

**THE ASSOCIATION BETWEEN SOCIO-DEMOGRAPHIC
FACTORS AND CONSUMPTION OF VITAMINS/MINERAL
SUPPLEMENTS IN CHULALONGKORN UNIVERSITY
SUPPORTING STAFF**



Ms. Nathida Caengprasath

A Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Public Health Program in Health Systems Development

College of Public Health Sciences

Chulalongkorn University

Academic Year 2007

Copyright of Chulalongkorn University

502062


Thesis Title THE ASSOICIATION BETWEEN SOCIO-DEMOGRPAHIC
FACTORS AND CONSUMPTION OF VITAMINS/MINERAL
SUPPLEMNETS IN CHULALONGKORN UNIVERSITY
SUPPORTING STAFF

By Nathida Caengprasath

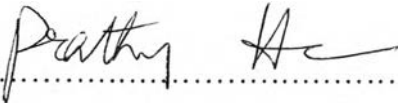
Field of Study Health Systems Development

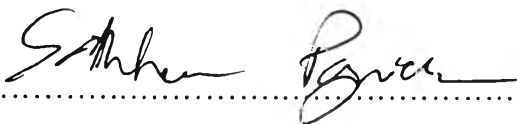
Thesis Advisor Associate Professor Sathirakorn Pongpanich, M.A., Ph.D.


Accepted by College of Public Health Sciences, Chulalongkorn University in
Partial Fulfillment of the Requirement for the Master's Degree


.....Dean of College of Public Health Sciences
(Professor Surasak Taneepanichsakul, M.D.)

THESIS COMMITTEE


.....Chairperson
(Prathurong Hongsranagon, Ph.D.)


.....Thesis Advisor
(Associate Professor Sathirakorn Pongpanich., M.A., Ph.D.)


.....External Member
(Sangsom Sinawat, M.D)

PH072473: MAJOR HEALTH SYSTEMS DEVELOPMENT

KEYWORDS: VITAMIN AND MINERAL SUPPLEMENTS / SUPPLEMENTS /
CHULALONGKORN UNIVERSITY / SUPPORTING STAFF / DEMOGRAPHIC
FACTORS / CONSUMPTION.

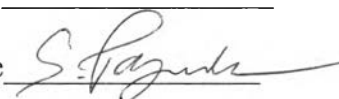
NATHIDA CAENGPRASATH: THE ASSOCIATION BETWEEN SOCIO-
DEMOGRAPHIC FACTORS AND CONSUMPTION OF VITAMINS/MINERAL
SUPPLEMENTS IN CHULALONGKORN UNIVERSITY SUPPORTING STAFF.
THESIS ADVISOR: ASSOCIATE PROFESSOR SATHIRAKORN PONGPANICH,
M.A., Ph.D., 143 pp.

This research is aimed to measure the association between socio-demographic factors and vitamin or mineral supplement consumption among Chulalongkorn University Supporting staff members. Data collection process was done by random sampling, but based on structured random sampling. The total number of supporting staff members at Chulalongkorn was tallied and the sample size was calculated based on the actual percentage contribution of each faculty to the total population size of supporting staff members. A total of 324 supporting staff members, including males and females took part in the study with an age range of 21-50 years old. A structured questionnaire, which was validated and tested for reliability included socio-demographic factors, attitude and practice of vitamins or mineral supplements, was used as one of the main tools of the questionnaire. The majority of the study population consists of females, which constituted 66.7 percent and males (33.3 percent). Most of the study population was well educated and had a bachelor degree in any related field (63.9 percent). About forty percent of the study population had an income range of 10,000-29,000 baht (322-967 US Dollars). The majority of the study population perceived themselves as "Fairly healthy (43.2%)", although only 46.9 % of the studied population exercised on a regular basis. The results of the studied showed that the mean knowledge level score of the study sample for consumers of vitamin or mineral supplement was 9.47/20, whereas for the non-consumers of vitamin or mineral supplement the mean score was 8.70/20. The attitude section of the structured questionnaire overall mean score for the studied population was 3.30, the supporting staff at Chulalongkorn University "somewhat agreed" with vitamin or mineral supplements. Out of the 324 supporting staff members sampled, 106 of them consumed vitamins or mineral supplements (32.7 %). There was a high correlation between the attitude of consumers and non-consumers of vitamins or mineral supplements ($p=0.047$). Our study find out that as the education level of the supporting staff increased the more likely were they to consume vitamins or mineral supplements ($p=0.044$). Although there was no association between income and vitamins or mineral supplement consumption in the studied population size($p=0.423$). In conclusion, there was no association between knowledge level of consumers and non-consumers but there is an association between the attitude of consumers and non-consumers. The recommendation of this study is to educate the public about vitamin or mineral supplement advantage and disadvantages, so that there is a better understanding.

Field of Study Health Systems Development Student's signature _____

Academic year 2007

Advisor's signature



ACKNOWLEDGEMENTS

This academic work would not have been completed and accomplished without the valuable and grateful guidance and help of the number of people. I hereby extend my sincere acknowledgements and great thanks to all concerned with special mentions of the following.

I would like to express my profound gratitude, respect and sincere appreciation to Dr. Sathirakorn Pongpanich, my advisor for his excellent guidance, invaluable advice and constant encouragement in this thesis and throughout my study at the College of Public Health. I am grateful for him always believing in me and his constant motivation, patience and feedback. I would have not come this far and completion of this thesis would not have been successful without my thesis advisor.

I would to express my gratitude to Dr. Pratuang, the chairperson of my thesis committee, for her excellent advice on technical issues in academic writing, and source of information. I would also like to thank Dr. Sangsom, an external examination committee member for her constant feedback about my thesis and valuable suggestion that she has provided me.

I would like to thank the faculty members of the College of Public Health, Chulalongkorn University for providing me knowledge and support throughout the duration of my study. I would also like to thank the supporting staff at the College of Public Health for their support, help and motivation throughout the duration of my study. My sincere thanks go to my classmates at College of Public health, Chulalongkorn University for their friendship, support, and memories that will last me a lifetime.

Finally, I wish to express my deepest and dearest unconditional gratitude to my beloved parents, who have brought me up and made me everything I am today, “For what I am, will become I thank my parents”. Thank you to my beloved sister for her laughs, for her encouragement, support and affection. I would also like to thank my dearest friends group, for their endless understanding, support, and affection throughout my study at Chulalongkorn University; I would not have been this strong without their moral and emotional support.

I dedicate this thesis to everyone, who believed in me and believed that I could do this.

TABLE OF CONTENTS

	Page
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONENTS.....	v
LIST OF TABLES.....	vii
LIST OF FIGURES	x
CHAPTER I: INTRODUCTION	1
1.1 Background and Rationale	1
1.2 Research Objectives	11
1.3 Objective	11
1.4 Research Hypothesis	12
1.5 Conceptual Framework	13
1.6 Expected outcome of the study	14
CHAPTER II: LITREATURE REVIEW	15
2.1 General Information about vitamins/minerals.....	15
2.2 Terminology and Operational terms	21
2.3 Thai Reference dietary intake (RDI).....	23
2.4 Socio-demographic factors and the association with Vitamin/ mineral supplement consumption	25
2.5 Various types of preference.....	30
CHAPTER III: RESEARCH METHADODOLOGY	33
3.1 Study design	33
3.2 Study population and settings.....	33

	Page
3.3 Procedures	38
3.4 Research Instruments and level of measurements.....	39
3.5 Scaling	40
3.6 Validity of test instruments	41
3.7 Reliability of test instruments	42
3.8 Data analysis method	42
CHAPTER IV: RESULTS OF THE STUDY	44
4.1 Quantitative data analysis	45
CHAPTER V: DISCUSSION, CONCLUSION &RECOMMENDATIONS.....	86
5.1 Discussion	86
5.2 Conclusion.....	96
5.3 Scope and limitation of the study	97
5.4 Recommendations	99
5.5 Recommendations for future study	100
REFERENCES	103
APPENDENCIES.....	112
APPENDIX A: Budget of the study.....	113
APPENDIX B: Schedule of activity	114
APPENDIX C: Consent forms (Thai Version)	115
APPENDIX D: Consent forms (English Version)	116
APPENDIX E: Questionnaires (Thai Version)	117
APPENDIX F: Questionnaires (English Version)	132
CIRICULUM VITAE.....	143

LIST OF TABLES

	Page
Table 2.1: Average Recommended dietary intake (THAI RDI)	24
Table 3.1: Distribution of questionnaires that were distributed to each faculty	38
Table 4.1: Total number questionnaires distributed and collected from each faculty..	46
Table 4.2: Study population.....	47
Table 4.3: Distribution of gender in the study population.....	47
Table 4.4: Age distribution in the study population	48
Table 4.5: Nationality of the study population	48
Table 4.6: Marital status of the study population	49
Table 4.7: Education level of Study population	49
Table 4.8: Household incomes per month	50
Table 4.9: Smoking habit	51
Table 4.10: Alcohol consumption	51
Table 4.11: Exercise routine of study population.....	52
Table 4.12: Perception of personal health condition of supporting staff.....	52
Table 4.13: Average working hours per day	53
Table 4.14: Number of Meals consumed.....	53
Table 4.15: Results of the knowledge part of the questionnaire	55
Table 4.16: Attitude of the supporting staff at Chulalongkorn University regarding vitamin or mineral supplements.....	60
Table 4.17: The number of users and non-users of Vitamin or Mineral supplement in Chulalongkorn University supporting staff	67
Table 4.18: Prevalence of vitamin or mineral supplement consumption by gender	67

Table 4.19: Willingness to consume vitamins or mineral supplements in Non-users.	68
Table 4.19.1: Desire to consume vitamins/ mineral supplements by gender	68
Table 4.20: Duration of consumption of vitamins or mineral supplements in users....	69
Table 4.21: Frequency of consumption of vitamins or minerals supplements.....	70
Table 4.22: Type of vitamins or mineral consumed and satisfaction level of each vitamins or mineral consumed in the supporting staff at Chulalongkorn University	70
Table 4.23: Origin of brand of vitamin or mineral those are consumed	71
Table 4.24: Reason for consumption of vitamins in supporting staff at Chulalongkorn University	72
Table 4.25: Factors that may influence the decision of consumers when purchasing vitamins or mineral supplements	72
Table 4.26: Factors influencing the decision to consume vitamins/mineral supplement.....	73
Table 4.27: The preference to consume a multivitamin when compared to single vitamin at a time	74
Table 4.28: Tendency to take over the recommended dosage of vitamin or mineral supplements	74
Table 4.29: Shows the number of vitamin or mineral supplement users that have recommended others to use vitamins or supplements	75
Table 4.30: Different type of people that the current users of vitamins or minerals supplements have recommended others to also consume vitamins or mineral supplements	76

Table 4.31: Sources of purchasing vitamins or mineral supplements.....	76
Table 4.32: Personal preferences on improvement of health from the consumption of vitamins and mineral supplements	77
Table 4.33: Willingness to continue consumption for the rest of their life.....	78
Table 4.34: Knowledge score of consumers and non-consumers of vitamin or mineral supplement.....	79
Table 4.35: Attitude of vitamin or mineral supplement consumers between non- consumers	81
Table 4.36: The association between vitamins or mineral supplement consumption between alcohol, exercise and smoking status	82
Table 4.37: The association between the consumption of vitamins and mineral supplements with education.....	83
Table 4.38: Association between income and vitamin and mineral supplements.....	84

LIST OF FIGURES

	Page
Figure 1: Table of markets size of food supplements (Thailand).....	7
Figure 2: Total Import vs. Export of Food Supplements (Thailand).....	8
Figure 3: Total local production of Food Supplements (Thailand).....	9
Figure 4: Market Share of Imports of Food Supplement in the year 2001 and 2005 (Thailand).....	10
Figure 5: Conceptual framework	13
Figure 6: Percentage distribution of each faculties contribution to total population size	37