

---

# MEDICAL CARE FOR ACUTE RESPIRATORY ILLNESS IN TWO COMMUNITIES IN NEW YORK STATE

JANE COULTER MERTZ<sup>1</sup>

**M**ORBIDITY studies have shown that the incidence of acute respiratory illness varies by age and sex and also may be influenced by family attitude toward illness (1, 2, 3, 4, 5). A study on disability from respiratory illness showed disability to be characteristic of certain persons and certain families (6). It is of interest to learn whether medical care for acute respiratory illness is influenced by age, sex, or personal attitudes and feelings about how an illness should be cared for.

The study of acute respiratory illness that was conducted in two communities, Pleasantville and Mt. Kisco, in Westchester County, New York, from September, 1946 to May, 1949 included records of medical care. The purpose of the present report is to present data on the amount of medical care received by males and females at specific ages for acute respiratory illness.

## DATA AND METHOD OF STUDY

The data and method of the study of acute respiratory illness in the two communities in Westchester County, New York, have been fully described in a previous report (5). Briefly, the epidemiological field investigation of acute respiratory illness was based upon the periodic survey of families for the purpose of collection of illness records. On each visit to the family, inquiry was made about acute respiratory illnesses which had occurred among their members during the past four weeks. Inquiry was also made as to whether the reported illnesses were medically attended.

For all medically attended cases of acute respiratory illness a record was made of (1) name of attending physician; (2)

<sup>1</sup> From the Milbank Memorial Fund. This is the twelfth in a series of papers dealing with a study of acute respiratory illness.

---

number of visits and specific dates of medical calls; and (3) whether the service was rendered at home, at the doctor's office, by telephone only, or in a hospital. The nature of the illness as stated by the family informant was not submitted to the attending physician for confirmation or correction; these data are based upon information given by the family informant.

The population is classified according to the occupational class of the head of household, by sex, and by age. The illnesses are further classified by the nature of the illness and by type of disability.

*Occupational Class.* Persons in each family were coded according to the occupational class of the head of household.<sup>2</sup> Persons have been divided into two occupational classes according to the occupational class of the head of household: (1) professional and managerial; and (2) all other occupational classes which include clerical, skilled, semi-skilled, and unskilled workers. Consequently, it is possible to evaluate the influence of occupational class on the incidence of medically-attended cases of acute respiratory illness.

*Sex and Age.* Morbidity studies have shown that the incidence of acute respiratory illness decreases with age among both males and females and that after the age of 10 years the incidence rate among females exceeds that of males. The data collected in Pleasantville and Mt. Kisco make it possible to study the influence of sex and age on the incidence of medically-attended cases of acute respiratory illness in the two communities.

*Nature of the Illness.* Acute respiratory illness as reported in this analysis includes head colds or coryza, colds with sore throat, tonsillitis and septic sore throat, colds with chest complications, tracheitis, bronchitis or cough, and influenza. The medically-attended illnesses have been classified according to the part or parts of the respiratory tract which were reported as affected and have been divided into two classes: (1) illnesses

<sup>2</sup> Coding of occupational class was based upon the Alphabetical Index of Occupations and Industries. United States Department of Commerce, Bureau of the Census, Sixteenth Census of the United States, 1940.

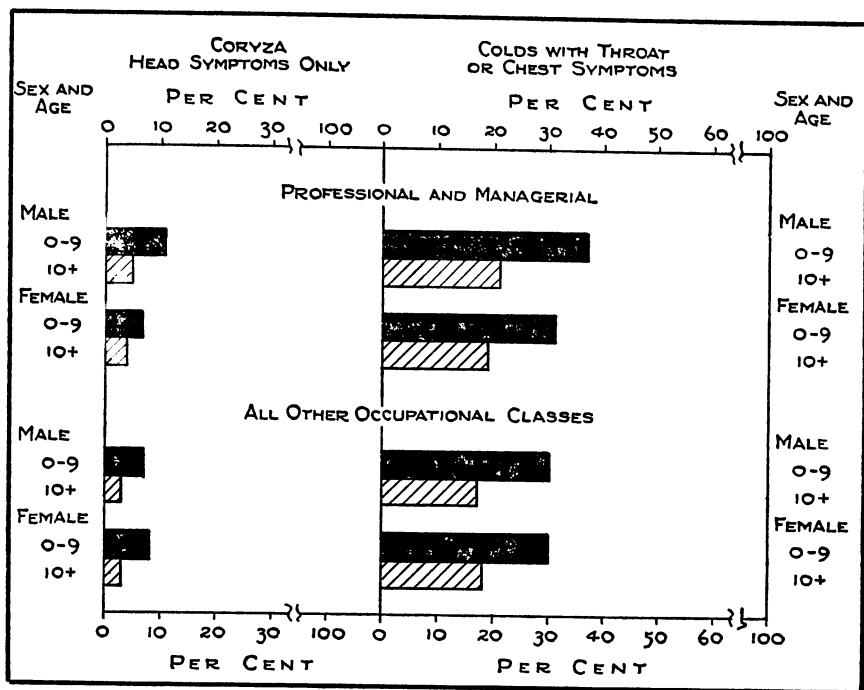


Fig. 1. Proportion of the total head colds (coryza) and of the total colds with throat or chest symptoms that were medically attended. Pleasantville and Mt. Kisco, September to May, 1946-1949.

which affected the head only (coryza), and (2) illnesses which involved the throat or chest.<sup>3</sup>

*Disability.* The medically-attended cases of acute respiratory illness were divided into two classes according to the extent of disability: (1) illnesses which were not confined to bed, and (2) illnesses which were confined to bed for one or more days.

### FREQUENCY OF MEDICAL CARE

Every illness included a record of any medical care received. Of the total illnesses reported during the three years of the study, 17 per cent received medical care. Ninety-eight per cent of the medical care was rendered by private physicians.

Figure 1 shows for the population in the two occupational

<sup>3</sup> The classification "colds with throat or chest symptoms" includes illnesses with throat symptoms only, illnesses with throat symptoms in combination with head and/or chest symptoms, illnesses with chest symptoms only, or illnesses with chest and head symptoms.

Table 1. Proportions of the total head colds and the total throat or chest colds among males and females by age which had medical care, classified by occupational class of head of household and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
	Per Cent					
	NO BED DISABILITY					
<i>Male</i>	6.8	4.0	10.4	5.4	2.7	8.8
All Ages						
0-9	9.1	4.9	15.8	7.6	3.6	13.3
10+	5.1	3.2	7.2	4.0	2.0	6.1
<i>Female</i>	7.3	3.5	11.2	5.4	2.8	8.3
All Ages						
0-9	9.0	4.3	15.6	7.5	4.5	11.9
10+	6.3	2.9	9.3	4.5	1.9	7.1
	BED DISABILITY					
<i>Male</i>	36.9	15.1	44.9	32.1	14.8	37.7
All Ages						
0-9	43.9	19.4	52.6	39.6	21.9	45.5
10+	30.4	11.3	37.6	25.5	8.0	30.8
<i>Female</i>	31.2	12.4	38.2	34.6	15.1	40.0
All Ages						
0-9	35.0	14.3	43.7	43.2	25.0	48.6
10+	28.1	10.6	34.0	30.0	9.4	35.6

classes the proportion of the total acute respiratory illnesses that were medically attended.<sup>4</sup> The data are also shown by sex and age. The left section of Figure 1 gives the data for coryza, colds with head symptoms only, and the right section for colds with throat or chest symptoms. The most striking point brought out by these data is that medical attention was centered upon young persons. This was true for each class of illness, that is, coryza and colds with throat or chest symptoms among males and females in each occupational class. Persons under 10 years of age had from 4 to 6 per cent more medically-attended cases of coryza and from 13 to 16 per cent more medically-attended colds with throat or chest symptoms.

The proportion of the total cases that received medical attention was similar in the two occupational classes. As would be expected, there were more medically-attended colds with throat or chest symptoms than colds with head symptoms only. Only 3 to 11 per cent of the coryza cases received medical care whereas 17 to 37 per cent of the colds with throat or chest symptoms were medically attended.

Table 1 shows the same data as Figure 1 according to type of disability. There was a striking similarity in the proportion of medically-attended cases among males and females in the two occupational classes both for cases not confined to bed and those with bed disability. Children less than 10 years of age had more medically-attended cases in each disability group than did persons aged 10 and over. Medically-attended cases were concentrated among those with the greater degree of disability, that is, cases which were confined to bed. Approximately one-third of these cases were medically attended.

The incidence of all cases and of medically-attended cases of acute respiratory illness is shown in Tables 2 and 3 for persons in families in the professional and managerial occupational class and in the clerical, skilled, semi-skilled, and unskilled oc-

<sup>4</sup> The numbers upon which these percentages are based are shown in Appendix Tables 1 and 2.

Table 2. Incidence of acute respiratory illness among persons in families in the professional and managerial occupational class, classified by age, sex, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	ALL DIAGNOSES		CORYZA—HEAD SYMPTOMS ONLY		COLDS WITH THROAT OR CHEST SYMPTOMS	
	Total Cases	Medically Attended Cases	Total Cases	Medically Attended Cases	Total Cases	Medically Attended Cases
	Rate Per 1,000 Population					
NO BED DISABILITY						
<i>Male</i>						
All Ages	929.7	63.1	522.5	20.9	407.2	42.2
0-9	1,576.8	143.5	972.5	47.8	604.3	95.7
10+	715.6	36.5	373.6	12.0	342.0	24.5
<i>Female</i>						
All Ages	1,143.2	83.1	581.3	20.1	561.9	63.0
0-9	1,631.4	146.6	952.4	41.0	679.0	105.7
10+	980.7	62.0	457.8	13.2	522.9	48.8
BED DISABILITY						
<i>Male</i>						
All Ages	584.5	215.9	157.1	23.8	427.4	192.1
0-9	1,139.1	500.0	298.6	58.0	840.6	442.0
10+	401.0	121.8	110.3	12.5	290.6	109.4
<i>Female</i>						
All Ages	644.7	200.9	175.5	21.8	469.2	179.1
0-9	1,154.6	404.2	342.1	48.9	812.4	355.4
10+	474.9	133.2	120.1	12.8	354.9	120.5

Table 3. Incidence of acute respiratory illness among persons in families in the clerical, skilled, semi-skilled, and unskilled occupational classes combined, classified by age, sex, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	ALL DIAGNOSES		CORYZA—HEAD SYMPTOMS ONLY		COLDS WITH THROAT OR CHEST SYMPTOMS	
	Total Cases	Medically Attended Cases	Total Cases	Medically Attended Cases	Total Cases	Medically Attended Cases
	Rate Per 1,000 Population					
	NO BED DISABILITY					
<i>Male</i>	690.3	37.6	378.7	10.2	311.6	27.4
All Ages	1,255.3	95.7	730.5	26.0	524.8	69.7
0-9	530.0	21.1	278.9	5.7	251.1	15.4
10+						
<i>Female</i>	889.6	48.1	466.6	12.9	423.0	35.2
All Ages	1,253.5	94.1	746.5	33.9	506.9	60.2
0-9	793.3	35.9	392.5	7.3	400.8	28.6
10+						
	BED DISABILITY					
<i>Male</i>	370.9	119.1	90.1	13.3	280.8	105.8
All Ages	792.0	313.2	199.8	43.7	592.2	269.5
0-9	251.4	64.0	59.0	4.7	192.4	59.3
10+						
<i>Female</i>	408.0	141.4	88.5	13.4	319.5	128.0
All Ages	682.6	294.9	155.6	38.9	527.0	256.0
0-9	335.3	100.7	70.8	6.6	264.5	94.1
10+						

SEX AND AGE	NO BED DISABILITY		BED DISABILITY	
	Total Cases	Medically Attended Cases	Total Cases	Medically Attended Cases
	Ratio			
<i>Male</i>				
All Ages	1.35	1.68	1.58	1.81
0-9	1.26	1.50	1.44	1.60
10+	1.35	1.73	1.60	1.90
<i>Female</i>				
All Ages	1.29	1.73	1.58	1.42
0-9	1.30	1.56	1.69	1.37
10+	1.24	1.73	1.42	1.32

Table 4. Ratio of the incidence of acute respiratory illness among persons in families in the professional and managerial occupational class to the incidence among persons in families in the clerical, skilled, semi-skilled, and unskilled occupational classes. Pleasantville and Mt. Kisco, September to May, 1946-1949.

cupational classes, respectively.<sup>5</sup> A previous report on the study of acute respiratory illness showed that the higher the occupational class the higher was the incidence of acute respiratory illness (5). It was concluded that there was no reason to believe that acute respiratory illness is selective of persons in one particular social class compared with another. Rather, it was suggested that the differences might be due to a subjective factor—family attitude toward illness.

Table 4 shows the ratio of the rates in the professional and managerial class to rates in all other occupational classes combined for all cases and for medically-attended cases of acute respiratory illness. Persons in the professional and managerial class reported from 32 to 90 per cent more medically-attended cases than persons in the other occupational classes although they reported only from 24 to 69 per cent more illness. There is no reason to believe that severe acute respiratory illness is selective of persons in the higher occupational classes. Again, it must be concluded that the differences between the two oc-

<sup>5</sup> The population upon which these rates are based is shown in Appendix Table 3. Persons are counted in each year that they were observed.



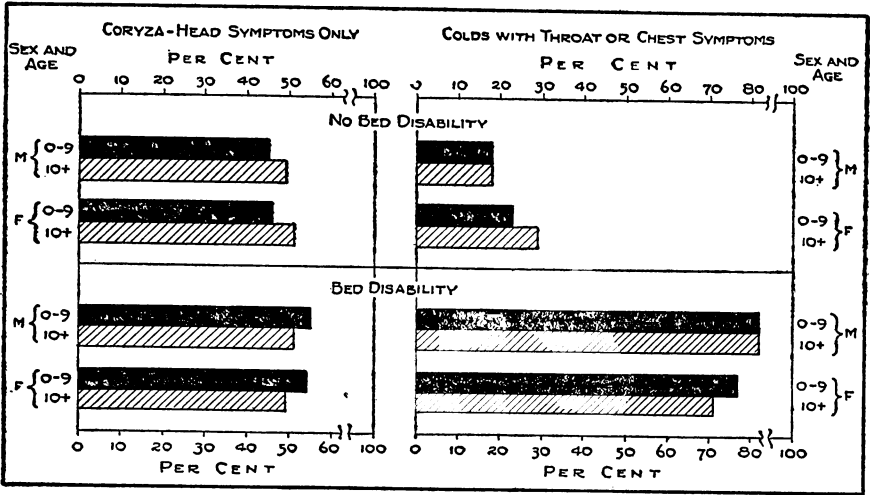


Fig. 2. Proportion of the total medically attended head colds (coryza) and of the total medically attended colds with throat or chest symptoms, classified according to those that had (1) no bed disability, and (2) those that had bed disability. Only persons in families in the professional and managerial class are included in the population. Pleasantville and Mt. Kisco, September to May, 1946-1949.

cupational classes in the incidence of medically-attended cases of acute respiratory illness may be due to family attitude toward illness.

### MEDICAL CARE BY TYPE OF DISABILITY

Figure 2 and Appendix Table 4 show for each age group and sex in the professional and managerial class the proportion of the total medically-attended colds with head symptoms only and of the total medically-attended colds with throat and chest symptoms that had (1) no bed disability, and (2) bed disability. Figure 3 gives the same data for persons in the clerical, skilled, semi-skilled, and unskilled classes. The distribution of the medically-attended cases according to type of disability was similar for both occupational classes.

The left sides of Figures 2 and 3 show the distribution of medically-attended cases of coryza. Approximately 50 per cent of these cases had bed disability at some time during the illness. In both occupational classes slightly more of the medically-attended cases for persons under 10 years of age had bed dis-

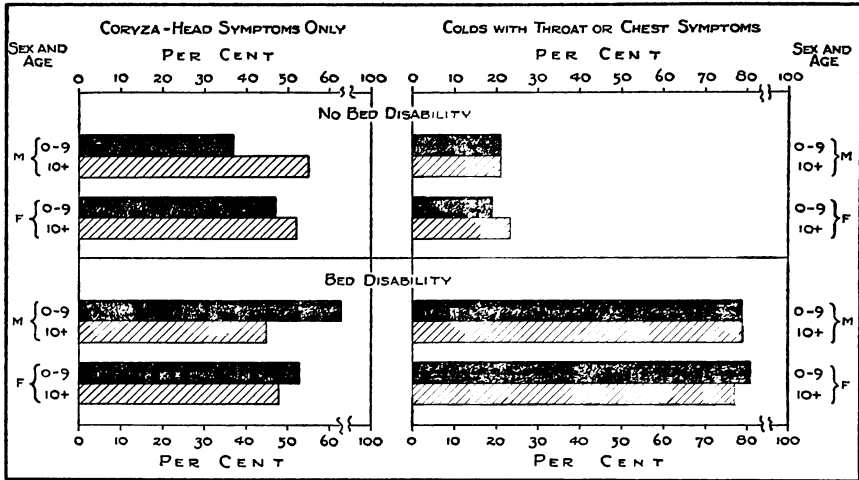


Fig. 3. Proportion of the total medically attended head colds (coryza) and of the total medically attended colds with throat or chest symptoms, classified according to those that had (1) no bed disability, and (2) those that had bed disability. Only persons in families in the clerical, skilled, semi-skilled, and unskilled class are included in the population. Pleasantville and Mt. Kisco, September to May, 1946-1949.

ability than did cases in persons 10 years of age and older.

The right sides of Figures 2 and 3 show the same data for medically-attended colds with throat or chest symptoms. Each age group and sex was similar in the proportion of cases in the two disability groups. From 71 to 82 per cent of the medically-attended colds with throat or chest symptoms had bed disability.

### MEDICAL CALLS

Table 5 and Appendix Table 5 show for each occupational class the rate of medical calls per 1,000 population per school year for acute respiratory illness by age for each sex. The rates of medical calls are further classified by the nature of the illness. The rate of medical calls was higher in the professional and managerial class than in all the other occupational classes combined. The rate of medical calls was higher for persons under 10 years of age in each diagnosis and disability class.

Bed disabling colds with throat or chest symptoms had the highest rate of medical calls. This was true for each age group and sex in both occupational classes. Bed disabling colds with

Table 5. Doctors' calls for cases of acute respiratory illness per 1,000 population, classified by age, sex, occupational class of head of household, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
	Medical Calls Per 1,000 Population Per School Year					
NO BED DISABILITY						
<i>Male</i>						
All Ages	65.9	17.3	48.6	43.6	10.7	32.9
0-9	131.9	34.8	97.1	100.5	20.1	80.4
10+	44.1	11.5	32.6	27.5	8.0	19.4
<i>Female</i>						
All Ages	92.4	30.4	62.0	62.8	16.6	46.2
0-9	148.0	52.8	95.1	100.4	38.9	61.5
10+	73.9	22.9	51.0	52.8	10.6	42.2
BED DISABILITY						
<i>Male</i>						
All Ages	301.6	33.5	268.1	178.6	16.5	162.2
0-9	695.7	71.0	624.6	416.1	56.7	359.3
10+	171.2	21.1	150.1	111.3	5.0	106.3
<i>Female</i>						
All Ages	312.8	22.1	290.7	226.0	15.8	210.2
0-9	597.1	34.3	562.7	473.0	40.2	432.9
10+	218.1	18.0	200.1	160.5	9.3	151.2

Table 6. Number of doctors' calls per medically attended case of acute respiratory illness, classified by age, sex, occupational class of head of household, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
Medical Calls Per Attended Case						
NO BED DISABILITY						
<i>Male</i>	1.40	1.26	1.45	1.38	1.32	1.40
All Ages	1.23	1.04	1.31	1.39	1.21	1.45
0-9	1.61	1.60	1.62	1.37	1.41	1.35
10+						
<i>Female</i>	1.36	1.64	1.25	1.59	1.62	1.59
All Ages	1.27	1.54	1.16	1.40	1.55	1.32
0-9	1.42	1.73	1.32	1.71	1.68	1.72
10+						
BED DISABILITY						
<i>Male</i>	1.68	1.82	1.67	1.71	1.40	1.75
All Ages	1.66	1.53	1.68	1.55	1.50	1.56
0-9	1.72	2.32	1.66	1.93	1.15	1.99
10+						
<i>Female</i>	1.84	1.46	1.88	1.86	1.54	1.89
All Ages	1.84	1.18	1.90	1.89	1.45	1.95
0-9	1.84	1.71	1.86	1.83	1.65	1.84
10+						

throat or chest symptoms had a rate of medical calls four to five times higher than those with no bed disability and from eight to thirteen times higher than bed disabling cases of coryza.

In approximately 70 per cent of the medically-attended cases with a known number of medical calls the doctor saw the patient only once. Table 6 and Appendix Tables 5 and 6 show for each occupational class the number of calls per medically-attended case with a known number of calls by sex for each age.<sup>6</sup> Illnesses are further classified according to the nature of the illness and type of disability, that is, no bed disability and bed disability. In this study medically-attended cases of acute respiratory illness received slightly more than one call per case. The duration of an illness has an influence on the amount of medical care received per case. The short duration of many acute respiratory illnesses is responsible for the average of one call per medically-attended case.

Figure 4 and Appendix Table 7 show the distribution of medically-attended cases of coryza, colds with head symptoms only, and colds with throat or chest symptoms by type of medical service received. Medical services are classified according to (1) office visits only; (2) home visits only; (3) both home and office visits; and (4) telephone calls only. The two occupational classes were similar with respect to the type of medical service received. Therefore, Figure 4 shows the data for the two occupational classes combined. The upper half of Figure 4 gives the data for colds with no bed disability and the lower half for colds with bed disability.

The type of medical service received shows a marked difference by age for cases of coryza with no bed disability. Persons aged 10 and over had a much larger proportion of office calls for cases that were not confined to bed than did persons under 10 years of age, 78 per cent and 34 per cent, respectively. Children under 10 had more than twice as many home calls as

<sup>6</sup> In computing medical calls per attended case, only cases with a known number of calls were included, that is, cases in doctors' families, cases treated by telephone only, cases treated in a hospital, and cases with an unknown number of calls were excluded.

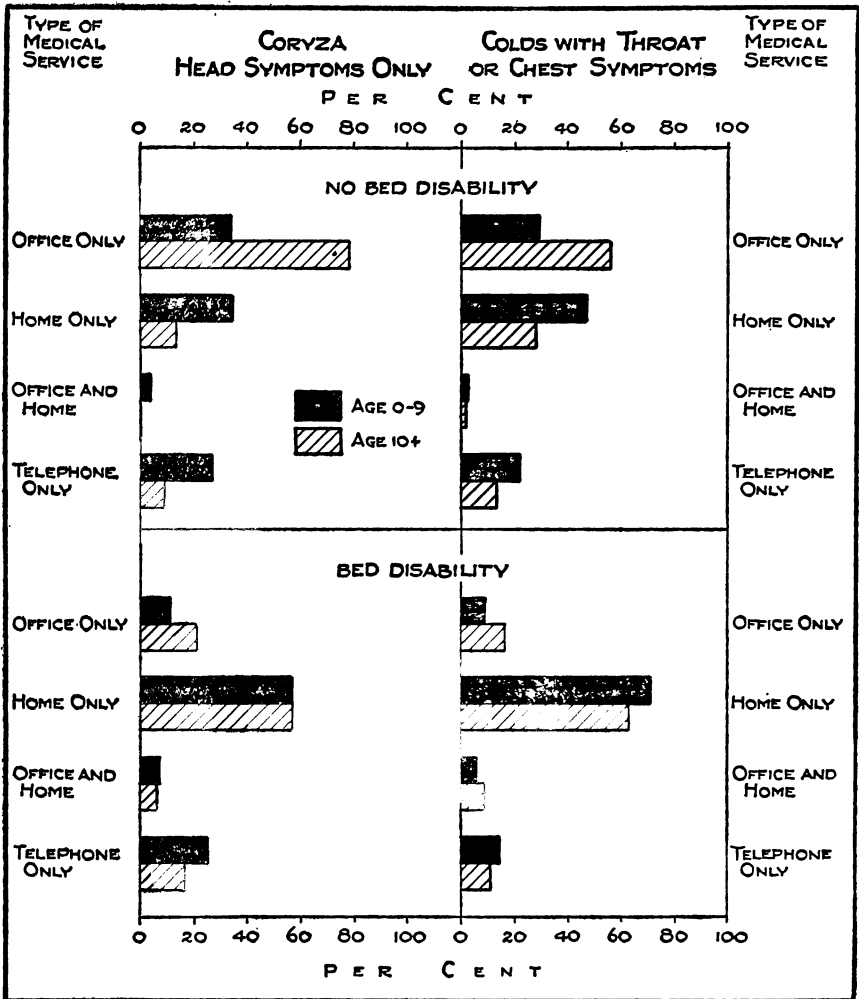


Fig. 4. Distribution of medically attended head colds (coryza) and medically attended colds with throat or chest symptoms by type of medical service received. Pleasantville and Mt. Kisco, September to May, 1946-1949.

persons 10 and over. The lower left section of Figure 4 shows the data for cases of coryza which were confined to bed. The distribution of the cases by type of medical service was similar for the two age groups. In both age groups 57 per cent of the cases had home visits only. In one-fourth of the cases in children under 10, medical advice was given by telephone calls only. This was true of each disability class.

The right side of Figure 4 shows the same data for colds with throat or chest symptoms. Persons 10 years of age and older had more office calls than persons under 10 in each disability class. Seventy-one per cent of the bed disabling colds with throat or chest symptoms among persons under 10 years of age were treated at home only compared to 63 per cent for persons aged 10 and older. The distribution of medical services by type of call was more similar for the two age groups for bed disabling illness than for cases not confined to bed.

INTERVAL BETWEEN ONSET AND MEDICAL CARE

It is of interest to see if the interval from the onset of an illness until the doctor is called is influenced in any way by occupational class, age, sex, disability, or the nature of the illness. The data were arrayed into four intervals: (1) no days, that is, the doctor was called on the day the illness started; (2) one day; (3) two to seven days; and (4) eight or more days.

*Occupational Class.* The two occupational classes were sim-

Table 7. Distribution of medically attended cases of acute respiratory illness according to number of days between onset and medical care, classified by age and sex. Pleasantville and Mt. Kisco, September to May, 1946-1949.

DAYS BETWEEN ONSET AND MEDICAL CARE	MALE			FEMALE		
	Total	Age 0-9	Age 10+	Total	Age 0-9	Age 10+
	PER CENT					
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
0	28.2	30.3	25.5	24.5	26.8	22.6
1	22.4	22.9	21.6	20.8	22.1	19.5
2-7	34.4	31.1	38.9	37.4	34.0	40.4
8+	15.0	15.7	14.0	17.3	17.1	17.5
	NUMBER					
TOTAL	1,374	790	584	1,582	727	855
0	388	239	149	388	195	193
1	307	181	126	328	161	167
2-7	473	246	227	592	247	345
8+	206	124	82	274	124	150

ilar with respect to the intervals between the onset of an illness and medical care. In both occupational classes the doctor was called on the day the illness started in approximately one-fourth of the cases. In only 16 per cent of the cases was the doctor called for the first time after the seventh day of an illness.

*Age and Sex.* Table 7 shows for all occupational classes combined the distribution of medically-attended cases of acute respiratory illness for each sex by age according to the number of days between the onset of the case and medical care. The intervals between onset and medical care were similar for cases among males and females by age. The intervals were markedly different between cases in the two age groups for each sex. Children under 10 years of age received medical care on the day of onset and the first day after the onset more often than did persons 10 years of age and older. This was true in each sex. In both age groups only 14 to 18 per cent of the medically-

Table 8. Distribution of medically attended cases of acute respiratory illness according to days between onset and medical care, classified by age and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

DAYS BETWEEN ONSET AND MEDICAL CARE	AGE 0-9			AGE 10+		
	Total	No Bed Dis- ability	Bed Dis- ability	Total	No Bed Dis- ability	Bed Dis- ability
	PER CENT					
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
0	28.6	23.0	30.4	23.8	16.8	26.3
1	22.5	17.2	24.2	20.4	15.7	22.1
2-7	32.5	37.7	30.9	39.7	45.9	37.5
8+	16.4	22.1	14.5	16.1	21.6	14.1
	NUMBER					
TOTAL	1,517	366	1,151	1,439	388	1,051
0	434	84	350	342	65	277
1	342	63	279	293	61	232
2-7	493	138	355	572	178	394
8+	248	81	167	232	84	148



attended cases received medical care for the first time more than a week after the onset of the illness.

*Disability.* The data on the interval between onset and medical care for cases with no bed disability and cases with bed disability are shown by age for both sexes combined in Table 8. In both age groups cases with bed disability received medical care sooner than did cases which were not confined to bed. From 14 to 16 per cent more of the bed disabling cases received medical attention within one day after the onset of the case than did cases not confined to bed.

*Nature of the Illness.* Table 9 shows the distribution of medically-attended cases by the interval between onset and medical care classified by the nature of the illness and age. Both cases of coryza and colds with throat or chest symptoms received medical care at approximately the same intervals after the onset of the illness.

It appears from these data that the interval between the

Table 9. Distribution of medically attended cases of acute respiratory illness according to days between onset and medical care, classified by age and diagnosis. Pleasantville and Mt. Kisco, September to May, 1946-1949.

DAYS BETWEEN ONSET AND MEDICAL CARE	AGE 0-9			AGE 10+		
	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
	PER CENT					
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0
0	28.6	31.4	28.0	23.8	21.9	24.1
1	22.6	16.7	23.8	20.4	18.6	20.6
2-7	32.5	31.8	32.6	39.7	45.3	38.9
8+	16.3	20.1	15.6	16.1	14.2	16.4
	NUMBER					
TOTAL	1,517	258	1,259	1,439	183	1,256
0	434	81	353	342	40	302
1	342	43	299	293	34	259
2-7	493	82	411	572	83	489
8+	248	52	196	232	26	206

onset of an illness and the date of medical care may be influenced by the age of the patient and the extent of disability. Occupational class, the sex of the patient, and the nature of the illness appear to exert little influence upon when the doctor is called in relation to the onset of the illness.

#### SUMMARY

Every illness reported during the study of acute respiratory illness conducted in two communities in Westchester County, New York, included a record of any medical care received. Of the total illnesses reported during the three years of the study, 17 per cent received medical care.

The population was classified according to the occupational class of the head of the household, sex, and age. The illnesses were further classified by the nature of the illness and by type of disability. Thus it was possible to evaluate the influence of these factors on the incidence of medically-attended cases of acute respiratory illness.

*Occupational Class.* Persons in families in the professional and managerial class had an incidence of medically-attended cases of acute respiratory illness 32 to 90 per cent higher than persons in families in the other occupational classes. Their incidence of medical calls was also higher. The proportion of the total cases that received medical care was similar in the two occupational classes. The intervals between the onset of a case and medical care were similar also.

*Sex and Age.* There appeared to be no marked differences between the sexes in the incidence of medically-attended cases. The two age groups showed marked differences in medical care. Persons less than 10 years of age had a higher incidence of both medically-attended cases and medical calls than persons 10 years of age and older. The doctor was called more promptly for persons under 10 and they received more medical care at home than the older age group.

*Nature of the Illness.* From 17 to 37 per cent of the total colds with throat or chest symptoms received medical care

whereas only 3 to 11 per cent of the colds with head symptoms only were medically attended. A larger proportion of the total medically-attended cases with throat or chest symptoms were treated at home than were cases of coryza. The doctor was called at similar intervals after the onset of the illness for both coryza and cases with throat or chest symptoms.

*Disability.* Cases confined to bed for one or more days received more medical care than cases not confined to bed. Bed disabling cases also had a higher rate of medical calls. The doctor was called more promptly for bed disabling cases.

#### ACKNOWLEDGMENT

Acknowledgments are made to Dr. Mildred W. Wells and to the Westchester County Department of Health for generous assistance and cooperation which greatly facilitated the study of acute respiratory illness.

An especial acknowledgment is made to the families in Pleasantville and Mt. Kisco who participated in the study.

#### REFERENCES

1. Van Volkenburgh, V. A. and Frost, W. H.: Acute Minor Respiratory Diseases Prevailing in a Group of Families Residing in Baltimore, Maryland, 1928-1930. Prevalence, Distribution and Clinical Description of Observed Cases. *American Journal of Hygiene*, January, 1933, xvii, No. 1, pp. 122-153.
2. Collins, Selwyn D.: The Incidence of Illness and the Volume of Medical Services Among 9,000 Canvassed Families. United States Public Health Service and the Committee on the Costs of Medical Care. Cases and Days of Illness Among Males and Females, With Special Reference to Confinement to Bed. *Public Health Reports*, January 12, 1940, 55, No. 2, pp. 47-93.
3. Eastern Health District Study in Baltimore, Maryland, 1939-1943. Made by the United States Public Health Service and the Milbank Memorial Fund. (Unpublished data.)
4. Tucher, Doris; Coulter, Jane E.; and Downes, Jean: Incidence of Acute Respiratory Illness Among Males and Females at Specific Ages. The Milbank Memorial Fund *Quarterly*, January, 1952, xxx, No. 1, pp. 42-60.
5. Downes, Jean: Control of Acute Respiratory Illness by Ultra-Violet Lights. Study No. 2. The Milbank Memorial Fund *Quarterly*, April, 1951, xxix, No. 2, pp. 186-217.
6. Tucher, Doris and Downes, Jean: Disability From Respiratory Illness. The Milbank Memorial Fund *Quarterly*, April, 1953, xxxi, No. 2, pp. 141-148.

Appendix Table 1. Cases of acute respiratory illness classified by age, sex, occupational class of head of household, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
NO BED DISABILITY						
<i>Male</i>	2,580	1,450	1,130	2,643	1,450	1,193
All Ages	1,088	671	417	1,062	618	444
0-9	1,492	779	713	1,581	832	749
<i>Female</i>	3,465	1,762	1,703	3,386	1,776	1,610
All Ages	1,235	721	514	999	595	404
0-9	2,230	1,041	1,189	2,387	1,181	1,206
BED DISABILITY						
<i>Male</i>	1,622	436	1,186	1,420	345	1,075
All Ages	786	206	580	670	169	501
0-9	836	230	606	750	176	574
<i>Female</i>	1,954	532	1,422	1,553	337	1,216
All Ages	874	259	615	544	124	420
0-9	1,080	273	807	1,009	213	796

Appendix Table 2. Medically attended cases of acute respiratory illness, classified by age, sex, occupational class of head of household, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total <sup>1</sup>	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
NO BED DISABILITY						
<i>Male</i>	175	58	117	144	39	105
All Ages						
0-9	99	33	66	81	22	59
10+	76	25	51	63	17	46
<i>Female</i>	252	61	191	183	49	134
All Ages						
0-9	111	31	80	75	27	48
10+	141	30	111	108	22	86
BED DISABILITY						
<i>Male</i>	599	66	533	456	51	405
All Ages						
0-9	345	40	305	265	37	228
10+	254	26	228	191	14	177
<i>Female</i>	609	66	543	538	51	487
All Ages						
0-9	306	37	269	235	31	204
10+	303	29	274	303	20	283

<sup>1</sup> Excludes 237 cases which occurred in doctors' families.

Appendix Table 3. Population observed during three school years, classified by the occupational class of the head of the household, and by age and sex. Pleasantville and Mt. Kisco combined. September to May, 1946-1949.

AGE GROUPS	BOTH SEXES	MALE	FEMALE
	ALL OCCUPATIONAL CLASSES <sup>1</sup>		
ALL AGES	13,441	6,604	6,837
0-9	3,090	1,536	1,554
10+	10,351 <sup>2</sup>	5,068	5,283
	PROFESSIONAL AND MANAGERIAL		
ALL AGES	5,806	2,775	3,031
0-9	1,447	690	757
10+	4,359	2,085	2,274
	ALL OTHER OCCUPATIONAL CLASSES		
ALL AGES	7,635	3,829	3,806
0-9	1,643	846	797
10+	5,992	2,983	3,009

<sup>1</sup> Excludes 978 persons in households in which the head of the household was seeking work, disabled, or retired.

<sup>2</sup> Includes 44 persons of unknown age.

Appendix Table 4. Proportion of the total medically attended cases which had no bed disability and bed disability, classified by age, sex, occupational class of head of household, and diagnosis. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
	Per Cent					
NO BED DISABILITY						
<i>Male</i>						
All Ages	22.6	46.8	18.0	24.0	43.3	20.6
0-9	22.3	45.2	17.8	23.4	37.3	20.6
10+	23.0	49.0	18.3	24.8	54.8	20.6
<i>Female</i>						
All Ages	29.3	48.0	26.0	25.4	49.0	21.6
0-9	26.6	45.6	22.9	24.2	46.6	19.0
10+	31.7	50.9	28.8	26.3	52.4	23.3
BED DISABILITY						
<i>Male</i>						
All Ages	77.4	53.2	82.0	76.0	56.7	79.4
0-9	77.7	54.8	82.2	76.6	62.7	79.4
10+	77.0	51.0	81.7	75.2	45.2	79.4
<i>Female</i>						
All Ages	70.7	52.0	74.0	74.6	51.0	78.4
0-9	73.4	54.4	77.1	75.8	53.4	81.0
10+	68.3	49.1	71.2	73.7	47.6	76.7

Appendix Table 5. Number of medical calls for medically attended cases of acute respiratory illness, classified by age, sex, occupational class of head of household, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total <sup>1</sup>	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
NO BED DISABILITY						
<i>Male</i>	183	48	135	167	41	126
All Ages	91	24	67	85	17	68
0-9	92	24	68	82	24	58
<i>Female</i>	280	92	188	239	63	176
All Ages	112	40	72	80	31	49
0-9	168	52	116	159	32	127
BED DISABILITY						
<i>Male</i>	837	93	744	684	63	621
All Ages	480	49	431	352	48	304
0-9	357	44	313	332	15	317
<i>Female</i>	948	67	881	860	60	800
All Ages	452	26	426	377	32	345
0-9	496	41	455	483	28	455

<sup>1</sup> Excludes 237 cases in doctors' families.



Appendix Table 6. Medically attended cases of acute respiratory illness, classified by age, sex, occupational class of head of household, diagnosis, and type of disability. Pleasantville and Mt. Kisco, September to May, 1946-1949.<sup>1</sup>

SEX AND AGE	PROFESSIONAL AND MANAGERIAL			ALL OTHER OCCUPATIONAL CLASSES		
	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms	Total	Coryza—Head Symptoms Only	Colds With Throat or Chest Symptoms
NO BED DISABILITY						
<i>Male</i>	131	38	93	121	31	90
All Ages						
0-9	74	23	51	61	14	47
10+	57	15	42	60	17	43
<i>Female</i>	206	56	150	150	39	111
All Ages						
0-9	88	26	62	57	20	37
10+	118	30	88	93	19	74
BED DISABILITY						
<i>Male</i>	497	51	446	399	45	354
All Ages						
0-9	289	32	257	227	32	195
10+	208	19	189	172	13	159
<i>Female</i>	515	46	469	463	39	424
All Ages						
0-9	246	22	224	199	22	177
10+	269	24	245	264	17	247

<sup>1</sup> Excludes 237 cases in doctors' families, 430 cases for which only medical care was a telephone call, 36 cases for which the total calls were unknown, and 8 cases for which all medical care was in a hospital.

TYPE OF MEDICAL CALL	AGE 0-9			AGE 10+		
	All Diagnoses	Coryza— Head Symptoms Only	Colds With Throat or Chest Symptoms	All Diagnoses	Coryza— Head Symptoms Only	Colds With Throat or Chest Symptoms
Professional and Managerial Class						
NO CONFINEMENT TO BED						
TOTAL	209	64	145	205	50	155
Office Only	65	25	40	123	35	88
Home Only	95	23	72	48	10	38
Home and Office	2	1	1	4	0	4
Telephone Only	47	15	32	30	5	25
CONFINEMENT TO BED						
TOTAL	646	75	571	547	53	494
Office Only	53	8	45	89	12	77
Home Only	445	41	404	344	28	316
Home and Office	37	5	32	43	2	41
Telephone Only	111	21	90	71	11	60
All Other Occupational Classes						
NO CONFINEMENT TO BED						
TOTAL	156	49	107	169	39	130
Office Only	48	14	34	106	34	72
Home Only	64	17	47	44	2	42
Home and Office	6	3	3	3	0	3
Telephone Only	38	15	23	16	3	13
CONFINEMENT TO BED						
TOTAL	494	68	426	485	33	452
Office Only	51	8	43	83	6	77
Home Only	346	41	305	304	21	283
Home and Office	29	5	24	49	3	46
Telephone Only	68	14	54	49	3	46

Appendix Table 7. Type of medical service for medically attended cases of acute respiratory illness, classified by age and occupation of head of household, and by diagnosis and type of disability of the case. Pleasantville and Mt. Kisco, September to May, 1946-1949.