

RESPONDENTS IN THE CANADIAN DIETETIC ASSOCIATION SURVEY
OF DIETETIC PERSONNEL IN BRITISH COLUMBIA

A Preliminary Report

WHRU 79:4

Report S:4

Prepared by:

January 26, 1979

Health Manpower Research Unit
Division of Health Services
Research and Development
University of British Columbia
for the Canadian Dietetic Association

TABLE OF CONTENTS

	<u>Page</u>
List of Tables	iii
Map of Regional Hospital Districts in B.C.	vi
Introduction	1
Methodology	2
Results .	
1. Response Rates	2
2. Demographic Characteristics	5
3. Professional Memberships	7
4. Education	8
5. Employment	13
Summary	20

LIST OF TABLES

	<u>Page</u>
Table 1: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia, by Regional Hospital District of Residence for Total Roster and for Respondents; Response Rates; Number of Dietitians and Nutritionists per 10,000 Population for Total Roster and for Respondents, 1978	4
" 2: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Age and Sex, 1978	5
" 3: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Marital Status, 1978	5
" 4: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Place of Birth, 1978	6
" 5: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Citizenship Status, 1978	6
" 6: Memberships Held in Various Professional Organizations by Dietitians and Nutritionists in British Columbia by Number of Respondents and Percentage of Total, 1978	7
" 7: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Major Subject of Undergraduate Degree and Year of Graduation, 1978	8
" 8: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Name and/or Place of University of Undergraduate Training and Year of Graduation, 1978	9
" 9: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Means of Entering C.D.A. Membership, 1978	10
" 10: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Who Completed C.D.A. Approved Internship, by Location of Internship Institution and Concentration, 1978	10

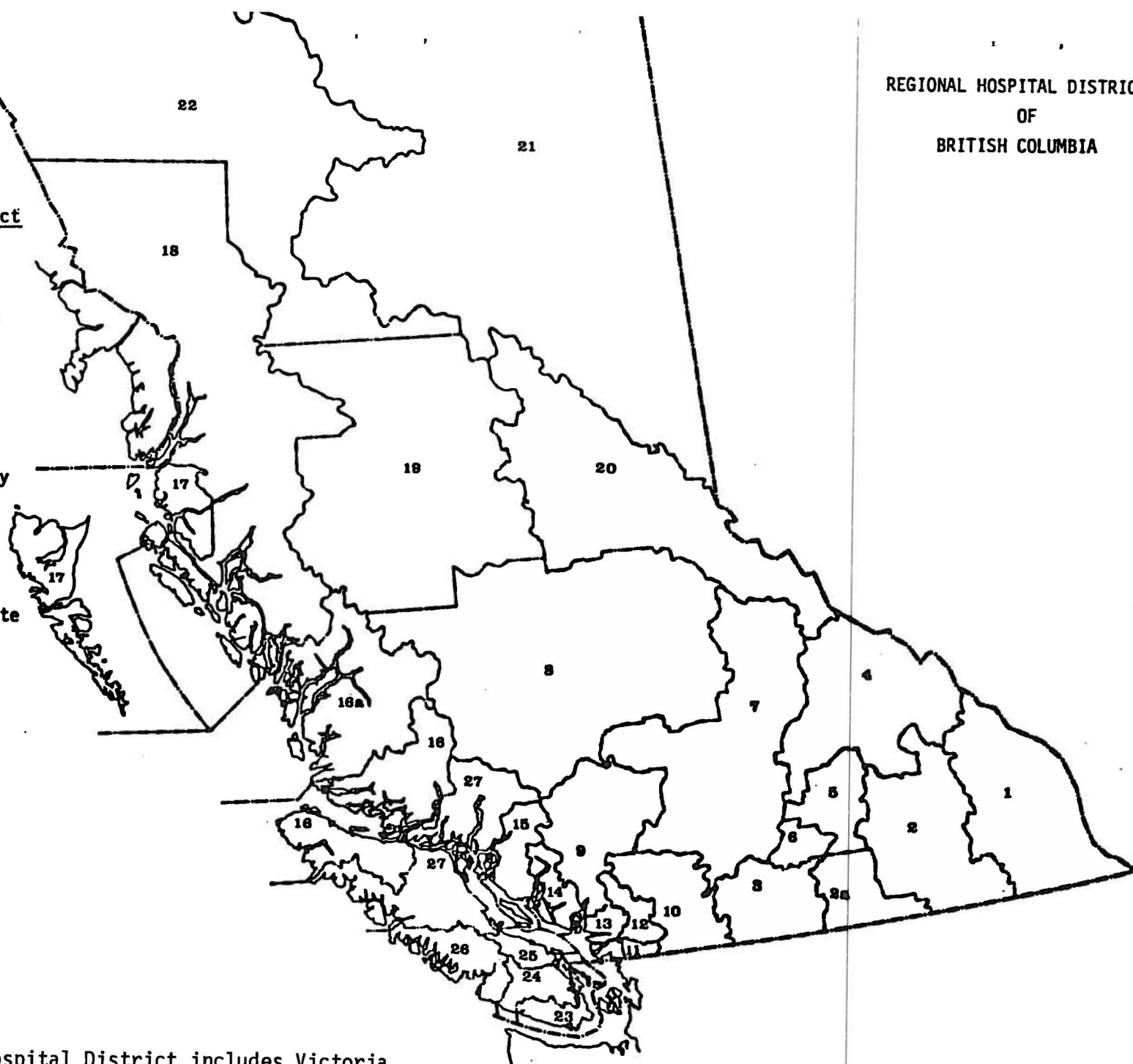
	<u>Page</u>
Table 11: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia with Graduate Degrees in Dietetics or Nutrition by Name of Highest Degree Obtained, 1978	11
" 12: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia with Graduate Degrees in Dietetics or Nutrition, by Regional Hospital District of Residence and by Age, 1978	11
" 13: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia with Other Graduate Degrees, Diplomas or Certificates, by Name of Degree, Diploma or Certificate, 1978	12
" 14: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Participation in Continuing Education Activities Related to Profession in Past Two Years	12
" 15: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia, by Regional Hospital District of Residence and Current Employment Status, 1978	13
" 16: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Current Employment Status and Age, 1978	14
" 17: Number and Percentage Distribution of Full-Time Employed Dietitians and Nutritionists in British Columbia by Principal Type of Employing Institution/ Agency and Duration of Present Employment, 1978	14
" 18: Number and Percentage Distribution of Part-Time Employed Dietitians and Nutritionists in British Columbia by Principal Type of Employing Institution/ Agency and Duration of Present Employment, 1978	15
" 19: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Part-Time in Field, Not Employed in Field, or Not Employed, by Desire for (Increased) Employment in Field, 1978	15
" 20: Number and Percentage Distribution of Dietitians and	

	<u>Page</u>
Table 20, continued	
Nutritionists in British Columbia Not Employed in the Field, by Type of Present Employment, 1978	16
" 21: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Full-Time in Field, by Regional Hospital District of Residence and Principal Type of Responsibility, 1978	17
" 22: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Part-Time in Field, by Regional Hospital District of Residence and Principal Type of Responsibility, 1978	18
" 23: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Full-Time in Field, by Principal Type of Responsibility and by Age, 1978	19
" 24: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Part-Time in Field, by Principal Type of Responsibility and by Age, 1978	19
" 25: Number and Percentage Distribution of Self-Employed Dietitians and Nutritionists in British Columbia by Principal Type of Responsibility and by Age, 1978	20

REGIONAL HOSPITAL DISTRICTS
OF
BRITISH COLUMBIA

Regional Hospital District

- 1 East Kootenay
- 2 Central Kootenay
- 2a Kootenay Boundary
- 3 Okanagan-Similkameen
- 4 Columbia-Shuswap
- 5 North Okanagan
- 6 Central Okanagan
- 7 Thompson-Nicola
- 8 Cariboo
- 9 Squamish-Lillooet
- 10 Fraser-Cheam
- 11 Central Fraser Valley
- 12 Dewdney-Alouette
- 13 Greater Vancouver
- 14 Sunshine Coast
- 15 Powell River
- 16 Mount Waddington
- 16a Central Coast
- 17 Skeena-Queen Charlotte
- 18 Kitimat-Stikine
- 19 Bulkley-Nechako
- 20 Fraser-Fort George
- 21 Peace River-Liard
- 22 Stikine
- *23 Capital
- 24 Cowichan Valley
- 25 Nanaimo
- 26 Alberni-Clayoquot
- 27 Comox-Strathcona



* Capital Regional Hospital District includes Victoria and surrounding municipalities.

PRELIMINARY ANALYSIS OF RESPONDENTS
IN THE CDA SURVEY OF DIETETIC PERSONNEL
IN BRITISH COLUMBIA

INTRODUCTION:

As a result of a changing economy and changing patterns of health care delivery in Canada, there have been many modifications in the roles of workers in the nutrition field, and many more are projected. Several manpower questions have been posed to the Canadian Dietetic Association by these changes. How many dietitians are working in Canada at the present time and where are they working? What changes are foreseen in health care delivery which will affect the roles of nutrition workers and ultimately the competencies required to fill those roles? How many people will be required to fill vacancies and future new openings?

With these and other questions in mind, the Canadian Dietetic Association decided in 1977 to undertake a Canada-wide study of the need for nutrition personnel, which would have as its objectives the following:

1. The establishment of standards of nutritional service necessary to ensure an adequate nutritional level in the population.
2. The defining of roles for each level of nutritional worker in the health field and description of those competencies required to fulfill that role.
3. The establishment of an inventory (data base) of employers of nutritional workers and a basic data file on workers employed at these institutions and agencies.
4. The projection of trends in stock, based upon certain policy decisions.
5. The establishment of requirements for nutrition workers based upon trends in stock and possible policy decisions.

It was felt that before a study of the entire country could take place a pilot project should be conducted to develop the required methodology. Accordingly, a steering

committee was established by the CDA which undertook to fulfill the objectives of the study within the pilot project. As a first step in fulfilling this goal a survey was made of all known dietitians and nutritionists in the province to collect data which would eventually be of assistance in projecting requirements. This report describes the findings of the survey.

METHODOLOGY:

The questionnaire, developed jointly by the CDA Manpower Steering Committee and the Health Manpower Research Unit, was examined by provincial executives and pre-tested at the CDA Annual Convention in Winnipeg for appropriateness for use at the national level.

The questionnaire, when completed, was mailed to all known dietitians and nutritionists in the province, 448 in number. Because the dietitian/nutritionist population in B.C. is not required to be licenced, the "known" list is likely incomplete. It was therefore decided to enclose additional questionnaires with those being mailed to known dietitian/nutritionists, with a request that they pass them on to friends, acquaintances and co-workers who were dietitian/nutritionists but had not received questionnaires.

The first mailing was made in October, 1978 and resulted in a response rate of approximately 50 percent. A second mailing was undertaken one month later and brought the response rate to 72.9 percent. At that stage it was decided to analyze the questionnaires which had been returned.

RESULTS:

1. Response Rates

A total of 448 individuals were surveyed from the lists provided, which included the memberships of the Canadian Dietetic Association, the B.C. Dietetic Association and its

auxiliary and the Nutrition Council of B.C. Only members known to be residing in B.C. were surveyed. Thirteen were removed (duplicates, non-dietitians or non-residents of B.C.), leaving a population of 435 dietitian/nutritionists. When computer analysis commenced in January of 1979, 317 had returned questionnaires for a response rate of 72.9 percent. In addition, 18 questionnaires had been returned from dietitians not within the original sample - these are not included in this report.

Response rates by regional hospital district of residence are shown in Table 1. As can be seen, the response rate is somewhat lower for the Greater Vancouver Regional District (70.2%) than for either the Capital Regional District (80.0%) or the Non-Metropolitan regions of the Province taken in total (75.7%).

Approximately three-quarters of both total roster and respondents are from the two metropolitan regions of the Province. The overall percentage distributions are very similar and there is no reason to suppose that the respondent dietitians and nutritionists are not representative of the total roster.

Also on Table 1 are the number on the roster and the number of respondents per 10,000 population in British Columbia. There are 2.5 dietitian/nutritionists per 10,000 population in both of the large metropolitan regions, compared to only 0.8 per 10,000 population for the rest of the Province.

Table 1: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia, by Regional Hospital District of Residence for Total Roster and for Respondents; Response Rates; Number of Dietitians and Nutritionists per 10,000 Population for Total Roster and for Respondents, 1978

Regional Hospital District* of Residence	Total Roster		Total Respondents		Response Rate	1978 Population	Total Roster per 10,000 Population 1978	Total Respondents per 10,000 Population 1978
	N	%	N	%	%	N	N	N
Non-Metropolitan:								
East Kootenay	6	1.4	4	1.3	66.7	49,142	1.2	0.8
Central Kootenay	3	0.7	3	0.9	100.0	50,630	0.6	0.6
Kootenay Boundary	1	0.2	1	0.3	100.0	31,830	0.3	0.3
Okanagan Similkameen	5	1.1	2	0.6	40.0	55,027	0.9	0.4
Columbia-Shuswap	1	0.2	1	0.3	100.0	37,540	0.3	0.3
North Okanagan	7	1.6	6	1.9	85.7	51,988	1.3	1.2
Central Okanagan	10	2.3	5	1.6	50.0	79,685	1.3	0.6
Thompson Nicola	13	3.0	9	2.8	69.2	98,676	1.3	0.9
Cariboo	4	0.9	3	0.9	75.0	56,520	0.7	0.5
Squamish-Lillooet	1	0.2	1	0.3	100.0	16,844	0.6	0.6
Fraser-Cheam	2	0.2	2	0.6	100.0	53,563	0.4	0.4
Central Fraser Valley	6	1.4	5	1.6	83.3	99,864	0.6	0.5
Dewdney-Alouette	7	1.6	6	1.9	85.7	57,364	1.2	1.0
Sunshine Coast	3	0.7	3	0.9	100.0	13,649	2.2	2.2
Powell River	2	0.2	2	0.6	100.0	20,093	1.0	1.0
Mount Haddington	0	0.0	0	0.0	-	13,303	0.0	0.0
Central Coast	0	0.0	0	0.0	-	4,172	0.0	0.0
Skeena-Queen Charlotte	3	0.7	2	0.6	66.7	22,807	1.3	0.9
Kitimat-Stikine	2	0.2	2	0.6	100.0	39,275	0.5	0.5
Bulkley-Mechako	1	0.2	1	0.3	100.0	34,806	0.3	0.3
Fraser-Fort George	5	1.1	4	1.3	80.0	85,717	0.6	0.5
Peace River-Liard	3	0.7	2	0.6	66.7	45,180	0.7	0.4
Stikine	0	0.0	0	0.0	-	1,575	0.0	0.0
Cowichan Valley	2	0.2	2	0.6	100.0	50,345	0.4	0.4
Nanaimo	10	2.3	9	2.8	90.0	67,428	1.5	1.3
Alberni-Clayoquot	3	0.7	2	0.6	66.7	32,345	0.9	0.6
Comox-Strathcona	3	0.7	1	0.3	33.3	61,122	0.5	0.2
Total Non-Metropolitan	103	23.7	78	24.6	75.7	1,230,490	0.8	0.6
Greater Vancouver	272	62.5	191	60.3	70.2	1,108,005	2.5	1.7
Capital	60	13.8	48	15.1	80.0	240,908	2.5	2.0
Total	435	100.0%	317	100.0%	72.9%	2,579,403	1.7	1.2

* See map on page vi for location of hospital districts.

2. Demographic Characteristics

The distribution of the 317 respondent dietitian/nutritionists by age and by sex is shown in Table 2. There are only two males. The number of females in three of the four age groups are very similar, 25.1 percent being under 30 years, 27.9 percent 30 to 39 years and 26.7 percent 50 years or over.

Table 2: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Age and Sex, 1978 (317 Respondents)

Age (years)	Sex				Total	
	Male		Female			
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Under 30	0	0.0	79	25.1	79	24.9
30 - 39	1	50.0	88	27.9	89	28.1
40 - 49	0	0.0	60	19.0	60	18.9
50 and Over	1	50.0	84	26.7	85	26.8
Unknown	0	0.0	4	1.3	4	1.3
Total	2	100.0	315	100.0	317	100.0

Seventy percent of respondents are married (Table 3).

Table 3: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Marital Status, 1978 (317 Respondents)

Marital Status	Number	Percentage
Single	68	21.5
Married	222	70.0
Other	25	7.9
Unknown	2	0.6
Total	317	100.0

Canada was the place of birth for 83.3 percent of respondents (Table 4), with another 3 to 4 percent born in each of the United States, Great Britain, China and the Philippines. Next to British Columbia (27.8%), the most common provinces of birth were Alberta (13.6%) and Ontario (13.2%).

Table 4: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Place of Birth, 1978 (317 Respondents)

Place of Birth	Number	Percentage
Canada:		
British Columbia	88	27.8
Alberta	43	13.6
Saskatchewan	30	9.5
Manitoba	28	8.8
Ontario	42	13.2
Quebec	17	5.4
New Brunswick	7	2.2
Nova Scotia	7	2.2
Prince Edward Island	1	0.3
Newfoundland	1	0.3
Sub-Total	264	83.3
United States	9	2.8
Great Britain	12	3.8
China	8	2.5
Philippines	11	3.5
Other	13	4.1
Total	317	100.0

Almost 94 percent claimed Canadian citizenship.

Table 5: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Citizenship Status, 1978 (317 Respondents)

Country	Number	Percentage
Canada	297	93.7
United States	8	2.5
Trinidad and Tobago	1	0.3
Netherlands	1	0.3
Philippines	2	0.6
Unknown	8	2.5
Total	317	100.0

3. Professional Memberships

Respondent Dietitian/Nutritionists are members of a great variety of professional organizations, as can be seen in Table 6, most commonly the Canadian Dietetic Association (86.1%) and the B.C. Dietetic Association (59.0%). About 20 percent belong to each of the B.C. Dietetic Association Auxiliary, the B.C. Nutrition Council and the Nutrition Today Society. Among the "other professional" organizations named by 35 individuals are 44 separate organizations, interested in many topics (Dietetics, Nutrition, Food Services, Home Economics, Diabetes, Allergy, Nephrology, Public Health, Perinatal Health, Education, Anthropology, etc.) and centered in many geographic locations (Canada, British Columbia, Alberta, Ontario, United States, Great Britain, Latin America). Chief amongst these are the Canadian Diabetic Association (13 respondents), the American Institute of Nutrition (4 respondents) and the Ontario Dietetic Association (3 respondents).

Table 6: Memberships Held in Various Professional Organizations by Dietitians and Nutritionists in British Columbia by Number of Respondents and Percentage of Total, 1978 (317 Respondents)

Professional Organization	Number with Membership	Percent of Total Respondents
	<u>N</u>	<u>%</u>
Canadian Dietetic Association	273	86.1
B.C. Dietetic Association	187	59.0
B.C. Dietetic Association (Auxil.)	65	20.5
American Dietetic Association:		
Registered	13	4.1
Non Registered	8	2.5
B.C./Canadian Home Economics Association	24	7.6
B.C. Food Service Supervisors Association	1	0.3
B.C. Nutrition Council	62	19.6
Society for Nutrition Education	19	6.0
Nutrition Today Society	66	20.8
Canadian Nutrition Society	5	1.6
Canadian Institute of Food Science and Technology	1	0.3
Other	35	11.0

4. Education

The distribution of respondents by major subject of undergraduate degree and year of graduation is shown in Table 7. Dietetics (28.4%), Foods and Nutrition (23.7%) and Nutrition (16.7%) were the principal major subjects. Over 40 percent of respondents graduated prior to 1960.

Table 7: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Major Subject of Undergraduate Degree and Year of Graduation, 1978 (317 Respondents)

Major Subject	Year of Graduation						Total	
	<1940	1940-1949	1950-1959	1960-1969	1970-1978	Not Answered		
	N	N	N	N	N	N	N	%
Dietetics	4	12	23	21	30	0	90	28.4
Nutrition	2	10	8	18	15	0	53	16.7
Foods and Nutrition	5	11	16	17	26	0	75	23.7
Nutrition - Dietetics	0	0	0	6	19	0	25	7.9
Home Economics	4	4	2	5	5	0	20	6.3
Foods	1	2	3	1	0	0	7	2.2
Institutional Management	1	0	3	1	0	0	5	1.6
Other	2	6	5	5	5	1	24	7.6
Unknown	7	4	1	5	0	1	18	5.7
Total	26 (8.2%)	49 (15.5%)	61 (19.2%)	79 (24.9%)	100 (31.5%)	2 (0.6%)	317 (100.0%)	100.0

Principal universities of undergraduate training, shown in Table 8, are University of British Columbia (38.8%), University of Alberta (10.1%), University of Manitoba (9.8%) and University of Saskatchewan (8.8%).

Table 8: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Name and/or Place of University of Undergraduate Training and Year of Graduation, 1978 (317 respondents)

Name and/or Place of University	Year of Graduation						Total	
	<1940	1941-1949	1950-1959	1960-1969	1970-1978	Not Answered		
	N	N	N	N	N	N	N	%
<u>Canada:</u>								
<u>Western Provinces</u>								
University of British Columbia	0	12	25	43	43	0	123	38.8
University of Alberta	5	8	5	4	10	0	32	10.1
University of Saskatchewan	9	10	5	0	4	0	28	8.8
University of Manitoba	3	7	11	6	4	0	31	9.8
<u>Ontario</u>								
University of Toronto	4	3	2	3	0	0	12	3.8
University of Western Ontario	0	1	1	2	10	0	14	4.4
University of Guelph	1	0	0	1	9	0	11	3.5
University of Ottawa	0	0	0	1	0	0	1	0.3
Total Ontario	5	4	3	7	19	0	38	12.0
<u>Quebec</u>								
McGill University	2	2	3	2	3	0	12	3.8
University of Montreal	0	1	0	0	3	0	4	1.3
Laval University	0	0	0	1	1	0	2	0.6
University of Sherbrooke	0	0	0	1	0	0	1	0.3
Total Quebec	2	3	3	4	7	0	19	6.0
<u>New Brunswick</u>								
Mt. Allison University	1	1	0	4	2	0	8	2.5
University of Moncton	0	0	0	0	1	0	1	0.3
Total New Brunswick	1	1	0	4	3	0	9	2.8
<u>Nova Scotia</u>								
St. Francis Xavier University	0	0	0	1	2	0	3	0.9
Mt. St. Vincent University	0	0	0	0	2	0	2	0.6
Acadia University	1	3	0	0	2	0	6	1.9
Total Nova Scotia	1	3	0	1	6	0	11	3.5
<u>Total Canada</u>	26	48	52	69	96	0	291	91.8
United States	0	1	1	4	3	1	10	3.2
Great Britain	0	0	1	1	0	0	2	0.6
Netherlands	0	0	1	0	0	0	1	0.3
China	0	0	0	0	1	0	1	0.3
Philippines	0	0	6	5	0	0	11	3.5
Not Answered	0	0	0	0	0	1	1	0.3
Total	26 (8.2%)	49 (15.5%)	61 (19.2%)	79 (24.9%)	100 (31.5%)	2 (0.6%)	317 (100.0%)	100.0

CDA approved internship programs were completed by 89.3 percent of respondents (Table 9) prior to entering the CDA, with most of the internship institutions located in British Columbia (41.7%), Ontario (22.6%), Alberta (9.5%) and Quebec (9.5%) (Table 10). Another 10.2 percent of this subset, 29 individuals, completed internship programs in the United States, interesting in view of the fact that only 10 individuals graduated from American universities. In most (85.9%) there was a "general" concentration.

Table 9: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Means of Entering C.D.A. Membership, 1978 (317 Respondents)

Means of Entering C.D.A. Membership	Number	Percentage
Completed C.D.A. Approved Internship	283	89.3
Member of C.D.A., but did not complete C.D.A. Approved Internship:		
Completed C.D.A. Approved "Planned Experience Program"	6	1.9
Graduate Experience or Degree	14	4.4
Special Qualifications	5	1.6
Unknown	2	0.6
Not a Member/Unknown	7	2.2
Total	317	100.0

Table 10: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Who Completed C.D.A. Approved Internship, by Location of Internship Institution and Concentration, 1978 (Number = 283)

Country/Province	Concentration					Total	
	General	Adminis- tration	Clinical	Community	Not Answered		
	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>%</u>
Canada:							
British Columbia	103	1	8	0	6	118	41.7
Alberta	22	2	2	0	1	27	9.5
Saskatchewan	3	0	0	0	0	3	1.1
Manitoba	9	0	0	0	0	9	3.2
Ontario	55	4	3	0	2	64	22.6
Quebec	25	0	0	2	0	27	9.5
Nova Scotia	5	1	0	0	0	6	2.1
Total Canada	222	8	13	2	9	254	89.8
United States	21	4	2	0	2	29	10.2
Total	243 (85.9%)	12 (4.2%)	15 (5.3%)	2 (0.7%)	11 (3.9%)	283 (100.0%)	100.0

Only 29 respondents have graduate degrees in dietetics or nutrition, 75.9 percent of these being Master of Science degrees (Table 11). Fifty-five percent of this subset are in the 30-39 year age group, compared to 28 percent of total respondents. Almost 80 percent reside in the Greater Vancouver and Victoria regions, compared to 75 percent of total respondents (Table 12).

Table 11: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia with Graduate Degrees in Dietetics or Nutrition by Name of Highest Degree Obtained, 1978 (317 Respondents)

Name of Degree	Number	Percentage
Ph.D.	3	10.3
M.Sc. or M.S.	22	75.9
M.A.	1	3.4
M.P.H.	1	3.4
Master's Degree, unspecified	1	3.4
Diploma in Nutrition	1	3.4
Total	29	100.0

Table 12: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia with Graduate Degrees in Dietetics or Nutrition, by Regional Hospital District of Residence and by Age, 1978 (Number = 29)

Regional Hospital District of Residence	Age in Years					Total	
	<30	30 - 39	40 - 49	50 & Over	Not Answered		
	N	N	N	N	N	N	%
Non-Metropolitan:							
Central Okanagan	0	1	0	0	0	1	3.4
Thompson-Nicola	1	0	0	0	0	1	3.4
Dewdney-Alouette	0	0	0	2	0	2	6.9
Sunshine Coast	0	1	0	0	0	1	3.4
Nanaimo	0	1	0	0	0	1	3.4
Total Non-Metropolitan	1	3	0	2	0	6	20.7
Greater Vancouver	2	7	1	4	1	15	51.7
Capital	0	6	2	0	0	8	27.6
Total	3 (10.3%)	16 (55.2%)	3 (10.3%)	6 (20.7%)	1 (3.4%)	29 (100.0%)	100.0

Thirty-seven individuals have degrees, diplomas or certificates in other fields, most commonly teaching certificates, as is shown in Table 13.

Table 13: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia with Other Graduate Degrees, Diplomas or Certificates, by Name of Degree, Diploma or Certificate, 1978 (Number = 37)

Name of Degree, Diploma, Certificate	Number	Percentage
M.Sc. or M.S.	2	5.4
M.A.	1	2.7
M.B.A.	1	2.7
M.Ed.	1	2.7
B.A.	1	2.7
B.Ed.	2	5.4
Diploma in Public Health Nutrition	3	8.1
Diploma in Dietetics	1	2.7
Teaching Certificate	13	35.1
Certificate in Hospital Department Management	5	13.5
Health Care Certificate	3	8.1
Associate Degree	2	5.4
Health Care Organization & Management	1	2.7
Name Not Stated	1	2.7
Total	37	100.0

Over 80 percent of respondents have participated in continuing education activities over the past two years (Table 14). Almost 20 percent have spent sixty or more hours on such activities during this period of time.

Table 14: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Participation in Continuing Education Activities Related to Profession in Past Two Years (317 Respondents)

Extent of Participation	Number	Percentage
Participated: Number of Hours During Past Two Years:		
≥80	35	11.0
60 - 79	26	8.2
40 - 59	58	18.3
20 - 39	80	25.2
<20	40	12.6
Not Answered	19	6.0
Did Not Participate/Not Answered	59	18.6
Total	317	100.0

5. Employment

Cross-classification of all respondents by regional hospital district of residence and employment status is displayed in Table 15. The majority are employed as dietitians or nutritionists, 45.7 percent full-time, 19.6 percent part-time and 2.2 percent self-employed, for a total of 67.5 percent. Twenty-four other respondents (7.6%) are employed in another field, forty-six (14.5%) are not employed and thirty-three (10.4%) are retired. No significant differences in employment status among the Greater Vancouver region, the Capital region and the combined Non-Metropolitan regions were demonstrated, as determined by a χ^2 test using Yate's correction ($\chi^2=9.221$ df=8 .30<p<.50).

Table 15: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia, by Regional Hospital District of Residence and Current Employment Status, 1978 (317 Respondents)

Regional Hospital District of Residence	Employment Status						Total	
	Employed as Dietitian/Nutritionist			Employed but not as Diet./Nut.	Not Employed	Retired		
	Full-Time	Part-Time	Self Employed					
	N	N	N	N	N	N	N	%
Non-Metropolitan:								
East Kootenay	3	0	0	0	1	0	4	1.3
Central Kootenay	1	1	0	0	1	0	3	0.9
Kootenay Boundary	1	0	0	0	0	0	1	0.3
Okanagan Similkameen	0	0	0	0	1	1	2	0.6
Columbia-Shuswap	1	0	0	0	0	0	1	0.3
North Okanagan	5	0	0	0	1	0	6	1.9
Central Okanagan	4	0	0	0	0	1	5	1.6
Thompson Nicola	4	3	0	0	1	1	9	2.8
Cariboo	2	1	0	0	0	0	3	0.9
Squamish-Lillooet	0	0	0	1	0	0	1	0.3
Fraser-Cheam	1	1	0	0	0	0	2	0.6
Central Fraser Valley	3	0	0	0	2	0	5	1.6
Dewdney-Alouette	2	0	0	1	1	2	6	1.9
Sunshine Coast	1	1	0	0	1	0	3	0.9
Powell River	2	0	0	0	0	0	2	0.6
Skeena-Queen Charlotte	1	1	0	0	0	0	2	0.6
Kitimat-Stikine	1	0	0	0	1	0	2	0.6
Bulkley-Mechako	0	1	0	0	0	0	1	0.3
Fraser-Fort George	1	0	0	1	1	1	4	1.3
Peace River-Liard	1	1	0	0	0	0	2	0.6
Cowichan Valley	1	0	0	0	1	0	2	0.6
Nanaimo	5	3	0	0	1	0	9	2.8
Alberni-Clayoquot	2	0	0	0	0	0	2	0.6
Comox-Strathcona	1	0	0	0	0	0	1	0.3
Total Non-Metropolitan	43	13	0	3	13	6	78	24.6
Greater Vancouver	82	34	7	20	27	21	191	60.3
Capital	20	15	0	1	6	6	48	15.1
Total	145 (45.7%)	62 (19.6%)	7 (2.2%)	24 (7.6%)	46 (14.5%)	33 (10.4%)	317 (100.0%)	100.0

Cross-classification by employment status and age group is shown in Table 16. About three-quarters of the under 30 age group, a relatively high proportion compared to the other age groups, are employed on a full-time basis. Relatively larger numbers of the 30-39 and 40-49 age groups are not employed or employed in another field. There is a significant association between age and employment status, omitting the self-employed and retired groups. ($\chi^2=26.080$ df=9 .001<p<.01)

Table 16: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia by Current Employment Status and Age, 1978 (317 Respondents)

Current Employment Status	Age in Years					Total	
	Under 30	30 - 39	40 - 49	50 Or Over	Not Answered		
	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>%</u>
Employed as Dietitian/Nutritionist:							
Full-Time	59	36	21	27	2	145	45.7
Part-Time	9	17	18	17	1	62	19.6
Self-Employed	0	3	1	3	0	7	2.2
Sub-total	68	56	40	47	3	214	67.5
Employed, but not as Dietitian/ Nutritionist	4	11	6	2	1	24	7.6
Not Employed	7	20	11	8	0	46	14.5
Retired	0	2	3	28	0	33	10.4
Total	79 (24.9%)	89 (28.1%)	60 (18.9%)	85 (26.8%)	4 (1.3%)	317 (100.0%)	100.0

Most of the full-time employed dietitians and nutritionists (73.1%) are employed in hospitals or health care facilities (Table 17), as are those employed on a part-time basis (64.5% - Table 18). One-third of the full-time group have been employed for two years or less, compared to over one-half of the part-time group.

Table 17: Number and Percentage Distribution of Full-Time Employed Dietitians and Nutritionists in British Columbia by Principal Type of Employing Institution/Agency and Duration of Present Employment, 1978 (Number = 145)

Employing Institution/Agency	Duration of Present Employment						Total	
	Under 1 year	1 - 2 years	3 - 5 years	6 - 10 years	Over 10 years	Not Answered		
	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>%</u>
Public Organization - Federal, Provincial or Municipal	7	4	11	3	1	0	26	17.9
Hospital/Health Care Facility	12	24	29	21	15	5	106	73.1
University or College	1	0	1	1	5	0	8	5.5
Commercial Enterprise	0	1	2	0	0	0	3	2.1
Not Answered	0	0	0	1	1	0	2	1.4
Total	20 (13.8%)	29 (20.0%)	43 (29.7%)	26 (17.9%)	22 (15.2%)	5 (3.4%)	145 (100.0%)	100.0

Table 18: Number and Percentage Distribution of Part-Time Employed Dietitians and Nutritionists in British Columbia by Principal Type of Employing Institution/Agency and Duration of Present Employment, 1978 (Number = 62)

Employing Institution/Agency	Duration of Present Employment						Total	
	Under 1 year	1 - 2 years	3 - 5 years	6 - 10 years	Over 10 years	Not Answered		
	N	N	N	N	N	N	N	%
Public Organization - Federal, Provincial or Municipal	6	4	2	0	1	0	13	21.0
Hospital/Health Care Facility	10	10	5	13	2	0	40	64.5
University or College	1	0	1	0	0	1	3	4.8
Commercial Enterprise	0	1	1	0	0	0	2	3.2
Not Answered	1	1	0	1	1	0	4	6.5
Total	18 (29.0%)	16 (25.8%)	9 (14.5%)	14 (22.6%)	4 (6.5%)	1 (1.6%)	62 (100.0%)	100.0

Nine of the part-time employed dietitians and nutritionists (14.5%) are seeking full-time employment, as is shown in Table 19. Fifteen of those not employed in the field (62.5%) are seeking employment in the field, as are eight of the not employed group (17.4%). Thus, a total of 32 respondent dietitian/nutritionists are seeking employment, or increased employment, in the field.

Table 19: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Part Time in Field, Not Employed in Field, or Not Employed, by Desire for (Increased) Employment in Field, 1978 (Number = 132)

Desire For (Increased)* Employment	Employed Part Time in Field		Not Employed in Field		Not Employed		Total	
	N	%	N	%	N	%	N	%
Seeking/Prefer (Increased) Employment in Field	9	14.5	15	62.5	8	17.4	32	24.2
Not Seeking (Increased) Employment in Field	51	82.3	9	37.5	30	65.2	90	68.2
Not Answered	2	3.2	0	0.0	8	17.4	10	7.6
Total	62	100.0	24	100.0	46	100.0	132	100.0

* Respondents seeking full-time employment.

The stated occupations for the 24 dietitian/nutritionists who indicated they were not employed in the field are shown in Table 20. Nine individuals are employed in the related fields of food products marketing, consumer relations, restaurant or food service management, or home economics teaching.

Table 20: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Not Employed in the Field, by Type of Present Employment, 1978
(Number = 24)

Type of Employment	Number	Percentage
Food Products Marketing/Consumer Relations	2	8.3
Restaurant/Food Service Management	3	12.5
Teaching - Home Economics	4	16.7
- Science/Unspecified	3	12.5
Clerical/Secretarial/Service	7	29.2
Miscellaneous	3	12.5
Unknown	2	8.3
Total	24	100.0

The cross-classification by regional hospital district of residence and principal type of responsibility for the full-time employed dietitians and nutritionists is shown in Table 21. Twenty-three to twenty-five percent are employed in each of the fields of clinical nutrition, administration, or clinical nutrition and administration combined, and another 11 percent in community nutrition. The nine dietitian/nutritionists employed in Education or Research all reside in the Greater Vancouver region; four of the five employed as Consultants reside in the Greater Victoria region. No significant difference in principal responsibilities between the non-metropolitan and combined metropolitan regions was demonstrated. ($\chi^2=5.525$ df=4 .20<p<.30)

Table 21: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Full-Time in Field, by Regional Hospital District of Residence and Principal Type of Responsibility, 1978 (Number = 145)

Regional Hospital District of Residence	Principal Type of Responsibility						Total	
	Community Nutrition	Clinical Nutrition	Administration	Clinical and Administration	Consultation, Education, Research	Not Answered		
	N	N	N	N	N	N	N	%
Non-Metropolitan:								
East Kootenay	0	1	0	2	0	0	3	2.1
Central Kootenay	0	0	0	0	0	1	1	0.7
Kootenay Boundary	0	0	0	1	0	0	1	0.7
Columbia-Shuswap	0	0	0	1	0	0	1	0.7
North Okanagan	0	2	1	1	1	0	5	3.4
Central Okanagan	1	2	1	0	0	0	4	2.8
Thompson Nicola	1	0	1	2	0	0	4	2.8
Cariboo	1	0	0	1	0	0	2	1.4
Fraser-Cheam	0	1	0	0	0	0	1	0.7
Central Fraser Valley	0	1	2	0	0	0	3	2.1
Dewdney-Alouette	0	0	1	1	0	0	2	1.4
Sunshine Coast	0	0	0	1	0	0	1	0.7
Powell River	0	1	1	0	0	0	2	1.4
Skeena-Queen Charlotte	0	0	0	1	0	0	1	0.7
Kitimat-Stikine	0	0	0	1	0	0	1	0.7
Fraser-Fort George	0	1	0	0	0	0	1	0.7
Peace River-Liard	0	0	0	1	0	0	1	0.7
Cowichan Valley	0	0	0	1	0	0	1	0.7
Nanaimo	2	0	1	1	0	1	5	3.4
Alberni-Clayoquot	0	1	1	0	0	0	2	1.4
Comox-Strathcona	0	1	0	0	0	0	1	0.7
Total Non-Metropolitan (Percentages)	5 (11.6%)	11 (25.6%)	9 (20.9%)	15 (34.9%)	1 (2.3%)	2 (4.7%)	43 (100.0%)	29.7
Greater Vancouver (Percentages)	9 (11.0%)	18 (22.0%)	21 (25.6%)	18 (22.0%)	10* (12.2%)	6 (7.3%)	82 (100.0%)	56.6
Capital (Percentages)	2 (10.0%)	7 (35.0%)	5 (25.0%)	1 (5.0%)	4 (20.0%)	1 (5.0%)	20 (100.0%)	13.8
Total	16 (11.0%)	36 (24.8%)	35 (24.1%)	34 (23.4%)	15 (10.3%)	9 (6.2%)	145 (100.0%)	100.0

* The only dietitian/nutritionists employed in Education or Research are in the Greater Vancouver region - 7 in Education and 2 in Research.

Comparable data for the part-time employed dietitian/nutritionists are in Table 22, but as can be seen the principal responsibilities for this group are very different from those of the preceding, with the emphasis shifting from administration (4.8%) to education (11.3%) and consultation (11.3%). Eleven percent of this group are also in Community Nutrition.

Table 22: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Part-Time in Field, by Regional Hospital District of Residence and Principal Type of Responsibility, 1978 (Number = 62)

Regional Hospital District of Residence	Principal Type of Responsibility							Total	
	Community Nutrition	Clinical Nutrition	Administration	Clinical and Administration	Education	Consultation	Not Answered		
	N	N	N	N	N	N	N	N	%
Non-Metropolitan:									
Central Kootenay	0	0	0	1	0	0	0	1	1.6
Thompson-Nicola	1	1	0	0	0	1	0	3	4.8
Cariboo	0	0	1	0	0	0	0	1	1.6
Fraser-Cheam	0	1	0	0	0	0	0	1	1.6
Sunshine Coast	0	0	0	0	0	1	0	1	1.6
Skeena-Queen Charlotte	0	1	0	0	0	0	0	1	1.6
Bulkley-Mechako	0	0	0	0	0	0	1	1	1.6
Peace River-Liard	0	0	0	0	0	1	0	1	1.6
Nanaimo	1	1	0	0	1	0	0	3	4.8
Total Non-Metropolitan (Percentages)	2 (15.4%)	4 (30.8%)	1 (7.7%)	1 (7.7%)	1 (7.7%)	3 (23.1%)	1 (7.7%)	13 (100.0%)	21.0
Greater Vancouver (Percentages)	3 (8.8%)	13 (38.2%)	1 (2.9%)	3 (8.8%)	5 (14.7%)	3 (8.8%)	6 (17.6%)	34 (100.0%)	54.8
Capital (Percentages)	2 (13.3%)	5 (33.3%)	1 (6.7%)	1 (6.7%)	1 (6.7%)	1 (6.7%)	4 (26.7%)	15 (100.0%)	24.2
Total	7 (11.3%)	22 (35.5%)	3 (4.8%)	5 (8.1%)	7 (11.3%)	7 (11.3%)	11 (17.7%)	62 (100.0%)	100.0

The distribution by principal type of responsibility and age for the full-time, part-time and self-employed groups are in Tables 23, 24 and 25 respectively. In the full-time employed group the only noteworthy items are the domination of the Clinical Nutrition and combined Clinical and Administration fields by the under 30 age group, and the rather even spread across all age groups of the Administration field. All of the self-employed dietitian/nutritionists live in the Greater Vancouver region.

Table 23: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Full Time in Field, by Principal Type of Responsibility and by Age, 1978 (Number = 145)

Principal Type of Responsibility	Age in Years					Total	
	Under 30	30 - 39	40 - 49	50 & Over	Not Answered		
	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>%</u>
Community Nutrition	9	6	1	0	0	16	11.0
Clinical Nutrition	20	6	5	5	0	36	24.8
Administration	7	11	7	9	1	35	24.1
Clinical and Administration	19	8	1	5	1	34	23.4
Education	1	3	1	2	0	7	4.8
Research	0	1	1	0	0	2	1.4
Consultation	3	0	2	1	0	6	4.1
Not Answered	0	1	3	5	0	9	6.2
Total	59 (40.7%)	36 (24.8%)	21 (14.5%)	27 (18.6%)	2 (1.4%)	145 (100.0%)	100.0

Table 24: Number and Percentage Distribution of Dietitians and Nutritionists in British Columbia Employed Part Time in Field, by Principal Type of Responsibility and by Age, 1978 (Number = 62)

Principal Type of Responsibility	Age in Years					Total	
	Under 30	30 - 39	40 - 49	50 & Over	Not Answered		
	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>N</u>	<u>%</u>
Community Nutrition	1	1	3	1	1	7	11.3
Clinical Nutrition	4	5	6	7	0	22	35.5
Administration	1	0	0	2	0	3	4.8
Clinical and Administration	2	2	1	0	0	5	8.1
Education	0	2	3	2	0	7	11.3
Consultation	0	2	3	2	0	7	11.3
Not Answered	1	5	2	3	0	11	17.7
Total	9 (14.5%)	17 (27.4%)	18 (29.0%)	17 (27.4%)	1 (1.6%)	62 (100.0%)	100.0

Table 25: Number and Percentage Distribution of Self-Employed Dietitians and Nutritionists in British Columbia* by Principal Type of Responsibility and by Age, 1978
(Number = 7)

Principal Type of Responsibility	Age in Years			Total	
	30 - 39	40 - 49	50 & Over	N	%
Education	<u>N</u> 0	<u>N</u> 0	<u>N</u> 1	1	14.3
Consultation	3	0	2	5	71.4
Not Answered	0	1	0	1	14.3
Total	3 (42.9%)	1 (14.3%)	3 (42.9%)	7 (100.0%)	100.0

* Greater Vancouver Regional District was Place of Residence for all of this group.

SUMMARY:

There were 317 respondent dietitians and nutritionists out of a total roster of 435 surveyed, for a response rate of 72.9 percent.

Seventy-six percent of those surveyed reside in the two large metropolitan regions of the province, where there are 2.5 dietitian/nutritionists per 10,000 population. There are 0.8 per 10,000 population in the non-metropolitan regions.

Canada was the place of birth for 83.3 percent of respondents, principally British Columbia (27.8%). Almost 94 percent are Canadian citizens.

Eighty-six percent of respondents belong to the Canadian Dietetic Association and 59 percent to the British Columbia Dietetic Association (exclusive of auxiliary members).

Thirty-one and one half percent of undergraduate degrees were obtained between 1970-78, 24.9 percent between 1960-69 and a total of 42.9 percent in or before 1959.

The University of British Columbia was the principal university of graduation (38.8%) with the University of Alberta second (10.1%). Canada as a whole accounted for 91.8 percent of undergraduate education with the United States, Britain, the Netherlands, China and the Philippines accounting for the additional 8.2 percent.

CDA approved internship programs were completed by 89.3 percent of respondents, most often in British Columbia (41.7%) or Ontario (22.6%). In 86 percent of cases there was a "general" concentration.

Only twenty-nine respondents have graduate degrees in dietetics or nutrition of which 80 percent reside in the metropolitan regions. Thirty-seven have degrees, diplomas or certificates in other fields, most commonly teaching.

Over 80 percent of respondents have participated in continuing education activities over the past two years, and 19 percent of these have spent 60 or more hours on such activities during this period of time.

No significant differences in employment status among metropolitan and non-metropolitan respondents were demonstrated. Forty-six percent are employed full-time, 20 percent part-time and 2 percent are self-employed for a total of 68 percent employed in the field. Eight percent are employed in another field, 14 percent are not employed and 10 percent are retired.

Hospitals and other health care facilities are the principal employers for both full-time (73.1%) and part-time (64.5%) employed respondents.

Nine of the part-time employed group are seeking full-time employment. Fifteen of those not employed in the field and eight of the not employed group are seeking employment in the field.

Twenty-three to twenty-five percent of the full-time employed group are employed in each of the fields of Clinical Nutrition, Administration, or combined Clinical Nutrition and Administration. Thirty-six percent of the part-time employed group are employed in Clinical Nutrition with another 11 percent in each of Education and Consultation. Eleven percent of both groups are in Community Nutrition.