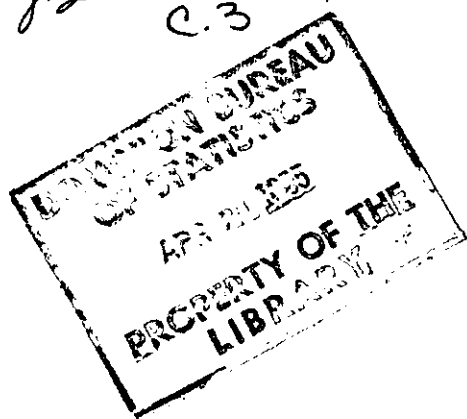


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CANADIAN SICKNESS SURVEY 1950-51

No. 7

INCIDENCE AND PREVALENCE OF ILLNESS
(NATIONAL ESTIMATES)

Prepared jointly
by
THE DOMINION BUREAU OF STATISTICS
and
THE DEPARTMENT OF NATIONAL HEALTH AND WELFARE

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ACKNOWLEDGEMENT

The Canadian Sickness Survey, the first nationwide study of illness in the general population of Canada, was carried out during a twelve-month period commencing in the autumn of 1950.

The Survey was initiated by the Department of National Health and Welfare and carried out by the ten provincial health departments with federal funds made available to the provinces through the National Health Program.

The planning and organization of the Survey was a joint undertaking of the Dominion Bureau of Statistics and the Department of National Health and Welfare in consultation with the provinces. Every provincial health department co-operated fully in gathering the extensive body of information which makes these publications possible.

Note: This is part 7 of D.B.S. Reference Paper No. 51. The first five bulletins in this series were referred to as Special Compilations.

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INTRODUCTION

THE CANADIAN SICKNESS SURVEY 1950-51

The object of the Canadian Sickness Survey was to obtain estimates of the incidence and prevalence of illness and accidents of all kinds; the amount of medical, nursing and other health care received; the volume of family expenditures for the various types of health services; and the prevalence of permanent physical disabilities. The present bulletin is one of a series intended to provide a means of releasing interim information on the more important of the results, pending the preparation of a comprehensive publication containing more detailed information together with a fuller description of the methods used.

The survey method consisted of personal visits by trained lay enumerators—in British Columbia the enumerators were public health nurses—to a sample of approximately 10,000 households distributed throughout the ten provinces in metropolitan, small urban, and rural areas.¹ Less than five per cent of these households refused to participate in the Survey. Of the remaining households over 80 per cent of the individuals involved remained in the sample throughout the survey period. All information, including particulars of income, housing, and environment, was obtained by direct interview of a household informant, usually the housewife. While the starting dates for the Survey varied somewhat in different provinces, in most cases a total of 14 monthly visits were made to each household in the sample. In the first visit the enumerator introduced the Survey and left a special calendar designed to help the informant keep a detailed day-to-day record of current sickness and of expenditures on health care and services for each member of the household. During each of the succeeding twelve months the enumerator interviewed the informant and recorded the sickness experienced by each person since the previous visit. The final visit was made to review the information recorded throughout the whole survey period. Uniformity of practice in the ten provinces was maintained by frequent consultation among the agencies involved, by uniform instructions to the enumerators, and by the use of three standard record forms—a Household Record, an Individual Sickness Record, and an Expenditures Form. Auxiliary schedules, also standardized, were used to

record permanent physical disabilities and also health services which were desired but not obtained.

The sample was designed to obtain estimates within a sampling error of 20 per cent.² Indications are that for most of the estimates the error is substantially smaller. Area sampling was used for the Survey. As a first stage the following six domains (regions) of study were established consisting of four single provinces and two groups of three provinces each:

1. Newfoundland
2. Maritimes (includes Prince Edward Island, Nova Scotia and New Brunswick)
3. Quebec
4. Ontario
5. Prairies (includes Manitoba, Saskatchewan and Alberta)
6. British Columbia

Within each domain of study three types of area were considered—metropolitan, urban, and rural. Within these areas multi-stage sampling was adopted. In metropolitan centres, all of which were included in the sample, and in some of the sampled urban areas, the first stage of sampling was the block, the second stage being the household. In other urban areas systematic sampling from a list of households was used. Rural areas were divided into primary sampling units and grouped into strata. Within each stratum one primary sampling unit was selected and multi-stage sampling applied. The first stage was the selection of clusters or segments within the primary sampling unit while the second stage was the selection of households within the chosen clusters.

In designing the sample extensive use was made of population, social, and economic data obtained from 1941 Census material. The results of the 1951 Census, which was taken at about mid-point of the survey period, provided the necessary distributions concerning persons and families for the calculation of weights used to inflate figures to national and provincial totals. The basic survey units for data on illness were individual persons, while the units for expenditures on health services included families, as defined in the Census, together with certain single persons living alone or with other families as roomers or relatives.

INCIDENCE AND PREVALENCE OF ILLNESS— CONCEPTS AND DEFINITIONS

SCOPE OF PRESENT BULLETIN

This bulletin is the seventh in the series of preliminary publications of the Canadian Sickness Survey. The first four reports dealt with family expenditures for health services. The fifth report was concerned with the volume of sickness and the sixth with permanent physical disabilities. The present report deals with the incidence and prevalence of illness. Subsequent bulletins will record the type and amount of treatment received in connection with illness and with the classification of illness by diagnostic group.

The report on the volume of sickness (bulletin No. 5) was concerned with periods of ill health, taking no account of the actual number of distinct illnesses of various diagnosis which a person might suffer during such periods. In the present report all illnesses are counted separately, regardless of whether or not they overlapped or concurred. This distinction must be kept in mind in any comparison of the two reports—one "complaint period", as de-

1. The population sampled did not include residents of institutions, military establishments, Indian reservations, and remote areas.
2. With a 95 per cent confidence limit.

defined in bulletin no. 5, may include several "illnesses" as defined below.

An illness is defined, in this Survey, as a disturbance in the state of health of an individual reported by the informant in the form of a diagnosis, a group of related symptoms, or a single symptom. Illnesses include injuries and confinements as well as diagnoses of disease and undiagnosed symptoms.

The duration of an illness is measured from the first onset of symptoms until the individual is free of symptoms pertaining to that illness. Multiple symptoms relating to the same diagnosis reported by the individual are considered one illness.

Recurring attacks, generally of long-term conditions, are counted together as one illness if such attacks are not separated by more than seven days free of symptoms relating to the condition. Where the attacks are separated by a symptom-free interval of eight days or more, they are recorded as separate illnesses.

The purpose of this bulletin is to provide certain measures of ill health in the Canadian population based on a count of illnesses and individuals suffering from illnesses, regardless of the specific diagnosis or duration of the illnesses concerned. While each illness is distinctly related to a diagnostic category, the classification of illnesses by diagnosis will be left to publications appearing at a later date.

It should be noted that illnesses were recorded as reported by informants, i.e. by the persons who actually suffered the illnesses or by their household spokesmen. Reported illnesses, therefore, are deviations from the state of good health as recognized by particular informants rather than deviations from any theoretical standards.

For various reasons it was impossible to carry out complete medical verification on all personal

health histories covered by the Survey. However, a check with physicians on a portion of the medically attended illnesses revealed a high degree of accuracy in the reporting of diagnoses by informants.

Some variation in the accuracy and uniformity of the data must be expected. While it was the intention to register any disturbance in the state of health of persons covered by the Survey, it is likely that some informants neglected to report minor complaints. Also, lack of uniform standards in the background and medical orientation of enumerators may have had some effect on the strict comparability of their observations and reporting.

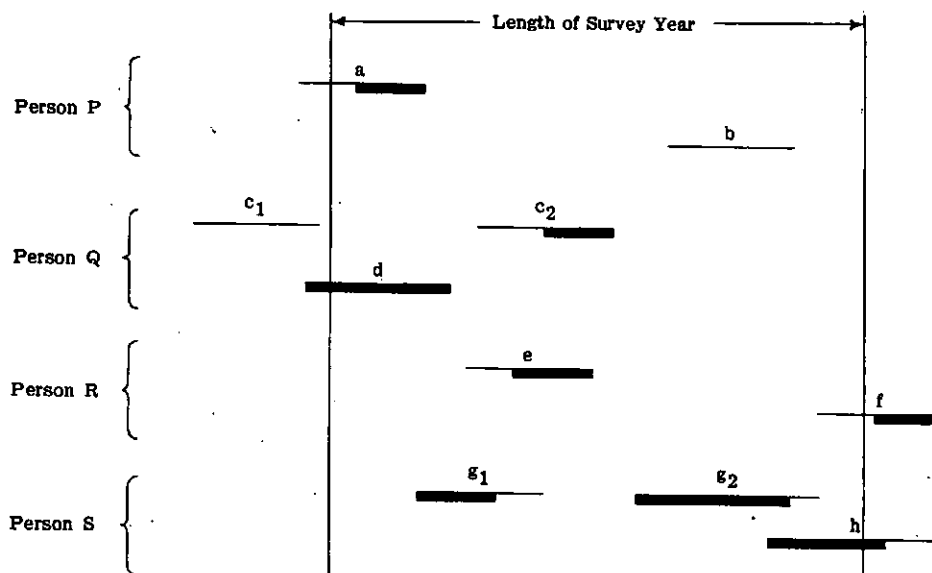
MEASURES OF ILLNESS

In each of the tables of this publication two sets of data are presented. One set is based on a count of illnesses, regardless of the number of persons reporting these illnesses. The other set is based on a count of persons reporting illness, regardless of the number of illnesses reported by each person.

Incidence

Figures for the incidence of illness reported during the survey year are given in Tables 1 and 2. Incidence is measured by the number of new illnesses commencing during the survey year and the number of persons reporting these illnesses. A new illness is any reported disturbance of health independent of any preceding or concurrent illness. Other illnesses, i.e. those reported as recurring attacks of previous illnesses, thus are not counted in the incidence of illness recorded in Tables 1 and 2. Recurring illnesses are included at various places in the other tables, however.

Calculation of the incidence of illness during the survey year may be illustrated as follows¹:



1. The heavily lined sections of illness in the illustration denote periods of disability. See following paragraphs.

The example shows the illness record of Person P (with illnesses a and b), Person Q (with illnesses c_1 , c_2 , and d), Person R (with illnesses e and f), and Person S (with illnesses g_1 , g_2 , and h). In this case a, b, d, e, f, and h are single unrelated attacks of illness; c_1 and g_1 are first attacks and c_2 and g_2 corresponding recurring attacks of illness. In terms of illnesses the incidence during the survey year is measured by the new illnesses, b, e, f, g_1 , and h. Illnesses a, c_1 , and d are not counted because they commenced before the beginning of the survey year. Illnesses c_2 and g_2 are excluded because they were recurring attacks only. Illnesses g_1 and h are counted because they commenced within the survey year even though they extended beyond the final date of that year. In terms of persons reporting illness the incidence during the survey year is measured by Persons P, R, and S, each of whom reported one or more new illnesses commencing during the survey year.

In Tables 1 and 2 separate incidence figures are given for disabling new illness. A person suffers a disabling illness when that illness causes him to suspend his normal activities for one day or more. Suspension of normal activities is marked by absence from work for those who are employed; for housewives it implies inability to perform normal housekeeping duties; for children absence from school or play may be the indication; and for older retired persons it may mean being unable to care for the garden or go for the usual daily walk.

The disabling new illnesses counted for incidence in Tables 1 and 2 are those new illnesses commencing during the survey year which had a disabling period during the survey year. In the above illustration periods of disability are indicated by heavy lines. The incidence of disabling illness, in terms of illnesses, is given by new illnesses e, g_1 , and h. Illnesses a and d are not counted because they commenced before the start of the survey year.¹ Illnesses c_2 and g_2 do not qualify because they are recurring attacks of illness only², and illness f is not counted because none of the disabling

1. As the disability period of illness a commenced after the beginning of the Survey (though illness a itself started before that date), it might properly have been included in the count of incidence of disabling illness. However, the dates of onset of the disability periods of illnesses were not available. It was therefore not possible to distinguish between illnesses in progress at the commencement of the Survey which were disabling at the time the Survey started (as illness d in the illustration) and illnesses in progress at the commencement of the Survey which became disabling at a later date (as illness a in the illustration). Both categories were excluded from the incidence count. The exclusion of the latter category does not materially affect the level of incidence.

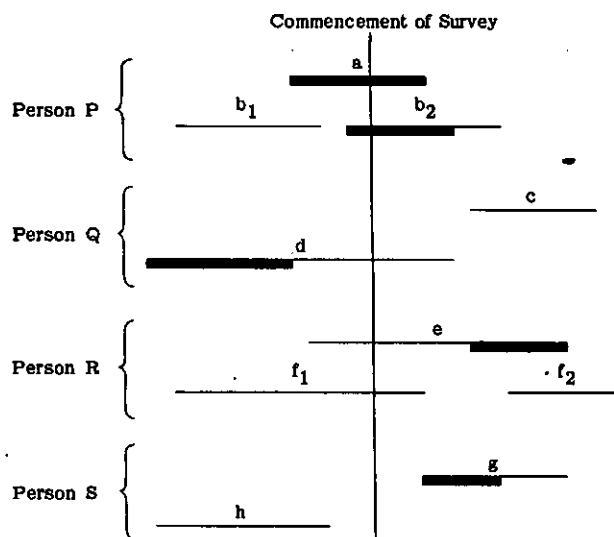
2. The recurring attack of illness c_2 might properly have been included in the count of incidence of disabling illness as it was the first disabling attack in the series (illness c_1 being not disabling). However, no information was available as to whether prior attacks were or were not disabling. Therefore all disabling recurring attacks of illness were omitted from the count.

period falls within the survey year. In terms of persons reporting disabling illness the incidence during the survey year is measured by Persons R and S, each of whom reported one or more disabling new illnesses commencing during the survey year.

Prevalence

Statistics of the prevalence of illness at the commencement of the Canadian Sickness Survey are presented in Tables 3 and 4. Prevalence in this case measures the number of illnesses in progress at the exact time the Survey began and the number of persons reporting illness at that time. Prevalence thus concerns illnesses (both new and recurring) which commenced at some time prior to the beginning of the Survey and which had not yet terminated at the time the Survey began. It is, therefore, a point prevalence, the point being the beginning of the Survey. Although the dates of the beginning of the Survey varied between provinces³, they all fell between the seasonal extremes of prevalence. As there was no indication of any unusual disease outbreaks during that period, the prevalence figures shown here may be taken as a reasonable indication of the amount of illness present at any time during the year.

Calculation of the prevalence of illness at the commencement of the Survey may be illustrated as follows:



The example shows the illness record of Person P (with illnesses a, b_1 , and b_2), Person Q (with illnesses c and d), Person R (with illnesses e, f_1 , and f_2), and Person S (with illnesses g and h). In this case a, c, d, e, g, and h are single unrelated

3. The Survey started on September 1, 1950 in Quebec, Manitoba, Saskatchewan and Alberta; on October 1, 1950 in Prince Edward Island, Nova Scotia, New Brunswick, Ontario and British Columbia; and on November 1, 1950 in Newfoundland.

attacks of illness; b_1 and f_1 are first attacks and b_2 and f_2 corresponding recurring attacks of illness. In terms of illnesses, the prevalence of illness at the commencement of the Survey is measured by the (new or recurring) illnesses in progress at that time, viz. illnesses a, b_2 , d, e, and f_1 . Illnesses b_1 , c, f_2 , g, and h are not counted because they either terminated before or commenced after the beginning of the Survey. In terms of persons reporting illness the prevalence of illness at the commencement of the Survey is measured by Persons P, Q, and R, each of whom reported one or more illnesses in progress at the beginning of the Survey.

Separate figures for the prevalence of disabling illness at the commencement of the Survey are also given in Tables 3 and 4. All (new and recurring) illnesses in progress at the commencement of the Survey which were disabling at the time or became disabling at a later date were counted. In the illustration periods of disability are indicated by heavy lines. The prevalence of disabling illness, in terms of illnesses, is given by illnesses a, b_2 , and e.¹ Illness d is not counted because the disabling period of this illness terminated before the commencement of the Survey, illness g is excluded because it commenced after the beginning of the Survey. In terms of persons reporting disabling illness the prevalence at the commencement of the Survey is measured by Persons P and Q, each of whom reported one or more illnesses in progress at the commencement of the Survey which were, or became, disabling.

Illness Commencing in Survey Year

Incidence figures in this report give a measure of all new illnesses commencing in the survey year. In Tables 5 and 6 the figures of new illnesses commencing in the survey year are placed side by side with figures showing all illnesses commencing in the survey year (or persons reporting such). The latter figures, under caption "All illnesses" (or persons reporting "Any illness(es)") include new illnesses as well as recurring attacks of illness.

Figures are also given for disabling illnesses commencing in the survey year. The criterion for disabling illness here is the same as outlined above for incidence of disabling illness². But in Tables

1. As the disability period of illness e commenced after the beginning of the Survey (though illness e itself started before that date), it might properly have been excluded from the count of prevalence of disabling illness. However, the dates of onset of the disability periods of illnesses were not available. It was therefore not possible to distinguish between illnesses in progress at the commencement of the Survey which were disabling at the time the Survey started (as illness a in the illustration) and a smaller number of illnesses in progress at the commencement of the Survey which became disabling at a later date (as illness e in the illustration).

2. The qualifications of footnote 1, p. 7, also apply.

5 and 6, of course, both disabling new illnesses and disabling recurring attacks of illness are counted³.

All Illness in Survey Year

Tables 7 and 8 give figures for all attacks of illness (and persons reporting such attacks) which for any portion of their duration fell within the survey year. Thus illnesses which commenced before the survey year started but which lasted into the survey year are recorded in Tables 7 and 8, as are illnesses which commenced during the survey year and lasted beyond this period.

In effect, the total of illnesses in the survey year, captioned "All illnesses in survey year", consists of "Illnesses in progress at commencement of survey year" (prevalence of illness in Tables 3 and 4) and "Illnesses commencing in survey year" (in Tables 5 and 6). Figures for all disabling illnesses in the survey year are also given in Tables 7 and 8 under the caption "All disabling illnesses in survey year".

PRESENTATION OF DATA

Population

The population universe from which the sample for the Canadian Sickness Survey was drawn consisted of the total population of Canada minus persons living in military camps, institutions, Indian reservations and remote areas. This population universe is estimated at 13,540,000. It is derived from the total population of Canada, as recorded by the 1951 Census, with appropriate adjustments for the excluded sections of the population⁴.

Sample

The estimates given in this bulletin were calculated from the tabulations of sample data obtained for individual persons who were not absent from the sample for more than thirty days throughout the survey year. They are provisional in the sense of being subject to minor adjustments arising from further analysis of the sample material and from study and comparison of more detailed tabulations.

Age and Sex Groups

In all tables separate estimates are given for the two sexes combined and taken separately. For each of the three groups of figures thus obtained a further breakdown is given by five age groups. The age-sex distribution of the population universe used here is

3. Where an illness had more than one disability period, it was counted as one disabling illness.

4. The present estimate of the population universe is a revision of the estimate used in bulletin No. 5. The present figure is based on up-to-date information.

again based on the 1951 Census with adjustments for excluded persons.

Arrangement of Tables

The tabular material of this report has been arranged in sets of two tables each. Each set pertains to one group of information, e.g. "Incidence of illness during Survey Year".

The first of each two tables has two sub-divisions. One sub-division gives a count of illnesses and of persons reporting illness. The other sub-division shows the same data for age-sex groups as percentages of all-age totals. For purposes of comparison the total universe population and its breakdown by age-sex groups is also given in both sub-divisions.

The second table in each set gives the percentage of persons in each age and sex group reporting illness. It also shows the average number of illnesses reported per thousand persons of each age and sex group.

In all tables it will be found that the number of persons reporting illness is smaller than the number of illnesses reported for the corresponding age-sex group. This results from the circumstance that there are always some people reporting more than one illness.

Figures for the average number of illnesses reported per thousand persons are always based on the total number of persons in the age-sex group concerned, including the persons in that age-sex group who reported no illness. No averages are given based only on the number of persons reporting illness. The actual figures from which each column of averages is derived is indicated by footnotes in the tables.

Rounding

In the tables, figures representing absolute numbers of persons or illnesses are given in millions with two decimal places; i.e. they are rounded to the nearest ten thousand. Percentage figures are given with one decimal place. Averages per thousand persons are given in integral numbers.

Analysis

It is the purpose of these bulletins to release certain basic data as soon as possible and to leave more extensive tabulations and interpretations to a more comprehensive report (to be issued at a later date). For that reason no attempt is made in the present series of bulletins to analyse the data in detail. However, a brief commentary on the immediate significance of the figures presented in this bulletin is given below.

FINDINGS

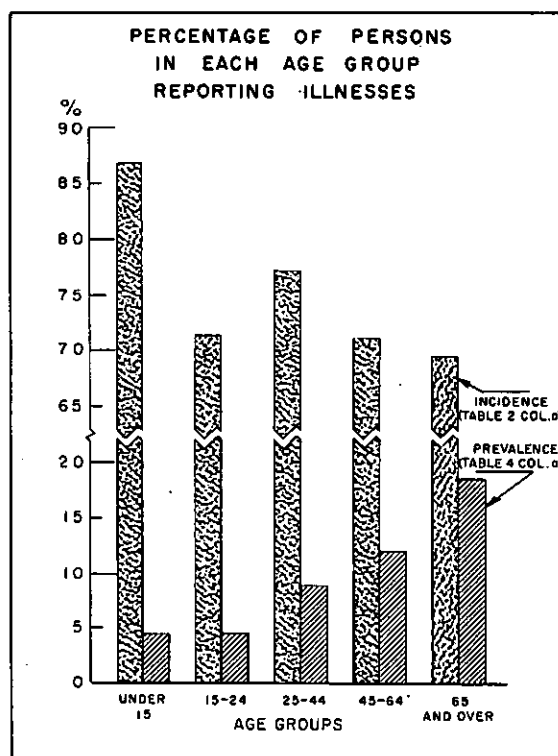
COMMENTARY

Incidence of Illness during Survey Year

Tables 1-2 and Chart 1

Table 2 (column a) shows that over three-quarters (77.6 per cent) of the Canadian population reported new illness during the survey year. As illustrated in the figure below, the incidence of new illness was highest amongst children. It was lowest amongst persons over 65 which may be explained by the fact that much of the illness suffered by persons in this age group is of a chronic long-term or recurring nature. Illnesses already in progress at the beginning of the Survey and recurring attacks of illness, of course, are not counted in the incidence figures. The incidence of illness was about the same in the 15-24 and the 45-64 age groups, but somewhat higher for persons aged 25-44.

The general tendency for illness incidence to decline with the advance of age appears particularly clearly if minor (non-disabling) illnesses are excluded from the count. Table 2 (column b) shows that the incidence of disabling new illness generally is higher the younger the age group. Of the total population well over half (56.0 per cent) suffered disabling new illness during the survey year.



Prevalence of Illness at Commencement of Survey

Tables 3-4 and Chart 2

The illness prevalence figures of this bulletin show the amount of illness present at a particular point in time, viz. the beginning of the Survey. At that time a little less than one person in ten (8.3 per cent) of the Canadian population reported some illness (Table 4, column a). About a third of these persons, (2.9 per cent) reported that their illness was, or became, disabling.

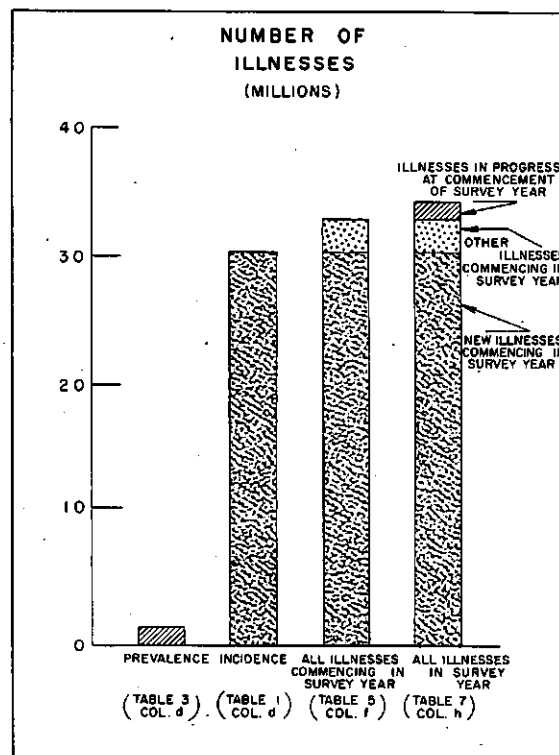
The figures of illness prevalence by age groups—while of a different order of magnitude—show a pattern roughly the reverse of that of illness incidence, as illustrated in the above figure. The percentage of persons reporting any illness at the beginning of the Survey increases steeply the higher the age group (Table 4, column a). The same applies if only persons reporting disabling illness are counted (Table 4, column b).

The increase of illness prevalence with the advance of age is not a result of older persons suffering a greater number of illnesses. In fact, it was the youngest age group which reported the greatest number of illnesses commencing in the survey year (Table 6, column e). The high illness prevalence amongst older people is a reflection of the longer duration of the illnesses suffered by them, increasing greatly the likelihood of an older person being found ill at any particular point in time.

Illness Commencing in Survey Year

Tables 5-6

The greater number of illnesses commencing in the survey year were new illnesses. This appears from Tables 5 and 6 where figures for new illness and all illness (i.e. including recurring attacks of illness) are placed side by side. (See illustration below.) The figures for new illness are identical with the incidence figures of Tables 1 and 2. The age-group pattern of illness incidence is altered very little by adding the recurring attacks of illness, although the older age groups account for a larger share of such recurring attacks. The incidence figure of 77.6 per cent of persons reporting new illness is increased only to 79.0 per cent reporting any illness commencing in the survey year. For persons reporting disabling illness the figures are 56.0 per cent and 57.4 per cent respectively. While 2,229 new illnesses were reported per thousand persons, the total number of illnesses commencing in the survey year reported per thousand persons was 2,412. Disabling new illnesses per thousand persons numbered 1,050 as compared to a total number of disabling illnesses commencing in the survey year per thousand persons of 1,122.



All Illness in Survey Year

Tables 7-8 and Chart 3

By adding illnesses in progress at the commencement of the Survey (from Tables 3 and 4) and illnesses commencing during the survey year (from Tables 5 and 6) figures are obtained for the total number of illnesses which for any length of time were in progress during the survey year. (See illustration above.) The total number per thousand persons of illnesses in progress for any length of time during the survey year was 2,510 (Table 8, column g) of which 1,156 were disabling (Table 8, column h).

Four out of five persons (80.4 per cent) reported to have been ill at some time during the survey year (Table 8, column c). Almost three-quarters of these (58.5 per cent of the population) reported disabling illness(es) (Table 8, column d). The age group under 15 had the greatest percentage reporting any illness(es) and the age group 15-24 the smallest percentage.

Incidence and Prevalence by Sex

In the age group under 15 there was very little difference in the incidence and prevalence of illness reported for males and females. In all other age groups, however, a consistently larger portion of female persons than of male persons reported illness. The number of illnesses reported per thousand persons also was markedly higher for females than for males in all the age groups of 15 years and over.

TABLE 1. Incidence of illness during Survey Year
Estimated distribution of persons and illnesses, by age and sex

Age group	Population (a)	Persons reporting one or more		Illnesses reported	
		New illnesses (b)	Disabling new illnesses (c)	New illnesses (d)	Disabling new illnesses (e)
	Number (millions)				
	Both sexes				
All ages	13.54	10.50	7.58	30.16	14.21
Under 15	4.12	3.58	2.84	12.24	6.32
15-24	2.05	1.46	1.09	3.59	1.84
25-44	3.90	3.01	2.05	8.37	3.41
45-64	2.42	1.72	1.11	4.16	1.81
65 and over	1.05	0.73	0.49	1.79	0.82
	Male				
All ages	6.82	5.11	3.65	13.98	6.78
Under 15	2.10	1.82	1.45	6.27	3.24
15-24	1.01	0.68	0.48	1.55	0.81
25-44	1.93	1.39	0.92	3.46	1.46
45-64	1.25	0.85	0.57	1.89	0.89
65 and over	0.53	0.36	0.24	0.81	0.39
	Female				
All ages	6.72	5.40	3.92	16.18	7.42
Under 15	2.02	1.75	1.39	5.97	3.08
15-24	1.04	0.78	0.61	2.04	1.04
25-44	1.97	1.62	1.13	4.91	1.95
45-64	1.17	0.87	0.55	2.27	0.92
65 and over	0.52	0.37	0.25	0.98	0.44
	Per cent				
	Both sexes				
All ages	100.0	100.0	100.0	100.0	100.0
Under 15	30.4	34.1	37.5	40.6	44.5
15-24	15.1	13.9	14.4	11.9	13.0
25-44	28.8	28.7	27.0	27.8	24.0
45-64	17.8	16.3	14.7	13.8	12.7
65 and over	7.8	7.0	6.4	5.9	5.8
	Male				
All ages	100.0	100.0	100.0	100.0	100.0
Under 15	30.8	35.7	39.5	44.9	47.7
15-24	14.8	13.4	13.2	11.1	11.9
25-44	28.3	27.2	25.2	24.7	21.5
45-64	18.3	16.6	15.6	13.5	13.2
65 and over	7.8	7.1	6.5	5.8	5.7
	Female				
All ages	100.0	100.0	100.0	100.0	100.0
Under 15	30.0	32.5	35.5	36.9	41.6
15-24	15.5	14.4	15.5	12.6	14.0
25-44	29.3	30.1	28.7	30.4	26.2
45-64	17.4	16.1	13.9	14.0	12.3
65 and over	7.7	6.9	6.4	6.1	5.9

TABLE 2. Incidence of illness during Survey Year
Estimated percentage of persons and average number of illnesses per thousand persons, by age and sex

Age group	Percentage of persons in each age and sex group reporting one or more		Average number of illnesses reported per thousand persons of each age and sex group	
	New illnesses (a) ¹	Disabling new illnesses (b) ²	New illnesses (c) ³	Disabling new illnesses (d) ⁴
Both sexes				
All ages	77.6	56.0	2,228	1,049
Under 15	86.9	69.0	2,975	1,537
15-24	71.3	53.3	1,753	899
25-44	77.2	52.4	2,145	873
45-64	71.1	46.2	1,723	749
65 and over	69.7	46.1	1,701	781
Male				
All ages	74.9	53.6	2,050	995
Under 15	86.9	68.8	2,988	1,543
15-24	67.9	48.0	1,537	800
25-44	71.9	47.6	1,790	756
45-64	67.9	45.7	1,518	717
65 and over	67.9	44.3	1,517	721
Female				
All ages	80.3	58.4	2,409	1,105
Under 15	87.0	69.1	2,962	1,530
15-24	74.6	58.4	1,962	995
25-44	82.4	57.1	2,493	988
45-64	74.4	46.6	1,941	783
65 and over	71.6	48.0	1,889	842

1. Derived from Table 1: (b) as percentage of (a).
2. Derived from Table 1: (c) as percentage of (a).
3. Derived from Table 1: (d) divided by one thousandth of (a).
4. Derived from Table 1: (e) divided by one thousandth of (a).

CHART 1

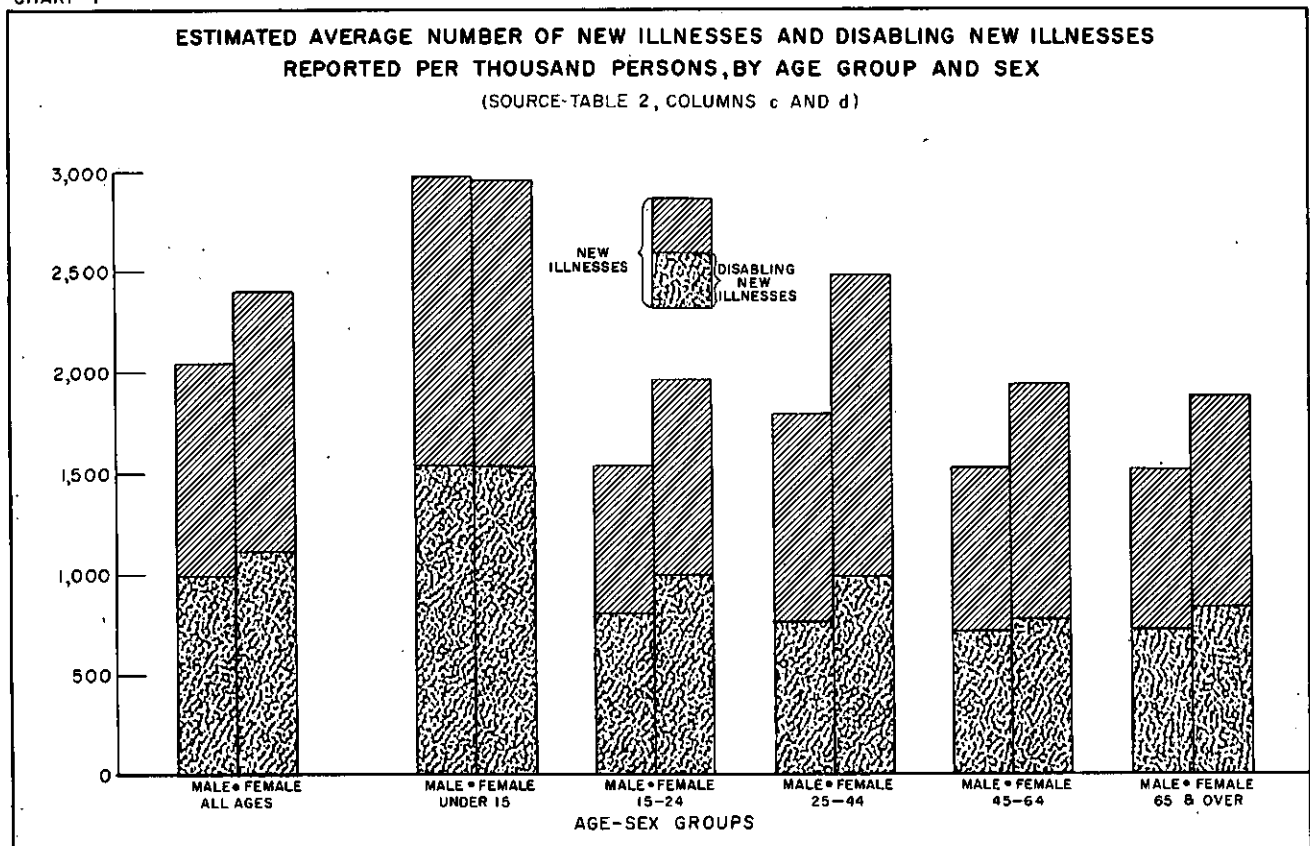


TABLE 3. Prevalence of Illness at Commencement of Survey
Estimated distribution of persons and illnesses, by age and sex

Age group	Population (a)	Persons reporting		Illnesses reported	
		Any illness(es) (b)	Any disabling illness(es) (c)	All illnesses (d)	All disabling illnesses (e)
	Number (millions)				
	Both sexes				
All ages	13.54	1.13	0.39	1.33	0.46
Under 15	4.12	0.19	0.11	0.20	0.12
15-24	2.05	0.10		0.10	
25-44	3.90	0.35	0.10	0.40	0.11
45-64	2.42	0.29	0.11	0.35	0.12
65 and over	1.05	0.20	0.07	0.27	0.11
	Male				
All ages	6.82	0.50	0.19	0.59	0.22
Under 15	2.10	0.10	0.05	0.10	0.06
15-24	1.01	0.05		0.05	
25-44	1.93	0.13	0.04	0.15	0.04
45-64	1.25	0.14	0.06	0.16	0.06
65 and over	0.53	0.09	0.04	0.13	0.06
	Female				
All ages	6.72	0.63	0.21	0.74	0.24
Under 15	2.02	0.09	0.06	0.10	0.06
15-24	1.04	0.05		0.05	
25-44	1.97	0.22	0.06	0.25	0.07
45-64	1.17	0.16	0.05	0.20	0.06
65 and over	0.52	0.11	0.04	0.14	0.05
	Per cent				
	Both sexes				
All ages	100.0	100.0	100.0	100.0	100.0
Under 15	30.4	17.0	28.6	15.4	26.2
15-24	15.1	8.6		7.7	
25-44	28.8	31.0	25.0	30.0	24.1
45-64	17.8	26.1	27.6	26.6	26.9
65 and over	7.8	17.4	18.8	20.3	22.9
	Male				
All ages	100.0	100.0	100.0	100.0	100.0
Under 15	30.8	19.2	29.0	17.3	26.0
15-24	14.8	9.1		8.4	
25-44	28.3	26.6	20.8	25.4	19.1
45-64	18.3	27.2	30.1	26.8	28.4
65 and over	7.8	17.9	20.0	22.1	26.5
	Female				
All ages	100.0	100.0	100.0	100.0	100.0
Under 15	30.0	15.2	28.3	13.9	26.3
15-24	15.5	8.1		7.2	
25-44	29.3	34.5	28.7	33.6	28.6
45-64	17.4	25.2	25.3	26.4	25.5
65 and over	7.7	17.0	17.6	18.8	19.6

TABLE 4. Prevalence of Illness at Commencement of Survey
Estimated percentage of persons and average number of illnesses per thousand persons, by age and sex

Age group	Percentage of persons in each age and sex group reporting		Average number of illnesses reported per thousand persons of each age and sex group	
	Any illness(es) (a) ¹	Any disabling illness(es) (b) ²	All illnesses (c) ³	All disabling illnesses (d) ⁴
Both sexes				
All ages	8.3	2.9	98	34
Under 15	4.6	1.8	50	20
15-24	4.7		50	
25-44	8.9		102	
45-64	12.1	4.5	147	51
65 and over	18.6	7.0	256	100
Male				
All ages	7.3	2.7	86	32
Under 15	4.6	1.7	48	18
15-24	4.5		49	
25-44	6.9		78	
45-64	10.9	4.5	127	50
65 and over	16.7	7.0	244	110
Female				
All ages	9.3	3.1	111	36
Under 15	4.7	1.9	51	21
15-24	4.9		52	
25-44	10.9		127	
45-64	13.5	4.5	168	52
65 and over	20.5	7.0	269	90

1. Derived from Table 3: (b) as percentage of (a).
2. Derived from Table 3: (c) as percentage of (a).
3. Derived from Table 3: (d) divided by one thousandth of (a).
4. Derived from Table 3: (e) divided by one thousandth of (a).

CHART 2

PREVALENCE OF ILLNESS AT COMMENCEMENT OF SURVEY

ESTIMATED PERCENTAGE OF PERSONS REPORTING ANY ILLNESS
BY AGE GROUP AND SEX

(SOURCE: TABLE 4, COLUMN a)

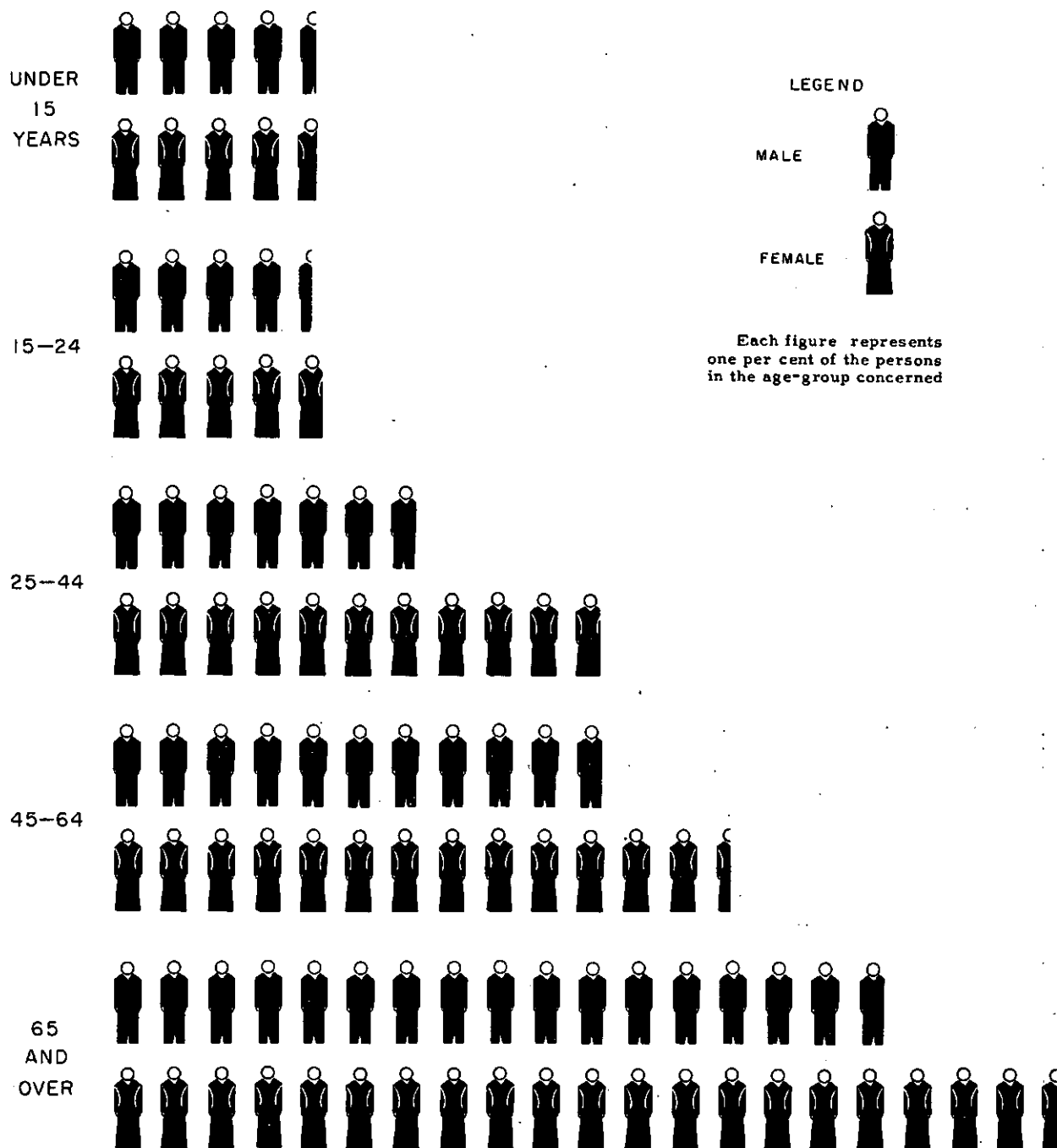


TABLE 5. Illness Commencing in Survey Year
Estimated distribution of persons and illnesses, by age and sex

Age group	Population (a)	Persons reporting			Illnesses reported		
		New illness (es) (b) ¹	Any illness(es) (c)	Any disabling illness(es) (d)	New illnesses (e) ²	All illnesses (f)	All disabling illnesses (g)
	Number (millions)						
	Both sexes						
All ages	13.54	10.50	10.70	7.77	30.16	32.64	15.19
Under 15.....	4.12	3.58	3.58	2.85	12.24	12.51	6.47
15-24	2.05	1.46	1.48	1.10	3.59	3.77	1.89
25-44	3.90	3.01	3.06	2.10	8.37	9.26	3.70
45-64	2.42	1.72	1.79	1.19	4.16	4.91	2.13
65 and over	1.05	0.73	0.79	0.54	1.79	2.20	1.00
	Male						
All ages	6.82	5.11	5.20	3.75	13.98	14.92	7.19
Under 15.....	2.10	1.82	1.83	1.45	6.27	6.40	3.31
15-24	1.01	0.68	0.69	0.49	1.55	1.60	0.82
25-44	1.93	1.39	1.42	0.95	3.46	3.73	1.56
45-64	1.25	0.85	0.88	0.61	1.89	2.20	1.03
65 and over	0.53	0.36	0.39	0.26	0.81	0.99	0.47
	Female						
All ages	6.72	5.40	5.49	4.02	16.18	17.72	8.00
Under 15.....	2.02	1.75	1.76	1.40	5.97	6.10	3.16
15-24	1.04	0.78	0.79	0.61	2.04	2.17	1.07
25-44	1.97	1.62	1.65	1.15	4.91	5.53	2.14
45-64	1.17	0.87	0.90	0.58	2.27	2.71	1.10
65 and over	0.52	0.37	0.40	0.28	0.98	1.21	0.53
	Per cent						
	Both sexes						
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15.....	30.4	34.1	33.5	36.7	40.6	38.3	42.6
15-24	15.1	13.9	13.8	14.2	11.9	11.5	12.5
25-44	28.8	28.7	28.7	27.0	27.8	28.4	24.4
45-64	17.8	16.3	16.7	15.3	13.8	15.0	14.0
65 and over	7.8	7.0	7.4	6.9	5.9	6.7	6.6
	Male						
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15.....	30.8	35.7	35.1	38.6	44.9	42.9	46.0
15-24	14.8	13.4	13.3	13.0	11.1	10.7	11.4
25-44	28.3	27.2	27.3	25.2	24.7	25.0	21.7
45-64	18.3	16.6	16.9	16.2	13.5	14.7	14.3
65 and over	7.8	7.1	7.5	7.0	5.8	6.6	6.5
	Female						
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15.....	30.0	32.5	32.0	34.8	36.9	34.4	39.6
15-24	15.5	14.4	14.3	15.3	12.6	12.3	13.4
25-44	29.3	30.1	30.0	28.6	30.4	31.2	26.7
45-64	17.4	16.1	16.5	14.4	14.0	15.3	13.7
65 and over	7.7	6.9	7.2	6.9	6.1	6.8	6.6

1. Same as Table 1 (b).

2. Same as Table 1 (d).

TABLE 6. Illness Commencing in Survey Year
Estimated percentage of persons and average number of illnesses per thousand persons, by age and sex

Age group	Percentage of persons in each age and sex group reporting			Average number of illnesses reported per thousand persons of each age and sex group		
	New illness(es) (a) ¹	Any illness(es) (b) ²	Any disabling illness(es) (c) ³	New illnesses (d) ⁴	All illnesses (e) ⁵	All disabling illnesses (f) ⁶
Both sexes						
All ages	77.6	79.0	57.4	2,228	2,411	1,122
Under 15	86.9	87.0	69.2	2,975	3,039	1,573
15-24	71.3	72.1	53.7	1,753	1,839	923
25-44	77.2	78.5	53.7	2,145	2,372	948
45-64	71.1	73.9	49.1	1,723	2,032	881
65 and over	69.7	74.6	50.9	1,701	2,084	945
Male						
All ages	74.9	76.3	55.0	2,050	2,187	1,054
Under 15	86.9	87.0	69.0	2,988	3,050	1,576
15-24	67.9	68.5	48.3	1,537	1,585	816
25-44	71.9	73.4	48.9	1,790	1,931	808
45-64	67.9	70.7	48.7	1,518	1,764	827
65 and over	67.9	72.8	49.0	1,517	1,851	876
Female						
All ages	80.3	81.7	59.8	2,409	2,638	1,190
Under 15	87.0	87.1	69.4	2,962	3,027	1,569
15-24	74.6	75.6	58.8	1,962	2,084	1,027
25-44	82.4	83.5	58.4	2,493	2,805	1,084
45-64	74.4	77.3	49.6	1,941	2,317	939
65 and over	71.6	76.5	52.9	1,889	2,323	1,015

1. Derived from Table 5: (b) as percentage of (a).
2. Derived from Table 5: (c) as percentage of (a).
3. Derived from Table 5: (d) as percentage of (a).
4. Derived from Table 5: (e) divided by one thousandth of (a).
5. Derived from Table 5: (f) divided by one thousandth of (a).
6. Derived from Table 5: (g) divided by one thousandth of (a).

TABLE 7. All Illness in Survey Year
Estimated distribution of persons and illnesses, by age and sex

Age group	Population (a)	Persons reporting				Illnesses reported			
		Illness(es) in progress at commen- cement of survey year (b) ¹	Illness(es) commencing in survey year (c) ²	Any illness(es) in survey year (d)	Any disabling illness(es) in survey year (e)	Illnesses in progress at commen- cement of survey year (f) ³	Illnesses commencing in survey year (g) ⁴	All illnesses in survey year (h) ⁵	All disabling illnesses in survey year (i)
	Number (millions)								
	Both sexes								
All ages	13.54	1.13	10.70	10.89	7.92	1.33	32.64	33.97	15.65
Under 15	4.12	0.19	3.58	3.59	2.86	0.20	12.51	12.71	6.55
15-24	2.05	0.10	1.48	1.49	1.11	0.10	3.77	3.87	1.93
25-44	3.90	0.35	3.06	3.12	2.13	0.40	9.26	9.66	3.81
45-64	2.42	0.29	1.79	1.84	1.24	0.35	4.91	5.26	2.25
65 and over	1.05	0.20	0.79	0.84	0.58	0.27	2.20	2.47	1.10
	Male								
All ages	6.82	0.50	5.20	5.30	3.82	0.59	14.92	15.50	7.41
Under 15	2.10	0.10	1.83	1.83	1.45	0.10	6.40	6.50	3.35
15-24	1.01	0.05	0.69	0.70	0.49	0.05	1.60	1.65	0.64
25-44	1.93	0.13	1.42	1.44	0.96	0.15	3.73	3.88	1.60
45-64	1.25	0.14	0.88	0.91	0.63	0.16	2.20	2.36	1.09
65 and over	0.53	0.09	0.39	0.41	0.28	0.13	0.99	1.12	0.53
	Female								
All ages	6.72	0.63	5.49	5.58	4.10	0.74	17.72	18.47	8.24
Under 15	2.02	0.09	1.76	1.76	1.41	0.10	6.10	6.21	3.20
15-24	1.04	0.05	0.79	0.79	0.62	0.05	2.17	2.23	1.09
25-44	1.97	0.22	1.65	1.67	1.17	0.25	5.53	5.78	2.20
45-64	1.17	0.16	0.90	0.93	0.61	0.20	2.71	2.91	1.16
65 and over	0.52	0.11	0.40	0.43	0.29	0.14	1.21	1.35	0.57
	Per cent								
	Both sexes								
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15	30.4	17.0	33.5	33.0	36.1	15.4	38.3	37.4	41.9
15-24	15.1	8.6	13.8	13.7	14.0	7.7	11.5	11.4	12.4
25-44	28.8	31.0	28.7	28.6	26.9	30.0	28.4	28.4	24.3
45-64	17.8	26.1	16.7	16.9	15.6	26.6	15.0	15.5	14.4
65 and over	7.8	17.4	7.4	7.7	7.3	20.3	6.7	7.3	7.0
	Male								
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15	30.8	19.2	35.1	34.5	38.0	17.3	42.9	41.9	45.2
15-24	14.8	9.1	13.3	13.2	12.9	8.4	10.7	10.6	11.3
25-44	28.3	26.6	27.3	27.2	25.1	25.4	25.0	25.0	21.6
45-64	18.3	27.2	16.9	17.2	16.6	26.8	14.7	15.2	14.7
65 and over	7.8	17.9	7.5	7.8	7.4	22.1	6.6	7.2	7.1
	Female								
All ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15	30.0	15.2	32.0	31.6	34.3	13.9	34.4	33.6	38.9
15-24	15.5	8.1	14.3	14.2	15.1	7.2	12.3	12.1	13.3
25-44	29.3	34.5	30.0	29.9	28.6	33.6	31.2	31.3	26.8
45-64	17.4	25.2	16.5	16.7	14.8	26.4	15.3	15.7	14.1
65 and over	7.7	17.0	7.2	7.6	7.2	18.8	6.8	7.3	7.0

1. Same as Table 3 (b).

2. Same as Table 5 (c).

3. Same as Table 3 (d).

4. Same as Table 5 (f).

5. Addition of Table 7 (f) and Table 7 (g).

TABLE 8. All Illness in Survey Year
Estimated percentage of persons and average number of illnesses per thousand persons, by age and sex

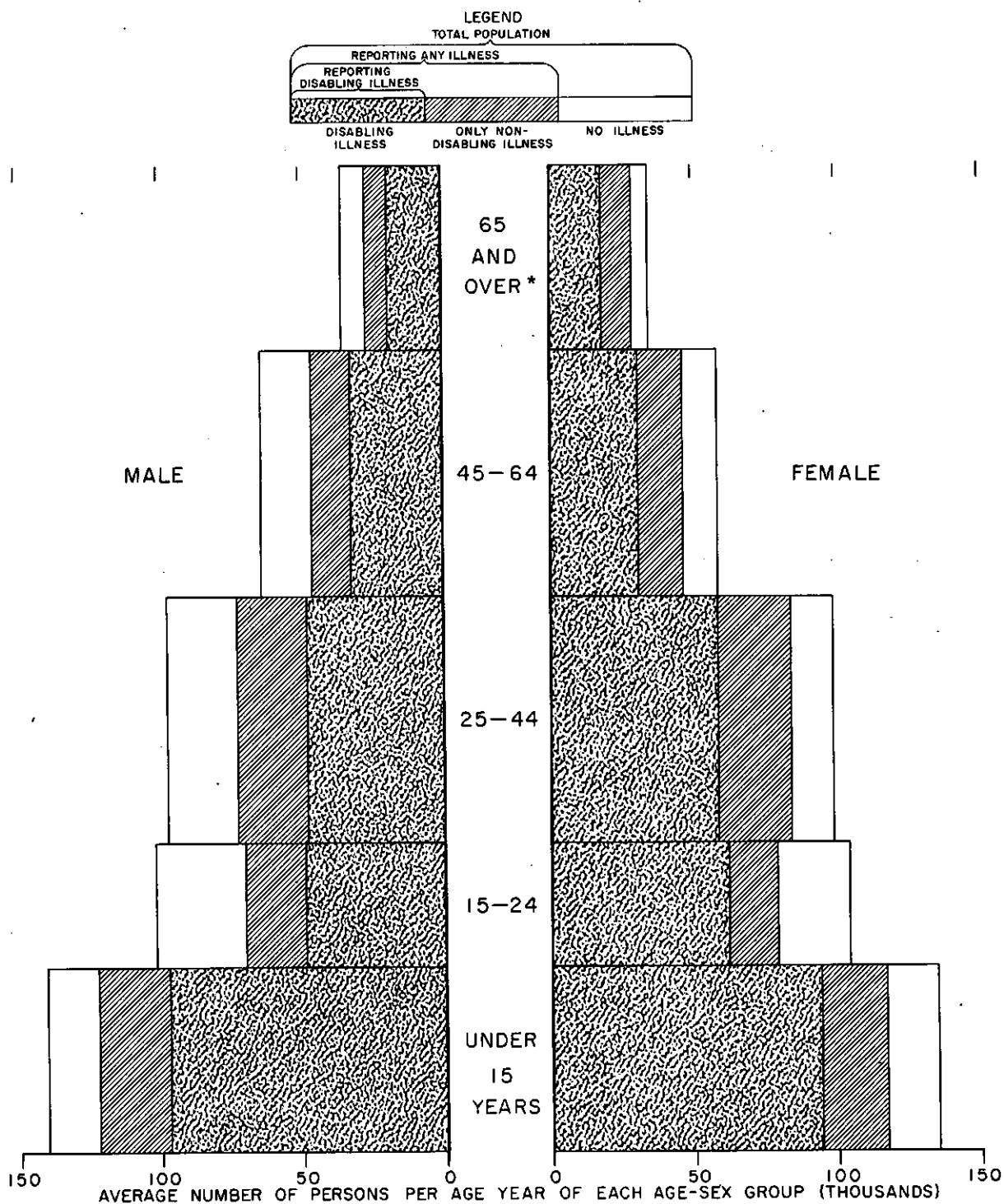
Age group	Percentage of persons in each age and sex group reporting				Average number of illnesses reported per thousand persons of each age and sex group			
	Illness(es) in progress at commencement of survey year (a) ¹	Illness(es) commencing in survey year (b) ²	Any illness(es) in survey year (c) ³	Any disabling illness(es) in survey year (d) ⁴	Illnesses in progress at commencement of survey year (e) ⁵	Illnesses commencing in survey year (f) ⁶	All illnesses in survey year (g) ⁷	All disabling illnesses in survey year (h) ⁸
Both sexes								
All ages	8.3	79.0	80.4	58.5	98	2,411	2,509	1,156
Under 15	4.6	87.0	87.3	69.5	50	3,039	3,089	1,592
15-24	4.7	72.1	72.9	54.3	50	1,839	1,889	943
25-44	8.9	78.5	79.8	54.7	102	2,372	2,475	976
45-64	12.1	73.9	76.3	51.3	147	2,032	2,179	933
65 and over	18.6	74.6	79.6	54.6	256	2,084	2,340	1,045
Male								
All ages	7.3	76.3	77.8	56.1	86	2,187	2,274	1,087
Under 15	4.6	87.0	87.3	69.3	48	3,050	3,098	1,595
15-24	4.5	68.5	69.6	49.0	49	1,585	1,634	832
25-44	6.9	73.4	74.7	49.7	78	1,931	2,008	830
45-64	10.9	70.7	73.4	50.8	127	1,764	1,891	877
65 and over	16.7	72.8	77.4	52.9	244	1,851	2,095	986
Female								
All ages	9.3	81.7	83.1	61.0	111	2,638	2,748	1,226
Under 15	4.7	87.1	87.4	69.8	51	3,027	3,078	1,589
15-24	4.9	75.6	76.1	59.5	52	2,084	2,136	1,049
25-44	10.9	83.5	84.8	59.5	127	2,805	2,932	1,119
45-64	13.5	77.3	79.5	51.8	168	2,317	2,485	991
65 and over	20.5	76.5	81.8	56.4	269	2,323	2,592	1,106

1. Derived from Table 7: (b) as percentage of (a).
2. Derived from Table 7: (c) as percentage of (a).
3. Derived from Table 7: (d) as percentage of (a).
4. Derived from Table 7: (e) as percentage of (a).
5. Derived from Table 7: (f) divided by one thousandth of (a).
6. Derived from Table 7: (g) divided by one thousandth of (a).
7. Derived from Table 7: (h) divided by one thousandth of (a).
8. Derived from Table 7: (i) divided by one thousandth of (a).

CHART 3

ALL ILLNESS IN SURVEY YEAR

ESTIMATES OF
PERSONS REPORTING ILLNESS AND DISABLING ILLNESS
IN COMPARISON WITH TOTAL POPULATION, BY AGE GROUP AND SEX
(SOURCE—TABLE 7, COLUMNS d AND e)



* FOR PURPOSES OF GRAPHICAL PRESENTATION THIS AGE GROUP HAS BEEN CONDENSED IN A SPACE REPRESENTING 15 YEARS.

DATE DUE[illegible]

CANADIAN SICKNESS SURVEY 1950-51
PREVIOUS PUBLICATIONS

No. 1	FAMILY EXPENDITURES FOR HEALTH SERVICES (NATIONAL ESTIMATES)	Price 25 cents
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