased*	Unchanged	Decreased*
Aseptic Meningitis Campylobacter Encephalitis Hepatitis B Meningococcal Dis. Rabies in Animals Salmonellosis Shigellosis	Brucellosis Congenital Rubella Diphtheria Gonorrhea Histoplasmosis Kawasaki's Disease Legionellosis Leprosy Malaria Measles Mumps Occupational Polio Psittacosis Reye's Syndrome Rocky Mountain spotted fever Syphilis Toxic Shock Syndrome Trichinosis Tularemia Typhus, Murine	Hepatitis A Leptospirosis Pertussis Rubella Tetanus Tuberculosis Typhoid Fever

\*Defined as a one standard deviation difference from the mean for years reported 1972 through 1981.

fusion, accidental needlestick, or IV drug abuse have probably been misdiagnosed as hepatitis A less often as HBsAg testing has become more widely available.

Nationally, the number of reported cases of encephalitis varies from year to year, in part due to the fluctuation in arboviral activity. The general trend, however, has been that of a slow decline, attributable to a decrease in encephalitis secondary to childhood illnesses,\* which, in turn, has been brought about by successful prevention of many of these illnesses through immunization (7). Although a similar decline in encephalitis associated with childhood illnesses has been noted in Virginia, this effect has been more than counterbalanced by an increase in reports of encephalitis due to Herpes sp. It is not clear whether this increase is real, or is an artifact resulting from more complete reporting, perhaps due to the increasing use of brain biopsies with laboratory confirmation of herpes encephalitis.

Reported cases of meningococcal disease increased during 1981 in Virginia and for the U.S. as a whole (8). Increases were seen for both serogroup B- and serogroup C-associated disease. The reasons for the increases are not known.

Both nationally and in Virginia, there has been an increase in wild animal rabies; although fox rabies has declined during the decade, this decline has been more than counterbalanced by an increase in raccoon rabies (9). The reason for the sudden appearance of raccoon rabies in Virginia is poorly understood, but may be due to the illegal importation of infected raccoons into this state (10) or introduction of the virus into a rapidly expanding raccoon population by some other wildlife species.

Both salmonellosis and shigellosis increased during 1981. The increase in salmonellosis has been fairly consistent throughout the decade, and reflects a similar trend nationally (11). The factors responsible for this increase are not known. The increase in shigellosis, on the other hand, was not seen throughout the decade. The 1981 increase was due to a large urban outbreak in Richmond, where person-to-person transmission led to over 600 cases in that city alone. Children attending day-care centers constituted a reservoir of cases which perpetuated the outbreak.

\*such as: measles, mumps, chickenpox, rubella.

The reasons for the decline in reports of tuberculosis (TB), seen both in Virginia and nationally, are multiple but include the great improvements in therapy initiated in the 1950's (12). This decline has been blunted to some extent recently by the immigration of refugees with TB.

Vaccination against measles, rubella, and lately, mumps, has intensified in recent years. Surveys of immunization levels in school enterers in Virginia have revealed that the number of children immunized against measles increased from 80.2% for school year 1975-76, to 98.6% for school year 1981-82. A similar increase was noted for rubella immunization. Increased immunization levels have been a major factor in the decline in reported cases of measles, mumps and rubella. Although measles and mumps did not meet the criteria\* used to classify the diseases with downward trends listed in Table 1, a downward trend for measles can be illustrated by the fact that 18 cases were reported in 1981, whereas the annual mean for the decade was 767 cases. For mumps, 134 cases were reported in 1981, whereas the annual mean was 468. Because of the increased immunization levels of young children, the age groups with the greatest proportion of recent measles and rubella cases both in Virginia and in the U.S., have been adolescents and young adults (13, 14).

This disease surveillance summary relied on data which had been tabulated manually. The Division of Epidemiology is currently switching to a computerized system of data storage and retrieval. It is anticipated that this move will facilitate the writing of summaries similar to this one, and improve the efficiency with which disease outbreaks are recognized and investigated.

\* mean number of reports for both diseases was associated with a large standard deviation.

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Free Introductory Computer Time for Cancer Information

The National Library of Medicine has added a new cancer database to its repertoire of 20 medical and health related computer files. The new database, PDQ (Protocol Data Query), was developed by the National Cancer Institute (NCI) to make more accessible to physicians and their cancer patients information concerning the latest methods of cancer therapy in NCI-supported programs. (Non-NCI-supported programs both inside and outside the United States will be added in the near future.) There are approximately 700 cancer therapy research protocols with abstracts in PDQ, along with the institution and address where the protocol is being used and the name of the oncologist and phone number to contact.

For example, if a physician was interested in a listing of institutions accepting patients with acute lymphocytic leukemia, ACUTE LYMPHOCYTIC LEUKEMIA would be typed on a computer terminal keyboard. This would be followed by the command to "print" the desired elements of the record (such as, title, abstract, address). To narrow a listing to a particular geographic area, say Virginia, the following could be typed: ADENOCARCINOMA (TW) and VA. The physician would then have the option of contacting any of the oncologists listed, and discussing the protocols with them.

PDQ will be available free through the end of December, after which it will go to \$22/hr (prime time, 10 a.m. - 5 p.m. Mon-Fri) or \$15/hr (non-prime time).

If your hospital library does not have a computer terminal, call the State Health Department (804) 786-1763, Laurel Meyer, or the Medical College of Virginia Library \* (804) 786-0823 or 0824, or the University of Virginia Library \* (804) 924-5591 for a search on this new database.

\* These two institutions may charge a nominal fee.

SUBJECT INDEX - 1982

VIRGINIA EPIDEMIOLOGY BULLETIN

	<u>ISSUE NUMBER</u>
Advising Travelers	8
Brucellosis	7
Cancer information, computerized	11
Dermatitis, Whirlpool	8
Diphtheria, Tetanus and Pertussis: Guidelines for Vaccine Prophylaxis and Other Preventive Measures	1
Disease trends, reportable	11
Health effects of indoor pollution	12
Hepatitis profile in Virginia	2
Hepatitis B virus vaccine, inactivated	6
High Blood Pressure	4
Hog fever (Brucellosis)	7
Human Diploid Cell Strain Rabies-Vaccine	2
Index 1981 - Virginia Epidemiology Bulletin	2
Index 1982 - Virginia Epidemiology Bulletin	11
Indoor pollution	12
Influenza	2,4
Influenza vaccine 1982-1983	Suppl.
Kaposi's sarcoma	8
Lyme disease in Virginia	9
Pertussis, prevention	1
Poliomyelitis, prevention	3
Pollution, indoor	12
<u>Pseudomonas aeruginosa</u> dermatitis	8
Rabies Epizootic in Virginia	10
Rabies vaccine, human	2
Reportable disease trends	11
Rocky Mountain spotted fever 1972-1981	5
Surveillance - see reportable disease	11
Tetanus, prevention	1
Travelers, advising	8
Whirlpool dermatitis	8

MONTH: November, 1982

DISEASE	STATE					REGIONS				
	THIS MONTH	LAST MONTH	TOTAL TO DATE		MEAN 5 YEAR TO DATE	THIS MONTH				
			1982	1981		N.W.	N.	S.W.	C.	E.
CHICKENPOX	10	8	832	1673	942.0	4	1	1	0	4
MEASLES	0	0	14	9	1242.2	0	0	0	0	0
MUMPS	1	5	39	127	117.8	0	0	0	0	1
PERTUSSIS	1	4	28	9	14.0	0	0	0	0	1
RUBELLA	0	0	13	6	215.8	0	0	0	0	0
MENINGITIS - ASEPTIC	37	58	247	256	207.2	5	1	10	6	15
BACTERIAL	23	18	194	196	147.2	6	2	5	3	7
ENCEPHALITIS - INFECTIOUS	7	5	40	37	31.8	1	1	0	2	3
POST-INFECTIOUS	0	0	1	4	7.8	0	0	0	0	0
HEPATITIS A (INFECTIOUS)	8	32	177	194	255.6	1	0	2	0	5
B (SERUM)	48	59	474	494	385.6	9	8	3	8	10
SALMONELLOSIS	105	161	1383	1476	1074.4	9	24	15	32	25
SHIGELLOSIS	18	14	149	1177	355.8	10	2	2	1	3
TUBERCULOSIS - PULMONARY	37	45	486	490	-	-	-	-	-	-
EXTRA-PULMONARY	9	12	98	101	-	-	-	-	-	-
SYPHILIS (PRIMARY & SECONDARY)	55	67	579	648	513.0	2	5	1	9	38
GONORRHEA	1575	2354	20,001	20,474	21,603.6	-	-	-	-	-
ROCKY MOUNTAIN SPOTTED FEVER	2	2	73	105	110.0	0	0	1	1	0
RABIES IN ANIMALS	106	104	651	143	41.4	9	96	1	0	0
MENINGOCOCCAL INFECTIONS	6	7	67	96	67.0	2	1	0	1	2
INFLUENZA	20	22	382	4979	2652.0	0	0	4	0	16
MALARIA	0	6	39	33	32.2	0	0	0	0	0
OTHER: <i>Hepatitis Unspecified</i>	6	9	98	168	162.4	0	4	0	0	2

COUNTIES REPORTING ANIMAL RABIES: *Clarke 2 rc; Fairfax 62 rc, 1 sk, 1 gh; Highland 1 sk, 1 rc; Loudoun 21 rc, 3 sk; Rockingham 1 sk; Fauquier 1 rc, 1 sk; Page 1 sk; Prince Wm. 5 rc, 1 sk; Washington 1 sk; Fredericksburg 1 rc, 1 sk.*

OCCUPATIONAL ILLNESSES: *Occupational pneumoconioses 9, Occupational dermatoses 1, Occupational hearing loss 9; Asbestosis 6, Byssinosis 4*

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