

Department of Epidemiology
School of Public Health
University of North Carolina

EPID 160

Principles of Epidemiology

Fall 1967

ASSIGNMENT FOR LAB III

Instructions:

Shuffle deck of cards to destroy any order that may have been imposed by previous workers.

Each card is the summarization of observations on an individual with the identification number for that particular individual.

Example - one individual

I	D	NO	064	MALE	RURAL	AGE 16	NORMAL	065
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Variables

Examples

State of Health (Dependent Variable):

Leukemia

Normal or Without Leukemia

Three Group Characteristics (Independent Variable):

Sex

Male

Place of Residence

Rural

Age

16

(Card Deck Number = 065)

Object:

To determine the association between these three group characteristics and the state of health.

Specifically:

Prepare the appropriate tables to show:

1. The association between sex and leukemia;
2. The association between place of residence and leukemia;
3. The association between age and leukemia;
4. The association between sex, place of residence, and leukemia;
5. The association between sex, place of residence, age and leukemia.

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FACULTY GUIDE TO LAB III

1. Sex and Leukemia:

<u>Sex</u>	<u>Leukemia</u>	<u>Normal</u>	<u>Total</u>
Male	34	66	100
Female	25	75	100
<u>Total</u>	59	141	200

2. Place of Residence and Leukemia:

<u>Place of Residence</u>	<u>Leukemia</u>	<u>Normal</u>	<u>Total</u>
Urban	35	65	100
Rural	24	76	100
<u>Total</u>	59	141	200

3. Age and Leukemia:

<u>Age</u>	<u>Leukemia</u>	<u>Normal</u>	<u>Total</u>
00-09	16	24	40
10-19	8	32	40
20-29	8	32	40
30-39	11	29	40
40-49	16	24	40
<u>Total</u>	59	141	200

4.

Sex

Residence	Male			Female		
	Leukemia	Normal	Total	Leukemia	Normal	Total
Urban	20	30	50	15	35	50
Rural	14	36	50	10	40	50
All Residences	34	66	100	25	75	100

	Male & Female		Male & Female Leukemia-Normal
	Leukemia	Normal	
Urban	35	65	100
Rural	24	76	100
All Residence	59	141	200

	<u>Male</u>	<u>Female</u>	<u>Male & Female</u>
Urban	40	30	35
Rural	28	20	24
All Residences	34	25	29.5

Note: The above rates would represent realistic figures for white population 50 years of age, if expressed as U.S. death rates per 1,000,000 rather than per 100.

5. Leukemia by Residence, Sex and Ten Year Age Groupings:

<u>Age/Res.</u>	<u>MALE</u>			<u>FEMALE</u>		
	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>
00 - 09	5/10	4/10	9/20	4/10	3/10	7/20
10 - 19	3/10	2/10	5/20	2/10	1/10	3/20
20 - 29	3/10	2/10	5/20	2/10	1/10	3/20
30 - 39	4/10	2/10	6/20	3/10	2/10	5/20
40 - 49	5/10	4/10	9/20	4/10	3/10	7/20
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All Ages =	20/50	14/50	34/100	15/50	10/50	25/100

Leukemia by Residence, Sex and Five Year Age Groupings:

<u>Age/Res.</u>	<u>MALE</u>			<u>FEMALE</u>		
	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>
00 - 04	2/4	2/3	4/7	1/3	0/4	1/7
05 - 09	3/6	2/7	5/13	3/7	3/6	6/13
10 - 14	1/4	1/4	2/8	0/3	1/4	1/7
15 - 19	2/6	1/6	3/12	2/7	0/6	2/13
20 - 24	2/5	2/8	4/13	1/5	0/6	1/11
25 - 29	1/5	0/2	1/7	1/5	1/4	2/9
30 - 34	1/3	1/6	2/9	2/7	1/4	3/11
35 - 39	3/7	1/4	4/11	1/3	1/6	2/9
40 - 44	3/3	4/6	7/9	2/6	2/5	4/11
45 - 49	2/7	0/4	2/11	2/4	1/5	3/9

NOTE: For each cell, numerator equals number with leukemia;
denominator equals P.A.R.

5. Leukemia by Residence, Sex and Ten Year Age Groupings:

<u>Age/Res.</u>	<u>MALE</u>			<u>FEMALE</u>		
	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>
00-09	50	40	45	40	30	35
10-19	30	20	25	20	10	15
20-29	30	20	25	20	10	15
30-39	40	20	30	30	20	25
40-49	50	40	45	40	30	35
All Ages	40	28	34	30	20	25

Leukemia by Residence, Sex and Five Year Age Groupings:

<u>Age/Res.</u>	<u>MALE</u>			<u>FEMALE</u>		
	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>	<u>Urban</u>	<u>Rural</u>	<u>Total Res.</u>
00-04	50	66.6	57.14	33.33	00.00	14.28
05-09	50	28.57	38.46	42.85	50.0	46.15
10-14	25	25.0	25.0	00.00	25.0	14.28
15-19	33.3	16.66	25.0	28.57	00.0	15.38
20-24	40	25.0	30.76	20.0	00.0	9.09
25-29	20	00.0	14.28	20.0	25.0	22.22
30-34	33.3	16.66	22.22	28.57	25.0	27.27
35-39	42.85	25	36.36	33.33	16.66	22.22
40-44	100	66.66	77.77	33.33	40.00	36.36
45-49	28.57	00.0	18.18	50.00	20.00	33.33