# INCIDENCE OF ACUTE RESPIRATORY ILLNESS AMONG MALES AND FEMALES AT SPECIFIC AGES

## Study No. 5

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STUDIES of the incidence of acute respiratory illness have shown: (1) that the incidence among both males and females decreases with age; and (2) that after the age of 10 years the incidence rate among females exceeds that of males. Van Volkenburgh and Frost (1928–1930) found that the incidence of acute respiratory illness was highest at ages 0–4 and then generally decreased with age. They noted that the rate was higher for males under 10 years of age than for females of the same age. However, the rate for females aged 10 and over was greater than that for males (1). The study made by the Committee on the Costs of Medical Care (1928–1931) and a study in the Eastern Health District of Baltimore (1938–1943) showed results similar to those found by Van Volkenburgh and Frost (2, 3).

The Milbank Memorial Fund in cooperation with the Westchester County Department of Health conducted a study of acute respiratory illness in two communities, Pleasantville and Mt. Kisco, New York. The data which were collected make it possible to study the age and sex incidence of these diseases in the two communities. In addition, data were obtained which make it possible to describe the age and sex incidence of acute respiratory illness by site of symptoms and by type of disability. This report is a presentation of these data.

## Data and Method of Study

The two communities, Pleasantville and Mt. Kisco, were fairly comparable with respect to size. According to the 1940 Census there were 4,454 persons living in the incorporated village of Pleasantville and 5,941 in the village of Mt. Kisco.

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

Sixteen per cent of the population of Pleasantville were foreign born compared with 21 per cent in Mt. Kisco. In both communities the foreign born were chiefly Italian. Negroes formed a very small proportion of the population in either place; about 1 per cent in Pleasantville and 3 per cent in Mt. Kisco.

The periodic survey of families for the purpose of collection of illness records was the method employed in this study. All families in which there were one or more children attending grade school or high school in each of the two communities were included in the study. These families were visited every twenty-eight days during the three school years, September to June, 1946–1949. On each visit to the family, inquiry was made about acute respiratory illnesses which had occurred among their members during the past four weeks. Visits were not made during the summer months because it was believed that observation during that period would be incomplete since some children go to summer camps and often the entire family is away from the community for part or all of the summer.

Each family visitor was given a list of the common acute respiratory illnesses in the terminology generally used by a family informant. The list is as follows:

1. Cold, head cold, sneezing attack, sinusitis.

2. Sore throat, tonsillitis, septic sore throat, streptococcus sore throat, pharyngitis, quinsy, laryngitis, hoarseness, swollen cervical glands.

3. Bronchitis, chest cold, tracheitis, croup, cough.

4. Grippe, influenza, intestinal influenza or grippe.

5. Pneumonia, pleurisy, and asthma.

6. Earache with a cold or without a cold, otitis media, running ear, and mastoiditis.

Inquiry was made about the presence or absence of each type of illness among members of the family.

The sickness record included the nature of the illness as stated by the informant, usually the mother, the date of onset and duration of illness, the onset and duration of disability and the number of days in bed, the amount of medical care and, if hospitalized, the number of days in the hospital. The sickness record also included the order in which head, throat, or chest was involved in the illness.

The mean number of families visited during the three school years of the special study was 530 in Pleasantville and 570 in Mt. Kisco. The families in Pleasantville included some 2,100 persons and those in Mt. Kisco 2,400. In each group of families there were about 900 school-age children and 180 to 200 preschool-age children.

## CHARACTERISTICS OF THE TWO COMMUNITIES

In the study of acute respiratory illness, data were obtained from each family which reveal certain social characteristics of the family. The data included: a census of the household, the age, sex, and marital status of the members, the occupation and place of employment of all employed members, and the highest education attained for all members of the household.

A description of the two communities with respect to these characteristics has been presented in previous reports (4, 5). The two communities were found to be comparable with respect to loss of families due to moving or refusal to cooperate, age distribution of the family members, age of husbands and wives, and size of family. There were, however, marked differences between the two communities in the educational attainment of the husbands and wives, in the occupation of the head of the household, and in commuter status of the family. For example, 40 per cent of the heads of the household in the Pleasantville families had a college education compared with 15 per cent in Mt. Kisco. Fifty-four per cent of the household heads in Pleasantville were in the professional or managerial class compared with 36 per cent in Mt. Kisco. In Pleasantville 76 per cent of the families, compared with 53 per cent in Mt. Kisco, had one or more commuters, that is, one or more persons in the family whose place of work was outside the community in which they lived.

None of these differences between the two communities

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are believed to have an effect upon the distribution of respiratory illness by age among males and females in either community. Therefore, social class of the family has not

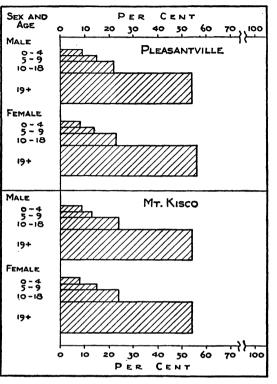


Fig. 1. Age distribution of males and females in Pleasantville and Mt. Kisco, September to May 1946–1949.

been taken into account in this particular analysis.

# Incidence of Illness by Age and Sex

The data are illnesses reported during the three school years. September to May. 1946-1949, in the two communities. Previous analysis indicated that in each year the weekly incidence of illness was fairly similar in both communities (5). For the purposes of this analysis, therefore, the morbidity experience over the three vears has been com-

bined for each community. The population is composed of the presons counted in each year that they were observed. Thus, rates obtained represent an average over three years.

Figure 1 and Appendix Table 1 show that the males and females had a similar age distribution. From 54 to 56 per cent in each sex group in Pleasantville and in Mt. Kisco were persons aged 19 years or older. In each community females constituted 51 per cent of the total population and males 49 per cent.

Acute respiratory illness as reported in this analysis includes head colds or coryza, colds with sore throat, tonsillitis and

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|                |         | Pleasantvi                      | LLE                                       |           | Мт. Кізс                        | 0                                         |
|----------------|---------|---------------------------------|-------------------------------------------|-----------|---------------------------------|-------------------------------------------|
| SEX AND<br>Age | Total   | Coryza-Head<br>Symptoms<br>Only | Colds With<br>Throat or Chest<br>Symptoms | Total     | Coryza-Head<br>Symptoms<br>Only | Colds With<br>Throat or Chest<br>Symptoms |
|                |         |                                 | Rate Per 1,000 P                          | opulation |                                 |                                           |
| M ales         |         |                                 |                                           |           |                                 |                                           |
| All Ages       | 1,318.7 | 572.0                           | 746.7                                     | 1,152.4   | 526.0                           | 626.4                                     |
| 0-4            | 2,454.5 | 1,225,6                         | 1,229.0                                   | 2.331.3   | 1,224.9                         | 1,106.4                                   |
| 5-9            | 2,413.0 | 1,026.8                         | 1,386.6                                   | 2,222.9   | 940.7                           | 1,282.2                                   |
| 10-18          | 1,463.5 | 654.1                           | 809.5                                     | 1,198.2   | 561.0                           | 637.2                                     |
| 19+            | 771.8   | SO5.9                           | 465.9                                     | 676.8     | 294.2                           | 382.6                                     |
| Females        |         |                                 |                                           |           |                                 |                                           |
| All Ages       | 1,503.8 | 611.5                           | 892.5                                     | 1,492.3   | 662.4                           | 829.9                                     |
| 0-4            | 2,207.7 | 1,088.0                         | 1,119.7                                   | 2,252.4   | 1,515.9                         | 938.5                                     |
| 5-9            | 2,449.1 | 997.9                           | 1,451.1                                   | 2,403.2   | 1,048.4                         | 1,354.8                                   |
| 10-18          | 1,682.6 | 701.4                           | 981.2                                     | 1,485.2   | 688.5                           | 796.7                                     |
| 19+            | 1,100.5 | 412.7                           | 687.6                                     | 1,134.2   | 448.2                           | 686.0                                     |

Table 1. Incidence of coryza and colds with throat or chest symptoms classified by age and sex, 1946-1949.

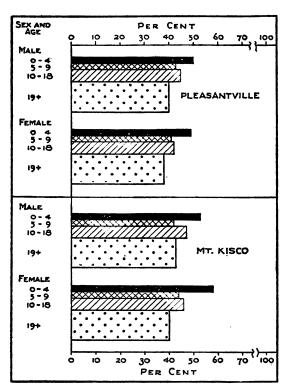
septic sore throat, colds with chest complications, tracheitis, bronchitis or cough, and influenza. The distribution of these illnesses according to their proportional frequency of occurrence was as follows: head colds, 47 per cent; colds with sore throat, 21 per cent; tonsillitis, 5 per cent; colds with chest symptoms, 22 per cent; and influenza or grippe, 5 per cent. Cases of intestinal influenza or intestinal grippe are excluded.

Illness According to Part or Parts of Respiratory Tract Affected. The 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 which affected the head only (coryza); and (2) illnesses which involved the throat or chest.<sup>2</sup>

The incidence of coryza and of colds with throat or chest symptoms classified by age and sex, is shown in Table 1. Coryza cases, with head symptoms only, show for each sex

<sup>&</sup>lt;sup>2</sup> The classification "illnesses 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.

group a consistent decline in incidence as age increases. On the other hand, the rate of colds with throat or chest involvement was higher at ages 5–9 than at ages 0–4. This was true of both



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Fig. 2. Proportion of the total respiratory illness of males and females at each age that consisted of head colds (coryza only). *Pleasantville and Mt. Kisco.* Data for the three school years 1946–1947, 1947–1948, 1948–1949 have been combined.

sexes. The differences between the sexes were most marked after age 10. Both communities were similar in these respects.

When total incidence of respiratory illness is considered. coryza only and colds with throat or chest symptoms, there were no important differbetween ences the rates at ages 0-4 and 5-9. This was true of both sexes and in both Pleasantville and Mt. Kisco. This similarity at the young ages is contrary to the experience in other studies of respiratory illness. It may be that because

of the nature of this particular study, where ultra-violet lights were placed in the class rooms of the schools of Pleasantville for the control of respiratory illness, the interest of the family was concentrated upon illness as it occurred in the school-age child and less attention was given to remembering and reporting attacks of such illness among the preschool-age children.

Illnesses with throat or chest involvement occurred more frequently among both males and females than did those with coryza only. At all ages the former group constituted from 54 to 59 per cent of the total illnesses in each sex group.

Figure 2 shows for males and females in each community the proportion of the total illness at each age for which head symptoms only were reported. In both communities these cases formed about the same proportion of the total among males and females at specific ages, namely, about 40-49 per cent. Coryza formed the lowest proportion of the total illness at ages

| Table 2. Incidence of acute respiratory illness among males and females,    |
|-----------------------------------------------------------------------------|
| classified by age and type of disability-Pleasantville and Mt. Kisco, 1946- |
| 1949.                                                                       |

|                  | Т                 | YPE OF DISABILIT     | ſΥ                     |  |
|------------------|-------------------|----------------------|------------------------|--|
| Age and Sex      | Non-<br>Disabling | Disability<br>No Bed | Disability<br>With Bed |  |
|                  | Rate Per 1,000    |                      |                        |  |
|                  |                   | PLEASANTVILLE        |                        |  |
| Males—All Ages . | 582.8             | 222.6                | 513.3                  |  |
| 0-4              | 1,353.6           | 353.6                | 747.5                  |  |
| 5-9              | 572.8             | 653.8                | 1,186.3                |  |
| 10-18            | 491.9             | 256.8                | 714.9                  |  |
| 19+              | 495.8             | 68.8                 | 207.1                  |  |
| Females—All Ages | 717.9             | 260.7                | 525.3                  |  |
| 0-4              | 1,183.1           | 443.6                | 581.0                  |  |
| 5-9              | 582.2             | 706.9                | 1,160.1                |  |
| 10-18            | 542.1             | 338.7                | 801.8                  |  |
| 19+              | 754.9             | 94.2                 | 251.2                  |  |
|                  |                   | MT. KISCO            |                        |  |
| Males—All Ages   | 578.8             | 176.4                | 397.2                  |  |
| 0-4              | 1,313.1           | 316.1                | 702.2                  |  |
| 5-9              | 748.4             | 511.2                | 963.2                  |  |
| 10-18            | 514.0             | 199. <b>4</b>        | 484.9                  |  |
| 19+              | 445.6             | 61.5                 | 169.9                  |  |
| Females—All Ages | 796.0             | 208.1                | 488.1                  |  |
| 0-4              | 1,456.3           | 252.4                | 543.7                  |  |
| 5-9              | 759.8             | 557.4                | 1,086.0                |  |
| 10-18            | 667.8             | 213.1                | 604.3                  |  |
| 19+              | 763.7             | 104.5                | 265.9                  |  |

Acute Respiratory Illness Among Males and Females 49

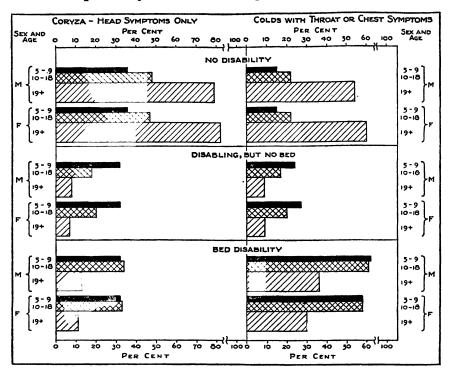


Fig. 3. Section 1. Cases of head colds (coryza) among males and females at each age classified according to disability. Section 2. Cases of colds with throat or chest symptoms among males and females at each age classified according to disability. Pleasantville.

19 and over. It is interesting to note that although females age 10 and over had higher rates of respiratory illness than did males at the same ages, cases with head symptom only comprised a similar proportion of the total respiratory illness at these ages among both sexes.

Disabling Illness. Respiratory illness was divided into three classes according to disability: (1) illnesses which did not interfere with usual activities (nondisabling); (2) illnesses which caused an interruption in usual daily activities, but did not cause confinement to bed; and (3) illnesses which caused confinement to bed for one or more days.

Table 2 shows the incidence of respiratory illness among males and females classified by age and type of disability in Pleasantville and Mt. Kisco.

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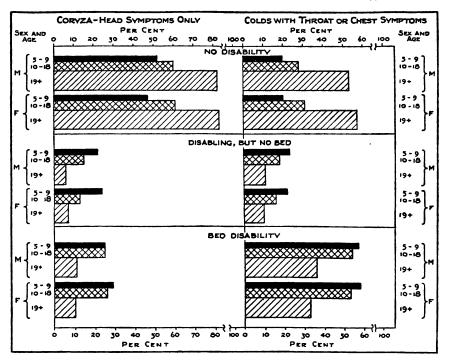


Fig. 4. Section 1. Cases of head colds (coryza) among males and females at each age classified according to disability. Section 2. Cases of colds with throat or chest symptoms among males and females at each age classified according to disability. Mt. Kisco.

In Pleasantville, at all ages, 44 and 48 per cent of the illnesses among males and females, respectively, were reported as nondisabling. In Mt. Kisco, nondisabling illness constituted 50 per cent of the total among males and 53 per cent among females.

The rate of disabling illness was highest at ages 5–9 compared with any other age groups. This was true of both sexes in both communities.<sup>3</sup>

Illness which caused confinement to bed (Figures 3 and 4) formed fairly similar proportions of the total among males and females in each community. In Pleasantville, 39 and 35 per cent of the illnesses among males and females, respectively, were bed illnesses compared with 34 and 33 per cent in the same sex groups in Mt. Kisco. In both communities bed ill-

<sup>8</sup> The definition of disabling illness, "interference with usual activities," makes it virtually impossible to classify illnesses among preschool-age children according to whether disabling or not.

nesses were most frequent among school-age children, both boys and girls, aged 5-18.

Table 3 shows the incidence of coryza and of illnesses with

|                                        |         | Түр               | e of Disabi          | LITY                   |
|----------------------------------------|---------|-------------------|----------------------|------------------------|
| Age and Type of Cold                   | Total   | Non-<br>Disabling | Disability<br>No Bed | Disability<br>With Bed |
|                                        |         | 'Rate P           | er 1,000             |                        |
|                                        |         | PLEASA            | NTVILLE              |                        |
| Coryza                                 |         |                   |                      |                        |
| All Ages                               | 572.0   | 335.8             | 102.0                | 134.2                  |
| 0-4                                    | 1,225.6 | 902.4             | 154.9                | 168.4                  |
| 5- 9                                   | 1,026.3 | 370.4             | 325.9                | 330.0                  |
| 10–18                                  | 654.1   | 313.5             | 117.6                | 223.0                  |
| 19+                                    | 305.9   | 242.1             | 25.5                 | 38.3                   |
| Colds With Throat or<br>Chest Symptoms |         |                   |                      |                        |
| All Ages                               | 746.7   | 247.0             | 120.6                | 379.1                  |
| 0-4                                    | 1,229.0 | 451.2             | 198.7                | 579.1                  |
| 5-9                                    | 1,386.6 | 202.4             | 327.9                | 856.3                  |
| 10-18                                  | 809.5   | 178.4             | 139.2                | 491.9                  |
| 19+                                    | 465.9   | 253.7             | 43.3                 | 168.8                  |
|                                        |         | MT.               | KISCO                |                        |
| Coryza                                 |         |                   |                      |                        |
| All Ages                               | 526.0   | 355.0             | 72.7                 | 98.3                   |
| 0- 4                                   | 1,224.9 | 884.5             | 167.2                | 173.3                  |
| 5-9                                    | 940.7   | 492.8             | 210.6                | 237.2                  |
| 10-18                                  | 561.0   | 337.1             | 82.9                 | 141.1                  |
| 19+                                    | 294.2   | 242.3             | 19.0                 | 33.0                   |
| Colds With Throat or<br>Chest Symptoms |         |                   |                      |                        |
| All Ages                               | 626.4   | 223.8             | 103.7                | 298.9                  |
| 0- 4                                   | 1,106.4 | 428.6             | 148.9                | 528.9                  |
| 5-9                                    | 1,282.2 | 255.6             | 300.6                | 726.0                  |
| 10–18                                  | 637.2   | 176.9             | 116.5                | 343.8                  |
| 19+                                    | 382.6   | 203.3             | 42.5                 | 136.9                  |
| -                                      | 1       | 1                 | <u></u>              |                        |

Table 3. Incidence of acute respiratory illness among males classified by type of disability in Pleasantville and Mt. Kisco, 1946-1949.

throat or chest symptoms by age and type of disability among *males* in Pleasantville and Mt. Kisco. This table brings out very strikingly the fact that even head colds, coryza only, are

|                                        |         | Түр               | e of Disabi          | LITY                   |
|----------------------------------------|---------|-------------------|----------------------|------------------------|
| Age and Type of Cold                   | Total   | Non-<br>Disabling | Disability<br>No Bed | Disability<br>With Bed |
|                                        |         | Rate P            | er 1,000             |                        |
|                                        |         | PLEASANTVILLE     |                      |                        |
| Coryza                                 |         |                   |                      |                        |
| All Ages                               | 611.5   | 370.4             | 111.7                | 129.5                  |
| 0-4                                    | 1,088.0 | 721.8             | 253.5                | 112.7                  |
| 5-9                                    | 997.9   | 359.7             | 320.2                | 318.1                  |
| 10–18                                  | 701.4   | 327.5             | 140.5                | 233.4                  |
| 19+                                    | 412.7   | 339.7             | 28.9                 | 44.1                   |
| Colds With Throat or<br>Chest Symptoms |         |                   |                      |                        |
| All Ages                               | 892.3   | 347.5             | 149.0                | 395.8                  |
| 0-4                                    | 1,119.7 | 461.3             | 190.1                | 468.3                  |
| 5-9                                    | 1,451.1 | 222.5             | 386.7                | 842.0                  |
| 10–18                                  | 981.2   | 214.6             | 198.2                | 568.4                  |
| 19+                                    | 687.6   | 415.2             | 65.3                 | 207.1                  |
|                                        |         | <u>.</u><br>мт. 1 | KISCO                |                        |
| Coryza                                 |         |                   |                      |                        |
| All Ages                               | 662.4   | 453.2             | 87.5                 | 121.6                  |
| 0-4                                    | 1,313.9 | 1,019.4           | 142.4                | 152.1                  |
| 5-9                                    | 1,048.4 | 494.6             | 254.5                | 299.3                  |
| 10–18                                  | 688.5   | 419.7             | 88.5                 | 180.3                  |
| 19+                                    | 448.2   | 371.9             | 33.5                 | 42.8                   |
| Colds With Throat or<br>Chest Symptoms |         |                   |                      |                        |
| All Ages                               | 829.9   | 342.8             | 120.6                | 366.5                  |
| 0-4                                    | 938.5   | 436.9             | 110.0                | 391.6                  |
| 5- 9                                   | 1,354.8 | 265.2             | 302.9                | 786.7                  |
| 10-18                                  | 796.7   | 248.1             | 124.6                | 424.0                  |
| 19+                                    | 686.0   | 391.8             | 71.0                 | 223.1                  |

Table 4. Incidence of acute respiratory illness among *females* classified by type of disability in Pleasantville and Mt. Kisco, 1946-1949.

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considered to be much more disabling among children of school age than among adults. For example, the rate of disabling illness in this category among males 5–9 was 656 per 1,000 population compared with a rate of 370 for nondisabling illness. On the other hand, among adults 19 years of age or older, the rate of disabling illness was 64 per 1,000 population compared with a rate of 242 for nondisabling illness.

The same type of differences between school-age persons and adults were evident when cold with throat or chest symptoms are considered. However, among adults, bed illnesses formed a considerably greater proportion of the total in this category than was true of coryza.

The females had somewhat higher rates of illness from coryza and from colds with throat or chest symptoms (Table 4). The differences in disabling illness with age were similar to those noted for males.

Though the levels of the rates of illness in the different categories were slightly different in the two communities, the age variation of disabling and nondisabling coryza and of colds with throat or chest symptoms showed great likeness in Pleasantville and Mt. Kisco. In both communities, children of school age were more subject to disabling illness than were adults. This may be due to a number of factors—the definition of disability, solicitude and special care of young children, and possibly a greater severity of respiratory illness among the young as contrasted with adults. These factors reflect both attitudes toward illness and actual differences in clinical severity.

# MEDICAL CARE FOR RESPIRATORY ILLNESS

The fact that an illness had medical care has been considered as one index of severity of the illness. Both Pleasantville and Mt. Kisco showed a striking similarity with respect to the proportion of the total illnesses which were medically attended. Eighteen per cent of the cases among males and females in Pleasantville were seen by a doctor; in Mt. Kisco, 17 per cent of the total cases among the males and 16 per cent among the females were seen by a doctor. Table 5 shows the incidence of medically attended illness by age and sex in each community. The most striking point

brought out by these data is that medical attention was centered upon the young persons. (Figure 5). Also, the rates declined rapidly as age increased. This was true for each class of illness, that is, coryza and colds with throat or chest symptoms, among males and females in each community.

Table 6 shows for each sex the incidence of respiratory illness classified by type of disability and medical attendance for the population studied in Pleasantville and in Mt. Kisco. As would be expected, medically attended cases are concentrated among those with the greater degree of disability, that is cases which caused confinement to bed. one-third About of these cases had а doctor in attendance. There were no differTable 5. Incidence of medically attended respiratory illness among males and females—Pleasantville and Mt. Kisco, 1946-1949.

| Age and Type<br>of Cold                | Males                        | Females |  |
|----------------------------------------|------------------------------|---------|--|
|                                        | Rate Per 1,000<br>Population |         |  |
|                                        | PLEASANTVILLE                |         |  |
| Coryz <b>a</b>                         |                              |         |  |
| All Ages                               | 40.5                         | 46.6    |  |
| 0-4                                    | 87.5                         | 119.7   |  |
| 5-9                                    | 95.1                         | 70.7    |  |
| 10-18                                  | 39.2                         | 47.7    |  |
| 19+                                    | 18.3                         | 29.9    |  |
| Colds with Throat or<br>Chest Symptoms |                              |         |  |
| All Ages                               | 196.0                        | 226.7   |  |
| 0-4                                    | 478.1                        | 426.1   |  |
| 5-9                                    | 431.2                        | 409.6   |  |
| 10-18                                  | 170.3                        | 222.1   |  |
| 19+                                    | 95.5                         | 155.4   |  |
|                                        | MT. 1                        | KISCO   |  |
| Coryza                                 |                              |         |  |
| All Ages                               | 35.3                         | 37.0    |  |
| 0-4                                    | 133.7                        | 119.7   |  |
| 5-9                                    | 81.8                         | 86.0    |  |
| 10-18                                  | 24.6                         | 15.3    |  |
| 19+                                    | 12.5                         | 20.9    |  |
| Colds with Throat or<br>Chest Symptoms |                              |         |  |
| All Ages                               | 164.6                        | 202.7   |  |
| 0-4                                    | 419.5                        | 346.3   |  |
| 5-9                                    | 431.5                        | 419.4   |  |
| 10-18                                  | 106.4                        | 120.2   |  |
| 19+                                    | 83.4                         | 159.0   |  |

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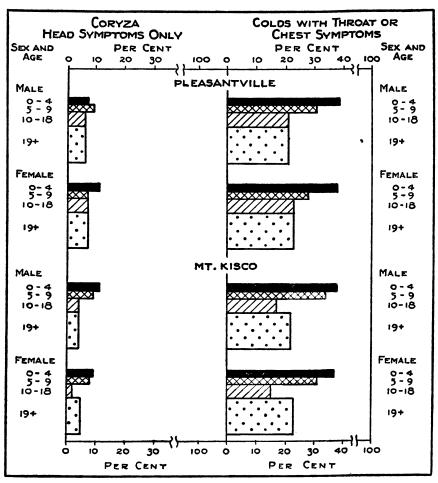


Fig. 5. Section 1. Proportion of head colds among males and females at each age which had medical care. Section 2. Proportion of colds with throat or chest symptoms among males and females at each age which had medical care.

ences between the sexes nor between the communities in this respect.

#### Summary

1. In general, incidence decreased with age for both coryza and illnesses with throat or chest involvement for each sex in each community.

2. Incidence of acute respiratory illness was consistently higher for females aged 10 and older than for males of the same ages.

| Type of                                                                                                    | PLEASA                            | NTVILLE                | Мт.                                     | Kisco               |
|------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------|-----------------------------------------|---------------------|
| DISABILITY                                                                                                 | Male                              | Female                 | Male                                    | Female              |
|                                                                                                            |                                   | RATE PI                | er 1,000                                |                     |
| Total Cases<br>Medically Attended<br>Nondisabling                                                          | 1,318.7<br>236.5<br>582.8<br>39.0 | 717.8                  | 1,152.4<br>199.8<br>578.8               | 796.0               |
| Medically Attended<br>Disabling, No Bed<br>Medically Attended<br>Disabling, With Bed<br>Medically Attended | 222.7<br>23.7<br>513.2<br>173.8   | 260.7<br>31.4<br>525.3 | 28.0<br>176.4<br>24.8<br>397.3<br>147.1 | 208.1               |
|                                                                                                            | N                                 | UMBER OF CA            | SES OF ILLNE                            | SS                  |
| TOTAL CASES<br>Medically Attended                                                                          | 4,394<br>788                      | 5,319<br>967           | 4,279<br>742                            | 5,729<br>920        |
| Nondisabling<br>Medically Attended<br>Disabling, No Bed                                                    | 1,9 <b>42</b><br>130              | 2,539<br>212<br>922    | 2,149<br>104<br>655                     | 3,056<br>145<br>799 |
| Medically Attended<br>Disabling, With Bed<br>Medically Attended                                            | 79<br>1,710<br>579                | 111<br>1,858           | 92<br>1,475<br>546                      | 122<br>1,874<br>653 |

Table 6. Incidence of acute respiratory illness classified by disability and medical attendance among males and females of all ages, 1946–1949.

3. The proportions which illnesses with head symptoms only, comprised of total respiratory illness at specific ages, were similar for males and females.

4. The proportion of the total illnesses with head symptoms and the proportion with throat or chest symptoms, which were disabling, decreased with age for both sexes.

5. At least four times as many illnesses with throat or chest involvement received medical care than did coryza only.

6. In both communities, females aged 10 and older had more medically attended cases than did the males.

7. In both communities a higher proportion of the total throat or chest illnesses among children under 10 years of age received medical care than did the older ages.

8. Medical care for bed-disabling illness was at least three times as frequent as for nondisabling illnesses for both sexes.

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

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| S A         | Pleasantville | Мт. Кизсо |  |
|-------------|---------------|-----------|--|
| Sex and Age | Population    |           |  |
| Males       |               |           |  |
| All Ages    | 3,332         | 3,713     |  |
| 0-4         | 297           | 329       |  |
| 5-9         | 494           | 489       |  |
| 10-18       | 740           | 893       |  |
| 19+         | 1,801         | 2,002     |  |
| Females     |               |           |  |
| All Ages    | 3,537         | 3,839     |  |
| 0-4         | 284           | 309       |  |
| 5-9         | 481           | 558       |  |
| 10-18       | 797           | 915       |  |
| 19+         | 1,975         | 2,057     |  |

Appendix Table 1. Population observed during three school years, September-May, 1946-1949.

| AGE AND                                   |       | Тү                | PE OF DISABILI       | ТҮ                     |
|-------------------------------------------|-------|-------------------|----------------------|------------------------|
| TYPE OF<br>Cold                           | Total | Non-<br>Disabling | Disability<br>No Bed | Disability<br>With Bed |
|                                           |       | PLEASA            | NTVILLE              |                        |
| Coryza                                    |       |                   |                      |                        |
| ALL AGES                                  | 1,906 | 1,119             | 340                  | 447                    |
| , 0-4                                     | 364   | 268               | 46                   | 50                     |
| 5–9                                       | 507   | 183               | 161                  | 163                    |
| 10-18                                     | 484   | 232               | 87                   | 165                    |
| 19+                                       | 551   | 436               | 46                   | 69                     |
| Colds With<br>Throat or Chest<br>Symptoms |       |                   |                      |                        |
| ALL AGES                                  | 2,488 | 823               | 402                  | 1,263                  |
| 0-4                                       | 365   | 134               | 59                   | 172                    |
| 5-9                                       | 685   | 100               | 162                  | 423                    |
| 10-18                                     | 599   | 132               | 103                  | 364                    |
| 19+                                       | 839   | 457               | 78                   | 304                    |
|                                           |       | MT. I             | KISCO                |                        |
| Coryza                                    |       |                   |                      |                        |
| ALL AGES                                  | 1,953 | 1,318             | 270                  | 365                    |
| 0-4                                       | 403   | 291               | 55                   | 57                     |
| 5-9                                       | 460   | 241               | 103                  | 116                    |
| 10-18                                     | 501   | 301               | 74                   | 126                    |
| 19+                                       | 589   | 485               | 38                   | 66                     |
| Colds With<br>Throat or Chest<br>Symptoms |       |                   |                      |                        |
| All Ages                                  | 2,326 | 831               | 385                  | 1,110                  |
| 0-4                                       | 364   | 141               | 49                   | 174                    |
| 5–9                                       | 627   | 125               | 147                  | 355                    |
| 10-18                                     | 569   | 158               | 104                  | 307                    |
| 19+                                       | 766   | 407               | 85                   | 274                    |

Appendix Table 2. Number of cases of acute respiratory illness among *males* classified by type of disability in Pleasantville and Mt. Kisco, 1946–1949.

| AGE AND                                   |       | ТҮ                |                      |                        |
|-------------------------------------------|-------|-------------------|----------------------|------------------------|
| TYPE OF<br>Cold                           | Total | Non-<br>Disabling | Disability<br>No Bed | Disability<br>With Bed |
|                                           |       | PLEASA            | NTVILLE              |                        |
| Coryza                                    |       |                   |                      |                        |
| All Ages                                  | 2,163 | 1,310             | 395                  | 458                    |
| 0-4                                       | 309   | 205               | 72                   | 32                     |
| 5-9                                       | 480   | 173               | 154                  | 153                    |
| 10-18                                     | 559   | 261               | 112                  | 186                    |
| 19+                                       | 815   | 671               | 57                   | 87                     |
| Colds with<br>Throat or Chest<br>Symptoms |       |                   |                      |                        |
| ALL AGES                                  | 3,156 | 1,229             | 527                  | 1,400                  |
| 0-4                                       | 318   | 131               | 54                   | 133                    |
| 5-9                                       | 698   | 107               | 186                  | 405                    |
| 10-18                                     | 782   | 171               | 158                  | 453                    |
| 19+                                       | 1,358 | 820               | 129                  | 409                    |

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Coryza 2,543 1,740 336 467 ALL AGES 47 315 44 0-4 406 5-9 585 276 142 167 165 630 384 81 10-18 88 922 765 69 19+ Colds with Throat or Chest Symptoms 1,407 1,316 463 ALL AGES 3,186 34 121 290 135 0-4 439 169 756 148 5-9 114 388 227 729 10-18 459 1,411 806 146 19+

Appendix Table 3. Number of cases of acute respiratory illness among *females* classified by type of disability in Pleasantville and Mt. Kisco, 1946-1949.

| Age and Type of Cold                   | Males  | Females |
|----------------------------------------|--------|---------|
| AGE AND TYPE OF COLD                   | PLEASA | NTVILLE |
| Coryza                                 |        |         |
| All Ages                               | 135    | 165     |
| 0-4                                    | 26     | 34      |
| 5–9                                    | 47     | 34      |
| 10-18                                  | 29     | 38      |
| 19+                                    | 33     | . 59    |
| Colds with Throat or<br>Chest Symptoms |        |         |
| All Ages                               | 653    | 802     |
| 0-4                                    | 142    | 121     |
| 5-9                                    | 213    | 197     |
| 10-18                                  | 126    | 177     |
| 19+                                    | 172    | 307     |
|                                        | мт.    | KISCO   |
| Coryza                                 |        |         |
| All Ages                               | 131    | 142     |
| 0-4                                    | 44     | 37      |
| 5-9                                    | 40     | 48      |
| 10-18                                  | 22     | 14      |
| 19+                                    | 25     | 43      |
| Colds with Throat or<br>Chest Symptoms |        |         |
| All Ages                               | 611    | 778     |
| 0-4                                    | 138    | 107     |
| 5-9                                    | 211    | 234     |
| 10-18                                  | 95     | 110     |
| 19+                                    | 167    | 327     |

Appendix Table 4. Number of cases of acute respiratory illness which were medically attended among males and females in Pleasantville and Mt. Kisco, 1946–1949.