

The Summer Session in Intermediate Epidemiology sponsored by the *Pan American Health Organization*, will be conducted from 2 to 20 August 1993, at the School of Public Health, University of Southern Florida, Tampa, Florida. The courses being offered are: intermediate methods in epidemiology; statistics applied to epidemiology and the use of software packages, and the use of epidemiology in the

programming and evaluation of health services. Students are required to have approved basic training in epidemiology. Courses will be conducted in Spanish.

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Cholera in the Americas

Number of cumulative cases and deaths, by country and year, as of 26 March 1993.

Country	First Report	Cumulative cases			Cumulative deaths		
		1991	1992	1993	1991	1992	1993
Peru	23/Jan/91	322,562	212,642	12,374	2,909	727	62
Ecuador	1/Mar/91	46,320	31,870	376	697	208	7
Colombia	10/Mar/91	11,979	15,129	...	207	158	...
United States	9/Apr/91	26	102	5	0	1	...
Brazil	8/Apr/91	2,101	30,054	1,335	26	359	25
Chile	12/Apr/91	41	73	7	2	1	0
Mexico	13/Apr/91	2,690	8,162	157	34	99	3
Guatemala	24/Jul/91	3,674	15,395	631	50	207	4
El Salvador	19/Aug/91	947	8,106	902	34	45	2
Bolivia	26/Aug/91	206	22,260	5,703	12	383	160
Panama	10/Sep/91	1,178	2,416	19	29	49	3
Honduras	13/Oct/91	11	384	11	0	17	1
Nicaragua	12/Nov/91	1	3,067	215	0	46	9
Venezuela	29/Nov/91	13	2,842	15	2	68	2
French Guiana	14/Dec/91	1	16	2	0	0	0
Costa Rica	3/Jan/92	0	12	12	0	0	...
Belize	9/Jan/92	0	159	14	0	4	0
Argentina	5/Feb/92	0	553	1,145	0	15	20
Suriname	6/Mar/92	0	12	...	0	1	...
Guyana	5/Nov/92	0	556	24	0	8	0
Paraguay	25/Jan/93	0	0	2	0	0	0
Total		391,750	353,810	22,947	4,002	2,396	298

During 1992 cholera occurred in 20 countries of the Region, 5 more than had been infected during 1991. The total of 353,810 cases represented 85% of all cases reported to WHO worldwide, though it is probable that there was considerable underreporting in other regions. All but two of the countries infected in 1991 experienced more cases in 1992, in part because in most cholera was present throughout 1992 after its introduction in middle or late 1991. Peru and Ecuador remained the most severely affected countries, with rates of 875 and 287 cases per 100,000 population, respectively, followed by Bolivia with 279 cases per 100,000. Guatemala and El Salvador also had high rates of disease. Heavily affected countries reported disease from all departments or provinces, though particular areas, such as Lima, Peru, and Guayaquil, Ecuador, suffered large or prolonged outbreaks. In many countries, rural areas were as affected as urban areas. While the number of cholera cases and geographical areas affected was high in 1992, there was clear evidence that the rate of spread of disease declined, especially in the second half of the year. There were several reports of decreases in the incidence of other diarrheal diseases, such as typhoid, as a result of control measures undertaken to prevent cholera. None of the island countries and territories of the Caribbean were infected with cholera.

Only 2,396 deaths from cholera were reported, giving a case fatality ratio of 0.7%, below the rate of 1.0% in 1991. However, if one excludes Peru, which accounted for a third of all deaths but nearly 60% of all cases, the case fatality ratio in 1992 was 1.2%. Five countries had ratios of 2% or higher.

Cholera remains a serious threat to the Region and will undoubtedly be epidemic in several countries during 1993 and subsequent years. Every effort must be made not to become complacent about and accept the presence of cholera in the Region but to undertake coordinated and vigorous efforts towards its elimination.