

# **Basic Data on Depressive Symptomatology**

**United States, 1974-75**

This report presents basic data on depressive symptomatology as determined by the Center for Epidemiologic Studies Depression Scale (CES-D).

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## PREFACE

The National Center for Health Statistics has as its mission the collection, analysis, and dissemination of data on the health of the population of the United States. One of the major programs is the Health Examination Survey, in which are conducted extensive examinations of a sample of the U.S. population. Data from this survey have been published periodically in Series 11 reports of *Vital and Health Statistics*.

Historically the published documents in Series 11 present only a small fraction of the available data. In order to make additional data available for users, the Center has for many years had a policy of preparing public use tapes for purchase by persons interested in more detailed analysis or analysis of additional variables not published in Series 11 reports. These data, however, are only easily accessible to persons with computers and support staff who can read, interpret, and analyze the data. In order to make these data more generally accessible to many users and, in particular, to persons not able to directly use data tapes, the Division of Health Examination Statistics, in the autumn of 1977, initiated a program to release, along with the data tapes, basic descriptive summary tables of data contained in those tapes. These tabular summaries have been termed "basic data publications."

These basic data publications present findings of the Health and Nutrition Examination Survey of 1971-75. For each of the data sets, these publications include information on the methods used to collect the data, a descriptive summary of the tables included, an index to the tables, and the tables themselves. An appendix describes the basic format of the associated data tape. More detailed information on use of the data for additional analysis is available on request from the staff of the Division of Health Examination Statistics.

## ACKNOWLEDGEMENTS

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# BASIC DATA ON DEPRESSIVE SYMPTOMATOLOGY

Rona Beth Sayetta and David P. Johnson, Division of Health Examination Statistics<sup>a</sup>

## INTRODUCTION

This report summarizes the basic findings on depressive symptomatology for the civilian non-institutionalized U.S. population 25-74 years of age. Data were collected as part of Cycle I of the Health and Nutrition Examination Survey conducted in 1971-75. The findings are based on the responses of examinees who were given the Center for Epidemiologic Studies-Depression Scale (CES-D) in 1974-75, as an addendum to the General Well-Being Questionnaire.

Approximately 18.5 million people, or 17.3 percent of the U.S. population, aged 25-74 years had relatively high levels of endorsement of depressive symptomatology on the CES-D Scale. This figure is somewhat arbitrary, depending on the amount of symptom endorsement considered to be "high." Depression has been recognized as a ranking national health problem and one that may contribute to premature death by suicide.<sup>1</sup>

This report focuses on segments of the noninstitutionalized U.S. population whose self-reported depression scores indicate that they may be at relatively greater risk of becoming clinical cases of depression. These groups may deserve attention in evaluations of the usefulness of treatment and prevention techniques.

It should be noted, though, that these data do not show whether poor or black persons or persons with low educational levels, for instance,

really have a greater number of depressive symptoms than their respective complementary segments or whether they simply tend to respond to questionnaires differently and endorse these items more frequently than the other population segments found to have lower scores.

## SOURCE AND LIMITATIONS OF THE DATA

The Health and Nutrition Examination Survey (HANES I) was the first conducted by the National Center for Health Statistics through which the nutritional as well as the general health status of the civilian noninstitutionalized population 1-74 years of age in the coterminous United States was measured. Detailed information on the health status and medical care needs of a subsample of persons 25-74 years of age was also obtained. The plan and operation of the survey are described elsewhere.<sup>2,3</sup> Questions on depression were asked in the latter portion of the HANES I data collection (stands 66-100), referred to as the Augmentation Survey (July 1974-September 1975).<sup>3</sup>

Appendix I gives statistical notes for the HANES I survey and presents the age, sex, and race distributions of sample persons and of the total noninstitutionalized U.S. population at the midpoint of the survey. In addition, the statistical design of the survey and the methods used to generate population estimates from the sample data are discussed. The reliability of the survey estimates is indicated by standard errors of the mean shown in the detailed tables and explained

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<sup>a</sup>Both authors were formerly with the Psychological Statistics Branch.

in appendix I. To test the statistical significance of the differences in mean depression scores for any two population groups of interest, a *z* statistic may be computed and interpreted as described in the appendix. This method is used throughout the report in comparisons between groups with a 95-percent level of confidence supporting inferences about the significance of findings.

Appendix II provides definitions of the demographic and socioeconomic terms used in this report.

The data used to prepare this report are derived from HANES I tape catalog number 4171. Appendix III summarizes the contents of this microdata tape.

The 20-item self-reported Center for Epidemiologic Studies-Depression (CES-D) Scale on which the depression findings in this report are based was developed by the Center for Epidemiologic Studies, National Institute of Mental Health, in Rockville, Maryland, to measure depressive symptomatology in the general population. Items cover depressed mood, including feelings of guilt, worthlessness, helplessness, and hopelessness; and psychophysiologic manifestations such as psychomotor retardation, loss of appetite, and sleep disturbance.<sup>4</sup> The utility of this psychometric instrument and its reliability and validity are described elsewhere.<sup>4,5</sup> The 20 CES-D items, scoring instructions, and missing-data rules that were followed for this report are described in appendix IV. This report presents only mean depression scores, standard deviations, and the smallest and largest scores for selected segments of the population. The higher the CES-D score, the greater the respondent's endorsement of depressive symptomatology.

The reader is cautioned not to draw unwarranted conclusions from the data. Please note that CES-D scores reflect depressive symptoms only and should not be equated with a clinical diagnosis of depression. While groups whose members have high average CES-D scores probably include many clinically depressed persons, a similar interpretation of high scores for individuals cannot be made because respondents with diagnoses other than clinical depression may also endorse depressive symptomatology. In addition, the cross-classification of depression scores

by selected demographic and socioeconomic characteristics does not necessarily imply that either factor causes the other; alternatively, both may be effects of some other, unnamed cause.

## FINDINGS

The average CES-D score for noninstitutionalized adults aged 25-74 years was 8.7 (table 1), which represents a low-moderate level of depressive symptomatology. Women had significantly higher scores indicating higher levels of depressive symptomatology, on the average, than men had. Black persons had a significantly higher mean score than white persons and those of other races. There were no significant differences in terms of age categories.

Table 2 shows that formerly married persons had a significantly higher mean depression score than that for the remaining population. Currently married persons, by contrast, had a significantly lower mean score. The average depression score for never-married persons was statistically indistinguishable from that for the remaining population. Among marital status groups of both sexes all ages, formerly married persons had the highest observed mean depression score, followed by those never married and then those currently married.

The mean depression score for women was higher than that for men of the same marital status (table 2). Among women, the high-moderate scores of those ever married were not statistically different from the scores of those never married.

Among persons 35-44 and 65-74 years of age, marital status groups deviated from this overall pattern (table 3). In both age groups, formerly married persons had the highest observed mean depression score, followed by those currently married and those never married. The mean scores of never married persons in both age groups were, however, statistically indistinguishable from the scores of the remaining individuals in their respective age groups. Formerly married persons 35-44 years of age had a significantly higher mean depression score than did currently married persons in the same age category.

Table 4 shows that the rank order of depression scores for marital status groups in the total population—from highest to lowest scores, the formerly married, the never married, and the currently married—held for all racial segments except black persons. There were no significant differences in mean depression scores among marital status groups of black persons.

The mean depression score varied significantly with number of household members (table 5). Persons in households with one member and those in large households with seven or more members had the highest mean scores, but Bonferroni tests on these two groups show that their mean scores were statistically indistinguishable from the mean depression scores for their respective remaining population segments. Persons in households with two or four members had scores significantly below those of all other persons. Among sole household members, females had somewhat higher depression scores than did males ( $p < 0.10$ ).

The depression scores of adult children and other relatives (except wives) living in households of which a male was the head were almost as high as the scores of female heads of household. Only male heads of household had scores significantly below all others in the population. Significant differences in average depression scores were not associated with the language spoken in the household (table 5).

Table 6 shows that persons who did not complete their high school education had the highest mean depression scores—significantly above the scores of persons with more education. Most persons whose schooling went beyond the high school level had mean depression scores slightly but insignificantly below the remainder of the population. In general, for persons with a postsecondary school education, depression scores declined at successively higher levels of educational attainment (except for those who had completed their second year of college). Persons with a 4-year college degree or graduate work had significantly lower depression scores than persons with less education.

Depressive symptomatology was inversely related to income level. Persons with a low total annual family income had high average depression scores. Mean depression scores dropped at successively higher income levels. Persons with

incomes of \$15,000 or more had mean scores that were significantly lower than the scores of persons with lower incomes.

Bonferroni tests applied to data in table 7 show that residents of central cities of 3 million persons or more had insignificantly higher mean depression scores, but residents of rural areas within standard metropolitan statistical areas (SMSA's) had significantly lower scores than did the rest of the population within SMSA's. Persons in urban and rural areas outside SMSA's generally had higher average depression scores than did those in urban and rural areas within SMSA's, but the differences were not statistically significant. Among persons living in rural areas outside SMSA's, the depression scores of farm dwellers and nonfarm dwellers were statistically indistinguishable. Regional variation in depression scores was also insignificant.

Examining average depression scores by class of worker (table 8) shows that government workers (of whom State and local workers were the most numerous) had scores significantly lower than those in the remaining population. Persons who had never worked had the highest depression scores, and unpaid workers had moderately high scores, but these differences were not statistically significant.

In terms of the usual activity of persons in the population during the 3 months prior to interview, depression scores of those whose usual activity was working were lower than those of all others in the general population (tables 8-10). People who were unable to work due to illness or disability or who were keeping house had significantly higher mean depression scores than others in the general population. This pattern was essentially the same for all races (table 10) and both sexes (table 8), with two exceptions: The mean depression scores for women keeping house and for black persons unable to work did not differ significantly from scores for the remaining women and for the remaining black persons, respectively. Table 9 shows that depressive symptomatology was significantly related to inability to work and to keeping house for all age groups.

Table 11 shows depression scores by the business or industry in which respondents were working during the 2 weeks prior to the date of the interview. Persons in many types of business

or industry had lower average depression scores than their respective complements in the population had. The most notable exceptions were the high-moderate depression scores of people working in the entertainment industry, in public administration, and in personal service businesses. Among men, those with the highest depression scores were engaged in mining, entertainment, public administration, and agriculture. Men who provided professional services had the lowest mean depression scores. Among women, those working in manufacturing, agriculture, and retail trade had the highest scores. The mean depression scores of women in the transportation and professional services were not significantly lower than those of the remaining female population.

Table 12 shows mean depression scores by occupation. According to specific occupations, household workers (mostly women) and farm laborers and foremen (mostly men) had the highest average depression scores. Professional and technical workers and managers and administrators had the lowest scores both in the total population and for men and women considered separately. The scores of members of each occupational group mentioned, except farm laborers and foremen, differed significantly from the average scores for each of the remaining population segments.

## DISCUSSION

The standard (U.S. Bureau of the Census) classifications of size and urbanization of place<sup>6</sup> used here do not translate exactly into the lay concepts of urban, suburban, and rural modes of living. Perhaps these concepts or other classifications of the data would enable more meaningful interpretations of the psychology associated with lifestyle and crowdedness.

The standard (U.S. Bureau of the Census) classification of industries and occupations<sup>7</sup> used here may also be of limited value for psychological interpretation. The occupational categories bear scant relation to personal job requirements or interests, and their relation to skills and training is somewhat irregular.<sup>8</sup> Other

axes of classification may be more useful for psychological interpretation, but there is little agreement among investigators as to what definitions or categories should be used. Examples of other axes of classification include the primary focus of the job activity, occupational status, ease of entry, level of skill, level of responsibility at work, and earnings level.

Sociodemographic factors of the individual that are associated with the endorsement of depressive symptomatology may be involved in the genesis of psychopathology, in the person's response to psychological disorder, and in interactions with his milieu both before and after experiencing symptoms. The precise nature of these interactions has been the focus of a great deal of contemporary research.<sup>9</sup> The basic statistics presented in this report are generally consistent with the findings of others, but their interpretation can form the grist for much additional work. This is particularly true because the findings presented here have not been disaggregated finely (e.g., by examining depression scores of the formerly married separately by widowed versus divorced status) or adjusted for the influence of confounding variables (e.g., the known lower average income levels for previously married women than for men).

## SUMMARY

The 1974-75 findings presented here reveal relatively higher levels of endorsement of depressive symptomatology in each of the following segments of the U.S. population 25-74 years of age when compared against their respective remaining population segments:

- Women
- Black persons
- Formerly married persons
- Female heads of household
- All adult relatives except wives living in male-headed households
- People with less than a high school education

- Persons whose total family income is below \$5,000 per year
- Persons unable to work
- Persons engaged in keeping house

While the basic descriptive statistics in this report generally corroborate the earlier findings of others,<sup>1,9</sup> the precise nature of the relationships observed and the interactions among various sociodemographic, socioeconomic, and other factors remain to be elucidated.



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Table 1. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by sex, age, and race: United States, 1974-75

Sex, age, and race	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Total population aged 25-74 years .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
<u>Sex</u>						
Male .....	7.1	0	60	7.2	0.20	47.5
Female .....	10.0	0	56	9.1	0.25	52.5
<u>Age</u>						
25-34 years.....	8.5	0	48	8.3	0.27	27.3
35-44 years.....	8.8	0	60	8.8	0.33	20.6
45-54 years.....	8.7	0	41	8.0	0.32	21.7
55-64 years.....	8.8	0	60	9.0	0.46	18.1
65-74 years.....	8.4	0	41	7.7	0.40	12.3
<u>Race</u>						
White.....	8.4	0	60	8.3	0.18	89.1
Black.....	11.1	0	36	8.7	0.57	9.5
Other.....	7.9	0	25	6.9	1.71	1.4

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 2. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by sex and marital status: United States, 1974-75

Sex and marital status	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Both sexes.....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
Never married.....	9.6	0	60	9.2	0.80	6.9
Ever married.....	8.6	0	60	8.3	0.18	93.0
Currently married.....	8.0	0	60	8.0	0.18	77.5
Formerly married.....	11.3	0	50	9.3	0.57	15.5
Unknown.....	*6.5	4	10	2.7	2.82	0.1
Male.....	7.1	0	60	7.2	0.20	47.5
Never married.....	8.7	0	60	8.3	0.85	3.5
Ever married.....	7.0	0	60	7.1	0.23	43.9
Currently married.....	6.8	0	60	6.8	0.23	40.0
Formerly married.....	9.4	0	45	8.6	0.93	4.0
Unknown.....	*7.6	5	10	2.5	4.20	0.1
Female.....	10.0	0	56	9.1	0.25	52.5
Never married.....	10.6	0	36	10.0	1.36	3.4
Ever married.....	10.0	0	56	9.1	0.23	49.1
Currently married.....	9.4	0	56	8.9	0.29	37.5
Formerly married.....	12.0	0	50	9.5	0.69	11.5
Unknown.....	*4.0	4	4	-	2.83	0.0

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 3. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by age and marital status: United States, 1974-75

Age and marital status	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
All ages 25-74 years.....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
Never married.....	9.6	0	60	9.2	0.80	6.9
Ever married.....	8.6	0	60	8.3	0.18	93.0
Currently married.....	8.0	0	60	8.0	0.18	77.5
Formerly married.....	11.3	0	50	9.3	0.57	15.5
Unknown.....	6.5	4	10	2.7	2.82	0.1
25-34 years.....	8.5	0	48	8.3	0.27	27.3
Never married.....	10.5	0	36	9.0	1.08	3.7
Ever married.....	8.2	0	48	8.1	0.32	23.5
Currently married.....	7.8	0	48	7.8	0.40	20.3
Formerly married.....	10.9	0	45	9.3	1.18	3.2
Unknown.....	*7.2	4	10	3.0	4.21	0.1
35-44 years.....	8.8	0	60	8.8	0.33	20.6
Never married.....	7.1	0	60	7.9	1.18	0.9
Ever married.....	8.9	0	56	8.8	0.34	19.7
Currently married.....	8.1	0	56	8.3	0.35	17.1
Formerly married.....	13.8	0	50	10.6	1.34	2.5
Unknown.....	---	---	---	---	---	---
45-54 years.....	8.7	0	41	8.0	0.32	21.7
Never married.....	9.1	0	34	8.7	2.24	0.9
Ever married.....	8.7	0	41	8.0	0.33	20.8
Currently married.....	8.0	0	41	7.6	0.36	17.8
Formerly married.....	12.5	0	38	9.2	1.47	3.0
Unknown.....	---	---	---	---	---	---
55-64 years.....	8.8	0	60	9.0	0.46	18.1
Never married.....	10.5	0	43	11.8	2.44	0.9
Ever married.....	8.8	0	60	8.8	0.44	17.2
Currently married.....	8.2	0	60	8.5	0.47	14.0
Formerly married.....	11.3	0	49	9.4	1.28	3.1
Unknown.....	*5.0	5	5	-	3.54	0.0
65-74 years.....	8.4	0	41	7.7	0.40	12.3
Never married.....	6.9	0	20	6.8	1.54	0.4
Ever married.....	8.4	0	41	7.7	0.41	11.8
Currently married.....	8.2	0	41	7.7	0.37	8.2
Formerly married.....	9.0	0	38	7.7	0.81	3.6
Unknown.....	---	---	---	---	---	---

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 4. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by race and marital status: United States, 1974-75

Race and marital status	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
All races .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
Never married.....	9.6	0	60	9.2	0.80	6.9
Ever married.....	8.6	0	60	8.3	0.18	93.0
Currently married.....	8.0	0	60	8.0	0.18	77.5
Formerly married.....	11.3	0	50	9.3	0.57	15.5
Unknown .....	*6.5	4	10	2.7	2.82	0.1
White .....	8.4	0	60	8.3	0.18	89.1
Never married.....	8.8	0	60	8.9	0.75	5.4
Ever married.....	8.4	0	60	8.3	0.18	83.6
Currently married.....	7.9	0	60	8.0	0.19	70.8
Formerly married.....	11.1	0	50	9.5	0.67	12.9
Unknown .....	*4.5	4	5	0.5	2.29	0.1
Black .....	11.1	0	36	8.7	0.57	9.5
Never married.....	12.5	0	36	9.9	2.53	1.3
Ever married.....	10.9	0	36	8.4	0.54	8.1
Currently married.....	10.3	0	36	8.3	0.87	5.5
Formerly married.....	12.2	0	35	8.5	1.39	2.6
Unknown .....	*10.0	10	10	-	7.07	0.0
Other .....	7.9	0	25	6.9	1.71	1.4
Never married.....	*15.2	11	25	5.6	4.16	0.2
Ever married.....	6.9	0	25	6.5	1.57	1.2
Currently married.....	6.5	0	25	6.1	1.35	1.2
Formerly married.....	*20.0	20	20	-	14.14	0.0
Unknown .....	---	---	---	---	---	---

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 5. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by number of household members, relationship to head of household, and language spoken in household: United States, 1974-75

Selected demographic characteristic	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Total population aged 25-74 years .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
<u>Number of household members</u>						
1.....	10.0	0	49	8.6	0.50	11.2
2.....	7.8	0	45	7.8	0.25	30.8
3.....	9.5	0	60	9.0	0.54	18.5
4.....	7.4	0	45	7.4	0.34	18.0
5.....	9.0	0	56	8.9	0.50	12.4
6.....	9.6	0	40	8.9	0.62	5.1
7-10.....	11.0	0	49	9.7	1.13	3.9
11 or more .....	*15.5	10	18	3.7	8.32	0.1
<u>Relationship to head of household</u>						
Sole household member .....	9.9	0	49	8.5	0.50	11.3
Male .....	8.5	0	29	7.0	0.94	4.5
Female .....	10.8	0	49	9.3	0.78	6.9
Head of household .....	7.5	0	60	7.5	0.26	47.1
Male .....	6.8	0	60	6.8	0.25	40.7
Female .....	12.5	0	50	9.7	0.67	6.4
Wife.....	9.3	0	56	8.8	0.30	36.8
Child .....	11.5	0	60	11.0	1.23	2.7
Other relative .....	11.5	0	43	9.8	1.27	2.0
<u>Language spoken in household</u>						
English .....	8.5	0	60	8.3	0.18	91.4
Other.....	10.5	0	48	9.3	0.87	8.6
French.....	7.9	0	19	4.8	1.62	0.4
German .....	*8.5	0	24	8.0	3.13	0.9
Italian.....	9.5	0	35	7.1	2.30	0.9
Spanish.....	11.4	0	48	9.4	1.73	2.7
Polish .....	*14.5	0	38	11.2	3.85	0.8

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 6. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by education completed and total annual family income: United States, 1974-75

Education and annual family income	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Total population aged 25-74 years .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
<u>Education completed</u>						
Grades 1-8 .....	10.5	0	49	9.3	0.62	18.9
Grades 9-11 .....	11.2	0	60	9.5	0.53	16.5
High school .....	8.2	0	56	7.9	0.30	35.5
College:						
1st year .....	7.3	0	45	7.4	0.61	5.9
2d year .....	7.7	0	41	8.5	0.61	6.1
3d year .....	6.4	0	60	6.8	0.89	1.9
4th year .....	5.7	0	25	5.7	0.47	8.7
Graduate school .....	5.5	0	32	6.1	0.56	6.0
Unknown .....	*8.7	3	26	5.9	5.77	0.4
<u>Total annual family income</u>						
Less than \$5,000 .....	*12.5	0	60	9.8	0.58	17.6
\$5,000-\$9,999 .....	9.3	0	50	8.3	0.34	24.1
\$10,000-\$14,999 .....	7.9	0	60	7.9	0.36	23.7
\$15,000-\$19,999 .....	7.1	0	49	7.5	0.25	14.2
\$20,000-\$24,999 .....	6.3	0	56	6.9	0.36	8.9
\$25,000 or more .....	5.5	0	31	6.3	0.40	8.1
Unknown .....	9.7	0	43	8.4	0.97	3.2

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 7. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by geographic region and size and urbanization of place of residence: United States, 1974-75

Socioeconomic characteristic	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Total population aged 25-74 years .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
<u>Geographic region<sup>2</sup></u>						
Northeast .....	8.3	0	60	8.2	0.49	22.8
South .....	9.1	0	56	8.8	0.53	24.6
Midwest.....	8.8	0	49	8.4	0.32	24.3
West .....	8.5	0	60	8.2	0.36	28.4
<u>Size and urbanization of place of residence</u>						
Inside SMSA <sup>3</sup> .....	8.6	0	60	8.4	0.20	66.4
Urbanized area .....	8.7	0	60	8.4	0.23	55.7
Inside central city .....	9.4	0	48	8.6	0.38	28.5
3 million or more .....	10.3	0	48	8.8	0.70	9.3
1-3 million.....	8.4	0	36	7.7	0.78	3.6
250,000-1 million.....	9.3	0	41	8.5	0.80	12.2
Less than 250,000.....	*8.1	0	38	8.8	3.21	3.4
Outside central city .....	8.0	0	60	8.1	0.27	27.2
3 million or more .....	8.6	0	38	8.5	0.46	8.0
1-3 million.....	8.1	0	60	8.2	0.53	6.2
250,000-1 million.....	7.7	0	45	7.9	0.79	10.8
Less than 250,000.....	*7.6	0	29	6.9	2.50	2.2
Urban place .....	*10.9	0	48	11.6	2.77	1.5
Rural area.....	7.2	0	56	7.7	0.40	9.2
Farm .....	6.7	0	15	4.0	1.30	0.7
Nonfarm.....	7.2	0	56	8.0	0.46	8.5
Outside SMSA <sup>3</sup> .....	8.8	0	60	8.4	0.44	33.6
Urban <sup>4</sup> .....	9.0	0	43	8.8	0.42	12.1
Rural .....	8.7	0	60	8.1	0.73	21.5
Farm .....	9.5	0	34	7.0	0.83	4.4
Nonfarm.....	8.5	0	60	8.4	0.72	17.1

<sup>1</sup>106,956,216 adults 25-74 years of age.

<sup>2</sup>See appendix II for a complete listing of the composition of each region. Regional composition essentially followed the standard U.S. Bureau of the Census classification except for 6 States: Texas and Oklahoma were reclassified from the South into the West; and Kansas, Nebraska, South Dakota, and North Dakota from the North Central Region into the West, leaving what has been renamed the Midwest.

<sup>3</sup>SMSA = standard metropolitan statistical area.

<sup>4</sup>Includes some urbanized areas and urban places.

Table 8. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by class of worker, usual activity, and sex: United States, 1974-75

Class of worker, usual activity, and sex	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Total population aged 25-74 years .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
<u>Class of worker</u>						
Government sector .....	6.8	0	36	6.5	0.59	12.8
Federal .....	7.6	0	33	7.3	1.44	3.0
State and local .....	6.6	0	36	6.3	0.60	9.8
Private sector .....	8.1	0	60	7.9	0.21	52.0
Paid .....	8.3	0	60	8.1	0.23	44.2
Self-employed .....	6.9	0	35	6.3	0.49	7.4
Unpaid .....	11.1	0	32	8.0	2.55	0.3
Never worked .....	*15.9	6	28	9.2	8.70	0.1
Unknown .....	10.1	0	60	9.4	0.39	35.1
<u>Usual activity</u>						
Both sexes .....	8.7	0	60	8.4	0.18	100.0
Working .....	7.6	0	60	7.5	0.20	56.9
Keeping house .....	10.0	0	48	9.1	0.33	31.0
Unemployed .....	11.7	0	35	9.0	1.70	1.4
Unable to work .....	13.7	0	49	12.0	1.29	3.2
Attending school .....	11.1	0	36	8.8	1.54	1.1
Other .....	7.8	0	43	8.0	0.61	6.4
Unknown .....	*12.0	12	12	-	8.49	0.0
Male .....	7.1	0	60	7.2	0.20	47.5
Working .....	6.5	0	60	6.3	0.22	37.3
Keeping house .....	*6.4	1	19	6.8	4.84	0.1
Unemployed .....	11.7	0	35	9.2	1.77	1.3
Unable to work .....	13.2	0	48	12.2	1.34	2.3
Attending school .....	8.6	0	36	7.3	2.02	0.6
Other .....	7.3	0	43	7.4	0.56	5.9
Unknown .....	---	---	---	---	---	---
Female .....	10.0	0	56	9.1	0.25	52.5
Working .....	9.6	0	56	9.0	0.40	19.5
Keeping house .....	10.0	0	48	9.1	0.33	30.9
Unemployed .....	*12.8	11	18	3.1	6.97	0.1
Unable to work .....	15.3	0	49	11.5	3.12	0.9
Attending school .....	13.9	0	32	9.5	2.92	0.5
Other .....	*13.5	0	41	11.6	4.59	0.5
Unknown .....	*12.0	12	12	-	8.49	0.0

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 9. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by age and usual activity: United States, 1974-75

Age and usual activity	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
All ages 25-74 years .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
Working .....	7.6	0	60	7.5	0.20	56.9
Keeping house.....	10.0	0	48	9.1	0.33	31.0
Unemployed .....	11.7	0	35	9.0	1.70	1.4
Unable to work.....	13.7	0	49	12.0	1.29	3.2
Attending school.....	11.1	0	36	8.8	1.59	1.1
Other .....	7.8	0	43	8.0	0.61	6.4
Unknown.....	*12.0	12	12	-	8.48	0.0
25-34 years.....	8.5	0	48	8.3	0.27	27.3
Working .....	7.4	0	43	6.9	0.33	18.1
Keeping house.....	10.3	0	48	9.8	0.67	7.3
Unemployed .....	12.4	0	35	10.1	2.55	0.8
Unable to work.....	*19.3	2	48	15.8	7.93	0.3
Attending school.....	9.8	0	32	7.1	2.26	0.8
Other .....	*13.1	3	41	16.6	13.79	0.1
Unknown.....	*12.0	12	12	-	8.49	0.0
35-44 years.....	8.8	0	60	8.8	0.33	20.6
Working .....	7.9	0	60	8.3	0.38	13.7
Keeping house.....	10.2	0	40	9.0	0.79	5.7
Unemployed .....	*8.2	0	17	5.6	2.66	0.3
Unable to work.....	*15.9	0	45	13.1	5.55	0.5
Attending school.....	*12.0	0	28	10.6	7.37	0.1
Other .....	*11.6	2	26	8.1	4.25	0.3
Unknown.....	---	---	---	---	---	---
45-54 years.....	8.7	0	41	8.0	0.32	21.7
Working .....	7.5	0	38	7.0	0.34	14.0
Keeping house.....	10.4	0	39	9.0	0.49	6.1
Unemployed .....	*11.3	2	22	9.4	7.85	0.1
Unable to work.....	12.0	0	41	9.9	2.40	1.1
Attending school.....	*16.5	1	22	8.5	10.06	0.1
Other .....	*12.0	3	34	9.7	4.32	0.3
Unknown.....	---	---	---	---	---	---
55-64 years.....	8.8	0	60	9.0	0.46	18.1
Working .....	7.6	0	60	8.1	0.50	9.3
Keeping house.....	10.0	0	38	9.2	0.81	5.7
Unemployed .....	*17.3	13	21	3.1	5.95	0.1
Unable to work.....	13.4	0	49	12.2	1.76	1.2
Attending school.....	*15.3	3	36	15.9	14.26	0.1
Other .....	7.3	0	43	7.4	1.73	1.6
Unknown.....	---	---	---	---	---	---
65-74 years.....	8.4	0	41	7.7	0.40	12.3
Working .....	7.8	0	29	6.5	1.03	1.8
Keeping house.....	9.1	0	41	8.0	0.86	6.2
Unemployed .....	*7.0	7	7	-	4.95	0.0
Unable to work.....	*12.8	2	33	9.8	3.66	0.2
Attending school.....	---	---	---	---	---	---
Other .....	7.3	0	38	7.5	0.46	4.0
Unknown.....	---	---	---	---	---	---

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 10. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by race and usual activity: United States, 1974-75

Race and usual activity	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
All races .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
Working.....	7.6	0	60	7.5	0.20	56.9
Keeping house.....	10.0	0	48	9.1	0.33	31.0
Unemployed.....	11.7	0	35	9.0	1.70	1.4
Unable to work .....	13.7	0	49	12.0	1.29	3.2
Attending school.....	11.1	0	36	8.8	1.54	1.1
Other.....	7.8	0	43	8.0	0.61	6.4
Unknown .....	*12.0	12	12	-	8.49	0.0
White .....	8.4	0	60	8.3	0.18	89.1
Working.....	7.4	0	60	7.4	0.21	50.3
Keeping house.....	9.7	0	48	8.9	0.34	28.3
Unemployed.....	12.8	0	35	9.4	3.18	1.1
Unable to work .....	14.2	0	49	12.4	1.49	2.7
Attending school.....	10.0	0	36	9.0	1.69	0.9
Other.....	7.6	0	43	7.9	0.53	5.8
Unknown .....	*12.0	12	12	-	8.49	0.0
Black .....	11.1	0	36	8.7	0.57	9.5
Working.....	9.9	0	36	7.9	0.67	5.6
Keeping house.....	13.8	0	36	9.8	1.27	2.4
Unemployed.....	*12.1	3	21	6.8	6.66	0.2
Unable to work .....	*11.3	0	33	9.7	4.00	0.5
Attending school.....	*16.9	10	21	4.8	6.39	0.1
Other.....	*10.2	0	34	8.4	2.69	0.6
Unknown .....	---	---	---	---	---	---
Other .....	7.9	0	25	6.9	1.71	1.4
Working.....	*7.6	0	25	6.5	2.41	1.0
Keeping house.....	*10.4	0	25	8.8	4.56	0.3
Unemployed.....	*4.1	3	5	1.0	2.90	0.2
Unable to work .....	---	---	---	---	---	---
Attending school.....	*16.0	16	16	-	11.31	0.0
Other.....	---	---	---	---	---	---
Unknown .....	---	---	---	---	---	---

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 11. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by sex and business or industry: United States, 1974-75

Sex and business or industry	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Both sexes .....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
Agriculture .....	8.5	0	35	6.5	1.04	2.4
Mining .....	*9.4	0	33	9.5	6.75	0.2
Construction .....	6.9	0	60	7.8	0.81	4.5
Manufacturing .....	8.2	0	50	7.6	0.47	15.8
Durable goods.....	8.3	0	50	7.8	0.40	9.5
Nondurable goods.....	8.0	0	41	7.3	0.86	6.2
Public utilities.....	6.8	0	30	6.1	0.44	4.8
Transportation.....	6.5	0	23	6.1	0.61	3.3
Communications.....	7.1	0	18	5.2	1.03	0.8
Utilities.....	*7.6	0	30	6.8	1.89	0.8
Wholesale and retail trade.....	8.2	0	49	8.5	0.41	10.9
Wholesale.....	6.4	0	38	7.4	0.72	2.8
Retail.....	8.8	0	49	8.7	0.54	8.1
Finance, insurance, and real estate.....	8.2	0	41	8.8	0.75	2.9
Business and repair services.....	7.7	0	23	6.4	0.78	1.9
Personal services .....	9.2	0	33	8.2	0.86	2.8
Entertainment .....	9.6	3	26	5.7	1.58	0.4
Professional services.....	7.3	0	56	7.8	0.43	13.3
Public administration.....	9.8	0	60	9.1	0.94	39.8
Not applicable .....	17.6	5	35	13.0	0.40	0.3
Male .....	7.1	0	60	7.2	0.20	47.5
Agriculture .....	8.0	0	29	5.8	0.93	2.1
Mining .....	*11.5	0	33	9.5	7.35	0.2
Construction .....	6.8	0	60	7.7	0.78	4.4
Manufacturing .....	6.7	0	31	5.9	0.35	11.2
Durable goods.....	6.9	0	31	5.9	0.48	7.3
Nondurable goods.....	6.4	0	24	5.7	0.71	3.9
Public utilities.....	6.7	0	30	5.9	0.48	4.3
Transportation.....	6.5	0	22	5.8	0.67	3.0
Communications.....	6.7	0	16	5.2	1.13	0.6
Utilities.....	*7.6	0	30	6.8	2.00	0.7
Wholesale and retail trade.....	6.5	0	38	6.6	0.46	6.0
Wholesale.....	7.3	0	38	8.3	0.85	1.9
Retail.....	6.2	0	23	5.6	0.65	4.0
Finance, insurance, and real estate.....	6.7	0	41	8.9	1.07	1.8
Business and repair services.....	6.3	0	20	5.5	0.84	1.2
Personal services .....	*6.2	0	17	5.6	1.87	0.9
Entertainment .....	*8.6	3	11	2.3	2.91	0.2
Professional services.....	5.6	0	30	5.9	0.92	3.9
Public administration.....	8.5	0	60	8.7	1.13	11.2
Not applicable .....	20.6	5	35	15.0	0.70	0.2
Female .....	10.0	0	56	9.1	0.25	52.5
Agriculture .....	*11.6	0	35	9.8	2.99	0.3
Mining .....	*1.0	1	1	0.0	0.71	0.0
Construction .....	*9.8	1	23	8.9	8.00	0.1
Manufacturing .....	11.8	0	50	9.9	1.14	4.6
Durable goods.....	12.8	0	50	10.8	1.30	2.3
Nondurable goods.....	10.8	0	41	8.8	1.67	2.3
Public utilities.....	*7.2	0	23	7.0	1.23	0.6
Transportation.....	*6.5	0	23	8.4	2.50	0.3
Communications.....	8.1	1	18	5.0	1.74	0.2
Utilities.....	*7.2	1	12	5.5	5.33	0.0
Wholesale and retail trade.....	10.3	0	49	9.9	0.70	4.9
Wholesale.....	4.5	0	16	4.3	0.73	0.8
Retail.....	11.4	0	49	10.3	0.79	4.1
Finance, insurance, and real estate.....	10.5	0	34	8.0	1.38	1.2
Business and repair services.....	10.5	1	23	7.1	1.44	0.6
Personal services .....	10.6	0	33	8.8	1.13	1.9
Entertainment .....	*10.8	3	26	8.0	4.03	0.2
Professional services.....	8.1	0	56	8.4	0.54	9.3
Public administration.....	10.3	0	49	9.2	1.09	28.6
Not applicable .....	11.4	11	12	0.5	0.41	0.1

<sup>1</sup>106,956,216 adults 25-74 years of age.

Table 12. CES-D Depression Scale scores, standard deviations, standard errors of means, and percent distribution of adults 25-74 years of age by sex and occupation: United States, 1974-75

Sex and occupation	Mean score	Smallest score	Largest score	Standard deviation	Standard error of mean	Percent distribution of population
Both sexes.....	8.7	0	60	8.4	0.18	<sup>1</sup> 100.0
Professional, technical, and kindred workers.....	5.8	0	41	5.9	0.46	10.5
Managers and administrators, except farm.....	5.9	0	45	6.7	0.47	8.1
Salesworkers.....	7.7	0	34	8.3	0.72	3.5
Clerical and kindred workers.....	8.4	0	56	8.2	0.45	11.0
Craftsmen and kindred workers.....	7.6	0	60	7.7	0.58	9.4
Operatives, except transport.....	9.9	0	38	8.2	0.64	7.0
Transport equipment operatives.....	8.3	0	29	7.0	0.94	2.6
Laborers, except farm.....	7.8	0	41	7.4	1.01	2.3
Farmers and farm managers.....	8.0	0	35	6.8	1.19	1.7
Farm laborers and farm foremen.....	11.7	6	17	4.1	2.07	0.3
Service workers, except private household.....	9.9	0	48	8.4	0.49	7.5
Private household workers.....	10.1	0	60	9.3	0.40	35.6
Not applicable.....	14.0	2	35	12.8	2.61	0.4
Male.....	7.1	0	60	7.2	0.20	47.5
Professional, technical, and kindred workers.....	5.3	0	24	5.2	0.45	6.3
Managers and administrators, except farm.....	5.4	0	38	5.6	0.49	6.5
Salesworkers.....	5.1	0	24	6.2	1.21	1.9
Clerical and kindred workers.....	6.2	0	30	5.7	0.82	3.0
Craftsmen and kindred workers.....	7.3	0	60	7.2	0.50	9.1
Operatives, except transport.....	8.0	0	33	6.1	0.57	3.6
Transport equipment operatives.....	8.5	0	29	7.1	0.98	2.5
Laborers, except farm.....	7.2	0	41	7.3	0.85	2.1
Farmers and farm managers.....	7.5	0	29	5.7	1.04	1.6
Farm laborers and farm foremen.....	11.9	6	17	3.8	2.76	0.2
Service workers, except private household.....	7.7	0	28	6.6	0.71	3.1
Private household workers.....	*9.1	0	60	9.6	0.70	7.6
Not applicable.....	*17.6	5	35	14.8	1.41	0.2
Female.....	10.0	0	56	9.1	0.25	52.5
Professional, technical, and kindred workers.....	6.4	0	41	6.7	0.65	4.3
Managers and administrators, except farm.....	7.7	0	45	9.7	1.65	1.6
Salesworkers.....	10.9	0	34	9.4	1.27	1.6
Clerical and kindred workers.....	9.2	0	56	8.8	0.54	8.1
Craftsmen and kindred workers.....	*13.5	1	50	15.4	5.84	0.3
Operatives, except transport.....	12.0	0	38	9.4	1.15	3.4
Transport equipment operatives.....	*5.1	0	14	5.2	2.25	0.1
Laborers, except farm.....	*14.5	3	21	5.9	3.96	0.2
Farmers and farm managers.....	*13.2	0	35	12.1	5.79	0.2
Farm laborers and farm foremen.....	*11.3	7	17	4.5	4.63	0.1
Service workers, except private household.....	11.5	0	48	9.2	0.70	4.5
Private household workers.....	10.4	0	49	9.2	0.42	28.0
Not applicable.....	8.1	2	12	4.5	2.54	0.1

<sup>1</sup>106,956,216 adults 25-74 years of age.

# APPENDIXES

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## APPENDIX I

### STATISTICAL NOTES

#### The Survey Design

The design of the Health and Nutrition Examination Survey (HANES I) Augmentation of adults 25-74 years of age is basically a three-stage stratified probability sample of persons representative of the civilian noninstitutionalized population of the coterminous United States. The Augmentation Survey design had two basic constraints: (1) The sample had to constitute in itself a national probability sample of the target population; and (2) When considered jointly with persons 25-74 years of age who had already received the detailed examination in HANES I locations 1-65, the Augmentation Sample in locations 66-100 had to complete a larger (100-primary sampling unit) national probability sample and, thereby, would reduce the sampling error attendant to population estimates deriving from the smaller (stands 1-65 only) probability sample's size.

Twelve primary sampling units (PSU's) were included in both the Augmentation Survey sample and the initial 65-PSU design; thus there were only 88 distinct sample PSU's. The sample design specifications, selection procedures, and data collection procedures have been described in detail elsewhere.<sup>2,3</sup>

The HANES I sample design divided the coterminous United States into 1,900 geographic areas or PSU's. A PSU consisted of a county, a small group of contiguous counties, or a standard metropolitan statistical area. These 1,900 PSU's were collapsed into 40 superstrata. Of the 40 superstrata, 15 were composed of only one very large metropolitan area of more than 2 million people and were drawn into the

HANES 65-PSU design with certainty. However, in the Augmentation Survey, only five superstrata were drawn into the sample with certainty. The other 10 superstrata that were drawn into the 65-PSU design with certainty were collapsed into five groups of two each, only one of which was chosen for the Augmentation Survey with a probability of 0.5. In each of the 25 remaining noncertainty strata, defined as they were for the HANES I 65-PSU design, a PSU selection was made with probability proportional to size, according to a controlled selection procedure independent of the PSU's selection status in the 65-PSU design. Only two PSU's in the noncertainty strata were included in the sampling frames of both parts of the HANES.

Enumeration districts (ED's, subdivisions of a PSU used by the U.S. Bureau of the Census for administrative purposes, usually averaging 800 people or 250 housing units) were divided into segments of eight housing units each. In urban areas for which listing units were well defined in 1970, this division was quite accurate, since listings resulting from the 1970 Census comprised the sampling frame. For ED's not covered by the 1970 listing, area sampling was employed. Consequently, some variation in segment size occurred. To make the sample representative of the current population of the United States, the listed segments were supplemented by a sample of housing units that had been constructed since 1970. Then a systematic sample of segments in each PSU was selected. Randomly selected reserve segments were drawn to provide a minimum of 105 sample persons per PSU.

After the sample segments and current addresses within the segment boundaries were selected, household interviews were conducted

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NOTE: A list of references follows the text.

to determine age and other demographic and socioeconomic information for each household member. This information was used to identify individuals fitting the age, sex, and race sampling criteria. From this group, a systematic sample of 1 out of every 2 persons was selected for participation in the survey.

Since HANES I had a complex multistage probability design, it was necessary to use a three-stage procedure to derive accurate population estimates. The following operations were involved:

*Inflation by the reciprocal of the probability of selection.*—The probability of selection was the product of the probabilities of selection from each step of selection in the design (PSU, segment, and sample person).

*Nonresponse adjustment.*—The estimates were inflated by a multiplication factor calculated within each PSU for each of five selected income groups. The numerator of these factors consisted of the sum of the weights for sample persons, the weights derived from the reciprocal of the probability of selection. The denominator consisted of the sum of the weights for examined persons, also derived from the reciprocal of the probability of selection. The nonresponse adjustment corrected for the failure to examine all sample persons.

*Poststratification by age-sex-race.*—The estimates were ratio-adjusted within each of six age-sex-race cells to independent estimates, provided by the U.S. Bureau of the Census, of the population of each cell as of the midpoint of the survey (table I). The effect of the ratio-estimating process was to make the population esti-

mates derived from the sample approximate more closely the total U.S. civilian noninstitutionalized population.

### Missing Data

Appendix IV describes the rules for classifying survey respondents with missing depression data into two categories: those whose CES-D questionnaires were unusable ( $N = 36$  or 1.2 percent of the 3,059 persons examined) and those whose total CES-D scores were usable with imputation for missing items ( $N = 209$  or 5.4 percent of examinees). Appendix IV also describes the method of imputation. Table II gives sample counts and population estimates for all survey respondents and for those with unusable CES-D data, by sex, age, race, and geographic region.

Demographic or socioeconomic data may have been missing because of the failure to obtain and record all items of information for examined persons. Where a sociodemographic characteristic was missing from a respondent's record, population estimates deriving from that person's record were classified in an "unknown" category in the corresponding detailed table.

### Sampling and Measurement Error

The probability design of the survey makes possible the calculation of sampling errors. Traditionally, the role of the sampling error has been the determination of how imprecise the survey results may be because they come from a sample rather than from the measurement of all elements in the universe.

Table I. Estimated number in U.S. population for HANES I examination locations 66-100 by sex, race, and age

Age	Both sexes	Male			Female		
		All races <sup>1</sup>	White	Black	All races <sup>1</sup>	White	Black
All ages 25-74 years.....	108,494,134	51,439,961	46,015,835	4,613,378	57,054,173	50,390,062	5,981,727
25-34 years.....	29,523,998	14,236,258	12,614,365	1,168,091	15,287,740	13,253,794	1,597,207
35-44 years.....	22,410,843	10,874,445	9,660,072	987,334	11,536,398	9,982,989	1,394,481
45-54 years.....	23,539,806	11,214,167	10,126,341	1,042,364	12,325,639	10,956,949	1,281,973
55-64 years.....	19,550,025	9,263,545	8,325,090	854,010	10,286,480	9,280,774	1,005,706
65-74 years.....	13,469,462	5,851,546	5,289,967	561,579	7,617,916	6,915,556	702,360

<sup>1</sup>Includes races which are not shown separately.

NOTE: Estimates closely approximate the U.S. population estimated by the U.S. Bureau of the Census March 1, 1975.

Table II. Number in sample and estimated number in U.S. population by selected sociodemographic characteristics for all HANES I survey examinees in stands 66-100 and number and percent for those with unusable depression data

Characteristic	All survey examinees		Examinees with unusable depression data			
	Number in sample	U.S. population in thousands <sup>1</sup>	Number in sample	Percent of total sample	U.S. population in thousands <sup>1</sup>	Percent of total population
Total .....	3,059	108,494	36	1.2	1,537.9	1.4
<u>Sex</u>						
Male .....	1,332	51,440	13	1.0	603.5	1.2
Female .....	1,727	57,054	23	1.3	934.5	1.6
<u>Age</u>						
25-34 years .....	839	29,524	7	0.8	281.9	1.0
35-44 years .....	618	22,411	8	1.3	391.6	1.7
45-54 years .....	682	23,540	6	0.9	298.0	1.3
55-64 years .....	541	19,550	5	0.9	212.4	1.1
65-74 years .....	379	13,469	10	2.6	354.0	2.6
<u>Race</u>						
White .....	2,760	96,406	25	0.9	1,058.7	1.1
Black .....	261	10,595	11	4.2	479.2	4.5
Other .....	38	1,493	-	-	-	-
<u>Geographic region</u>						
Northeast .....	769	24,881	10	1.3	522.4	2.1
South .....	726	26,801	14	1.9	541.4	2.0
Midwest .....	791	26,201	6	0.8	218.0	0.8
West .....	773	30,610	6	0.8	256.1	0.8

<sup>1</sup>Estimates closely approximate the U.S. population estimated by the U.S. Bureau of the Census March 1, 1975.

The estimation of sampling errors for a study such as the Health and Nutrition Examination Survey is difficult for at least three reasons: (1) Measurement error and "pure" sampling error are confounded in the data. It is not easy to find a procedure that will completely include both or treat one or the other separately. (2) The survey design and estimation procedures are complex and, accordingly, require computationally involved techniques for the calculation of variances. (3) Many statistics are presented in the tables in this report, some of which are for subclasses of the population with only a small number of sample cases. Estimates of sampling error are obtained from the sample data and are themselves subject to sampling error when the number of cases in a cell is small or, occasionally, when the number of cases is substantial.

Estimates of the standard errors for selected

statistics used here are presented in the tables. These estimates were prepared by the balanced repeated half-sample replication technique, which yields overall variability through observation of variability among random subsamples of the total sample.<sup>10,11</sup> The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation that arises in the measurement process. It does not encompass estimates of any biases that might be included in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about

99 out of 100 that it would be less than 2½ times as large.

### Tests of Significance

The procedure used for testing the significance of the difference between any two selected means ( $x$  and  $y$ ) consisted of dividing the difference between the two means,  $d = x - y$ , by the standard error of the difference; that is, a  $z$  statistic was computed. An approximation of the standard error of the difference between the two means was obtained using the formula  $S_d = (S_x^2 + S_y^2)^{1/2}$ , where  $S_x^2$  and  $S_y^2$  represented sampling errors for  $x$  and  $y$ , respectively. An example may be helpful. The test between males and females in this study would be performed as follows:

$$z = \frac{(10.0 - 7.1)}{(0.2 \times 0.2 + 0.25 \times 0.25)^{1/2}} = 9.06.$$

When this  $z$  statistic exceeds 1.96, as it does in our example, the probability of finding a difference is 5 percent or less. The sampling covariance for  $x$  and  $y$  was conservatively assumed to be greater than or equal to zero. The sampling distribution of the difference between the two means was assumed to be asymptotically normal for large sample sizes, with the mean of this distribution being taken as zero to test the null hypothesis.

If more than one test is implied (such as marital status differences—three tests), the Bonferroni test<sup>12</sup> was used to test for significance. In the Bonferroni test the  $z$  statistic is also computed; however, for the difference between two means to be considered significant at the 95 percent confidence level, the  $z$  statistic must be greater than or equal to 2.40 when three tests are performed. The interested reader can find more details in the reference given for the Bonferroni test.



## APPENDIX II

### DEFINITIONS OF DEMOGRAPHIC AND SOCIOECONOMIC TERMS

The demographic and socioeconomic characteristics of the population sample are defined as follows:

*Age.*—The age tabulated for each examinee was the age at last birthday as of the date of examination. The age criterion for inclusion in the survey sample, however, was age as of the date of the household interview. In this sample, there were four examinees who were 74 years of age at the time of interview and 75 years of age at examination. In the adjustment and weighting procedures used to produce national estimates, these persons were included in the 65-74 year age group.

*Race.*—Observed race was recorded as “white,” “black,” or “other.” “White” included Hispanics. “Blacks” included persons of mixed black and other parentage. “Other” included all Oriental, American Indian, and other racial groups besides white and black. Mexicans were classified as “white” unless definitely known to be of a nonwhite race. When a person of mixed racial background was uncertain about his race, the race of the father was recorded.

*Marital status.*—The five categories of marital status on the household questionnaire were “married,” “widowed,” “never married,” “divorced,” and “separated.” A person whose marriage was annulled was included among the “never married.” The remaining classifications in the questionnaire constituted the “ever-married” group. Those classified as “currently married” in the tables in this report included persons who reported that they were presently married and not living apart due to marital discord and persons having common-law marriages. The subgroup “formerly married” included persons who were divorced, widowed, or separated. “Sepa-

rated” referred only to married persons who were legally separated or who had parted because of marital discord. Thus persons separated because of circumstances of employment, service in the Armed Forces, or similar reasons were classified as “currently married” rather than “separated.”

*Number of household members.*—The count of individuals residing within a household included all members, regardless of whether they were related to the head of the household. Persons who were in active military service or who indicated that they had another residence were excluded from the count unless they were listed as the head of the household.

*Relation to head of household.*—One person in each household (and in each family) was designated as the “head.” The number of heads, therefore, was equal to the number of households (or families). The head was usually the person regarded as the head by the members of the household. Married women were not classified as head of household if their husbands were living in the same household at the time of the survey.

*Years of education completed.*—The highest grade of formal education completed in a graded public or private school, day or night, with fulltime or parttime attendance. Only those grades completed in a school that advances a person toward an elementary or high school diploma or a college, university, or professional school degree were counted. Education received in vocational, trade, and business schools outside the regular school system was not counted in determining the highest grade of school completed. If a person attended school in a foreign country or an ungraded school, studied under a

tutor, or had other special circumstances, the nearest equivalent of the highest grade attended was assigned.

*Total annual family income.*—The income recorded was the total income received during the 12 months prior to the interview by the head of the household and all other household members related to the head. This income was the gross cash income (excluding pay in kind), except in the case of a family with its own farm or business. In that case, net income was recorded. Also included was the income of a member of the Armed Forces who was living at home with his family (even though he might not be considered a household member). If he did not live at home, allotments and other money received from him by the family were included in the family income figure.

*Geographic region.*—The 48 contiguous States and the District of Columbia were stratified into four broad geographic regions, each of about the same population size. The composition of the regions was as follows:

<i>Region</i>	<i>States included</i>
Northeast...	Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania
South.....	Delaware, Maryland, Virginia, West Virginia, Kentucky, Arkansas, Tennessee, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, District of Columbia
Midwest.....	Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri
West.....	Washington, Oregon, Idaho, Montana, Wyoming, North Dakota, South Dakota, California, Nevada, Utah, Colorado, Nebraska, Arizona, New Mexico, Oklahoma, Kansas, Texas

It should be noted that in a few cases the actual boundaries of the regions do not follow State lines. Some PSU's located in midwestern

and southern States have been included in the West region. Similarly, some PSU's located in western States have been allocated to the Midwest and South Regions.

The regional composition essentially followed the standard U.S. Bureau of the Census classification,<sup>6</sup> except for six states: Texas and Oklahoma were HANES-reclassified from the South into the West Region; and Kansas, Nebraska, South Dakota, and North Dakota from the North Central into the West Region, leaving what has been renamed the Midwest Region.

*Size and urbanization of place.*—Five terms used by the U.S. Bureau of the Census<sup>6</sup> were employed to categorize the area of residence of HANES respondents: (1) standard metropolitan statistical area (SMSA), (2) central city, (3) urbanized area, (4) urban place, and (5) urban or rural. According to the 1960 Census, those areas considered urban were:

1. Places of 2,500 inhabitants or more that were incorporated as cities, boroughs, villages, and towns (except towns in New England, New York, and Wisconsin);
2. The densely settled urban fringe, whether incorporated or unincorporated, of urbanized areas;
3. Towns in New England and townships in New Jersey and Pennsylvania that contained no incorporated municipalities as subdivisions and had either 25,000 or more population, or a population of 2,500-25,000 with a density of 1,500 persons or more per square mile;
4. Counties in States other than the New England States, New Jersey, and Pennsylvania that had no incorporated municipalities within their boundaries and had a population density of 1,500 persons or more per square mile;
5. Unincorporated places of 2,500 inhabitants or more that were not included in any urban fringe.

The remaining population was classified as rural.

An SMSA consisted of a county or group of contiguous counties (except in New England)

that contained at least one central city of 50,000 people or more, or twin cities with a combined population of at least 50,000 people. In addition, other contiguous counties were included in an SMSA if, according to certain criteria, they were socially and economically integrated with the central city. Definitions of SMSA's, including the composition and structure of each, may be found elsewhere.<sup>13</sup> Thus persons "in the central city" of an SMSA were defined as those whose residency was in the city or cities of the specified standard metropolitan statistical area. Persons who resided in an SMSA but outside the city mentioned in the SMSA title were considered "not in central city." These definitions made it possible for "rural-farm" and "rural-nonfarm" to be coded as "in SMSA."

An "urbanized area" contained a central city or twin cities meeting the same criteria as those used for defining an SMSA, plus the surrounding closely settled urban fringe of incorporated and unincorporated areas that met the following population size or density criteria:

1. Places of 2,500 or more inhabitants;
2. Incorporated places with less than 2,500 inhabitants, provided each had a closely settled area of 100 dwelling units or more;
3. Adjacent unincorporated areas with a population density of 1,000 or more inhabitants per square mile; or
4. Other adjacent areas with lower population density that served to smooth the boundary line or to link densely populated contiguous areas.

An "urban place" (shown in table 7 both as inside SMSA's and as part of "Urban" outside SMSA's) was:

1. An incorporated place
2. An unincorporated place of 2,500 inhabitants or more
3. An urban town, township, or county.

In summary, a central city was always contained within an SMSA and an urbanized area.

An urbanized area was usually contained in an SMSA, wholly or at least in part, and in a central city. An urban place might have been contained within an SMSA and/or within an urbanized area, or it might have existed separately from the two (see figure I).

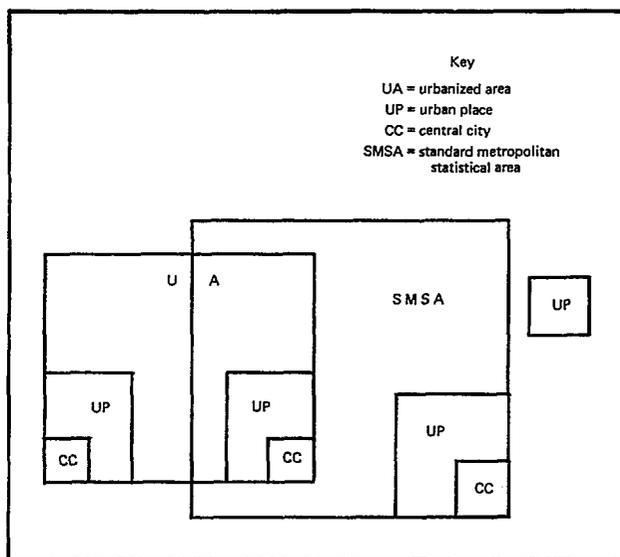


Figure I. Schematic (or Venn) diagram of the relationships among the terms used to describe urbanization of place of residence

*Usual activity.*—This item on the household questionnaire was defined as that function or major social role (working, keeping house, unemployed, etc.) in which the person had been engaged for most of the time between the date of interview and the same date 3 months earlier. "Working" included paid work as an employee of someone else for wages, salary, commission, or "pay-in-kind" (meals, living quarters, or supplies provided in the place of cash wages). Also included was work in the person's own business, professional practice, or farm, and work without pay in a business or farm run by a relative. Work done around a person's own house and volunteer, unpaid work for a church or charity were not included in the "working" classification. Unemployed persons included those "looking for work" and "laid off." The "unable to work" classification included persons who were ill or disabled. The "other" category included those persons who had "retired" or were "staying at home."

*Business or industry.*—The business or industry in which a person reported that he was working was classified according to the major activity of the establishment. The only exceptions to this were for those few establishments classified according to the major activity of the parent organization (such as research laboratories, warehouses, repair shops, and storage garages), where the establishment existed primarily to serve the parent organization, rather than other organizations or the public. The business or industry groupings were those used by the U.S. Bureau of the Census for the 1970 Census.<sup>7</sup> The industry “public administration” was limited to the postal service and other Federal, State, and local public administrations; this category included only uniquely government functions and excluded those activities which might also be carried out by private enterprise. For example, teachers in public education facil-

ities and nurses engaged in medical services of governmental agencies were included in the “professional and related services” group.

*Occupation.*—The principal or only kind of work the person reported doing during the 2 weeks preceding the interview was considered to be his occupation. If the person worked at or held more than one job, the question referred to the job at which he spent the most time. If equal time was spent at each job, the question referred to the job the respondent considered to be the most important or the one he had held longer. A person who had not yet begun work at a new job, was looking for work, or was on lay-off from a job was questioned about his last fulltime civilian job or business. The occupation groupings shown are the same as those used by the U.S. Bureau of the Census for the 1970 Census.<sup>7</sup>



## APPENDIX III

# HANES I DATA TAPE SUMMARY CATALOG NUMBER 4171: GENERAL WELL-BEING AND CES-D SCALES

	<u>Tape Positions</u>
CATALOG NUMBER – 4171 .....	201
 <u>GENERAL WELL-BEING ADJUSTMENT INDICATORS</u>	
Have you ever been bothered by an illness, body disorder, pains, or fears about your health? (DURING THE PAST MONTH) .....	209
How concerned or worried about your HEALTH have you been? (DURING THE PAST MONTH) .....	210
Have you felt tired, worn out, used-up, or exhausted? (DURING THE PAST MONTH) .....	212
Have you been waking up fresh and rested? (DURING THE PAST MONTH) .....	213
How much ENERGY, PEP, VITALITY have you felt? (DURING THE PAST MONTH) .....	214
 How happy, satisfied, or pleased have you been with your personal life? (DURING THE PAST MONTH) .....	 216
Has your daily life been full of things that were interesting to you? (DURING THE PAST MONTH) .....	217
Have you felt down-hearted and blue? (DURING THE PAST MONTH) .....	218
How have you been feeling in general? (DURING THE PAST MONTH) .....	219
Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile? (DURING THE PAST MONTH) .....	220
 How DEPRESSED or CHEERFUL have you been? (DURING THE PAST MONTH) .....	 221
Have you been anxious, worried, or upset? (DURING THE PAST MONTH) .....	223
Have you been under or felt you were under any strain, stress, or pressure? (DURING THE PAST MONTH) .....	224
Have you been bothered by nervousness or your "nerves?" (DURING THE PAST MONTH) .....	225
How RELAXED or TENSE have you been? (DURING THE PAST MONTH) .....	226
 Have you been in firm control of your behavior, thoughts, emotions OR feelings? (DURING THE PAST MONTH) .....	 228
Have you been feeling emotionally stable and sure of yourself? (DURING THE PAST MONTH) .....	229
Have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of your memory? (DURING THE PAST MONTH) .....	230
 <u>ADJUSTMENT FACTORS (SUB-SCALE SCORES)</u>	
Freedom from Health Worry, Concern .....	231
Energy Level .....	233
Satisfying, Interesting Life .....	235
Cheerful vs. Depressed Mood .....	237
Relaxed vs. Tense, Anxious .....	239
Emotional-Behavioral Control .....	241
Total General Well-Being Scale Score .....	243
 <u>THE GWB CRITERIAL SECTION</u>	
Have you had severe enough personal, emotional, behavior, or mental problems that you felt you needed help DURING THE PAST YEAR? .....	246
Have you ever felt that you were going to have, or were close to having, a nervous breakdown? .....	247
Have you ever had a nervous breakdown? .....	248
Have you ever been a patient (or outpatient) at a mental hospital, a mental health ward of a hospital, or a mental health clinic, for any personal, emotional, behavior, or mental problem? .....	249
Have you ever seen a psychiatrist, psychologist, or psychoanalyst about any personal, emotional, behavior, or mental problem concerning yourself? .....	250

Have you talked with or had any connection with any of the following about some personal, emotional, behavior, mental problem, worries, or "nerves" CONCERNING YOURSELF DURING THE PAST YEAR? ...

Regular medical doctor (except for definite physical conditions or routine checkups) .....	251
Brain or nerve specialist .....	252
Nurse (except for routine medical conditions) .....	253
Lawyer (except for routine legal services) .....	254
Police (except for simple traffic violations) .....	255
Clergyman, minister, priest, rabbi, etc. ....	256
Marriage Counselor .....	257
Social Worker .....	258
Other formal assistance (If yes, what kind?) .....	259
Number of "yes" options checked for positions 251-259 .....	260

Do you discuss your problems with any member of your family or friends? .....	261
GWB filled out by . . . ? .....	262

**NIMH'S CES-D DEPRESSION SCALE**

DURING THE PAST WEEK, . . .

I was bothered by things that usually don't bother me _____ .....	279
I did not feel like eating; my appetite was poor _____ .....	280
I felt that I could not shake off the blues even with help from my family or friends _____ .....	281
I felt that I was just as good as other people _____ .....	282
I had trouble keeping my mind on what I was doing _____ .....	283
I felt depressed _____ .....	284
I felt that everything I did was an effort _____ .....	285
I felt hopeful about the future _____ .....	286
I thought my life had been a failure _____ .....	287
I felt fearful _____ .....	288
My sleep was restless _____ .....	289
I was happy _____ .....	290
I talked less than usual _____ .....	291
I felt lonely _____ .....	292
People were unfriendly _____ .....	293
I enjoyed life _____ .....	294
I had crying spells _____ .....	295
I felt sad _____ .....	296
I felt that people disliked me _____ .....	297
I could not get "going" _____ .....	298
Total CES-D Depression Scale Score .....	299



## APPENDIX IV

### DESCRIPTION OF THE CES-D SCALE

The depression questions used in the HANES I survey were the 20-item set of the CES-D developed and validated by the Center for Epidemiologic Studies, National Institute of Mental Health (NIMH).<sup>4,5</sup> The questions were asked in the context of psychometric testing at the time of the physical examination, at the end of the General Well-Being Questionnaire. Responses to the CES-D correlated 0.71 with the Depressed Mood Subscale of the General Well-Being Scale.

The CES-D scale was designed as a short self-report instrument useful for measuring the endorsement of depressive symptomatology in epidemiologic studies of the general population and clinical patients. Its items were taken from previously validated longer scales concerning symptoms associated with depression. The CES-D was tested in household interview surveys and in psychiatric settings and was found to have very high internal consistency and adequate test-retest repeatability. It could also detect changes in clinical status over time. The objective validity of the CES-D was established by obtaining good correlations with other self-report measures and clinical ratings of depression. Its construct validity was supported by demonstrating the expected associations with measures of related constructs. The factor structure of the CES-D and its reliability and validity were found to hold across a variety of demographic characteristics in samples of the general population tested.

#### Instructions for Scale Scoring of the CES-D

Each item had a range of four response options which indicated how often the survey examinee had felt that way during the past week:

<i>Code</i>	<i>Response option</i>
0.....	Rarely or none of the time (less than 1 day)
1.....	Some or a little of the time (1-2 days)
2.....	Occasionally or a moderate amount of the time (3-4 days)
3.....	Most or all of the time (5-7 days)

Questionnaire items 4, 8, 12, and 16 were worded in a positive (i.e., nondepressed) direction. The other 16 scale items were worded in a negative direction to elicit depressive symptomatology directly. To score the CES-D, the sense of the four positive questionnaire items was reversed by subtracting their coded value (indicating the response option selected) from 3. Then the coded values for all 20 items were summed into a total score. The range of possible scores was 0-60.

#### Rules for Missing Data

If more than five items on the scale were missing, the whole scale was considered missing. If one to five items were missing, the values of the nonmissing items were totaled (after reversal of the codes on the positively worded items), the total value was divided by the total number of (nonmissing) items, and this average value was then multiplied by 20. The computed total CES-D score for each Detailed Component survey examinee, including imputation for missing items, may be found on public-use data tape file number 4171, tape positions 299-300 (see appendix III).

### **Interpretation of Scale Scores**

Total CES-D scores of 16-60 were interpreted to mean high levels of endorsement of depressive symptomatology because they represented roughly the upper quintile of test scores for patient populations on which the CES-D instrument was previously validated by the Na-

tional Institute of Mental Health.<sup>5,14</sup> A lower cutoff point of 16 was chosen, rather than the score of 17 recommended for a rural community,<sup>15</sup> because the former value is preferred for a predominantly urban population such as that represented by the national probability sample of this report.

# General Well-Being Questionnaire

HRA-11-7 (Formerly HSM-411-7) /-74  DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE PUBLIC HEALTH SERVICE HEALTH RESOURCES ADMINISTRATION NATIONAL CENTER FOR HEALTH STATISTICS HEALTH EXAMINATION SURVEY  <p style="text-align: center;"><b>GENERAL WELL-BEING</b></p>		Form Approved O.M.B. No. 68-R1184  <b>ASSURANCE OF CONFIDENTIALITY</b> All information which would permit identification of the individual will be held strictly confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any other purposes (22 FR 1687).		
a. Name (Last, first, middle)	b. Deck No. 171	c. Sample No. _ _ _ _ _	d. Sex 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female	e. Age _ _
READ - This section of the examination contains questions about how you feel and how things have been going with you. For each question, mark (X) the answer which best applies to you.				
1. How have you been feeling in general? (DURING THE PAST MONTH)	1.	(001)	1 <input type="checkbox"/> In excellent spirits 2 <input type="checkbox"/> In very good spirits 3 <input type="checkbox"/> In good spirits mostly 4 <input type="checkbox"/> I have been up and down in spirits a lot 5 <input type="checkbox"/> In low spirits mostly 6 <input type="checkbox"/> In very low spirits	
2. Have you been bothered by nervousness or your "nerves"? (DURING THE PAST MONTH)	2.	(002)	1 <input type="checkbox"/> Extremely so -- to the point where I could not work or take care of things 2 <input type="checkbox"/> Very much so 3 <input type="checkbox"/> Quite a bit 4 <input type="checkbox"/> Some -- enough to bother me 5 <input type="checkbox"/> A little 6 <input type="checkbox"/> Not at all	
3. Have you been in firm control of your behavior, thoughts, emotions OR feelings? (DURING THE PAST MONTH)	3.	(003)	1 <input type="checkbox"/> Yes, definitely so 2 <input type="checkbox"/> Yes, for the most part 3 <input type="checkbox"/> Generally so 4 <input type="checkbox"/> Not too well 5 <input type="checkbox"/> No, and I am somewhat disturbed 6 <input type="checkbox"/> No, and I am very disturbed	
4. Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile? (DURING THE PAST MONTH)	4.	(004)	1 <input type="checkbox"/> Extremely so -- to the point that I have just about given up 2 <input type="checkbox"/> Very much so 3 <input type="checkbox"/> Quite a bit 4 <input type="checkbox"/> Some -- enough to bother me 5 <input type="checkbox"/> A little bit 6 <input type="checkbox"/> Not at all	
5. Have you been under or felt you were under any strain, stress, or pressure? (DURING THE PAST MONTH)	5.	(005)	1 <input type="checkbox"/> Yes -- almost more than I could bear or stand 2 <input type="checkbox"/> Yes -- quite a bit of pressure 3 <input type="checkbox"/> Yes -- some - more than usual 4 <input type="checkbox"/> Yes -- some - but about usual 5 <input type="checkbox"/> Yes - a little 6 <input type="checkbox"/> Not at all	

<p>6. How happy, satisfied, or pleased have you been with your personal life? (DURING THE PAST MONTH)</p>	<p>6. (006) 1 <input type="checkbox"/> Extremely happy – could not have been more satisfied or pleased  2 <input type="checkbox"/> Very happy  3 <input type="checkbox"/> Fairly happy  4 <input type="checkbox"/> Satisfied -- pleased  5 <input type="checkbox"/> Somewhat dissatisfied  6 <input type="checkbox"/> Very dissatisfied</p>
<p>7. Have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of your memory? (DURING THE PAST MONTH)</p>	<p>7. (007) 1 <input type="checkbox"/> Not at all  2 <input type="checkbox"/> Only a little  3 <input type="checkbox"/> Some -- but not enough to be concerned or worried about  4 <input type="checkbox"/> Some and I have been a little concerned  5 <input type="checkbox"/> Some and I am quite concerned  6 <input type="checkbox"/> Yes, very much so and I am very concerned</p>
<p>8. Have you been anxious, worried, or upset? (DURING THE PAST MONTH)</p>	<p>8. (008) 1 <input type="checkbox"/> Extremely so -- to the point of being sick or almost sick  2 <input type="checkbox"/> Very much so  3 <input type="checkbox"/> Quite a bit  4 <input type="checkbox"/> Some -- enough to bother me  5 <input type="checkbox"/> A little bit  6 <input type="checkbox"/> Not at all</p>
<p>9. Have you been waking up fresh and rested? (DURING THE PAST MONTH)</p>	<p>9. (009) 1 <input type="checkbox"/> Every day  2 <input type="checkbox"/> Most every day  3 <input type="checkbox"/> Fairly often  4 <input type="checkbox"/> Less than half the time  5 <input type="checkbox"/> Rarely  6 <input type="checkbox"/> None of the time</p>
<p>10. Have you been bothered by any illness, bodily disorder, pains, or fears about your health? (DURING THE PAST MONTH)</p>	<p>10. (010) 1 <input type="checkbox"/> All the time  2 <input type="checkbox"/> Most of the time  3 <input type="checkbox"/> A good bit of the time  4 <input type="checkbox"/> Some of the time  5 <input type="checkbox"/> A little of the time  6 <input type="checkbox"/> None of the time</p>
<p>11. Has your daily life been full of things that were interesting to you? (DURING THE PAST MONTH)</p>	<p>11. (011) 1 <input type="checkbox"/> All the time  2 <input type="checkbox"/> Most of the time  3 <input type="checkbox"/> A good bit of the time  4 <input type="checkbox"/> Some of the time  5 <input type="checkbox"/> A little of the time  6 <input type="checkbox"/> None of the time</p>
<p>12. Have you felt down-hearted and blue? (DURING THE PAST MONTH)</p>	<p>12. (012) 1 <input type="checkbox"/> All of the time  2 <input type="checkbox"/> Most of the time  3 <input type="checkbox"/> A good bit of the time  4 <input type="checkbox"/> Some of the time  5 <input type="checkbox"/> A little of the time  6 <input type="checkbox"/> None of the time</p>

<p>13. Have you been feeling emotionally stable and sure of yourself? (DURING THE PAST MONTH)</p>	<p>13. (013) 1 <input type="checkbox"/> All of the time  2 <input type="checkbox"/> Most of the time  3 <input type="checkbox"/> A good bit of the time  4 <input type="checkbox"/> Some of the time  5 <input type="checkbox"/> A little of the time  6 <input type="checkbox"/> None of the time</p>
<p>14. Have you felt tired, worn out, used-up, or exhausted? (DURING THE PAST MONTH)</p>	<p>14. (014) 1 <input type="checkbox"/> All of the time  2 <input type="checkbox"/> Most of the time  3 <input type="checkbox"/> A good bit of the time  4 <input type="checkbox"/> Some of the time  5 <input type="checkbox"/> A little of the time  6 <input type="checkbox"/> None of the time</p>
<p>15. How concerned or worried about your HEALTH have you been? (DURING THE PAST MONTH)</p>	<p>15. (015) For each of the four scales below, note that the words at each end of the 0 to 10 scale describe opposite feelings. Circle any number along the bar which seems closest to how you have generally felt DURING THE PAST MONTH.</p> <p>0 1 2 3 4 5 6 7 8 9 10</p> <p>Not concerned at all <span style="float: right;">Very concerned</span></p>
<p>16. How RELAXED or TENSE have you been? (DURING THE PAST MONTH)</p>	<p>16. (016) 0 1 2 3 4 5 6 7 8 9 10</p> <p>Very relaxed <span style="float: right;">Very tense</span></p>
<p>17. How much ENERGY, PEP, VITALITY have you felt? (DURING THE PAST MONTH)</p>	<p>17. (017) 0 1 2 3 4 5 6 7 8 9 10</p> <p>No energy AT ALL, listless <span style="float: right;">Very ENERGETIC, dynamic</span></p>
<p>18. How DEPRESSED or CHEERFUL have you been? (DURING THE PAST MONTH)</p>	<p>18. (018) 0 1 2 3 4 5 6 7 8 9 10</p> <p>Very depressed <span style="float: right;">Very cheerful</span></p>
<p>19. Have you had severe enough personal, emotional, behavior, or mental problems that you felt you needed help DURING THE PAST YEAR?</p>	<p>19. (019) 1 <input type="checkbox"/> Yes, and I did seek professional help  2 <input type="checkbox"/> Yes, but I did not seek professional help  3 <input type="checkbox"/> I have had (or have now) severe personal problems, but have not felt I needed professional help  4 <input type="checkbox"/> I have had very few personal problems of any serious concern  5 <input type="checkbox"/> I have not been bothered at all by personal problems during the past year</p>

<p>20. Have you ever felt that you were going to have, or were close to having, a nervous breakdown?</p>	<p>20.</p>	<p>020 1 <input type="checkbox"/> Yes -- during the past year  2 <input type="checkbox"/> Yes -- more than a year ago  3 <input type="checkbox"/> No</p>
<p>21. Have you ever had a nervous breakdown?</p>	<p>21.</p>	<p>021 1 <input type="checkbox"/> Yes -- during the past year  2 <input type="checkbox"/> Yes -- more than a year ago  3 <input type="checkbox"/> No</p>
<p>22. Have you ever been a patient (or outpatient) at a mental hospital, a mental health ward of a hospital, or a mental health clinic, for any personal, emotional, behavior, or mental problem?</p>	<p>22.</p>	<p>022 1 <input type="checkbox"/> Yes -- during the past year  2 <input type="checkbox"/> Yes -- more than a year ago  3 <input type="checkbox"/> No</p>
<p>23. Have you ever seen a psychiatrist, psychologist, or psychoanalyst about any personal, emotional, behavior, or mental problem concerning yourself?</p>	<p>23.</p>	<p>023 1 <input type="checkbox"/> Yes -- during the past year  2 <input type="checkbox"/> Yes -- more than a year ago  3 <input type="checkbox"/> No</p>
<p>24. Have you talked with or had any connection with any of the following about some personal, emotional, behavior, mental problem, worries, or "nerves" CONCERNING YOURSELF DURING THE PAST YEAR?</p> <p>a. Regular medical doctor (except for definite physical conditions or routine check-ups) . . . . .</p> <p>b. Brain or nerve specialist . . . . .</p> <p>c. Nurse (except for routine medical conditions) . . . . .</p> <p>d. Lawyer (except for routine legal services) . . . . .</p> <p>e. Police (except for simple traffic violations) . . . . .</p> <p>f. Clergyman, minister, priest, rabbi, etc. . . . .</p> <p>g. Marriage Counselor . . . . .</p> <p>h. Social Worker . . . . .</p> <p>i. Other formal assistance: . . . . .</p>	<p>24a.</p> <p>b.</p> <p>c.</p> <p>d.</p> <p>e.</p> <p>f.</p> <p>g.</p> <p>h.</p> <p>i.</p>	<p>024 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>025 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>026 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>027 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>028 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>029 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>030 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>031 1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No</p> <p>032 1 <input type="checkbox"/> Yes -- What kind? _____  _____</p> <p>2 <input type="checkbox"/> No</p>
<p>25. Do you discuss your problems with any members of your family or friends?</p>	<p>25.</p>	<p>033 1 <input type="checkbox"/> Yes - and it helps a lot  2 <input type="checkbox"/> Yes - and it helps some  3 <input type="checkbox"/> Yes - but it does not help at all  4 <input type="checkbox"/> No - I do not have anyone I can talk with about my problems  5 <input type="checkbox"/> No - no one cares to hear about my problems  6 <input type="checkbox"/> No - I do not care to talk about my problems with anyone  7 <input type="checkbox"/> No - I do not have any problems</p>

Circle the number for each statement which best describes how often you felt or behaved this way—DURING THE PAST WEEK.

	Rarely or None of the Time (Less than 1 Day)	Some or a Little of the Time (1-2 Days)	Occasionally or a Moderate Amount of Time (3-4 Days)	Most or All of the Time (5-7 Days)
<b>DURING THE PAST WEEK:</b>				
26. I was bothered by things that usually don't bother me . . . . .	0	1	2	3
27. I did not feel like eating; my appetite was poor . . . . .	0	1	2	3
28. I felt that I could not shake off the blues even with help from my family or friends . . . . .	0	1	2	3
29. I felt that I was just as good as other people . . . . .	0	1	2	3
30. I had trouble keeping my mind on what I was doing . . . . .	0	1	2	3
31. I felt depressed. . . . .	0	1	2	3
32. I felt that everything I did was an effort . . . . .	0	1	2	3
33. I felt hopeful about the future . . . . .	0	1	2	3
34. I thought my life had been a failure . . . . .	0	1	2	3
35. I felt fearful . . . . .	0	1	2	3
36. My sleep was restless . . . . .	0	1	2	3
37. I was happy . . . . .	0	1	2	3
38. I talked less than usual . . . . .	0	1	2	3
39. I felt lonely . . . . .	0	1	2	3
40. People were unfriendly . . . . .	0	1	2	3
41. I enjoyed life . . . . .	0	1	2	3
42. I had crying spells . . . . .	0	1	2	3
43. I felt sad . . . . .	0	1	2	3
44. I felt that people disliked me . . . . .	0	1	2	3
45. I could not get "going" . . . . .	0	1	2	3

46. Filled out by:  1 Examinee  2 Interviewer  3 Mixed

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