RESEARCH ARTICLE

SOCIOECONOMIC AND ECONOMIC FACTORS THAT INFLUENCE VITAMIN A INTAKE BY WOMEN IN PAKISTAN: AN EVIDENCE FROM PDHS (2006-2007)

*Zeba Amjad

BS (Hons) Economics (IUB), M.phil Economics (BZU), Pakistan

ARTICLE INFO	ABSTRACT
	This study analyzed the vitamin A intake by women during pregnancy in Pakistan. The aim of this research is to analyze the factors of vitamin A intake by women. Data used in this paper is micro data which has been taken from Pakistan demographic survey. This paper based on the sample size of 39049. Researcher examined the qualitative as well as quantitative analysis of the data. In quantitative analysis researcher used binary logistic model because dependent variable in categorical form. In the model, vitamin A intake by women has been taken as explanatory variables while women education, women age, women employment, Husband employment, Husband education, sex of child, sex of head of household, number of children, night blindness, type of place of residence, wealth index, during pregnancy iron tablets and syrups and husband lives in house have been taken as independent variables of the model. On the basis of result researcher concluded that majority of women that were belong to poor family have low level of vitamin and they were housewives and vice versa. Education is the crucial factor on change. There is grim necessitate that husbands must change their behavior towards their wives and daughter education, food and proper check up in their both status of pregnancy and lactating.

1. INTRODUCTION

In this study we will analyze the vitamin A intake by women; Vitamin A is an important vitamin that women take during pregnancy. In this research we want to analyze socioeconomic and economic factors which are responsible for low level of vitamin A and poor health facilities for women. Vitamin A intake by women is defined as the supplementation of vitamin A to the women during pregnancy.

Vitamin A is an significant micronutrient heartwarming the health of expecting women and the fetus. An ample supply of vitamin A from maternal tissue is dangerous for normal development and growth of the fetus. Insufficient vitamin A (vit. A) position is a problem in many developing countries. . In countries where vit. A intake is low, expecting women may have such small liver stores of vit. A that growth of vit. A by fetal liver is additional compromised. If VITA is required for the development of invulnerable mechanisms in the fetus, condensed transfer of VITA to the fetus by the mother may affect immune function in the newborn at birth. A insignificant or deficient maternal vitamin A category is connected with babies of low birth weight and with a greater occurrence of

morbidity and mortality. As maternal tissue is gradually depleted of vitamin A so as to supply fetal demands pregnant women who primarily possess marginal vitamin A reserves are at an amplified risk of vitamin A inadequacy as pregnancy progresses. This condition may predominantly develop in low-income households without adequate funds to buy fresh fruits and vegetables or to provide proper storage for dairy products.

"Over half a million women around the world die each year from conditions related to pregnancy and childbirth" (WHO, 2004). The huge mass of these deaths happen in Asia and Africa, areas where prenatal care and delivery services are lacking and a woman's dietary status is often compromised. Sadly, the greater part of women die from conditions that are avertable and could be addressed with proper maternal health programs, better nutrition status, and better access to prenatal care and delivery systems.

"Over the globe, about 30 million infants open their eyes under stunted growth in the womb of their mother owing mainly to poor dietary situation of their mothers" (UN, 2000)."Much of the excess Intrauterine Growth Retardation (IUGR) is caused by squat body mass index and low gestational weight gain in mothers due to low energy intake from food" (Kramer, 2003)."The nutritional status of the mother prior to and during

*Corresponding author: Zeba Amjad
BS (Hons) Economics (IUB), M.phil Economics (BZU), Pakistan
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pregnancy plays a vital role in fetal growth and development and maternal undernourishment leads to adverse outcomes including Intrauterine Growth Restriction" (IUGR) (Imdad and Bhutta, 2011). "Babies with IUGR are born undernourished, have impaired growth and either have a far higher risk of dying in the infancy period or more likely to experience a variety of developmental deficits" (UN, 2000). "Eighteen million low birth weight babies are born to under nourished mothers each year" (Pojda andKelley, 2000). "This is a prime cause of infant mortality in developing countries" (WHO, 2005).

1.1 OBJECTIVE OF RESEARCH

The core purpose of this research paper is to discover the determinants of vitamin A intake by women during pregnancy in Pakistan.The other objective of the study may be as follow.
1. To identify the socioeconomic and economic factors which are responsible low level of vitamin A intake by women during pregnancy.
2. To explore the relationship between all factors that effect vitamin A intake by women and use these relationship to make policy implication.

Introduction of present research is based on statement of the problem, significance of the study and the outline of proposed chapters. Literature Review: will identify the concept of earning function and review of relevant literature. It will show the previous studies conducted by many researchers to support this study. Conceptual framework: will describe the theoretical background. Data Collection and Methodology: This will illustrate quantitative analysis and interpretation of the data. It will also include the discussion and findings of the study Conclusion and Recommendations: will be discuss the conclusion of the study and it will also propose recommendations and topics for the further research. It will contain references and the instruments which will be used for data collection.
This section give the detail of work that we will do in our complete research and give more detailed about research topic and main objective of paper.

2. LITERATURE REVIEW

In this section we will identify the concept socioeconomic and economic factor that influence vitamin A intake by women and review of relevant literature. It will show the previous studies conducted by many researchers to support this study.
 The vitamin A intake by women during pregnancy is an important public health issue and the deficiency of vitamin, low level of vitamin and diseases that occur due to vitamin A deficiency all these have significance in public health issues especially in poor countries because in these countries women health status is very poor . objective of our study is to analyze the Vitamin A intake by women during pregnancy so our literature review encircle the studies concerning vitamin A intake by women during pregnancy, low level of vitamin A in poor countries, Diseases that occur due to vitamin A deficiency, factors that affect Vitamin A intake by women and socioeconomic factors that influence vitamin A level.

Charmichael et al (2006) have analyzed the Correlates of intake of folic acid containing supplements among pregnant women..

Data from 2518 women with estimated delivery dates from 1997 to 2000, collected for the National Birth Defects Prevention Study, a population-based case-control study, were analyzed.
Timmermans et al (2004) have examined the Factorss of folic acid use in premature pregnancy in a multi-ethnic urban population in The Netherlands. Main purpose of this paper was recommendations on folic acid use to prevent neural tube defects have been launched in several countries. Sufficient folic acid utilized seen to be low. This study assesses the prevalence of folic acid used and identifie its determinants. Data used in this study is primary data which has been collected through questionnaire technique. This study categorized the dependent variable into three cluster (sufficient use, sub enough use, no use) and independent variable also divided into three group(Socio factors, life mode habits, obstetrical history).
Rosas and Viteri (2009) "have analyzed the Effects and safety of preventive oral iron or iron+folic acid supplementation for women during pregnancy. This study searched the Cochrane Pregnancy and Childbirth Group's Trials Register (March 2009) and contacted related organizations for the identification of continuing and unpublished studies."
Newson et al .(2013) " have analyzed the Behavior change for better health: nutrition, hygiene and sustainability .As the global population grows there is a clear challenge to address the needs of consumers, without depleting natural resources and whilst helping to improve nutrition and hygiene to reduce the growth of noncommunicable diseases. For fast-moving consumer goods companies, like Unilever, this challenge provides a clear opportunity to reshape its business to a model that decouples growth from a negative impact on natural resources and health. However, this change in the business model also requires a change in consumer behaviour. In acknowledgement of this challenge Unilever organised a symposium entitled 'Behaviour Change for Better Health: Nutrition, Hygiene and Sustainability'. The intention was to discuss how consumers can be motivated to live a more healthy and sustainable lifestlye in today's environment."
Lee et al (2008) " have analyzed the Extent of vitamin A deficiency among rural pregnant women in Bangladesh. The objective of this study is to investigated the prevalence of vitamin A deficiency (VAD) among pregnant women in rural Bangladesh, and examined the relationship between various factors and vitamin A status. A cross-sectional study design for data analysis. Two hundred women, aged 18–39 years, in their second or third trimester of pregnancy were selected from seventeen CNP centres in four unions of Kapasia sub-district where they usually visit for antenatal care. Various socio-economic, personal and pregnancy-related information, dietary intake of vitamin A and mid-upper arm circumference (MUAC) data were collected. Serum retinol (vitamin A) concentration was determined."
Literature review is an important section of any research because it provide background for a new research paper. In the literature review researcher has discussed previous study that were relate to existed study from literature review researcher have gained new technique and procedure for their own research. Literature review also help in finding new variables and data for new research.

3. THEORATICAL FRAMEWORK

A satisfactory delivery of vitamin A from maternal tissue is crucial for normal growth of the fetus. Vitamin A is necessary for normal immune function, enlargement, maintenance of mucosal surfaces, and hematopoietic.

Vitamin A shortage is a lack of vitamin A in humans especially in women during pregnancy. It is common in poorer countries like Pakistan but rarely seen in more developed countries . Night blindness is one of the first symbols of vitamin A deficiency.Xerophthalmia, keratomalacia and complete blindness can also occur since Vitamin A has a main role in photo transduction . About 250,000 to 500,000 malnourished children in the developing world go blind each year from a lack of vitamin A, roughly half of whom die inside a year of becoming blind.. The occurrence of Night blindness due to vitamin A lack is also high among pregnant women in many developing countries. Vitamin A deficiency contributes to maternal mortality and other poor outcomes in pregnancy and lactation in developing countries.

Vitamin A intake by women explains as vitamin A supplementation to women in pregnancy. Many Studies have shown that vitamin A deficiency is widespread throughout the developing world and also in Pakistan. Vitamin A deficiency had recognized in much of South and Southeast Asia by the common presentation of clinical cases of exophthalmia or night blindness, mostly in the latter half of the pregnancies.

3.1 Determinants of vitamin A intake by women

The determinants of vitamin A intake by women divided in six category i.e individual characteristics(women education, women age, women employment, marital status,, husband characteristics (husband education, husband occupation, husband lives in house), head of household characteristics(head of household gender, head of household occupation, head of household education ,head of household income and household wealth), social characteristic(religion, race ethnicity and type of place of residence) Obstetrical history(Gestation, Information on parity, Pregnancy planning, Fertility treatment, previous spontaneous abortion or stillbirth , children characteristics(children sex, children birth order number, number of living children) and life style habit.

The dependent variable is vitamin A intake by women during pregnancy which the variable of crucial interest , in which the variation is attempted to explained by the some explanatory variables of(1) socioeconomic factor (2)poverty(3) gestational age (4)malnourished mother or non malnourished mother(5)trimester of pregnancy(6) age of women(7)education of women(8)fertility treatment(9)employment of women(10) race ethnicity(11)prenatal care(12)anemia level(13) number of living children(14) alchol consumption(15) mortality(16) night blindness (17) type of place of residence(18) sex of head of household(19) head of household education(20) husband education (21)husband employment(22)welth index

Socioeconomic differences in health status have widely indicated that higher socioeconomic position associated with better health. Socioeconomic differentials in diet have also observed. Dietary intake studies had consistently shown that people with higher socioeconomic position take higher quality diets and take vitamin A than those with a lower , including higher consumption of whole grains and added fats, resulting in higher intake of key vitamins and minerals and dietary fiber .

Given the significant role of nutrition in promoting health especially during pregnancy period, this dietary intake pattern may be linked to inequalities in health.

Poverty has positive relation with vitamin A intake by women as income of family low than women have poor health status while women belong to rich family has better access to medical facility and have good health status.

Vitamin A in is significantly influenced by pregnancy age. The gestational age of the pregnant women had a stronger but a negative relationship with serum vitamin A level.

 Malnourished pregnant women had significantly lower serum retinol level than well-nourished pregnant women. Many studies expressed that pregnant women who were night blind were more malnourished than expecting women lacking night blindness, as judge by all anthropometric indices. One more research on children in Bangladesh showed that low Vitamin A was associated with a low intake of vitamin A-containing foods as well as with low serum retinol levels. Into malnourished mothers, vitamin A may not be the sole or even the key factor but it may certainly be influencing fetal growth.) Sex of child play a greater role in vitamin A intake by women during pregnancy because in developing counties like Pakistan because in developing countries a large extent of population is poor and they want male in spite of female because they think male is a source of income support and female are burden for them. This male concept is also prevailing in some middle family in Pakistan.

4. METHODOLOGY

The methodology deals with model specification data requirement, data source and variables that we use in our model. This chapter explains the various tools and techniques for determining the vitamin A intake by women. we are attempting to explain the supplementation of vitamin A to women during pregnancy in Pakistan. We want to explore the relationship between vitamin A intake by women and factors that influence vitamin A intake by women during pregnancy.

4.1 Problem statement

Our analysis is concern with the vitamin A intake by women during pregnancy in Pakistan. The vitamin A intake by women has been analyses in single model. The research question of our study is to see the factors which are irresponsible for deficiency of vitamin A intake by women during pregnancy .The descriptive analyses will support in depth finding, Table 1.

4.2 Data source

Data used in this study is micro data which has been taken from Pakistan demographic health survey. Sample size of the data was 39049. Sample weight was   1199824, sample stratum number was 1 and data distribution is given in Table 2.

4.3 Model selection

We use binary logistic model to regress the data because our dependent variable is dichotomous. Binary logistic regression is a type of regression analysis where the dependent variable is a dummy variable (coded 0, 1)

Table 1. Data Distribution

Region	Frequency	Percent
Punjab	16303	41.8
Sind	10597	27.1
NWFP	7616	19.5
Baluchistan	4533	11.6

Table 2. The operational definitions of the variables used in binary logistic model.

Variables	Operational definition of variables
Dependent Variable	
VITA(vitamin A intake by women during pregnancy)	1 for intake vitamin A otherwise 0
Explanatory Variables	
TPR(Type place of residence)	1 for urban, 0 for rural
HHS (Household Size)	1 if the number of household members are ≤ 4, 0 otherwise
BORD (Child's Birth-order)	Child's Birth-order
HEDUP(husband education primary)	1 for primary otherwise 0
HEDM(Husband education middle)	1 middle otherwise 0
HEDUH (Husband Education higher)	1 for higher otherwise 0
HOCCUP(Husband occupation)	0 for not working, 1 for working
Sex of child	1 for Male, 0 for female
WAGE (women age)	Mothers age
WEALTH (Wealth Index)	0 for Poorest, 1 for Poorer, 2 for Middle, 3 for Richer, and 4 for Richest.
Husbands lives in house(HLH)	1 for living with her, 0 for stay elsewhere
NCH (Number of living Children)	1 if the number of children in the household are ≤ 2, 0 otherwise
Sex of head of household	1 for male 2 for female
During pregnancy took iron tablets/syrup	0 for no, 1 for yes, 3 for DK
Antenatal care :your home	1 for yes 0 for no
Antenatal care :govt hospital	1 for yes 0 for no
Antenatal care : pvt hospital or clinic	1 for yes 0 for no
During pregnancy have difficulty with night blindness	1 for yes 0 for no 8 not know
Women education	O for no edu 1 for primary, 2 for middle, 3 for secondary, 4 for higher

4.3.1 Binary logistic model

Researcher use binary logistic model to regress the data because data is in categorical form. In statistics, logistic regression or logit regression is a kind of regression study used for predicting the outcome of a categorical dependent model based on one or more predictor variables. That is, it is employed in estimating empirical values of the parameters in a qualitative reaction model. The probabilities describing the potential outcomes of a single test are modeled, as a function of the explanatory variables, using a logistic function. Frequently "logistic regression" is used to refer specially to the problem in which the dependent variable is binary that is, the number of available categories is two as in our case is 0 and 1.

Logistic regression expresses the relationship between a binary response variable and one or more predictor variables.

$$\text{logit } (P_i) = \log\{P_i/(1-P_i)\} = \alpha + \beta X_i$$

Where

P_i = response probabilities to be modeled
α = intercept
β = slope parameters
X_i = explanatory variables

VITA=F(WAGE,WEDU,WW,HEDU,HEMP,HLH,NLC,WIN DX,SHH.TPR,HPE,HME,HHE,ACAH,ACPH,ACGH,DPNB, DPITS,SOC,BORD).

5. RESULT AND DISCUSSION

In this chapter researcher make analysis using appropriate statistical and econometrics techniques. Along with econometric analysis descriptive and inferential analysis also added in this chapter. The estimates of the model discussed in this chapter. For the purpose researcher have tabulated and classified the data to get the objective of study. First section of this chapter comprise with such work. In second section researcher discuss relationship among dependent and independent variables.

5.1 Respondent Profile

In this research according to data which researcher collected the respondent was female. Different characteristics of respondent were observed in which included individual characteristics like age, education and women working during pregnancy, household characteristics i.e head of household sex and size of household, husband characteristics like education and employment, children characteristics i.e number of living children, sex of children and birth order number of children and social characteristics like type of place of residence.

5.1.1 Individual characteristics

There were some variable which were may affect the vitamin A intake by women during pregnancy. The description and discussion about them are given below.One of the imperative factors that influence vitamin A intake by women during

pregnancy is women education. As more education of the women the level of vitamin A intake by women during pregnancy will be high. The second important variable of vitamin A intake by women is the women employment. Level of vitamin A intake by employed women is high as compared to housewives. The women age is also a factor that influence vitamin A intake by women. More aged women will be having low vitamin as compared to young women. The profile of women regarding individual characteristics as shown in table 3. The observation in table 3. shows that 21.6 percent women are in the age group of 35-39 years, 20.3 percent are in the age group of 44-49 years, 19.3 percent are in the age group of 40-44 years, 18.1 percent are in the age group of 30-34, 13.9 percent are in the age group of 25-29 years, 6 percent are in the age group of 20-24 years and .8 percent are in the age group of 15-19 years.

Table 3. Profiles Individual Characteristics

AGE(YEARS)/ CHARACTERISTICS	FREQUENCY	PERCENTAGE
15-19	303	0.8
20-24	2327	6.0
25-29	5444	13.9
30-34	7065	18.1
35-39	8447	21.6
40-44	7547	19.3
45-49	7916	20.3
Education		
No education	29126	74.6
Primary	4630	11.9
Middle	1710	4.4
Secondary	2070	5.3
Higher	1513	3.9
Working women		
Housewives	28313	72.6
Working women	10712	27.4

Observation shows that more women are in the age group of high age. Regarding education of female there is 74.6 percent women who have no education, 11.9 percent are primary, 4.4 percent are middle, 5.3 percent are secondary and 3.9 percent have higher education. Working status of women shows that there are 72.6 percent women are housewives and 27.4 percent are working women.

5.1.2 Husband Characteristics
Some general characteristics of husband were also observed, the discussion and result are given in Table 4.

Table 4. Profiles of Husband Characteristics

CHARACTERISTICS	FREQUENCY	PERCENTAGE
Education		
No education	16474	42.4
primary	6616	16.9
Secondary	10653	27.3
Higher	5178	13.3
Employment of Husband		
Not working	1743	4.5
working	37301	95.5

The table shows that 42.4 percent have no education, 16.9 percent have primary education, 27.3 percent have secondary education and 13.3 percent have higher education. Regarding employment 4.5 percent are not working and 95.5 percent are working. Observation shows that large populations of male are doing work.

5.1.3 Household Characteristics
Some common household characteristics of the respondent were also observed, the discussion and results; as in Table 5. Observation of Table 5. shows that13.2 percent have 1-5 family members, 58.3 percent have 6-10 family member and 28.5 have 10+ family member. Regarding sex of head of household 91.5 percent is male head of household and 8.5 are female head of household. Observation shows that a large extent of female has male head of household.

Table 5. Household Characteristics

CHARACTERISTICS	FREQUENCY	PERCENTAGE
Household size		
1-5	5171	13.2
6-10	22749	58.3
10+	11129	28.5
Sex of head of household		
Female	3303	8.5
Male	35746	91.5

5.1.4 Children Characteristics
Some general children characteristics of respondent were also observed. The depiction and discussion about them are given below.

Table 6. Profiles of Children Characteristics

CHARACTERISTICS	FREQUENCY	PERCENTAGE
No. of living Children		
Children in No.	148	.4
1-3	9493	24.3
4-6	17450	44.7
7-9	9975	25.5
10-12	1983	5.1
Sex of children		
Female	18780	48.1
Male	20269	51.9

Table 6, shows that 44.7 percent female have 4-6 children, 25.5 percent have 7-9 children , 24.3 percent have 4-6 children 5.1 percent have 10-12 children and .4 percent have no children. Regarding sex of children 48.1 percent were female and 51.9 were male.

5.1.5 Socioeconomic Characteristics
In socioeconomic characteristics there is two variable, one is wealth index and other is type of place of residence. The discussion about them is given in Table 7.

Table 7. Profiles Socioeconomic Characteristics

CHARACTERISTICS	FREQUENCY	PERCENTAGE
Wealth Index		
Poorest	8191	21
Poorer	8345	21.4
Middle	7957	20.4
Richer	7808	20.0
Richest	6748	17.3
Type of place of residence		
Urban	24624	63.1
Rural	14425	36.9

5.2 Result of Binary Logistic Model

The result of binary logistic model is given in table. Majority of the results (table 8) are statistically significant and inconsistent with theoretical suggestion.

5.2.1 Women education

We have found that women education and vitamin A intake by women is positively related and this relation is statistically significance (p=0.065). (See also Viveka Persson 2001 & Murrakami et al (2009)) A woman of higher education has a higher total intake of vitamin A and they consumed more the fortified vitamin A of those of lower education. The women who were either uneducated had significantly lower vitamin A levels as compared to those who received at least a secondary school certificate. Women with higher education tended to live in a nuclear family, have a good diet during the previous month, have a spouse with higher education, work outside, and also have a higher household income. Higher education is not less in Pakistan but even not much better to provide information to women and to keeping in view the educational facilities and infrastructure facilities in urban areas not in rural there might be several reasons like lack of income resources, school distance and cultural values of early marriages. Pakistani women's literacy rate is the lowest in the rural region. The educational rate for urban women is more than five times as rural women. "UN (1994-1995) reported that in Pakistan, the women's access to property, education, employment etc. remains considerably lower as compared to men's. Pakistani society is predominantly patriarchal and women participation in outside related work activities conditioned with the permission of family male heads. Due to that reasons women health status is very poor in Pakistan especially in rural areas of Pakistan."

" Bilenko et al. (2004) also worked on women education and their diet status. He estimated that women education and socio-economic status were significantly related to the prevalence of nutrition deficiency and sickness." "Education not only enables women to make informed choices and adopt better health and nutrition practices, it also increases the pool of health care service providers and community educators." (Patrick and Nicklas, 2005).

women's nutritional knowledge, habits and their ability to cook and serve appropriate quantities of food to individual household members (based on nutritional knowledge and "autonomy" in 'kitchen' decision-making), are important determinants of women's nutrition-related roles.

5.2.2 Women age

We have found negative relationship between women age and vitamin A intake by women and this relationship is statistically significant(p=0.079). (See also Batool et al 2012)

Young pregnant women are taking more balance diet than that of old age or medium age group women because young generation are more educated as compared to old one because Pakistan . "Pregnant women from high socioeconomic status and living in urban areas were mostly used to take good diet and their, red blood cell count, white blood cell, packed cell volume, mean corpuscular volume and mean corpuscular hemoglobin were more normal than women from rural areas." (Dur-E-Afshan, 2000).

5.2.3 Occupation of husband

We have found positive relationship between vitamin A supplementation by women during pregnancy and husband occupation and this relationship is statistically significant (p=0.090) . Occupation is not only the means of income for a person rather it carries social respect for a person and his family as well. It also explains the purchasing power and living standard of the family members. So employed husband that belong to business class have more financial resources for proper cure and supplementation of vitamin A during pregnancy.

5.2.4 Husband education

We have found positive relationship between husband education and vitamin A intake by women during pregnancy and this relation is statistically significant (p=0.042) . The husbands who were either uneducated or acquired only some level of informal education has minor information about women health status during pregnancy and vitamin A levels than those who gained at least a secondary school certificate and higher education.

5.2.5 Wealth index

We have found positive association between wealth and Vitamin A intake by women during pregnancy and this relationship is statistically significant (p=0.079). Individuals with a advanced socioeconomic location consume superior quality diets and take vitamin than those with a inferior position, as well as higher intake of whole grains, incline meats, fish, low-calorie dairy products, and clean vegetables and fruits, and inferior intake of fatty meats, advanced grains, and additional fats, consequential in higher intake of key vitamins and minerals and dietary fiber.

"Sharma et al. (2007) in a study comprising of various social status groups, categorized on the basis of family income, found that most of females from low income category were more iron deficient."

" Low income has been identified as an important risk factor for low VA intake (Fawzi et al., 1997; Ramakrishnan et al., 1999)." " Low income has been identified as an important risk factor for low VA intake (Fawzi et al., 1997; Ramakrishnan et al., 1999)."

5.2.6 During pregnancy iron tablets and syrup

We have found positive relationship between Vitamin A intake by women during pregnancy and iron tablets and syrup and this relationship is statistically significant (p=0.000). Iron tablets

and syrup are important for pregnant women and they fill full vitamin A deficiency among pregnant women. Anxiety and pitiable food intake habits need vitamin and minerals to sustain the acquired blood apparatus. A impartial diet also supply adequate amounts of vitamins for pregnant women, yet, need more folic acid and iron. Pakistani women are facing a number of health correlated factors as be short of medical facilities, lack of health information, significance of nutrition, be deficient in nutritional facilities, prevalent social environment, unemployment and poverty and psychological factors. "National Institute of Health (2008) reported that folic acid is necessary for DNA synthesis and very important in the making of red and white blood cell production."

5.2.7 Sex of head of household.

We have found negative relationship between vitamin A intake by women during pregnancy and gender of head of household which has been taken as 1 for male and 0 for female. So our result indicate that there is negative relationship between vitamin A intake by women during pregnancy and female Head of household and this relation is statistically significant(p=.008). Female belong to male head of household have very low vitamin A level because male are not conscious about female health especially in developing countries like Pakistan while female belong to female head of household have level of vitamin and dietary food during pregnancy.

5.2.8 Number of living children

We have found that number of children is negatively related

with vitamin A intake by women during pregnancy and this relationship is statistically significant (p=.004). in pakistan mostly Women have more children and their health status is very poor . accordin to our study result vitamin A level was very low in women who have more children. Children size i.e. 4 to 6 members; it is complicated for women to take balance diet during pregnancy and lactation. In Pakistan 44.6 percent women have 4-6 children.

5.2.9 Antenatal care

We have found positive relationship between antenatal care at private hospital and Vitamin A intake by women and this relation is statistically significant (p=.014). In Pakistan govt hospital have all facility but not provide information about health, government hospital doctor run private hospital and not do their routine job and proper treatment of patient in public hospital .we found negative relationship between antenatal care at home and vitamin A intake by women. In Pakistan wide population lives in rural areas so they don't have proper treatment and medical facilities in their areas. Women do fertility treatment at their home and they don't have any information about vitamin and minerals during pregnancy and Vitamin A status is very low in women that receive antenatal care at their home.

6. CONCLUSION AND POLICY

The model and estimation we presented above allows us to analyze the Vitamin A intake by women. To test how different parameters have affect and Vitamin A intake by women, we

Table 8. Binary Logistic Result for Vitamin A intake by women during pregnancy

Variables	Coefficient	S.E.	Sig.	Exp(B)
WINDX	0.093	0.053	0.079 ^	1.097
SHH	-0.768	0.289	0.008 #	0.464
HLH	-0.287	0.211	0.174	0.750
HEMP	0.455	0.268	0.090 ^	1.576
WW	0.009	0.132	0.947	1.009
SOC	0.110	0.105	0.294	1.116
DPITS	0.400	0.102	0.000 *	1.492
DPHDV	-0.158	0.142	0.264	0.854
DPXN	0.201	0.152	0.187	1.222
ACAH	-0.681	0.276	.014 #	0.506
ACGH	-0.183	0.155	0.239	0.833
ACPH	0.326	0.133	0.014 #	0.722
HPE	0.034	0.142	0.812	1.034
HME	2.190	2826.168	0.999	8.939
HHE	0.318	0.156	0.042 ^	1.374
WEDUL	0.097	0.052	0.065	0.939
HHS	0.001	0.010	0.924	1.001
WAGE	-0.022	0.013	0.079 ^	0.978
NC	-0.108	0.038	0.004 #	1.114
TPR	-0.117	0.124	0.348	0.890
Constant	1.595	0.504	0.002	4.929

* represent 1 percent level of significance	# represent 5 percent level of significance	^ represent 10 percent level of significance.

estimated binary logistic model for vitamin A intake by women during pregnancy. The entire conclusion based on the facts and finding drew on the basis of individual characteristic, household characteristics, husband characteristics, social characteristics and children characteristics. The conclusion of the study is summarized as below.

1. We have found that female education is positively related with Vitamin A intake by women but in Pakistan female education level is very low 74.6 percent women have no education
2. We have found that women age is negatively related with vitamin A intake by women during pregnancy. 69.2 percent women was in age group of 35-49 years
3. We have found that there is positive relation between women employment and vitamin A intake by women during pregnancy. But in Pakistan wide population of women is housewives. According to our finding 72.6 percent women were housewives.
4. We have found that husband education and vitamin A intake by women is positively associated
5. We have found that husband occupation and vitamin A intake by women is positively associated
6. We have found that household size is negatively associated with vitamin A intake by women during pregnancy. More household member means less level of vitamin A intake by women during pregnancy.In Pakistan 58.3 percent women have 6-10 family member
7. In Pakistan 91.5 percent women have male head of household and male head of household not concerned with female health
8. Pakistan is a rural country.63.1 percent lived in rular areas of Pakistan due to that vitamin A level is very low in Pakistan.
9. We have found positive relationship between vitamin A intake by women and wealth. Female belong to rich family have all medical facilities ,proper medial treatment and minerals and vitamins during pregnancy.
10. Number of living children is negatively associated with vitamin A intake by women during pregnancy. More children mean less level of vitamin A intake by women. 44.7 percent women have 4-6 children.
11. Antenatal care at home is negatively associated with vitamin A intake by women during pregnancy
12. Antenatal care at private hospital is positively associated with vitamin A intake by women.

7. RECOMMENDATION

1. Education is too much important factor to bring improvement in health status and better living standard especially in women therefore Government should plan strategies and policies to improve women education to make them independent in socio-economic and cultural decisions, which directly and indirectly improve women health condition.
2. Sensitization of gender matter require particular concentration that husband should be make conscious about the very fastidious food and nutritional needs of his wife during pregnancy to make certain healthy generation.
3. Government of Pakistan should launch community health consciousness campaigns to make people aware about the benefits of little family, illness, breastfeeding, prenatal and postnatal care and utilization of health facilities in the circumstance of women general reproductive health.
4. Children are our assets so parents should pay concentration to their children particularly daughters healthy bring up, their education, avoid from early marriages and balanced food provision to make upcoming generation healthy.

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