Kentucky
CABINET FOR HEALTH SERVICES
DEPARTMENT FOR PUBLIC HEALTH
DIVISION OF EPIDEMIOLOGY
& HEALTH PLANNING
Epidemiologic Notes & Reports
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Emergency Medical Services (EMS) in Kentucky

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Of the 267 ambulance provider services licensed in Kentucky, 66 (25%) submitted data in electronic format to the Department for Public Health during the 1998-99 fiscal year. This report is based on 87,287 ambulance run reports received in electronic format. It is estimated these reports represent approximately 15% of the total ambulance runs made during that year.

As shown in Table 1, 48 (79%) of the reporting services offered advanced life support services (ALS) while the remainder offered basic life support services (BLS). 76% of rural EMS and 86% of urban EMS were classified as ALS.

Table 1: Reporting Agencies by ALS/BLS and Rural/Urban Status

	ALS	BLS	TOTAL
Rural	35	11	46
Urban	13	2	15
Total	48	13	51

Table 2 shows that female patients accounted for 45,952 (53%) of all ambulance passengers. The slightly higher percentage of women as EMS patients reflects the higher percentage of women in the elderly population. Female passengers had an average age of 60.3 years as compared to 49.4 among male passengers. This lower average age among male patients is partially the result of a substantially higher percentage of male children being transported. For example, 71% of EMS patients under the age of 10 were males. Children and teenagers (19 and under) accounted for 14.3% of all EMS runs. In contrast, 41% of all transported patients were age 70 or older.

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Table 2: EMS Runs by Age Group and Gender with Percentage of Female Passengers in Each Age Group

Table 3 shows that injuries accounted for 20% of all EMS runs according to reported chief complaints (trauma, falls, poisoning, burns, aircraft crashes, exposure, electrocution, and drowning). Cardiac problems accounted for 10%. However, the chief complaint reported most often was "not applicable" (45%).

Age	Total	Men	Women	% Women
0-9	7034	5008	2026	29
10-19	5288	2726	2562	48
20-29	6429	3183	3246	50
30-39	6651	3460	3191	48
40-49	7677	4239	3438	45
50-59	7635	3860	3775	49
60-69	9919	4606	5313	54
70-79	16118	7107	9011	56
80-89	14322	4547	9775	68
90-99	4828	1308	3520	73
100-104	114	19	95	83
Totals	86015	40063	45952	53

Emergency Medical Services (EMS) in Kentucky (continued)

Table 3: Reported Chief Complaint

Chief Complaint	Freq.	Percent
not applicable	39112	44.85
trauma (mechanical injury)	10052	11.53
medical problem (unspecified)	8975	10.29
cardiac problem	8588	9.85
fall/jump	6525	7.48
respiratory distress	6126	7.02
seizure	1897	2.18
diabetic (insulin reaction)	1469	1.68
stoke	1461	1.68
behavioral disorder	1344	1.54
obstetrics	848	0.97
poisoning	313	0.36
burn (thermal)	222	0.25
aircraft	116	0.13
exposure (heat, w/o burn)	86	0.1
electrocution	35	0.04
drowning/near-drowning	26	0.03
exposure (cold/frostbite)	13	0.01
Totals	87208	100.00

Figure 1 shows that approximately 59% of both emergency and non-emergency runs had an ambulance in route within one minute. However, not shown in Figure 1 is the 19% of runs that had a dispatch time greater than 30 minutes. It might be anticipated that these runs were exclusively non-emergency. Instead, as shown by Table 4, 31% of emergency runs did not have a vehicle in motion until at least 30 minutes after dispatch as compared to 4% among non-emergency runs. This suggests that some runs reported as "emergency" may not have been true emergencies.

Figure 1: Dispatch Minutes for EMS Runs

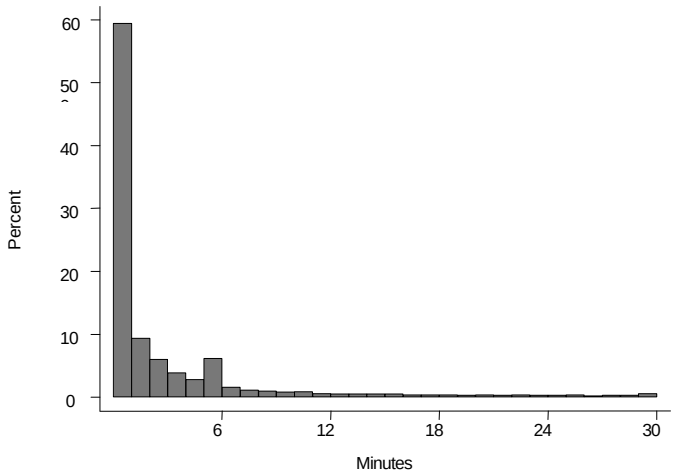


Table 4: Number of EMS Runs That Reported More Than 30 Minutes before a Vehicle Was in Motion after Dispatch

EMS Runs	Emergency	Non-emergency	Un-known	Totals
Number of dis-patch times > 30	9153	1937	1601	12691
Total Runs	29891	45703	11693	87287
Percent	31.1	4.2	13.4	14.5

Table 5 presents a comparison between rural and urban travel times from dispatch to scene (in minutes). These times are similar (mean times of 8.26 vs. 8.36 minutes). These data do not support the notion that rural services have substantially greater travel times after dispatch.

Table 5: Comparison of Travel Time to Scene

Urban/Rural	Mean (Minutes)	Number	Median
Rural	8.26	47,488	6
Urban	8.36	29,296	6

Another interesting comparison for rural and urban services is trip distance from dispatch to scene and scene to destination. It would be anticipated that average distances are substantially greater for rural services. However, these data indicate that 60% of the distances from dispatch to scene and 56% of distances from scene to destination were three miles or less for both urban and rural services. It was unexpected to note that rural services more often had a 1-mile distance (29%) from dispatch to scene as compared to urban services (18%). Urban services did have slightly shorter average distances from scene to destination. Twenty-two percent of urban services had scene to destination distances of 1 mile or less, while 17% of the corresponding rural trips were 1 mile or less.

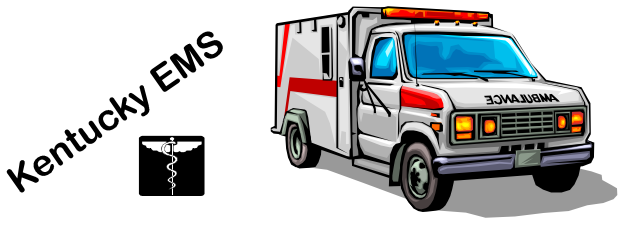
It is also interesting to compare average run speed from dispatch to scene for rural and urban services. Forty-five percent of urban service runs and 36% of rural service runs involved average speeds of less than 30 miles per hour. Urban runs show a higher

Emergency Medical Services (EMS) in Kentucky (continued)

percentage of runs over 50 miles per hour. The average speeds from dispatch to scene are somewhat slower than the average speeds from scene to destination. There are few runs of any type that average over 70 miles per hour.

As is shown by Table 6, emergency signals (lights and siren) were used in 41% of runs to the scene and 63% of runs from the scene. It was fairly common for an ambulance that did not use lights and sirens to the scene, to use lights and sirens from the scene (23%). However, if lights and sirens were used to the scene, it is likely they were used from the scene. Only 870 (1%) did not. This indicates there were not as many false emergency dispatches as might have been anticipated among those runs for which a report filed.

Table 6: EMS Runs By Using Lights and Sirens	
Mode to scene and mode from scene with both	
	32,642 (40%)
Mode to scene with lights and sirens, but mode	
	870 (1%)
Mode to scene and mode from scene with no lights	
	29,557 (36%)
Mode to scene with no lights and sirens, but mode	
	18,714 (23%)
Total:	81,783



Kentucky Influenza Activity
By Peggy Dixon, RN, CIC

Kentucky Influenza Activity had sporadic activity for October 6, 2000 through November 10, 2000. For November 17, 2000 through December 8, 2000, cases were classified as regional activity (see definition below). There was one confirmed case of the 36 viral culture specimens received. Submission of specimens to the Division of Laboratory Services for viral isolation is encouraged.

The Centers for Disease Control and Prevention's Criteria for Reporting Influenza Morbidity	
No Activity	No cases of either influenza-like illness or culture-confirmed influenza detected. (Influenza-like illness: Fever, greater than or equal to 100 degrees F, 37.8 C, oral or equivalent) AND cough and/or sore throat.)
Sporadic Activity	Sporadically occurring cases of either influenza-like illness or culture-confirmed influenza with no outbreaks detected.
Regional Activity	Outbreaks of either influenza-like illness or culture confirmed influenza in counties having a combined population of less than 50% of the states total population.
Widespread Activity	Outbreaks of either influenza-like illness or culture-confirmed influenza in counties havinga combined population of greater than 50% of the state's population.

For an explanation of the Influenza Surveillance Network, please see the September, 2000 edition of the Kentucky Epidemiologic Notes and Reports.

Information regarding surveillance, statistics, pandemic planning and recommendations for vaccine and antiviral drug use may be directed to: Peggy Dixon, Communicable Diseases Branch, (502) 564-3261, extension 4037.

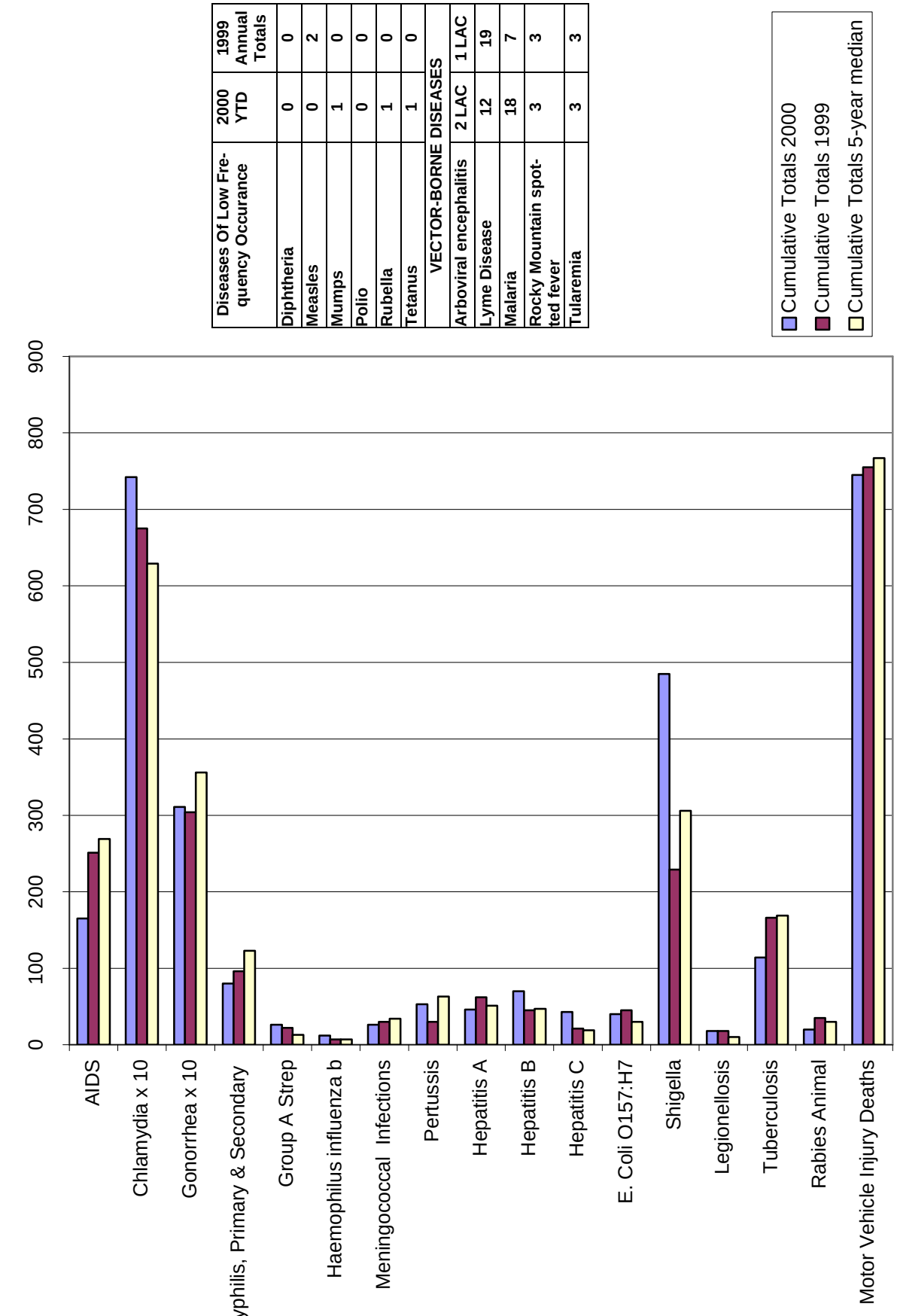
To request flu collection kits, please contact: Diane Young, Division of Laboratory Services, (502) 564-4446, extension 4483.

For information regarding ordering and distribution of Vaccines for Children influenza vaccine:
The Immunization Program at (502) 564-4478.

SUBJECT INDEX
Kentucky Epidemiologic Notes and Reports, Volume 35, 2000

CASES OF SELECTED REPORTABLE DISEASE IN KENTUCKY, YEAR TO DATE (YTD) THROUGH NOVEMBER 2000

Diseases Of Low Frequency Occurance	2000 YTD	1999 Annual Totals
Diphtheria	0	0
Measles	0	2
Mumps	1	0
Polio	0	0
Rubella	1	0
Tetanus	1	0
VECTOR-BORNE DISEASES		
Arboviral encephalitis	2 LAC	1 LAC
Lyme Disease	12	19
Malaria	18	7
Rocky Mountain spotted fever	3	3
Tularemia	3	3



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SHORTAGE OF TETANUS AND DIPHTHERIA VACCINE

A temporary shortage of adult tetanus and diphtheria toxoids (Td) in the United States has resulted from two coincident situations: 1) a decrease in the number of lots released by Wyeth Lederle (Pearl River, New York), and 2) a temporary decrease in the inventory of vaccine following routine maintenance activities at the production facilities by Aventis Pasteur (Swiftware, Pennsylvania) that lasted longer than anticipated. Approximately one half of the usual number of Td doses has been distributed this year. Although there have been no decreases in production of tetanus toxoid, availability is low because of increased use during the Td shortage. On the basis of information provided by Aventis Pasteur, the Public Health service expects vaccine supplies to be restored early in 2001. Until then, Aventis Pasteur will be limiting orders to assure the widest possible distribution of available doses.

Health care providers experiencing shortages of Td may need to prioritize their use of available supplies. If administration of Td is delayed, organizations should implement a callback system when vaccine is available. Recommendations for use (highest to lowest priority) of Td are:

1. Persons travelling to a country where the risk for diphtheria is high.
2. Persons requiring tetanus vaccination for prophylaxis in wound management.
3. Persons who have receive <3 doses of vaccine containing Td.
4. Pregnant women and persons at occupational risk for tetanus-prone injuries and who have not been vaccinated with Td within the preceding 10 years.
5. Adults who have not been vaccinated with Td within the preceding 10 years.

Source: Mortality and Morbidity Weekly, November 17, 2000/49(45);1029-1030.

Reportable Diseases/Conditions in Kentucky

Cabinet for Health Services
Department for Public Health

902 KAR 2:020 requires health professionals report the following diseases to the local health department serving the jurisdiction in which the patient resides or to the Department for Public Health. (Copies of 902 KAR 2:020 available upon request.)

I. REPORTING REQUIRED WITHIN 24 HOURS – By telephone or FAX*

Anthrax
Botulism
Brucellosis
Campylobacteriosis
Cholera
Cryptosporidiosis
Diphtheria
E. coli O157:H7
E. coli, shiga toxin positive
Encephalitis, California group
Encephalitis, Eastern Equine
Encephalitis, St. Louis
Encephalitis, Venezuelan Equine
Encephalitis, Western Equine
Encephalitis, West Nile
Haemophilus influenzae invasive disease
Hansen's disease
Hantavirus infection
Hepatitis A
Listeriosis
Measles
Meningococcal infections
Pertussis
Plague
Poliomyelitis
Psittacosis
Q Fever
Rabies, animal
Rabies, human
Rubella
Rubella syndrome, congenital
Salmonellosis
Shigellosis
Syphilis, primary, secondary, early latent or congenital
Tetanus
Tularemia
Typhoid Fever
VibrioV ibrio vulnificus
Yellow Fever

II. REPORTING REQUIRED WITHIN 1 BUSINESS DAY – By telephone or FAX*

Foodborne outbreak
Hepatitis B infection in a pregnant woman or childborn in or after 1992
Hepatitis B, acute
MuStreptococcal diseasemps Invasive, Group A
Toxic shock syndrome
Tuberculosis
Waterborne outbreak

III. REPORTING REQUIRED WITHIN 5 BUSINESS DAYS

**AIDS
Chancroid
Chlamydia trachomatis infection
Ehrlichiosis
Gonorrhea
Granuloma inguinale
Hepatitis C, acute
Histoplasmosis
**HIV infection
Lead poisoning
Legionellosis
Lyme disease
Lymphogranuloma venereum
Malaria
Rabies, post exposure prophylaxis
Rocky Mountain spotted fever
Streptococcus pneumoniae drug-resistant invasive disease
Syphilis, other than primary secondary, early latent or congenital
Toxoplasmosis

IV. REPORTING REQUIRED BY LABORATORIES

Diseases listed above with respective times and **weekly** reporting for **influenza virus isolates**. Upon request by the Department for Public Health, a clinical laboratory within a hospital shall report isolates and the antimicrobial resistance patterns of the isolates.

V. REPORTING REQUIRED WITHIN 3 MONTHS

Asbestosis
Coal worker's pneumoconiosis
Silicosis

VI. REPORTING OUTBREAKS OR UNUSUAL PUBLIC HEALTH OCCURRENCES

Unusual public health occurrences should be reported promptly, with foodborne or waterborne infections or intoxications being reported within **1 business day**.

VII. REPORTS of **animal bites shall be reported to the local health department within 12 hours** in accordance with KRS 258.065.

See reverse side for **Diseases of Bioterrorism** and **reporting guidelines**.

Diseases and Toxins Which are Possible Indicators of Bioterrorism

Report Immediately

Anthrax	Plague	Staphylococcal enterotoxin B
Botulism	Q Fever	Tularemia
Brucellosis	Ricin Poisoning	Viral Hemorrhagic Fevers
Mycotoxins-T2	Smallpox	Viral Encephalitis-VEE

Reporting Guidelines

Reports shall include:

1. The disease or condition being reported;
2. Patient's demographic information;
3. Physician's (or reporting institution's/person's) name, address and telephone number;
4. Clinical, epidemiological, and laboratory information pertinent to the disease.

Mail reports to the local health department or to the Department for Public Health, Division of Epidemiology and Health Planning, Mailstop HS2C-B, 275 East Main Street, Frankfort, KY 40621-0001.

***For additional information or to REPORT call 502-564-3418;**
1-888-9REPORT (973-7678); or FAX 502-564-0542.

**To report HIV/AIDS or obtain report forms in Louisville area – (Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, Trimble counties) call the HIV/AIDS Louisville Jefferson County Surveillance Program at 502-574-6574. In all other Kentucky counties contact the HIV/AIDS Branch at 502-564-6539.

DO NOT REPORT AN HIV/AIDS BY FAX MACHINE OR ANSWERING MACHINE.