



DISEASE OUTBREAKS SUMMARY

Outbreaks may be defined as (a) clusters of cases related in time and place or (b) occurrence of disease above a baseline or threshold level in a defined location. In Los Angeles County, outbreaks are grouped by those occurring in health-care facilities and those occurring in other non-health-care facilities or settings. Outbreaks occurring in more than one facility associated with a common source were each counted as separate outbreaks. Outbreaks with more than one etiologic agent were counted as one outbreak.

I. Health-Care Facilities

A. Acute-Care Hospitals

During 1996, 43 outbreaks were reported by acute-care hospitals (Table 1), exceeding the number of acute care outbreaks reported in any previous year. A large part of the increase was due to a record number ($n = 13$) of nosocomial scabies outbreaks (Table 2). The previous high year for nosocomial scabies outbreak reports ($n = 8$) was in 1986, which was also the previous high report year ($N = 38$). Outbreaks of vancomycin-resistant enterococcus also contributed to the increase. The overall increase in reports can be attributed, in part, to an increase in frequency of reporting by one DHS facility. There was no change in the number of licensed acute-care facilities from the previous year.

Thirty outbreaks were managed by hospital infection control practitioners with monitoring by ACDC staff. ACDC conducted in-depth epidemiologic investigations of 13 outbreaks. Five were nosocomial scabies outbreaks associated with a suspected or confirmed index case with crusted (Norwegian) scabies. In-depth investigations were also conducted in five outbreaks due to various gram-negative bacilli, two *Staphylococcus aureus* outbreaks, and a cluster of four neonatal infections due to *Salmonella heidelberg*. The nosocomial scabies and neonatal salmonella outbreaks are summarized in the *Acute Communicable Disease Control Special Studies Report, 1996*. During 1996, molecular typing of organisms was used extensively for the first time; pulsed-field gel electrophoresis was performed by the Public Health Laboratory for 13 epidemiologic investigations.



**Table 1. Reported Outbreaks Occurring in Los Angeles County
Health-Care Facilities, 1994-1996**

Type of Health-Care Facility (Number of Facilities Licensed in 1996)	1996		1995		1994	
	No.	%	No.	%	No.	%
Acute Care Hospitals (n= 127)	43	(45.8)	18	(24.0)	8	(11.0)
Subacute Care						
Home Health Agencies (n= 381)	3	(3.2)	1	(1.3)	2	(2.7)
Intermediate Care/Psychiatric (n= 158)	3	(3.2)	11	(14.7)	14	(19.2)
Skilled Nursing Facilities (n= 411)	45	(47.8)	45	(60.0)	49	(67.1)
Total	94	(100.0)	75	(100.0)	73	(100.0)



**Table 2. Acute Care Hospital Outbreaks by Disease/Condition
Los Angeles County, 1996**

Disease/Condition	Number of Outbreaks	Number of Cases
<i>Enterobacteriaceae</i> infections:		
<i>Acinetobacter baumannii</i>	1	25
<i>Burkholderia cepacia</i>	2	25
<i>Burkholderia cepacia</i> and <i>Stenotrophomonas maltophilia</i>	1	19
<i>Enterobacter cloacae</i>	1	6
<i>Enterobacter cloacae</i> and <i>E.aerogenes</i>	1	10
<i>Pseudomonas aeruginosa</i>	2	11
<i>Salmonella heidelberg</i>	1	4
<i>Serratia marcescens</i>	1	11
<i>Stenotrophomonas maltophilia</i>	1	25
Listeriosis	1	2
Respiratory syncytial virus	1	3
Scabies	13	358
Staphylococcal infections:		
<i>Staphylococcus aureus</i>	2	16
Methicillin-resistant <i>S. aureus</i>	5	47
Coagulase-negative <i>Staphylococcus</i>	1	6
Vancomycin-resistant		
<i>Enterococcus faecalis</i>	4	30
<i>Enterococcus faecium</i>	3	12
<i>Enterococcus</i> species	1	10
Varicella	1	2
Total	43	622

B. Subacute-Health-Care Facilities/Agencies

Subacute health care is defined as care provided by home health agencies, intermediate care, skilled nursing, and residential psychiatric facilities. During 1996, 45 outbreaks were reported in SNFs, 3 in intermediate care/ psychiatric facilities and 3 in home health agencies (Table 1). Community Health Services district staff have primary responsibility for disease investigations in these settings.

The overall number of outbreaks reported in these settings has remained relatively low and unchanged since 1995 following a ten-year steady decline in outbreak reporting. The number of licensed SNFs, ICFs and psychiatric facilities have remained stable over the past several



years. By contrast, home health care agencies have burgeoned in recent years. Since guidelines for infection surveillance and benchmarks for nosohusial (home-health acquired) infections have not yet been established by any national advisory body, detection of outbreaks related to home care is difficult.

Scabies was the most frequently reported etiologic agent, causing 29 (56.9%) of the total outbreaks (Table 3). All three outbreaks reported by home health agencies were scabies infestations. Enteric illness outbreaks (n= 9) declined to usual levels after a record number (n= 17) the previous year. One influenza A outbreak was detected in a SNF, and one influenza B outbreak was detected in a psychiatric facility, reflecting influenza strains known to be circulating in Los Angeles County during the 1996-97 season.

Table 3. Subacute Health Care Facility and Agency Outbreaks by Disease/Condition, Los Angeles County, 1996

Disease/Condition	Number of Outbreaks	Number of Cases
Diarrheal illness, unspecified	7	79
Influenza	2	22
Methicillin-resistant <i>S. aureus</i>	5	14
Pediculosis	1	10
Respiratory infection, unspecified	1	8
Rotavirus	1	40
Salmonellosis	1	4
Scabies	29	122
Varicella	4	21
Total	51	320

II. Non-Health-Care Facilities

Non-health-care facilities may include apartment complexes, offices, day-care centers, schools, residential/board-and-care facilities, or any other defined community group. Outbreaks (other than foodborne) occurring in these settings are primarily investigated by Community Health Services district staff with consultation provided as needed by ACDC. During 1996, ACDC conducted 23 in-depth community epidemiologic investigations. All but two were considered to be of foodborne origin. These included 10 foodborne outbreaks of undetermined etiology (most likely viral), 9 salmonellosis outbreaks, 2 outbreaks of hepatitis A, and 1 outbreak each of *Campylobacter* and *E. coli* O157:H7. Outbreak investigations of *Campylobacter*, *E. coli* O157:H7, and salmonellosis are summarized in the individual disease reports. One large-scale foodborne hepatitis A



outbreak associated with a restaurant and catering service is summarized in the *Acute Communicable Disease Control Special Studies Report, 1996*.

Table 4 summarizes the non-health-care facility outbreaks for 1996. During 1996, there were 187 non-health-care facility outbreaks, comparable to the previous year when 184 outbreaks were reported. Continuing the trend noted since the fourth quarter of 1995, declines in reported outbreaks tended to occur in geographic areas where health centers were closed while reporting of outbreaks increased in geographic areas where centers remained open. Disease outbreak reports declined 19.3 percent and 18 percent in 1995 and 1996, respectively compared to the previous five-year annual mean (228 outbreaks). Additional studies are necessary to determine whether this decrease in reports reflects an actual decrease in disease outbreaks or nonreporting for lack of public health presence in geographic areas without a public health center.



Table 4. Non-Health-Care Facility Outbreaks by Disease/Condition, LA County, 1996

Disease/Condition	Number of Outbreaks	Number of Cases
Ectoparasites		
Pediculosis	37	596
Scabies	17	74
Subtotal	54 (28.9%)	670
Enteric Infections: Bacterial, Parasitic, Viral		
Amebiasis and Giardiasis	1	8
Campylobacter infections	1	11
<i>Clostridium perfringens</i>	1	9
<i>Escherichia coli</i>	1	4
Gastroenteritis, unknown etiology	7	68
Giardiasis	1	6
Hepatitis A	8	114
Rotavirus	2	6
Salmonellosis	9	191
Shigellosis	6	93
Subtotal	37 (19.8%)	510
Rash Illnesses		
Coxsackievirus A16 (Hand, Foot & Mouth Disease)	6	44
Erythema infectiosum	3	28
Impetigo	1	2
Ringworm	12	72
Scarlet Fever	11	36
Varicella	37	357
Subtotal	70 (37.4%)	539
Other		
Botulism, Foodborne	1	3
Botulism, wound	2	2
Conjunctivitis, unknown etiology	5	34
Fever of unknown origin	1	11
Foodborne illness, unknown etiology	9	277
Group A streptococcal infections	4	30
Mumps	2	17
Otitis, unknown etiology	1	8
Viral meningitis	1	2
Subtotal	26 (13.9%)	384
TOTAL	187 (100.0%)	2,103