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DEPRESSION IN IMMIGRANT CHINESE-AMERICAN ELDERS

**A Research Project
Presented to
The Faculty of the School of Nursing
San Jose State University**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science**

**By
Sandy Chen Stokes
May, 1998**

Background

The Chinese are one of the most rapidly growing minorities in the United States. According to the U.S. Bureau of the Census, 812,000 Chinese Americans were living in the United States in 1980. That number grew to 1.65 million in 1993. In Northern California (San Francisco, Oakland, and San Jose areas) alone, there are now over 332,000 Chinese Americans. According to the 1990 census, over 85% of Chinese elders in the United States were foreign born (U.S. Bureau of the Census, 1991).

Depression is the most common mental health problem among the elderly (Blazer & Busse, 1996). Chinese-American elderly are no exception (Mui, 1996a). Prevalence studies report significant rates of depression, both major and minor, among various populations of older adults: Community dwelling (13-20%), medical outpatients (12%-36%), acute care (30%), and nursing homes (43%) (Blazer, 1993; Blixen & Wilkinson, 1994; Heidrich, 1994; Steiner & Marcopulos, 1991). Major depression is the primary contributing cause of suicide among the elderly. However, only 25 to 30 percent of depressed patients seeking help from their physicians have their disorder diagnosed (Schulberg & McCelland, 1987), and only one in 50 is hospitalized for this potentially life-threatening disorder (Sainsbury, 1986). One out of every four suicides is committed by a person 65 years of age or older, and depression underlies two thirds of these suicides (Conwell & Brent, 1995; Moscicki, 1995; Schmid, Manjee, & Shah, 1994; McDougall, Blixen, & Suen, 1997). According to Yu (1986), Chinese Americans have a higher rate of suicide than white Americans and the suicide rate for elderly Chinese immigrants is almost three times higher than the rate for U.S. born older Chinese Americans.

Several studies have documented that Chinese immigrants typically underutilized mental health services (Loo, Tong, & True, 1989; Snowden & Cheung, 1990), in spite of indications that they are likely to be in great need of them (Dohrenwend, 1978; Tsai, Teng, & Sue, 1981; Wong, 1982). Although depression is a common psychological problem among the Chinese elderly, few researchers have studied depression in older Chinese Americans (Mui, 1996b; Rankin, 1993).

A number of sociodemographic factors are associated with the development of depression in Chinese elderly immigrants. Dual stresses of immigration and loss of family support systems may increase levels of depression for U.S. Chinese (Rankin, 1993). Poor communication skills in spoken and written English contributes to unfamiliarity with services offered in the health care system and difficulties in communication with health providers, preventing Chinese elders from using health services effectively (Chang, 1991; Lee, 1986; Rankin, 1993).

Another barrier to obtaining health care stems from the philosophical perspective derived from Confucianism that emphasizes a loyalty to family and devotion to tradition that downplays the expression of individual feelings. According to Confucius, avoidance of emotional expression is necessary to maintain harmony in the family and in social relationships (Lee, 1986). According to Wong (1982), immigrants are least likely to utilize such services because they are not well acculturated and do not yet share the values of western health providers.

Depression in later life is a treatable mental disorder (Blazer, 1993) if it is recognized as depression. Because depressive disorders may

often go unrecognized and untreated in the Chinese-American elderly population and because treatment for depression can dramatically improve the quality of these later years, correct diagnosis and intervention are vital.

Methodology

Despite an increase in the population of elderly Chinese immigrants in Northern California, little is known about their mental health problems. Studies were found that focused on depression among Chinese-American elders, but none addressed the Chinese population in this geographical area. This led to the research questions: To what extent does the sample population exhibit symptoms of depression? What are the factors associated with depression among elderly Chinese immigrants in this county? What are the major barriers to seeking help for depression?

Since Chinese elderly are generally hesitant to report feelings of depression and may not even recognize that they are depressed, this study was designed to (a) determine the extent of symptoms of depression in the participant population using a Chinese version of the Geriatric Depression Scale (Yesavage et al., 1983), (b) identify those factors which correlate with depression, and (c) identify those influences which make it difficult for Chinese elderly to seek help for depression. Findings related to the latter will be published in part two of the study. Findings from this study may be used to increase awareness of undiagnosed, untreated depression among Chinese elderly. Findings also may be useful to health providers in planning and implementing culturally appropriate health care and health promotion for Chinese elderly in this county.

Sample and Setting

A convenience sample of 113 (66 females and 36 males) Chinese elderly, who were all retired and were participants in one of two senior centers in Northern California was used for this study. The subjects volunteered to participate in the study between January and April, 1998. The five criteria for selection were that the participants (a) must be at least 60 years of age, (b) must have emigrated from China, Hong-Kong, Taiwan, or other Asian countries, (c) must be speakers of Mandarin, (d) must neither be diagnosed as terminally ill nor suffer from any diagnosed form of senile dementia, and (e) must have lived in the United States for a minimum of 3 months. Eleven of the volunteers were screened out because they were under age. All data collection was conducted by the author who is a Mandarin speaker.

Instruments

The instruments used were: (a) a demographic questionnaire translated into Chinese, (b) a Chinese version of the Geriatric Depression Scale (C-GDS) translated by the author, and (c) an open-ended interview guide designed by the investigator to identify the relative strength of influences which deter Chinese with symptoms of depression (as indicated by C-GDS scores) from seeking help and to clarify factors which are perceived as contributing to depression.

Demographic questionnaire. The demographic questionnaire designed by the investigator asked for information about gender, age, living situation, country of origin, medical insurance, number of years in the U.S., education, religious preference, marital status, financial status, and perception of health status.

The Geriatric Depression Scale. Most depression rating scales have been developed and validated in younger populations. Due to the unique problems of the elderly, a depression scale specifically designed for the elderly is needed. There are three psychological screening tests that are commonly used to identify depression: (a) the Geriatric Depression Scale (GDS) (Yesavage et al., 1983), (b) the Beck Depression Inventory (Beck, Rial, & Rickels, 1974), and (c) the Hamilton Rating Scale for Depression or HRS-D (Hamilton, 1960). The GDS is designed specifically for rating depression in older adults and it has been widely used among community and institutionalized elderly (Mui, 1996b; Olin et al., 1992; Thompson, Futterman, & Gallagher, 1988).

The GDS was developed in 1982 by Dr. Jerome Yesavage and his colleagues in the Department of Psychiatry and Behavioral Sciences at Stanford University School of Medicine. According to Yesavage et al. (1983), most existing depression rating scales are not sensitive enough for the elderly. First, depression in the elderly is often accompanied by subjective experiences of memory loss and cognitive impairment (Kahn, Zarit, Hilbert, & Niederehe, 1975; Yesavage et al., 1983). It is, therefore, easier to confuse depression with dementia in the elderly. Second, somatic symptoms such as sleep disturbances, decline of sexual function, constipation, and pain--usually key to a diagnosis of depression in the young--are less useful as indicators with elderly populations because such disturbances are also common in non-depressed elderly (Coleman et al., 1981; Yesavage et al., 1983). Third, elderly are typically more resistant to psychiatric evaluation than younger patients (Salzman & Shader, 1978; Wells, 1979) and questions related to mental health often make the elderly defensive. It is also common for the elderly to interpret such questions

differently. For these reasons, the GDS was chosen as the survey instrument for this study.

The GDS is useful both as a screening tool and as a supplement to the medical history and other findings. According to Shua-Haim and colleagues (1997), the scale was 84% sensitive and 95% specific in differentiating depressed from normal elderly patients and it correlated well with results on the Hamilton Rating Scale. The GDS has excellent reliability and validity (test-retest reliability=.85; internal consistency=.94) and has been validated against Research Diagnostic Criteria (Yesavage et al., 1983). The GDS has also been translated into Spanish, Korean, Hebrew, Russian, Yiddish, and Chinese.

Chinese version of the GDS. Studies suggest that older Chinese immigrants are at a higher risk of depression than the older white population (Ying, 1988), but Chinese elders are less likely to be identified with depression by service providers and thus less likely to receive treatment (Chi & Boey, 1993). A proper instrument, one that considers cultural and language differences, is needed to increase the likelihood that appropriate diagnosis and treatment will take place. In 1994, Chiu and his colleagues in Hong Kong used a Chinese version of the GDS among both 113 normal and 80 depressed Chinese elders in Hong Kong to establish the reliability and validity of the scale. The GDS was quite successful in identifying depression among Chinese elderly, leading to early diagnosis and treatment (Chiu et al., 1994).

Chan (1996) used a different Chinese version of the GDS with a sample of psychiatric outpatient males and females age 60 and above between January, 1992 and February, 1993. The overall result was that the GDS is generally applicable to the Chinese elderly population. Mui

(1996b) also developed a Chinese-language version of the GDS. When used with 50 elderly Chinese immigrants to the U.S. (25 women and 25 men), the Chinese translation demonstrated high internal consistency.

Three Chinese translations of the GDS were compared, the scale developed by Chiu (1994), a translation whose author is not identified, and the translation done by Mui (1996b). The translation done by Mui, went through an intensive review by a panel of four bilingual experts, who confirmed that its vocabulary and syntax were appropriate and that the items were culturally valid and matched the intent of the original instrument (Mui, 1996b). The author decided to do another Chinese translation of the GDS which was then back-translated into English by a psychiatric nursing professor, a Chinese major, and an English major who speaks both English and Chinese. The back-translation was then translated into Chinese for a second time and compared with the author's original Chinese translation. The author and those involved in the back-translation agreed that the author's translation, with only minor revisions, should be used, because some of the wording was clearer and it more accurately reflected the meaning of the original instrument. The Chinese version of Geriatric Depression Scale (C-GDS), like the English version of the GDS, is a 30-item "Yes-No" questionnaire designed specifically for rating depression in the elderly during the previous seven days. Of the 30 items, 20 items are keyed "Yes" and 10 items are keyed "No". Scores of 10 or lower are viewed as within the normal range. Scores of 11 to 20 indicate mild depression, and scores of 21 to 30 indicate moderate to severe depression (Blink et al., 1982). It takes 15 to 30 minutes to complete the survey.

Open-ended interview guide. Those participants showing symptoms of depression on the C-GDS, and who gave permission for an interview,

were interviewed in person by the researcher. Also, 15 participants who had scores under 10 (not depressed) were interviewed by phone. The author used an open-ended interview guide; the interviews were informal, approximating casual conversation. The interview was intended to clarify subject responses to C-GDS items associated with depression and to identify influences which may hinder Chinese elderly from seeking help with depression. Oral interviews were chosen, rather than a written survey for several reasons. First, this research expected that an informal interview would produce more candid and complete responses. Secondly, these elderly participants had already been asked to complete two written questionnaires (the Demographic Questionnaire and the C-GDS).

Research Procedures

Guidelines for protection of human subjects were followed. Each subjects received a research packet which contained (a) the Chinese version of the consent form, which included the purpose and voluntary nature of the study and assurances of confidentiality, (b) a demographic questionnaire, and (c) the C-GDS. To maintain confidentiality, participants were identified by code numbers on the consent forms, the demographic questionnaire, and the C-GDS. Only the researcher has access to these files. The interviews were conducted in Mandarin. The questions and responses were recorded on audio tape. The interviews took approximately 30 minutes. Analysis of the qualitative data from the interviews is ongoing and findings will be reported later in a future publication.

Results

Depressive Symptomatology

Descriptive statistical procedures were used to compute frequencies, percentages, and ranges for demographic and other study variables. Scores

of 29.4% of the participants indicated depression, with 3.9% of the participants in the range indicating moderate to severe depression. In Mui's research for elderly Chinese immigrants (1996b), 18% of those who took the GDS were depressed, a rate that is well below the results found in this study.

Relationship of C-GDS scores with Elements of the Demographic Profile

Eleven independent variables (age, gender, living situation, native residence, medical insurance, years in U.S., education level, religious preference, marital status, financial status, and health status) were analyzed to identify factors associated with depression in this population.

Age. The mean age of the respondents was 71.85 years (SD=5.51) with a range in age of 60 to 87 years. Of those between the ages of 60 to 69, 11 (32%) had C-GDS scores of 11 or above (depressed). Of those between the ages of 70 to 79, 14 (25%) were depressed. Of those between the ages of 80 to 87, only one out of nine (11%) were depressed. The assumption that depression is more likely as one grows older is not supported by these findings. Of course, the data may simply reflect a higher (and thus earlier) mortality rate for depressed people.

Gender. Of the subjects, 65.3% (n=64) were female and 34.7% (n=34) were male. Twenty-eight percent (n=18) of the female participants were depressed, compared with 29% (n=10) of the male participants. The common expectation that elderly females are more depressed than males (Aneshensel, Frerichs, & Clark, 1981; Weisman & Klerman, 1987) is not supported by the data from this sample.

Marital status. Of the subjects, 72.2% were married (n=70 of 102), 17.5% were widowed (n=17), and 10.3% were either single, divorced, or separated (n=10). Among subjects who were married, 26% (n=18) were

depressed. Among subjects who were widowed, 29% (n=5) were depressed. Among those who were single, separated, or divorced, 30% (n=3) were depressed. Thus, the expectation that elderly who are widowed, separated or divorced will have a significantly higher incidence of depression (Badger, 1993) is not supported.

Religious preference. The religious preferences of the participants were 36.8% (n=35) Buddhists; 36.8% Christians (n=35); 10.5% (n=10) Catholic; and 15.9% (n=15) other. Of those who were Buddhist, Christian or Catholic, approximately 30% (n=24) were depressed. One of the two subjects who practice a religion different from those above was depressed. Only 15% (n=2) of the sample who had no religious preference (n=13) were depressed. These findings might suggest that those with no religious preference appeared to be less likely to be depressed; however, the numbers in each category are too small to verify a trend.

Years in U.S. The length of time subjects have lived in the U.S. ranged from six months to 24 years ($M=8.55$). All of the subjects who had lived in the U.S. one year or under (n=4) were depressed. Forty-two percent (n=8) of the subjects who had lived in the U.S. between two to five years were depressed. Twenty-two percent (n=9) of those who had lived in the U.S. between six to ten years were depressed. Twenty-two percent (n=3) of those who lived in the U.S. between 11 to 15 years were depressed. Only one out of 10 of the subjects who lived in the U.S. over 16 years were depressed, indicating that recency of immigration may be a factor in depression. The overall rate of depression in Mui's study (18%) (1996b), may have been lower than this study because the average length of residence in the U.S. in Mui's study was 19 years.

Education level. Of those who participated in the study, 4% had completed only primary school, 13% (n=13) completed middle school, 50% completed high school or vocational school, 32 had college degrees, and 1% had advanced degrees. 47% of the subjects who had less than a high school education (n=8) were depressed while 54% of those who had a vocational school education (n=7) were depressed. Of those who completed high school education, 16% (n=6) were depressed. Twenty-four percent of those who had earned a college degree or above (n=8) were depressed. The conclusion here is consistent with earlier findings, that lower education levels are positively related to depression.

Native residence. All of the subjects were from China and Taiwan except for one couple who emigrated from Vietnam. Six (30%) of those from Taiwan and 21 (27%) of those from China were depressed. Based on the data from this sample, origin of emigration did not seem to be a factor in depression.

Living situation. Of the subjects, 48.5% (n=47) lived with spouses, 22.7% (n=22) lived alone, 19.6% (n=19) lived with children, and 8.2% (n=8) lived with both spouse and children. Five participants did not answer this question. Among the 47 subjects who lived with spouses, 30% (n=14) were depressed. Seven (37%) of the sample who lived with children were depressed, and two (25%) of those who lived with spouse and children were depressed. Only 18% (n=4) of the subjects who lived alone were depressed. Contrary to previous findings, subjects who lived alone showed less depression than those who lived with a spouse and/or children.

Health status. Of those who participated in the study, 12.1% (n=11) considered their health to be good; 86.9% (n=86) considered their health to be fair; only one subject stated that her health was "poor". Only one of 12

(8%) subjects who considered their health to be good was depressed. Thirty percent (n=26) of those who considered their health to be fair were depressed. The one subject who considered her health to be poor was depressed. Consistent with other findings (Badger, 1993; Heidrich, 1994), health problems and depression seem to go hand in hand.

Medical insurance. Only 8.4% (n=8) of the sample did not have medical insurance; 8.4% had private insurance, and 83.2% (n=79) had Medicare and Medicaid. Among all the subjects who had Medicare and Medicaid, 23% (n=18) were depressed, compared with a 50% (n=4) rate of depression among those who did not have insurance and a 75% (n=6) depression rate for those who had private insurance. The high rate of depression for those without insurance was consistent with reports in the literature linking financial problems and depression. The higher depression rate for those who had private insurance is inconsistent with earlier findings.

Financial status. Only 3.1% (n=3) considered themselves above average financially; 45.9% (n=45) considered themselves average; 37.8% (n=37) considered themselves below average; 13.3% (n=13) considered themselves poor. None of the subjects who consider themselves above average financially were depressed. Twenty percent (n=9) of those who considered themselves average were depressed, 35% (n=13) of those who considered themselves below average were depressed, and 46% (n=6) of those who considered themselves poor were depressed. Clearly, these findings suggest that there is a positive relationship between perceived lack of financial resources and depression.

Discussion and Implications

The study participants were elderly Chinese involved in senior center activities. Replicating the study with elderly Chinese who do not socialize in such community organizations, particularly those who are relatively isolated, may show different results. Those who volunteered for the study may be less likely to exhibit symptoms of depression; thus, the results may be significantly different for non-volunteers. However, despite the fact that subjects in the study participated in senior center activities and despite the voluntary nature of the participation, the rate of depression in this study (29.4%) was higher than other findings (Mui, 1996a; Rankin, Galbraith, & Johnson, 1993).

The study confirms some of the findings found in earlier studies related to predictors of depression in elderly Chinese immigrants: (a) older Chinese immigrants are at higher risk of depression than older white people (Ying, 1988; Blazer, 1993); (b) poverty, low educational attainment, and poor self-rated health (Burnette & Mui, 1994; Mui, 1993; Mui, 1996a; Ross & Huber, 1985) are prevalent among older Chinese immigrants and are associated with depression; and (c) depressed Chinese elderly immigrants are more likely to be misdiagnosed and less likely to receive proper treatment (Mui, 1996a).

In this study, data suggests that age, living situation, self-rated financial status, education level, years in U.S., and self-rated health status were associated with depression. Subjects most likely to have a higher rate of depression ranged in age from 60 to 69, were living with their children, rated their financial status below average or poor, had not completed high school, had lived in the U.S. for less than six years, and rated their health status as poor. Subjects least likely to be depressed ranged in age between

80 to 87, lived alone but were actively involved in senior center activities, rated their financial and health status as good, had completed high school or college, and had lived in the U.S. for more than six years. Gender, religious preference, and country of origin were not associated with a higher level of depression.

The author interviewed all subjects who provided their phone numbers who scored 11 and above on the C-GDS. The author also randomly selected 15 subjects who scored below 10 on the C-GDS, to find out more about the possible reasons for the differences between previous research and the current study. Analysis of the qualitative data is currently ongoing. However, family relationships appear to be a major contribution to the mental health of Chinese elders. The results of the interviews will be published in a later publication.

This study suggests the extent to which depression goes undiagnosed and untreated in the Chinese elderly population in Northern California. It also indicates those factors which appear to be associated with depression in the Chinese elderly community. Since few immigrants are likely to seek psychological help on their own, it is important to bring the service to them. It is important to provide a setting that effectively counters those influences which make them reluctant to seek help. Agencies, such as senior centers, which provide English language assistance and other services to immigrants, and which maintain frequent, long-term contact with them, are the ideal sites for this kind of intervention. Offering GDS testing at senior centers and providing subsequent referrals to mental health providers is not only convenient for the client but also minimizes the potential sense of shame that seeking mental health service may engender (Hsu, 1985). Offering preventative services in agencies which

assist immigrants with other survival needs normalizes options for dealing with the potential sadness and frustration one tends to encounter in a foreign country (Ying, 1990). Taking advantage of these services, such as psychological counseling and pharmacological therapy, then becomes part of the senior center culture, which may remove some of the stigma.

Health care professionals should consider including screening tests for depression in their routine geriatric assessments (Beers, Fink, & Beck, 1991). Family physicians may be more acceptable to Chinese elderly than mental health professionals in an unfamiliar mental health agency, since the family doctor is a more familiar health care provider to Chinese elderly. Health care professionals can then provide information to physicians about rates of depression in the community, thus increasing the diagnosis of depression in the Chinese elderly population and the likelihood of appropriate treatment.

Finally, language is a major barrier to adequate mental health assessment and care for this population, as indicated by the necessity to translate documents used in the study into Chinese, pointing to the need for more Chinese language services for elderly Chinese immigrants. Further studies should be done to establish the reliability and validity of the author's Chinese version of the GDS since this is the first time it has been used.

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Table 1

Chinese Geriatric Depression Scale (C-GDS)		
Findings from the Study		
C-GDS Item	Depressed	Nondepressed
1. Satisfied with life	5	95
2. Dropped activities and interests	36	64
3. Life is empty	14.7	85.3
4. Often get bored	21.2	78.8
5. Hopeful about the future	22.9	77.1
6. Obsessive thoughts	33.7	66.3
7. In good spirits	25.8	74.2
8. Afraid bad things happen	33.7	66.3
9. Happy most of the time	21	79
10. Often feel helpless	30.3	69.7
11. Restless and fidgety	17.8	82.2
12. Prefer to stay home	17.8	82.2
13. Worry about the future	34.7	65.3
14. Problem with memory	39.4	60.6
15. Wonderful to be alive	9.8	90.2
16. Feel downhearted and blue	17.2	82.8
17. Feel worthless	27	73
18. Worry about the past	10	90
19. Life is exciting	14.7	85.3
20. Hard to start new projects	53.5	46.5
21. Full of energy	39.2	60.8
22. Situation hopeless	25.7	74.3
23. People are better off	25.3	74.7
24. Upset over little things	22	78
25. Feel like crying	18.6	81.4
26. Trouble concentration	36	64
27. Enjoy getting up in the morning	5.9	94.1
28. Avoid social gatherings	29.3	70.7
29. Easy to make decisions	21.2	78.8
30. Mind as clear as before	41	59

Summary of Geriatric Depression Scale Scores for this study

Normal (0-10) = 70.6%

Mild Depression (11-20) = 25.5%

Moderate to Severe Depression (21-30) = 3.9%

M = 7.27 SD = 6.55

Table 2

Correlations with Elements of the Demographic Profile			Depressed		Non depressed	
Total						
Characteristic	%	n	%	n	%	n
Gender						
Male	65.3	64	29	10	71	24
Female	34.7	34	28	18	72	46
Age						
60-69	34.5	34	32	11	68	23
70-79	53.9	55	25	14	75	41
80-87	8.8	9	11	1	89	8
Living situation						
Alone	22.7	22	18	4	82	18
With spouse	48.5	47	30	14	70	33
With children	19.6	19	37	7	63	12
Children & spouse	8.2	8	25	2	75	6
Other	1	1	0	0	100	1
Native Residence						
China	77.8	77	27	21	73	56
Taiwan	20.2	20	30	6	70	14
Other	2	2	100	2	0	0
Medical Insurance						
Private	8.4	8	75	6	25	2
MediCal	83.2	79	23	18	77	61
No Insurance	8.4	8	50	4	50	4
Self-Rated Financial status						
Above Average	3.1	3	0	0	100	3
Average	45.9	45	20	9	80	36
Below Average	37.8	37	35	13	65	24
Poor	13.3	13	46	6	54	7
Education						
Primary School	4	4	50	2	50	2
Middle School	13	13	46	6	54	7
Vocational	13	13	54	7	46	6
High School	37	37	16	6	84	31
College Degree	32	32	25	8	75	24
Advanced Degree	1	1	0	0	100	1
Religious Preference						
Buddhist	36.8	35	29	10	71	25
Catholic	10.5	10	30	3	70	7
Christian	36.8	35	31	11	69	24
Moslem	1.1	1	0	0	100	1
Other	1.11	1	0	0	100	1
No Preference	13.7	13	15	2	85	11

Table 2 (continued)

Correlations with Elements of the Demographic Profile						
Total			Depressed		Non Depressed	
Characteristic	%	n	%	n	%	n
Marital Status						
Single	7.2	7	29	2	71	5
Married	72.2	70	26	18	74	52
Divorced	1	1	0	0	100	1
Separated	2.1	2	50	1	50	1
Widowed	17.5	17	29	5	71	12
Years in U.S.						
One year or less	4.5	4	100	4	0	0
Two to Five	21.3	19	42	8	58	11
Six to ten	47.2	42	22	9	78	33
Eleven to fifteen	15.8	14	22	3	78	11
Sixteen to twenty-four	12.2	10	10	1	90	9
Self-rated Health						
Good	12.1	12	8	1	92	11
Fair	86.9	86	30	26	70	60
Poor	1	1	100	1	0	0

Some subjects did not respond to all questions.