

Mid-Term Examination - 1960

An Epidemiological Study of Infectious Hepatitis

Infectious hepatitis is a viral infection principally involving the liver. A knowledge of the signs, symptoms and pathogenesis of this disease is not necessary for the analysis of the data presented in this exercise.

The following data show the associations between infectious hepatitis occurring during the period 1953-1957 in a city in New York State, and various characteristics of the group involved.

Table 1. Age Distribution of Infectious Hepatitis, 1953 - 1957.

Age Group - Years	No. of Cases	Rate per 100,000 Population
0-4	23	116
5-9	91	622
10-14	73	625
15-19	24	159
20-29	74	183
30-39	78	245
40-49	43	156
50-59	23	87
60 and over	9	29
TOTAL	438	200

Question 1. Describe the associations demonstrated in Table 1?

The city in which this study was done was divided into 6 socio-economic areas on the basis of education, occupation, family income, median home valuation and rental costs. Area 1 was the highest socio-economic level in the city and area 6 was the lowest.

Table 2. Distribution of Infectious Hepatitis by Socio-Economic Areas.

AREA	CASES	POPULATION	RATE PER 100,000 POPULATION
1	16	7,800	205
2	31	25,300	123
3	45	32,000	141
4	72	46,000	157
5	89	49,000	182
6	185	60,000	310
TOTAL	438	220,000	200

Question 2. Describe the associations demonstrated in Table 2?

Question 3. What additional information do you require to help clarify the associations between the 2 characteristics in Tables 1 and 2 and Infectious Hepatitis? Explain why you want this information.

Table 3. Infectious Hepatitis Rates by Age for Various Socio-Economic Areas

Socio-Economic Area	Age Group (Years)	
	0-29	30 and over
1 and 2	106	187
3 and 4	161	141
5 and 6	409	117

Question 4 (a) Describe the associations demonstrated in Table 3.

(b) What hypothesis would you advance to explain the distribution of infectious hepatitis in the various age and socio-economic groups?