SURVEYS ON HEALTH & MEDICAL CARE IN HONG KONG

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Surveys on Health And Medical Care

In Hong Kong

General Population

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Summary

1.0. The sample

1.1. Survey population and response rates

In a general health enquiry by telephone of a well-population sample of residents an overall response rate of 79% was obtained using 19 interviewers. Hong Kong Island, Kowloon/Sai Kung and the New Territories were surveyed and a total of 1496 respondents were interviewed.

The sample was proportionally representative of the population distribution within the Territory, with one or two variations in certain age groups. In comparison to the general population, these differences can be summarised as

- a lower proportion of children under the age of 12 years,
- a higher proportion of male teenagers,
- a higher proportion of respondents who had received secondary education,
- more professional, managerial and fewer sales, service and production workers,
- higher proportion of respondents in upper income brackets,
- a higher proportion of respondents with private housing.

Such a sample is particularly representative of what is known as the "sandwich class" of Hong Kong, while being somewhat less representative of the poorer classes of the Hong Kong community.

2.0 Summary of results

2.1. Health beliefs and doctor shopping

Age is the strongest and most consistent predictor of the way in which people consult doctors. To a lesser extent, perceived health, gender and marital status are also important independent determinants of certain aspects of consulting behaviour.

2.1.1 Doctor shopping

Younger individuals, particularly those aged 20-29 and less than 10 years old are most likely to shop for doctors, with the elderly the least likely. Gender (female), marital status (single) and perceived health (fair/very poor) were of borderline significance.

Though the age and income levels of this general population differs markedly from the patients interviewed in General Outpatient Clinics (see separate report on GOPDs) the pattern of doctor-shopping behaviour by age is strikingly similar for both surveys. This provides independent validation of the information on shopping, and strongly suggests that we have highly reliable data set on this phenomenon.

2.1.2 Consulting with the same doctor, and with different types o doctor during the same illness

Consulting with the same doctor is most significantly determined by age, with the elderly consulting more with the same doctor. Consulting practitioners of both Chinese and Western style medicine during the same illness was primarily determined by level of perceived health (the very poor consult most), educational level (the better educated consult more), and marital status (singles consult less).

The significance of perceived health in determining consultation behaviour indicates further study is needed to explore and clarify the determinants of perceived health and general well-being.

2.1.3 Belief in the "Hot/Cold" concept

Overall, poorer perceived health is associated with greater belief in the "Hot/Cold" concept, and females with poorer perceived health are more likely to alter their diet as a result of their beliefs than are males.

The prevalence of belief in "Hot/Cold" is 86%, which compares closely to that (89%) found in the GOPD survey, though fewer respondents in the general population had a very strong belief in. the concept (17%) compared to those in the GOPD survey (44%).

Respondents with strong beliefs consult both Western and Chinese style practitioners more often when unwell.

2.1.4. Compliance

High levels of compliance (adherence to medical advice) were reported, compared to those reported from other studies. This may result from the very narrow definition of compliance used in this survey, which needs amplification and further study.

The completion of a course of treatment was related to age, (elderly more likely to complete), educational level (less educated more likely to complete) and marital status (singles more likely to complete) which showed as independent determinants of compliance. Those who reported their belief in the concept of "Hot/Cold" affected their diet were less likely to be adherent to medical advice on completing medication than those whose beliefs did not affect their diet.

Males are particularly likely not to complete a course of medication if they also do not consult the same doctor.

2.2 Morbidity

The majority rated their health as very good or fair (95%). Though 28% reported a health problem in the last two weeks, most of these comprised symptoms of respiratory illness, headache, fever and digestive complaints.

2.5 Smoking

The prevalence of smoking was higher in males (28%) compared with females (5.8%), with the elderly having the highest rates (34.4%). In this sample, there were no recorded smokers in the 0-9 year age range, but the cumulative proportion smoking at ages 10-19 years was 5.7%.

A daily consumption of up to ten cigarettes (45%), or 11-20 cigarettes (40%) was most commonly reported, with the remainder smoking up to 40 cigarettes. Over half of this last group used more than 40 cigarettes daily.

Family and friends were the most frequently cited source of advice to give up smoking (48% of those receiving advice to give up), with GOPD doctors the next most important source (17%). The majority of respondents had received advice on stopping smoking from one (61%), two (24%), or three (15%) sources.

That 80% of respondents had been given advice to quit at some time, and are still smoking, indicates that smoking prevention programmes achieve world-wide coverage but also underscores the ineffectiveness of this advice giving in current practice. Further studies should be undertaken to try to maximize the effectiveness of behaviour change in regard to cigarette use.

3.0 Conclusions and recommendations.

1. The sample from the general population survey comprises a slightly more educated and affluent group than the general population as a whole. There is a slightly higher proportion of females in the sample than there are in the general population.

2. Contrary to previous research, the younger and the more educated groups in this sample had a pattern of health care utilisation characterized by more doctor shopping, less consultation with the same doctor, or with Chinese and Western-style doctors than the elderly and less well educated. The elderly and less educated are also more likely to complete courses of physician-prescribed medication. The reasons for this may be that the elderly have less disposable income to spend on health care. Thus, it is important that they maximize potential benefit. Also, their expectations for health care may be lower than those of the younger age groups, so dissatisfaction with consultation may not prompt a change of doctor.

A closer assessment of why the prevalence of doctor shopping is so high in certain groups, such as females and those 20-29 years old, is needed. Is there some service need which is not being met in these groups under current service provision? The provision of specific services, such as well-women clinics may important in this regard.

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3. Related to the previous point, the lower self-rated health for females suggests that more attention should be given to understanding the factors that determine differences in perceived health between males and females.

The findings on perceived health and utilisation of health services as a whole indicate men may be less sensitive to fluctuations in health than women. This suggests men see themselves as either well, in which case they take few or no health-directed actions, or as sick, in which case they take many health-directed actions. Women, by comparison seem to be generally less positive about their health, and likely to take more regular health-directed actions when not sick, for example "hot/cold" related dietary changes. However, when sick, women may be less likely to change their behaviour as much as men, seemingly taking fewer health-directed actions than men. A similar conclusion was reached in the GOPD report.

Further research is needed to clarify the factors important in influencing perceived health, which we found to be a key determinant of health care utilisation.

4. In the space of two weeks, over one quarter (28%) of the general population sample had experienced health problems for which they sought help in the form of self-care and lay or professional consultations. As self medication featured prominently as a mode of active self-care, the implications for appropriate health education and medical advice at the time of consultation are clearly important.

5. About one in six respondents had sought professional advice in the previous two weeks. The majority of them (65%) sought care from the private sector. Fifteen percent were seen at GOPDs. These figures closely corresponded to that estimated in a recent General Household Survey. As our attempt to look into the medical work and operation of GOPDs has provided us with very useful information for evaluating this service, a similar survey on primary care in the private sector will arguably carry more importance in the light of the preference for care of the population.

6. In contrast to ambulatory care, the main provider of hospital service was the government and subvented system (77% compared to 23% in private hospitals). As only one seventh of respondents had health insurance, this finding is not surprising since, without the protection of health insurance, some people who usually receive ambulatory care from private doctors would have to go to public instead of private hospitals because of financial consideration when hospitalization is necessary. It thus strengthens the argument that if those who are financially better off have health insurance which would cover hospital expenses, the pressure on our public hospital system can be considerably alleviated.

7. Though the low level of smoking in Hong Kong compared to elsewhere is good, we identified a cumulative incidence of one person in twenty as smoking cigarettes by the time they are 19 years old. Given that tobacco represents the single most important cause of preventable serious disease in the world today, strong fiscal and legal measures should be taken to discourage further this continuing trend of recruitment into tobacco use.

8. This survey found that a majority (51%) of respondents were in favour of patient-held records. Patient held records help to promote better patient education and enables the building up of a very important record, not only of patients' illnesses, but also of treatment. This would be an important disincentive to consultations with multiple doctor during the same illness and potentially hazardous interactions from polypharmacy. This could help to keep both costs and demands on doctors' time lower.

THE GENERAL POPULATION TELEPHONE SURVEY

Synopsis

1.0 Background

2.0 Aims of the survey

1.0 Background

Historically, the focus of health has been a biomedical one with service planning based on disease prevalence. With a growing awareness of the incurable nature of most chronic illness and disability which are the major health care problems in developed countries like Hong Kong, the question can be asked; "what is it that needs to be done in order to improve the public health?" To this, a second question might be added, namely; "what are the patterns of health care system utilisation, and the reasons for such utilisation?"

Contemporary answers to these questions spotlight environment and behaviour. For example, improving air quality, or reducing tobacco consumption in the case of the first question, and identifying not only illness, but also demographic and attitudinal causes of consultation patterns in the case of the second. Health care utilisation can be to a large extent unrelated to disease patterns, reflecting marked differences between health beliefs and health behaviour. The term health behaviour is commonly used to describe the actions taken by individuals which have a bearing on their health.

Health behaviour is seen largely as a property of individuals and such definitions lack any sense of applicability to collective behaviour. None the less, it is quite possible to reconceptualise many of these definitions as properties of social systems. Groups, organizations and even governments may be seen as engaging in health behaviours.

2.0 Aims of the survey

In order to understand more about the health of Hong Kong's population, and the way that it used health care resources, this general population survey was carried out.

The aims of the survey were as follows:

- To explore health beliefs and attitudes;
- To explore patterns of illness and health care utilisation;
- To explore patterns of expenditure on health care;
- To explore preventive and alternative forms of health care

in a general population sample of Hong Kong residents.

2. METHODS AND SUBJECTS

Synopsis

1.0 The Sampling Frame

- 1.1 Population of Hong Kong
- 1.2 Sampling of geographic districts
- 1.3 Sampling of telephone numbers
- 1.4 Sampling the members of a household
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- 1.6 Use of replacement respondents

2.0 The Instrument

- 2.1 Item selection
- 2.2 Aims of the telphone survey
- 2.3 Interviewers
- 2.4 Quality Assessment
- 2.5 Deviations from protocol

1.0 The Sampling Frame

1.1 Population of Hong Kong

Hong Kong's population estimate for the third quarter of 1989 was 5,761,400, while the households in the territory numbered 1,561,122, (Household Survey, third quarter, 1989).

i. Sex ratio: In the Hong Kong 1986 By-Census report, the ratio of males to females during 1986 was given as 1.057:1.000.

ii. Age distribution: The age distribution of the Hong Kong population in 1986 is given in table 2.1.

iii. Geographic distribution: Table 2.2 indicates the geographic distribution of the Territory's population between Hong Kong Island, Kowloon, New Territories and marine areas.

1.2 Sampling of geographic districts

1.2.1 We chose to select a proportionally representative sample from each of the three main districts of the Territory; Hong Kong Island, Kowloon, and the New Territories as being most representative of Hong Kong's telephone users.

1.2.2 We used the most recent telephone directories available to us during late 1989, which were the Hong Kong Island 1987, New Territories 1988, and Kowloon/Sai Kung 1989 directories, the latter made available by specially arranged early release. Table 2.3 gives the distribution of telephones in the Territory, calculated on the basis of directory page numbers, together with the 1986 By-Census proportions of residents in the three districts sampled.

1.2.3 Table 2.3 illustrates the good correspondence between the distribution of telephones and the distribution of the population, indicating that a proportional random sample of telephones would, in theory, give us access to a representative sample of the Hong Kong population.

1.2.4 The use of data from three earlier years; the population data from 1986, the 1987 Hong Kong and 1988 New Territories, means that there has been some movement of the population since then. For example, there are likely to be more people in the New Territories during 1989 than during 1986 given the new town expansion and cheaper accomodation available there, whereas the increasing business concentration in Hong Kong Island, together with a wealthier population may explain the higher than expected proportions of telephones found there.

1.2.5 Inevitably also, we expected there to be more cancelled or changed numbers in the older Hong Kong and New Territories directories than in the latest Kowloon/Sai Kung directory.

1.2.6 We decided on a sample size of 1,200 interviews proportionally drawn at random from the three district telephone directories. We had available to us 13 telephone interviewers who would complete 95 interviews apiece.

1.2.7 In terms of the distribution of calls / directory district, this translated to the following number of interviews:

	HK	Kowloon	N.T.	Total
	2 x 95	5 x 95	4 x 95	1054
	1 x 87		1 x 8	95
		1 x 68	1 x 27	95
Interview total:	277	543	415	1235
	22.3%	44%	33.6%	99.999%[1]
	(21.8%	42.6%	34.9%	99.300%)[2]

1. Proportions of telephone sample/district.
2. Proportion of population per district, (1986 By-Census).

1.2.8 This sampling strategy undersampled the New Territories population by 1.7%, and oversampled Hong Kong Island by 0.5% and Kowloon/Sai Kung by 1.4%, amounts not considered a significant deviation from the population distribution.

1.3 Sampling of telephone numbers

1.3.1 After the proportion of interviews to be made in each telephone district was fixed, individual telephone numbers were selected on the basis of a random sample of numbers drawn from each directory. This was achieved by allocating each interviewer 100 pages in the relevant directory, so that interviewer 1 used pages 1-100, interviewer 2, pages 101-200, interviewer 3 pages 201-300, and so on.

1.3.2 Within the allocated 100 pages, interviewers were given a simple algorithm for the selection of numbers. Interviewer 1 would take the first number at the top of column 1 of each page, interviewer 2, the first number at the top of column two of each page, interviewer 3, the first number at the top of column 3 of each page, and so on.

1.3.3 A minority of the interviewers had to make a proportion of calls in two districts, and where necessary, they were given a number of pages from the relevant directories sufficient to draw the required number of calls.

1.3.4 Though the directories used were residential directories, they still contain a proportion of business numbers. This, plus an expected proportion of refusals, disconnected numbers and no answers meant that more than 100 calls might be needed to reach he interviewer target of 95 completed calls apiece. If the interviewer reached the end of their allocated directory pages, but was still short of the required number of interviews, they were to return to the first page and choose the last number of the page column they were drawing numbers from and proceed through the pages once again until reaching 95 interviews.

1.4 Sampling the members of a household

1.4.1 Within each household there are anything from one to ten or more individuals; some are infants, or elderly persons who are unable to answer the telephone; one parent, probably the mother / aunt of any children may be principal childminder cum housewife; older children and adolescents might be at school and fathers / uncles at work. Consequently, by simply interviewing the person who answers the telephone there is a risk of obtaining a only narrow cross section of the household.

1.4.2 In order to avoid this, a previously developed strategy for randomly sampling a person for interview from within the household was used. Hence, the first task on contacting the household, was to obtain the household size. This was then used to select the interviewee from a random number set which formed the first page of the interview questionnaire. Table 2.4 illustrates this. Ten different sets of numbers for selection of interviewee/replacement were distributed at random among all 13 interviewees to minimize any biasing due to one set of numbers being non-normally distributed.

1.4.3 The person answering the telephone was asked to give the age and sex of each person living in the household, beginning with the oldest and ending with the youngest. The total number of persons in the household then indicated the person to interview, as in table 2.4. For example, if the household contained six people, from table 2.4, then in this case, person number six would be selected for interview.

1.5 Use of proxy respondents

If, for example we drew person number six, and s/he was a child under 12 years of age, the mother would then be interviewed about the child, otherwise person six was interviewed directly. Where the mother is interviewed about the child, this was recorded as a proxy interview. Similarly, if the person selected was otherwise unable to be interviewed directly, a proxy interview was again performed, every effort being made to interview the first selected person.

1.6 Use of replacement responders

If the selected interviewee was unavailable, and was not available at any time during the next week, for example due to absence from Hong Kong, or if they refused to be interviewed, then a replacement would be selected. In our example of person number six selected from table 2.4, a refusal by person number six would mean person one (bottom row, table 2.4) would then be selected from within the same household and interviewed as a replacement. Replacement responders would not be used if the person selected was temporarily unavailable, such as being out of the home at the time of the call. Instead, the interviewer would make up to three calls on three separate occasions (evening, afternoon, morning, weekend) in an attempt to catch the person selected for interview at home.

2.0 The instrument

2.1 Item Selection

1. The instrument used was almost exclusively derived from the questionnaire developed for the GOPD survey, with minor changes where appropriate, to suit a well-population and a telephone survey technique. Additional questions to assess the use of health insurance, perceived health, expenditure on health care, hospitalisation, and changes needed to improve personal health were added, which did not appear in the GOPD. A substantial number of questions that were used in the GOPD survey instrument were dropped from the telephone instrument in order to make the latter more acceptable in duration and content.

2. Some questions were asked in a less detailed format, for example those on health attitudes and behaviours were not as detailed as in the GOPD survey.

3. Like the GOPD instrument, the telephone questionnaire was composed in English, then translated to Chinese. Questions appearing in both instruments used the same

wording and characters. Questions asked in the telephone survey only were backtranslated in to English to check for veracity of intepretation. Adjustments to wording was made where necessary to retain the desired meaning.

2.2 Aims of the Telephone Survey

The telephone survey aimed to provide data on the prevalence of illness, behaviour and attitudes of a sample of the population. This would serve two purposes. First, it gave data on the health behaviour of a random sample of Hong Kong's population. Second, it complimented the GOPD survey data, against which the latter could be compared to look for differences in characteristics and attitudes of persons consulting GOPD services, and those of the population as a whole. This enables a comparison not only of characteristics, behaviour and attitudes, but also gives us grounds for exploring how Hong Kong's population currently utilise available health care resources.

2.3 Interviewers

1. Telephone interviewers were recruited from a variety of sources, and included journalism students, psychologists, non-academic University staff and travel agency staff. Seventeen interviewers were originally recruited, but four either failed to attend training sessions or dropped out following training. All interviewers attended two training sessions two days apart when they were introduced to the instrument and procedure. At the first session, they were provided with copies of the following documents used in the survey;

a. two copies of the questionnaire in Chinese, (see **Appendix 1**)
b. one copy of the questionnaire in English,(see **Appendix 2**)
c. One statement of introduction to identify the interviewer and to explain the purpose of the survey to subjects (Chinese & English versions).
d. One flow chart detailing telephone number sampling, details of interviewee selection and conditions for replacement selection, and other procedures undertaken prior to beginning the interview (**Appendix 3**).

During the first session interviewers were given time to look through the instruments and ask questions and were taken through each step of the procedure by three of the principal investigators (AL, RF and KKC). Any questions arising from the first session were dealt with at the time. Interviewers then were asked to call up two friends on the telephone during the next two days and practice using the instrument to identify any problems with usage.

2. At this time, three of the interviewers who were either non-academic university staff or psychologists piloted the

selection procedure and questionnaire on a sample of ten randomly dialed interviews. As a result of this, minor changes were made in the procedure and to the wording of certain questions

3. The second training session was held two days later. If any problems or questions were encountered by the interviewers during their "practice" they were encouraged to voice these at the second training meeting, four days later when changes resulting from the piloting of the questionnaire had been incorporated into the final instrument. Again each question was gone through by a Cantonese-speaking team member. After this, interviewers were given 100 copies of the questionnaire. To ensure we achieved our target of 1200 complete interviews within 17 days, interviewers were paid piece-rate per completed interview.

4. Maintaining motivation and morale of interviewers was achieved by frequent contacts by telephone and mail, advising interviewers of minor problems encounted by others during interviewing, and encouraging the interviewers. Some methodological difficulties were experienced by a minority of interviewees early in the exercise, and a small number of "spoiled" interviews occurred, due to sampling errors within households or similar problems. These were quickly identified and corrected. Interviewers were also sent updated coding instructions to enable them to complete coding while interviewing.

5. Because interviews were proceeding slower than we had anticipated, we recruited a further five interviewers, who were trained and given additional numbers to call in order for us to meet our deadline. However, as we did not know the exact distribution of completed versus non completed interviews, we were unable to provide accurate adjustment of the proportional sampling pattern to accomodate the five additional interviewers. In the event, the differences between the observed and expected proportions of interviews at the end of the study were insignificant.

6. Table 2.5, shows that the correspondence between the population, telephone and sample distribution is extremely close, with only 0.3% excess in HK calls, 0.5% excess in N.T. calls and a 0.9% deficit in Kowloon calls. However, this distribution more closely approximates the population distribution for the N.T. and Kowloon than the telephone distribution does.

2.4 Quality Assessment

In a survey of this kind there is a need to monitor both the quality of the interviews being completed, and the accuracy of response recorded by the interviewer. This was achieved using four different approaches, described in **Appendix 4.**

Briefly, we monitored procedural accuracy by obtaining tape recorded dummy interviews made "blind" by the interviewers, double checked coding accuracy, and continuously checked interviewer response rates. The range of interviewer response rates was from 95.23%-48%, (the latter response from one supplementary interviewer who completed only 20 interviews). The following distribution of responses rates were seen for interviewers 1-19

Response Rate	No. Interviewers achieving this rate
> 90%;	n= 5
80-90%;	n= 3
70-80%;	n= 8
60-70%;	n= 2
< 50%.;	n= 1

Mean response rate (1496/19x100) = 78.74%
Median response rate 80.0%
Range 95.23-48 (95.23-68.5 excluding 1 low interviewer)

2.5 Deviation from protocol

Two main deviations from the proposed protocol were identified.

1. The recruitment of six additional interviewers upset the final proportional sampling, with the result that the New Territories were oversampled by 0.5%, Kowloon was undersampled by 0.9%, and Hong Kong Is. oversampled by 0.3%.

2. Sampling errors within the households. When the interviewee was a child under the age of 12 years, the interviewer was to interview the child's mother <u>about</u> the child.

One interviewer interviewed the mother, but about herself;
one interviewer selected a replacement interviewee if the child was <12 years,
one selected a replacement if the child was below age 7 years.

Hence, the sampling of minors aged <12 years is below that we would expect from their occurence in the normal population. The proportion of the sample aged less than 10 years old is as follows:

sample	<10 is 7.4%.
expected	<10 is 15%

3. GENERAL DESCRIPTION OF SAMPLE

Synopsis

1.0 Introduction

1.1 Age and gender

1.2 Marital status

1.3 Educational attainment

1.4 Employment

1.5 Income

1.6 Type of living quarters

1.0 Introduction

Successful interviews were conducted with 1496 respondents over the period of study. The following is a general description of the characteristics of the subjects in the sample. Comparisons are made with statistics from the most recent By-Census or General Household Survey in the general population (Census and Statistics Department, 1987; Census and Statistics Department, 1990) wherever appropriate.

1.1 Age and gender

Among the 1496 respondents, 705(47%) were male and 789 (53%) were female. The age and sex distribution by sex is shown in Table 3.1.

The demographic structure of the sample was broadly similar to the general population. However, several features should be noted. First, the proportion of female respondents in this sample was higher than the 49% in the Hong Kong general population at mid-1989. The main difference arose from the relative proportion of subjects between the ages of 30 and 69. Whereas men and women in this age range constituted about 24% and 22% respectively of the total general population, the corresponding proportions in our sample were 23% for males and 28% for females. In other words, proportionately more women than men were sampled in this age group. Second, there were two additional variations between the sample and the general population which arose because of a misinterpretation of the sampling method by one of the interviewers. This led to fewer than expected subjects younger than ten years being sampled and a higher proportion of women and men aged 30-39, many of whom were parents of the younger subjects who should have been sampled. Third, there is no ready explanation of why the proportion of male teenagers sampled was higher than the general population.

1.2 Marital status

The proportions of subjects in the sample who were never married, married or widowed/separated/divorced were 44%, 52% and 4% respectively (Table 3.2).

1.3 Educational attainment

Table 3.3 shows the comparison between the sample and the general population in terms of educational attainment. The proportion of subjects in the sample who had received secondary education or above was higher than that of the general population.

1.4 Employment

Fifty-three per cent of the respondents were employed. About 22% were students or below school age and housewives constituted 17% of the sample. Eight per cent of the respondents were retired or unemployed (Table 3.4).

Table 3.5 shows the occupational distribution of those employed in comparison with the general population. There were more subjects who were professionals, administrative, managerial or clerical workers and fewer sales, service and production workers than in the general population.

1.5 Income

Among the 786 subjects who were employed, 711(91%) responded to the question about their monthly employment earnings (Table 3.6). The proportion of respondents who were in the higher income brackets was greater than that of the general population.

Information on monthly domestic household income was only available in 977 respondents (65%). Again, the distribution in the sample was towards higher income groups in comparison with the general population (Table 3.7).

1.6 Type of living quarters

The type of living quarter of the respondents was compared with the general population (Table 3.8). The sample pattern was similar apart from a very slight over-representation of those who lived in private housing.

The results on educational attainment, occupation, income and type of living quarter indicate that though the telephone is no longer exclusive to the financially better off in this population, telephone surveys like the present one still tend to produce a sample which may be slightly more educated and affluent than the general population. We believe, however, that this shortcoming will be more than offset by the merits of this method as discussed in the Introduction.

4. HEALTH BELIEFS AND DOCTOR SHOPPING

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1.0 Introduction

This section examines the survey data relating to three sets of behaviours relevant to the provision and use of health care; consultation behaviour, culturally distinctive attitudes to health maintenance ("hot/cold" concepts and dietary restrictions), and finally, how these relate to adherence with recommended treatment.

2.0 "Doctor-Shopping" Behaviour

2.1 Introduction

Doctor shopping, defined as consulting two or more doctors during the same illness, or consulting a different doctor for consecutive illnesses, is reportedly widespread in Hong Kong. However, few good studies of the phenomenon have been carried out.

This section reports on the data relating to three sets of questions relevant to shopping behaviours; they are

A-"do you shop around for doctors?"
B-"do you usually consult the same doctor when ill?"
C-"Do you consult chinese and western doctors during the same illness?"

2.2 Doctor shopping

2.2.1 Summary of findings

1. From the initial univariate analyses of the doctor shopping data, it seems females aged 60 years or older are least likely to shop, and to a lesser extent, people in the 10-19 age group. After adjusting for perceived health, there appear to be two groups who shop. The first group comprises females with "Poor" or "fair" health, and males with "Poor/very poor" health aged 20-29 years. The second group are children (female with "fair" health and male with "very good" health) aged 0-9 years. The actions of this second group clearly reflects parental behaviour, and it might be argued that the parents of children in this age range probably fall into the high shopping prevalence 20-39 age range, and shop for their children.

2. Because it is possible that different factors may act together in both in an additive or subtractive way in explaining shopping behaviour, an adjustment of these effects was made using logistic regression and stepwise multiple regression. This allowed factors associated with shopping to be identified while controlling for differences in age, sex, educational level, income and perceived health.

3. Logistic regression analysis revealed that age was independently associated with shopping. Persons over 60 years being significantly less likely to shop, while being single and female seem to increase the likelihood of shopping.

4. Overall, when variation in other areas is controlled, age, and to a lesser extent gender and marital status explain differences in shopping behaviour. Single females aged less than 60 years are the most likely to shop.

2.2.2 Description of results

1. **Frequency** of shopping behaviour was 46% (See Table 4.1). Of those who shop;

512	(34%)	do it less than 20% of the time
114	(8%)	do it 20-39% of the time
39	(3%)	do it 40-59% of the time
7	(0.5%)	do it 60-79% of the time
17	(1%)	do it more than 80% of the time

Though 46% of those interviewed reported shopping, the majority do so infrequently, with only one shopper in eight shopping more often than 20% of the time.

2. **Age and gender:** Shopping prevalence peaks at 0-9, 21-39, and 50-59 years, declining markedly thereafter, (Chi Square=35.125, $p<0.0001$). The lowest levels of shopping behaviour were reported by the oldest age groups (Table 4.2; Figure 4.1). This decline was more marked for females (Chi Square=24.88, $p<0.002$; see Tables 4.3 & 4.4; Figure 4.2), than for males, (Chi square=7.62, n.s.).

3. **Marital status:** The highest prevalence was in the "Single" group, with a declining prevalence in "Married", "Divorced", "Widowed" and "Separated" groups. Females shopped more than males in "Single" and "Married" categories, though not significantly so, (Chi Square=5.19, $p=0.075$; Tables 4.5 & 4.6; Figure 4.3).

4. **Education level:** The highest prevalence was amongst persons with post secondary (nondegree) level of education (54%), followed closely by Kindergarten (50%), Primary (49%), Matriculated (48), and Secondary (46%), (Table 4.7; Figure 4.4). Kindergarten educated are likely to include most children under five years. The lowest prevalence was amongst "Traditional Chinese" educated. This probably reflects the educational status of most elderly people.

5. Occupational status: With the exception of a lower level amongst retirees, (consistent with less shopping in elderly age groups) there was little variation between different occupational groups (Table 4.8; Figure 4.5).

6. Household income: The prevalence of shopping does not vary according to household income, (Table 4.9, Figure 4.6).

7. Current physical illness: Shopping behaviour was unrelated to current (Table 4.10) or most recent (Table 4.11; Figure 4.7) physical illness, with the exception of diabetes or hypertension diagnosis (see 2.2.2.9. below). Similar data is seen for most recent ilness.

8. Perceived health, sex and age: Significant differences in perceived health of males and females were found (Chi square = 23.95, $p<0.0001$, Table 4.12; Figure 4.8) with females more likely to rate their health as "Fair", or "Poor", compared to males (Tables 4.13 & 4.14).

Shopping was most prevalent in the "Very poor" category, for males and, in the "Fair" category for females. In the "Fair" category, females were more likely to shop than males (71% females who shop fall in this category; for males the equivalent proportion is 58.3%).

In the "Fair" categories, shopping is more prevalent amongst females than amongst males, who have a prevalence in this category comparable to the prevalences in all but the "Very poor" category (Figure 4.9).

When sex and perceived health are controlled, the prevalence of shopping varies by age only for females and only in the "Fair" category (Chi square=25.99, $p<0.002$). Again this is due to a decline in shopping with increasing age, (see Table 4.15).

The highest prevalence seen in the "Poor/very poor" category is for males aged 20-29 years at 86%, and for females 20-29 years and 50-59 years, both at 63%.

In the "Fair" category, the highest prevalence was for females aged 0-9 and 20-29 years at 64% and 63% respectively, and for males, the highest rate 51% in 30-39 year olds. (Only for women in this perceived health category does the mean prevalence of shopping for all ages exceed 50%, (Figure 4.10).

In the "Very good" category, the highest prevalence is for males aged 0-9 years at 67%, and females aged 20-29 years at 55%.

In summary, the age ranges 0-9 and 20-29 have the highest prevalence of shopping for both males and females, and perceived health seems an important determinant of shopping prevalence in these ages.

9. Diabetes and hypertension: There are no differences in shopping prevalence between female diabetics and hypertensives. Female diabetics tend to shop more frequently than male diabetics (Chi Square =3.215, p=0.06), though there is no difference in shopping prevalence between female and male hypertensives. Males are more likely to shop if hypertensive than if diabetic, (Chi Square = 8.325, $p<0.01$; Tables 4.16 and 4.17; Figure 4.11).

2.2.3 Further analysis

In order to confirm the findings of the initial analysis, we ran a series of analyses designed to control the effects of many different variables at the same time. Using logistical regression, only age was seen to be significantly associated with shopping, with people over 60 years shopping significantly less (z=-2.0, odds ratio 0.55, 95% confidence limits 0.31-0.99). Being married is associated with less shopping (z=-1.67, odds ratio=0.78, 95% confidence limits 0.59-1.03). Gender approaches significance, with males shopping less than females, (z=1.58, odds ratio=1.20, 95% confidence limits, 0.96-1.48), as does perception of health, with fair health being associated with more shopping (z=1.31, odds ratio=1.17, 95% confidence limits 0.93-1.49).

2.2.4 Comments and conclusions

The reasons for doctor shopping have been ascribed either to patient dissatisafaction with available consultations, more specific attitudinal, cultural, or perhaps demographic factors, such as income level, or to poor information giving by practitioners. This survey did not examine shopping behaviour in great detail. For example, we did not gather data on subjects' satisfaction with doctors communications, an area reported by Yuen, Leung & Wong, (1987) to be an important contributor to shopping.

For comparison, Ho & Donnan (1985) estimated a prevalence of shopping in Hong Kong of 28%. Our data (46%) suggest a figure closer to the 43% reported in an American sample by Kastellar et al (1976), but lower than the levels of 64% reported by Lee (1982) for Hong Kong.

These data also conflict with those of Lee (1982) who reported no differences in shopping prevalence for under 45 year olds, compared to over 45 year olds. Lee (1982), also identified a 9% greater shopping prevalence in females compared to males. The data we report show only females in the 0-9 years and 20-29 years age groups have an excess shopping prevalence (5%) over males, while for 70-89 years, there was a greater than 5% excess of males over females shopping, (Tables 4.3 & 4.4; Figure 4.2).

Lee (1982) emphasised education level as a key determinant of shopping behaviour in the sample he studied, with the highest prevalence in the least well educated groups. However, we have found the highest rates of shopping to be amongst one of the most educated groups, that is those with post secondary, none degree education, (Figure 4.4).

Most of the univariate analyses point to the elderly as the least likely to shop and this is upheld in the multivariate analysis. Of borderline significance gender (females more likely to shop), marital status (singles more likely to shop) and those with "Not good/ not bad" health (more likely to shop) contributing to the overall pattern.

2.3 Consulting with the same doctor

2.3.1 Summary of findings

Initial uni- and bi-variate anlysis indicated that only age and family income were associated with the prevalence of consulting the same doctor. Multivariate analysis confirmed age as the only independent factor when other influences were controlled. This increase in consultation with the same doctor with older age is consistent with the age-related decline in shopping behaviour reported above.

2.3.2 Description of results

Consultations with same doctor are reported by over 65% of subjects, with almost one person in three not consulting the same doctor. Compared to the almost one in two rate reported for shopping, this seems inconsistent until we allow for the infrequent occurence of shopping Behaviour. We might conceive consultations with the same doctor to be the inverse of shopping.

In explaining the prevalence of consultations with the same doctor, the same variables used to examine shopping behaviour have been examined.

1. **Age:** Consultation with the same doctor has a prevalence of between 60-70% in each age group below 69 years of age. Thereafter, there is a steady decline to about 50% in the numbers of patients who consult with the same doctor, (Chi Square= n.s.; Table 4.18; Figure 4.12).

2. **Gender and age:** No significant difference was seen in prevalence between males and females. Males over 70 years showed a decline, females, aged 80+ years, showed an increase in consultation with the same doctor. (Chi sqare=n.s.; Tables 4.19 & 4.20; Figure 4.13). This probably reflects lower prevalence of consultation with the same doctor superimposed on higher male mortality, and is opposite to the pattern seen in the shopping data

3. **Marital status:** Data are comparable to the pattern for shopping behaviour with no clear significant differences seen (Table 4.21, Figure 4.14).

4. **Education:** Data are comparable to the shopping data, with the difference that subjects with "None", or "Chinese Traditional" education had a notably lower prevalence of consultations with the same doctor. This again most probably reflects the educational status of the over seventy year olds (Chi Square=n.s.; Table 4.22, Figure 4.16). These educational groups also had the lowest reported shopping prevalence.

5. **Occupational status:** Consistent with the age and educational data, the retired appeared to have the lowest prevalence of consultations with the same doctor, whilst the highest is amongst full-time students (74%), (Chi Square=n.s.; Table 4.23, Figure 4.16).

6. **Household income:** There was a clear trend for consultations with the same doctor to increase as household income increased, up to a monthly income of HK$10,000, remaining level thereafter at a prevalence of about 70%, (Chi square= 20.04, $p<0.005$; Table 4.24, Figure 4.17).

7. **Recent illness:** Data are consistent with the shopping patterns, with respiratory, digestive and headache/fevers having a the highest consultation prevalence between 60-80%, (Chi Square=n.s.;Table 4.25; Figure 4.18).

8. **Perceived health:** Consultation with the same doctor was most prevalent in the "Fair" categories at 67%, and least prevalent in the "Poor health" category at 56%, (Chi Square= 7.55, d.f.=3, $p<0.056$; Table 4.26).

This pattern was amplified for females, with fewer women consulting with the same doctor in the "Very good" and more consulting with the same doctor in the "Fair" categories (Chi Square=n.s., Table 4.27, Figure 4.19).

9. Diabetes: The prevalence of consulting the same doctor amongst diabetics was 68%, compared to 66% for non-diabetics. There were no differences in consultation rates for males and females, (Chi Square=n.s.; Table 4.28, Figure 4.20). Non-diabetic males and females also had almost identical levels of consultation with the same doctor.

10. Hypertension: Hypertensives seemed less likely to consult with the same doctor, having a prevalence 8% lower than non-hypertensives, (Chi Square=n.s.). There is no sex difference, (Chi square= n.s.; Table 4.29, Figure 4.23).

2.3.3 Further analyses

Multivariate analysis using stepwise multiple regression confirmed that only age, ($t=-3.37$, $p=0.0007$), accounted for most of the variation in consulting behaviour, with older people consulting more with the same doctor.

2.3.4 Comments and conclusion

Consultations with the same doctor can be thought of as the opposite of shopping behaviour. If you don't shop, then by implication you are more likely to use the same doctor. However, this was not always the case and some variation occurred, for example between educational levels.

The initial analyses were unclear and did not identify any variables, other than age and household income as strongly influencing consultations with the same doctor. Multivariate analysis indicated that increasing consultations with the same doctor occur as age increases and this finding is consistent with the data on shopping frequency, which declined with age.

2.4 Consultations with both Chinese and Western doctors during the same illness

2.4.1 Summary of findings

Both initial and further analyses strongly implicate perceived health in determining consultations with both types of doctor. Marital status and educational level were also identified by the multivariate analysis.

Initial analysis identified an inverted U curve relating consultation, with both types of doctor, to ages 30-59 years, but this was not confirmed in multivariate analysis.

2.4:2 Description of results

Subjects were asked to indicate if they consulted both a Chinese and Western doctor during the same illness episode and if so how frequently. For ease of interpretation, data is presented in two categories only, i.e.consulting/not consulting.

1. **Age:** As age increased the proportions consulting both types of doctor increased, up to age 60, thereafter falling back to a quarter to one third of all subjects. The lowest prevalence was for young children, (Chi Square=38.61, $p<0.00001$; Table 4.30, Figure 4.22).

2. **Gender and age:** The highest prevalences were, for males, 27% and for females 31%, (Chi square=n.s.). Males showed little variation over age (Chi Square=n.s.; Table 4.31), however, for females there was a clear increase from a prevalence of 14% at 0-9 years to 49% at 50-59 years, thereafter falling sharply, (Chi Square=31.74, $p<0.0001$; Table 4.32; Table 4.33). This inverted u-curve was seen for males, though less clearly, (Figure 4.23).

3. **Marital status:** Differences in marital status were unrelated to consulting a Chinese and a Western doctor during the same illness (Chi square=n.s.).

4. **Occupational status:** The highest prevalence was amongst the part-time employed (46%) and the retired (38%), and the lowest prevalence amongst those in full time work (30%), (Chi square=n.s.;Table 4.34, Figure 4.24).

5. **Perceived health:** For perceived health, highly significant differences in consulting with two types of practitioner were found for both males (Chi square = 24.8, $p<0.0001$) and females (Chi square= 20.82, $p<0.0001$), with the highest prevalence in the "Poor health" category, (See Tables 4.35, 4.36; Figure 4.25).

6. **Diabetes:** The prevalence was low amongst female diabetics at 24%, and only slightly higher amongst males at 29%. Both of these values were equal to or lower than the prevalence in non-diabetic males and females, (chi square=n.s.; Table 4.37; Figure 4.26).

7. Hypertension: Male hypertensives, at 25% had a prevalence almost half that of female hypertensives at 45%, a difference that approaches significance, (Chi square=3.712 p=0.06). Male and female non-hypertensives had similar prevalence rates of 29% and 31% respectively, (Table 4.38, Figure 4.27).

2.4.3 Further analyses

Stepwise multiple regression revealed that consultations with Chinese and Western doctors during the same illness were strongly related to perceived health ($t=-6.361$, $p>0.0001$), together with educational level ($t=2.03$, $p=0.042$) and marital status ($t=4.199$, $p<0.0001$). Taken together, these three variables accounted for a significant proportion of the variation in this behaviour ($F=21.25$, $p<0.001$).

2.4.4 Comments and conclusions

The relationship between consulting a Chinese and a Western doctor during the same illness and shopping behaviour is not fully understood, but it reflects seeking additional or alternative care which differs to some extent from, but remains related to shopping behaviour and consultations with the same doctor. The connecting feature is lack of consistent consultation with one practitioner.

Clearly, perceived health was the major determinant of consulting both types of doctor during the same illness. No clear relationship was seen with the chronic diseases studied, hypertension or diabetes. Those most likely to consult both types of doctor are males aged 40-59 years and females 30-59 years with poor perceived health and of lower educational level, particularly if widowed or separated.

2.5 Conclusion: Consultation Behaviour

Taken together, the data on doctor shopping, consultations with the same doctor and consulting Chinese and Western doctors during the same illness lead to the following conclusions;

1. **Age** was related closely to all three groups of behaviour, with the 70+ and the 10-19 age groups being the least likely to shop and the most likely to consult the same doctor, with the age extremes being the least likely to consult both types of doctor.

2. **Gender** was related to shopping behaviour, with **females shopping more than males.**

3. **Perceived health** was the major determinant of consultations with both types of doctor, and was to a lesser extent implicated in shopping (see **2.2.2.8.** for details) and consultations with the same doctor (see **2.3.2.8.**for details).

4. **Marital status** was related to shopping, with single people shopping more than other groups, and consultations with Chinese and Western doctors, with married, widowed and separated groups having higher consultations than single and separated persons with both types of doctor.

5. **Shopping and consulting the same doctor** were mostly inversely related. Age-related prevalences for consultations with Chinese and Western doctors during the same illness appeared to have no clear relationships with the age-related prevalence of the other two behaviours, except in the older age groups.

In conclusion, the three consulting behaviours studied have provided a good picture of the the current pattern of shopping and consultation behaviour in Hong Kong.

3.0 "Hot/Cold" and dietary practices

3.1 Introduction

"Hot" and "Cold" are concepts used to describe characteristics of different foods which have health related significance in Cantonese culture. By manipulation of diet, it is believed to be possible to alter the balance of "Hot" and "Cold" in the body to achieve and maintain health. For this reason, we attempted to gather information on the relationship of beliefs about the "Hot/Cold" concept and health behaviour and on dietary change for the purposes of influencing "Hot/Cold".

3.2 Results

3.2.1 Summary of findings

No clear picture emerged of "Hot" and "Cold" concepts and the association with health behaviour. However, once again, perceived health was the only variable to be related to "Hot/Cold" in the multivariate analysis, with poorer perceived health associated with greater belief in "Hot/Cold". Females with poorer perceived health are more likely to alter their diet than other groups.

3.2.2 Description of results

1. Concept of Hot/Cold: The proportion of respondents believing in the concept, 86%, was not significantly different to that found in the GOPD survey. Fewer respondents in the telephone survey claimed to have a very strong belief in hot/cold when compared to the GOPD survey (17% vs 44%, see Table 4.39).

Responses from the general population telephone survey suggested that females, the elderly and those who were less well educated believed in the concept more strongly (see Tables 4.40-4.43).

The respondents who had a stronger belief in hot/cold consulted practitioners of both Western and Chinese medicine more often when they were unwell (see Table 4.44).

2. Concept of hot/cold and its effects on diet: Respondents' belief in hot/cold was found to be associated significantly with dietary practices (see Table 4.45). 52% of persons believing in hot/cold reported that their belief had a strong influence on their diet (see Table 4.46).

3.2.3 Further analysis

Stepwise multiple regression failed to indicate any association between hot/cold beliefs and family income, sex, age, educational level and marital status. Only perceived health was significantly related to belief in hot/cold, ($t=-2.23$, $p=0.026$).

Regarding effects on the dietary practices of people who believe in the concept of hot/cold, perceived health ($t=-2.28$, $p=0.0225$), and sex (2.15, $p=0.316$) determined alterations of diet for the purposes of improving health, suggesting females with poorer perceived health were more likely to alter their diet than other groups.

3.2.4 Comments and conclusions

The prevalence of belief in hot/cold was not significantly different compared to the GOPD population. Multivariate analysis identified only perceived health as accounting for a significant proportion of the variation in belief about "Hot/Cold". Females with poorer perceived health would be expected to make more effort to manipulate diet, compared to males, who are generally more passive in the preparation of food than females.

3.3 Conclusions of "Hot/Cold" beliefs and diet

The following conclusion can be drawn:

1. The prevalence rates of "strong belief" were, at 17%, markedly lower than those found in the GOPD survey.

2. Perceived health accounted for a significant portion of the variation in levels of belief in hot/cold.

3. Females with poorer perceived health were more likely to manipulate diet as a result of hot/cold beliefs.

4.0 Compliance Behaviour

4.1 Introduction

Compliance was assessed as the frequency with which drug therapy was completed according to medical instructions. This consisted of one question; "How often do you finish a course of drugs prescribed for you by a doctor?"

4.2 Results

4.2.1 Summary of findings

No clear picture emerges from the intial univariate analysis of those factors influencing completion of drugs. Multivariate analysis indicates age, education and marital status to be important determinants of completion of medication, with the greater age, being single and having low educational level being associated with greater reported compliance with drug treatment.

4.2.2 Description of results

1. Demographic factors: Age, education and household income (all considered separately and by controlling sex differences) were unrelated to compliance behaviour.

2. Shopping for doctors: The frequency of completing drug therapy was examined against the frequency of shopping around for doctors. 92% of shopping males claimed to complete their medication compared to 94% of non-shopping males. For females, the rates were 94% and 95% respectively, (Chi square=n.s.)

3. Consultations with the same doctor: A marginally higher frequency of drug compliance was seen in those subjects who maintained consultations with the same doctor (see Table iii). For males, 94% of subjects who consulted the same doctor claimed to complete their

course of medication, whereas for those males not consulting the same doctor, the equivalent figure was only 89%, (Chi Square= 5.498, with Yate's correction, p=0.02). For females, the corresponding figures were 95% and 92% respectively, an insignificant difference.

4. Consultations with Chinese and Western Doctors during the same illness: No relationship was seen between consultations with Chinese and Western Doctors during the same illness and completion of treatment.

5. Perceived health: Examination of perceived health and sex revealed no relationship for males, with respondents claiming 88-100% compliance, but the variation was not clearly related to the perceived health category.

6. For females, an increasing linear trend in non-completion of medication occurred the better health was perceived to be (Chi Square =8.08, $p<0.05$; Table 4.47).

7. Belief in hot-cold concept affecting the diet: Subjects who believed in hot-cold and who modified their diet, when stratified according to sex, were not more likely to finish drug therapy, (see Table 4.48).

8. Whether or not the respondents would finish a course of prescribed medication was not significantly related to any of the demographic variables, after adjustment for their belief in the hot/cold concept. However, the data did indicate that those whose dietary habits were affected by their beliefs in hot/cold were the least likely not to finish their prescribed medicine.

4.1.4 Further analysis

Stepwise multiple regression revealed age (older) ($t=3.436$, $p=0.0006$), educational level (lower) ($t=-2.35$, $p<0.02$) and marital status (singles), ($t=-2.13$, $p,0.05$) all remained significant, and together accounted for a significant proportion of the variation in completion of medication ($F(3,1478)=6.18$, $p=0.0004$). These characteristics are associated with a greater adherence to medical advice.

4.1.5 Comments and conclusions

Notable are the high levels of reported compliance reported, mostly above 90%, which contrast markedly with reports from outside Hong Kong which are seldom above 80% and more usually in the region of 40-60% (Ley, 1978). However, our definition of compliance is a very narrow one, and does not cover all aspects of compliance behaviour. Nonetheless, such levels are

unusually high and raise the question of why this might be.

Greater age, lower educational level and being single are identified here to be determinants of completion of therapy, while females with poor perceived health are more likely to spend more on their health than other groups. Females were more likely to change their diet and those who were more likely to change their diet were more likely not to complete their medication.

These findings are consistent with the pattern of results described above in the shopping, consultations with the same doctor and consulting Chinese and Western doctors during the same illness.

The presence of a diagnosis of diabetes or hypertension does not seem to be a determinant of compliance behaviour. Rather, it seems as though the better educated, younger and married people are the least compliant group, compared to older, less well educated and divorced, widowed and single persons.

4.2 Conclusions of compliance behaviour

1. The reported levels of compliance are greater than those reported in studies from elsewhere.

2. Compliance behaviour is most prevalent amongst older, less well educated single people, than amongst other groups.

5 PATTERNS OF MORBIDITY

Synopsis

1.0 Introduction

2.0 Self-rating of health

- 2.1 Differences in age groups
- 2.2 Differences in gender
- 2.3 Differences in presence of DM or HT
- 2.4 Differences in smokers
- 2.5 Differences in opinions on how to improve condition

3.0 The last episode of illness

4.0 The occurrence of illness over the past 2 weeks

- 4.1 Diabetes
- 4.2 Hypertension

5.0 Comments and conclusions

6.0 Summary

1.0 Introduction

In an attempt to understand patterns of morbidity in Hong Kong respondents in the telephone survey were asked questions about their self-ratings of health, details the last episode of health and the occurrence of any health related problem during the last 2 weeks. In addition, information was recorded about the prevalence and site for majority of health care of patients with diabetes and hypertension.

2.0 Self-ratings of health

2.1 Patients were asked to rate their current status of health. Table 5.1 shows that 95% rated their health as fair or very good. Table 5.2 shows how the ratings differed among patients in age groups. 39% of young patients (under 20) rated their condition as very good, 59% as fair and 3% as poor or very poor. Among patients aged 21-59 years 30% rated their condition as very good, 66% as fair and 5% as poor or very poor . 31% of elderly patients (over 60) assessed their health as very good, while 60% and 10% of patients in this age group rated their condition as fair and very poor or poor respectively. These differences are statistically significant (chi-square = 24.80, df = 6; p = 0.0004 Table 5.2).

2.2 The differences in health ratings between males and females are noted in Table 5.3. In general, males rated their condition better. This difference is statistically significant (chi-square = 23.65; df = 2; p = 0.0000).

2.3 The effect of chronic disease on health ratings is shown in Tables 5.4 and 5.5. Patients with hypertension or diabetes rate their health worse than patients without these diagnoses. (For hypertension chi-square = 7.84; df = 2; p = 0.0198. For diabetes chi-square = 9.04; df = 2, p = 0.0109).

2.4 Smoking habits were not found to have any effect on self-ratings of health (Table 5.6).

2.5 In addition to variations in self-ratings of health, respondents in the telephone survey also held different opinions of what changes in their circumstances would allow them to enjoy improved health. Table 5.7 shows that among respondents who rated their health at fair or very good, self initiated changes such as exercise, diet and rest were cited by 22%, 17% and 13%. Only 2% of this group of respondents believed that better medical care or reduction in stress were necessary. While respondents who rated their health as poor or very poor also felt exercise, diet and rest were important, a smaller proportion (15%, 13% and 11%) of this group than in the fair or very good did so. Also, a greater proportion of this group cited the need for changes

other than those which may be initiated by oneself; 10% noted a need for reduction in stress and 8% reported a need for better medical care, these differences are statistically significant (chi-square = 60.53; df = 18; p = 0.000).

3.0 Last episode of illness

Patient were asked when, excluding the last two weeks was the last episode of illness (Table 5.8). There were no differences between age groups or genders. Table 5.9 indicates the frequency of the types of problems experienced. Respiratory illness, headache or fever and digestive ailments were most commonly reported.

4.0 Health-related problems within the past 2 weeks

28% of respondents noted that they had had a health-related problem within the past two weeks (Table 5.10; Figure 5.1).

4.1 Diabetes

22% of respondents reported a diagnosis of diabetes. Table 5.11 indicates where the majority of patients with diabetes received their care; 22% of them seek care at GOPD (Figure 5.2).

4.2 Hypertension

6% of the surveyed population believe they have hypertension. 49% of these patients attend private doctors' offices for their care, while 32% receive their care at GOPD (Table 5.12).

5.0 Comments and Conclusion

95% of telephone survey respondents rate their health positively. The presence of chronic disease, such as hypertension or diabetes, affects self-ratings of health and attitudes about what can be done to improve their health. Only 2% of surveyed persons believe that changes in medical care would impact the condition of their health for the better.

45% of respondents noted that the last episode of illness occurred between 2 weeks and 3 months ago. 28% of respondents reported a health-related problem during the previous 2 weeks. A study of health risks, fitness & quality of life carried out in Shatin by the Chinese University of Hong Kong found that 26% of its subjects had had an illness over the past 3 months. A ready explanation for this difference is not available, but may lie in the demographic differences between the samples.

The prevalences of diabetes and hypertension are estimated to be

2% and 6% respectively. The majority of care for these conditions is provided by private physicians.

6.0 Summary

1. Telephone survey respondents rate their health positively.

2. 45% of respondents' last episode of illness occurred between 2 weeks and 3 months ago.

3. 28% of respondents claim to have had a health-related problem during the past 2 weeks.

4. The prevalence of diabetes is estimated to be 2% and of hypertension 6%.

5. The majority of care for diabetes and hypertension is provided by private doctors.

6. HEALTH PROBLEMS AND UTILISATION OF HEALTH CARE

Synopsis

1.0 Introduction

2.0 Utilisation of health care

- 2.1 Use of health care
- 2.2 Levels of care
- 2.3 Professional advice
- 2.4 Type of practitioner
- 2.5 Hospitalisation

1.0 Introduction

The aim of this section of the general population enquiry was t establish reliable estimate of the preferences shown for health care facilities in both the public and private sector. This information should be compared and read in conjunction with the data on GOPD attenders reported on in a separate volume.

2.0 Utilisation of health care

2.1 Use of health care

The use of different sources of health care by the 417/149€ (28%) individuals with a health problem in the last two weeks is shown in the figure. In addition 1426 subjects ha used some form of health care in the past 12 months. 35 subjects declared they had made no use of health care facilities and information was missing for an additional 35

2.2 Levels of care

For the 417 subjects who experienced health problems in the previous 2 weeks there were 876 actions, based on either self care or lay and professional advice. Of these 62% were based on professional (either western or traditional practitioners) and 15% on some form of lay advice. Active self care included the use of over the counter (OTC) drugs (27%), leftover drugs (10%), diet (24%) or the use of herbs (13%). Rest was identified as a specified action by 48% and no action by 10% made up the remainder. Overall 38% took actions which might be collectively referred to as informal health care and 62% sought help from a formally designated health practitioner.

2.3 Professional advice

In a group of 417 individuals with the health problem, there were 258 episodes of professional care. These episodes were associated with 450 or more consultations; 3% had missing information. 55% of these episodes were associated with one consultation and a further 25% with 2 consultations. 18% apparently achieved 3 or more consultations within the 2 week period.

2.4 Type of practitioner

The 450 consultations were distributed between 4 principal groups of practitioners and a small mixed group with a variety of other types. The majority of subjects (92%) had consulted one type.

Among those consulting only one doctor (65%) sought private care and 15% used GOPDs. The proportion using GOPDs matches closely the 14% of the population sample who chose GOPDs as their majority source of care in the last 12 months.

A minority of subjects selected 2 or more types of doctor. The largest group, 16 out of 22, used combinations of private, GOPDs and other types.

A small minority of these respondents consulting doctors (less than 1.5%) consulted doctors whose charges were paid by the respondents employer.

2.5 Hospitalisation

Information was obtained on 1464 (98%) of the survey subjects on their recent experience of hospitalisation. In the past 12 months 98 (7%) of those responding had been hospitalised. The majority 84/98 (86%) had been admitted once and 14 (14%) between 2 and 7 times (Table 6.1).

The main provider of hospital care was the government system (45%) followed by subvented (32%) and private (23%) (Table 6.2).

7. EXPENDITURE ON HEALTH CARE

Synopsis

1.0 Introduction

In this chapter, results regarding the respondents' expenditure on health care are presented and these will be related to the type of doctors they consulted. The prevalence of health insurance are then examined and a discussion on its implication on hospital services made.

2.0 Expenditure

2.1 Amount spent on consultations in past 2 weeks

1. There were 258 respondents who had sought professional advice for a health problem in the preceding two weeks. Information on the amount of money they spent in doing so is available for 250 subjects and is shown in Table 7.1.

2. The average amount spent on each consultation was calculated for those who had only seen one type of doctor. The result for the consultations with private doctors can be found in Table 7.2. Only 14% of the mean amount per consultation was less than $50. The results for other sites of care are not shown because the number of subjects in each individual category was too small.

2.2 Amount spent on health care in past 3 months

1. Respondents were asked about the amount of money they spent on health care which included consultation, hospitalization and medication and tonics but excluded food, dentures and eyeglasses. The amount is shown in Table 3. Over 62% spent less than $100 on all these items combined in the three-month period. Only 8% spent more than $500.

2. The relationships between amount spent and gender, age, employment status, monthly household income, site of majority of medical care and whether there had been a health problem in past two weeks are shown in Table 7.4-7.9.

3. A multivariate analysis using logistic regression was performed to examine the relationship between amount spent and the above variables after adjusting these with each other. The dependent variable was dichotomized into two levels, i.e. spending more or less than $100 in the past three months. Table 7.10 shows that being female (O.R.=1.44) and younger than twelve years of age (O.R.=1.93) were both independently associated with an increased probability of spending more on health care. On the other hand, the odds ratios of having a monthly domestic income of between three and six thousand dollars (O.R.=0.55) and the GOPD as the site of majority care (O.R.=0.34) were less than unity, indicating that subjects with these characteristics were much less likely to spend more than $100 a month than the rest of the group.

2.3 Health insurance

Overall, 212 out of 1496 subjects (14%) had health insurance (Table 7.11). The proportions however varied considerably among different subgroups: 23% in subjects aged 20-39; 17% in males vs. 12% in females; 22% among the employed; 29% in those with post-secondary education; 25% in subjects with monthly domestic income above $10,000; and 17% in those who usually went to a private doctor for medical care (Tables 7.12-7.16).

Logistic regression analysis showed that the following variables were significant determinants of whether one had health insurance: the educated, the employed, and those with monthly domestic income of $10,000 and over. Subjects over the age of 60 and those who mostly attended GOPD for medical care were less likely. The results are shown in Table 7.17.

Among those who had insurance, the premium was paid by self, spouse or parents in 49% of cases, by employers in 48% and by others in 3%. Information on the amount of premium paid per month is only available in 88 subjects. The result is shown in Table 7.18. The modal value for health insurance premiums was between $201 and $500 per month.

3.0 Comment

Over 60% of respondents spent less than $100 on health care in the past three months. As respondents were not asked about their exact household income and expenditure on health care, it is not possible to work out the proportion of household income being spent on health care. Also, there may be an underestimation of expenditure by the respondents due to difficulty in recall. However, with a median household income between six and ten thousand dollars per month, health care was probably not an important item of expenditure for the majority of respondents during the reference period.

Whereas 65% to 70% of respondents usually sought outpatient medical care from the private sector, that only one in seven respondents had health insurance may mean financial difficulty for some when they are ill. The finding that out of the 98 subjects who had been admitted in the past year, only 22(23%) were admitted to private hospitals tends to support this belief. In other words, without the protection of health insurance, some people who usually receive ambulatory care from private doctors would have to go to public instead of private hospitals because of financial consideration when hospitalization is necessary. It thus strengthens the argument that if those who are financially better off have health insurance which would cover hospital expenses, the pressure on our public hospital system can be considerably alleviated.

8. PREVENTIVE HEALTH AND ALTERNATIVE METHODS OF CARE

Sypnosis

1.0 Introduction

2.0 Smoking

- 2.1 Prevalence
- 2.2 Age specific ratios
- 2.3 Amount smoked
- 2.4 Advice on smoking cessation
- 2.5 Comment and conclusions

3.0 Acquisition of medical knowledge by patients

- 3.1 Introduction
- 3.2 Acceptance of the concept of patient held records
- 3.3 Comment and conclusions

1.0 Introduction

Hong Kong has recently been enjoying a very encouraging decline in smoking prevalence. From 1982 to 1988, the prevalence of daily smokers in the population dropped from 23% to 17%. However, we cannot be complacent as smoking is estimated to cause three thousand deaths a year in Hong Kong. In this section, we shall examine the prevalence of smoking in the sample and the source of advice on smoking cessation.

2.0 Smoking

The survey respondents were asked about their use of tobacco.

2.1 Prevalence

Among male respondents 202 (28.8%; 95CL 25.5-32.1) smoked compared with only 46 (5.8%; 95CL 4.17-7.43) in females (Table 8.1).

2.2 Age specific ratios

The highest rates of smoking (34.4%) were found in the relatively small number of survivors in the 70-79 years age group, while smoking ranged from 19% to 25% in those aged 30-69. The cumulative proportion smoking at ages 10-19 was 5.7% (95CL 2.82-8.58). In this sample there were no recorded smokers in the 0-9 years group (Table 8.2).

2.3 Amount smoked

In 248 smokers for whom data was complete 45% smoked up to 10 cigarettes daily; a further 40% smoked up to 20 daily. The remainder declared they smoked larger amounts, nearly half of whom use more than 40 cigarettes a day (Table 8.3).

2.4 Advice on smoking cessation

The smoking respondents were asked whether they had received any advice on the need to stop smoking. 196/248 (79%) of smokers had received advice to quit at some time in the past. 120 (61%) of these had received this advice from one source, 47 (24%) from two sources and 79 (15%) from three or more sources. The most frequently cited sources were family and friends for 95 (48%) of those receiving advice; GOPD doctors were the next important, cited by 34 (17%).

2.5 Comment and conclusions

The prevalence of smoking in our sample shows figures comparable to the July 1988 General Household Survey estimates for males (30%) but a higher ratio than the GHS estimate for females (2.9%). It is not possible to make any firm inferences from this finding. However it is a reminder

that the most important commercial objective of the tobacco companies is to increase sales to women in Asia and this is reflected in the intensity of current advertising which has a strong feminine bias.

We believe that the zero prevalence of smoking for those under 10 years is an underestimate, probably arising because of the method of enquiry. In a separate enquiry to 3500 school children aged 8-10 years we found the cumulative incidence of smoking to lie between 7.2% and 9% in two different districts.

The data on smoking prevalence serves to underline the fact that in any future model of primary health care, prevention and health education should receive a high priority.

In view of the attributable risk, attached to smoking, for cancer and cardiovascular disease and the contribution which these conditions make to premature death in Hong Kong, the need for preventive health advice on smoking cessation should be emphasised in all primary health care contacts. The majority (80%) of the survey sample of smokers had received advice at some time but it had clearly not been effective in their case. Although one sixth had received advice from a contact with GOPD, for most this had come from family and friends. We cannot estimate the opportunity for smoking cessation advice in other health sectors but only 9 (5%) indicated they had received this from private practitioners.

In view of the continuing powerful promotion of tobacco in Hong Kong, particularly to young people and women, reduction in the recruitment of smokers should be regarded as the biggest single priority for the prevention of serious disease in the future. This requires strong legal and fiscal measures as well as action by the health professions and the services they work in.

3.0 The acquisition of medical knowledge by patients

3.1 Introduction

We briefly explored the survey subjects reactions to the idea of giving patients a version of their medical record, as a step towards improved acquisition of medical knowledge.

3.2 Acceptance of the concept of patient-held record

Patient-held records are being increasingly recognised as a valuable tool in medical management, especially in the care of chronic disease. At the moment in the UK patients have no legal right to see the information in their medical records let alone have a copy for their own use. They can ask for information and doctors are obliged to give enough to ensure adequate health care and to provide a basis for

informed consent to treatment but no more. Limited right o access to information held on computer is now granted by la but some medical practitioners wish to give patients not only the opportunity to consult their own medical record but also the chance to carry a version of it with them.

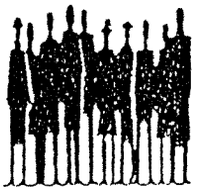
The respondents of the telephone survey were asked whether they would like to have possession of a record with a summary of their health problems. 51% responded that they would.

3.3 Comment and conclusions

The prpportion who indicated acceptance of the idea is lower than that noted in the GOPD survey. Possible factors may include that the majority of patients surveyed receive their care in the non GOPD sector and that more are in better health.

SURVEYS ON HEALTH AND MEDICAL CARE IN HONG KONG

2 GENERAL POPULATION



HEALTH PROBLEMS, CHOICES OF CARE AND PATTERNS OF UTILISATION IN A WELL-POPULATION TELEPHONE SURVEY

Tables, Figures & Appendices

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University of Hong Kong

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Hong Kong Government

March 1990

Surveys on Health And Medical Care

In Hong Kong

General Population

Tables, Figures, and Appendices

INTRODUCTION TO THE GPS TABLES, FIGURES AND APPENDICES

This volume contains the tables, figures and appendices referred to in the text of the GPS report. The rationale for adopting this format is to allow the reader to turn the pages of the text in conjunction with or independently from those of the figures and tables. We believe that the information provided in the separate volumes are complementary and hope that this arrangement will enhance the appreciation for the data we present.

This volume is organized to correspond to the individual sections of the text, with the tables and figures of each section being grouped separately. All the tables for a particular section will appear first, followed by all the figures. The numbering correspond to that in the text; the page numbers of the tables and figures of a given section can be found in the Table of Contents.

The Appendices contain further details of subjects mentioned in the text. Namely, we include the English and Cantonese versions of the GPS instrument, the telephone and subject sampling procedure followed, the quality control procedures followed, and references.

Table 2.1: Age distribution of Hong Kong population. (Source: Hong Kong 1986 By-Census Summary Results, 1986, p.10)

Age Group	Percentage
Under 15	23.1
15 - 65	69.3
65 and over	7.6
Total	100.0
Median age	28.6

Table 2.2: Geographic distribution of Hong Kong's population, (source: Hong Kong 1986 By-Census Summary Report, 1986, p.8.)

Area	Population	Precentage
Hong Kong Island	1, 175, 800	21.8
Kowloon & New Kowloon	2, 301, 700	42.6
New Territories	1, 881, 200	34.9
Marine	37, 300	0.7
Total	5, 396, 000	100.0

Table 2.3: The distribution of telephones by proportion in the three telephone districts of Hong Kong together with the 1986 By-Census population geographic distribution.

Distribution of telephones in Territory:	Proportion of total Telephones in Territory		Proportion of population resident in district (1986)
HK Directory 1987	706 pages	(22.5%)	21.8%
N.T. Directory 1988	1055 pages	(33.5%)	34.9%
Kowloon Directory 1989	1378 pages	(44.0%)	42.6%
Total	3139	100.0	99.3

Table 2.4: Within-household sampling procedure used to select interviewee, (example only).

Number in Household	1	2	3	4	5	6	7	8	9	10
Interviewee Select number	1	2	3	2	4	6	5	4	9	7
Replacement if interviewee unavailable	0	1	2	4	3	1	7	8	3	10

Table 2.5: Comparison of Hong Kong population and completed telephone calls.

Telephone District	Telephone Proportion (target sample distribution)	Telephone Proportion (actual sample distribution)	Population distribution
HK	22.5%	22.8%	22.3%
N.T.	33.5%	34.0%	34.9%
Kowloon	44.0%	43.1%	42.6%

Table 3.1: Age distribution (in percentages) by sex of sample in comparison with Hong Kong general population (mid-1989 estimates)

Age	Male		Female	
	Sample (N=702)* (95% C.I.in parentheses)	HK population	Sample (N=789)* (95% C.I.in parentheses)	HK population
0- 9	5.7 (3.1, 8.3)+	14.6	6.9 (4.5, 9.3)+	14.2
10-19	20.5 (17.8,23.2)+	15.4	15.5 (13.0,18.0)	14.7
20-29	20.2 (17.3,23.1)	19.6	19.9 (17.1,22.7)	20.1
30-39	24.4 (21.5,27.3)+	18.9	24.4 (21.7,27.1)+	18.6
40-49	10.5 (8.2,12.8)	10.8	10.1 (8.0,12.2)	9.7
50-59	7.9 (5.7,10.1)	9.6	9.2 (7.2,11.2)	8.8
60-69	5.7 (3.8, 7.6)	7.1	8.2 (6.4,10.0)	7.5
70-79	4.0 (2.7, 5.3)	3.3	4.5 (3.1, 5.9)	4.5
>= 80	1.0 (0.4, 1.6)	0.8	1.0 (0.0, 2.0)+	2.0

* Information missing in 3 male and 2 female subjects
+ Significant difference between sample proportion and population proportion ($P < 0.05$)

Table 3.2: Marital status of sample in comparison with Hong Kong general population (Third quarter, 1989)

Marital status	Percentage	
	Sample (N=1494)*	HK population
Never married	43.9	49.0
Married	52.3	44.8
Widowed/Divorced/Separated	3.7	6.2

* Information missing in 2 subjects

Table 3.3: Educational attainment of subjects aged 5 or above in comparison with Hong Kong general population (By-census, 1986)

Educational attainment	Percentage	
	Sample (N=1458)*	HK population
No schooling/kindergarden	7.2	13.8
Primary	26.4	35.3
Secondary	50.2	39.5
Matriculation	5.7	5.4
Tertiary education		
-- non-degree course	4.2	2.4
-- degree course	6.3	3.6

* There were 37 subjects below the age of 5.
Information missing in 1 out of 1459 subjects older than five.

Table 3.4: Employment status of sample

Employment status	Percentage (N=1489)*
Employed	52.8
Retired	7.5
Housewife	17.2
Full-time student/ below school age	22.0
Others	0.6

Table 3.5: Occupational distribution of the employed in comparison with Hong Kong population

	Percentage	
	Sample (N=786)*	HK population
Professional, administrative and managerial workers	16.7	11.8
Clerical and related workers	22.6	19.3
Sales workers	9.5	11.8
Service workers	17.2	17.0
Production and related workers, transport equipment operators and laborers	31.8	39.1
Others	2.1	1.0

* Information missing in 26 out of 786 subjects who were employed

Table 3.6: Monthly employment earning of subjects in comparison with Hong Kong general population

	Percentage	
Monthly income	Sample (N=711)*	HK population
< $1000	3.1	2.0
$1000-$2999	10.3	13.1
$3000-$5999	44.3	56.5
$6000-$9999	25.5	18.6
$10000 and over	16.9	9.8

* Information missing in 75(9.5%) subjects who were employed

Table 3.7: Monthly domestic household income of subjects

Monthly income	Percentage	
	Sample (N= 977)*	HK population
< $1000	1.3	1.3
$1000-$2999	2.9	5.4
$3000-$5999	22.3	23.0
$6000-$9999	28.7	30.7
$10000 and over	44.8	39.5

* 65% response rate in this question

Table 3.8: Type of living quarter in comparison with Hong Kong general population (third quarter, 1989)

Type of housing	Percentage	
	Sample (N=1489)*	HK population
Public and aided Housing authority home ownership estates	38.1	36.7
Private	5.5	5.9
Others	51.5	48.4
	4.8	9.0

* Information missing in 7 subjects

Table 4.1: Shopping by sex.

	Sex		
	Male	Female	Total (row%)
Not shopping	395	405	800
(c%)	56.0	52.0	53.7%
Shopping	309	382	691
(c%)	44.0	48.0	46.3%
Total	704	786	1491
(c%)	47.2%	52.4%	100%

Table 4.2: Shopping behaviour by age.

	AGE								
Shopping	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	43	158	136	180	88	67	46	12	13	798
(c%)	45.7	54.9	45.5	49.7	57.5	52.3	63.8	71.9	80	53.7%
Yes	51	108	163	182	65	61	38	18	3	689
(c%)	54.3	40.6	54.5	50.3	42.5	47.7	36.2	28.1	20	46.3%
Total	94	266	299	362	153	128	105	64	15	1486
(c%)	6.3	17.9	20.1	24.3	10.3	8.6	7.1	4.3	1.1	100%

Chi Squared=35.125, p<0.0001

Table 4.3: Shopping behaviour by age for males.

	AGE								
Shopping	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	20	85	75	88	44	30	26	19	6	393
(c%)	50	59.0	52.8	51.5	59.5	54.5	65.0	67.9	75.0	56%
Yes	20	59	67	83	30	25	14	9	2	309
(c%)	50	41.0	47.2	48.5	40.5	45.5	35.0	32.1	25	44%
Total	40	144	142	171	74	55	40	28	8	702
(c%)	5.7	20.5	20.2	24.4	10.5	7.8	5.7	4.0	1.1	100%

Chi Square=7.62, n.s..

Table 4.4: Shopping behaviour by age for females.

	AGE								
Shopping	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	23	73	61	92	44	37	41	27	7	405
(c%)	42.6	59.8	38.9	48.2	55.7	50.7	63.1	75.0	87.5	51.6%
Yes	31	49	96	99	35	36	24	9	1	380
(c%)	57.4	40.2	61.1	51.8	44.3	49.3	36.9	25.0	12.5	48.8%
Total	54	122	157	191	79	73	65	36	8	785
(c%)	6.9	15.5	20.0	24.3	10.1	9.3	8.3	4.6	1.0	100%

Chi Square=32.26, p<0.0002

Table 4.5: Shopping prevalence by marital status, males.

	MARITAL STATUS			
Shopping	Single	Married	Other	Total (row%)
No	195	186	13	394
(c%)	54.2	57.2	72.2	56.0%
Yes	165	139	5	309
(c%)	45.8	42.8	27.8	44.0%
Total	360	325	18	703
(c%)	51.2	46.2	2.6	100%

Chi square= 2.61, p=0.270

Table 4.6: Shopping prevalence by marital status, females.

	MARITAL STATUS			
Shopping	Single	Married	Other	Total (row%)
No	141	237	26	404
(c%)	48.0	52.3	66.7	51.4%
Yes	153	216	13	382
(c%)	52.0	47.7	33.3	48.6%
Total	294	453	39	786
(c%)	37.4	57.6	5.0	100%

Chi square=5.18, p=0.075.

Table 4.7: Shopping prevalence by educational level.

	EDUCATION LEVEL								
	None	Kinder garten	Trad. Chinese	Prim.	Sec.	Matric.	Post sec.(n)	Post sec.(d.)	
Shopping									Total (row%)
No	66	12	29	174	395	43	28	45	792
(c%)	58.9	50.0	67.4	50.9	53.9	51.8	45.9	56.3	56.
Yes	46	12	14	168	338	40	33	35	686
(c%)	41.1	50.0	32.6	49.1	46.1	48.2	54.1	43.7	43.
Total	112	24	43	342	733	83	61	80	1480
(c%)	7.5	1.6	2.9	23.0	49.2	5.6	4.1	5.4	100%

Chi Square=15.4, n.s.

Table 4.8: Shopping behaviour by occupational status.

	OCCUPATIONAL CATEGORY						
	Full-time Employed	Part-time Employed	House wife	Full-time student	retired	others	
Shopping							Total (row%)
No	387	15	139	161	71	22	795
(c%)	52.7	46.9	54.7	51.9	64.0	53.1	53.6
Yes	347	17	115	149	40	21	686
(c%)	47.3	43.1	45.3	48.1	36.0	46.9	46.4
Total	734	32	254	310	111	43	1484
(c%)	49.5	2.2	17.1	20.9	7.5	2.9	100%

Chi square= n.s.

Table 4.9: Shopping by household income.

Shopping	HOUSEHOLD INCOME (HK$/m) 0-3000	3000-5999	6000-9999	10000+	refused	Total (row%)
No	23	115	150	227	277	792
(c%)	56.1	52.8	53.8	51.8	54.9	53.5%
Yes	18	103	129	211	228	689
(c%)	43.9	47.2	46.2	48.2	45.1	46.5%
Total	41	218	279	438	505	1481
(c%)	2.8	14.7	18.8	29.6	34.1	100%

Chi square n.s.

Table 4.10: Shopping prevalence by current health problem.

Shopping	CURRENT HEALTH PROBLEM Resp	Digest	Skin	Nerve	Head	Circ	COAD	UG	Other*	Total (row%)
No	101	26	20	6	21	4	0	5	1	184
(c%)	38.7	55.3	54.1	50	52.5	50	0	71.4	33.3	44.2
Yes	160	21	17	6	19	4	1	2	2	232
(c%)	61.3	44.7	45.9	50	47.5	50	100	28.6	66.7	55.8
Total	261	47	37	12	40	8	1	7	3	416
(c%)	62.3	11.3	8.9	2.9	9.6	1.9	0.2	1.7	0.7	100%

Chi Square n.s.

(*Resp= respiratory problems; Digest= digestive problems; Skin= skin and muscular problems; Nerve= nervous, sensory or mental problems; Head= headaches and fevers; Circ= circulatory problems; COAD= chronic obstructive airways disease; UG= urogenital disorders; Other= other illnesses)

Table 4.11: Shopping prevalence by most recent health problem reported occurring before the two weeks prior to data collection.

	PREVIOUS HEALTH PROB.									
	Resp	Digest	Skin	Nerve	Head	Circ	COAD	UG	Other*	
Shopping										Total (row%)
No	419	104	64	17	106	18	-	7	11	746
(c%)	49.9	55.6	59.3	63.0	54.9	81.8	-	53.8	52.4	52.8
Yes	420	83	44	10	87	4	3	6	10	667
(c%)	50.1	44.4	40.7	37.0	45.1	18.2	100	46.2	47.6	47.2
Total	839	187	110	27	193	22	3	13	21	1413
(c%)	59.4	13.2	7.6	1.9	13.7	1.6	.2	.9	1.5	100

Chi Square =17.42, p=0.026

(*See previous table for key).

Table 4.12: Perceived health, males versus females.

	PERCEIVED HEALTH				
	Very good	Fair	Poor	Very poor	
Gender					Total
Male	267	406	26	5	704
(c%)	37.9	57.4	3.7	0.7	47.1
Female	207	540	38	5	789
(c%)	26.1	68.4	4.8	0.6	52.8
Total	474	964	64	10	1494
(c%)	31.7	63.3	4.3	0.7	100.0

Chi Square=23.95, p<0.0001)

Table 4.13: Shopping behaviour by perceived health, for males.

	PERCEIVED HEALTH (males)				
Shopping	Very good	Fair	Poor	Very poor	Total (row%)
No	153	225	15	1	394
(c%)	57.3	55.6	57.7	20.0	56.0%
Yes	114	180	11	4	309
(c%)	42.7	44.4	42.3	80.0	44.0%
Total	267	405	26	5	703
(c%)	38.0	57.6	3.7	0.7	100%

Chi Square=2.88, n.s.

Table 4.14: Shopping behaviour by perceived health for females.

	PERCEIVED HEALTH (Females)				
Shopping	Very Good	Fair	Poor	Very poor	Total (row%)
No	119	264	20	2	405
(c%)	29.4	65.2	52.6	40.0	51.5%
Yes	87	273	18	3	381
(c%)	22.8	68.3	47.4	60.0	48.5%
Total	206	537	38	5	786
(c%)	26.2	68.3	4.8	0.6	100%

Chi square= 4.69, n.s.

Table 4.15: Shopping prevalence for females with "Fair" perceived health according to age.

	AGE									
Shopping	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	12	46	40	66	31	24	28	14	3	264
(c%)	36.4	56.8	36.7	45.5	53.4	53.3	62.2	82.4	100	49.3
Yes	21	35	69	79	27	21	17	3	0	272
(c%)	63.6	43.2	63.3	54.5	46.6	46.7	37.8	17.6	0	50.7
Total	33	81	109	145	58	45	45	17	3	536
(c%)	6.2	15.1	20.3	27.1	10.8	8.4	8.4	3.2	.8	

Chi square= 25.99, p<0.001

Table 4.16: Prevalence of shopping behaviour amongst male and female diabetics.

	DIABETES?					
	MALE			FEMALE		
Shopping	No	Yes	Total (row%)	No	Yes	Total (row%)
No	384	11	395	397	8	405
(c%)	55.7	78.6	56.2%	51.6	47.1	51.5%
Yes	305	3	308	373	9	382
(c%)	44.3	21.4	43.8%	48.4	52.9	48.5%
Total	689	14	703	770	17	787
(c%)	98	2.0	100%	97.8	2.2	100%

Chi square=2.9, n.s.

Chi square=0.13, n.s.

Table 4.17: Prevalence of shopping behaviour in hypertensive males and females.

	HYPERTENSION					
	MALE			FEMALE		
Shopping	No	Yes	Total (row%)	No	Yes	Total (row%)
No	371	24	395	373	32	405
(c%)	55.5	66.7	56.1%	50.7	62.7	51.5%
Yes	297	12	309	363	19	382
(c%)	44.5	33.3	43.9	49.3	37.3	48.5%
Total	668	36	704	736	51	787
(r%)	94.9	5.1	100	93.5	6.5	100%

Chi square=1.17, n.s. Chi square=2.77 n.s.

B.CONSULTING THE SAME DOCTOR

Table 4.18: Consultation with the same doctor by age.

	AGE (years)									
Consult same doctor	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	27	69	105	122	61	49	37	32	9	511
(c%)	28.7	25.9	35.1	33.9	40.1	38.3	35.6	50.8	60	34.5
Yes	67	197	194	238	91	79	67	31	7	971
(c%)	71.3	74.1	64.9	66.1	59.9	61.7	64.4	49.2	40	65.5
Total	94	266	299	360	152	128	104	63	16	1482
(c%)	6.3	17.9	20.2	24.3	10.3	8.6	7.0	4.3	1.1	

Chi square=25.37, p=0.0026

Table 4.19: Proportions of males and females consulting the same doctor by age.

Consult Same doctor	AGE (years) 0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
Male%	69.2	70.1	61.3	66.7	56.2	67.3	66.7	55.6	25.0
Fem.%	72.7	78.8	68.2	65.6	63.3	57.7	63.1	44.4	60.0

Chi Square (males)=12.25, n.s., (females)=21.32, p=0.011.

Table 4.20: Consultation with the same doctor by sex.

Consult same doctor	Gender Male	Female	Total (row%)
No	249	263	512
(c%)	35.6%	33.5%	34.5%
Yes	451	522	974
(c%)	64.4%	66.5%	65.5%
Total	700	785	1481
(c%)	47.1%	52.8%	

Table 4.21: Consultation with the same doctor by marital status.

Consult Same doctor	MARITAL STATUS Single	Married	Divorced	Widow	Separated	Cohabitee	Total (row%)
No	202	280	3	21	3	1	510
(c%)	30.9	36.1	60.0	48.8	50.0	100.0	34.4%
Yes	452	495	2	22	3		974
(c%)	69.1	63.9	40.0	51.2	50.0	0.0	65.5%
Total	645	775	5	43	3	1	1481
(r%)	44.1%	52.2%	0.3%	2.9%	0.4%	0.1%	

Chi square=n.s

Table 4.22: Consultation with the same doctor by educational status.

Consult same doctor	EDUCATIONAL LEVEL								
	None	Kinder Garten	Chinese trad.	Prim.	Sec.	Matric.	Post sec (n)	Post sec (d)	Total (row
No	54	7	20	124	228	22	22	33	510
(c%)	48.2	29.2	47.6	36.4	31.2	26.5	36.1	41.8	34.
Yes	58	17	22	217	503	61	39	46	963
(c%)	51.8	70.8	52.4	63.6	68.8	73.5	63.9	58.2	65.
Total	112	24	42	341	731	83	61	79	147
(c%)	7.5	1.6	2.8	23.0	49.3	5.6	4.1	5.3	0

Chi square=n.s.

Table 4.23: Consultation with the same doctor by occupational status.

Consult same doctor	OCCUPATIONAL STATUS						
	Full-time Employment	Part-time Employment	House wife	Fill-time Student	Retired	Others	Total (row%)
No	154	13	100	76	50	17	51
(c%)	34.7	41.9	39.4	24.5	45.5	39.5	34.5
Yes	477	18	154	234	60	26	969
(c%)	65.3	58.1	60.6	75.5	54.4	60.45	65.5%
Total	731	31	254	310	110	43	14
(c%)	49.4	2.1	17.2	21.0	7.4	2.9	100%

Chi square=n.s.

Table 4.24: Consultation with the same doctor by monthly household income.

Consult same doctor	HOUSEHOLD INCOME (HK$/p.m.) <3000	3000-5999	6000-9999	10000	refused	Total (row%)
No	25	83	85	134	178	505
(c%)	61.0	38.8	30.5	30.7	35.2	34.2%
Yes	16	131	194	303	327	971
(c%)	39.0	61.2	69.5	69.3	64.8	65.8%
Total	41	214	279	437	505	1476
(c%)	2.8	14.4	18.9	29.6	34.2	100%

Chi square=n.s.

Table 4.25: Consultation with the same doctor by recent physical illness.

Consult same doctor	ILLNESS CATEGORY* Resp	Digest	Skin Muscular	Nerve etc.	Head/ Fever	Circu-latory	COAD	UG	Total (row%)
No	82	11	17	5	14	5	-	4	139
(c%)	31.4	23.4	47.2	41.5	35.0	62.5	-	57.1	33.5
Yes	179	36	19	7	26	3	1	3	276
(c%)	68.6	76.6	52.8	58.3	65.0	37.5	100	42.9	66.5
Total	261	47	36	12	40	8	1	7	415
(c%)	62.9	11.3	8.7	2.9	9.6	1.9	0.2	1.7	100%

Chi square=20.04, p<0.005

Table 4.26: Prevalence of consulting same doctor by perceived health

Consult Same doctor	PERCEIVED HEALTH Very good	Fair	Poor	Very poor	Total (row%)
No	174	307	28	1	510
(c%)	36.9	32.7	43.8	10	34.4
Yes	298	631	36	9	974
(c%)	63.1	67.3	56.3	90	65.6
Total	472	938	64	10	1484
(c%)	31.8	63.2	4.3	0.7	

Chi square=7.55, p=0.056)

Table 4.27: Consultation with the same doctor by perceived health for males and females.

Consult same doctor	PERCEIVED HEALTH (Males) Very good	Fair	Poor	Very poor	Total (row%)
Male					
No	97	139	12	0	248
(c%)	39.1	56.0	46.2	0	35.5%
Male					
Yes	169	263	14	5	451
(c%)	37.5	58.3	53.8	100	64.5%
Total	266	402	26	5	699
(c%)	38.1	57.5	3.7	0.7	
Female					
No	77	168	16	1	262
(c%)	29.4	64.1	42.1	20.0	33.4%
Female					
Yes	129	368	22	4	523
(c%)	24.7	70.4	57.8	80.0	66.6%
Total	206	536	38	5	785
(c%)	26.2	68.3	4.8	0.6	100%

Chi square=n.s.

Table 4.28: Consultation with the same doctor by diabetes and gender.

	DIABETES					
	MALE			FEMALE		
Consult same doctor	No	Yes	Total (row%)	No	Yes	Total (row%)
No	245	3	248	256	7	263
(c%)	35.8	21.4	35.5%	33.3	41.2	33.5%
Yes	440	11	455	513	10	523
(c%)	64.2	78.6	64.5%	66.7	58.8	66.5%
Total	685	14	699	769	17	786
(c%)	98.0	2.0	100%	97.8	2.2	100

Chi square=n.s.

Table 4.29: Consultation with the same doctor by hypertension and gender.

	HYPERTENSION					
	MALE			FEMALE		
Consult same doctor	No	Yes	Total (row%)	No	Yes	Total (row%)
No	234	15	249	242	21	249
(c%)	35.2	42.9	35.6%	32.9	41.2	33.5
Yes	431	20	451	493	30	263
(c%)	64.8	57.1	64.4%	67.1	58.8	66.5
Total	665	35	700	735	51	786
(c%)	95.0	5.0	100%	93.5	6.5	100%

Chi square=n.s.

C:Chinese & Western Doctor seen during same illness,

Table 4.30: Consulting a Chinese and a Western doctor during the same illness by age.

Consult both types of doctor	AGE <10	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	80	202	223	240	100	70	78	41	13	1046
(c%)	84.2	75.9	74.6	65.9	65.4	54.7	74.3	64.1	81	70.2%
Yes	15	64	76	124	53	58	27	23	3	443
(c%)	15.8	24.1	25.4	34.1	34.6	45.3	25.7	35.9	19	29.8%
Total	95	266	299	364	153	128	105	64	16	1489
(c%)	6.4	17.9	20.1	24.4	10.3	8.6	7.0	4.3	1.1	100%

Chi square=38.603, p<0.00001

Table 4.31: Consulting Chinese and Western doctor during the same illness by age for males.

Consult both types of doctor	AGE 0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	33	108	109	121	51	33	30	16	6	507
(c%)	82.5	75.0	76.8	70.8	69.9	60.0	76.0	57.1	75.0	72.3%
Yes	7	36	33	50	22	22	10	12	2	194
(c%)	17.5	25.0	23.2	29.2	30.1	40.0	25.0	42.9	25.	27.7%
Total	40	144	142	171	73	55	40	28	8	701
(r%)	5.7	20.5	20.3	24.4	10.4	7.8	5.7	4.0	1.1	100%

Chi square= 11.98, n.s.

Table 4.32: Consulting Chinese and Western doctor during the same illness by age for females.

Consult both types of doctor	AGE 0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%)
No	47	94	114	119	49	37	48	25	7	540
(c%)	85.5	77.0	72.6	61.7	61.3	50.7	73.8	69.4	87.5	68.4%
Yes	8	28	43	74	31	36	17	11	1	249
(c%)	14.5	23.0	27.4	38.3	38.8	49.3	26.2	30.6	14.3	31.6%
Total	55	122	157	193	80	73	65	36	8	789
(c%)	7.0	15.5	19.9	24.5	10.1	9.3	8.2	4.6	1.0	100%

Chi square=31.83, p=0.0002

Table 4.33: Consulting a Chinese and a Western doctor during the same illness by sex.

Consult both types of doctor	GENDER MALE	FEMALE	Total (row%)
No	509	541	1050
(c%)	72.4	68.5	70.3%
Yes	194	250	444
(c%)	27.6	31.6	29.7%
Total	703	790	1494
(c%)	47.1	52.9	100%

Table 4.34: Consulting a Chinese and a Western doctor during the same illness by occupational status.

	OCCUPATIONAL STATUS						
	Full-Time employment	Part-Time employment	House Wife	Full-Time student	Retired	Other	
Consult both types of doctor							Total (row
No	512	18	176	236	69	32	1043
(c%)	69.8	54.5	68.8	75.9	62.2	74.4	70.
Yes	221	15	80	75	42	11	44
(c%)	30.2	45.5	31.2	24.1	37.8	25.6	29.
Total	733	33	256	311	17	43	148
(c%)	49.3	2.2	17.2	20.9	7.5	2.9	100%

Chi square=n.s.

Table 4.35: Consulting a Chinese and Western doctor during the same illness episode by perceived health, for males.

	PERCEIVED HEALTH (Males)			
	Very good	Not good/ not bad	Poor/Very poor	
Consult both types of doctor				Total (row%)
No	211	285	12	508
(c%)	79.3	70.4	38.7	72.4%
Yes	55	120	19	194
(c%)	20.7	29.6	61.3	27.6%
Total	266	405	31	702
(c%)	37.9	57.7	4.4	100%

Chi square=24.8, p<0.00001

Table 4.36: Consulting a Chinese and Western doctor during the same illness episode by perceived health, for females.

	PERCEIVED HEALTH (Females)			
Consult both types of doctor	Very good	Not good/ not bad	Poor/Very poor	Total (row%)
No	161	360	19	540
(c%)	29.8	66.7	44.2	68.4%
Yes	46	180	24	250
(c%)	22.2	33.3	55.8	31.6%
Total	207	540	43	790
(c%)	26.2	68.4	5.4	100.

Chi square=20.82, p<0.00001

Table 4.37: Consulting a Chinese and a Western doctor during the same illness by diabetes for males and females.

	DIABETES					
	MALE			FEMALE		
Consult both types	No	Yes	Total (row%)	No	Yes	Total (row%)
No	499	10	509	528	13	541
(c%)	72.5	71.4	72.5	68.2	76.5	68.4
Yes	189	4	193	246	4	250
(c%)	27.5	28.6	27.5	31.8	23.5	31.6
Total	688	14	702	774	17	791
(c%)	98.0	2.0	100	97.9	2.1	100.

Chi square= n.s. Chi square = n.s.

Table 4.38: Consulting a Chinese and a Western doctor during the same illness by hypertension controlling for gender.

	HYPERTENSION					
	MALE			FEMALE		
Consult both types of doctor	No	Yes	Total (row%)	No	Yes	Total (row%)
No	482	27	509	513	28	541
(col%)	72.3	75.0	72.4	69.3	54.9	68.4%
Yes	185	9	194	227	23	250
(col%)	28.7	25.0	28.6	30.7	45.1	31.6%
Total	667	36	703	740	51	791
(c%)	94.6	5.1	100%	93.6	6.4	100%

Chi square= 3.712, p=0.06.

2. Hot/Cold Concepts and Dietary Habits.

Table 4.39: Belief in hot/cold distinction.

	TELEPHONE		GOPD	
belief in hot-cold	frequencies	%	frequencies	%
not at all	174	12	151	8
fairly strongly	373	25	81	13
strongly	657	44	211	32
very strongly	257	17	288	44
not heard of it	34	2	20	3
total	1459	100	651	100

Table 4.40: Relationship between belief in hot/cold and gender.

	GENDER		
	MALE	FEMALE	
Belief in Hot/cold			Total (row%)
No	113	95	208
(c%)	16.0	12.0	13.9%
Yes	592	695	1287
(c%)	84.0	88.0	86.1%
Total	705	790	1495
(c%)	47.2	52.8	100.0

Chi square=4.98, p=0.0256

Table 4.41: Relationship between belief in hot/cold and age for males.

Belief in Hot/cold	AGE 0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%
No	6	27	11	18	9	11	9	4	2	97
(r%)	15.0	18.8	7.7	10.5	12.2	19.6	22.5	14.3	25.0	13.9
Yes	34	117	131	153	65	45	31	24	6	600
(r%)	85.0	81.3	92.3	89.5	87.8	80.4	77.5	85.7	75.0	86.1
Total	40	144	142	171	74	55	40	28	8	697
(r%)	5.7	20.5	20.2	24.3	10.5	8.0	5.7	4.0	1.1	100%

Chi square=14.1, p=0.08 (n.s.)

Table 4.42: Relationship between belief in hot/cold and age for females.

Belief in Hot/cold	AGE 0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	Total (row%
No	5	15	11	15	8	1	10	10	1	
(r%)	9.1	12.3	7.1	7.8	10.0	1.4	15.4	27.8	12.5	9.6
Yes	50	107	145	178	72	72	55	26	7	7
(r%)	90.9	87.8	92.9	92.2	90.0	98.6	84.6	72.2	87.5	90.4
Total	55	122	156	193	80	73	65	36	8	78
(c%)	7.0	15.5	19.8	24.5	10.2	9.3	8.2	4.6	1.0	100%

Chi square=24.85 p<0.002

Table 4.43: Relationship between belief in hot/cold and educational level.

Belief in hot/cold	EDUCATIONAL LEVEL: primary or below	secondary	post secondary	Total (row%)
No	88	101	18	207
(c%)	16.8	12.4	11.8	13.9%
Yes	435	716	135	1286
(c%)	83.2	87.6	88.2	86.1%
Total	523	817	153	1493
(c%)	35.0	54.7	10.2	100.0%

Chi square=5.95, p=0.0511

Table 4.44: Relationship between belief in hot/cold and consulting practitioners of both Western and Chinese medicine

Belief in hot/cold	Consult Chinese and Western doctor: NO	YES	Total (row%)
No	200	8	208
(c%)	14.5	7.0	13.9%
Yes	1179	106	1285
(c%)	85.5	93.0	86.1%
Total	1379	114	1493
(c%)	92.4	7.6	100.0%

Chi square =4.92, p<0.0265

Table 4.45: Effects of belief in hot/cold* on diet

hot/cold affecting diet	TELEPHONE frequencies	%	GOPD frequencies	%
not at all	303	24	182	31
fairly strongly	404	31	149	26
strongly	479	37	168	29
very strongly	101	8	81	14
total	1287	100	580	100

* the belief being either fairly strong, strong, or very strong

Table 4.46. Relationship between belief in hot/cold and whether respondents' belief affected their diet.

Belief in hot/cold	Belief Affects Diet NO	YES	Total (row%)
No	193	13	206
(c%)	21.4	2.2	13.8%
Yes	707	580	1287
(c%)	78.6	97.8	86.2%
Total	900	593	1493
(c%)	60.3	39.7	100.0%

Chi square=111.40, $p<0.00001$

3. Compliance.

Table 4.47. Perceived health and compliance for females.

Compliance	Very Good	PERCEIVED HEALTH Not good, not bad.	Poor	Very Poor.	Total (row%)
No	20	25	1	0	46
(c%)	9.7	4.6	2.6	0	5.8%
Yes	186	515	37	5	743
(c%)	90.3	95.4	97.4	100.0	94.2%
Total	206	540	38	5	789
(c%)	26.1	68.4	4.8	0.6	100.%

Chi square=n.s.

Table 4.48: Relationship between whether the belief in hot/cold affected respondents' diet and compliance.

Belief affected diet	Compliance NO	YES	Total
No	30	867	897
(c%)	76.9	59.8	60.2%
Yes	9	583	592
(c%)	23.1	40.2	39.8%
Total	39	1450	1489
(r%)	2.6	97.4	100.0%

Chi square=4.65, p=0.0310

Figure 4.1: Shopping by age

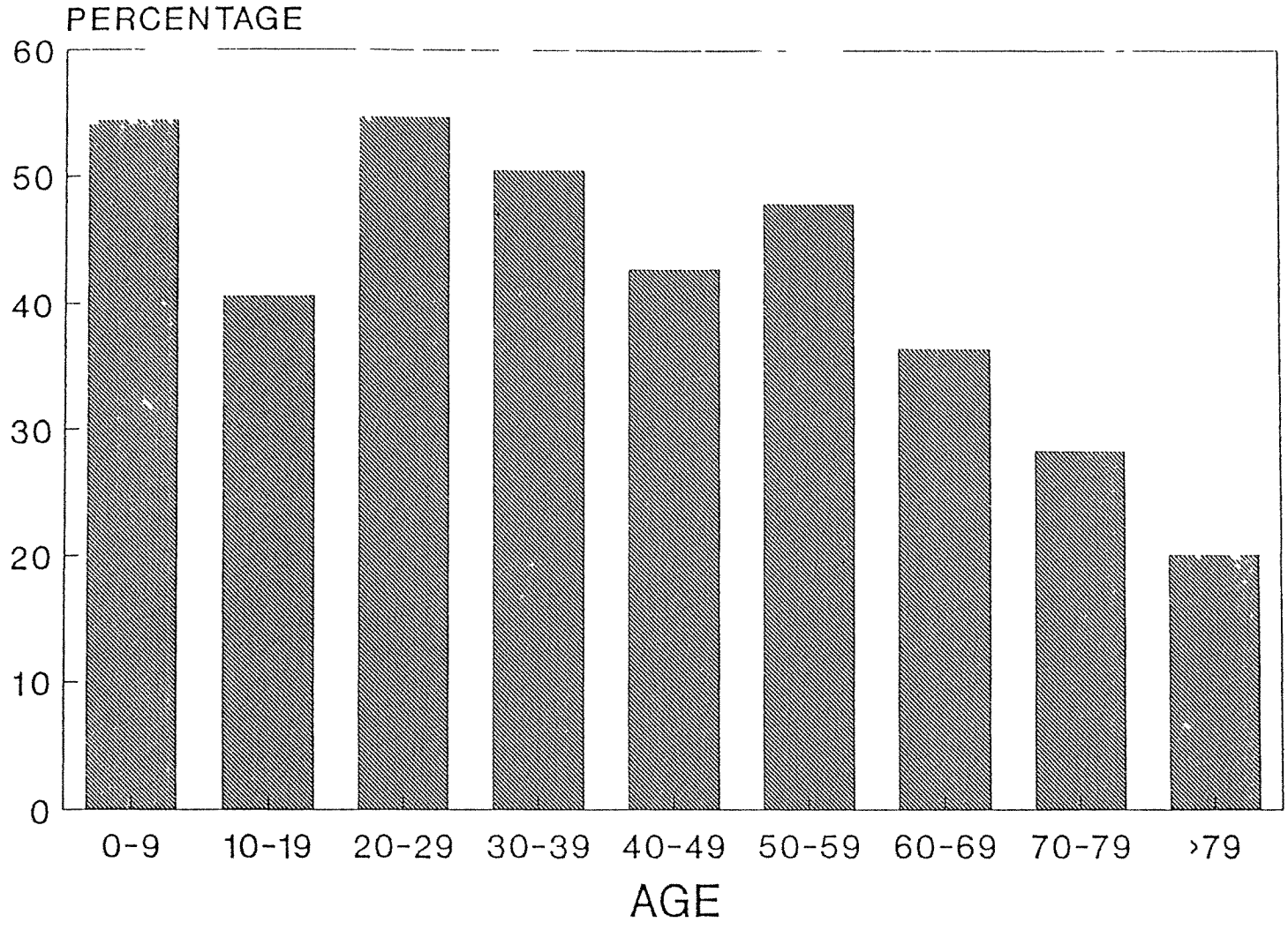


Figure 4.2: Shopping by age and by sex

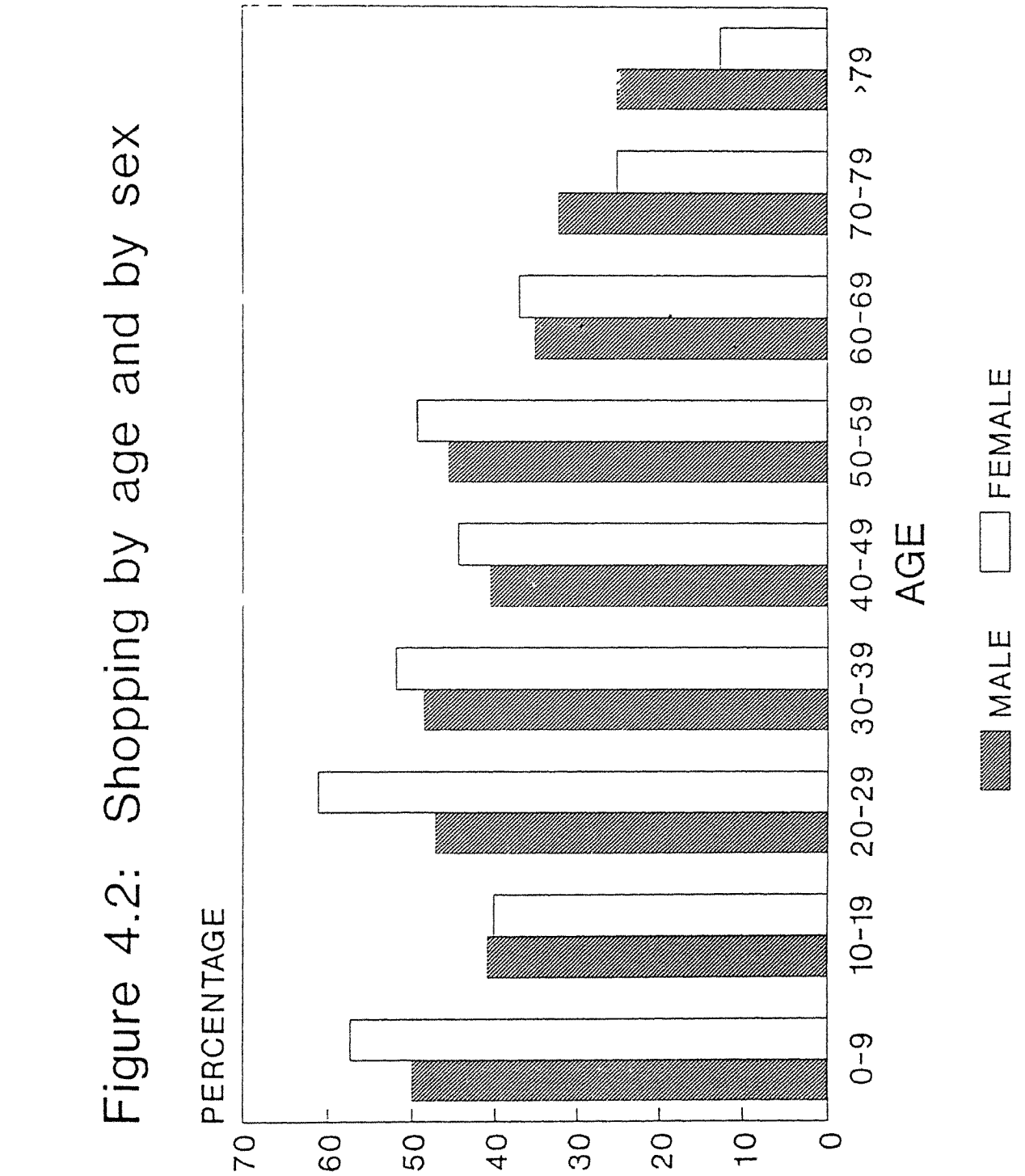


Figure 4.3: Shopping by marital status and by sex

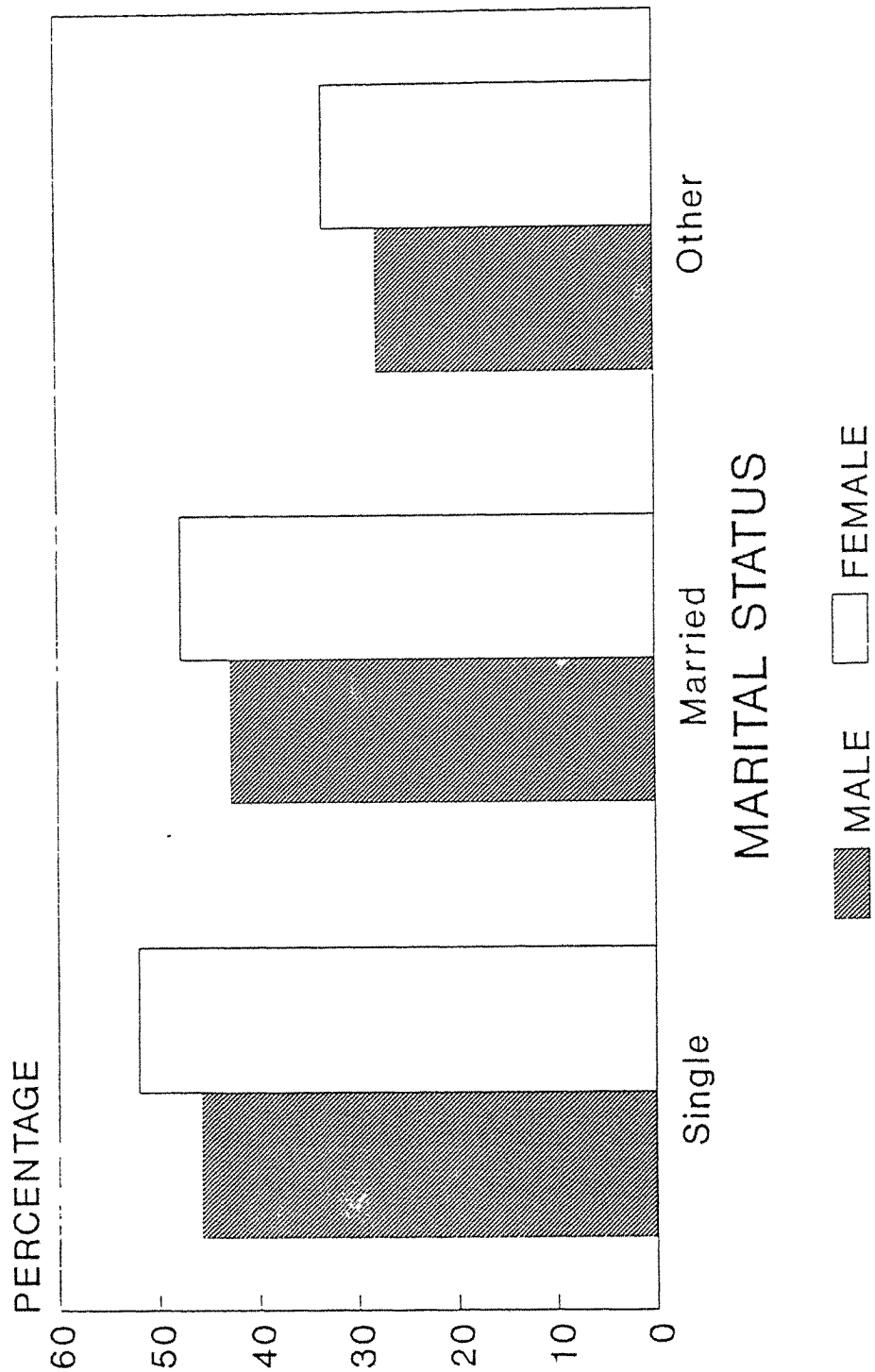


Figure 4.4: Shopping by education level

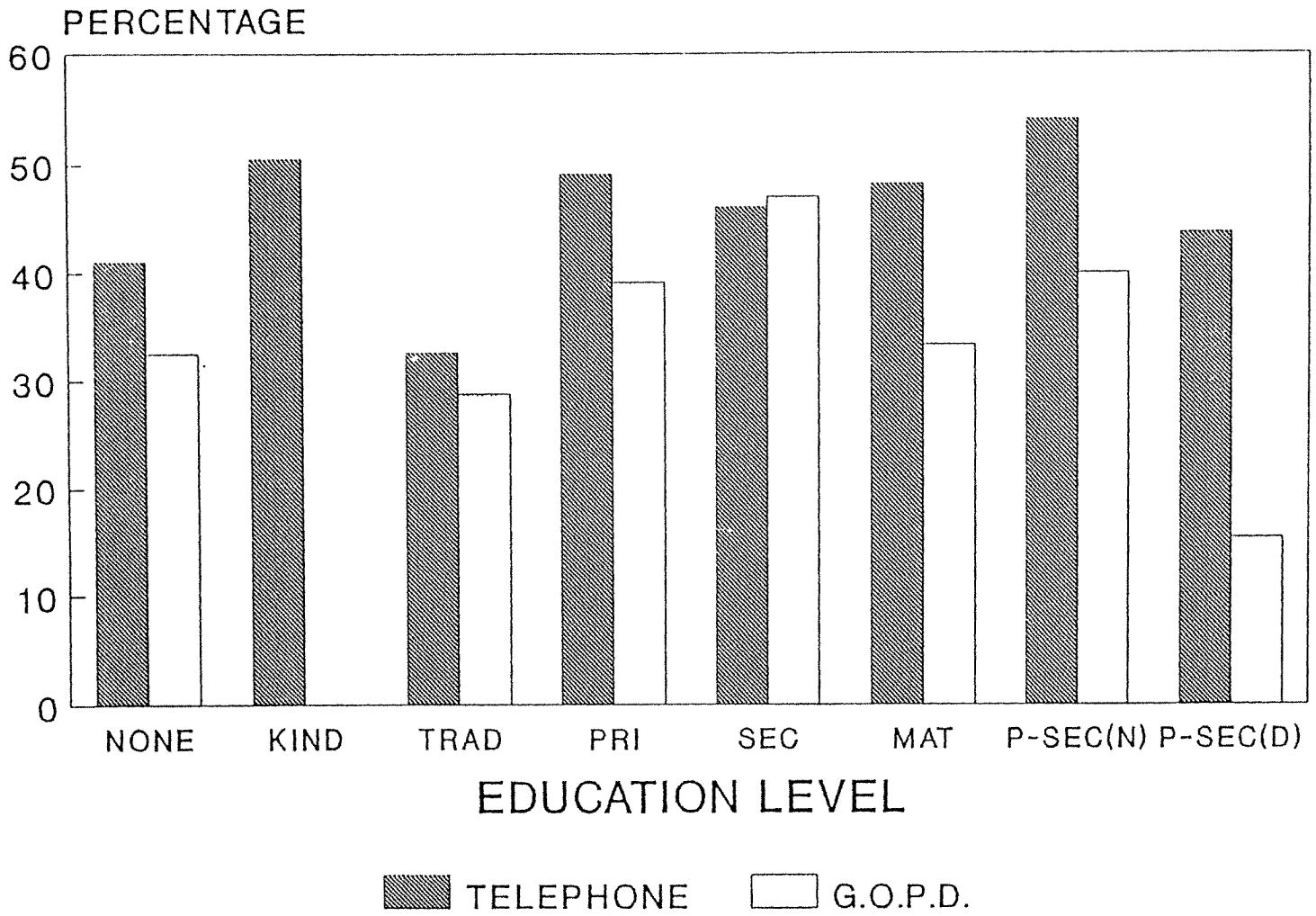


Figure 4.5: Shopping by occupational status

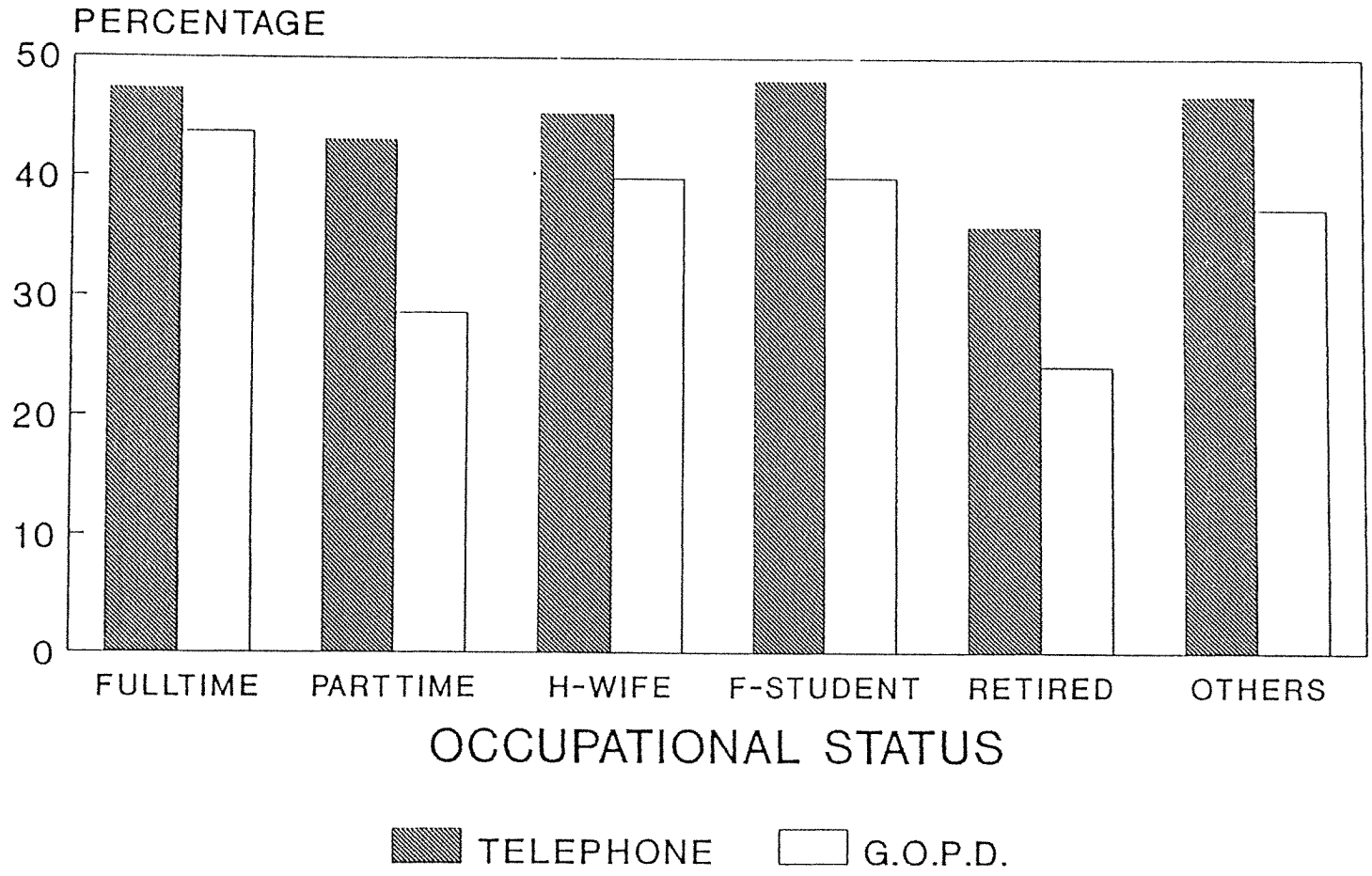


Figure 4.6: Shopping by household income

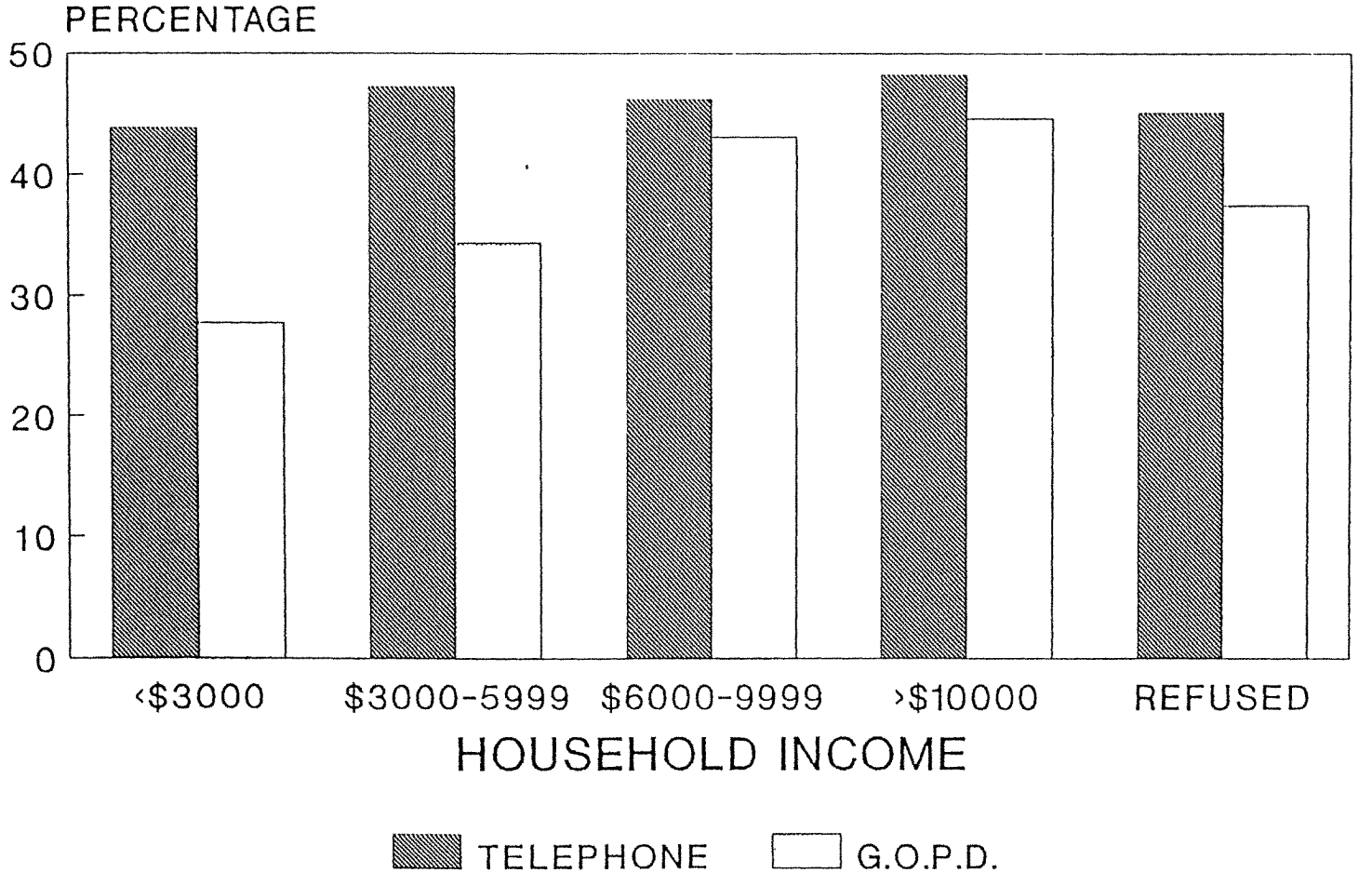


Figure 4.7: Shopping by current and previous health problem

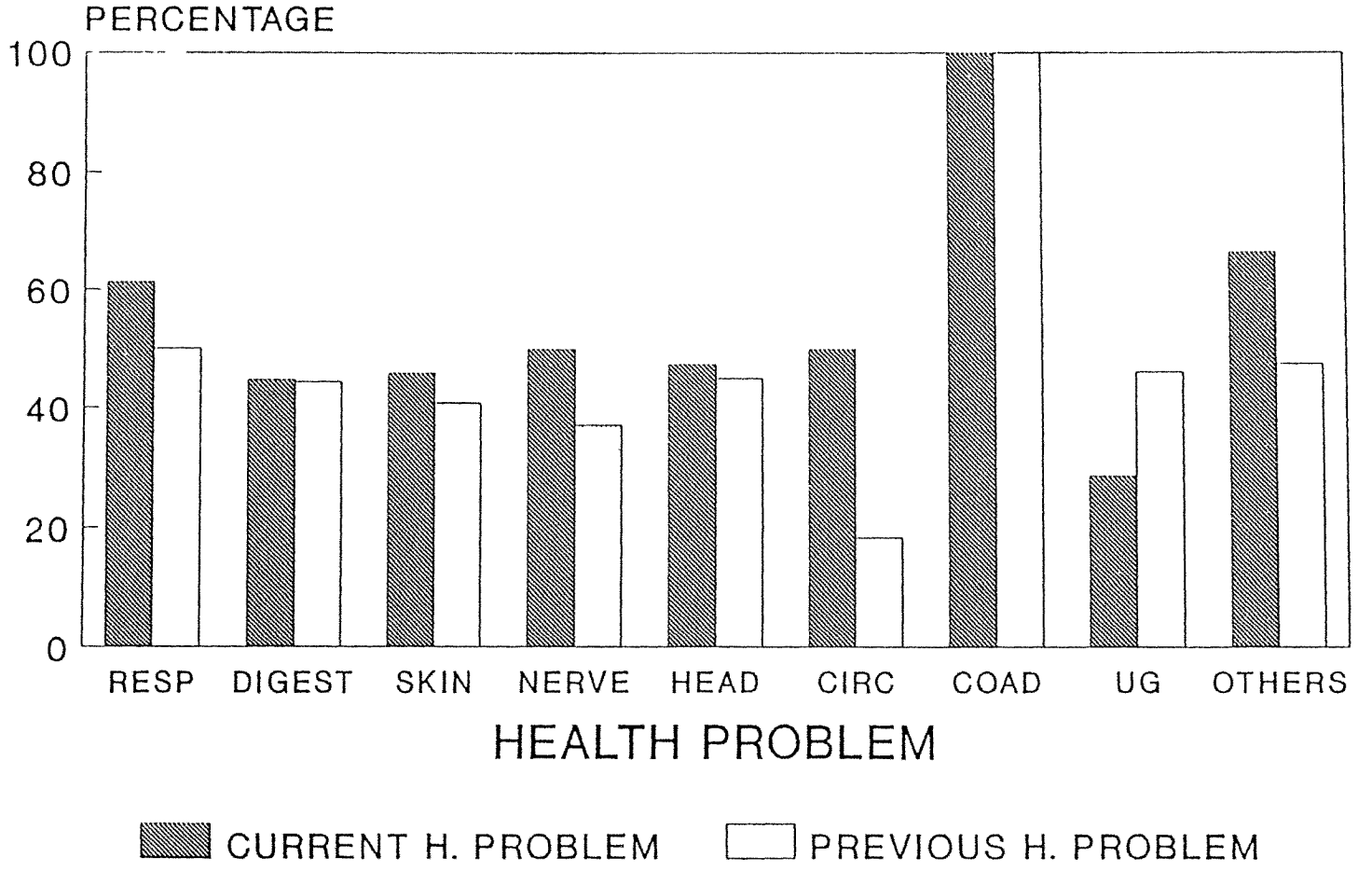


Figure 4.8: Perceived health by sex

Figure 4.9: Shopping by perceived health and by sex

Figure 4.10: Shopping by age
Females with fair perceived health

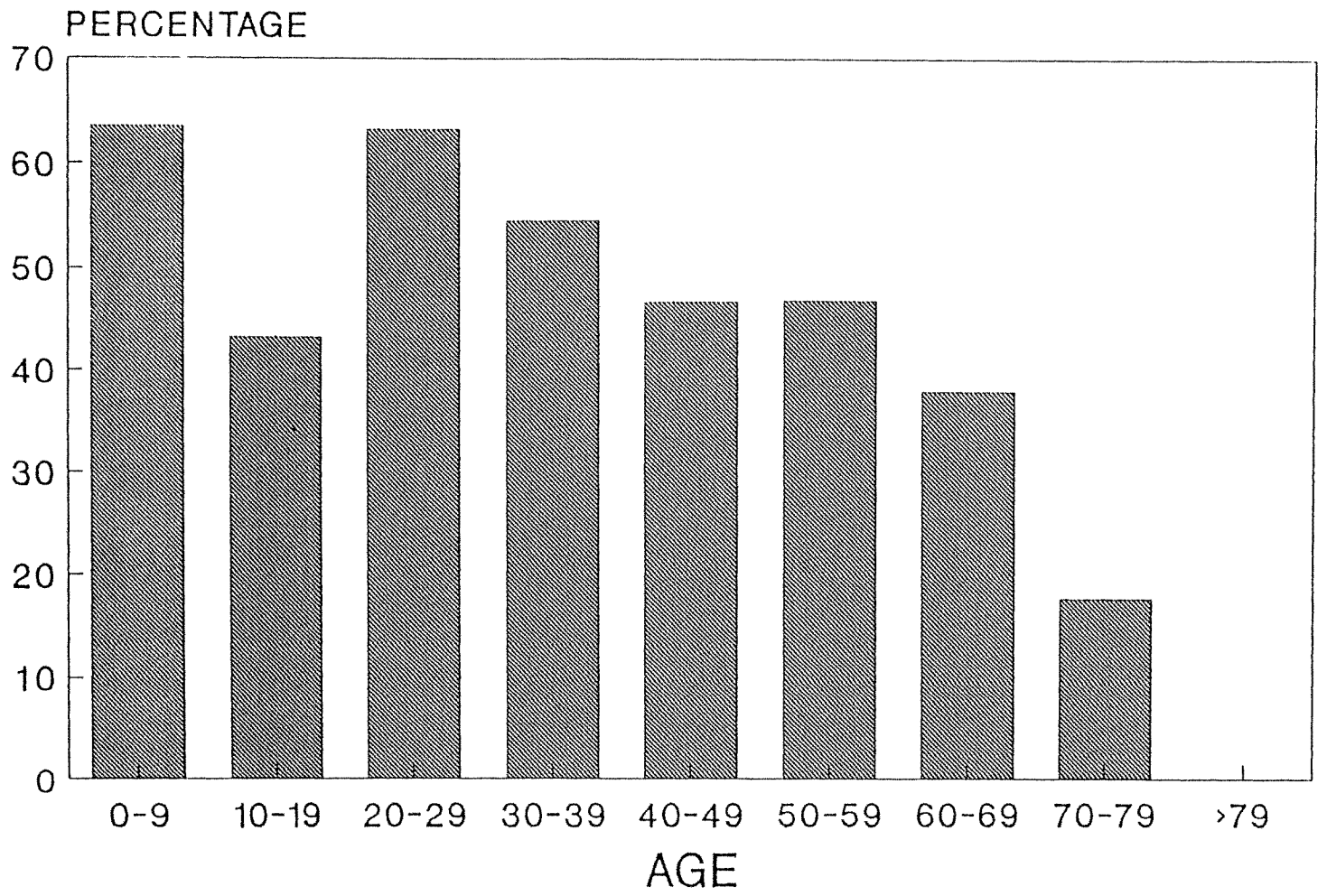


Figure 4.11: Shopping by diabetes & hypertension and by sex

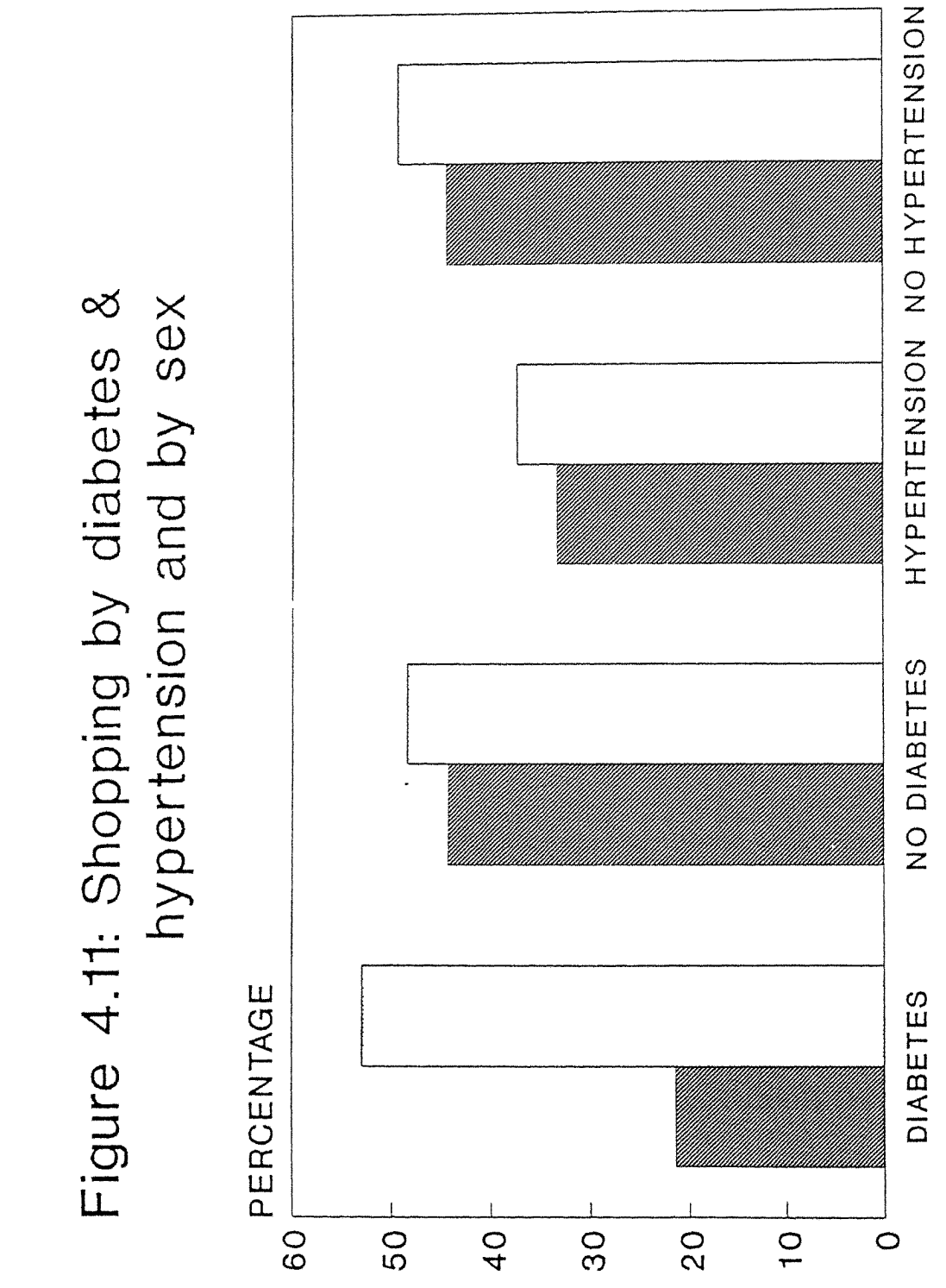


Figure 4.12: Consulting by age

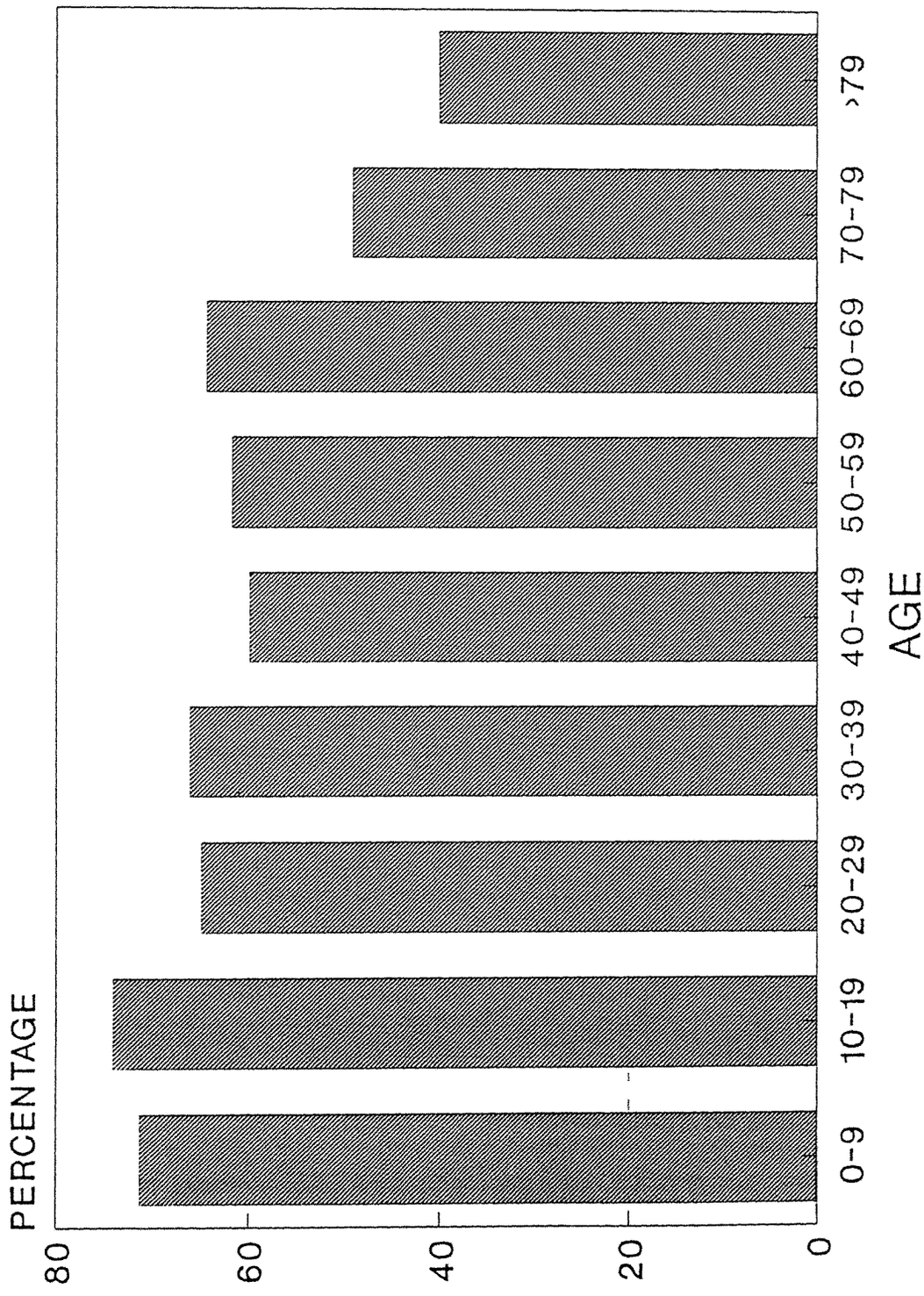


Figure 4.13: Consulting by age & by sex

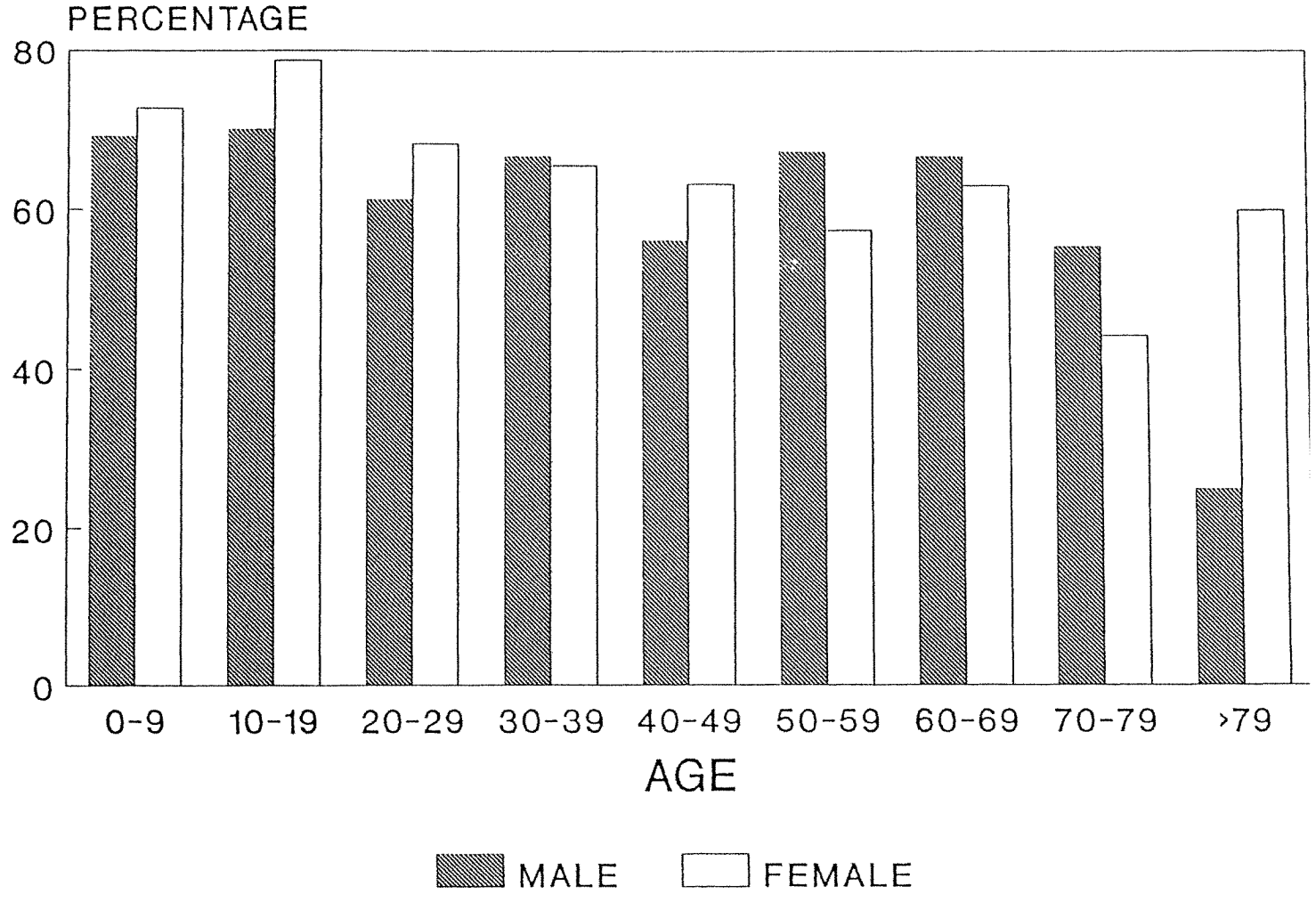


Figure 4.14: Consulting by marital status

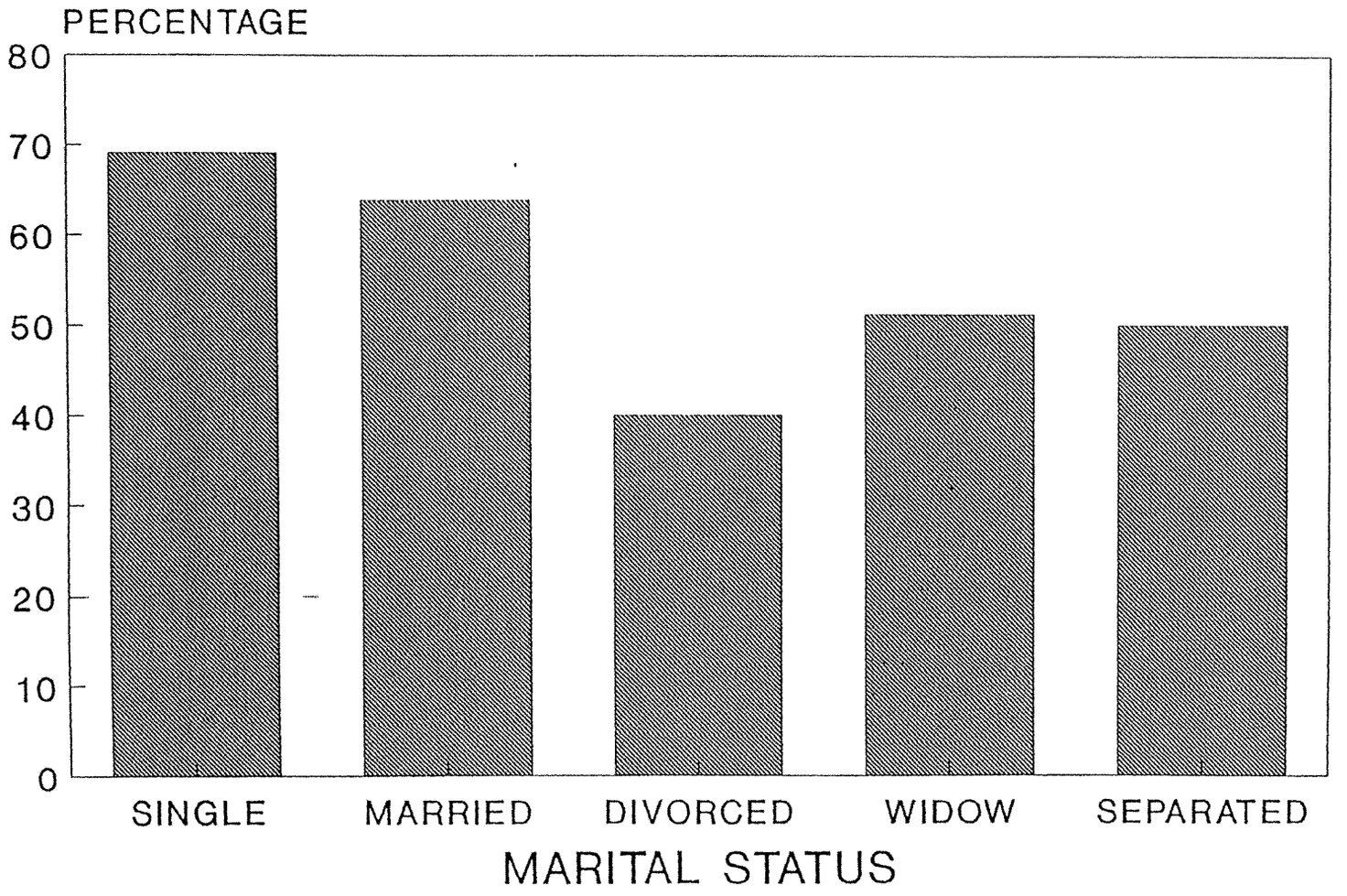


Figure 4.15: Consulting by education level

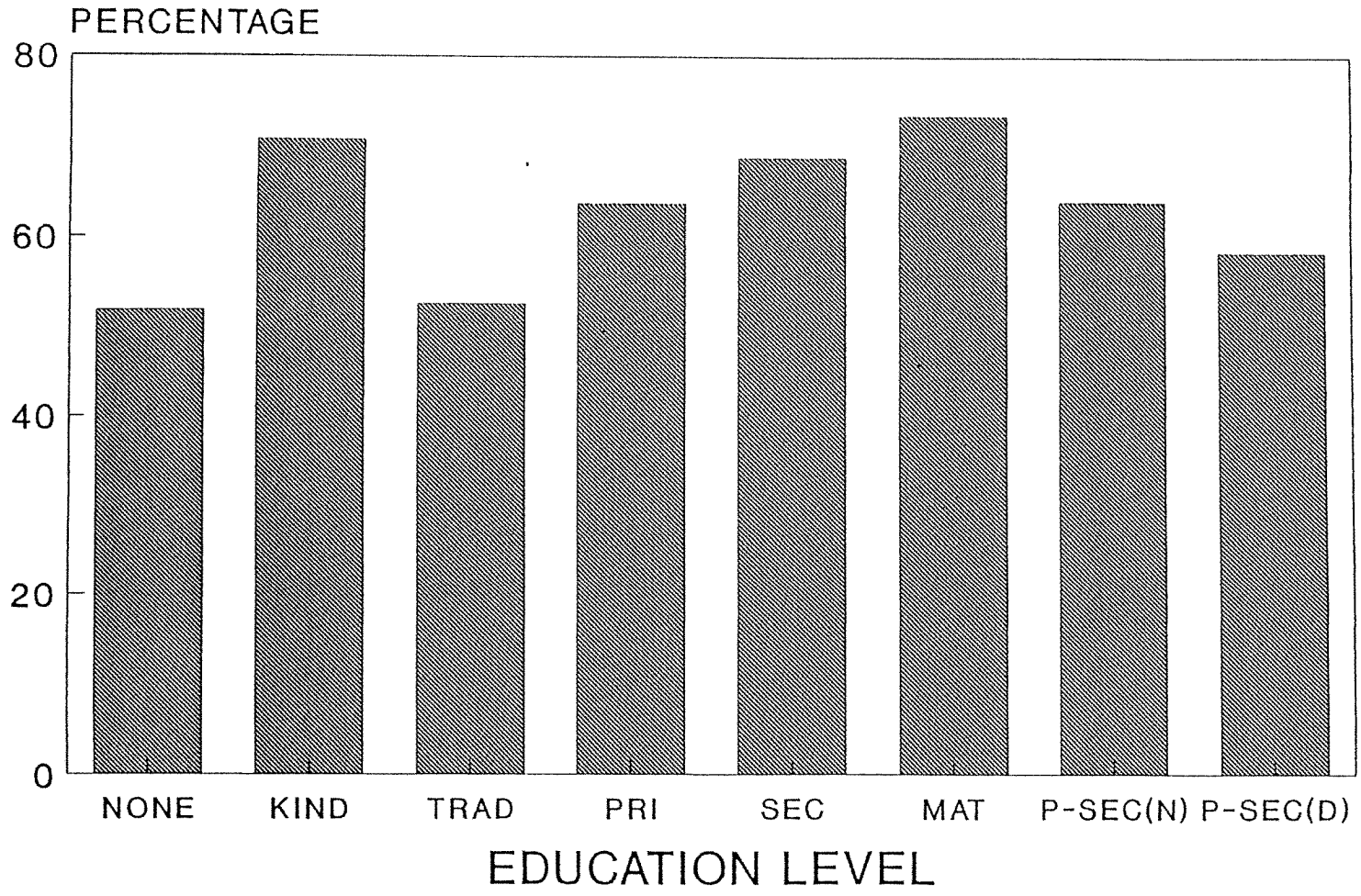


Figure 4.16: Consulting by occupational status

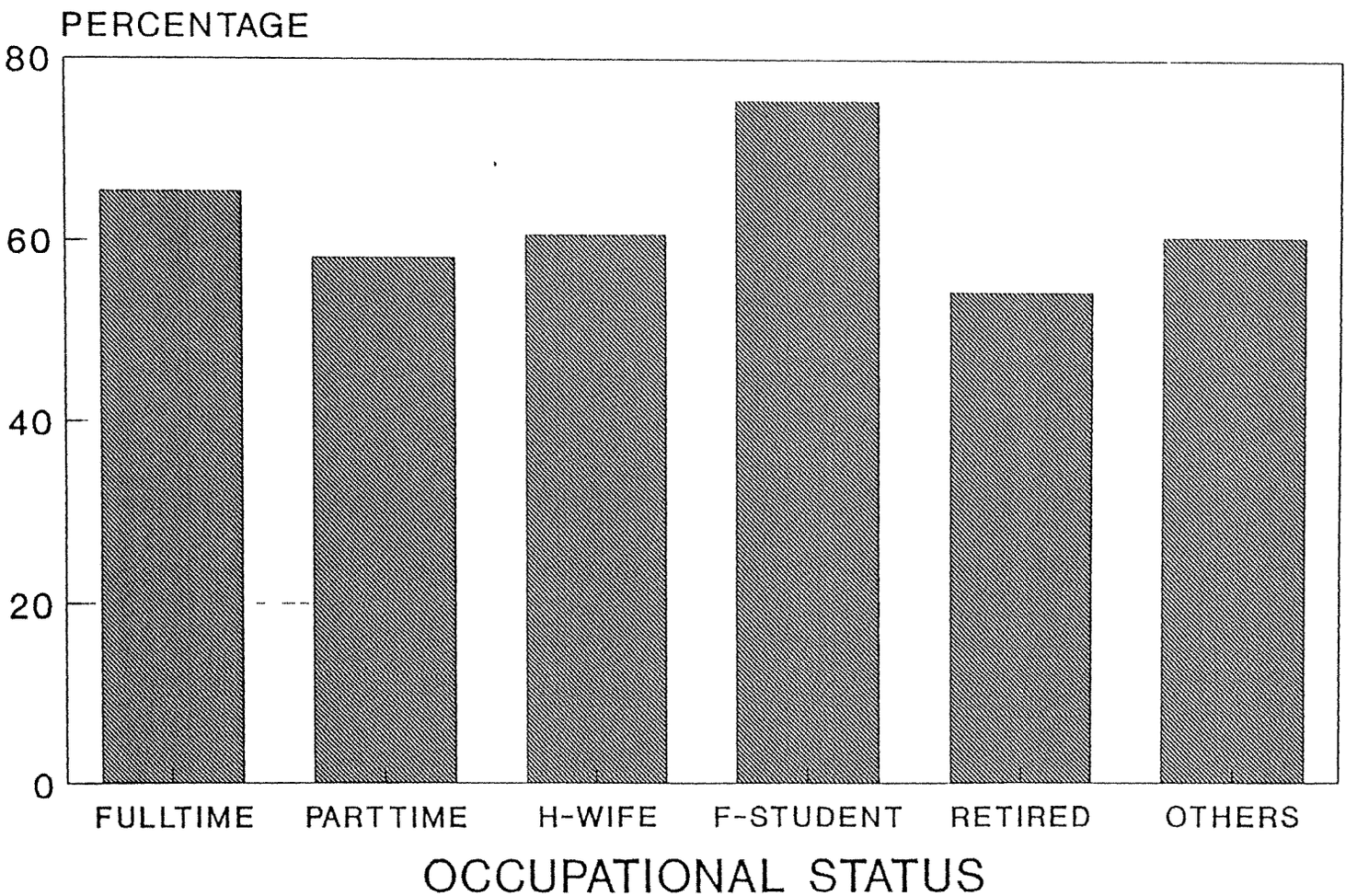


Figure 4.17: Consulting by household income

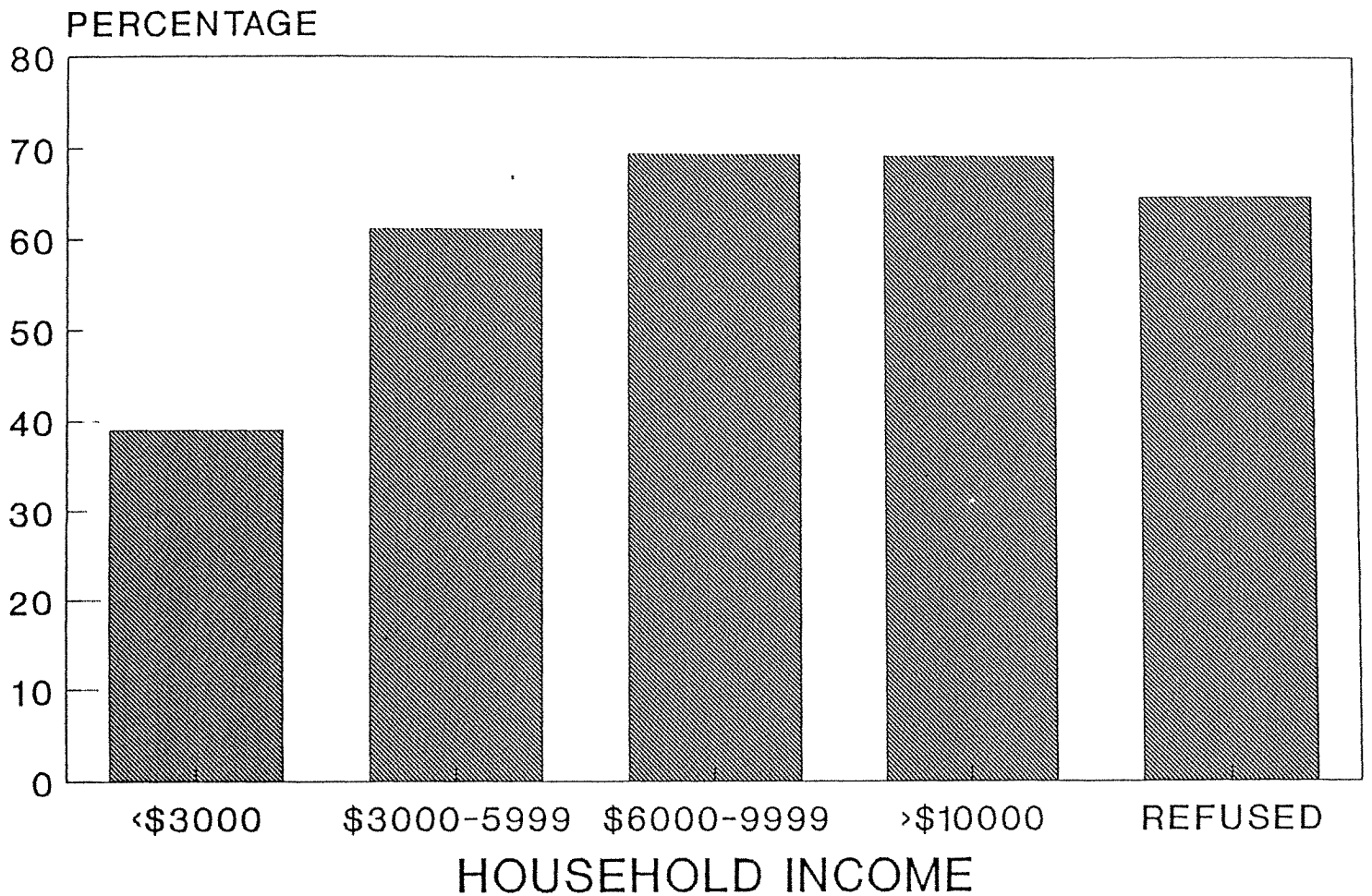


Figure 4.18: Consulting by recent physical illness

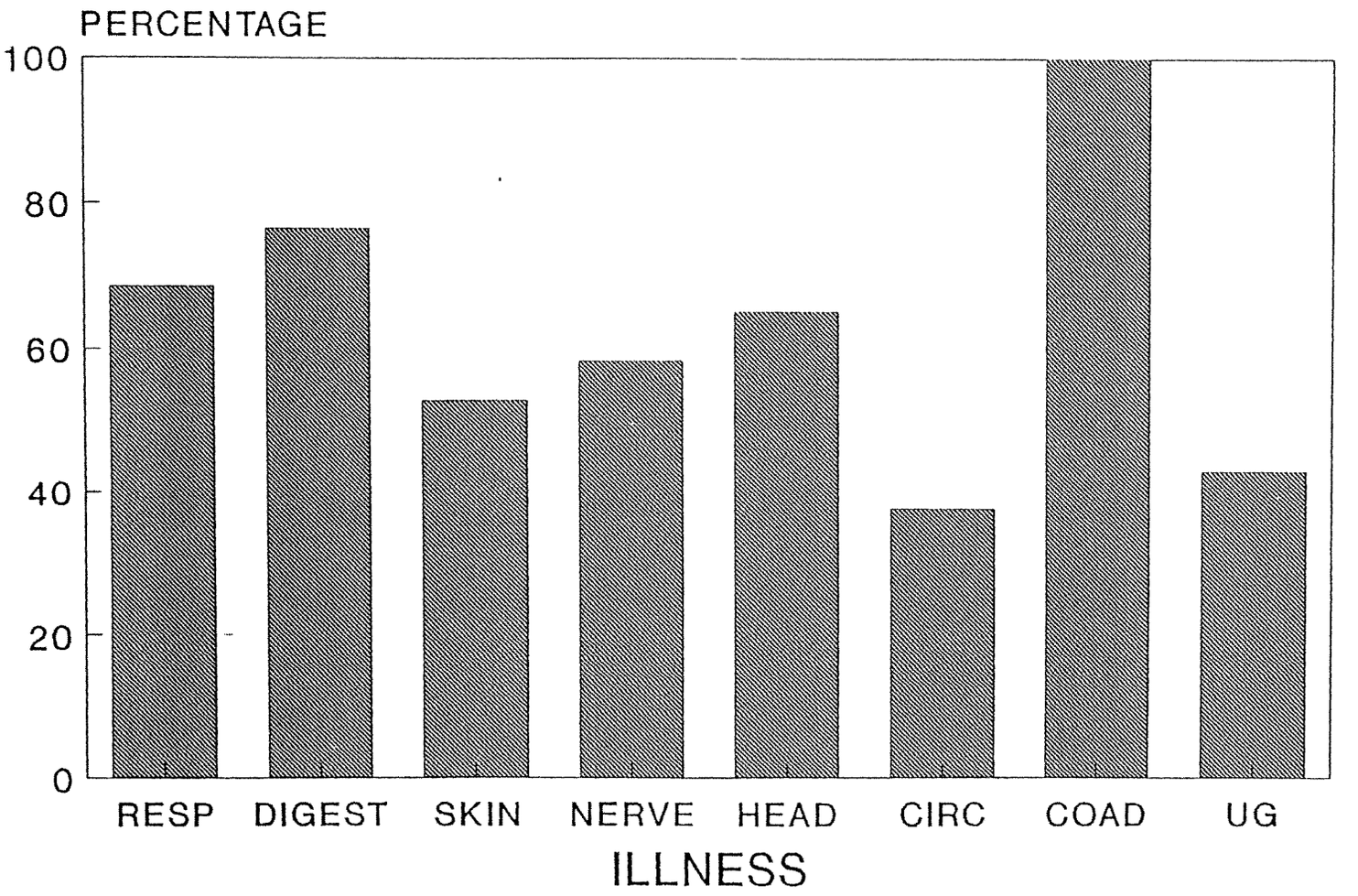
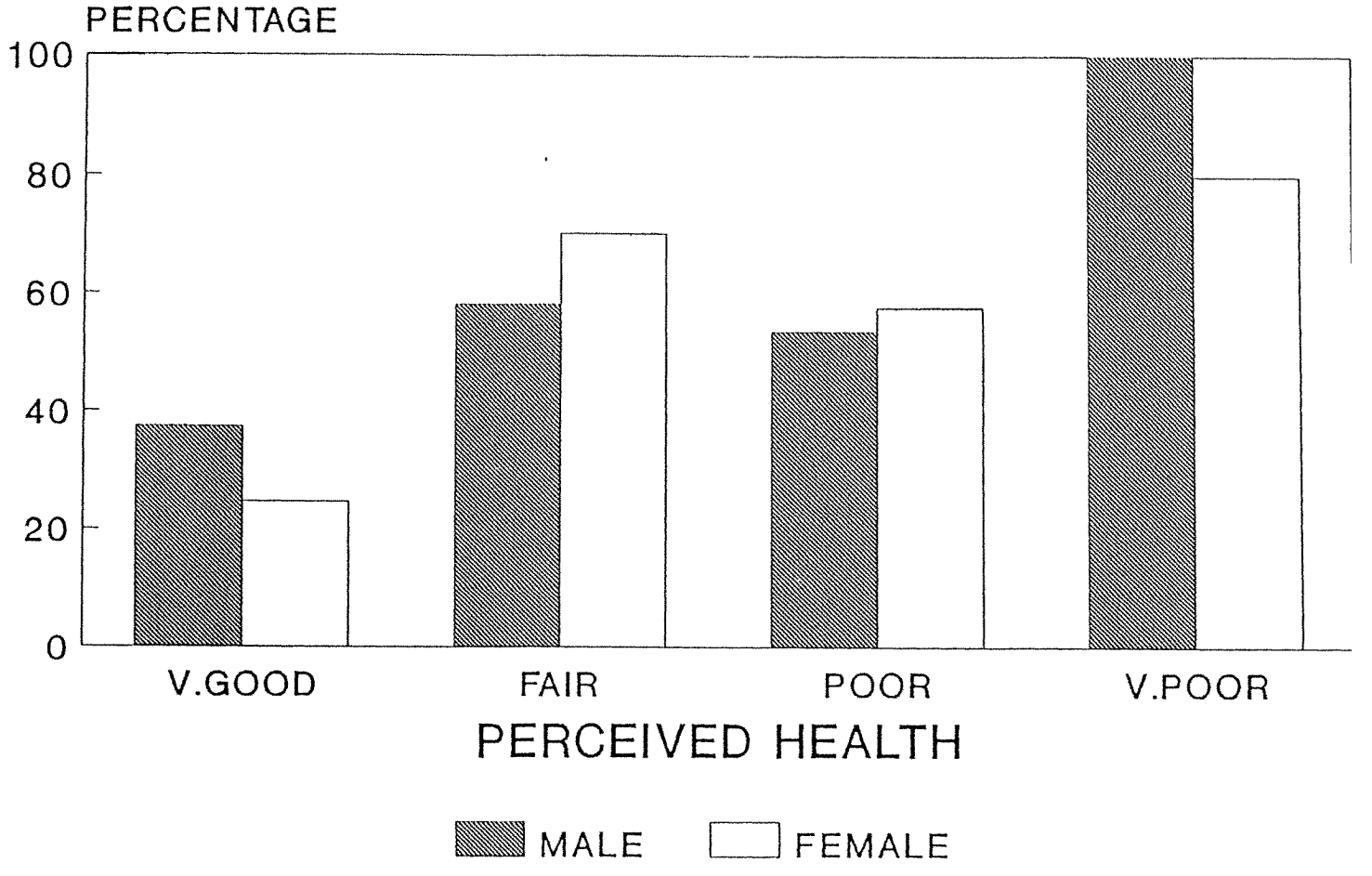


Figure 4.19: Consulting by perceived health and by sex



Missing Pages

Figure 4.21: Consulting by hypertension and by sex

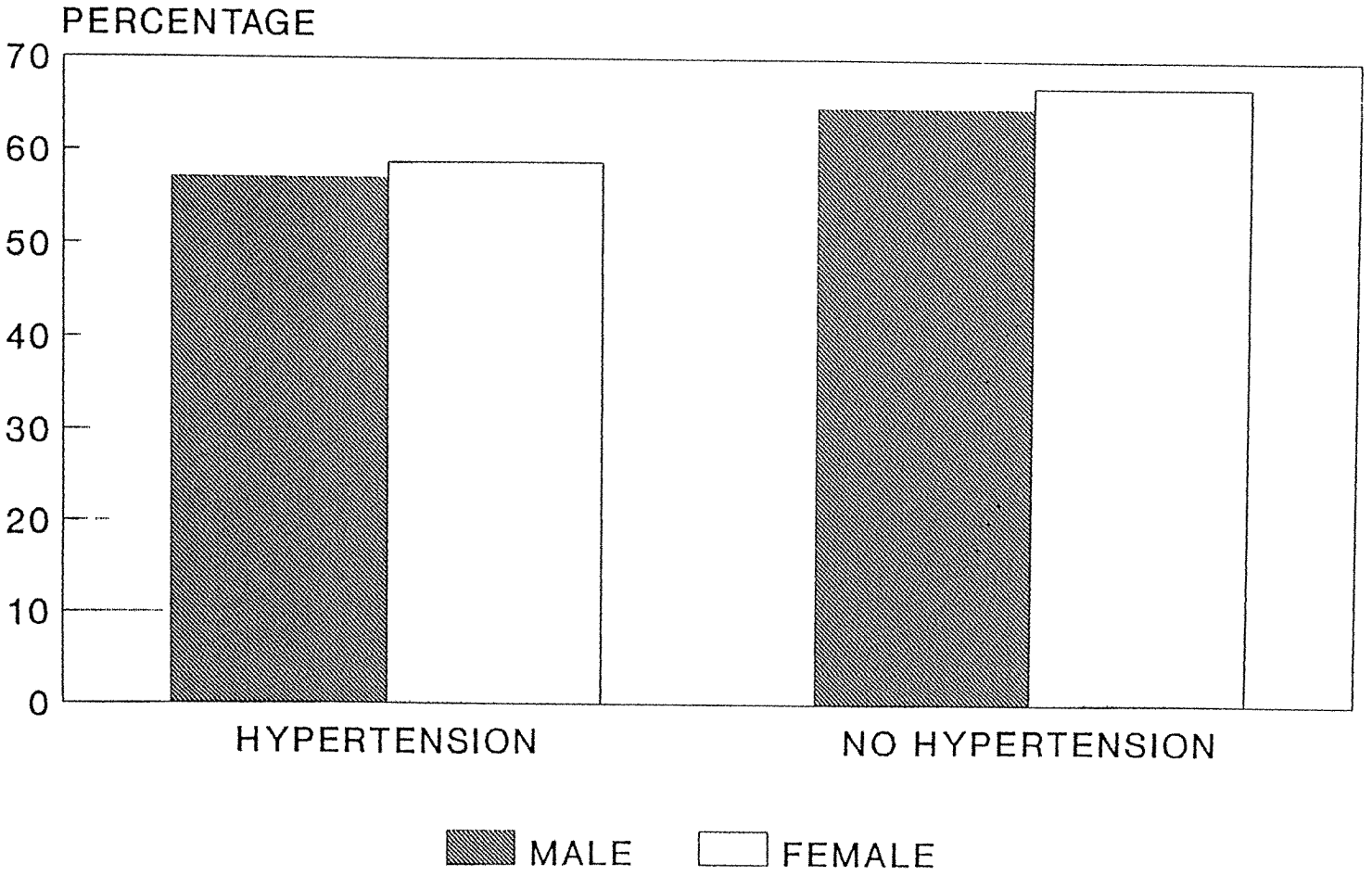


Figure 4.22: Chinese and western doctor by age

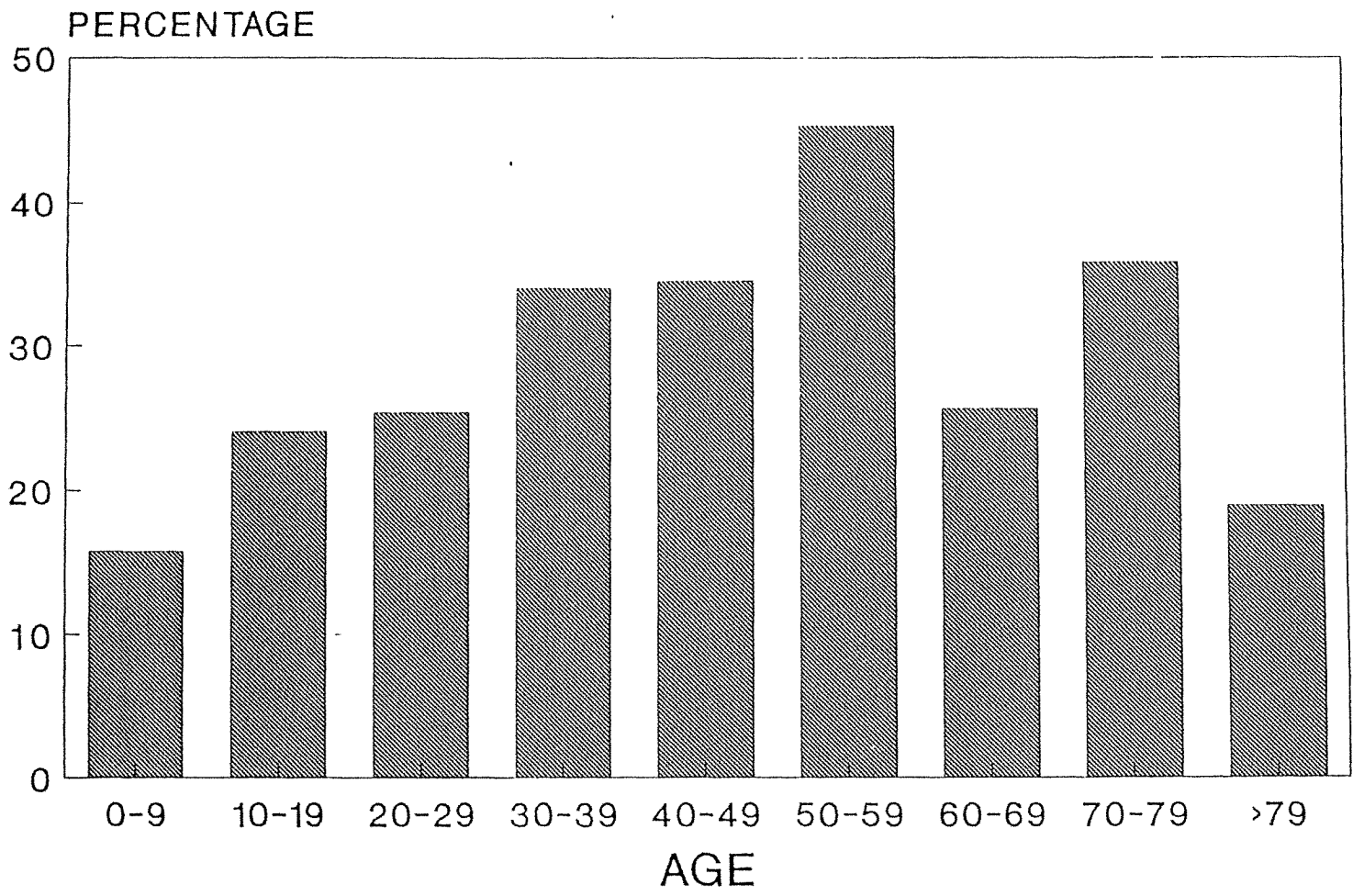


Figure 4.23: Chinese and western doctor by age and by sex

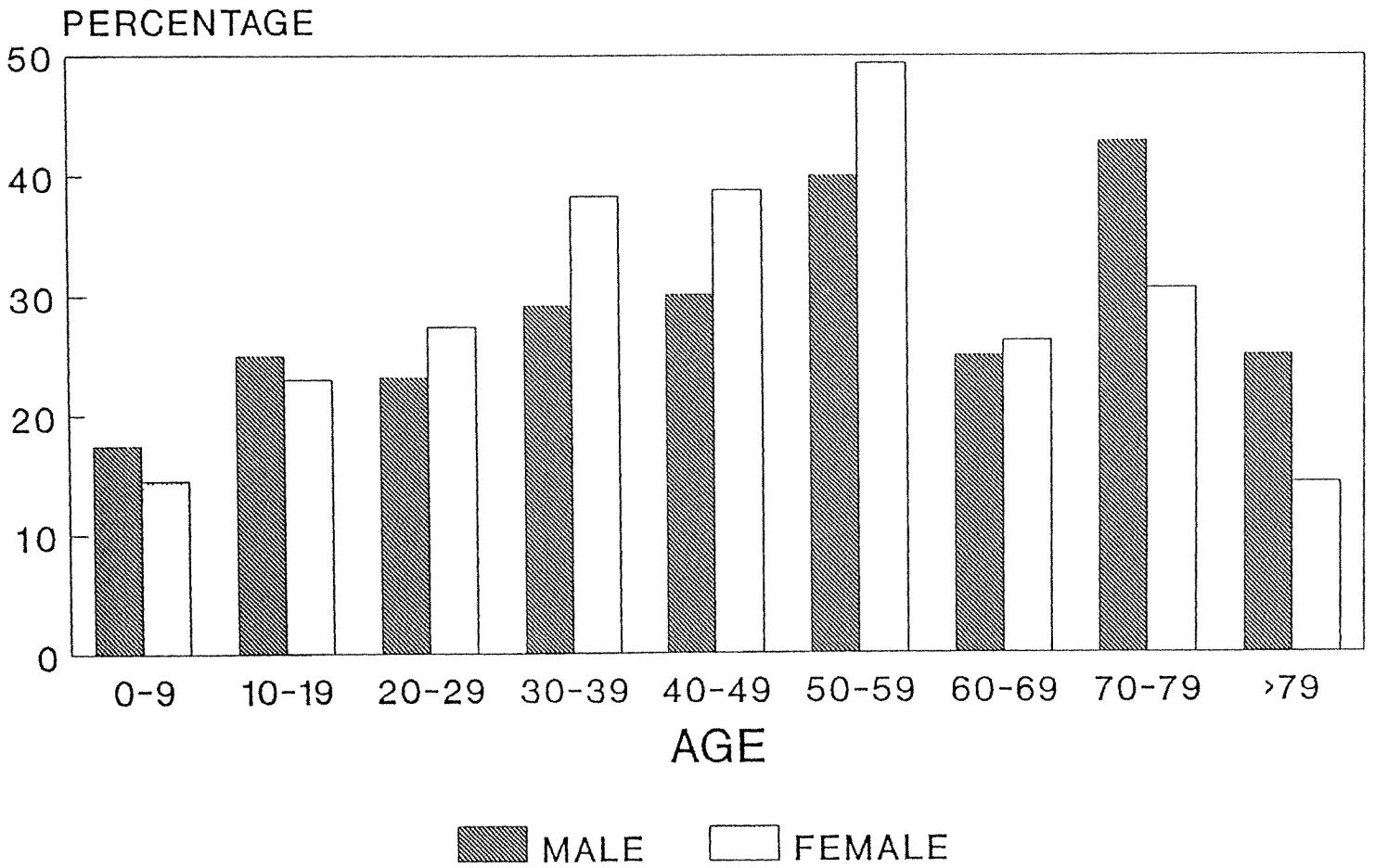


Figure 4.24: Chinese and western doctor by occupational status

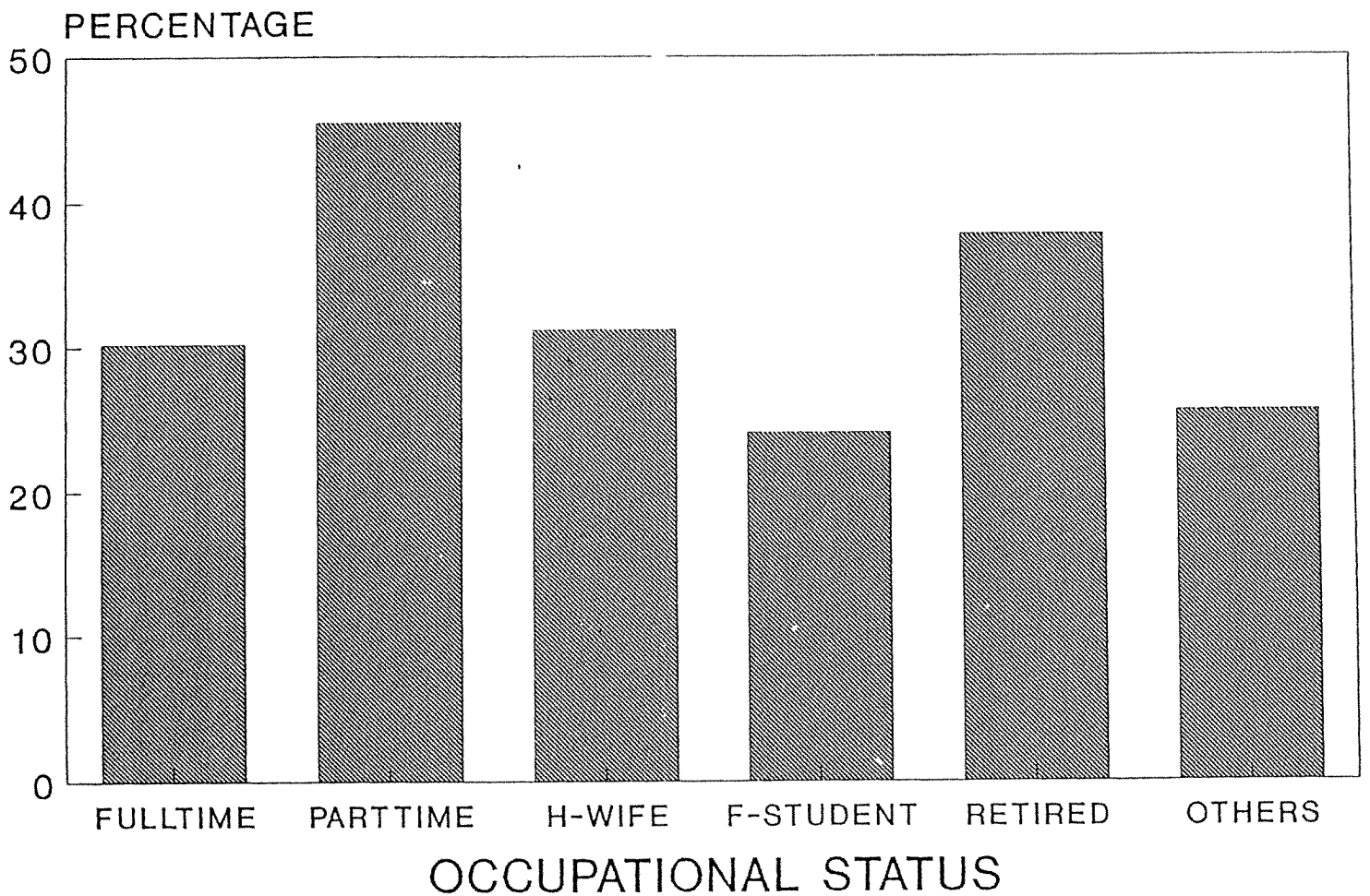


Figure 4.25: Chinese and western doctor by perceived health and by sex

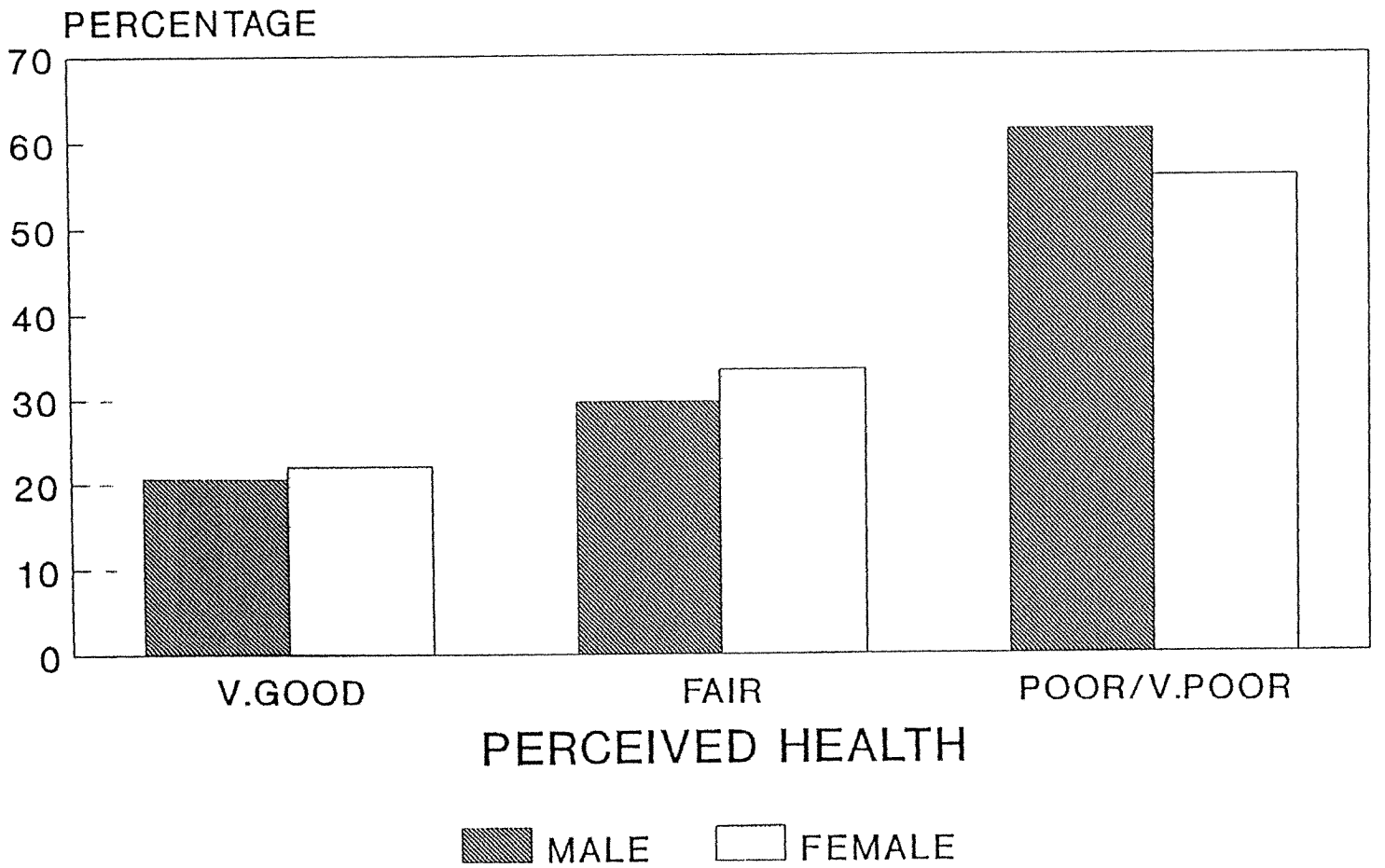


Figure 4.26: Chinese and western doctor by diabetes and by sex

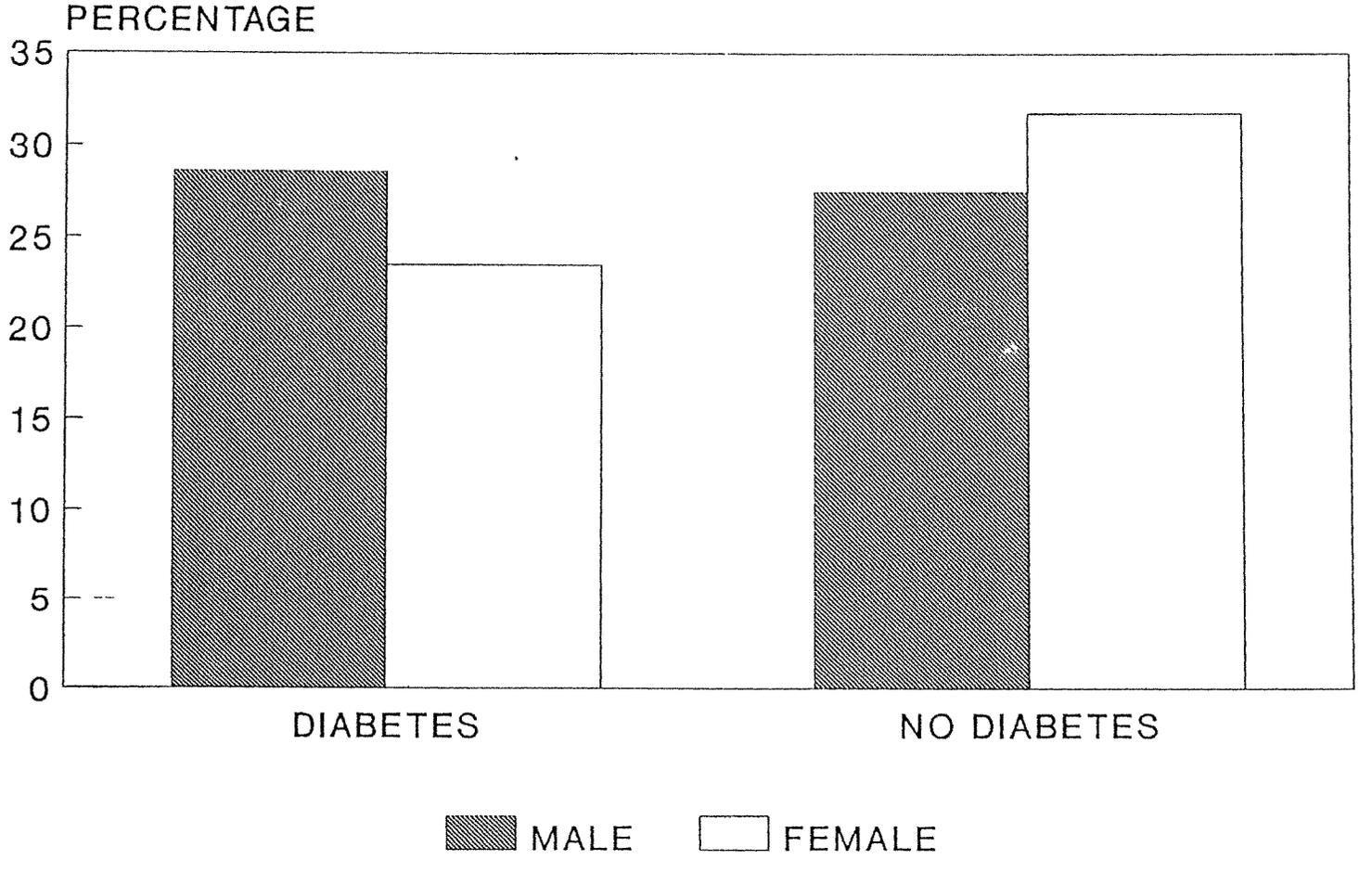


Figure 4.27: Chinese and western doctor by hypertension and by sex

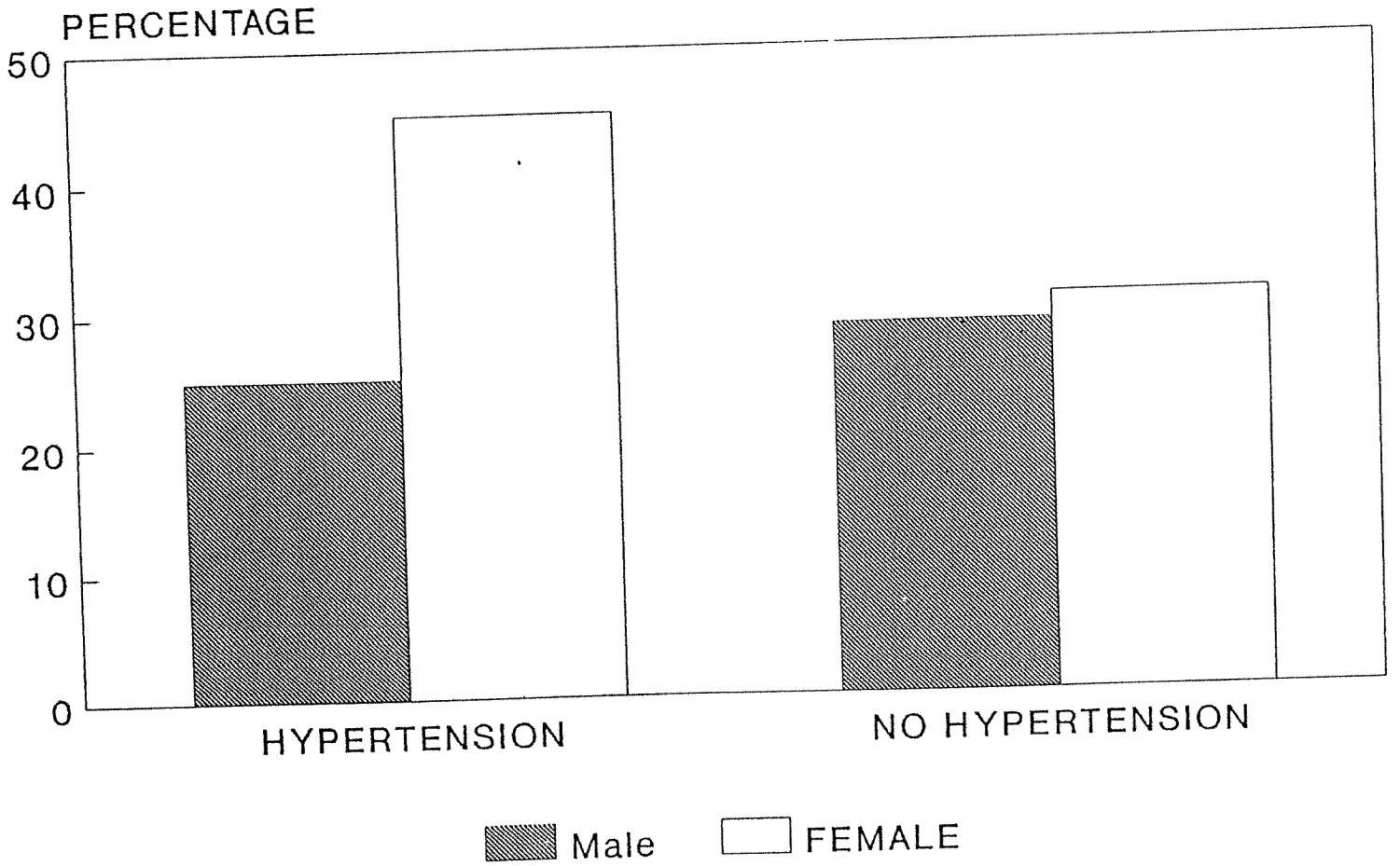


Table 5.1: Self-ratings of current health

Health rating	Frequency	%
very poor	10	1
poor	64	4
fair	946	63
very good	474	32

Table 5.2: Differences in self-ratings of current health by age-groups

self rated health	Age in years 0-20	21-39	40-59	>60	Total (Row%)
very poor/poor	9	28	18	18	73
(c%)	3	5	6	10	5%
fair	212	439	184	109	944
(c%)	59	66	65	60	63%
very good	139	196	82	56	473
(c%)	39	30	29	31	32%
Total	360	663	284	183	1490
(c%)	24%	45%	19%	12%	100%

chi-square=24.80 degrees of freedom=6 p=0.0004

Table 5.3: Differences in self-ratings of current health by gender

self rated health	Male	Female	Total (Row%)
very poor/poor	31	43	74
(c%)	4	5	5%
fair	406	540	946
(c%)	58	68	63%
very good	267	207	474
(c%)	38	26	32%
Total	704	790	1494
(c%)	47%	53%	100%

chi-square=23.65 degrees of freedom=2 p=0.0000

Table 5.4: Effect of Diabetes on self-ratings of health

self rated health	Diabetes No	Yes	Total (Row%)
very poor/poor	68	5	73
(c%)	5	16	5%
fair	927	19	946
(c%)	63	61	63%
very good	467	7	474
(c%)	32	23	32%
Total	1462	31	1493
(c%)	98%	2%	100%

chi-square=9.04 degrees of freedom=2 p=0.0109

Table 5.5: Effect of Hypertension on self- ratings of health

self rated health	Hypertension No	Yes	Total (Row%)
very poor/poor	65	9	74
(c%)	5	10	5%
fair	887	59	946
(c%)	63	67	63%
very good	454	20	474
(c%)	32	23	32%
Total	1406	88	1494
(c%)	94%	6%	100%

chi-square=7.84 degrees of freedom=2 p=0.0198

Table 5.6: Effect of smoking on self-ratings of health

self rated health	Smoker No	Yes	Total (Row%)
very poor/poor	59	15	74
(c%)	5	6	5%
fair	786	158	944
(c%)	63	63	63%
very good	396	75	471
(c%)	32	30	32%
Total	1241	248	1489
(c%)	83%	17%	100%

chi-square=0.88 degrees of freedom=2 p=0.6431

Table 5.7: Differences in self-ratings of Health and opinions on How Health Might be Improved

self rated health	Environ -ment	Smoke/ Drink	Job related	Stress	Medical care	Diet	Rest	Exercise	Others	No opinion	Total (Row%)
very poor /poor	3	3	3	7	6	9	8	11	0	21	71
(c%)	6	12	6	20	19	4	5	4	0	4	5%
fair	33	17	37	22	21	147	129	200	13	281	900
(c%)	61	68	77	63	68	61	72	66	72	58	64%
very good	18	5	8	6	4	86	43	93	5	179	447
(c%)	33	20	17	17	13	36	24	31	28	37	32%
Total	54	25	48	35	31	242	180	304	18	481	1418
(c%)	4%	2%	3%	2%	2%	17%	13%	21%	1%	34%	100%

chi-square=60.53 df=18 p=0.0000

Table 5.8: The last episode of illness

When last episode of illness occurred	Frequency	%
>2 weeks - 3 months	610	45
3 months - 6 months	439	32
6 months - 12 months	63	5
>1 year	256	19
Missing	128	-
	1496	

Table 5.9: Types of illness during the last episode

Illness	%
Respiratory	59
Digestive	13
Skin-muscular	8
Nervous-mental	2
Headache-fever	14
Circulatory	2
COAD	-
Genitourinary	1
Others	2

Table 5.10: Types of health-related problems experienced during the past 2 weeks

Types of Problems	%
Respiratory	63
Digestive	11
Skin-muscular	9
Nerve-mental	3
Headache-fever	10
Circulatory	2
COAD	-
Genito-urinary	2
Others	1

Table 5.11: The sites for the majority of Diabetes care

Site	%
GOPD	23
Private doctors	52
Western doctors	19
Herbalist	3
Others	3

Table 5.12: The site for the majority of Hypertension care

Site	%
GOPD	32
Private doctors	49
Western doctors	14
Herbalist	2
Others	3

Figure 5.1: Telephone Survey: The occurrence of health-related problems within the past 2 weeks

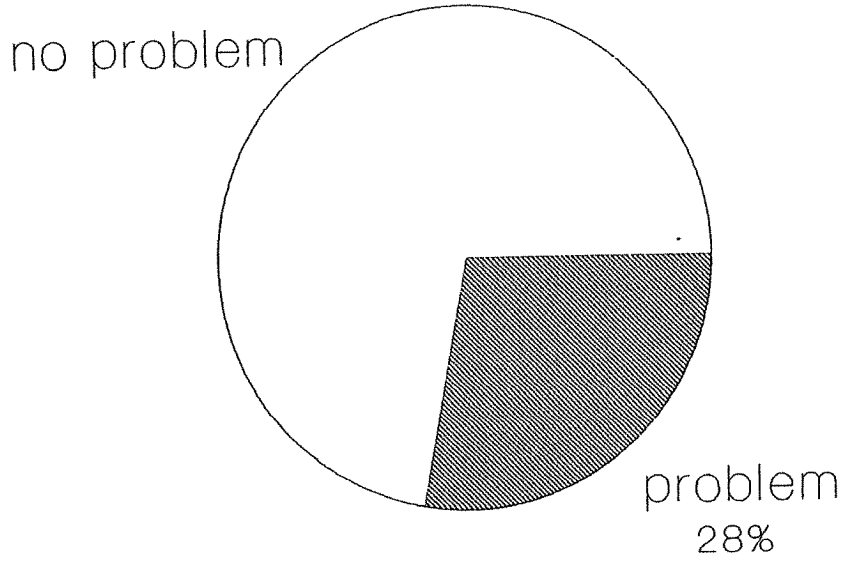


Figure 5.2: Telephone Survey:
The proportion of patients with Diabetes

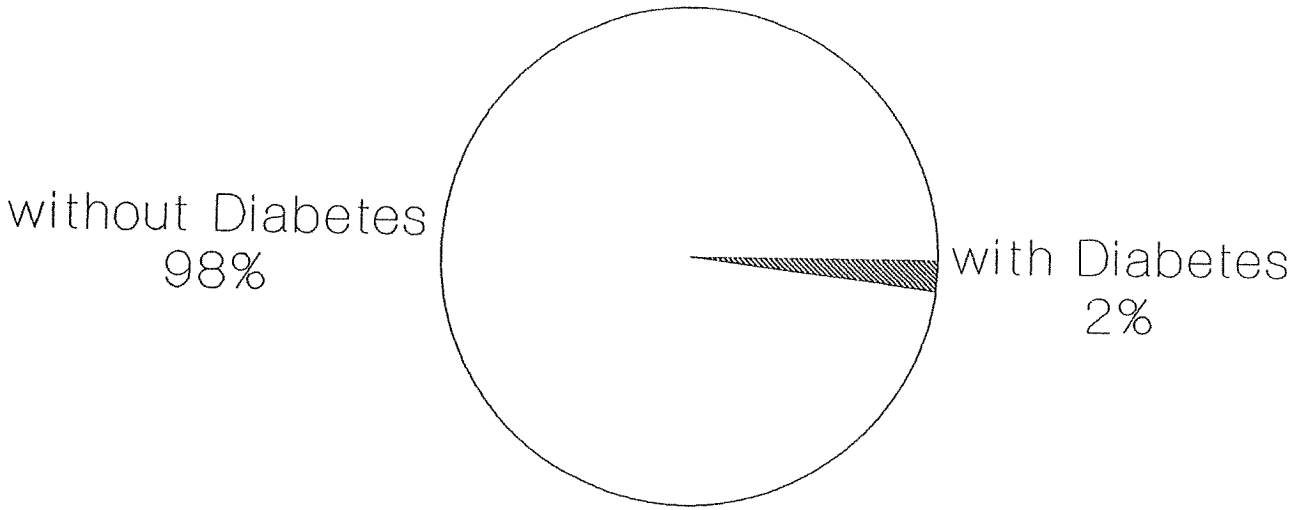


Figure 5.3: Telephone Survey:
Proportion of the population with Hypertension

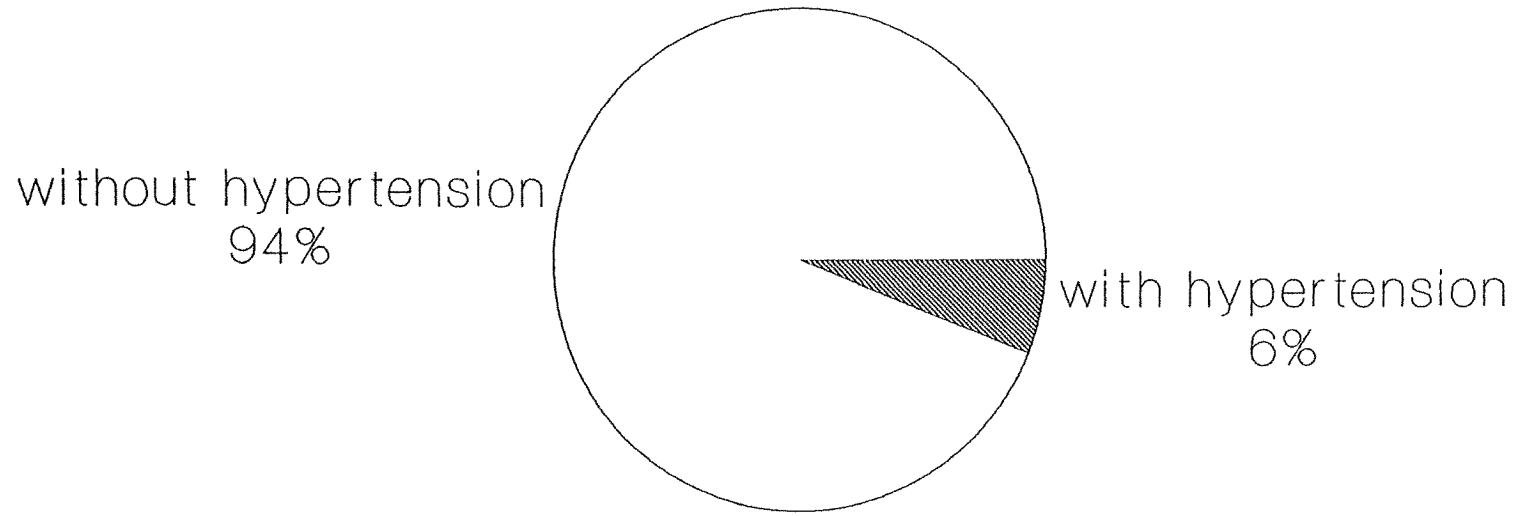


Table 6.1: Prevalence of hospitalisation.

Number of Hospital admissions	Number of Persons	Percent
0	1366	93.3
1	84	5.7
2	8	0.5
3	4	0.3
4	1	0.1
7	1	0.1
Total	1464	100.0

Table 6.2: Type of hospital where admission occurred.

Type of Hospital	Number Admitted	Percent
Government	44	45.4
Subvented	31	32.0
Private	22	22.7

General population survey: Health problems, choices of care and utilization

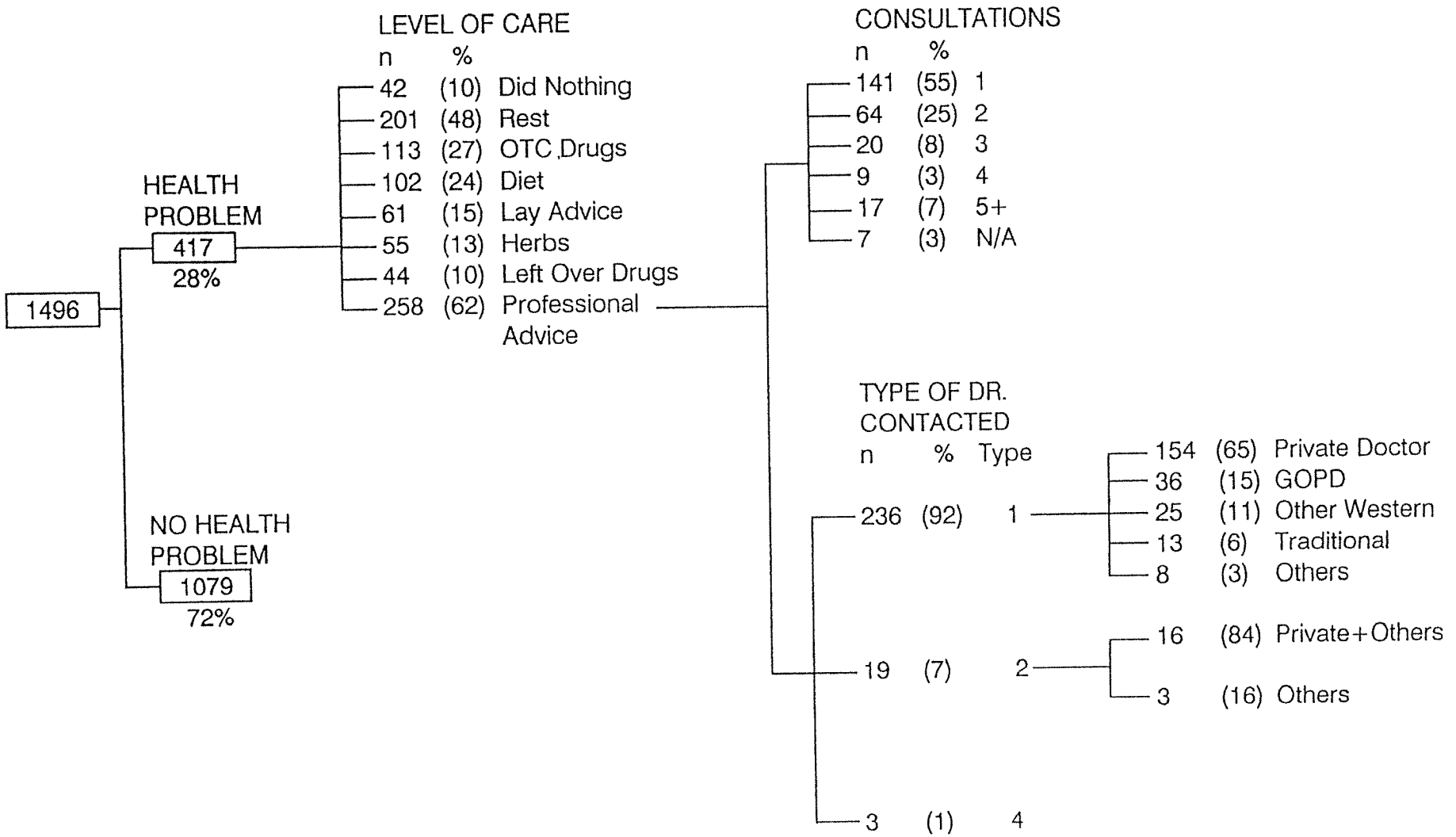


Table 7.1: Amount of money spent on consultation in the past two weeks

Amount spent	n (%)
$0	25(10)
$1-$50	42(17)
$51-$100	80(32)
$101-$250	66(26)
$251-$500	20(8)
over $500	17(6)

Mean = $205.1, Median = $85.0

Table 7.2: Mean amount spent per consultation in the past two weeks for subjects who had been seen by private doctors only (N=149. Missing information in 5 subjects)

Amount spent	n (%)
$0-$20	6(4)
$21-$50	15(10)
$51-$100	90(60)
$101-$250	31(21)
$251-$500	6(4)
over $500	1(1)

Mean = $102.4, Median = $80.0

Table 7.3: Amount spent on health care in past 3 months

(N=1391)

Amount spent	n (%)
$0	490(35)
$1-$100	368(27)
$101-$250	257(18)
$251-$500	160(12)
$501-$750	45(3)
$750 and over	71(5)

105 subjects refused to answer or could not remember

Table 7.4: Relationship between amount spent on health care in the past three months and different sociodemographic and economic factors

Gender

	Expenditure on health care in the past three months					
Gender	$0	$1-100	$101-250	$251-$500	$501-750	>$750
Male	261 (40%)	176 (27%)	106 (16%)	66 (10%)	15 (2%)	36 (5%)
Female	229 (31%)	192 (26%)	151 (21%)	94 (13%)	30 (4%)	35 (5%)

Table 7.5: Age

	Expenditure on health care in the past three months					
Age	$0	$1-100	$101-250	$251-$500	$501-750	>$750
0-12	38 (29%)	35 (27%)	33 (25%)	18 (14%)	1 (1%)	7 (5%)
13-19	78 (38%)	66 (32%)	43 (21%)	11 (5%)	2 (1%)	6 (3%)
20-39	218 (35%)	156 (25%)	115 (18%)	86 (14%)	24 (4%)	31 (5%)
40-59	97 (38%)	64 (25%)	41 (16%)	32 (13%)	10 (4%)	12 (5%)
60 and above	58 (35%)	47 (28%)	25 (15%)	12 (7%)	8 (5%)	15 (9%)

Table 7.6: Employment

	Expenditure on health care in the past three months					
Employment	$0	$1-100	$101-250	$251-$500	$501-750	>$750
Employed	268 (36%)	195 (26%)	121 (16%)	96 (13%)	25 (3%)	38 (5%)
Housewife	76 (33%)	54 (24%)	47 (21%)	28 (18%)	11 (5%)	11 (5%)
Student/ below school age	107 (35%)	88 (29%)	69 (22%)	29 (9%)	2 (1%)	12 (4%)
Retired	35 (35%)	27 (27%)	16 (16%)	6 (6%)	6 (6%)	10 (10%)

Table 7.7: Monthly household income (M.H.I.)

	Expenditure on health care in the past three months					
M.H.I.	$0	$1-100	$101-250	$251-$500	$501-750	>$750
<$1000	3 (25%)	3 (25%)	3 (25%)	1 (8%)		2 (17%)
$1000-$2999	4 (16%)	14 (56%)	1 (4%)	2 (8%)	1 (4%)	2 (8%)
$3000-$5999	79 (38%)	63 (31%)	34 (17%)	23 (11%)	3 (10%)	4 (2%)
$6000-$9999	74 (28%)	82 (31%)	55 (21%)	33 (13%)	7 (3%)	12 (5%)
over $10000	124 (30%)	102 (24%)	91 (22%)	58 (14%)	13 (3%)	29 (7%)

Table 7.8: Site of majority of health care in the past year

	Expenditure on health care in the past three months					
Site	$0	$1-100	$101-250	$251-$500	$501-750	>$750
GOPD	78 (42%)	70 (38%)	22 (12%)	6 (3%)	3 (2%)	7 (4%)
Private doctor	312 (30%)	264 (25%)	219 (21%)	142 (14%)	39 (4%)	62 (6%)
Chinese doctor	16 (35%)	8 (17%)	12 (26%)	5 (11%)	3 (7%)	2 (4%)
Others	35 (71%)	12 (25%)	1 (2%)	3 (6%)		

Table 7.9: Health problem in past two weeks

Health problem	Expenditure on health care in the past three months					
	$0	$1-100	$101-250	$251-$500	$501-750	>$750
Yes	62 (16%)	99 (26%)	104 (27%)	66 (17%)	15 (4%)	40 (10%)
No	425 (43%)	266 (27%)	152 (15%)	94 (9%)	30 (3%)	30 (3%)

Table 7.10: Expenditure on health care in the past three months

Results of logistic regression analysis on the relationship between amount spent on the past three months on health care (0=spent not more than $100, 1=spent more than $100) and some determining factors. The odds ratios (ORs) of these variables are adjusted for employment status, educational attainment and smoking habit as well as for each other.

Factors	Odds ratio (95% CI)
Sex (1=female, 0=male)	1.44(1.11,1.87)
Age (1=aged 0 to 12, 0=older than 12)	1.93(1.10,3.38)
Monthly domestic income (1=$3000-5999, 0=others)	0.55(0.37,0.81)
Site of majority of health care (1=GOPD, 0=other sites)	0.34(0.23,0.50)

Health insurance in different sub-groups

Table 7.11: Sex

	Proportion with health insurance n (%)
Male	116(17)
Female	96(12)

Table 7.12: Age

	Proportion with health insurance n (%)
0-12	9(6)
13-19	14(6)
20-39	150(23)
40-59	35(12)
60 and over	3(2)

Table 7.13: Employment status

	Proportion with health insurance n (%)
Full-/part-time employed	170(22)
Housewife	17(7)
Student/below school age	22(7)
Retired	1(1)

Table 7.14: Educational attainment

	Proportion with health insurance n (%)
Primary or below	39(8)
Secondary/matriculated	129(16)
Post-secondary	44(29)

Table 7.15: Monthly domestic income

	Proportion with health insurance n (%)
less than $3000	0(0)
$3000-$5999	17(7)
$6000-$9999	29(10)
$10000 and over	110(25)
Refused to answer	56(11)

Table 7.16: Site of majority of medical care in the past year

	Proportion with health insurance n (%)
GOPD	4(2)
Private doctor	176(17)
Others	29(13)

Table 7.17: Factors related to health insurance

Results of logistic regression analysis on the relationship between whether the subject had health insurance and some determining factors. The odds ratios (ORs) of these variables are adjusted for each other.

Factors	Odds ratio (95% CI)
Aged 60 or over	0.25(0.06,0.97)
With post-secondary education	1.78(0.99,3.19)
Full- or part-time employed	2.44(1.51,3.93)
Monthly domestic income of $10000 and over	2.49(1.38,4.49)
Site of majority of health care (relative to GOPD)	
Private doctor	7.35(2.66,20.28)
Other sites	6.18(2.10,18.21)

Table 7.18: Amount of premium paid per month (N=88)

Amount	n (%)
under $50	13(15)
$51-$100	14(16)
$100-$200	16(18)
$201-$500	39(44)
$501-$1000	4(5)
over $1000	2(2)

Table 8.1: Smoking habits by gender

	Male	Female	Total (Row%)
non-smoker	500	743	1243
(c%)	71.2	94.2	83.4%
smoker	202	46	248
(c%)	28.8	5.8	16.6%
Total	702	789	1491
(c%)	47.1%	52.9%	100%

Table 8.2: Smoking habits by age

	Age in years									
Smoker	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	>79	Total (Row%)
No	93	250	247	295	115	101	81	42	14	1239
(c%)	100	94.3	82.9	81.0	74.7	78.3	77.9	65.6	93.7	83.3%
Yes		15	51	69	39	28	23	22	1	248
(c%)		5.7	17.1	19.0	23.5	21.7	22.1	34.4	6.7	16.7%
Total	93	265	298	364	154	129	104	64	16	1487
(c%)	6.3%	17.8%	20.0%	24.5%	10.4%	8.7%	7.0%	4.3%	1.1%	100%

Table 8.3: Cigarettes per day

No. of cigarettes	n	%
1-5	53	21.3
6-10	58	23.4
11-15	25	10.1
16-20	73	29.4
21-30	6	2.4
31-40	19	7.7
41-50	3	1.2
>50	11	4.4

Appendix 1 : Survey instrument - English version.

G.O.P.D. TELEPHONE SURVEY QUESTIONNAIRE

Telephone Region (0/3/5) 1[ ]

Introduce Self and explain purpose of interview.
Ask consent.

Response No Reply (1) Disconnected (2) Refused (3) 2[ ]
(If Refusal, please record why .....) 3[ ]

Section A

A1. "Please tell me who is living and eating together with you, in your household. Start with the oldest and then the next oldest, until you have listed everyone. Please say if they are male or female and remember to include yourself."

唔該你話比我知，喺你屋企有乜嘢人同你一齊食，一齊住，由最大嘅開始，至到最細嘅，佢哋係乜嘢性別，唔好唔記得包埋你自己在內。

No. in Household	1	2	3	4	5	6	7	8	9	10		
(Oldest=1)											Total	4-5 [ ][ ]
Sex (M/F)											Males	6-7 [ ][ ]
Answerer ( )											Answerer	8-9 [ ][ ]
Sample ( )											Sample .	10-11[ ][ ]
Replacement( )											Replcemnt	12-13[ ][ ]

Sample Resp. number										
Replacement										

Reason for replacement (Not at home=1; refused=2; other=3) 14[ ]

(If refused, record reason.....:.....) 15[ ]

Make notes in the section below, if necessary.

I am working for the University of Hong Kong, and we are doing a telephone survey for the Hong Kong Government on people's use of community health facilities and their behaviour when sick. This is to help with planning the development of Hong Kong's health services.

Some of the questions I am going to ask you may seem rather personal, and some may seem irrelevant, but they have been carefully selected to give us information important to our survey, so please try to answer them as accurately as you can.

Your help is important to us. In return, the Department of Community Medicine at HKU will give you and your family free advice on any health problem, either physical or psychological, that you might have in the future. I will give you the number of the Department, do you have a pen ready?

The number is 5-8199280, and my name is ..... (if necessary also give your id number).

If you want you can call this number and check that this survey is from the University.

Because we need to talk to people from all walks of life, we will first ask about the members of your household, and then select one of them at random to answer our questions.

Telephone Survey

Government Outpatient Department Study

Date _____

1. am session 2. pm session 3. evening session 4. sunday session 5. public holiday

Time of interview : from _____ to _____

Name of interviewer : _____

---

1. What is your age?

2. Over the past two weeks, have you had any health-related problem(s)?
   1. no (go to Q4)
   2. yes

3. Please give some details about your illness.

   a. what was the major problem _____

   b. what did you do for your problem?
      (go through items in the following list)
      1. done nothing (excluding this consultation)
         yes/no
      2. rest yes/no
      3. modified diet yes/no
      4. used Chinese herbs yes/no
      5. used medications obtained over-the-counter
         yes/no
      6. used medication that was left over from the last time I was sick
         yes/no
      7. sought the advice of lay persons (friends, family, relatives)
         yes/no
      8. sought the advice of professionals (chinese or western)
         yes/no (if no, go to 4)

   c. (only if patient sought advice of professionals)
      where did you seek professional advice?
      (may circle more than one)
      1. GOPD
      2. A/E
      3. private doctor
      4. other western doctors (specify) _____
      5. herbalist
      6. acupuncturist
      7. bone-setter
      8. others (specify) _____
      *9. company doctor

Option with '*' is modified during data collection

d. how many consultations did you have for the problem? _____

e. how much did you spend on health care for this problem (including investigations and medication)?

_____

4. When were you last ill? _____ days/weeks/years ago
(excluding the problems in the recent 2 weeks)

5. What was the problem? _____

6. Did you seek professional advice for the problem?
   1. no
   2. yes (may circle more than one)
      1. GOPD
      2. A/E
      3. private doctor
      4. other western doctors (specify) _____
      5. herbalist
      6. acupuncturist
      7. bone-setter
      8. others (specify) _____
      *9. company doctor

7. During the past year when you were ill, where did you receive the majority of your health care?
   1. GOPD
   2. A/E
   3. private doctor
   4. other western doctors (specify) _____
   5. herbalist
   6. acupuncturist
   7. bone-setter
   8. others (specify) _____
   *9. company doctor

8. Have you ever been told that you have diabetes?
   1. no (go to Q.10)
   2. yes

9. Where do you receive the majority of care for your diabetes?
   1. GOPD
   2. A/E
   3. private doctor
   4. other western doctors (specify) _____
   5. herbalist
   6. acupuncturist
   7. bone-setter
   8. others (specify) _____
   *9. company doctor

Option with '*' is modified during data collection

10. Have you ever been told that you have hypertension?
    1. no (go to Q.12)
    2. yes

11. Where do you receive the majority of care for you hypertension?
    1. GOPD
    2. A/E
    3. private doctor
    4. other western doctors (specify) _____
    5. herbalist
    6. acupuncturist
    7. bone-setter
    8. others (specify) _____
    *9. company doctor

12. Have you smoked in the past month?
    (if no, response=0 and go to Q.14)

    _____ /day/week/month

13. If you smoke, has anybody advised you to quit?
    1. no
    2. Yes
        1. GOPD doctor
        2. other doctor
        3. other health professional
        4. family
        5. friends
        6. others (specify) _____

14. Have you been a patient in any GOPD?
    1. no (go to Q.15)
    2. yes (go to Q.16)

15. Why not?
    1. no illness
    2. have preference for private doctors
    3. concerned about quality of care
    4. other (specify) _____

16. Do you generally go to the same doctor each time you are ill?
    1. no
    2. yes

17. How often do you "shop" around for doctors, ie, change doctors without referral during the same illness episode, when you are unwell?
    1. never
    2. less than 20% of the time
    3. 20% to 50% of the time
    4. 50% to 80% of the time
    5. more than 80% of the time
    6. every time

Option with '*' is modified during data collection

18. How often do you consult traditional chinese practitioners for advice as well as western medical doctors during the same illness episode when you are unwell?
    1. never
    2. less than 20% of the time
    3. 20% to 50% of the time
    4. 50% to 80% of the time
    5. more than 80% of the time
    6. every time

19. How strong is your belief in hot/cold distinction?
(prompt by going through list)
    1. not at all
    2. fairly strongly
    3. strongly
    4. very strongly
    5. never heard of it

20. Does your belief in the concept of hot/cold affect your diet?
(prompt by going through list)
    1. not at all
    2. fairly strongly
    3. strongly
    4. very strongly

21. If you are prescribed a specific course of drug therapy by a doctor, how often do you complete the treatment as directed?
    1. never
    2. less than 20% of the time
    3. 20% to 50% of the time
    4. 50% to 80% of the time
    5. more than 80% of the time
    6. every time

22. How much money have you spent on health care (including professional consultations, western or traditional, hospital charges, A/E costs, all medications, vitamins, tonics, hospitalizations and excluding foods, eyeglasses and dentures) over the past month?
(definition of whether an item is food or tonic according to patient)
    1. 0
    2. $1 - $100
    3. $101 - $250
    4. $251 - $500
    5. $501 - $750
    6. >$750
    7. refuse to estimate
    8. can't remember

23. Have you been hospitalized over the past year? (if no, response=0)
(if yes) how many times? _____

where? _____

reasons? _____

24. Would you like to have possession of a record with a summary of your health problems?
    1. no
    2. yes

(if responding to either Q.33.1 or Q.33.2)

34. What is your average monthly income from your main employment?

1. less than $1000
2. $1000-$2999
3. $3000-$5999
4. $6000-$9999
5. $10000 or over
6. refused to answer/don't know

35. What is the average monthly income of your household?
('household' includes all family members who usually share meals with the subject and/or share the same living quarter)

1. less than $1000
2. $1000-$2999
3. $3000-$5999
4. $6000-$9999
5. $10000 or over
6. refused to answer/don't know

36. Do you own or are you buying your own home?

1. no. specify
   1. housing estate
   2. government or company housing
   3. rented private flat
   4. others (specify) _____
2. yes. specify
   1. home ownership
   2. private housing (not shared)
   3. private housing (shared)
   4. others (specify) _____

Thank you for your helpful information. If we need further assistance, may we contact you by telephone?

1. no
2. yes

25. How would you rate your current status of health? (prompt by going through list)
    1. very poor
    2. poor
    3. fair, not good, not bad
    4. very good

26. Is there one change in your present condition or circumstance that would allow you to enjoy (even) better health?

    _____

27. Do you have health insurance?
    1. no (go to Q.30)
    2. yes

28. Who pays for the premium?
    1. self or spouse
    2. employer or spouse's employer
    3. other (specify) _____

29. How much is the premium per month?
    1. don't know/refuse to answer
    2. _____

30. Race
    1. Chinese
    2. non-Chinese (specify) _____

31. Marital status
    1. single 2. married 3. divorced
    4. widower 5. separated 6. co-habitant

32. What is the highest level of education you attained?
    1. none
    2. kindergarten
    3. traditional tutor
    4. primary school
    5. secondary school
    6. matriculation
    7. post-secondary - non-degree
    8. post-secondary - degree
    9. post-graduate - degree

33. Do you have a job?
    (working at least 15 hours in the last seven days)
    *0. retired
    1. full-time work. job and nature of work:
    2. part-time work. job and nature of work:
    3. housewife/household work (not earning wages)
    4. still a full-time student
    5. below school age
    *6. full-time worker with part-time job
    *7. full-time student with part time job
    *8. unemployed/between jobs
    *9. others (details) _____

Option with '*' is modified during data collection

Appendix 2 : Survey instrument - Cantonese Version.

G.O.P.D. TELEPHONE SURVEY QUESTIONNAIRE

Telephone Region (0/3/5) 1[ ]

Introduce Self and explain purpose of interview.
Ask consent.

Response No Reply (1) Disconnected (2) Refused (3) 2[ ]
(If Refusal, please record why.....) 3[ ]

Section A

A1. "Please tell me who is living and eating together with you, in your household. Start with the oldest and then the next oldest, until you have listed everyone. Please say if they are male or female and remember to include yourself."

唔該你話比我知，喺你屋企有乜嘢人同你一齊食，一齊住，由最大嘅開始，至到最細嘅；佢哋係乜嘢性別，唔好唔記得包埋你自己在內．

No. in Household	1	2	3	4	5	6	7	8	9	10		
(Oldest=1)											Total	4-5 [ ][ ]
Sex (M/F)											Males	6-7 [ ][ ]
Answerer ( )											Answerer	8-9 [ ][ ]
Sample ( )											Sample .	10-11[ ][ ]
Replacement( )											Replcemnt	12-13[ ][ ]

Sample Resp. number										
Replacement										

Reason for replacement (Not at home=1; refused=2; other=3) 14[ ]

(If refused, record reason.....) 15[ ]

Make notes in the section below, if necessary.

I am working for the University of Hong Kong, and we are doing a telephone survey for the Hong Kong Government on people's use of community health facilities and their behaviour when sick. This is to help with planning the development of Hong Kong's health services.

Some of the questions I am going to ask you may seem rather personal, and some may seem irrelevant, but they have been carefully selected to give us information important to our survey, so please try to answer them as accurately as you can.

Your help is important to us. In return, the Department of Community Medicine at HKU will give you and your family free advice on any health problem, either physical or psychological, that you might have in the future. I will give you the number of the Department, do you have a pen ready?

The number is 5-8199280, and my name is ..... (if necessary also give your id number).

If you want you can call this number and check that this survey is from the University.

Because we need to talk to people from all walks of life, we will first ask about the members of your household, and then select one of them at random to answer our questions.

Telephone Survey
Government Outpatient Department Study

Date: _____ ☐☐ ☐☐ 16-19

1. am session 2. pm session 3. evening session
4. sunday session 5. public holiday ☐ 20

Time of interview: from _____ to _____ ☐☐☐☐ ☐☐☐☐ 21-28

Name of interviewer: _____ ☐☐ 29-30

---

1. 以西曆計，請問你今年幾多歲？ ☐☐ 31-32

2. 過去兩星期內，你有冇乜嘢唔舒服？
   1. 冇 (go to Q4)
   2. 有 ☐ 33

3. 請你講吓有關你個病嘅詳情。

   a. 你上次覺得最唔舒服係乜嘢？ _____ ☐☐☐☐ 34-37

   b. 發覺後你點做？
   (go through items in the following list)
   1. 完全冇理 (excluding this consultation) 係/唔係 ☐ 38
   2. 休息 有/冇 ☐ 39
   3. 改變飲食習慣 有/冇 ☐ 40
   4. 食中药 有/冇 ☐ 41
   5. 去药房買药食 (服食成药) 有/冇 ☐ 42
   6. 食上次病嘅時候食剩嘅药 有/冇 ☐ 43
   7. 問屋企人、親戚朋友嘅意見 有/冇 ☐ 44
   8. 睇醫生 (中醫或西醫) 有/冇 (if no, go to 4) ☐ 45

   c. (only if patient sought advice of professionals)
   如果有睇過醫生，你去過邊度睇呢？
   (may circle more than one)
   1. 政府門診部
   2. 急症室
   3. 私家西醫診所
   4. 其他西醫 (specify) _____
   5. 中醫
   6. 針灸師
   7. 跌打醫生
   8. 其他 (specify) _____ ☐☐☐☐☐ 46-50
   *9. 公司醫療服務

   d. 你嗰次睇病睇咗幾多次醫生？ _____ ☐☐ 51-52

   e. 你嗰次睇病用咗幾多錢？ (包括药/化驗費) _____ ☐☐☐☐ 53-56

4. 你上一次唔舒服係幾時？(excluding the problems in recent 2 weeks)
_____ 日／星期／月／年前 ☐☐ ☐ 57-59

5. 你果次係乜嘢唔舒服？_____ ☐☐☐☐ 60-63

6. 咁你有冇去睇醫生？ ☐ 64
   1. 冇
   2. 有 (may circle more than one)
      1. 政府門診部
      2. 急症室
      3. 私家西醫診所
      4. 其他西醫 (specify) _____
      5. 中醫
      6. 針灸師
      7. 跌打醫生
      8. 其他 (specify) _____ ☐☐☐☐☐ 65-69
      *9. 公司醫療服務

7. 過去一年內你唔舒服嘅時候喺邊度睇病睇得最多？
   1. 政府門診部
   2. 急症室
   3. 私家西醫診所
   4. 其他西醫 (specify) _____
   5. 中醫
   6. 針灸師
   7. 跌打醫生
   8. 其他 (specify) _____ ☐ 70
   *9. 公司醫療服務

8. 有冇西醫話過你有糖尿病？
   1. 冇 (go to Q10)
   2. 有 ☐ 71

9. 你嘅糖尿病主要喺邊度睇？
   1. 政府門診部
   2. 急症室
   3. 私家西醫診所
   4. 其他西醫 (specify) _____
   5. 中醫
   6. 針灸師
   7. 跌打醫生
   8. 其他 (specify) _____ ☐ 72
   *9. 公司醫療服務

10. 有冇西醫話過你有血壓高？
   1. 冇 (go to Q12)
   2. 有 ☐ 73

11. 你嘅血壓高主要喺邊度睇？

1. 政府門診部
2. 急症室
3. 私家西醫診所
4. 其他西醫 (specify) _____
5. 中醫
6. 針灸師
7. 跌打醫生
8. 其他 (specify) _____
*9. 公司醫療服務

☐ 72

12. 過去一個月內，你有冇食過煙仔？
(if no, response=0 and go to Q14)
每日/ 星期/ 月 _____ 支

☐ ☐☐ 75-77

13. 如果你有食煙仔，有冇人勸過你戒煙？

1. 冇
2. 有． 邊個勸你？ (may circle more than one)
   1. 政府門診部醫生
   2. 其他醫生
   3. 其他健康專業人士
   4. 屋企人
   5. 朋友
   6. 其他 (specify) _____

☐ 78

14. 你以前有冇去過任何一間政府門診部睇病？

1. 冇 (go to Q15)
2. 有 (go to Q16)

☐ 79

15. 點解冇？

1. 冇病
2. 比較鍾意睇私家醫生
3. 擔心睇得馬虎
4. 其他 (specify) _____

☐☐ 80-81

16. 你唔舒服嘅時候係唔係通常都係搵同一個醫生睇病？

1. 唔係
2. 係

☐ 82

17. 你有冇試過喺同一次病，冇醫生介紹就自己轉醫生？

1. 未試過
2. 非常少，少過兩成
3. 大約兩成至一半
4. 大約一半至八成
5. 多過八成
6. 每次唔舒服都有

☐ 83

18. 你有冇經常同一次病嘅時候又睇中醫又睇西醫？

1. 未試過
2. 非常少，少過兩成
3. 大約兩成至一半
4. 大約一半至八成
5. 多過八成
6. 每次唔舒服都有 ☐ 84

19. 你信唔信有熱氣/寒涼？ (prompt by going through list)

1. 完全唔信
2. 麻麻地相信
3. 相信
4. 信到十足
5. 從來未聽過呢樣嘢 ☐ 85

20. 熱氣/寒涼嘅觀念有冇影響你嘅飲食習慣？
(prompt by going through list)

1. 完全冇
2. 麻麻地有影響
3. 有影響
4. 影響非常大 ☐ 86

21. 你係唔係經常都照足醫生嘅話食晒佢開俾你嘅藥？

1. 未試過
2. 非常少，少過兩成
3. 大約兩成至一半
4. 大約一半至八成
5. 多過八成
6. 次次都有 ☐ 87

22. 過去三個月內，你用咗幾多錢喺睇病，住醫院，買藥 (好似成藥、维他命、補品)。 呢的費用唔包括食物、假牙、配眼鏡 (definition of whether an item is food or tonic according to patient)

1. 0
2. $ 0 - $ 100
3. $ 101 - $ 250
4. $ 251 - $ 500
5. $ 501 - $ 750
6. >$ 750
7. 完全冇辦法估計
8. 唔記得 ☐ 88

23. 過去一年內，你有冇住過醫院？
(if no, response=0)
(if yes) · 住過 _____ 次 ☐☐ 89-90

· 邊間醫院？ _____ ☐ 91

乜嘢原因？ _____

24. 你想唔想擁有一份扼要講及你健康問題嘅紀錄？
1. 唔想
2. 想 ☐ 92

25. 你認為你目前嘅健康點樣？ (prompt by going through list)
1. 健康好差
2. 健康唔好
3. 健康普通，唔算好，唔算差
4. 健康好好 ☐ 93

26. 你認為目前要改變嘅乜嘢先至會令到你覺得自己更健康一啲？

_____

27. 你有冇買醫療保險？
1. 冇 (go to Q30)
2. 有 ☐ 94

28. 保險金由邊個俾？
1. 自己或配偶
2. 自己或配偶的僱主
3. 其他 (specify) _____ ☐ 95

29. 每個月俾幾多錢保險金？
1. 唔想答/ 唔知
2. _____ ☐☐☐☐☐ 96-100

30. Race:
1. Chinese
2. non-Chinese (specify) _____ ☐ 101

31. Marital status
1. single 2. married 3. divorced
4. widower 5. separated 6. co-habitant ☐ 102

32. 你讀書讀到乜嘢程度？
1. 冇讀過書
2. 幼稚園
3. 私塾
4. 小學
5. 中學
6. 預科
7. 大專 --- 非學位
8. 大專 --- 學位
9. 研究生 ☐ 103

33. 你有冇全職工作？
(working at least 15 hours in the last seven days)
*0. 退休
1. 全職工作． 職業及工作性質：_____
2. 兼職工作． 職業及工作性質：_____
3. 家庭主婦/ 料理家務 (不支薪)
4. 學生
5. 未到入學年齡
*6. 全職及兼職工作
*7. 學生及兼職工作
*8. 失業或正在找工作
9. 其他(details)_____ ☐ 104

(if responding to either 33.1 or 33.2)
34. 你嘅主要職業每月平均收入係幾多？
1. 少過 $ 1000 2. $ 1000 - $ 2999
3. $ 3000 - $ 5999 4. $ 6000 - $ 9999
5. $10000 或以上 6. 唔想答/ 唔知 ☐ 105

35. 你一家人嘅每月平均收入係幾多？
(一家人 includes all family members who usually share meals with the subject and/or share the same living quarter)
1. 少過 $ 1000 2. $ 1000 - $ 2999
3. $ 3000 - $ 5999 4. $ 6000 - $ 9999
5. $10000 或以上 6. 唔想答/ 唔知 ☐ 106

36. 你住緊嘅係唔係自置樓宇？
1. 唔係． specify
1. 公共屋邨
2. 政府或公司宿舍
3. 租住私人樓宇
4. 其他 (specify) _____

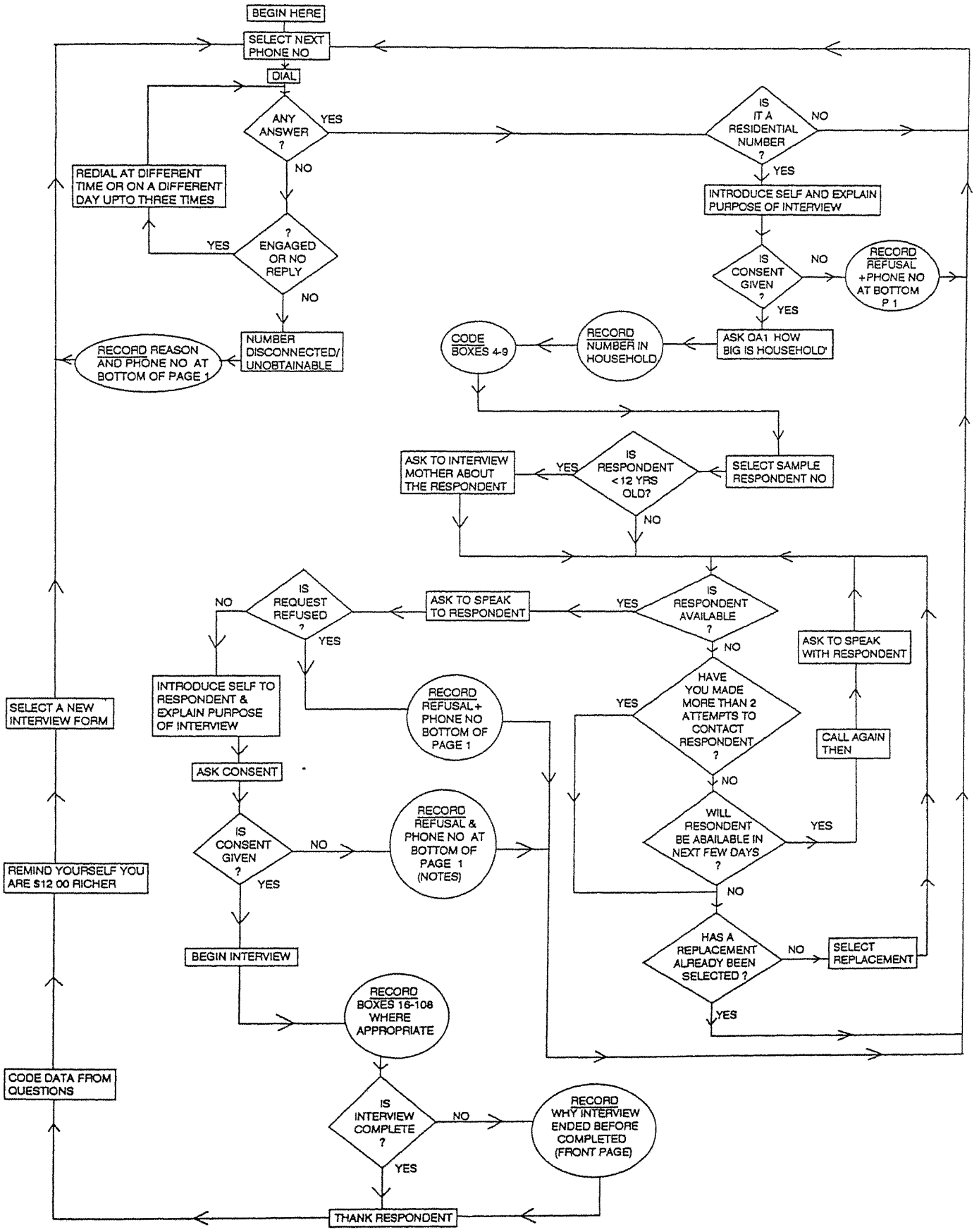
2. 係． specify
1. 居者有其屋
2. 私人樓宇 - 不與另一戶人共住
3. 私人樓宇 - 與另一戶人共住
4. 其他 (specify) _____ ☐ 107

多謝你提供嘅有用資料。如果我哋需要你進一步嘅幫忙，我哋可唔可以用信件或電話同你聯絡？
1. 唔可以
2. 可以 ☐ 108

Options with '*' were modified during data collection.

Appendix 3

Telephone and subject sampling procedure



Appendix 4

Quality Assessment Procedure

1.0 Procedural accuracy

1.1 In order to monitor adherence to the research protocol, we gave a random sample of interviewers five additional "sample adjustment numbers", with the rationale that these were to fine tune the proportions of the sample we were drawing.

1.2 However, these numbers contained the home telephone numbers of two of the principal investigators (AL and RF), but this was not known by the interviewers in question.

1.3 All calls made to the homes of AL and RF were given standardized answers to interview questions according to a pre-determined set of responses. Additionally, the complete call was tape recorded live and analysed for procedural consistency the following day, (as most calls were made in the evenings).

1.4 This enabled us to monitor the consistency of interviewing according to the protocol, ensuring that important elements, such as the correct selection of interviewees was carried out, and that all questions were asked in a reasonably consistent way.

2.0 Coding accuracy

2.1 On the day following the data collection period, all interviewers returned their completed interviews. Interviews to "sample adjustment numbers" were identified and pulled out. The interviewers the cross-checked each others' questionnaires for coding accuracy, as well as making minor adjustments to coding decided on during the course of the study.

2.2 In the event, all original interviewers completed 95-100 interviews by the deadline. These, together with the those of the additional six interviewers, gave a total of 1509 completed questionnaires.

3.0 Interview response rates

Examination of the interviewer response rates gives an indication of the successfulness of each interviewer in persuading a household to cooperate. Though this has no direct relationship to the quality of the subsequent interview, it enables us to assess the representativeness of the interviews completed.

Appendix 5

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