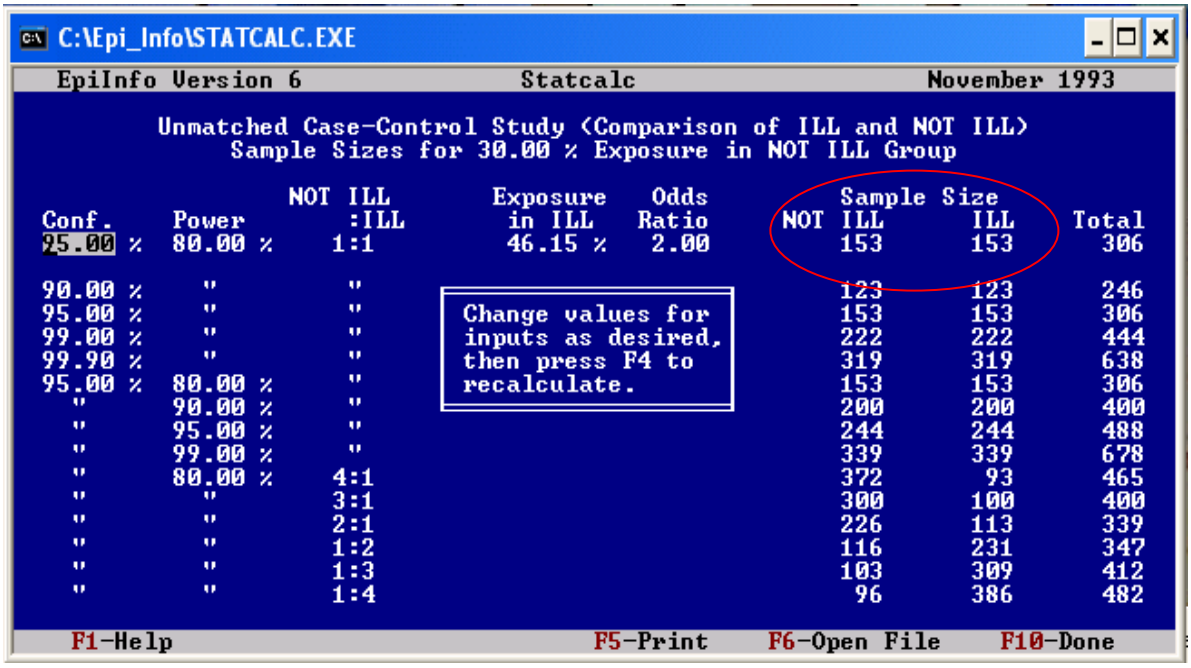
Sample size calculation



Research Ethics and Protocol




PATIENT INFORMATION SHEET

Please read the following information carefully. Do not hesitate to discuss any questions you may have with your Doctor.

Study title

Oral cancer and precancer in Malaysia- Risk factors, prognostic markers, gene expression and impact on quality of life.

Introduction

Oral cancer is a form of malignancy that is very easily detected through an oral examination. Various studies have shown the association of certain risk habits such as smoking and alcohol consumption with oral cancer. This study attempts to investigate the risk factors, prognostic markers, gene expression and its impact on patient's quality of life. The identification of the aforementioned factors will help us to improvise or create new ways of detecting the disease at an earlier stage and perhaps will enable us to introduce a more effective treatment for this disease. Therefore, you are cordially invited to participate in our study into the nature of this disease. We hope to understand and identify candidate genes that are the driving forces behind the disease.

What is the purpose of this study?

This study aims to identify risk factors, prognostic markers and expression of certain genes in patients who have oral cancer or potentially malignant lesions and its impact on the patient's quality of life.

What are the procedures to be followed?

One of the routine procedures in the management of your disease is surgical removal of the cancerous tissue. We seek your permission to include a little part of this tissue for our study other than for routine clinical purpose. No extra tissue will be taken for the study and it will not affect the diagnosis of the disease, its treatment and outcome. Besides that, we also seek your permission to collect some saliva and draw about 2 teaspoonful of blood for the study. All the information collected and generated will be kept strictly confidential and any information that leaves the hospital or surgery will be anonymous so that you cannot be identified from it.

Who should not enter the study?

Every individual with the disease can volunteer to participate in the study. No one will be discriminated from participating in the study.

What are the benefits of the study:

(a) to you as a subject?

The study will provide us with a better understanding of the disease, which will help us in early detection and treatment of the disease, thus enabling us to help other patients in future.

(b) to the investigators?

The findings from this study will give us future directions of studying this area further.

What are the possible drawbacks?

Physical discomfort and bruises may be introduced in the course of removing the tissue and drawing of blood.

Can I refuse to take part in the study?

Your participation is totally voluntary. You need not explain why you prefer not to take part in the study and it will not affect the diagnosis, treatment and outcome of the disease and the doctor will not be upset with you. If you change your mind about taking part later on, you can always withdraw your participation and it will not affect your treatment.

Who should I contact if I have additional questions during the course of the study?

The best person to consult will be your Doctor who will be working with us closely. Should you need to find out more about the details of the study, you are welcome to contact us at any time.

Doctors Names:

Professor Dr Rosnah Binti Mohd Zain (UM)
Dr. Nurshaline Pauline Hj. Kipli (UM)
Associate Professor Dr Zainal Ariff Abdul Rahman (UM)
Associate Professor Dr Shanmuhasuntharam (UM)
Associate Professor Dr Gopala Krishnan (UM)
Dr Siti Mazlipah bt Ismai (UM)
Dr Mannil Thomas Abraham (HTAR, Klang)
Dr.Christopher Vincent (Hospital Selayang, Selayang)
Dr. Norma binti Abd. Jalil (HQE, Sabah)
Dr. Tay Keng Kiong (Hospital Umum, Sarawak)
Dr. Rusdi Abd. Rahman (Hospital Kota Bharu, Kelantan)
Dr. Abdul Latif Hamid (Hospital Seremban, Negeri Sembilan)
Dr. Yuen Kar Mun (Hospital Ipoh, Perak)
Dr. Wan Mahadzir Wan Mustafa (HKL, Kuala Lumpur)
Assoc. Prof. Dr Rani Samsuddin (USM)
Assoc. Prof. Dr Madhavan (USM)
Dr. Rushdan Ismail (USM)
Dr. Haizal Mohd. Hussaini (UKM)
Dr. Kelvin Lim (UKM)
Dr. Primuharsa Putra (UKM)
Others: .....




CONSENT BY PATIENT FOR RESEARCH

I, ... Identity card no .....
(Name of patient)

of .....
(Address)

hereby agree to take part in the research specified below :
Title of study : **Oral Cancer and Precancer in Malaysia – Risk factors, prognostic markers, gene expression and impact on quality of Life**

the nature and purpose of which has been explained to me by Dr .....
(Name & designation of doctor)

and interpreted by ..... to the best of his/her ability in .....
(Name & designation of interpreter)

language/dialect .....

I have been told about the nature of the research in terms of methodology and possible outcome (as per the patient information sheet). After knowing and understanding all the possible outcome of this research, I voluntarily consent of my own free will to participate in the research specified above.

I understand that I can withdraw from this research at any time without assigning any reason whatsoever and in such a situation shall not be denied the benefits of usual treatment by the attending doctors.

Date ..... Signature or thumbprint .....
(Patient)

IN THE PRESENCE OF

Name .....

Identity card no ..... Signature .....
(Witness for signature of patient)

Designation .....

I confirm that I have explained to the patient the nature and purpose of the above mentioned research.

Date ..... Signature .....
(Attending doctor)

CONSENT BY PATIENT
FOR
RESEARCH

R.N.
Name
Sex
Age
Unit

FFQ forms

Patient Record No ☐☐ Hospital No ☐☐☐☐ Case No ☐☐ Year ☐ Disease status

New IC No ☐☐☐☐☐☐☐☐☐☐☐☐

Old IC No. ☐☐☐☐☐☐

(Peninsular Malaysia)

28.3.12 For each food listed, fill in the circle indicating how often on average you have used the amount specified during the past years.

	AVERAGE USE LAST YEAR								
DAIRY FOODS	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Skim or low fat milk (*susu tepung skim atau rendah lemak*) (8 oz.glass)									
Whole milk (*susu tepung penuh krim*) (8 oz.glass)									
Milk, sweetened, condensed (*susu pekat manis*) (tsb)									
Ice- cream (*ais krim*) (1/2 cup)									
Yogurt (*yogurt*) (1 cup)									
Cheese, cheddar (*keju*) (1 oz.)									
Margarine (pat), added to food or bread, exclude use in cooking (*marjerin*)									
Butter (pat), added to food or bread, exclude use in cooking (*mentega*)									
Ghee (*minyak sapi*) (tbs)									

28.3.14 Please fill in your average use, during the past year, of each specified food. Please try to average your seasonal use of foods over the entire year. For example, if a food such as cantaloupe is eaten 4 times a week during the approximate 3 months there it is in season, then the average used would be once per week.

FRUITS	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Papaya (*betik*) (1 slice)									
Bananas (*pisang*) (1)									
Mango (*mangga*) (1 medium)									

Patient Record No Hospital No ☐☐ Case No ☐☐☐☐ Year ☐☐ Disease status ☐

New IC No ☐☐☐☐☐☐☐☐☐☐☐☐

Old IC No. ☐☐☐☐☐☐☐

FRUITS	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Water melon (*tembikai*) (1 slice)									
Fresh apples or pears (*epal atau pears*) (1)									
Apple juice or cider (*jus epal*) (small glass)									
Oranges (*oren*)(1)									
Orange juice (*jus oren*) (small glass)									
Guava (*jambu batu*) (1 slice)									
Other fruit juice (*jus buah-buahan yang lain*) (small glass)									
Pineapple (*nanas*) (1 slice)									
Jack fruit (*nangka*) (1/2 cup)									
Rambutan (1/2 cup)									
Durian (1 slice)									
Langsat / Duku (1/2 cup)									

VEGETABLES	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Tomatoes (*tomato*) (1)									
Tomato sauce (*sos tomato*) (1/2 cup) e.g spaghetti sauce									
Red chili sauce (*sos cili merah*) (1 Tbs)									
Tofu or soya beans (*tofu atau kacang soya*) (3-4 oz.)									
String beans (*kacang panjang*) (1/2 cup)									
Cabbage or coleslaw (*kobis atau coleslaw*) (1/2 cup)									
Cauliflower (*bunga kobis*) (1/2 cup)									
Carrot, raw (*lobak merah mentah*) (½ carrot or 2-4 sticks)									

Patient Record No Hospital No ☐☐ Case No ☐☐☐☐ Year ☐☐ Disease status ☐

New IC No ☐☐☐☐☐☐☐☐☐☐☐☐

Old IC No. ☐☐☐☐☐☐☐

VEGETABLES	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Carrots, cooked (*lobak merah masak*) (1/2 cup)									
Mix vegetables (*sayur-sayuran campuran*) (1/2 cup)									
Yellow (winter) squash (*kundur*) (1/2 cup)									
Eggplant/brinjal or other summer squash (*terung*) (1/2 cup)									
Yams or sweet potatoes (*keladi/ubi keledek*) (1/2 cup)									
Spinach, cooked (*bayam masak*) (1/2 cup)									
Spinach, raw as in salad (*bayam mentah*)									
Kale, mustard or chard greens (*kalian,sawi*) (1/2 cup)									
Celery (*daun saladeri*) (4"sticks)									
Ulam (1 cup)									
Bamboo shoot (*Rebung*) (1 cup)									

EGGS, MEATS, FISH, SHELLFISH AND PRODUCTS, ETC	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Eggs (*telur*) (1)									
Chicken or turkey (*daging ayam/turki*) (4 – 6 oz.)									
Beef or lamb as a main dish, e.g. steak, roast, ham, etc.(*daging lembu/biri-biri*) (4-6 oz)									
Liver/Lungs/Heart, beef or lamb (*hati/paru/jantung, lembu/biri-biri*) (3-4 oz)									
Pork as a main dish, e.g. steak, roast, ham, etc.(*daging khinzir*) (4-6 oz)									
Mutton (*daging kambing*) (3-5 oz)									

Patient Record No	Hospital No	Case No	Year	Disease status
	☐☐	☐☐☐☐	☐☐	☐

New IC No ☐☐☐☐☐☐☐☐☐☐☐☐
Old IC No. ☐☐☐☐☐☐☐

Dark meat fish, e.g. mackerel, salmon, sardines, bluefish, swordfish and other fish (*ikan*) (3-5 oz)									
Cuttlefish/ Prawns (*sotong/ udang*) (3-5 oz)									
Crab/cockles (*ketam/siput/kerang*) (3-5 oz)									

BREADS, CEREALS, STARCHES	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
White bread (*roti putih*) (slice), including pita bread									
Wholemeal bread (*roti penuh mil*) (slice)									
Brown rice (*beras perang*) (1 cup)									
White rice (*beras putih*) (1 cup)									
Rice, coconut milk (*nasi lemak*) (1 cup)									
Rice, "dagang" (*nasi dagang*) (1 cup)									
Corn (*jagung*) (1 ear or 1/2 cup frozen or canned)									
Mee/ mihun/kuih-teow, fried (*mee/mihun/kuih-teow*) (1cup)									
Roti canai (1)									
Capati (1)									
Dosai (1)									
Idli (1)									

Patient Record No | Hospital No | Case No | Year | Disease status

New IC No
Old IC No.

CARBONATED BEVERAGES Consider the serving size as 1 glass, bottle or can for this carbonated beverages (*saiz penyediaan dikira 1 gelas, botol atau tin untuk minuman berkarbonat*)		BEVERAGES	Never or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 – 3 per day	4 –5 per day	6+ per day
	Low calories (sugar-free) types *rendah kalori-(tanpa gula)*	Low calories cola, e.g. tab with caffeine (*kola rendah kalori*)									
		Low calories caffeine-free cola,e.g. pepsi free (*kafein rendah kalori-tanpa kola*)									
		Other low calories carbonated beverage, e.g. fresca, diet 7-up, diet ginger ale (*minuman berkarbonat rendah kalori*)									
	Regular type(not sugar-free) *Jenis regular (bergula)*	Coke, pepsi, or other cola with sugar *(minuman kola bergula*)									
		Caffeine, free coke, pepsi or other cola with sugar (*tanpa kafein, bergula*)									
		Other carbonated beverage with sugar, e.g. 7-up, ginger ale (*minuman berkarbonat yang lain dengan gula*)									

Patient Record No Hospital No Case No Year Disease status

New IC No

Old IC No.

		BEVERAGES	Never or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 – 3 per day	4 –5 per day	6+ per day
	Other beverages (*minuman lain*)	Hawaiian punch, lemonade, or other non carbonated fruits drinks (1 glass, bottle, can)									
		Coffee (*kopi*) (1cup)									
		Tea (*teh, bukan teh herba*) (1cup),not herbal teas									

SWEETS,BAKED GOODS,MISCELLANEOUS, TRADITIONAL MALAYSIAN *KUIH*	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 – 5 per day	6+ per day
Chocolate/candy bars (bars or pieces) e.g. Hershey's, M&M's, Snickers (*coklat*)									
Muffins or biscuits (*muffin atau biskut*) (1), Cookies, home baked/ready made (*biskut*) (1) Sweet roll, coffee cake or other pastry, home baked/ready made *(pastri)* (serving) Cake, home baked/ready made *(kek)* (slice)									
Biscuit, cream cracker (*Biskut krim kreker*) (1 piece)									
Biscuit, sultana/marie/ (*Biskut sultana/marie/manis*) (1 piece)									
Pulut panggang/Udang (1 piece)									
Currypuff (*Karipap*) (1 piece)									
Cokodok pisang/jemput-jemput/ Pisang/Ubi goreng (1 piece)									
Murtabak (1 piece)									
Keropok leko (1 oval piece)									

Patient Record No Hospital No ☐☐ Case No ☐☐☐☐ Year ☐☐ Disease status ☐

New IC No ☐☐☐☐☐☐☐☐☐☐☐☐

Old IC No. ☐☐☐☐☐☐☐

SWEETS,BAKED GOODS,MISCELLANEOUS, TRADITIONAL MALAYSIAN *KUIH*	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 – 5 per day	6+ per day
Jams, jellies, preserves, syrup, or honey, peanut butter (tbs) *(jam, jeli, mentega kacang)*									
Nuts *(kekacang)* (small packet or 1 oz)									
Pepper *(lada)* (1 shake)									
Salt *(garam)* (1 shake)									

FERMENTED / SALTED FOODS	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Fish sauce (*Budu*) (1/2 cup)									
Shrimp, fermented (*Cincalok*) (1/2 cup)									
Shrimp paste *(Belacan)* (1/2 cup)									
Salted fish *(Ikan masin)* (3-5 oz)									
Chinese salted fish (3-5 oz)									
Duck egg, salted (*Telur asin)* (3-5 oz)									
Durian, fermented (*Tempoyak)* 9 3-5 oz)									
Chili, pickled *(Cili jeruk)* (3-5 oz)									
Soya sauce (*Kicap)* (Tb)									
Fruits, pickled *(Jeruk buah – buahan)* (3-5 oz)									

Patient Record No Hospital No ☐☐ Case No ☐☐☐☐ Year ☐☐ Disease status ☐

New IC No ☐☐☐☐☐☐☐☐☐☐☐☐

Old IC No. ☐☐☐☐☐☐☐

PROCESSED FOODS	Never, or less than once per month	1-3 per month	1 per week	2 – 4 per week	5 –6 per week	1 per day	2 –3 per day	4 –5 per day	6+ per day
Bacon (*bacon*) (2 slices)									
Processed meats, e.g. sausage, salami, hotdog, bologna, etc. *(daging proses)* (piece or slice)									
Burger (burger) 1 round piece									
Pizza (*piza*)(1 piece)									
Sandwich									
French fries *(kentang goreng)* (4 oz), Potatoes, baked, boiled (1) or *mashed (kentang baker,rebus,lenyek)* (1 cup)									
Instant noodle (*mi segera*) (1 cup)									
Chicken/fish/etc, nugget (*Nugget ayam/ikan/dll*) (1 piece)									
Rempah segera (3-5 oz)									

28.3.14 Are there any other important foods that you usually eat at least once per week ?
Include for example : Pate, tortillas, yeast, cream source, custard, horseradish, parsnips, rhobarb, radishes, fava beans, carrot juice, coconut, avocado, mango, papaya, dry apricot, dates, figs.
(do not include dry spices and do not list something that has been listed in the previous section.

Other foods that you usually used at least once per week	Usual serving size	Servings per week
a)		
b)		
c)		
d)		

NutrieMart computer generated report

- old form -

NutrieMart

Report No : Rpt00007
Date of Report : 02/03/2007
Title of Report : Percent Of Daily Total Nutrient Intake

ID / IC No. : 530514105597 **Name** : KANTHAN A/L KARUMANAN 01-0001-03
Age (Years : Months) : 53 : 9 **Category** : Men (50-59 years)
Date Intake : 02/03/2007

No.	Nutrient Name	Grand Total Intake	Breakfast	Total (%)	Morning snack	Total (%)	Lunch	Total (%)	Afternoon snack	Total (%)	Tea	Total (%)	Dinner	Total (%)	Supper	Total (%)
1	Energy (Kcal)	829.97	-	0	-	0	-	0	-	0	-	0	829.97	100	-	0
2	Protein (g)	37.09	-	0	-	0	-	0	-	0	-	0	37.09	100	-	0
3	CHO (g)	144.05	-	0	-	0	-	0	-	0	-	0	144.05	100	-	0
4	Fat (g)	11.71	-	0	-	0	-	0	-	0	-	0	11.71	100	-	0
5	Water (g)	441.00	-	0	-	0	-	0	-	0	-	0	441.00	100	-	0
6	Ash (g)	5.75	-	0	-	0	-	0	-	0	-	0	5.75	100	-	0
7	Fibre (g)	0.94	-	0	-	0	-	0	-	0	-	0	0.94	100	-	0
8	Ca (mg)	459.49	-	0	-	0	-	0	-	0	-	0	459.49	100	-	0
9	P (mg)	560.12	-	0	-	0	-	0	-	0	-	0	560.12	100	-	0
10	Fe (mg)	5.59	-	0	-	0	-	0	-	0	-	0	5.59	100	-	0
11	Na (mg)	585.58	-	0	-	0	-	0	-	0	-	0	585.58	100	-	0
12	K (mg)	780.58	-	0	-	0	-	0	-	0	-	0	780.58	100	-	0
13	B1 (mg)	0.51	-	0	-	0	-	0	-	0	-	0	0.51	100	-	0
14	B2 (mg)	1.24	-	0	-	0	-	0	-	0	-	0	1.24	100	-	0
15	Niacin (mg)	4.94	-	0	-	0	-	0	-	0	-	0	4.94	100	-	0
16	C (mg)	101.61	-	0	-	0	-	0	-	0	-	0	101.61	100	-	0
17	Retinol (ug)	132.47	-	0	-	0	-	0	-	0	-	0	132.47	100	-	0
18	Carotene (ug)	2326.99	-	0	-	0	-	0	-	0	-	0	2326.99	100	-	0
19	RE (ug)	520.50	-	0	-	0	-	0	-	0	-	0	520.50	100	-	0
20	Isothiocyanate (umol)	12.45	-	0	-	0	-	0	-	0	-	0	12.45	100	-	0

End of Report

CHI SQUARE TEST FOR SOCIODEMOGRAPHIC CHARACTERISTICS

a) Disease code with age group

Crosstab

			age group			
			<35	35-49	>=50	Total
disease code	control	Count	14	42	97	153
		Expected Count	15.0	41.5	96.5	153.0
		% within disease code	9.2%	27.5%	63.4%	100.0%
		% within age group	46.7%	50.6%	50.3%	50.0%
		% of Total	4.6%	13.7%	31.7%	50.0%
	case	Count	16	41	96	153
		Expected Count	15.0	41.5	96.5	153.0
		% within disease code	10.5%	26.8%	62.7%	100.0%
		% within age group	53.3%	49.4%	49.7%	50.0%
		% of Total	5.2%	13.4%	31.4%	50.0%
Total		Count	30	83	193	306
		Expected Count	30.0	83.0	193.0	306.0
		% within disease code	9.8%	27.1%	63.1%	100.0%
		% within age group	100.0%	100.0%	100.0%	100.0%
		% of Total	9.8%	27.1%	63.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.151(a)	2	.927
Likelihood Ratio	.151	2	.927
Linear-by-Linear Association	.066	1	.797
N of Valid Cases	306		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.00.

b) Disease code with gender

Crosstab

			patient gender		
			male	female	Total
disease code	control	Count	81	72	153
		Expected Count	81.0	72.0	153.0
		% within disease code	52.9%	47.1%	100.0%
		% within patient gender	50.0%	50.0%	50.0%
		% of Total	26.5%	23.5%	50.0%
	case	Count	81	72	153
		Expected Count	81.0	72.0	153.0
		% within disease code	52.9%	47.1%	100.0%
		% within patient gender	50.0%	50.0%	50.0%
		% of Total	26.5%	23.5%	50.0%
Total		Count	162	144	306
		Expected Count	162.0	144.0	306.0
		% within disease code	52.9%	47.1%	100.0%
		% within patient gender	100.0%	100.0%	100.0%
		% of Total	52.9%	47.1%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.000(b)	1	1.000		
Continuity Correction(a)	.000	1	1.000		
Likelihood Ratio	.000	1	1.000		
Fisher's Exact Test				1.000	.546
Linear-by-Linear Association	.000	1	1.000		
N of Valid Cases	306				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 72.00.

c) Disease code with ethnicity

Crosstab

			patient etnik			
			Malay	Chinese	Indian	Total
disease code	control	Count	51	51	51	153
		Expected Count	51.0	51.0	51.0	153.0
		% within disease code	33.3%	33.3%	33.3%	100.0%
		% within patient etnik	50.0%	50.0%	50.0%	50.0%
		% of Total	16.7%	16.7%	16.7%	50.0%
	case	Count	51	51	51	153
		Expected Count	51.0	51.0	51.0	153.0
		% within disease code	33.3%	33.3%	33.3%	100.0%
		% within patient etnik	50.0%	50.0%	50.0%	50.0%
		% of Total	16.7%	16.7%	16.7%	50.0%
Total		Count	102	102	102	306
		Expected Count	102.0	102.0	102.0	306.0
		% within disease code	33.3%	33.3%	33.3%	100.0%
		% within patient etnik	100.0%	100.0%	100.0%	100.0%
		% of Total	33.3%	33.3%	33.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.000(a)	2	1.000
Likelihood Ratio	.000	2	1.000
Linear-by-Linear Association	.000	1	1.000
N of Valid Cases	306		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 51.00.

d) Disease code with smoking

Crosstab

			smoking		
			No	Yes	Total
disease code	control	Count	126	27	153
		Expected Count	106.5	46.5	153.0
		% within disease code	82.4%	17.6%	100.0%
		% within smoking	59.2%	29.0%	50.0%
		% of Total	41.2%	8.8%	50.0%
	case	Count	87	66	153
		Expected Count	106.5	46.5	153.0
		% within disease code	56.9%	43.1%	100.0%
		% within smoking	40.8%	71.0%	50.0%
		% of Total	28.4%	21.6%	50.0%
Total		Count	213	93	306
		Expected Count	213.0	93.0	306.0
		% within disease code	69.6%	30.4%	100.0%
		% within smoking	100.0%	100.0%	100.0%
		% of Total	69.6%	30.4%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	23.496(b)	1	.000		
Continuity Correction(a)	22.306	1	.000		
Likelihood Ratio	24.053	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	23.419	1	.000		
N of Valid Cases	306				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 46.50.

e) Disease code with drinking

Crosstab

			drinking		
			No	Yes	Total
disease code	control	Count	132	21	153
		Expected Count	118.5	34.5	153.0
		% within disease code	86.3%	13.7%	100.0%
		% within drinking	55.7%	30.4%	50.0%
		% of Total	43.1%	6.9%	50.0%
	case	Count	105	48	153
		Expected Count	118.5	34.5	153.0
		% within disease code	68.6%	31.4%	100.0%
		% within drinking	44.3%	69.6%	50.0%
		% of Total	34.3%	15.7%	50.0%
Total		Count	237	69	306
		Expected Count	237.0	69.0	306.0
		% within disease code	77.5%	22.5%	100.0%
		% within drinking	100.0%	100.0%	100.0%
		% of Total	77.5%	22.5%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	13.641(b)	1	.000		
Continuity Correction(a)	12.649	1	.000		
Likelihood Ratio	13.935	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	13.597	1	.000		
N of Valid Cases	306				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 34.50.

f) Disease code with chewing

Crosstab

			chewing		
			No	Yes	Total
disease code	control	Count	126	27	153
		Expected Count	115.0	38.0	153.0
		% within disease code	82.4%	17.6%	100.0%
		% within chewing	54.8%	35.5%	50.0%
		% of Total	41.2%	8.8%	50.0%
	case	Count	104	49	153
		Expected Count	115.0	38.0	153.0
		% within disease code	68.0%	32.0%	100.0%
		% within chewing	45.2%	64.5%	50.0%
		% of Total	34.0%	16.0%	50.0%
Total		Count	230	76	306
		Expected Count	230.0	76.0	306.0
		% within disease code	75.2%	24.8%	100.0%
		% within chewing	100.0%	100.0%	100.0%
		% of Total	75.2%	24.8%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.473(b)	1	.004		
Continuity Correction(a)	7.720	1	.005		
Likelihood Ratio	8.568	1	.003		
Fisher's Exact Test				.005	.003
Linear-by-Linear Association	8.445	1	.004		
N of Valid Cases	306				

a Computed only for a 2x2 table
b 0 cells (.0%) have expected count less than 5. The minimum expected count is 38.00.

g) Disease code with family history

Crosstab

			family history of cancer		
			yes	no	Total
disease code	Control	Count	24	129	153
		Expected Count	29.5	123.5	153.0
		% within disease code	15.7%	84.3%	100.0%
		% within family history of cancer	40.7%	52.2%	50.0%
		% of Total	7.8%	42.2%	50.0%
	Case	Count	35	118	153
		Expected Count	29.5	123.5	153.0
		% within disease code	22.9%	77.1%	100.0%
		% within family history of cancer	59.3%	47.8%	50.0%
		% of Total	11.4%	38.6%	50.0%
Total		Count	59	247	306
		Expected Count	59.0	247.0	306.0
		% within disease code	19.3%	80.7%	100.0%
		% within family history of cancer	100.0%	100.0%	100.0%
		% of Total	19.3%	80.7%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.541(b)	1	.111		
Continuity Correction(a)	2.100	1	.147		
Likelihood Ratio	2.553	1	.110		
Fisher's Exact Test				.147	.073
Linear-by-Linear Association	2.532	1	.112		
N of Valid Cases	306				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 29.50.

ODDS RATIO OF SOCIODEMOGRAPHIC RISK HABITS

a) Tobacco Smoking

Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	habits_1	1.264	.268	22.315	1	.000	3.540	2.095	5.982
	Constant	-.370	.139	7.060	1	.008	.690		

b) Alcohol Drinking

Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	habits_2	1.056	.292	13.023	1	.000	2.873	1.620	5.098
	Constant	-.229	.131	3.063	1	.080	.795		

c) Betel Quid Chewing

Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	habits_3	.788	.274	8.277	1	.004	2.199	1.285	3.761
	Constant	-.192	.132	2.098	1	.148	.825		

d) Family History

Variables in the Equation

		B	S.E.	Wald	Df	Sig.	Exp(B)	95.0% CI for EXP(B)	
								Lower	Upper
Step 1(a)	family_history	.466	.294	2.516	1	.113	1.594	.896	2.837
	Constant	-.089	.127	.490	1	.484	.915		

CHI SQUARE TEST FOR FOUR IDENTIFIED DIETARY PATTERN

a) Modern pattern

Crosstab

			disease code		
			control	case	Total
comb2a (Banded)	<= 1.00	Count	48	55	103
		Expected Count	51.5	51.5	103.0
		% within comb2a (Banded)	46.6%	53.4%	100.0%
		% within disease code	31.4%	35.9%	33.7%
		% of Total	15.7%	18.0%	33.7%
	1.01 - 2.72	Count	51	51	102
		Expected Count	51.0	51.0	102.0
		% within comb2a (Banded)	50.0%	50.0%	100.0%
		% within disease code	33.3%	33.3%	33.3%
		% of Total	16.7%	16.7%	33.3%
	2.73+	Count	54	47	101
		Expected Count	50.5	50.5	101.0
		% within comb2a (Banded)	53.5%	46.5%	100.0%
		% within disease code	35.3%	30.7%	33.0%
		% of Total	17.6%	15.4%	33.0%
Total		Count	153	153	306
		Expected Count	153.0	153.0	306.0
		% within comb2a (Banded)	50.0%	50.0%	100.0%
		% within disease code	100.0%	100.0%	100.0%
		% of Total	50.0%	50.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.961(a)	2	.619
Likelihood Ratio	.962	2	.618
Linear-by-Linear Association	.958	1	.328
N of Valid Cases	306		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 50.50.

b) Prudent pattern

Crosstab

			disease code		
			control	case	Total
comb2b (Banded)	<= 2.21	Count	43	59	102
		Expected Count	51.0	51.0	102.0
		% within comb2b (Banded)	42.2%	57.8%	100.0%
		% within disease code	28.1%	38.6%	33.3%
		% of Total	14.1%	19.3%	33.3%
	2.22 - 4.08	Count	53	49	102
		Expected Count	51.0	51.0	102.0
		% within comb2b (Banded)	52.0%	48.0%	100.0%
		% within disease code	34.6%	32.0%	33.3%
		% of Total	17.3%	16.0%	33.3%
	4.09+	Count	57	45	102
		Expected Count	51.0	51.0	102.0
		% within comb2b (Banded)	55.9%	44.1%	100.0%
		% within disease code	37.3%	29.4%	33.3%
		% of Total	18.6%	14.7%	33.3%
Total		Count	153	153	306
		Expected Count	153.0	153.0	306.0
		% within comb2b (Banded)	50.0%	50.0%	100.0%
		% within disease code	100.0%	100.0%	100.0%
		% of Total	50.0%	50.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.078(a)	2	.130
Likelihood Ratio	4.092	2	.129
Linear-by-Linear Association	3.831	1	.050
N of Valid Cases	306		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 51.00.

c) Combination pattern

Crosstab

			disease code		
			control	case	Total
comb2c (Banded)	<= 2.12	Count	58	44	102
		Expected Count	51.0	51.0	102.0
		% within comb2c (Banded)	56.9%	43.1%	100.0%
		% within disease code	37.9%	28.8%	33.3%
		% of Total	19.0%	14.4%	33.3%
	2.13 - 3.80	Count	40	61	101
		Expected Count	50.5	50.5	101.0
		% within comb2c (Banded)	39.6%	60.4%	100.0%
		% within disease code	26.1%	39.9%	33.0%
		% of Total	13.1%	19.9%	33.0%
	3.81+	Count	55	48	103
		Expected Count	51.5	51.5	103.0
		% within comb2c (Banded)	53.4%	46.6%	100.0%
		% within disease code	35.9%	31.4%	33.7%
		% of Total	18.0%	15.7%	33.7%
Total		Count	153	153	306
		Expected Count	153.0	153.0	306.0
		% within comb2c (Banded)	50.0%	50.0%	100.0%
		% within disease code	100.0%	100.0%	100.0%
		% of Total	50.0%	50.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.764(a)	2	.034
Likelihood Ratio	6.802	2	.033
Linear-by-Linear Association	.238	1	.625
N of Valid Cases	306		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 50.50.

d) Traditional pattern

Crosstab

			disease code		
			control	case	Total
comb2d (Banded)	<= 3.35	Count	58	44	102
		Expected Count	51.0	51.0	102.0
		% within comb2d (Banded)	56.9%	43.1%	100.0%
		% within disease code	37.9%	28.8%	33.3%
		% of Total	19.0%	14.4%	33.3%
	3.36 - 4.88	Count	42	60	102
		Expected Count	51.0	51.0	102.0
		% within comb2d (Banded)	41.2%	58.8%	100.0%
		% within disease code	27.5%	39.2%	33.3%
		% of Total	13.7%	19.6%	33.3%
	4.89+	Count	53	49	102
		Expected Count	51.0	51.0	102.0
		% within comb2d (Banded)	52.0%	48.0%	100.0%
		% within disease code	34.6%	32.0%	33.3%
		% of Total	17.3%	16.0%	33.3%
Total		Count	153	153	306
		Expected Count	153.0	153.0	306.0
		% within comb2d (Banded)	50.0%	50.0%	100.0%
		% within disease code	100.0%	100.0%	100.0%
		% of Total	50.0%	50.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.255(a)	2	.072
Likelihood Ratio	5.278	2	.071
Linear-by-Linear Association	.489	1	.485
N of Valid Cases	306		

a 0 cells (.0%) have expected count less than 5. The minimum expected count is 51.00.

UNIVARIATE ANALYSIS FOR DIETARY PATTERN (CRUDE&ADJUSTED)

a) Modern pattern

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	comb2a_band			.959	2	.619			
	comb2a_band(1)	-.136	.280	.237	1	.626	.873	.504	1.510
	comb2a_band(2)	-.275	.281	.959	1	.327	.760	.438	1.317
	Constant	.136	.198	.475	1	.491	1.146		

a Variable(s) entered on step 1: comb2a_band.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	comb2a_band			.517	2	.772			
	comb2a_band(1)	-.123	.301	.167	1	.682	.884	.490	1.595
	comb2a_band(2)	-.217	.303	.514	1	.474	.805	.444	1.458
	habits_1	1.256	.294	18.214	1	.000	3.512	1.973	6.254
	habits_2	.570	.321	3.144	1	.076	1.768	.942	3.318
	habits_3	1.025	.295	12.064	1	.001	2.787	1.563	4.970
	Constant	-.631	.245	6.648	1	.010	.532		

a Variable(s) entered on step 1: comb2a_band, habits_1, habits_2, habits_3.

b) Prudent pattern

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	comb2b_band			4.051	2	.132			
	comb2b_band(1)	-.395	.282	1.961	1	.161	.674	.388	1.171
	comb2b_band(2)	-.553	.283	3.820	1	.051	.575	.331	1.002
	Constant	.316	.201	2.489	1	.115	1.372		

a Variable(s) entered on step 1: comb2b_band.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	habits_1	1.228	.296	17.194	1	.000	3.414	1.911	6.100
	habits_2	.600	.323	3.449	1	.063	1.822	.967	3.433
	habits_3	1.014	.295	11.808	1	.001	2.756	1.546	4.912
	comb2b_band			2.475	2	.290			
	comb2b_band(1)	-.378	.303	1.560	1	.212	.685	.378	1.240
	comb2b_band(2)	-.445	.304	2.138	1	.144	.641	.353	1.163
	Constant	-.462	.247	3.490	1	.062	.630		

a Variable(s) entered on step 1: habits_1, habits_2, habits_3, comb2b_band.

c) Combination pattern

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	comb2c_band			6.686	2	.035			
	comb2c_band(1)	.698	.285	5.992	1	.014	2.010	1.149	3.516
	comb2c_band(2)	.140	.281	.249	1	.618	1.150	.663	1.996
	Constant	-.276	.200	1.909	1	.167	.759		

a Variable(s) entered on step 1: comb2c_band.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	habits_1	1.284	.297	18.762	1	.000	3.612	2.020	6.459
	habits_2	.629	.326	3.727	1	.054	1.875	.990	3.551
	habits_3	1.032	.300	11.843	1	.001	2.806	1.559	5.049
	comb2c_band			7.654	2	.022			
	comb2c_band(1)	.845	.309	7.490	1	.006	2.328	1.271	4.263
	comb2c_band(2)	.321	.307	1.089	1	.297	1.378	.755	2.516
	Constant	-1.154	.264	19.089	1	.000	.315		

a Variable(s) entered on step 1: habits_1, habits_2, habits_3, comb2c_band.

d) Traditional pattern

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	comb2d_band			5.209	2	.074			
	comb2d_band(1)	.633	.284	4.980	1	.026	1.883	1.080	3.283
	comb2d_band(2)	.198	.282	.494	1	.482	1.219	.702	2.116
	Constant	-.276	.200	1.909	1	.167	.759		

a Variable(s) entered on step 1: comb2d_band.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	habits_1	1.311	.297	19.458	1	.000	3.709	2.072	6.641
	habits_2	.583	.325	3.218	1	.073	1.792	.947	3.390
	habits_3	1.025	.300	11.671	1	.001	2.787	1.548	5.017
	comb2d_band			5.378	2	.068			
	comb2d_band(1)	.590	.306	3.723	1	.054	1.804	.991	3.286
	comb2d_band(2)	-.045	.307	.021	1	.884	.956	.524	1.746
	Constant	-.942	.242	15.168	1	.000	.390		

a Variable(s) entered on step 1: habits_1, habits_2, habits_3, comb2d_band.

MULTIVARIATE ANALYSIS FOR DIETARY PATTERN (CRUDE&ADJUSTED)

a) Crude Odds Ratio

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	comb2a_band			1.351	2	.509			
	comb2a_band(1)	-.201	.300	.450	1	.503	.818	.454	1.473
	comb2a_band(2)	-.395	.341	1.336	1	.248	.674	.345	1.316
	comb2b_band			5.911	2	.052			
	comb2b_band(1)	-.641	.315	4.152	1	.042	.527	.284	.976
	comb2b_band(2)	-.741	.335	4.902	1	.027	.477	.247	.919
	comb2c_band			8.298	2	.016			
	comb2c_band(1)	.887	.309	8.232	1	.004	2.428	1.325	4.450
	comb2c_band(2)	.476	.338	1.980	1	.159	1.610	.829	3.125
	comb2d_band			7.564	2	.023			
	comb2d_band(1)	.841	.309	7.409	1	.006	2.318	1.265	4.245
	comb2d_band(2)	.398	.332	1.439	1	.230	1.489	.777	2.856
	Constant	-.204	.282	.524	1	.469	.815		

a Variable(s) entered on step 1: comb2a_band, comb2b_band, comb2c_band, comb2d_band.

b) Adjusted Odds Ratio

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	comb2a_band			.981	2	.612			
	comb2a_band(1)	-.236	.324	.532	1	.466	.790	.418	1.490
	comb2a_band(2)	-.348	.369	.886	1	.346	.706	.343	1.456
	comb2b_band			4.006	2	.135			
	comb2b_band(1)	-.555	.340	2.668	1	.102	.574	.295	1.117
	comb2b_band(2)	-.668	.359	3.449	1	.063	.513	.254	1.038
	comb2c_band			10.738	2	.005			
	comb2c_band(1)	1.094	.334	10.725	1	.001	2.986	1.551	5.746
	comb2c_band(2)	.749	.376	3.967	1	.046	2.116	1.012	4.422
	comb2d_band			7.042	2	.030			
	comb2d_band(1)	.731	.330	4.901	1	.027	2.078	1.088	3.970
	comb2d_band(2)	-.001	.362	.000	1	.997	.999	.491	2.029
	habits_1	1.260	.306	16.937	1	.000	3.527	1.935	6.429
	habits_2	.666	.338	3.875	1	.049	1.946	1.003	3.776
	habits_3	1.142	.319	12.811	1	.000	3.133	1.676	5.856
	Constant	-1.046	.336	9.676	1	.002	.351		

a Variable(s) entered on step 1: comb2a_band, comb2b_band, comb2c_band, comb2d_band, habits_1, habits_2, habits_3.

CHI SQUARE TEST FOR BETA-CAROTENE INTAKE

Crosstab

			intake (beta carotene)		
			low	high	Total
disease code	control	Count	133	20	153
		Expected Count	134.5	18.5	153.0
		% within disease code	86.9%	13.1%	100.0%
		% within intake (beta carotene)	49.4%	54.1%	50.0%
		% of Total	43.5%	6.5%	50.0%
	case	Count	136	17	153
		Expected Count	134.5	18.5	153.0
		% within disease code	88.9%	11.1%	100.0%
		% within intake (beta carotene)	50.6%	45.9%	50.0%
		% of Total	44.4%	5.6%	50.0%
Total		Count	269	37	306
		Expected Count	269.0	37.0	306.0
		% within disease code	87.9%	12.1%	100.0%
		% within intake (beta carotene)	100.0%	100.0%	100.0%
		% of Total	87.9%	12.1%	100.0%

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.277(b)	1	.599		
Continuity Correction(a)	.123	1	.726		
Likelihood Ratio	.277	1	.599		
Fisher's Exact Test				.726	.363
Linear-by-Linear Association	.276	1	.599		
N of Valid Cases	306				

a Computed only for a 2x2 table

b 0 cells (.0%) have expected count less than 5. The minimum expected count is 18.50.

ANALYSIS OF ODDS RATIO FOR BETA-CAROTENE INTAKE

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
								Lower	Upper
Step 1(a)	Carotene intake	-.185	.352	.276	1	.599	.831	.417	1.656
	Constant	.022	.122	.033	1	.855	1.023		

a Variable(s) entered on step 1: carotene_intake.