Socio-Economic Impact of Marketing of SMC (Social Marketing Company) Products in Bangladesh – An Analysis

Thesis

Submitted for the Award of
Master of Philosophy

in

Marketing

by

Md. Shahidul Islam
Reg. No. 469, Session: 2001-2002
Department of Marketing
Faculty of Business Studies
University of Dhaka
Dhaka, Bangladesh

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Under the Supervision

of

Prof. Zakir Hossain Bhuiyan PhD.
Department of Marketing
Faculty of Business Studies
University of Dhaka
Dhaka, Bangladesh

Declaration

I do hereby solemnly declare and confirm that the materials embodied in my dissertation entitled, **Socio-Economic Impact of Marketing of SMC (Social Marketing Company) Products in Bangladesh – An Analysis**, submitted for the award of Master of Philosophy, are genuine, and no part or materials offered in the thesis have been previously submitted by me for any other diploma or degree in any other Universities or Institutions.

Shahidul Islam
25.01.2010

Md. Shahidul Islam
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Certificate

This is to certify that the research work incorporated into the dissertation entitled "Socio-Economic Impact of Marketing of SMC (Social Marketing Company) Products in Bangladesh – An Analysis" was carried out by Md. Shahidul Islam (Reg. 469; Session: 2001-2002) under my guidance and supervision. This dissertation is submitted in needful accomplishment of the requirement of the degree of Master of Philosophy (M.Phil) in the Department of Marketing, University of Dhaka.

28.01.2010

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Preface

The Socio-Economic Impact of SMC (Social Marketing Company) Products in Bangladesh – An Analysis is the unique and original study in the research field. The study is a nationally representation research design on the basic indicators of socio-economic and socio-demographic progress including fertility, contraception prevention rate, childhood mortality, reproduction, child health, education, occupation, marriage, divorce, dowry, food consumption, biological indicators and analysis of STDs/AIDS. The main objectives of the study are to identify the socio-economic impact on the consumer/user of SMC products, socio-economic impact of SMC products in Bangladesh and awareness of STDs/AIDS perspective, use of condom of SMC brands in Bangladesh. The study was based on primary data and secondary data. For the primary data, four categories of respondents were selected for interviewing. Experts and specialists, thana based officers, doctors and employees, conductor or proprietor of pharmacies/small shops, and one spouse of eligible couple of the sampling area were selected for interviewing. The investigation was conducted by the researchers and two trained groups of field investigators. Preparation for the study started in the mid-2006 and the field work was carried out between March and October, 2009. Financial support for the study was provided by the researcher himself and his beloved wife Zakia Sultana.

The thesis work is consisted of eight chapters. The name of the chapters respectively: Introduction of the Study, Methodology, SMC: An Overview, Contraceptive Products Marketed in Bangladesh, Diarrhea Management & Micronutrition & and Other Family Health Products, Determinants of Socio-Economic Scenario vs. Fertility and Reproduction- Bangladesh Perspective, Findings and Impact Analysis, Conclusion & Recommendation. The fundamental

concern of the study has been dissolved in the first and second chapters. About SMC and its overview, contraceptive products, diarrhea management and micronutrition products and other family health products have been analyzed in the chapter three to chapter five. Chapter six and seven are the most significant of the study. Determinants of Socio-Economic and Socio-demographic related to fertility and reproduction in the context of Bangladesh and findings and impact analysis of the study have been explained in these chapters. And last of all, conclusion and recommendations have been established in the chapter eight. After conclusion and recommendations, appendices and bibliography were instituted.

The findings of the study will be instrumental in assessing the achievements of family planning, family welfare, family health, child health, STDs/AIDS programs through the contraceptive products of SMC and also ORSaline. The study has provided estimates of some key indicators by socio-economic and socio-demographic differentials. The data indicates that there has been a decline in the total fertility rate (TFR) and overall a steady increase in contraceptive use rate. I believe that the information obtained from the study will be helpful including policy makers, program managers in this orientation and in the formation of programs and monitoring the ongoing progress and several researches. It is hoped that such research will be carried out by the academicians, researchers and program personnel to provide more in-depth knowledge and information for future direction and effective information of national Health and Family Planning Program.

I express my heart felt thanks and gratitude to all my respondents, including Dr. Ahmed Al-Sabir, director (research), NIPORT, Dhaka, my honorable supervisor Dr. Zakir Hossain Bhuiyan (Professor, Department of Marketing, Faculty of Business Studies, University of Dhaka) and field investigators for their sincere efforts and collaboration in successful completion of the study.

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Appendices:

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In describing the acknowledgement, first of all, I would like to place my gratitude and sincere honor to my supervisor of the research work, Dr. Zakir Hossain Bhuiyan, Professor, Department of Marketing, University of Dhaka, and a renowned market analyst of Bangladesh. My heart felt honor and gratitude towards my supervisor for his sincere guidance, ceaseless inspiration and gentle supervision to complete this M.Phil dissertation. My supervisor also inspired me to choose this topic, which has been comparatively need and discriminative arena of socio-economic marketing research field and supplied me with relevant books, journals, survey report, working papers from his personal collection and also supplied me the way of collection. My supervisor, Dr. Zakir Hossain Bhuiyan helped me in all respect throughout the research work. I am highly grateful and indebted to his scholarly guidance and affectionate encouragement, which has made the accomplishment of this work possible.

I sincerely show my gratitude to my friend and classmate Dr. Md. Zulhas Uddin, Professor, Department of Wet Processing Technology, College of Textile Engineering and Technology, Tejgoan, Dhaka, Bangladesh.

I would like to acknowledge Dr. Ahmed Al-Sabir, Director (Research), and Mr. Subrata Datta, Senior Research Officer, National Institute of Population Research and Training (NIPORT), Azimpur, Dhaka, Mr. Md. Billal Hossain, Senior Research and Monitoring Executive and his other colleagues, SMC head office, SMC tower, Banani, Dhaka, Fakrun Naher, Documentation officer, Husneara,

Documentation Associate, Mohiuddin Hafij, Program Associate, and their other colleagues, Resource Center (discover) of Social Marketing Company, Uttara, Dhaka, Bangladesh

I would like to acknowledge the assistances of the librarians of the Central Library, University of Dhaka; National Archive, Dhaka; all respective personnel of BIDS, Public Library, Asiatic Society of British Council Library and Bureau of Statistics of Bangladesh respectively.

I also owe my deepest appreciation to all of my respondents (consumers/ users, pharmacy conductors, specialists, small shopkeepers, SMC officers) who have always been very friendly and active in assisting me during my fieldwork and they had provided me with information for extending their honest cooperation, ignoring travel and providing valuable time of their own.

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Lastly I am grateful to Kazi Takbir Newaz, U.S. citizen, currently visiting Bangladesh, for his cordial effort during the study especially on the neat composition of the manuscript.

Dhaka
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Shahidul Islam

M.D. Shahidul Islam

Abstract

Bangladesh is the most densely populated country in the world excluding city states. About 150 million is our population with a corresponding population density of more than 941 (Bangladesh Economic Survey-2006, INDEX) persons per square kilometer. During the first half of the last century, the growth rate of population was only 0.45 percent. The salient reason of the slow increasing is the high death rate viz. the slow increase resulted from a combination of high birth rate and high death rate. During the time of the first census of 1872, the population was then only 2.28 million in this zone that is at present Bangladesh. The number of population had been double in figure after 80 years approximately due to the close combination of high birth rate and high death rate that was resulted slow growth rate of population. In the second half of twentieth century, population growth had become rapid and from 1949 to 2000, the population had tripled.

The state identity of Bangladesh has been changing from underdeveloped country to developing country and several key indicators of socio-economic context has also been changing, improving, adding, moving upward and in some places moving downward, like health, education, economic-condition, social norms and values, population, family planning, birth control, use of contraceptives and so

forth. From the beginning of the last half of twentieth century, population of Bangladesh had been increasing very rapidly just like flood water. Growth rate of socio-economic sector would not march with the growth rate of population that was called the evolution of population growth of twentieth century.

There have been many theories and investigation reports presented to inquire the cause of the evolution growth rate from last half of twentieth century Bangladesh. It has been said that high birthrate is the cause of high death rate of agriculture oriented village based traditional society. Impacts are established as for advancement of urbanization, modernization, industrialization, family health, income, occupation, level of awareness, education and so forth in our social life. For these reasons, mortality rate decreases firstly. As a result, the size of a family tends to grow that motivates to decrease the number of offspring. The significant reason to decrease the rate of fertility, in the situation of economic development and advancement of modernization, is to increase the cost for bringing up an offspring that is greater than the possible outcome from an offspring in terms of socio-economic measurement. According to the theory of microeconomics, if reproduction and bringing up a child becomes non-profitable, then the demand of the child will decrease and the rate of fertility is bound to decrease. By justifying and analyzing investigations and data, it seems that socio-economic situations of various European countries did not play more roles to change the rate of fertility. If the evolution of fertility rate begins in a specific country within a large

geographical area, then another less developed country within the same geographic area containing same values and culture, the less developed country will adopt the evolution of the rate of fertility. In this case, the awareness of contraceptive and its methods play the biggest role. Positive advancement of attitude, knowledge level of contraceptive perspective and availability of contraceptive method remains a significant contribution, and in Bangladesh, that is the case. If contraceptive methods become acceptable in a certain community, then the other surrounding communities will gradually accept the methods as well.

According to modern market analysis, fertility rate depends on the promotion of the new concept of contraceptive methods and new social roles and regulations about this purpose. In this case, the effectiveness of these roles and regulations depends on the language, culture and other socio-economic development indicators like the education of women, the social status of women, living standard of social life, and so on. In Bangladesh, mortality rate has been decreasing since the decade of 1960 due to the awareness and application of modern scientific technology. As a result, the growth rate of population has been increasing, which turns into a potential time bomb, which then starts a negative reaction in the socio-economic sector of the social life. More over, the poverty and unemployment increases, land per capita for cultivation decreases, number of families without land increases, family size grow larger, but the possibility to earn economic profit of the parent decreases from more children. In this grim situation, the hidden

demand for contraceptives and the positive attitude towards contraceptive knowledge is wide spread. In the context of Bangladesh, although social, economic and institutional circumstances were unfavorable, concerted efforts helped introduce reproductive change.

The use of contraceptive was limited in 1975 in Bangladesh (8 percent); as a result, the role of contraceptives to control the birth rate was not as effective. The growing use of contraceptives gave birth to the salient determinant of birth control of the population from the very beginning of evolution of the rate of fertility.

Bangladesh is a developing country where villages are at the hearth of the country. The country is located in the southeastern part of South Asia and covers an area of 1,47,570 square kilometer. It is almost entirely surrounded by India except for a short southeastern frontier with Myanmar and a southern coastline of the Bay of Bengal. Near about eighty percent of the population live in villages. Without knowing villages intimately, one cannot know the socio-cultural and socio-economic behavior in terms of socio-economic scenario of the country.

Poverty and over population are two main problems of Bangladesh. Agriculture carried out proximately traditional way provides the main source of income. Govt. of a developing country like Bangladesh considers overpopulation to be one of the top most problems and reduction of fertility to be a significant component of their overall strategy for socio-economic development and improving the standard of

living. Family planning programs aimed at increasing contraceptive prevalence are the most widely used approach to bring about fertility reductions.

Human reproduction is a very complex process. It is governed by a number of biological factors in one hand and socio-economic and environmental factors on the other. The biological component refers to the capacity to reproduce and obviously is a necessary condition for parenthood, but not sufficient alone. Whether children will actually be born and if so, how many – given the capability to reproduce – is largely at the socio-economic behavioral or environmental factors.

The physical ability to reproduce is usually called fecundity by demographers. A fecund person can produce children, an in-fecund (sterile) person cannot. For most people, fecundity is not an all-or-none proposition and varies according to age. Most of the people (whether male or female) are fecund, at least during young adulthood but there are so much variation in fertility which primarily is a social one. Sociologists have considered the number of children born to a woman to be largely an outcome of social norms, economic considerations and cultural factors that shape the fertility control behavior of the couples. To improve understanding of the causes of fertility variations, it is necessary to analyze the mechanism through which socio-economic variables influence fertility has been analyzed in the chapter no. six by thoroughly in description and by chart and table.

nature and extent of social change through by time with the contraceptive use and in the same time with the patch of other indicators like education, occupation, income, marriage, fecund-ability, social norms and values and so forth, which have taken place in the impact of socio-economic scenario of Bangladesh through the contraceptive and re-hydration products of SMC like pill (Femipill, Femicon, Nordette-28), condoms (Raja, Hero, Panther, Sensation, U&ME, etc.), Injectable (SOMA-JECT) and ORSaline (ORSaline-N, Monimix, etc.).

The study had been selected firstly three divisions out of six and then three districts was selected from the previous selected three divisions and then four Upazilas/Thanas had been selected and last of all, 2 villages, 1 remote village and 1 semi-urban village/Mohallah had been selected for conduction investigation and collection authentic and dependable primary date and information for dissertation. With a view to identify and measure the social impact in terms of socio-economic condition through the contraceptive prevalence rate of the whole of the country, four sampling points had been selected as field investigation points. The field work of the study was completed through a long period of time that is about two years over household (one spouse of eligible couple) survey was conducted in the study villages/Mohallah to collect authentic qualitative and dependable date and information. And at the same time or side by side, close observation method was applied to supplement survey data. The core data was collected from cross sections of respondents which/where includes UFPO/TFPO, doctors (health and

family planning oriented), FWAs (Family Welfare Assistants), FWVs (Family Welfare Visitors), pharmacists and last of all, experts and specialists were interviewed for their comments and suggestions.

No single theory, reason or determinant plays salient role of social change. By analyzing data and information, it can be said that the first determinant is knowledge or awareness. Knowledge or awareness usually comes from learning (education). Education makes a man/woman expect a better standard of living. After this, he/she looks for a way to attain this desire. In this purpose, he/she tries to adjust his/her profit and loss, increase his/her income and reduce his/her expenditure to thereby attain the desire. On going through this mechanism, he/she tries to coordinate birth and death, health and life expectancy, standard of living, and so forth where with awareness or without awareness, and he or she also thinks about whether a couple or family with more offspring is profitable or a couple or family with few offspring is profitable and which of the two is more respectable in the society. In this process, a considerable (eligible couple) part of the society expects few offspring (in Bangladesh context two in numbers) and they also look for the way to attain their desire. In this period, if any GOs or NGOs or any marketers offer them (those who expect two offspring in Bangladesh context) any contraceptive method then it is easily accepted and in Bangladesh, that was the case.

The first census of 1872 showed that the growth rate of the people in this region was slow, that is about 0.5 percent. In the last five decades of the twentieth century, Bangladesh came under a slight touch of medical science which influenced the start of the reduction of the death rate but the birthrate was unchanged. As a result, population growth rate increased rapidly. After two or three decades of above mentioned period, the advancement of medical science was the salient reason to drop the death of diarrhea (colera), pox, tuberculosis, as well as the advancement of health service reduced the child death rate unexpectedly but about no factors was influenced the birth rate. As a result, the population of Bangladesh is now very over populated. In the mean time, the population of Bangladesh understood that the population growth is a dangerous problem for the country. The apathetic Pakistan government and lack of process of the promotions, the effectiveness of contraceptive methods, awareness, introducing and use was about zero. From the very beginning of Bangladesh, the very small shops those would to seat beside the road in a certain day of the week or certain time of the day that sold condoms at 0.02 to 0.05 taka per piece, but it wouldn't be used as a contraceptive but as a balloon to the children and putting water inside would also make it a water balloon, etc. In 1974, SMC was then FPSMP (Family Planning Social Marketing Project), the institute had been started work in the field. The screen from the eye of the population of Bangladesh was starting to remove. In the same time, the people of Bangladesh were also looking for the way to control their

reproduction. SMC and in the same time GOs and some other NGOs were started on their effort to use contraceptive method in order to reduce reproduction. Today, as such a conservative country like Bangladesh, the use rate of contraceptives all over the country is 59 percent (BBS, Statistical Yearbook of Bangladesh 2007) and that is 62 percent according to combination and in on average of my investigation of the four sampling points: Aligonj, Olinagar, Khidirpur, Mulghar up to October 2009.

List of Abbreviations

A

AIDS – Acquired immune deficiency syndrome
AMFR – Age Specific Marital Fertility Rate
ANC – Antenatal Care
ASDR – Age Specific Death Rate
ASFR – Age Specific Fertility Rate
ASMR – Age Specific Marriage Rate

B

BAP – Bangladesh AIDS Program
BBS – Bangladesh Bureau of Statistics
BCC – Behavioral Change Communication
BDHS – Bangladesh Demographic Health Survey
BFS – Bangladesh Fertility Survey
BS – Blue Star
BSP – Blue Star Program

C

CBR – Crude Birth Rate
CDR – Crude Death Rate
ChDR – Child Death Rate
CPR – Contraceptive Prevalence Rate
CPS – Contraceptive Prevalence Survey
CSDR – Cause Specific Death Rate
CWH – Central Warehouse
CYP – Couple Years of Protection

D

DHS – Demographic and Health Survey

E

EPI – Expanded Program on Immunization

F

FAQ – Frequently Asked Queries
FHI – Family Health International
FP – Family Planning
FPHP – Fourth Population and Health Project
FPSMP – Family Planning Social Marketing Project
FWA – Family Welfare Assistant
FWV – Family Welfare Visitor

G

GDP – Gross Domestic Product

GDR – General Divorce Rate
GFR – General Fertility Rate
GMR – General Marriage Rate
GOB – Government of Bangladesh

H

HA – Health Assistant
HCP – Health Communicate Program
HDS – Health and Demographic Survey
HH - Household
HIV – Human Immunodeficiency Virus
HNPSP – Health, Nutrition and Population Sector Program
HPI – Human Poverty Index
HPSP – Health Population Sector Program
HPSS – Health Population Sector Strategy

I

ICDDR,B – Center for Health and Population Research, Bangladesh
ICPD – International Conference on Population and Development
IDA – Iron Deficiency Anemia
IDU – Injection Drug User
IEC – Information, Education, Communication
IFS – Ideal Family Size
IMCI – Integrated Management of Childhood Illness
IMR – Infant Mortality Rate
IPC – Inter Personal Communication
IUD – Intrauterine Device
IYCF – Infant and Young Child Feeding Practices

L

LDC- Least Developed Country

M

MA – Medical Assistant
MACCA – Masjid Council for Community Advancement
MAM – Mean Age First Marriage
MAVP – Mobile Audio Visual Program
MCH – Maternal and Child Health
MDGs – Millennium Development Goals
MMR – Maternal Mortality Ratio

N

NASP – National AIDS/STD Programme
NGMP – Non-Graduate Medical Practitioners
NGO – Nongovernmental Organization
NGR – Natural Growth Rate

NIPHP – National Integrated Population and Health Program
NIPORT – National Institute of Population Research and Training
NN – Neonatal Mortality
NNP – National Nutrition Project
NRR – Net Reproduction Rate

O

OCP – Oral Contraceptive
ORS – Oral Rehydration Salts
ORT – Oral Rehydration Therapy

P

PRSP – Poverty Reduction Strategy Paper
PSI – Population Service International
PSU – Primary Sampling Unit

R

RTI – Reproductive Tract Infection
RTM – Research Training and Management

S

SBA – Skilled Birth Attendant
SPPPD – Support for Policy, Planning and Program Implementation Research within Population and Development
SSMP – Support for Safer Motherhood Program
SSVRS – Strengthening of Sample Vital Registration System
STD – Sexually Transmitted Disease
STI – Sexually Transmitted Infection
SVRS – Sample Viral Registration System

T

TBA – Traditional Birth Attendant
TC-NAC – Technical Committee of the National AIDS Council
TFR – Total Fertility Rate

U

UNDP – United Nations Development Program
UNFPA – United Nations Population Fund
UNICEF – United Nations Children's Fund
UP – Union Parishad
USAID – United States Agency for International Development
USBC – United States Census Bureau

V

VAD – Vitamin A Deficiency

W

WHO – World Health Organization

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Chapter One:
Introduction of the Study

1.1 Introduction:

Bangladesh is recognized for its considerable progress over the last 20 years in poverty reduction, family planning, agriculture, food security, increased gender equality in education, rural electrification and disaster response. Rates of economic growth have also been respectable, averaging 5-6 percent since the early 1990s. Nonetheless, Bangladesh remains one of the approximately 67 million out of 133 million Bangladeshis live in poverty and more than 32 million live in extreme poverty. Problems related governance, particularly with reference to the effectiveness and accountability of key public institutions, reduce the prospects for continued economic growth. Malnutrition levels are high, large numbers of people lack basic services, lawlessness and corruption are widespread, and human rights protections, especially for the poor, remain weak. And among the objective of health program of GOs and NGOs seek to reduce population growth and fertility while continuing to improve children's health and stopping the spread of infectious diseases, including STD/HIV/AIDS.

Capability and wishing to consume any of the products/services of the consumer's indicates their tendency to consume, level of consumption, level of status that's the standard of living, etc. And the standard of living that is socio-economic status of the member of the society is such a socio-economic phenomenon that pursues the social activities and following these activities, the society goes on, moves on, changes on, reforms on, _____ _____, somewhere gradually and somewhere promptly or uninterruptedly what we can say the social impact of consumption there by impact of social marketing.

The situation just presented-and countless others in everyday life-involve marketing. Sometimes we carry out marketing, or at least participate in it, without even realizing it! Perhaps the best examples are our frequent experiences as purchasers of products and services. But as we progress through this course, we probably shall come to realize that we have experience as a marketer as well as a consumer.

Ordinarily marketing is considered an activity or function performed by business or non-profit firms. However, marketing also can be carried out by other organizations and even by individuals. Whenever we try to persuade somebody to do something, we are performing marketing activities. We engage in marketing when we ask someone to donate to the Salvation Army, fasten a seat belt, vote for our candidate, or swap their tickets to a concert for our tickets to an athletic event. Similarly when a consumer/user consume a SMC product him or herself or advise

someone to use SMC Products, originally he/she does a good marketing job for SMC product marketing.

While it can be interesting to consider marketing in its broadest context, the marketing with in our socio-economic system is carried out by organizations and individuals. These organizations may be business firms in the usual sense of the world business. Or they may be what is called a non-profit organization- a hospital, university, United Way, church, police department, museum, SMC in Bangladesh, for example.

Social change or impact is an inevitable phenomenon which always takes place in the orbit of society. If there is any thing true and evident in the society, that is change. Because, it is always taking place either on physical surface of the earth or in the society and the chance carry out impact thereby social impact. The pace of social change may not be always same; it may be rapid or slow. Various factors may be considered responsible for the social impact. But there are some discriminative factors, the impacts of which on the society are so clear that anybody can mark it. On the other hand, there are some minor forces, which are also influencing society; but the impacts of these forces are not sufficiently adequate of paramount and as such, we cannot assess vivid imagination or notice clearly/vividly.

Marketing is one of the major agents of social change which keeps its impacts on many aspects of human life in any society. Its impacts are indeed multifarious,

multidimensional and far reaching and no society is perhaps immune from it. We can say, in the brink of or in the starting of 21st century, marketing has been changing not only the pattern of product, pattern of business, pattern of consumption level but also the pattern economic behavioral system of the society that we can define socio-economic impact of the marketing in the society as well as Bangladesh society.

The impact of Marketing on any society or state or community may be viewed or evaluated mainly from two standpoints i.e. positive or negative. Although it's positive impacts are perhaps significant. However, its impacts may be measured by each society's attitude, behavioral consumption, belief, system, value and value judgment orientation.

The pace of impact-or measure of impact is not always the same in the same society. It is depended upon some factors, which accelerate impact. If more than one factor are combined and act together, social impact may be more accelerated. As social impact and economic impact go side by side and reinforces each other, enormous impacts have occurred in the life pattern of the people of Bangladesh. This is mainly due to Marketing in Bangladesh, the process of which began in the early 80s.

Social Marketing Project was initiated in 1974 when AID/Washington, at the request of the Bangladesh Government (BDG), contracted for a two year program to distribute non-clinical contraceptive throughout the country. A sole-source

contract was awarded to PSI, which was then signed an agreement with BDG establishing the activity as a parastatal one, with a project council serving as the board of directors. At present, Social Marketing Company is the unique pioneer of social marketing sector in Bangladesh. The experts of the field have mentioned that in the year 1975 to 2007, the total fertility rate of Bangladesh dropped from 6.3 to 2.77 percent and on the whole, contraceptive prevalence rate among currently married women rose from 8 percent to 56 percent. SMC is very significantly contributing in the modern contraceptive method. According to BDHS-2007, 35 percent of modern contraceptive users use SMC contraceptive brand. In terms of family planning, population control, prevention of STD/HIV/AIDS, reproductive health, these are the very smart indicators of social impact.

ORSaline, that was started in late of 1985 to reduce the mortality and morbidity-due to diarrhea especially children under the age of 5 in Bangladesh. Currently, SMC distributes more than 59% of market share of ORS.

In last of introduction, we can establish in the social marketing, SMC is the pioneer. SMC has been marketing clinical and non-clinical contraceptive products with efficiency from the beginning of 1974. And the market of ORS was very vital since launch of SMC. Marketing of all these products of SMC has formed an evolution the socio-economy condition in the society of Bangladesh.

1.2 Objectives of the Study:

In Bangladesh and also overall in the world, population, control of the population, birth control – etc. are very significant phenomena. And the country Bangladesh is very populous and poverty stricken in the world. In this context, SMC has been playing an important role to develop socio-economic situation such as the control of the population (by marketing contraceptive method), health service supporting (by producing and marketing ORS) since 1980s. But it is a matter of great regret in this field that research works are inadequate. For this reason, in depth and intensive researches should conduct in this arena. The salient objectives of the study had been illustrated below.

1. To measure the socio-economic impact on the consumers/users of SMC products.
2. To depict the impact of SMC products on the overall socio-economic scenario of Bangladesh.
3. To identify the relationship among Socio-Economic development, contraceptive prevalence rate and marketing of SMC products.
4. To identify the factors those have played a role in the reduction of growth rate of population, besides contraceptive methods.
5. To make recommendations.

1.3 Justification of the Study:

Bangladesh is the most densely populated country in the world. The country has a population of about 15 cores (BDHS-2007), with a corresponding population density of more than 920 persons per square kilometer. During the first half of the last century, the population increased by 45 percent. But in the second half of the twentieth century, population growth was rapid and the population tripled during this period. The relatively young age structure of the population indicates continued rapid growth in future. One-third of the population is under 15 years of age, 63% are age 15 to 64 years and 4 percent are age 65 or older (CIA-2008). This young age structure of population creates built in "population momentum", which will continue to generate increases well into the future. Because this young age structure of the population has given rise to a "population momentum" whereby an increasingly large size of the young women is entering into the child bearing phase each year. According to the Bangladesh Population Policy, the population should stabilize at 210 million by 2060. This is a wide disparity between the estimation of the Government of Bangladesh and others on exactly when the population will stabilize. The World Bank forecasts a final stationary population of 263 million by the mid 22nd century.

Bangladesh has more than 150 million people living within a small area of 147,570 square kilometer including highest incidence of poverty of South Asia

(World Bank-2002). With a per capita income of just US$440 per annum, half of the population lives below the poverty line (BBS-2003) and 33% live with less than US$1 (one) a day. Unemployment rate is estimated to be around 22 percent of the active labor force. The situation will likely worsen further with labor force growing faster than the population growth rate due to the effect of high fertility. The Population Policy and Program of the Government of Bangladesh to reduce fertility rate have involved through a series of developmental phases and have under gone changes in strategies, structure, content and goals. In the mid of 1970s, the government instituted the deployment of fulltime FWAs (Family Welfare Assistants) – Community-based family planning motivators and distributors who numbered almost 24,000 at the height of the program a few years ago. A Social Marketing Program to promote the sale of birth control pills and condoms was also initiated in the mid – 1970s. Another characteristic of the population program is the involvement of more than 200 non-governmental organizations (NGOs) including SMC (Social Marketing Company).

Lately, Bangladesh Government adopted the Bangladesh Population Policy with the objective to improve the study of family planning, maternal and child health, reproductive health service, reduce Sexually Transmitted Infections (STIs) and prevent the spread of HIV/AIDS, reduce infant and under five mortality rates and to improve the living standard of the people of Bangladesh through striking a desired balance between population and socio-economic development in the

context of the Millennium Development Goals (MDGs) and Poverty Reduction Strategy Paper (PRSP).

In all respect (the description mentioned above), Population and Socio-Economic development in the context of reproductive health, population and fertility and mortality, family planning, birth control, methods of birth control (contraceptive), under societal marketing (where SMC is the pioneer), trend to use of contraceptive and users' socio-economic status etc. are the part and parcel for not only our family life as well as our national life and socio-economic development of the country. As a pioneer of Social Marketing, SMC is marketing (various contraceptive products) and producing (few products) reproductive health, preventing STD/AIDS, and family welfare oriented products, so its positive and negative impacts are researchable.

Sexual activities, birth and birth control, population and reproductive health, etc. are co-related among it selves. SMC goods are highly co-related to these vital points. And as the situation of Bangladesh perspective, dense population is very delicate, so research should be essential about the socio-economic impact of SMC goods. Research and investigations are not adequate in this arena. But more research should be conducted in the field for more data and policy implementation for the nation. And the research conducted by me would be of immensely helpful for the expert of demographic arena, population oriented researchers, promoting market share of contraceptive product to a marketing manager for providing necessary information.

1.4 Scope of the Study:

Realizing the objectives of the problem "Socio-Economic Impact of Marketing of SMC (Social Marketing Company) Products in Bangladesh – An Analysis" the eligible couple where the woman spouse at 15-49 were enumerated by investigation and with the help of officers and employees of family planning programs of Thana Health Complex (of four selected sampling points that are Mulghar, Aligonj, Olinagar and Khidirpur) for the purpose of in-depth and intensive interview by questionnaires, out of the four questionnaires named "Questionnaire of User/Consumer", was applied for conducting interview for the required qualitative and authenticated data. Eligible couple number 1270 from four sampling areas out of 1518 (not both, either male or female spouse from a couple) were interviewed for the above mentioned purpose. Field work, that is interviewing and investigation regarding eligible couple (where the woman spouse is 15-49) for the study, was conducted by two interviewing teams. There is a team under Mr. Kazi Showkat Hossain, who was formally a student of Rajshahi University, Dept. of Social Work, which consisted of 5 members for only Mulghar, Fakirhat, Bagerhat, Khulna, where they interviewed and investigated the eligible couples. The rest sampling spots that are Olinagar, Aligonj and Khidirpur were interviewed and interrogated by an interviewing team under a team leader, who is my very affectionate brother in-law named Shabuj Hasan, student of Media

Study and Journalism, University of Liberal Art of Bangladesh, Dhanmondi, Dhaka, Bangladesh. The team of Shabuj Hassan consisted of also five members where 3 were female and 2 were male including Shabuj Hassan. During field work, emphasis was placed on the quality of data. Renowned experts and specialists including Mr. Ahmed Al-Sabir, Mr. Subrata K. Bhadra were interviewed for their significant comments and suggestions through a questionnaire named "Questionnaire for the Experts/Specialists" by me. Selected Upazila or Thana based officers, doctors and employees were interviewed and interrogated for the core data and to develop the field work design through the "Questionnaire of Officers/Employees".

The owner or conductor of pharmacies and small shops were interviewed and interrogated for such a kind of data and information by which it was possible to establish a structure or frame or base of comparison between market share of SMC Products and besides SMC respectively. The nature and side effect of contraceptive products, including SMC's family health and welfare oriented product and excluding SMC's, came under the intensive interviewing. The study had also thoroughly reviewed the relevant several research literature comprising articles, opinions, reports, research caption, research compositions published and circulated in the relevant medias including books, journals, newspapers, magazines, souvenir, booklets, brochures, radio, television, satellite and others electronic medias. For the purpose of more studying and to enrich the scope of

knowledge and existing literature of the concerned field, it had been worked in several libraries including the Library of BBS, Agargaon, Dhaka, Bangladesh, National Library, Dhaka, Bangladesh, Bangladesh Central Library, Shahbagh, Dhaka, Bangladesh, British Council Library, Follar Road, Dhaka, Bangladesh, Asiatic Society, Dhaka, Bangladesh, Discover, the resource Centre of SMC, Uttara, Dhaka, Bangladesh were helpful to design the empirical findings. There were available tools and techniques such as tables and charts of numerical science like statistic and very few from mathematics were applied for processing, preparation and analyzing the information. Several demographic determinants were also applied for analyzing and presentation of information over the design of the thesis. At the time of analyzing and processing of data and information whenever any doubt or complex arisen regarding the reliability of processing or analyzing system or method had arisen, advice was taken from my honorable supervisor Dr. Zakir Hossain Bhuiyan, Professor, Dept. of Marketing, University of Dhaka, Bangladesh. In terms of data collection, the method of observation was also applied when necessary along the side of questionnaires.

1.5 Social/Societal Marketing:

The Societal Marketing Concept calls upon marketing to build social and ethical consideration into their marketing practices. They must balance and juggle the often conflicting criteria of company profit, consumer want, satisfaction and public interest. A number of companies have achieved notable sales and profit gains by adopting and practicing the Societal Marketing Concept. Prinkle and Thompson define Societal Marketing as activity by which a company with an image product or service to market builds a relationship or partnership with a "cause" or a number of "causes" for mutual benefit.

Social marketing theory and practice has been progressed in several countries such as the U.S, Canada, Australia, New Zealand and the UK, and in the latter a number of key Government policy papers have adopted a strategic social marketing approach. Publications such as 'Choosing Health' in 2004, 'It's our health!' in 2006; and 'Health Challenge England' in 2006, all represent step to achieve both a strategic and operational use of social marketing and social workers are largely working for it. Most of the social workers are professionally trained for this particular task.

Social marketing is the systematic application of marketing, along with other concepts and techniques, to achieve specific behavioral goals for a social good. Social marketing can be applied to promote merit goods, or to make a society avoid demerit goods and thus to promote society's well being as a whole. For

example, this may include asking people not to smoke in public areas, asking them to use seat belts, or prompting to make them follow speed limits. Although 'social marketing' is sometimes seen only as using standard commercial marketing practices to achieve non-commercial goals, this is an over-simplification.

The primary aim of 'social marketing' is 'social good', while in 'commercial marketing' the aim is primarily 'financial'. This does not mean that commercial marketers can not contribute to achievement of social good. Increasingly, social marketing is being described as having 'two parents' – a 'social parent' = social sciences and social policy, and a 'marketing parent' = commercial and public sector marketing approaches.

Beginning in the 1970s, it has in the last decade matured into a much more integrative and inclusive discipline that draws on the full range of social sciences and social policy approaches as well as marketing. Social marketing much not be confused with Social media marketing.

The societal marketing concept is an enlightened marketing concept that holds that a company should make good marketing decisions by considering consumer' wants, the company's requirements, and society's long-term interests. It is closely linked with the principles of corporate social responsibility and of sustainable development. The concept has an emphasis on social responsibility and suggests that for a company to only focus on exchange relationship with customers might not be suitable in order to sustain long term success. Rather, marketing strategy

should deliver value to customers in a way that maintains or improves both the consumer's and society's well-being.

Most companies recognize that socially responsible activities improve their image among customers, stockholders, the financial community, and other relevant publics. Ethical and socially responsible practices are simply good business, resulting not only in favorable image, but ultimately in increased sales. Early papers on the topic include those by William Lazer and by Philip Kotler and Sidney Levy. The Journal of Marketing presented a comprehensive discussion of societal marketing in July, 1971.

Societal marketing should not be confused with social marketing. The societal marketing concept was a forerunner of sustainable marketing in integration issues of social responsibility into commercial marketing strategies. In contrast to that, social marketing uses commercial marketing theories, tools and techniques to social issues. Social marketing applies a "customer oriented" approach and uses the concepts and tools used by commercial marketers in pursuit of social goals like Anti-Smoking-Campaigns or campaign against skin cancer or anti-tobacco campaign, etc.

Social marketing began as a formal discipline in 1971, with the publication of "Social Marketing: An Approach to Planned Social Change" in the Journal of Marketing by marketing experts Philip Kotler and Gerald Zaltman. Craig Lefebvre and June Flora introduced social marketing to the public health community in

1988, where it has been most widely used and explored. They noted that there was a need for 'large scale, broad-based, behavior change focused programs' to improve public health and outlined eight essential components of social marketing that still hold today.

The components are:

- A consumer orientation to realize social goals
- An emphasis on the voluntary exchanges of goods and services between providers and consumers
- Research in audience analysis and segmentation strategies
- The use of formative research in product and message design and the pre-testing of these materials
- An analysis of distribution channels
- Use of the marketing mix – utilizing and blending product, price, place and promotion characteristics in intervention planning and implementation
- A process tracking system with both integrative and control functions
- A management process that involves problem analysis, planning, implementation and feedback functions

Speaking of what they termed "social change campaigns," Kotler and Ned Roberto introduced the subject by writing, "A social change campaign in an organized effort conducted by one group which attempts to persuade others to accept, modify, or abandon certain ideas, attitudes, practices or behavior." Their 1989 text was updated in 2002 by Philip Kotler, Ned Roberto and Nancy Lee.

In recent years there has been an important development to distinguish between 'strategic social marketing' and 'operational social marketing'. Much of the literature and case examples focus on 'operational social marketing', using it to achieve specific behavioral goals in relation to different audiences and topics. However there has been increasing efforts to ensure social marketing goes 'upstream' and is used much more strategically to inform both 'policy formulation' and 'strategy development'.

1.6 Social Marketing Types:

Using the benefits and of doing 'social good' to secure and maintain customer engagement. In 'social marketing' the distinguishing feature is therefore its 'primary' focus on 'social good', and it is not a secondary outcome. Not all public sector and not-for-profit marketing is social marketing.

Public Sector bodies can use standard marketing approaches to improve the promotion of their relevant services and organizational aims, this can be very important, but should not be confused with 'social marketing' where the focus in on achieving specific behavioral goals with specific audiences in relation to different topics relevant to social good.

As the dividing lines are rarely clear it is important not to confuse social marketing with commercial marketing. A commercial marketer selling a product may only seek to influence a buyer to make a product purchase. Social markets, dealing with goals such as reducing cigarette smoking or encouraging condom use, have more difficult goals: to make potentially difficult and long-term behavioral change in target populations.

It is sometimes felt that social marketing is restricted to a particular spectrum of client – the non-profit organization, the health services group, the government agency. These often are clients of social marketing agencies, but the goal of inducing social change is not restricted to governmental or non-profit charitable organizations; it may be argued that corporate public relation efforts such as funding for the arts are an example of social marketing.

Social marketing should not be confused with the Societal Marketing Concept which was a forerunner of sustainable marketing in integrating issues of social responsibility into commercial marketing strategies. In contrast to that, social marketing uses commercial marketing theories, tools and techniques to social issues.

1.7 SMC and Social Marketing:

The societal marketing concept holds that the organization should determine the needs, wants and interests of target markets. It should then deliver the desired satisfaction more effectively and efficiently than competitors in a way that maintains or improves the consumer's and the society's well being. The societal marketing concept is the newest of the five marketing management philosophies.

Social marketing in Bangladesh was initiated to challenge the rapid population growth by marketing contraceptive products widely accessible at a price affordable to the general population and bring about behavioral change through extensive mass promotion.

Social Marketing Company (SMC) is the largest privately managed social marketing organization in the world for a single country. It has a glorious contribution to the reproductive and child health services in Bangladesh. The on-going social marketing programs of SMC include family planning, child health, disease prevention and maternal and neonatal health. SMC's mission is to improve the quality of lives of vulnerable and less privileged population primarily in public health issues through sustainable social marketing efforts in collaboration with national and international governments and donors.

Social marketing is the application of commercial management techniques for popularizing and selling products and services that offer clear benefits to the people at affordable prices. Thus, wide availability and affordability is the key element of social marketing. The model of social marketing, which SMC adopted and continues to practice, has two components: multi-strategy communications for initiating desired behavior change, and suitable, affordable, readily accessible product and service for sustaining the changed behavior using the techniques of commercial marketing.

Because of its remarkable success and its sheer size, social marketing in Bangladesh has become a model of best practices and attracted international attention. Two premier USA based graduate schools of business included the case study on social marketing program in Bangladesh in their curricula, which is an entire chapter of the renowned book titled "*Let Every Child Be Wanted: How Social Marketing Is Revolutionizing Contraceptive Use Around the World*" written by Philip D. Harvey. The case on SMC is also included in the "*Asian Marketing Casebook*" written by Noel Capon and Wilferied R. Vanhonacker. SMC is ISO 9001-2000 certified company. The company is awarded International Star Award for Leadership in Quality (ISLQ) in 2008 by the Business Initiative Directions (BID) a Madrid-based business organization committed to build better business reputation worldwide.

1.8 Societal Marketing Channel for Behavioral Change:

When social marketing began in Bangladesh, many were skeptical about the feasibility of large scale information dissemination and advertising of contraceptive products. They were skeptical mostly for three reasons.

First, Bangladesh is predominantly Muslim society in which reproductive health was not openly discussed.

Second, much of the population was illiterate at that time with limited access to media.

Third, the majority of the population was very poor and there were doubts that people could be persuaded to purchase contraceptives when these supplies were available free from other sources.

To address the prevailing formidable situation in the mid seventies, SMC launched a strong and innovative communication program to facilitate and sustain behavior changes towards family planning and contraceptive use. The program is now recognized worldwide for its creative use of innovative channels to communicate generic family planning and health messages and to promote sales of branded products. All modern mass media communication channels including regional and national radio, television, and print media were being utilized from the very beginning. The products have been advertised on billboards, signs, buildings, water tanks, shop boards and banners, rickshaws, shopping bags, at sporting

events, and through free promotional distribution. Riverboats carried Raja Condom logos on their sails.

The Mobile Film Program (MFP) is a hallmark of social marketing in Bangladesh, and a major factor in making SMC the largest social marketing program in the world. The mobile van fleet presents audio-visual shows that reach hundreds of thousands in rural areas with education on health issues and advertisements of SMC's products. A recently conducted study of MFP showed that 63 percent of MFP viewers have learned new information on family planning, 53 percent learned new information on STD/AIDS and 32 percent learned new information on women trafficking watching mobile firm program (MRC-MODE, 2007).

The pharmacists and non-graduate medical practitioners are one of the major sources of health information and prescriber of medicine, particularly in rural and semi-urban areas. As a part of the comprehensive communication strategy, SMC provides training to approximately 17,000 health providers annually to strengthen their knowledge and skill in order to offer better over-the-counter services including counseling.

Chapter Two
Methodology

The study was an effort mainly to analyze the impact of socio-economic scenario in the context of family planning orientation through the use of contraceptive methods such as pill, condom, sterilization, etc. The study was basically based on descriptive as well as exploratory in nature. Present study described the characteristics of the SMC products and its impact on the consumers in terms of socio-economic scenario. Realizing the objective to identify the factors those have played a role in the reduction of growth rate of population, besides contraceptive methods, the study has followed the exploratory research method.

The study had overwhelmingly based on both the primary data as well as the secondary data. Primary data were collected through interviewing and field investigation. For collection of primary data, a set of questionnaire was developed where the questionnaires were four in number. First one of the questionnaires was for the eligible couple as a respondent of the selected sampling point (that was for

Aligonj, Mulghar, Olinagar and Khidirpur). The second one of the questionnaires for the Thana/Upazila based officers and employees (that was for UFPO/TFPO, FWAs, FWVs and pharmacists) as respondents. The third one of the questionnaires was for the distributors that was the proprietors or conductor of pharmacies and small shops as respondents, and last of all, the specialists and experts of the concerning field were interviewed through the questionnaires number four.

An in-depth analysis was done to show the relevant key indicators of various socio-economic sectors, which contributed to bring about change in attitude, norms, values and social behavior and other socio-economic scenario. Available literature on several census, survey, and impact analysis and evaluation reports were also reviewed. Relevant data was also gathered from the secondary sources.

The study had surveyed the several offices relevant to the SMC and contraceptive product including head office of SMC that is SMC tower at Banani, Dhaka, Bangladesh, National Institute of Population Research and Training, Azimpur, Dhaka, Bangladesh, Bangladesh Bureau of Statistics, Agargoan, Dhaka, Bangladesh, Ministry of Health & Family Welfare, The People's Republic of Bangladesh, Dhaka, Bangladesh, Discover (SMC's Resource Centre), Uttara, Dhaka, Bangladesh, Area office (Dhaka east), SMC Lalmatia, Dhaka, Bangladesh, Office (Dhaka west), Mohammadpur, Dhaka, Bangladesh, Upazila Health Complex, Sirajdikhan, Munsigonj, Bangladesh, Upazila Health Complex,

Maloncha, Keranigonj, Dhaka, Bangladesh, Thana Health Complex, Paba, Rajshahi, Bangladesh, Thana Health Complex, Fakirhat, Bagerhat, Khulna, Bangladesh.

The study had also exchanged views with several relevant experts and specialists including Dr. Ahmed Al-Sabir, Director (research), National Institute of Population Research and Training (NIPORT), Azimpur, Dhaka, Bangladesh (now in the University of California, USA, as a Sr. Consultant). Mr. Subrata K. Bhadra, Sr. Research Officer, National Institute of Population Research and Training (NIPORT), Azimpur, Dhaka, Bangladesh, Mr. Md Billal Hossain, Sr. Research and Monitoring Executive, Social Marketing Company, SMC Tower, Banani, Dhaka, Bangladesh, Mrs. Fakreu Nahan, Documentation officer, Social Marketing Company, Discover, Uttara, Dhaka, Bangladesh, Mr Ziaul Karim, Sales Manager (Dhaka East) Social Marketing Company, Lalmatia, Mohammadpur, Dhaka, Mr. Akhter Habib, Dhaka West, SMC, Ring Road, Mohammadpur, Dhaka, and so forth took required information, comments and suggestions which had lead to accelerate the research work precisely.

The study had selected several Thanas and Upazilas including Paba Thana, Rajshahi, Bangladesh, Fakirhat Thana, Bagerhat, Khulna, Bangladesh, Keranigonj Upazila, Dhaka, Bangladesh, and communicated with eligible couples (within childbearing age of wife 15-49), users and distributors, and collected required information, remarks and reactions from them and used these in the research work.

Originally, core date of the study had been collected from this grass root level. The field investigators had been given orientation training by me so that the survey could be done. For built up rapport with villagers and respondents and investigator frequent visits had been given by me for the research of proper investigation. In addition to the survey, information was also collected through observation for a period of more than ten years. In this connection, it may be mentioned that I was an officer of UCE- Bangladesh, Boalia, Rajshahi, Bangladesh for a longtime and from the 2000s, I am a College Teacher of Vikrampur K.B. Degree College, Sirajdikhan, Munsigonj, Bangladesh.

There were 10 renowned research personnel including Dr. Ahmed Al-Sabir, Director (research), National Institute of Population Research and Training (NIPORT), Bangladesh, 120 of SMC employees, 200 distributors, the number was about 120 of Health and Family Planning doctors, officers and employees of Upazila/Thana Health Complex and Eligible couples of the concerning Upazila/Thana in the numbers 2,55,724 had been taken as the population for the study.

From the above mentioned population, 100 percent of expert and specialist, 20 percent of distributors/pharmacists/small shops, 20 percent of doctors, offices and employees of Upazila/Thana Health Complex orientation and 10 percent of eligible couples had been selected as the sample for the study and

comprehensively investigated and interviewed them and collected the required information and use in the study.

In order for processing preparation and analyzing of data and information, the study had been used relevant statistical tools and techniques including tables and charts to process, analyze and present the information and findings. At the time of data processing, whenever suspicion or doubt had arisen regarding the authenticity and reliability of data had been paid visit to the study areas instantaneously. Moreover, for updating the date and information few weeks had been spent before finalization of the report.

In a puritan country like Bangladesh, it had been very difficult to conduct research in the family planning orientation in terms of contraceptive method vs. SMC products. The most difficult situation which had been to face is, the collection of data and information from the eligible couples from the ages 15-20(estimated), regarding their deviate behavior and activities. Moreover, no researchers can say that his research is above criticism and completely free from error. I also do claim so. Utmost care had been taken to collect reliable and authentic information and nevertheless, due to collection of survey data through field investigations, there might had been little bit of statistical errors although these apprehended errors were rechecked by applying statistical tools and techniques and revisits to the field. Four sampling points/villages (two villages, one remote village and one semi-urban mohollah) had been selected for data collection. The study could be

perhaps more representative if more villagers could be covered. Besides, the hypothesis had not been tested in the study. Paucity of funds, time constraints and comparative analysis were the herculean job coordinately. However, despite all these limitations and shortcomings, I am confident that the research is fully reliable, authentic and representative, in addition to these, I had studied relevant research materials, the knowledge and experience of which had been widely used in this work to overcome these aforementioned limitations.

Chapter Three:
SMC: An Overview

3.1 Introductory Study of SMC:

Social Marketing Company (SMC) is dedicated for providing opportunities for better family health for the people of our country by addressing issues of social priority. SMC is now regarded as a significant contributor to the reproductive and child health services in Bangladesh by complementing the public sector distribution with private sector social marketing model. In 2009, SMC provided 3.84 million Couple Years of Protection (CYP) through offering three modern methods – oral pills, condoms and injectables. 35 percent of modern contraceptive methods are from SMC brands.

Under its family planning program, SMC socially markets a variety of non-clinical oral pills such as Femicon, Nordette-28 and Femipil, and condoms such as RAJA, HERO, Panther, Sensation, and U&ME, and clinical Injectable "SOMA-JECT" contraceptives. To make contraceptive products available and affordable to the less-privileged people of the country, SMC positions its brands of contraceptive products at different price segments so that revenue generated from the moderately priced brands can cross-subsidise the lower-end brands.

In May 2008, SMC introduced a small sachet of micronutrient powder, popularly known as 'Sprinkles", in the brand name of "MoniMix" to address childhood Iron Deficiency Anemia (IDA). It also started marketing Zinc dispersible tablets in September 2008 to reduce the severity of diarrhoea in children under 5. As part of its maternal and neonatal health programme, SMC launched Safe Delivery Kit branded as "Safety Kit" in 2008 to ensure clean child delivery at household level.

In order to combat diarrhoea, the number one killer disease among under 5 children, SMC initiated the Oral Rehydration Therapy Project under the Child Survival Programme in 1985 to decrease child mortality and morbidity due to diarrhoea-related dehydration. Under the program, nation-wide awareness-building and behaviour change communication campaigns were undertaken and pre-packaged Oral Rehydration Salts was introduced and distributed extensively, enhancing the ready availability of ORS.

The new WHO formula-based packaged Oral Rehydration Salt brand marketed by SMC is ORSaline-N; whose price is fixed by the Government. To provide variations to the consumers and to encourage children who are unwilling to take additional ORS, SMC introduced BNF-flavoured ORS brand 'ORSaline Fruity' in August 2003. With the objective of becoming self-sufficient and receiving uninterrupted supply of ORSaline-N, SMC's factory began its operation in August 2004 at Bhaluka, Mymensingh. Since its inception up to September 2009, the factory has produced and supplied 768 million sachets of ORSaline-N. Currently, the annual production capacity of the factory is 208 million sachets.

Since 1995, SMC has been addressing the issue of reduction of the transmission of STD and HIV/AIDS among the defined high risk population through its "Shurockkha" (meaning "well protection") programme which is currently being implemented under the Bangladesh AIDS Programme (BAP). The Blue Star Social Franchising Programme seeks to enhance the capacity of the private health providers to offer high-quality public health priority services and products through its 3,700 Blue Star providers/outlets.

To inform, educate, counsel and motivate people into action, SMC takes a holistic communication approach to bring about desired behaviour change. Along with mass media, SMC widely uses interpersonal media which includes mobile film shows, outreach programmes, and intensive training of front-line health providers through its nation-wide Health Providers' Training Programme (HPTP).

SMC has increased availability and accessibility to its contraceptive products and ORS by regularly servicing almost 2,20,000 retail outlets annually nationwide. This is done through twelve strategically located sales offices around the country where around 91 sales personnel are working.

SMC has also constructed its very own 20,000 square feet Central Warehouse (CWH) and a three-storied packaging unit, adjacent to its ORS factory in Bhaluka, Mymensingh, which was inaugurated on April 28, 2008. The CWH provides all logistical support in packaging, storing and distribution of all SMC products. The packaging unit at the CWH creates job opportunities for underprivileged female workers.

SMC's telephone hotline – "TeleJiggasha" programme provides correct reproductive and health information and addresses problems faced by the youth. SMC is one of the pioneers of social and market research in Bangladesh and employs around 445 personnel. Every year, SMC sponsors and conducts a number of research studies to gather empirical data and necessary information in developing and evaluating its various projects and activities.

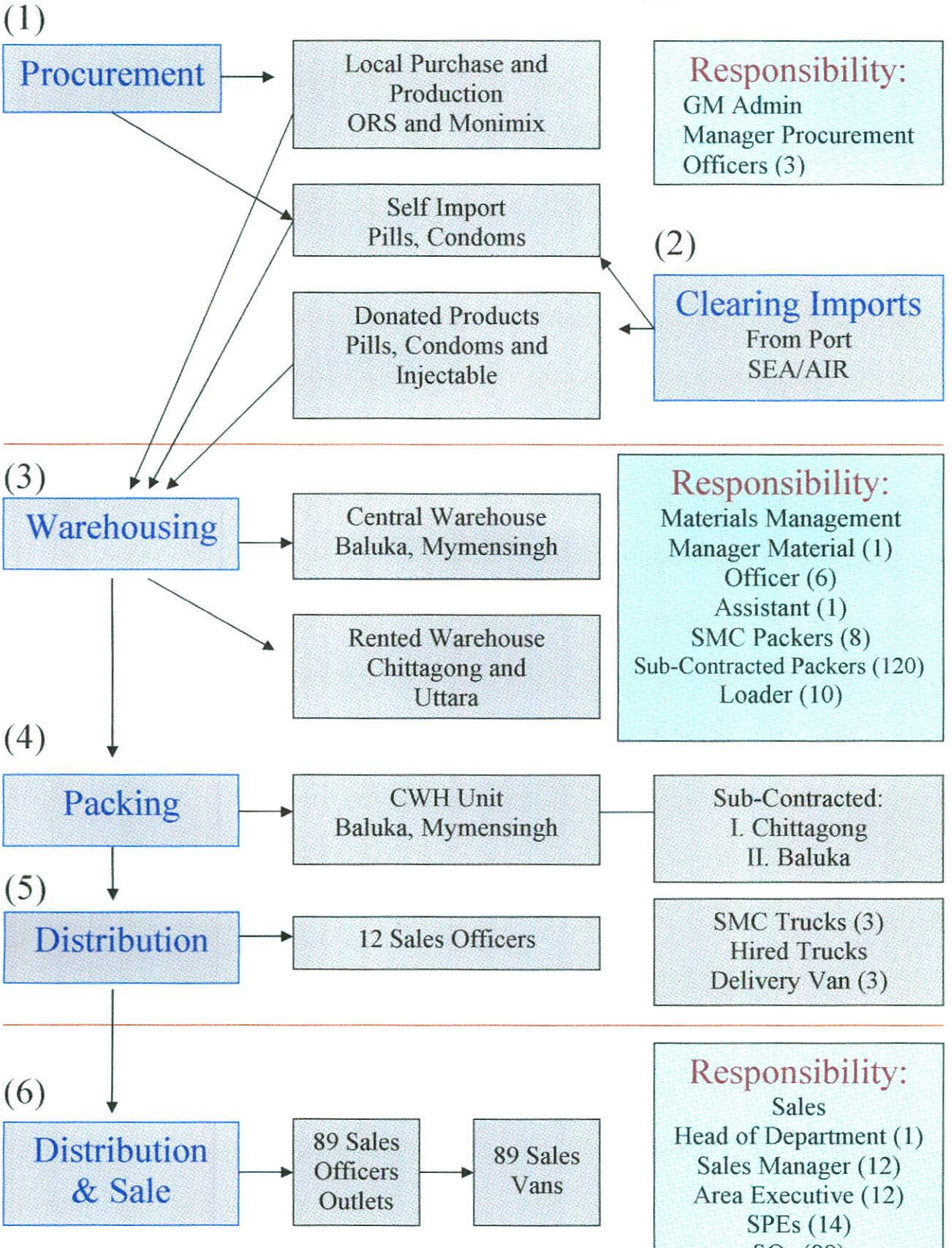
3.2 Background of SMC:

This institution began its program in 1974 when its name was Family Planning Social Marketing Project (FPSMP). The Program of FPSMP Continued on trilateral agreement among the Ministry of Health and Family Welfare of Bangladesh, United States Agency for International Development (USAID) and Population Services International (PSI). Population Service International is a worldwide Social Marketing organization. PSI has conducted social Marketing Program in twenty four countries in the world.

Social Marketing Company (SMC) is marking 36 years of operation in 2010. SMC is regarded as the largest privately-managed not-for-profit organisation in the world for a single country. The Company is registered under the Companies Act, 1913 in Bangladesh and is governed by a voluntary Board of Directors.

After Passing 17 years of welfare program, and in 1990, Family Planning Social Marketing Project was reorganized and reformed. And from that time, the name FPSMP Transmitted into Social Marketing Company (SMC).

3.3 SMC Logistics and Distribution:



Source:
SMC's Strategic Plan 1994-1998, 8 December, 1993.
SMC's Strategic Plan 1996-2000, 11-12 September, 1995

3.4 Role of SMC to the National Program of Bangladesh:

Social marketing of contraceptives and ORS has proven to be a major contributor to achievement of the health and population objectives of the Government of Bangladesh. Population science experts used three critical measure of contraceptive effectiveness – Total Fertility Rate (TFR), Couple Year of Protection (CYP) and Contraceptive Prevalence (CPR). Between 1975 and 2007, the total fertility rate of the country dropped from 6.3 to 2.7, and the overall contraceptive prevalence rate among currently married women rose from 8 percent to 56 percent, with modern contraceptive use at 48 percent (BDHS, 2007). SMC is significantly contributing in the modern contraceptive methods to achieve national contraceptive goals. BDHS shows that 35 percent of the modern contraceptive users use SMC brand contraceptives (four out of ten pill users, six out of ten condom users and two out of ten injectables users use SMC brand). According to the Consumer Retail Audit, SMC brand condoms have 81 percent share of the retail market while SMC brand OCP have 90 percent of retail market share (ACNielsen, 2008). SMC distributes approximately 100 million pieces of condoms, 40 million cycles of oral pills and one million vials of injectables annually through out the country.

ORSaline was launched in late 1985 to enhance the availability of ORS to address mortality and morbidity due to diarrhea among under 5 children in Bangladesh.

The usage of packaged ORS in diarroheal cases among the under five children has increased from 61 percent in 2000 to 77 percent in 2007 (BDHS, 2007). According to the Consumers Retail Audit, ORSaline-N brand of SMC is the market leader of ORS retail market with more than 59 percent share (ACNielsen, 2008). SMC distributes approximately 180 million sachets of ORS yearly throughout the country.

3.5 Marketing Channel and Network of SMC:

Managing Marketing Network has required Companies to make increasing investment and advanced Strategic Plan. Most procedures do not sell their products directly to the final users: between them stands a set of intermediaries performing a variety of function. The intermediaries constitute a marketing channel (also called a trade channel or distribution channel). Marketing channels are sets of interdependent organizations involved in the progress of marketing a product or service available for use or consumption. SMC involved in the process of marketing non-clinical contraceptive product such as – oral pills, condoms and clinical contraceptive products – such as Injectable and also ORSaline. Though the

marketing channel decisions are most critical decision among any other managerial/management decisions, SMC has one of the most established extensive and efficient distribution channels in Bangladesh. Nationwide coverage is carried out through twelve offices located in major division and district towns of the country. This enables SMC's a little over 100 men-strong sales force to distribute products to the far-flung outlet promptly and regularly. On an average, about 2,23,000 outlets are served by SMC sales force each year which approximately 35 percent are pharmacies and the rest are non-pharmacies including grocery stores and kiosts. Stocks at the sales offices are replenished through large delivery trucks at scheduled intervals. The sales force covers the territory by SMC's fleet of delivery vans, motorbikes and boats whenever necessary.

In order to ensure efficient and secured storage of all SMC products, SMC has constructed a central warehouse (CWH) and a packaging unit located at Bhaluka, Mymensingh in 2008. The CWH is constructed with necessary warehousing needs like adequate passageway for transporting goods ventilation, natural light or scope for increasing artificial lighting, optimum space areas for stacking goods as per standard storing guidelines.

The widespread sales and distribution efforts of SMC contributed to make its products widely available in the retail outlets across the country. The product availability study showed that 84 percent of the retail pharmacy outlets have at least one SMC brand of Oral Contraceptive Pill (OCP) while 82 percent pharmacy

outlets have at least one SMC brand of condom and 91 percent pharmacy outlets have at least one SMC brand of ORS. In addition to pharmacy outlets, SMC distributes condoms and ORS in the non-pharmacy outlets as a strategy to increase accessibility and availability of the products. One in every five non-pharmacy retail outlets of the country has SMC brand condom and more than two in every five non-pharmacy retail outlets have SMC brand ORS countrywide (Pathway, 2007).

The Table: 3.1 shows the availability of SMC products in the retail outlets.

Table 3.1: Availability of SMC Brand OCP, Condom and ORS by Pharmacy and Non-pharmacy Retail Outlets (in percentage)

Brand	Pharmacy	Non-pharmacy
At least one SMC brand OCP	84	na
At least one SMC brand Condom	82	21
At least one SMC brand ORS	91	44
Number of Outlets	2400	4800

Source: Statistical yearbook of Bangladesh – 2008 (28th Edition) March 2009
Bangladesh Bureau of Statistics

3.6 Development from earlier forms of SMC:

The concept of social marketing came to Bangladesh in 1974 when the social marketing project was initiated to challenge rapid population growth by making contraceptive products widely accessible at a price affordable to the general people. The project was initiated by a US-based non-profit organization Population Services International (PSI) in agreement with the Government of Bangladesh (GOB), and with funding from United States Agency for International Development (USAID).

In 1990, the project transformed into Social Marketing Company – a not-for-profit private limited company, and since being operated under a voluntary Board of Directors consisting of eminent personalities with private and public sector expertise in different fields. From 1997, SMC had been the social marketing partner in the USAID funded National Integrated Population and Health Program (NIPHP) under a Cooperative Agreement with USAID as a partner of USAID in Bangladesh.

3.7 SMC and Shurockkha:

Shurockkha is a comprehensive social marketing program initiative seeking to reduce the transmission of STD, HIV and AIDS among the high-risk population. It is efficiently utilizing the potentials of social marketing initiatives for changing behavior and creating demand for products like condoms that may easily prevent STI, HIV and AIDS. Shurockkha aims to promote consistent condom use and adoption of other preventive measures among targeted high-risk audience for prevention of HIV/AIDS and STI transmission. The program was initiated in July 1995 and it is funded by USAID. Since December 2005, the Shurockkha program became one of the partners in the 3 year long USAID funded Bangladesh AIDS Program (BAP) along with other partners Family Health International (FHI), Research, Training & Management (RTM), and Masjid Council for Community Advancement (MACCA).

Shurockkha promotes the use of condom through campaigns on mass media & local media. The campaigns are aimed at increasing awareness and sense of risk in respect to prevention of STI/HIV/AIDS and as well as increasing condom use among the high-risk population. It has 16 Centers covering 28 Districts and 30 high-risk areas with more than 100 points and 400 sub-points. The 16 Centers are

in Tejgaon, Narayanganj, Tongi, Jamalpur, Mymensingh, Sylhet, Chittagong, Cox's Bazar, Hilli, Saidpur, Rajshahi, Bogra, Khulna, Benapol, Barisal and Faridpur. Major activities of the program include, Out Reach Health Education Session and Drop in Center Activities promoting health awareness, HIV prevention, Condom Promotion and Behavioral Change through motivation counseling and campaign. The two most important services provided through Shurockkha centers are Sexually Transmitted Infections (STI) and HIV CT (Counseling & Testing) services to the most-at-risk group. Shurockkha conducts Advocacy Meetings with the District and Upazila level GoB authority. Community Support Meetings (CSMs) are held with the Community Level Elite groups/ Community Leaders for social mobilization and community participation. The program has established a successful Peer Health Education program since 1996, which served as a model for other organizations. The Peer Health Educators promote behavior change among the Brothel Based Sex Workers/Prostitutes. Shurockkha STD/AIDS Prevention Program is also a resource for Bangladesh as it has initiated and produced many Information, Education, Communication (IEC) materials for Behavioral Change Communication (BCC). It has also participated in market and behavior research studies, and information. The main IECs provided with HIV/AIDS preventive messages are: leaflets, posters, booklets, mirror with comb, driver's bag, pen, key ring, hand fan, stickers, ludo game boards, etc.

Shurockkha have been able to reach more than 2,46,256 target high risk audiences through Inter-Personal Communication (IPC). Since December 2005, Shurockkha Program is working as one of the partners of Bangladesh AIDS Program (BAP) with FHI, JSI and MACCA, and Under BAP all SMC Shurockkha centres will serve as 'Integrated Health Centres'.

3.8 Tele-Jiggasha of SMC:

'Tele-Jiggasha' is a unique program initiated in 2001 by Social Marketing Company. It is a distant counseling program conducted through a Hotline service; which is dedicated to counsel callers on psychological problems, sexual health related matters and STI/HIV/AIDS prevention. This service provides separate booth for male and female with four part time Health Counselors. Calls are received and enquiries related to health problems are responded by the Health Counselors. The callers' identity remains anonymous and all information provided by the callers are kept strictly confidential. The Tele-Jiggasha service is open from 9 am - 5pm five days a week, from Sunday to Thursday, and on an average 40 calls are received per day in the two booths.

3.9 Health Communication Program of SMC:

The Health Providers (Pharmacists/drug sellers, rural and non-graduate medical practitioners) are one of the major sources of health information and prescriber of medicine, particularly in rural and semi-urban areas. In realization of their role in improving the health services, SMC has been conducting a one-day training session for them since 1986.

The primary objective of SMC's Health Providers Training Program (HPTP) is to increase correct knowledge on contraceptive methods, ORT/ORS user and STD/AIDS management and prevention among the Health Providers, which will enable them to provide quality services over the counter and disseminate correct information to the customers. The training program is conducted by 4 teams based at the regional levels in Dhaka, Comilla, Bogra and Khulna in order to cover the whole country. Each training team consists of three members headed by a medical graduate, who jointly organize programs at the Thana and Union level. Approximately 17,000 health providers receive training each year through the HPTP.

SMC has been operating Health Providers Training Program (HPTP) since 1986 with the objective to bring about qualitative behavioral change among pharmacists and other non-graduate Health Providers and at the same time to equip them with

appropriate knowledge on Family Planning, Oral re-hydration therapy, STD/AIDS, communication skill and counseling as they serve as the primary source of information for the community members.

3.10 Audio Visual Program of SMC:

Rural Bangladesh has a very little mass media option. Low literacy level and penetration of electronic media like TV and radio restrict their usage. SMC therefore, chose Mobile Audio Visual Program (MAVP) as one of the important strategies to reach the rural population since 1980. The objective of operating MAVP is to educate people on family planning, health and AIDS prevention, ORT and other social priority issues like anti-trafficking, importance of education etc, through enter-education films.

The two and half hour program is shown at different village points in the evening. The MAVP reaches a village in the afternoon and makes announcement about film show, which is held later in the evening. The film show includes educational films as well as promotional films on condom, oral pills, Injectable and ORS. Currently SMC operates 10 Mobile Film Units covering approximately 220 shows in a month. On an average about 1000 as an audience enjoy each show.

3.11 SMC's Blue Star Program:

SMC's Blue Star Program (BSP) is a franchise of private sector providers began in June 1998 as pilot initiative. The Blue Star Program is funded by USAID. The purpose of this program is to involve private practitioners in expanding availability of clinical contraceptive services. Now injectable contraceptive is given through this network of private health care providers. Next to the combined oral pill, Injectable is the most popular temporary contraceptive method in Bangladesh among the eligible couples. According to Bangladesh Demographic and Health Survey (BDHS) 2004, 9.7% of the eligible couples are using Injectable contraceptive compared to 2.6% in 1991.

The program initially started with the graduate providers. Since the year 2000 it was expanded to include non-graduate providers (NGMP) as well. As of date, 217 graduate doctors and 3418 non-graduate medical practitioners are dispensing SOMA-JECT, SMC's over branded Injectable contraceptive under the Blue Star Program. SMC provides comprehensive training, commodity supply, promotional support supervision & monitoring to these Blue Star Providers. Since FY 1999, the first full year of Injectable marketing, the number of administration has grown from 8,500 to 690,000 in 2006. The growth has come from both, the increasing number of administration/provider as well as the expansion of the network. It accounts for 3.5% of all contraceptive Injectables sold or administered nationally.

Chapter Four:
Contraceptive Products Marketed in Bangladesh

4.1 Types of Contraceptives in General:

There are different kinds of methods that can prevent a woman from getting pregnant, but not all methods are suited for everybody (by investigation). Therefore it is important to choose the method that is suitable for someone, and always remember that some contraceptives are more reliable that others. Barrier devices such as condoms, diaphragms and caps, physically prevent sperm cells from reaching and fertilizing an ovum. They work best when used together with a chemical Spermicide, as there is always a slight risk of sperm getting past the barrier.

Other contraceptives like pills, injections and subcutaneous implants prevent ovulation and therefore contraception. Technically, intrauterine devices (IUD's),

such as "Copper-T", do not stop contraception but prevent a fertilized egg from being implanted in the womb.

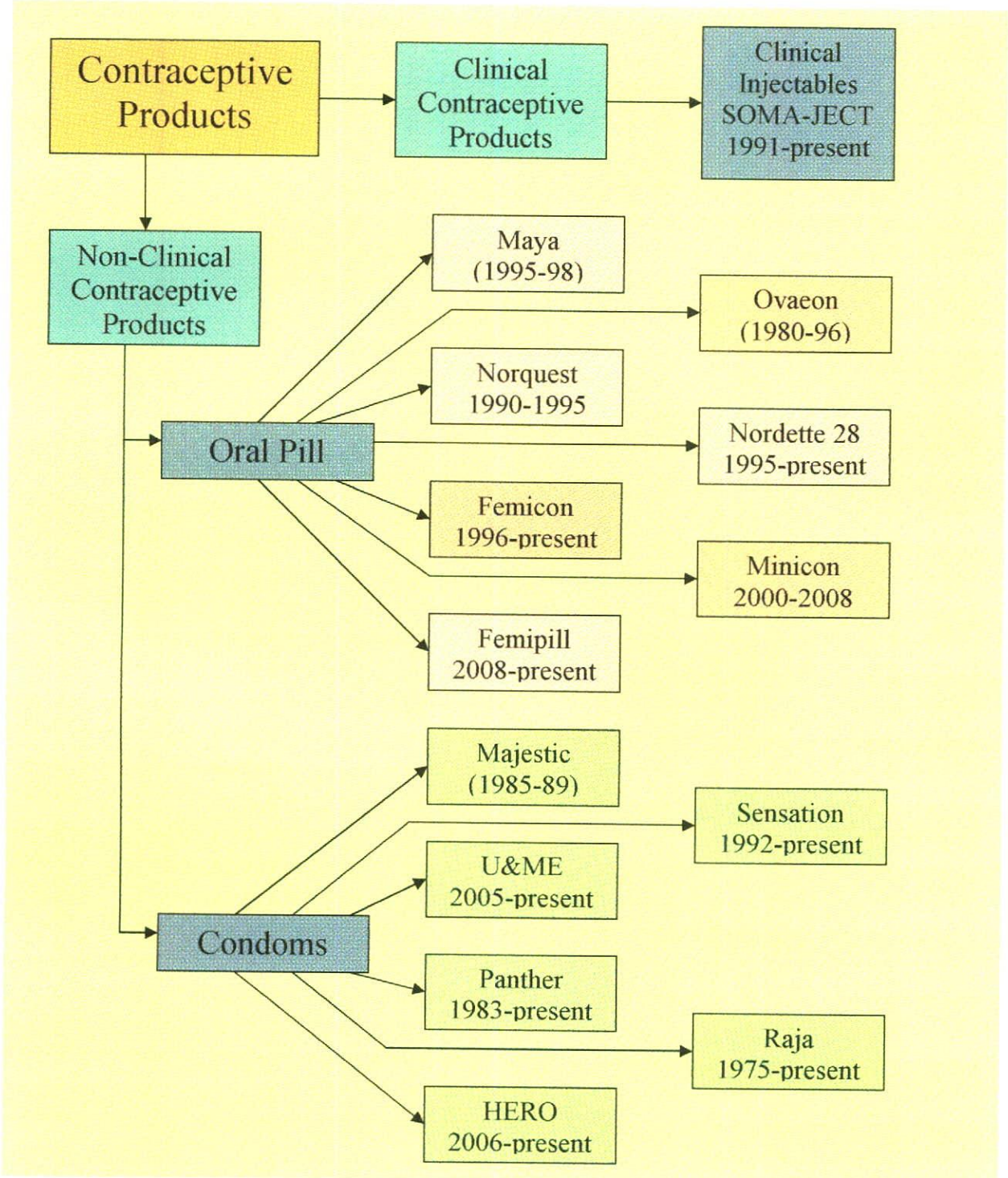
- Cervical cap and diaphragm – both devices block the entry of sperm to the uterus. Users need to be fitted by a doctor or nurse and taught insertion and removal. Reliability is good when used with a spermicide and left in place for about eight hours after intercourse.
- Contraceptive Pill – oral contraceptives contain female sex hormones in doses that present ovulation. Taken regularly, they provide outstanding protection, but there are long and short-term side effects (by investigation) and users need regular medical checkups. Various types are available to meet individual needs.
- Contraceptive injections – depending on the drug brand, injections of synthetic progesterone can be given every 8 to 12 weeks. Like the pill, they prevent ovulation and are highly effective. It is suitable for women who cannot remember to take a pill everyday.
- Implants – soft tubes that slowly release synthetic progesterone are inserted under the skin of the upper arm under local anesthetic. The hormone makes a womb less likely to accept a fertilized egg and may also stop ovulation. The contraceptive effect can last five years. The procedure takes ten minutes and no stitches are needed. However, many women suffer side effects such as irregular bleeding, headaches and nausea. Removal can sometimes be difficult.

- Vaginal Sponge – a modern version of an ancient idea uses a disc of polyurethane foam with spermicide. Sponges are disposable but need to be left in for six hours after intercourse. They are not very effective. Spermicides –are available as cream, pessaries, foams, or gels. They destroy sperm chemically and most kill the AIDs virus. On their own they are not very effective, but work well with most condoms, diaphragms and caps.
- Intrauterine Device (IUD) – a small plastic and metal device places in the womb provides extremely reliable contraception. Drawbacks can include heavy periods and an increased risk of infection, so not generally advised for women who have not had children. Doctor or nurse must do the fitting. Condom – latex rubber condoms are simple, safe and effective, particularly if used with spermicide. They also offer the best protection against sexually transmitted diseases. Men may find sensation is reduced, and some couples feel condoms interfere with spontaneity.
- Female Condom – one of the newer barrier methods uses a tube of polyurethane plastic held in place by flexible rings to line the vagina. It is bulkier than the male condom but does not require spermicide and can be inserted any time before intercourse. Reliability is as good as for the male condom. Female condoms were first invented and made available in the last 80s but most women have still never seen one, let along know how they work. The female condom is similar to the male condom in that the shape

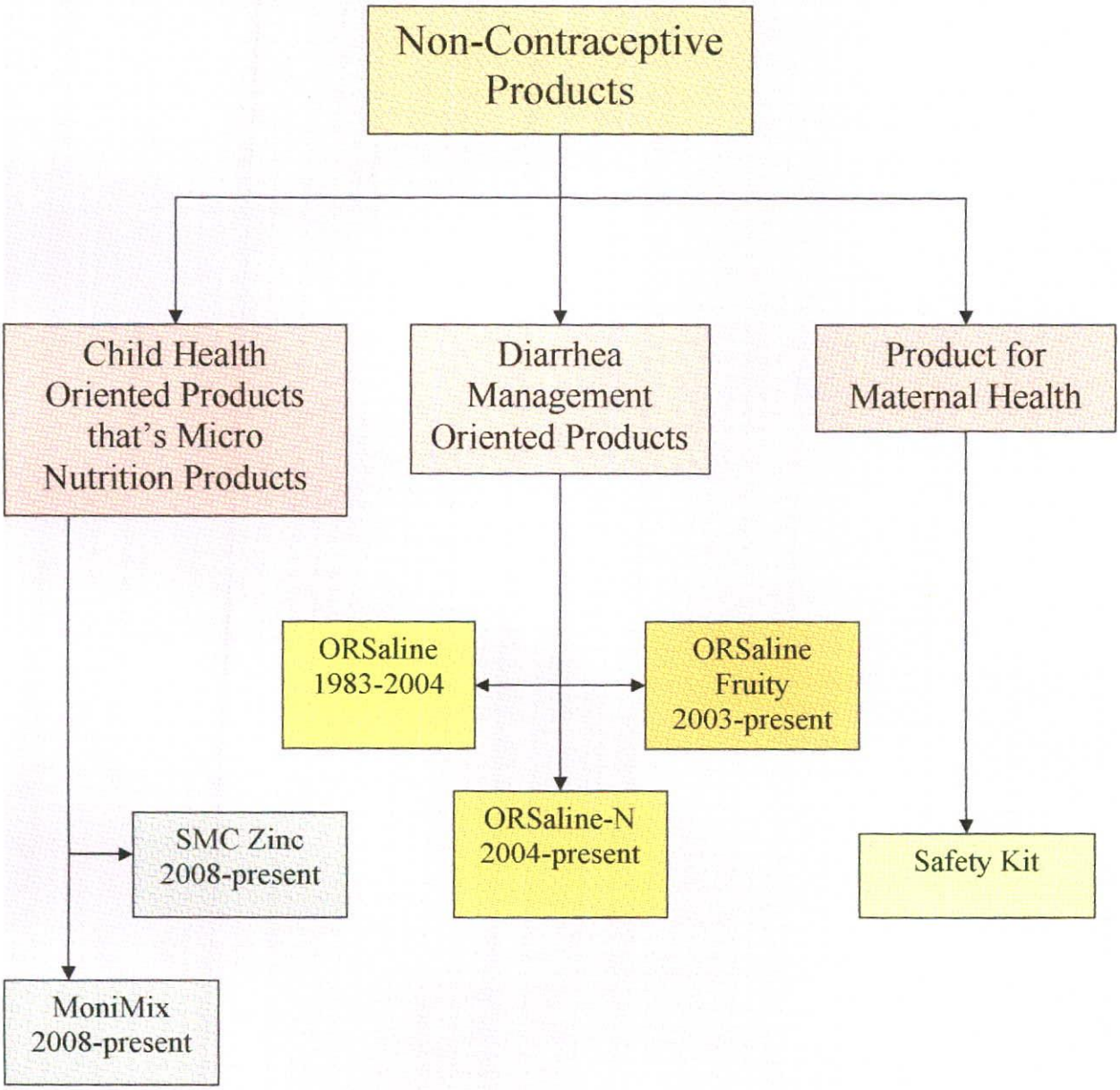
and materials are very much alike, but condoms for women don't require any assistance from men. The basic condom structure itself consists of a thin barrier sleeve with a flexible ring at either end – one end of the sheath is closed and one end is open. It protects against both pregnancy and sexually transmitted diseases. Using the female condom is pretty simple. Insert the ring at closed end of the sleeve into the vagina, and the ring will hold the female condom in place. Meanwhile, the ring at the open end of the condom is placed just outside of the vaginal entrance. The female condom functions just like the male condom functions. It is meant to be used during intimate relations and removed in a timely fashion when the moment has concluded. Female condoms, when used consistently and correctly, are almost as effective as the male condom. With that said, less than perfect use of the female condom can drastically lower that efficacy rate.

4.2 Products Structure of SMC in Bangladesh

4.2.1 Structure: NO. 01: Contraceptive Product Structure



4.2.2 Structure NO. 02: Non-Contraceptive Product Structure



4.3 Contraceptive Products of SMC:

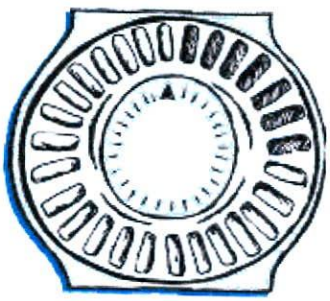
4.3.1 Introduction:

Social Marketing Company is marketing a variety of non-clinical oral pills – Femicon, Nordette-28 and Femipill, and condoms – Raja, Hero, Panther, Sensation and U&ME, and clinical injectables "SOMA-JECT" contraceptive. The Who-formulated based package oral rehydration salt brand marketed by SMC is ORSaline-N whose price is fixed by the government. SMC extended its oral rehydration salt by introduction BNF-based flavored ORS brand ORSaline Fruity in August 2003.

In May 2008, SMC introduced a small sachet of micronutrient powder popularly known as "sprinkles" in the brand name "MoniMix" to address childhood Iron Deficiency Anemia (IDA). It also started marketing Zinc dispersible tablets in September 2008 to reduce the severity of diarrhea in children under the age of five. As part of maternal program and neonatal health program, SMC launched Safe Delivery Kit branded as "Safety Kit" in 2008 to ensure clean child delivery at house hold level.

4.3.2 Pill:

The Pill (oral contraceptive) is used orally for the women. The Pill is very secured and effective for birth control for short time period. It is the most popular type of method of birth control. There are many different brands and those come in packs 21 to 28 pulls in each cycle. The first 21 pills have a combination of synthetic estrogen and progesterone hormones (by interview and investigation).



The Pill – Oral Contraceptive

The Pill stops ovulation, preventing the ovaries from releasing eggs. The pill also creates cervical mucus, making it harder for sperm to enter the uterus. The hormones in the pill prevent fertilization. The last 7 pill of a 28-day pack have no hormones and are called spacer pills. The pill is 92% to 99.7% effective as birth control. But it does not protect against reproductive tract infections, including HIV/AIDS, gonorrhea, syphilis, etc.

4.3.3 Injectable:

An Injectable (often referred to as a "shot" or a "jab") is an infusion method of putting fluid into the body, usually with a hollow needle and a syringe, which is pierced through the skin to a sufficient depth for the body for the materials to be forced into the body.

Source: SMC Product Profile

Source: SMC Blue Star Program

An injection follows a parental route of administration, that is administered other than through the digestive tract. SMC Markets a clinical injectable "SOMA-JECT" contraceptive.

4.3.4 Condoms & SMC's Condom Portfolio:

Condoms:

A condom is a barrier device most commonly used during sexual intercourse to reduce the chance of pregnancy and spreading sexually transmitted diseases (STDs—such as gonorrhea, syphilis, and HIV). Condoms are waterproof, elastic, and durable. In the modern age, condoms are most often made from latex, but some are made from other materials such as polyurethane, polyisoprene, or lamb intestine. As a method of birth control, condoms have the advantage of being inexpensive, easy to use, having few side effects, and of offering protection against sexually transmitted diseases. With proper knowledge, application and use at every act of intercourse, the effectiveness of condoms is 98 percent (BDHS-2007).

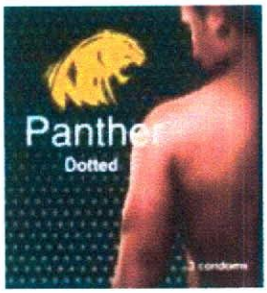
1. Raja

Raja is manufactured in South Korea and is funded by the Government of Bangladesh. The retail price of Raja is currently 1 taka per piece and in the financial year 2009, Raja has sold over 29.97 million pieces in Bangladesh.

2. Hero

Hero is manufactured in Malaysia by PLP Latex, according to WHO guideline and complies with ISO 4074:2002, EN 600 and ASTM D3492 standards. SMC is providing funding for marketing this product with its own source. Hero has two types of products: Hero 3's and Hero 30's. Hero 3's is available for purchase at 8 taka per pack while Hero 30's is available for 2 taka per piece. In the financial year of 2009, Hero 3's sold 4.80 million packs while Hero 30's sold 23.89 million pieces in Bangladesh.

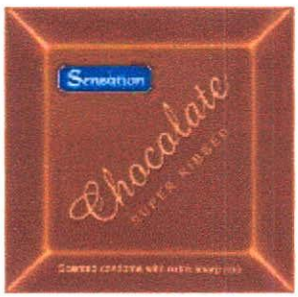
3. Panther Dotted



Panther Dotted is manufactured in South Korea. SMC's funding for Panther Dotted from 1983 to 1992 was provided by USAID. From 1993 to 2000, funding was provided by both USAID and EC. In 2001, funding was provided solely by USAID again but in 2002, funding was solely provided by IDA. By 2003, Panther Dotted was funded by SMC's own source and IDA (through GOB/DGFP). The retail price of Panther Dotted is 10 taka per pack of 3 and in the financial year of 2009, Panther Dotted has sold over 30.92 million pieces.

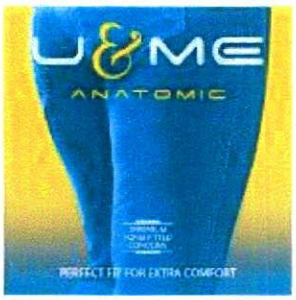
4. Sensation

Sensation (Classic and Variants) is manufactured by PLP Latex in Malaysia. The market funding for Sensation Classic started in 1992 by USAID to 1993 after which EC was responsible for its funding from 1994 to 1999. From 1999 to 2001, the marketing fund for Sensation Classic came from SMC's own source, and after 2001 to present, IDA and UNFPA (through GoB/DGFP) have provided funding. Sensation Variants, however, is funded by SMC's own source. The retail price of Classic is 12 taka per pack of 3 while Variants' retail price is at 15 taka per pack of 3, and in the financial year of 2009, Classic sold 19.90 million pieces while Variants sold 7.11 million pieces.



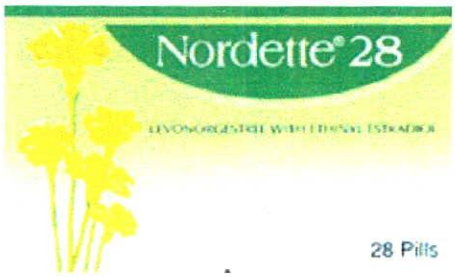
5. U&ME

U&ME is yet another brand which SMC markets here in Bangladesh and the funding is provided by SMC's own source. It's manufactured by PLP Latex in Malaysia, and it comes in 3 different types named Long Love, Anatomic, and Colors. The retail prices are 20 taka per pack of 3 for Long Love, 15 taka per pack of 3 for Anatomic, and 20 taka per pack of 3 for Colors. In the financial year of 2009, 3.15 million pieces of Long Love, 2.36 million pieces of Anatomic, and 220,536 pieces of U&ME Colors have been sold in Bangladesh.



4.3.5 SMC's Contraceptive Pills Marketed in Bangladesh:

1. Nordette-28



Manufactured in Germany by Wyeth, Nordette-28 originally contained 28 pills per cycle but in recent years, the number of pills per cycle has been reduced to 21. This pill is from SMC's own funding as opposed to other donated products.

The retail price of Nordette-28 is currently around 30 taka per cycle. In the financial year 2008, the volume of Nordette-28 sold in Bangladesh was 8.44 million cycles.

2. Femicon

Femicon is manufactured by Wyeth in USA. Its funding is provided for by USAID and the retail price of Femicon is 12 taka per cycle in Bangladesh. In the financial year 2008, Femicon has sold 33.34 million cycles in Bangladesh.

3. Femipil

Femipil is manufactured by Femycare India Ltd and funded by SMC's Programme income. The retail cost of Femipil is around 13 taka per cycle, and in the financial year 2008, Femipil has sold 2.7 million cycles in Bangladesh.

4. Other Pill

Maya Pill was marketed from 1975 to 1995 in Bangladesh but it is no longer available in the market. Ovacon's marketing was started in 1980 and ended in 1996. Norquest was marketed from 1990 to 1995 and it is no longer marketed in Bangladesh. And finally, Minicon's marketing was started in the year 2000 and was no longer marketed in Bangladesh after the year 2008.

4.4 Contraceptives Products Marketed in Bangladesh (Besides SMC's):

4.4.1 Oral Pill:

i-pill: An emergency contraceptive pill is a safe and easy way to prevent an unintended pregnancy from occurring after unprotected sex or contraceptive failure. i-pill us an emergency contraceptive pill manufactured by Cipla, India. A single dose of i-pill provides a safe and easy way to prevent an unintended pregnancy after unprotected sex or contraceptive failure.

If anybody has had unprotected sex and want to prevent a pregnancy, she should take i-pill as soon as possible, preferably within 12 hours and no later than 72 hours of unprotected intercourse. i-pill is useful as a backup birth control method under following circumstances:

- Contraceptive failure
- Unprotected sex
- Improper use of your regular birth control method
- Forced sex

i-pill is a single dose tablet to be taken orally. It should be swallowed with some water after a meal. i-pill should be taken as early as possible and not later than 72 hours of unprotected sex or contraceptive failure. i-pill will not work if women are already pregnant because it is only a

backup or emergency method of contraception. It is not a substitute for regular contraceptive methods. i-pill will not be effective if taken 72 hours after unprotected sex. i-pill can be used by any woman of child bearing age and is facing the prospect of an unintended pregnancy due to absence of failure to use a contraceptive. It can also be used in the case of rape of forced sex. i-pill can work in any of three different ways:

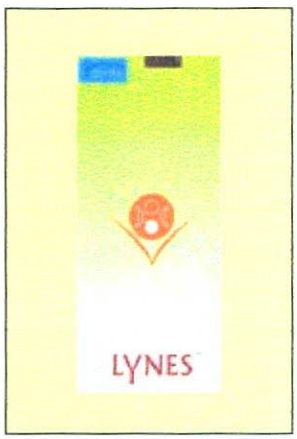
- It may stop an egg being released from the ovary.
- If an egg has been released, i-pill may prevent the sperm from fertilizing it
- If the egg is already fertilized, it may prevent it from attaching itself to the lining of the womb.

It is important to note that pregnancy is established only after the fertilized egg attaches itself to the womb. i-pill is ineffective if the pregnancy is established. It is therefore not an abortion pill.

Marvelon: To prevent pregnancy, Marvelon is a very effective contraceptive pill. Oral contraceptives are a very effective method of birth control. When taken correctly (without missing tablets), the chance of becoming pregnant is very low. Marvelon is a combined oral contraceptive ('the combined Pill'). Each tablet

contains a small amount of two different female hormones. These are desogestrel (a progestogen) and ethinylestradiol (an estrogen). Because of the small amounts of hormones, Marvelon is considered a low-dose oral contraceptive. As all tablets in the pact combine the same hormones in the same dose, it is considered a monophasic combined oral contraceptive. Marvelon, like all contraceptive pills, does not protect against HIV infection (AIDS) or any other sexually transmitted disease.

Lynes: It's a contraceptive pill like any other in the market. Usually, effectiveness of Lynes is like other contraceptive pills. In a cyclic of Lynes, the number of pills is 22. The first tablet of the first pact is taken on the first day of menstruation. One tablet is taken daily at the same time, without interruption for 22 days, followed by a 6-day tablet free period. Each subsequent pact is started after the 6-day tablet free period has elapsed. The important thing is that if anybody is approximately 35 years of age and a smoker, she is advised to stop smoking if she wants to use this pill. Keep extra Lynes packs in a cool, dry and dark place. Like all other contraceptive pill, Lynes does not protect against HIV injection including AIDS or any other sexually transmitted diseases.



Shukhi:

Shukhi is an oral pill manufactured by Famy Care Ltd. in India. The government of Bangladesh provides its citizens this product free of cost. Its effectiveness depends on proper use. The user must take 1 pill a day at the same time as she took the pill the previous day.

4.4.2 Condoms:

Success: This condom is natural lubricated and electronically tested according to the Tamim Pharma International and certified according to WHO & ENGISO 9001-2000.

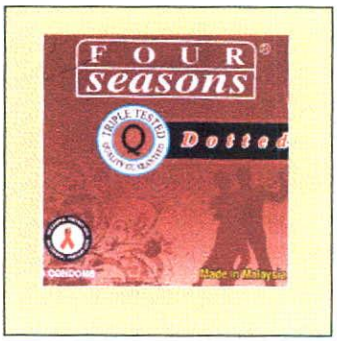
Marketed by:
Tamim Pharma International

Functions of Success

- Save birth control
- Save from AIDS/HIV
- Save from Syphilis
- Save from Gonorrhea and genital herpes, and other STDs

Four Seasons Dotted:

Electronically tested each Four Seasons condoms give highest protection and safety of international standard (ISO 4074) and are produced under maximum hygienic care (according to manufacturer). Four Seasons Dotted condoms assure maximum satisfaction to your female partner. If used properly, latex condoms will help reduce the risk of

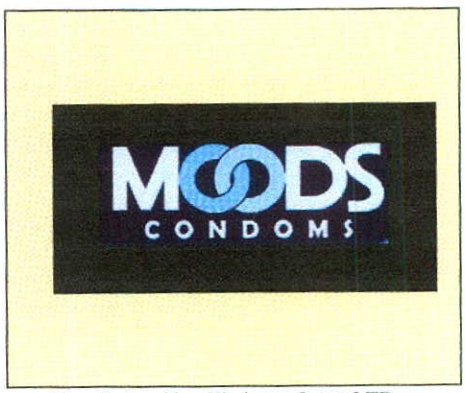


Marketed by:
Mark Distribution & Logistics, Dhaka, Bangladesh

transmission of HIV infection (AIDS) and many other sexually transmitted diseases, and also highly effective against pregnancy.

Dotted Romeo: According to the concern marketing company, a three stage test is carried out on all Dotted Romeo condoms. The stages are inward, online (in production) and final. The functions of this condom are as same as other condoms in the market.

Moods Condoms: According to manufacturer, Hindustan Latex LTD., this condom is made of natural rubber violet colored lubricated condom with reservoir tip. Moods are also available in other existing variants. By using properly, latex condoms will prevent pregnancy and help to reduce the transmission of sexually transmitted diseases including HIV/AIDS.

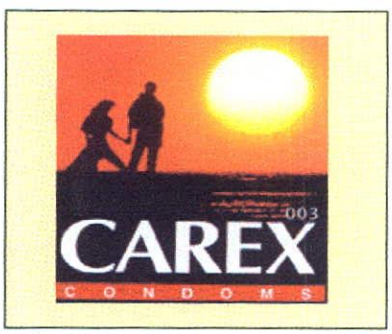


Manufactured by: Hindustan Latex LTD.
Marketed by: ARITRA Trade International

Romantex: According to HBM USA, by using properly latex condoms will help to reduce the risk of transmission of HIV/AIDS and many other sexually transmitted diseases also highly effective against pregnancy and this product contains natural rubber latex.

Manufactured by: H.B.M USA Co., Inc.
HBM Building, Queens Village,
New York 11429, USA

Carex: Carex condoms are made from premium quality latex and each condom is individually electronically tested for reliability and safety to meet international standards (ISO 4074), according to manufacturer. When properly used, latex condoms are highly effective against pregnancy and help reduce the risk of transmission of HIV infection (AIDS) and many other sexually transmitted diseases.

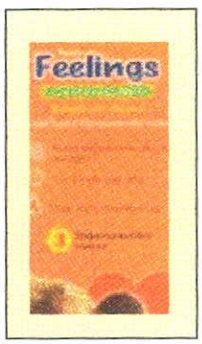


Manufactured by: SKH Medical Device, Bangladesh

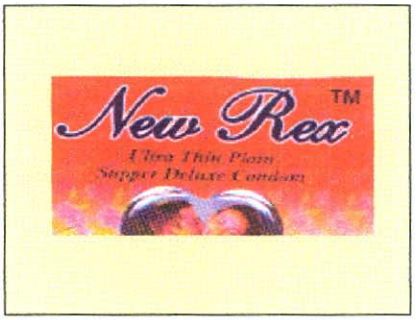
Green Love: According to marketing company named Shanto Enterprise and manufacturer, this condom is also made of natural rubber. It is also available in other existing variants. Green Love properly used will prevent pregnancy and help to reduce the transmission of STDs and HIV/AIDS.

Marketed by: Shanto Enterprise

New Feelings: Electronically tested each New Feelings condoms, according to the marketer and manufacturer. By using properly the condom is highly effective against pregnancy. If used as per direction of the manufacturer, the condom will help to reduce the risk of transmission of HIV/AIDS/STDs.



New Rex: By using the Technology of Japan, China manufactured the product. According to the manufacturer and M/S. Rakib Enterprise (the marketer of the product), it's an ultra thin plain super deluxe condom. If the proper use to be confirmed, the product will help reduce the risk of transmission of sexually transmitted disease like HIV/AIDS, syphilis, gonorrhea, genital herpes, etc.



Marketed by: M/S, Rakib Enterprise
Technology of Japan
Made in China

Nirapad: This condom is manufactured by TTK-LIG Ltd. in India. By using properly the condom is highly effective against pregnancy. If used as per direction of the manufacturer, the condom will help to reduce the risk of transmission of HIV/AIDS/STDs. The government of Bangladesh provides its citizens this product for the cost of 1.20 taka per dozen, that is 0.10 taka per piece.

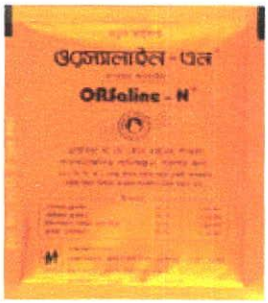

Manufactured by: TTK-LIG Ltd.
Cathedral Road, India

Chapter Five:
Diarrhea Management & Micronutrition & Other Family Health Products

5.1 Diarrhea Management Products of SMC:

1. ORSaline-N

Social Marketing Company has been manufacturing its ORSaline-N at full capacity in three shifts (24 hrs) at its factory at Bhaluka in Mymensingh to meet the increased demand as diarrhea has become widespread, especially among the children. SMC's current production capacity is 175.0 million sachets of ORSaline-N. SMC is committed to supplying the maximum number of ORSaline-N to the market as well as to government and private organizations. For the last 25 years, SMC, a not-for-profit organization, has been playing a key role in educating the masses on Oral Rehydration Therapy (ORT), to prevent dehydration due to diarrhea, and marketing packaged ORSaline.



2. ORSaline- Fruity

ORSaline- Fruity is manufactured by Essential Drugs Company Ltd., and is funded by SMC's own source. The retail price for a sachet of ORSaline-Fruity is currently 5 taka, and in the financial year of 2009, it has sold over 6.95 million sachets in Bangladesh.

3. SMC Zinc

Social Marketing Company (SMC) has launched SMC Zinc, 20mg soluble tablets, as an added therapy to oral saline to prevent and treat diarrhea among under-5 children. Square Pharmaceuticals Ltd is the manufacturing partner of SMC. Director of USAID- Lois Bradshaw, Managing Director of SMC- Perveen Rasheed were present at the official launching programme of SMC Zinc at its head office. Every year globally

approximately 2 million children, and in Bangladesh, approximately over 0.1 million children die of diarrhea. World Health Organization (WHO) and UNICEF recommend the use of Zinc as an adjunct therapy to oral saline to reduce mortality and morbidity caused by diarrhea. During diarrhea there is an increased loss of water and electrolytes. Oral Saline helps to replace fluids lost during diarrhea, zinc replaces the lost zinc and boosts immunity, and as a result it prevents future episodes of diarrhea.

5.2 Micronutrition Products of SMC:

In many countries including Bangladesh, Pakistan and Sri Lanka, home fortification of complementary food with powdered micronutrient powder has been adopted as a new public health strategy to control IDA among infants and children. The objective of the micronutrient programme is to help improve nutritional status of under-five children, particularly of those with childhood Iron Deficiency Anemia (IDA), to increase knowledge and awareness among parents and health service providers about the importance of micronutrient-containing food and adequate dietary intake and to promote exclusive breastfeeding and proper complementary feeding of nutrition-rich foods.

In Bangladesh, about 64 percent of the children of age 6-23 months and 42 percent of the age 24-59 months suffer from Iron Deficiency Anemia. The increased

burden of anemia specifically among infants and children calls for urgent action, especially in view of the devastating impact on cognitive and motor development of an entire generation of children and the vast economic losses at present as well as in the future.

Moni-Mix:

Social Marketing Company has launched its micronutrient programme in the country through introduction of 'MoniMix', a micronutrient powder for simple and convenient in-home food fortification of complementary food to address childhood Iron Deficiency Anemia (IDA). Responding to the challenge of devastating consequences of IDA, Sprinkles Global Health Initiatives (SGHI), and University of Toronto, Canada developed "Sprinkles", which supported by global research and strong advocacy activities from leading international development agencies. In Bangladesh, SMC introduced "Sprinkles" in the brand name of "Moni-Mix", which is a small packet of micronutrient powder containing iron and some other essential nutrients which can be easily mixed at home to fortify food of children. Moni-Mix is manufactured by Renata Pharmaceuticals Ltd., and the funding for its marketing is provided by USAID. The retail price of Moni-Mix is 2 taka per sachet and 60 taka per box. In the financial year of 2009, Moni-Mix has sold 8.59 million sachets in Bangladesh.

5.3 Maternal Health Product:

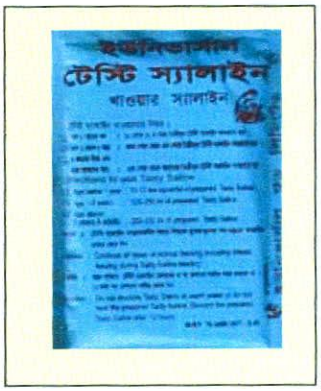
Safety Kit:

SMC solely packages, markets and provides funding for Safety Kit. Its retail price is 50 taka per pack, and in the financial year of 2009, over 16,616 pieces of Safety Kits have been sold in Bangladesh.

5.4 Oral Saline besides SMC:

1. Universal Tasty Saline

This product is manufactured by Universal Food Ltd. located in Dilalpul, Pabna, Bangladesh. It helps combat the effects of diarrhea, vomiting, dehydration and re-hydrates the body.



2. Neo Saline

This product is manufactured by Eskayef Bangladesh Ltd. located in Gazipur, Bangladesh. This particular product contains the WHO & UNICEF Formula. Neo Saline also helps combat the effects of diarrhea, vomiting, dehydration and re-hydrates the body.

3. Rice Saline

Rice Saline is manufactured by General Pharmaceuticals Ltd. located in Gazipur, Bangladesh. This particular product contains the WHO & UNICEF Formula. Users must drink within 5 hours of mixing with water. Rice Saline also helps combat the effects of diarrhea, vomiting, dehydration and re-hydrates the body.

4. GOs Distributed Oral Saline

This product is manufactured and distributed by the Government of Bangladesh. It helps combat the effects of diarrhea, vomiting, dehydration and re-hydrates the body. The Government of Bangladesh distributes this product free of cost for its citizens. The effectiveness and feedback of this product from users and distribution workers have been positive.

5. Oral Rehydration Salts

Oral Rehydration Salts is manufactured by Essential Drugs Company Ltd. located in Dhaka. This product is not for sale or purchase; it is supplied by the Government of Bangladesh free of cost for Bangladeshi citizens. It is distributed to needy patients on basis of the principles of the Government's doctors.

Chapter Six:
Determinants of Socio-Economic Scenario vs. Fertility and Reproduction- Bangladesh Perspective

6.1 Education:

Education is one of the major socio-economic factors that influence a person's behavior and attitudes. In general, the greater a person's educational attainment, the more knowledgeable he or she is about the use of health service, family planning methods, and the health care of children. The majority of Bangladesh has attended school. Only one in four men and about one in three women has never attended school. There is no gender difference in primary education. However, men are most twice as likely as women to have completed secondary school or a higher level of education (12 percent and 7 percent respectively). There has been little change in the proportion of men and women with no education, since 2004 it has declined from 27 percent to 25 percent among

men and 34 percent to 30 percent among women. There has been a marked improvement in the educational attainment of both men and women over the years. The proportion of men with no education is notably higher (49 percent) among those age 65 years or older than among boys age 10-14 years (4 percent). Similarly, 82 percent of women age 65 and over have no education compared with only 4 percent of girls of age 10-14 years. Change in educational attainment by childbearing age groups clearly indicates fertility and socio-economic scenario of Bangladesh. Fertility rate is higher among the women who are illiterate or near about illiterate compared to educated women whose fertility rate is significantly lower.

Table No. 6.1: Relationship between the Level of Education and Rate of Fertility among Childbearing Aged Women

Level of Education	Total Rate of Fertility
Illiterate	3.6
Below Primary Education	3.3
Completion of Primary Education	2.9
Below Secondary Education	2.7
Secondary Education and Higher	2.2

Source: *Bangladesh Demographic and Health Survey 2007* (March 2009), NIPORT, Dhaka, Bangladesh

The Table shows where the level of education tends to increase from primary level to higher levels, the rate of fertility respectively decreases from 3.6 to 2.2. Fortunately, the literacy rate of Bangladesh (including female literacy) is increasing. As a vital phenomenon, education influences socio-economic situation as well as the fertility rate of Bangladesh. We can conclude that the population growth has declined in Bangladesh due to various reasons but we are able to identify that education is among the reasons for such success.

6.2 Fertility by Female Education

The impact of women's education on fertility can be inferred from observed fertility differentials among educational subgroups in rural Bangladesh. The relationship between education and fertility is examined both for current and cumulative fertility. Table no. 6.2 shows the differentials in fertility by educational attainment. The data shows that the educational attainment of women is strongly associated with fertility. The TFR decreases sharply from 3.6 for women with no education to 2.2 for women with secondary complete for higher education. The

average completed fertility (average number of children ever born to women who are now at the end of their childbearing period age 40-49) also declined with the level of education. On the other hand, women with secondary or above level of education start child bearing later than those with less or no education. Among women age 25-49, the median age at first birth is 17 years for women with no education and 23 years for women who have completed secondary or above level of education.

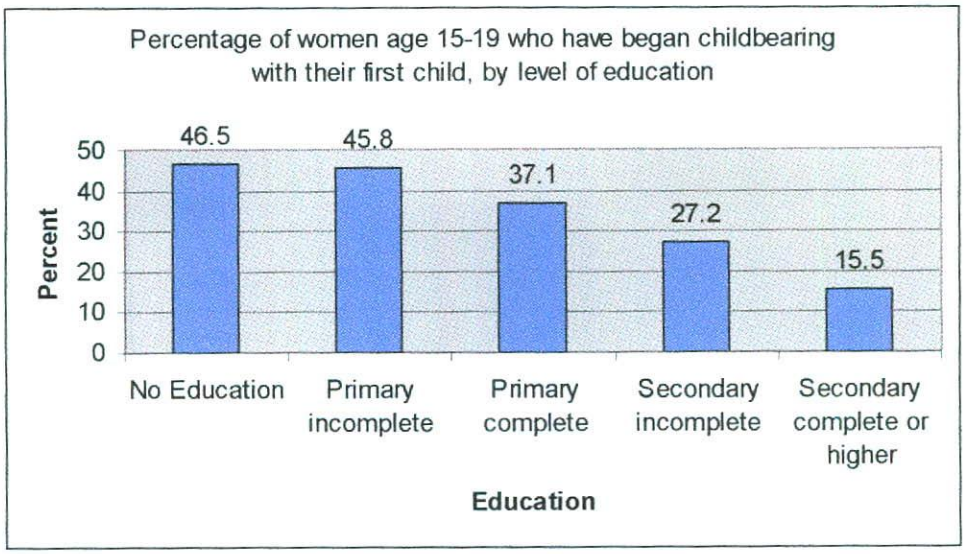
Table No. 6.2: Total Fertility Rate and Mean number of children ever born to women age 40-49 years by education

Level of Education	Total Fertility	Mean no. of children ever born to women age 40-49	Median age at first birth for women age 25-49 years
No Education	3.6	5.3	17.1
Primary incomplete	3.3	5.4	17.3
Primary complete	2.9	5	17.6
Secondary incomplete	2.7	4.3	18.3
Secondary complete or higher	2.2	2.8	22.6
Total	3	5.1	17.6

Source: Bangladesh Demographic and Health Survey, 2007
TFR Research Studies, 2005, NIPORT & UNFPA

Education has also strong relationship with delayed childbearing among the adolescent age 15-19. Figure no. 6.1 shows that only 16 percent of teenagers who had completed secondary education had begun childbearing, compared with almost half of those with primary incomplete or no education.

Figure No. 6.1: Percentage of women age 15-19 who have began childbearing with their first child, by level of education



Source of Figures 6.1, 6.2 & 6.3: Bangladesh Demographic and Health Survey, 2007
TFR Research Studies, 2005, NIPORT & UNFPA
Population Projection Studies, 2005, SPPPD & UNFPA

Education has also strong positive impact on mean age at first marriage. As expected mean age at first marriage of women increases steadily with increase in level of education. The median age at first marriage of women age 25-49 is almost 6 years higher (19.8 years) among the women who have secondary or above level of education. The corresponding figure for women who have no education or primary level of education is 14 years (see Figure no. 6.2).

Figure No. 6.2: Median age at first marriage among women age 25-49 by education

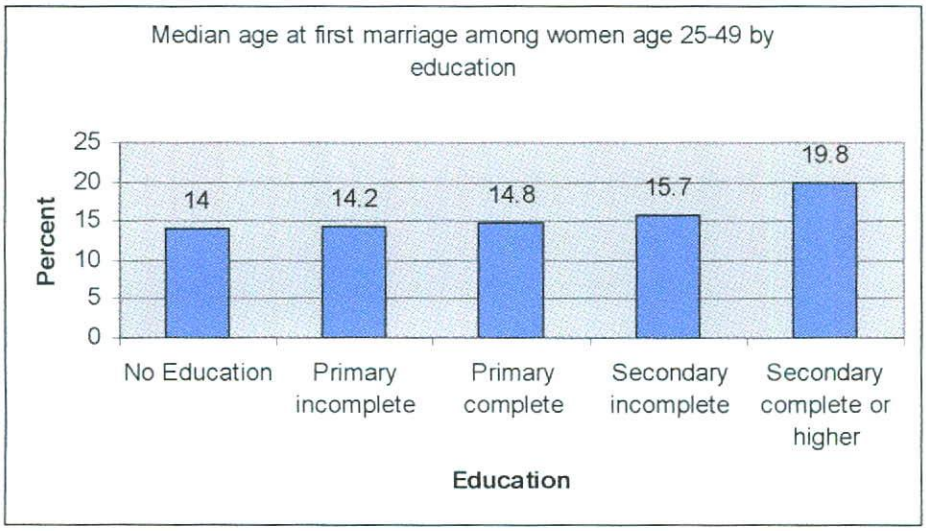
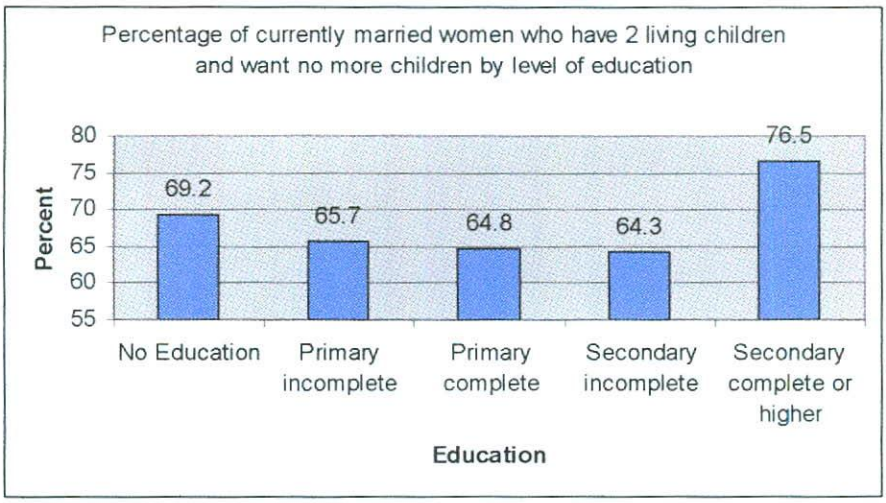


Figure no. 6.3 exhibits desire to stop childbearing by those women who have already 2 living children by level of education. Fertility desire to limit child bearing varies widely among the women by levels of education. For example, 77 percent of the married women with secondary or above level of education want no more children, compared with 69 percent among women with no education.

Figure No. 6.3: Percentage of currently married women who have 2 living children and want no more children by level of education



It is important to note that the effect of education on almost all measures of fertility is most pronounced for secondary complete or above level of education; some primary or primary level education have very little or negligible effects on fertility. The implication of this finding is that for further reduction of fertility, more emphasis should be given to rise secondary or above level of education among the female, not merely the increase of literacy rate.

6.3 Occupation:

In general, when a particular area produces agricultural based products, the people of the nearby area will fill these occupational roles. As we advance forward Socio-Economically and are able to provide more opportunities to the people (industrial production for example), they will tend to meet the demands of these higher forms of occupation. When society moves from agricultural mode of production to industrial mode of production, then the member of society that is the labor force of the society will change their occupation and involve themselves from agricultural labor to industrial labor or general labor to technical labor, etc., and an educated person can fill a "White Collar" position. The Table No. 6.3

indicates the economic activities of the population is moving away from agricultural based occupation and moving towards industrial or others as the socio-economic conditions develop in Bangladesh.

Table No. 6.3: Main Economic Activities (two) of Population by Occupation

Occupational Characteristics	Year			
	2004	2005	2006	2007
Agriculture (%)	50.39	49.08	48.89	47.5
Industry (%)	2.57	4.21	4.22	4.41

Source: Report on Sample Vital Registration System 2007, November 2008, Bangladesh Bureau of Statistics

6.4 Urbanization:

Bangladesh had made progress of urbanization in spite of many interruptions. From the middle of 1970s, urbanization had been increasing in Bangladesh. With the development of socio-economic sectors including education, occupation, communication, poverty reduction, the demand of urbanization has increased rapidly. Because of urbanization, people's demand of high standard of living started to increase. To sustain the high living cost for such demands, the fertility rate of these people would then decrease due to the fact that the cost of bringing up another child would impact the living cost thus impacting the living standard.

6.5 Poverty & Poverty Reduction:

Bangladesh is one of the less developed countries. Although there have been improvements in some sectors of Bangladesh, the country overall is still one of the poorest nations in South Asia. Here, 40 percent of the general population lives below the poverty line and their living standards are very behind from modern system of society. Poor parents consider their male children as capital, thus they continue to reproduce in hopes of more male children. The Table No.6.4 shows the situational poverty of Bangladesh:

Table No. 6.4: Incidence of Poverty (Head-Count Ratio) - Direct Calorie Intake Method

Years	Number & Percent of Population Below Poverty Line Indicator	
	Population No. in Million	Percentage of Population
Poverty Line-I: Absolute Poverty 2122 K. Cal Per person per day		
2000	55.9	44.3
1995-96	55.3	47.5
1991-92	51.6	47.5
1988-89	49.7	47.8
1985-86	55.3	55.7
1983-84	58.4	62.6
Poverty Line-II: Head count Poverty 1805 k. to 2122 K. Cal Per person per day		
2000	25.2	20
1995-96	29.1	25.1
1991-92	30.4	28
1988-89	29.5	28.4
1985-86	26.7	26.9
1983-84	34.3	36.8

Source: *Statistical Yearbook of Bangladesh 2008* (28th Edition), Bangladesh Bureau of Statistics

6.6 Dependency Ratio:

Dependency ratio has been defined as the ratio of sum of population aged 0-14 years and 60+ years to the population aged 15-59 years expressed as percentage. The formula of the Dependency Ratio is given below:

$$\frac{P_{0-14} + P^{60+}}{P_{15-59}} \times 100$$

P_{0-14} = Population from the age of 0 to 14
P_{15-59} = Population from the age of 15 to 59
P^{60+} = Population over the age of 60

Represented is the Dependency ratio of some year on the basis of some census in table no. 6.5.

Table No. 6.5: Comparison of the Rate of Dependency Ratio

Census Year	Total	Age			Dependency ratio	Comment
		0-14	15-59	60+		
1974	100	48	46.3	5.7	116	Diminishing Dependency Ratio
1981	100	46.7	47.8	5.5	109	
1991	100	45.1	49.5	5.4	102	
2001	100	39.3	54.6	6.1	83	

Source: Population Census-2001

Table No. 6.6: Dependency Ratio 1981-2007

Year	Dependency Ratio	Comment
1981	110	Dependency Ratio is diminishing
1991	102	
1995	89	
1997	90	
1998	89	
2001	83	
2002	80	
2003	79	
2004	79	
2005	78	
2006	76	
2007	70	

Source: Report on Sample Vital Registration System, 2007, Bangladesh Bureau of Statistics

The table no.6.6 above shows the trends and levels over time the series of dependency ratios starting from 1981 to 2007. It is evident from the above comparison that dependency ratio has decreased over time. The decrease of the dependency ratio is a positive indicator of the development of the socio-economic condition of the nation.

6.7 Biological Determinants of Socio-Economic Change:

Biological factors are sometimes responsible for causing social change. Man is very often influenced by non-human biological factors which constitute plants and animals. Biological factors very often influence the numbers, the compositions, the birth rate, the death rate, the fertility rate and the heredity quality of the successive generations. Biological factors like the size and composition of population produce social change. Food problem, housing problem, unemployment, poor health, poverty, low standard of living etc. are direct outcome of biological factors.

Bangladesh is a populous country. Fertility rate and morality rate of Bangladesh are very high. More than 50% of its population lives beneath the poverty level. Rajshahi is not immune from these problems like food, housing, sanitation, safe drinking water, unemployment, poverty and low standard of living. The above mentioned biological factors are equally at work in villages, remotes villages, semi-urban areas, like other parts of Bangladesh. Hence, these factors are quite active in our study area, which cause social changes, but the pace of social change due to these factors are steady.

6.8 Food Consumption and Economic Condition:

Dietary pattern varies from person to person and culture to culture. Diet is indeed an important factor which creates energy, generates strength and helps develop body and mind of individuals. Sound development of body and mind are closely linked with sound dietary pattern and wellbeing prentices. Studies have revealed that the nature, temperament and even intellect of individuals and animals are largely associated with dietary prentices which vary from culture to culture (Rahman 20001:7). The longevity and activity are largely associated with food habit and drink. Therefore, this area of research attracts attention of the food scientists and other scholars. From my close observation, I gathered from information in connection with food habit and drinks of the people under study. Moreover, we also took some informal interviews with the respondents which had been tabulated in table no. 6.7.

The Table No. 6.7 indicates that the food habits of the pointed villages are significantly different from those of ten years ago in the same villages under study.

Table No.: 6.7 Economic Status Through Food Consumption Analysis

Eating Food as Indicator (out of 100 respondents)	1985-1995				Mean of Four Investigated Areas (%)	1996-2006				Mean of Four Investigated Areas (%)	2007-2009				Mean of Four Investigated Areas (%)
	Investigated Area					Investigated Area					Investigated Area				
	Olinagar	Khidirpur	Mulghar	Aligonj		Olinagar	Khidirpur	Mulghar	Aligonj		Olinagar	Khidirpur	Mulghar	Aligonj	
Panta Bhat with green peppers and onions as Breakfast	65	90	80	85	80	30	45	35	40	37.5	0	3	2	1	1.5
Bread, banana, egg, tea with the breakfast	5	3	10	5	6	25	10	25	10	17.5	50	15	60	50	44
At least one day or time eats Meat or Fish	60	50	45	50	51.25	95	70	80	80	81	100	95	99	95	97
Daily Meat or Fish or both eats with Lunch or Supper or Both	30	40	25	20	29	85	55	70	70	70	90	70	80	80	80

Source: Field Investigations

The analysis of the table indicates that, food habit and drink are gradually changing in the villages, where the dependence on rice as breakfast is being reduced and consumption of bread is gradually increasing indicating more dependence on wheat in the area. The pattern of consumption of soft drink has also been changed in the areas where green coconut is seldom used as a mode of drink in the area (Fakirhat). The drink of Tari in the remote villages indicates that the villagers are not still inclined toward liquor which does not at mean that they do not like country made or foreign liquor. Their economic conditions do not allow them to take liquor and as such, they are inclined towards Tari. The income level of the semi-urban people has been raised which allow them to afford bread, egg and tea as their menu of breakfast. The consumption patterns of the people are largely related to income, which has been found correct in my study areas. The Table no. 6.7 further indicates that, local dietary pattern are undergoing changes which may be associated with economic ability and working hours of the labor under study.

6.9 Mean Age of Marriage:

According to the Population Census Report of 2001, the mean age of marriage is 25.3 years for male and 19.0 years for female. But in 1974, it was 24 years for male and 15.9 years for female respectively. Age range of marriage is being increased by order. Table No. 6.8 shows the mean age range of marriage on the basis of male and female.

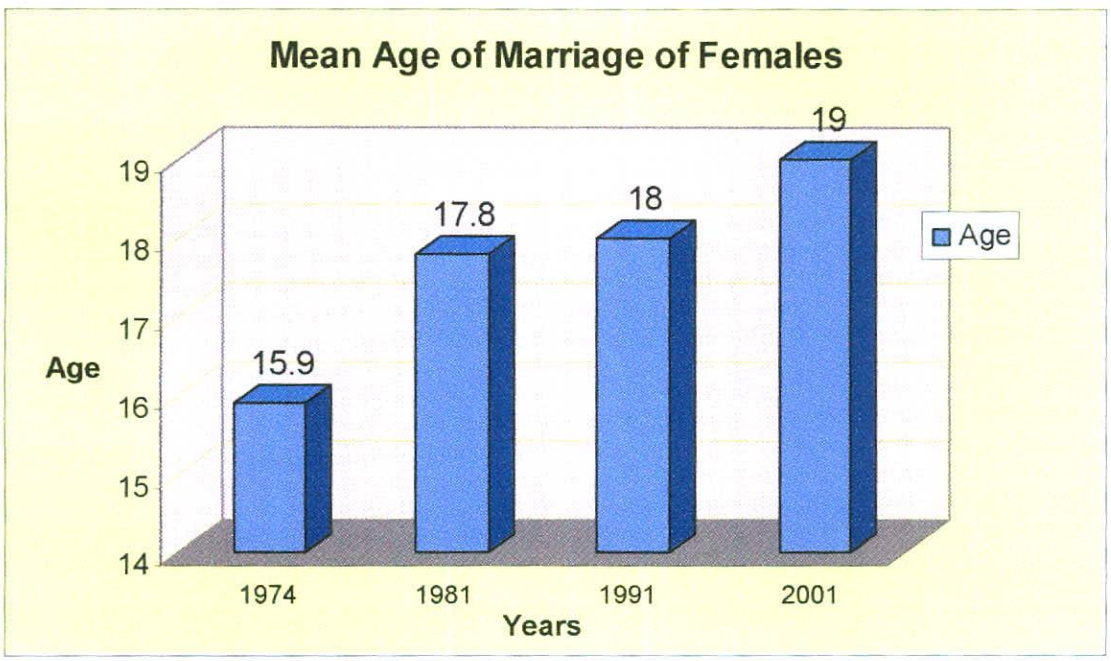
Table No. 6.8: Mean Age of Marriage over Time

Year	Female	Male	Comment
1974	15.9	24	Mean age of marriage, of both male and female, is increasing gradually
1981	17.8	25.8	
1991	18	24.9	
2001	19	25.3	

Source: Population Census - 2001, Bangladesh Bureau of Statistics, 2003

As one would hope, from the information of the table, it is illustrated that the mean age of marriage of female has increased from 1974 to 2001. This is a wink of socio-economic change. The mean age of marriage has been illustrated also in the Figure No. 6.4.

Figure No. 6.4: Mean age of Marriage of Females



6.10 Early Marriage:

Early marriages are one of the indicators of a backward society which is very common in Bangladesh. Among Bangladeshi's slum dwellers and rural sectors, early marriages are available. An early marriage usually involves a younger female (below the age of 18), with an older male. Early marriages are a problem for several reasons. One, population is already an immense problem in Bangladesh; more over an early marriage directly influences rapid fertility. There is another greater risk among early marriages, which is the danger to the young female's health during child delivery. The mortality rate of young teens during child delivery is much greater than of those above the age of 18. Also giving birth to the child can be damaging to a young teen's maternal health. The Table No. 6.9 shows the percentage of young women in various age groups that were involved in marriage and early marriage.

Table No. 6.9: Married/Early Married Women from 1961-1991 (in percentage)

Age Level	1961	1974	1981	1991 (Estimated)	Comment
0 - 10	0	0	0	0	Early Marriage is decreasing
10 - 14	32.6	6	2	Tends to Zero	
15 - 19	91.7	68	68.7	69.2	
20 - 24	98.7	95.4	94.9	93.5	

Source: Bangladesh Fertility Survey, 1975
Population Census, 2001
Report on Sample Vital Registration System 2007, November 2008, Bangladesh Bureau of Statistics

At young age that is in the age level 10-14 32.6 per 100 females were married in 1961, 6 percent were married in 1974 and 2 percent were married in 1981. Marriages in the age level 15-19 also decreased significantly in the years 1961 to 1974. And finally, the marriages in the age level of 20-24 continue to sustain above 90 percent, which signifies that as the time passed, and early marriages excellently decreased, the majority of women tend to marry in the ages of 17-22. This overall is good in terms of value judgment and an indicator of the scenario of socio-economic development.

Although early marriage is still practiced, it has become less acceptable among the educated members of society. The Table No. 6.10 shows the gradual increase in the average marriage age of both male and female from 1961 to 1991.

Table No. 6.10: Singulate Mean Age of Marriage

Year	Female	Male
1961 (Population Census)	13.9	22.9
1978 (Population Census)	15.9	23.9
1975 (BFS)	16.3	24
1981 (Population Census)	16.6	23.9
1989 (BFS)	18	25.5
1991 (Population Census)	18.1	25

From 1960's, ages of the marriage in both male and female increased gradually. In the census of 1961, the average marriage age for female was about 14 years and male marriage age was about 23. But in the 1991 census, the average marriage age became 18 for female and 25 for male. This is a good sign of positive development of the social scenario and socio-economic condition of Bangladesh.

6.11 Polygamy:

Previously, Bangladesh was the past of Pakistan. Pakistan was completely religious based country and that is conservative Islamic. After passing 24 years, we have been independent. But even at present, conservatives would not possible to give up from the national culture. A larger number of population of Bangladesh as like to say Bangali or Bangladeshi, more like to say Muslim as a notional. So we are in conservative, either more or less superstition. But a sign of hope is that all of my respondents of my study do not like polygamy. Analyst result of investigated points about polygamy, Rajshahi is affected than that of Dhaka and Khulna. Young generation completely dislike polygamy, that is also a positive sense of social values.

6.12 Dowry:

Types and nature of dowry is to be related to married in our society. In our culture, dowry has been more or less institutionalized. Though we find a considerable number of marriages without dowry but we can hardly find or near about impossible to find a village or community where dowry is absent. Types and rate of dowry vary from society to society and culture to culture, even family to family in Bangladesh. My study reveals that the degree and rate of dowry comparatively high in the remote village to semi urban village. In the short analysis, dowry is in forms number two. One is cash (taka) and rest is

Kind. At present in the investigated villages, forms of dowry (cash-taka) transmitted to gifts (TV, VCR, refrigerator, furniture, etc). But overall the matter of goods that dowry system is gradually decreasing day by day or year by year, which is shown in the Table No. 6.11.

Table No. 6.11: Exchange of Dowry over Time

Time Frame Year	Dowry of Any Types (either cash or kind of gift)					
	Yes	Total Change	No	Total Change	Total	Comment
1980 - 1990	80		20		100	Dowry has changed form and decreasing
1990 - 1995	75	5	25	5	100	
1995 - 2000	63	17	37	17	100	
2000 - 2005	58	22	42	22	100	
2005 - 2009	50	30	50	30	100	

Source: Field Investigation

The table shows that after day by day the acceptance of dowry is decreasing and the giving up of dowry is increasing. This table that is primary data based indicates positive values in the society.

6.13 Gender Issue:

Gender Issue is another social problem of Bangladesh. Approximately all the parents of Bangladesh, like any other countries of this sub-continent, are fond of male children. They think in their minds that family and family life moves on the head of the household and the household will become their male child by inheritance. But the scenario is changing with the change of social values, a good number of parents consider their male child or female child as an offspring with development of family structure,

family health, education and other service sectors, and social values distinguish between son and daughter is being low on order. We can perceive this to be a positive sign in our society.

6.14 Child Labor:

Child Labor is another curse of our social life. Estimated eight to ten years ago, we used to observe child money collector in any tempo (three wheeled Auto Rickshaw), as a burning example of child labor in the Dhaka City. As present, in small factory, motor mechanic garage, shops, saloons, etc. the child labor is available in Bangladesh but with the developing activities of the GOs and NGOs, the number of Child Labor is decreasing in Bangladesh.

6.15 Divorce:

Especially in the society of Bangladesh, divorce is a grief matter. Reality is divorce was and divorce is in our social system. But our society does not like a divorced woman though she is not only the reason. Woman, victim to divorce, leads a very mournful life. But the scenario is changing, divorce is decreasing and divorced women are trying to get married for second time or more. In the case of a man divorce is approximately nothing else. He can easily get married.

Chapter Seven
Findings and Impact Analysis

7.1 Key Indicators of Socio-Economic Change

The focus of the study is to find out by which factors or indicators influence the socio-economic and socio-demographic scenario of Bangladesh. A number of key indicators including life expectancy at birth, under five mortality rate, child death rate, national mortality rate, crude birth rate, crude death rate, total fertility rate, literacy rate of population, mean age at marriage, dependency ratio, contraceptive prevalence rate, infant mortality rate, maternal mortality rate, divorce, early marriage, etc. have been examined to identify the impact of socio-economic scenario of Bangladesh. The dates of 1981 to 2007, from several sources have been gathered in the table no. 7.1 providing the trend of mentioned indicators. All the indicators mentioned in the table no. 7.1 have been changed positively. In the table, the indicators mentioned in the second column, that is life

expectancy at birth had been increasing gradually, that is 54.8 in 1981 to 66.6 in 2007. Under five mortality rate that is mentioned in the third column had decreased from 125 in 1995 to 60 in 2007. Child death rate that is mentioned in the fourth column had decreased from 16.5 in 1981 to 3.6 in 2007. National mortality rate that is mentioned in the fifth column had decreased from 81 in 1981 to 30 in 2007. Crude birth rate that is mentioned in the sixth column had decreased from 34.6 in 1981 to 20.9 in 2007. Crude death rate that is mentioned in the seventh column had decreased from 11.5 in 1981 to 6.2 in 2007. Total fertility rate that is mentioned in the eighth column had decreased from 5.04 in 1981 to 2.39 in 2007. Literacy rate of population that is mentioned in the ninth column had increased from 32.4 in 1991 to 56.1 in 2007. Mean age at marriage for both male and female are mentioned in the tenth and eleventh columns, Males' had decreased from 25.6 in 1981 to 23.6 in 2007, while Females' had increased from 17.8 in 1981 to 18.4 in 2007. Dependency ratio that is mentioned in the twelfth column had decreased from 110 in 1981 to 70 in 2007. Contraceptive Prevalence Rate that is mentioned in the thirteenth column had increased from 40.2 in 1991 to 59 in 2007. Infant mortality rate that is mentioned in the fourteenth column had decreased from 111 in 1981 to 43 in 2007. Maternal mortality rate that is mentioned in the fifteenth column had decreased from 4.72 in 1981 to 3.02 in 2007. At the end I can say, in the context of these above mentioned key indicators, the socio-economic scenario has been changing positively.

Table No. 7.1: Key Indicators of Socio-Economic Change

The Impact of Socio-Economic Scenario

Year	Life expectancy at birth	Under five mortality rate (per 1000 live births)	Child death rate (1-4 yrs per 1000 children)	National mortality rate (per 1000 live birth)	Crude birth rate per 1000 population	Crude death rate per 1000 population	Total fertility rate per woman (age 15-49)	Literacy rate of population, Age 7+ (%)	Mean Age at Marriage		Dependency Ratio Percentage	Contraceptive prevalence rate, percentage of couple currently married	Infant mortality rate	Maternal mortality rate
									Male	Female				
1981	54.8	-	16.5	81	34.6	11.5	5.04	-	25.6	17.8	110	-	111	4.72
1991	56.1	-	13.6	64	31.6	11.2	4.24	32.4	25.2	18.1	102	40.2	92	4.49
1995	58.7	125	12	52	26.5	8.7	3.45	44.3	27.5	19.9	89	48.7	71	4.47
1997	60.1	115	8.2	40	21	5.5	3.1	47.3	27.8	20	90	50.9	60	3.5
1998	61.5	110	6.3	38	19.9	5.1	2.98	48.2	27.6	20.2	89	51.5	57	3.23
2001	64.2	82	4.1	39	18.9	4.8	2.56	45.3	25.8	20.4	83	53.9	56	3.15
2002	64.9	76	4.6	36	20.1	5.1	2.55	48.8	25.6	20.6	80	53.4	53	3.91
2003	64.9	78	4.6	36	20.9	5.9	2.57	49.1	25.2	20.4	79	55.1	53	3.76
2004	65.1	74	4.5	36	20.8	5.8	2.51	50	25.3	19	79	56	52	3.65
2005	65.2	68	4.1	33	20.7	5.8	2.46	52.1	23.3	17.9	78	57.8	50	3.48
2006	66.5	62	3.9	31	20.6	5.6	2.41	5.5	23.4	18.1	76	58.3	45	3.37
2007	66.6	60	3.6	30	20.9	6.2	2.39	56.1	23.6	18.4	70	59	43	3.02

Source: Statistical Yearbook of Bangladesh (28th Edition), 2008, Bangladesh Bureau of Statistics
Report on Sample Vital Registration System, 2007, November 2008, Bangladesh Bureau of Statistics
Population Projection Studies, November 2005, National Institute of Population Research and Training (NIPORT)

7.2 Fertility Rate's Evolution in Bangladesh:

After the Second World War, the death rate within the Indian subcontinent started to decline but the decline of birth rate started a half century later. For this reason, the volume of the population continued to grow. During the first census in 1972, the number of people was 28 million in this region. Up to the middle of the last century, the growth rate of population was very low, that is below 1 percent. Crude birthrate and death rate both were very high in this time, that is 50 and 40 per thousand respectively. After the first census, the number of the population doubled within 80 years. On the other hand, population doubled only within the next 30 years from 1951. Furthermore, the census of 2001 indicates the population tripled in the last half century in Bangladesh. Currently, the population of Bangladesh is ranked 6th highest in Asia and 9th in the World. In Bangladesh, more than 130 million people live within 147,570 square km, which is a great threat to the environment and national properties. Where economic growth was poor, the number of people living under the poverty line was high and the number of uneducated people was high, in this situation the evolution of birthrate was unexpected. This was unexpected because the elements which indicate socio-economic change in the society such as development of standard of living, education, health and other social phenomenon were not as usually upgraded in this context. Mr. Cleland & Others established from Bangladesh Fertility Survey 1989, the evolution of birthrate of the population of Bangladesh started from the

decades of 1970 and the trend of birthrate of the population of Bangladesh continued to increase faster from the middle of the decade of 1980. In the decades of 1970, on average each childbearing woman gave birth to 7 children, but in the decades of 1980, this trend declined to 5 children per childbearing woman. But according to J. Bongaart & S.C. Watkins, the evolution of birthrate of the population of Bangladesh started from 1981 (Social Interaction and Contemporary Fertility). At present, the average fertility rate of a childbearing aged woman is only 3 (Bangladesh Demographic and Health Survey 2007).

After the freedom of 1971, the country was war affected and economic growth was not so expected but in the decade of 1980, the economic growth rate was formed in 4.3 percent, and in 1996-1997, the growth rate increased to 5.4 percent. For these reasons, there were many considerable fundamental changes in social, demographical, health, family welfare and other sectors, which were easily noticed. By the qualitative and quantitative actions, Health and Family Planning Programs of Bangladesh had increased the use of contraceptive methods and decreased the mortality rate of mother and children step by step.

Crude birthrate of the children of Bangladesh was 47 per thousand in 1975, 43 per thousand in 1981, 33 per thousand in 1999, and 20 per thousand, in 1998. Crude death rate of the children of Bangladesh was 40 per thousand in 1951, but the death rate decreased to 17 per thousand in the middle of the 70s. The total fertility rate was 6.3 percent in 1975, which had declined to 3 percent in 1998 as a result the growth rate of the population was then 1.5 percent. The child mortality rate

was 150 per thousand in the decades of 1970, which had declined to 67 per thousand in 1996.

Urbanization has been increasing from the middle of the decade 1970 in Bangladesh. The increasing rate of urbanization was shown in short in the Table No. 7.2.

Table No. 7.2: Urbanization over Time

Serial No.	Year	Rate of Urbanization (%)
1	1974	9
2	1991	20
3	2001	23
4	2006	27

Source: World Bank, World Development Reports, 1998-1999

Statistical Yearbook of Bangladesh 2008 (28th Edition), Bangladesh Bureau of Statistics

Because of Urbanization, people's demand of a higher standard of living started to increase. To sustain the higher living cost for such demands, the fertility rate of these people would then decrease due to the fact that the cost of bearing another child would impact the living cost thus impacting the living standard of these people.

Rate of education is increasing continuously. Adult rate of education was 49 percent in 1995 for male and 36 percent for female. As the development of increasing urbanization, health and education in the one hand, the demand of children is contrasted on the other hand; it has changed the scenario of marriage and increased the use of contraceptive methods.

7.3 Determinants of Fertility Rate's Evolution in Bangladesh:

There have been many theories and investigation reports presented to inquire the cause of the evolution of fertility rate from 1950 in Bangladesh. It has been said in the very famous/well established classical theory in this context that high birthrate is the cause of high death rate of agriculture oriented village based traditional society. Changes are established as for advancement of urbanization, industrialization and education in our social life. For these reasons, mortality rate decreases firstly. As a result, the size of a family tends to grow that motivates to decrease the number of offspring. According to Notestein, the significant reason to decrease the rate of fertility, in the situation of economic development and advancement of modernization, is to increase the cost for bringing up an offspring that is greater than the possible outcome from an offspring in terms of socio-economic measurement. According to the theory of microeconomics, if reproduction and bringing up a child becomes non-profitable, then the demand of the child will decrease and the rate of fertility is bound to decrease. By justifying and analyzing investigations and data, it seems that socio-economic situations of various European countries did not play more roles to change the rate of fertility. If the evolution of fertility rate begins in a specific country within a large geographical area, then another less developed country within the same geographic area containing same values and culture, the less developed country will adopt the evolution of the rate of fertility. In this case, the awareness of

contraceptive and its methods play the biggest role. Positive advancement of attitude, knowledge level of contraceptive perspective and availability of contraceptive method remains a significant contribution, and in Bangladesh, that is the case. If contraceptive methods become acceptable in a certain community, then the other surrounding communities will gradually accept the methods as well.

J. Cleland and Wilson have both disagreed in the context of demand theory about the evolution of the rate of fertility. According to them, modern numerical birth control perspective was possibly absent in the agriculture based traditional society. So it's not clear at all that, the cause of more economic profit from child reproduction has increased the demand of child reproduction. The evolution period of fertility rate depends on the promotion of the new concept of contraceptive methods and new social roles and regulations about this purpose. In this case, the effectiveness of these roles and regulations depends on the language, culture and other socio-economic development indicators like the education of women and the social status of women. In Bangladesh, mortality rate has been decreasing since the decade of 1960. As a result, the growth rate of population has been increasing, which turns into a potential time bomb, which then starts a negative reaction in the socio-economic sector of the social life. More over, the poverty and unemployment increases, land per capita for cultivation decreases, number of families without land increases, family size grow larger, but the possibility to earn economic profit of the parent decreases from more children. In this grim situation, the hidden demand for contraceptives and the positive attitude towards

contraceptive knowledge is wide spread. But according to some researchers, the evolution of the rate of fertility began only for the successful program of family planning though the socio-economic scenarios were under developed in the social system of Bangladesh. In the context of Bangladesh, although social, economic and institutional circumstances were unfavorable, concerted efforts helped introduce reproductive change. Bongaarts, with the help of a dependable model, selected at first 8 and later on 7 direct criteria of the evolution of fertility rate. Mr. Bongaarts saw, with the analysis of various data of 41 developed and developing countries, that marital status, use of contraceptives, timeframe of reproductive capability of women and abortion enable to explain 96 percent of total change of reproduction.

The use of contraceptive was limited in 1975 in Bangladesh (8 percent); as a result, the role of contraceptives to control the birth rate was not as effective. The investigation of Bangladesh Fertility Survey (1989) established that giving breast milk to the children over a long period of time and incapability of reproduction timeframe were the reasons behind 42 percent of birth control, and after this 33 percent of birth control was due to contraceptive use. However, the Bangladesh Demographic and Health Survey (1993-94) indicates that giving breast milk to the children over a long period of time and incapability of reproduction timeframe were the reasons behind only 35 percent of the birth control, and after this 40 percent was due to contraceptive use. The growing use of contraceptives gave birth to the salient determinant of birth control of the population from the very

beginning of evolution of the rate of fertility. The table no. 7.3 shows the pen-picture of population of Bangladesh at a glance including population size, growth rate, crude birth rate, death rate. Similarly, the same data had been shown in a bar graph in the figure no. 7.1 and in the table no. 7.4 had shown the evolution of the fertility rate of Bangladesh.

Table No. 7.3: The Pen-Picture of Population of Bangladesh at a Glance

Year	Population (thousand)	Growth Rate (%)	Crude Birthrate (thousand)	Crude Death Rate (thousand)
1901	28,927			
1911	31,555	0.94	53.8	45.6
1921	33,254	0.6	52.9	47.3
1931	35,604	0.74	50.4	41.7
1941	41,997	1.7	52.7	37.8
1951	44,166	0.5	49.8	40.3
1961	55,223	2.26	51.9	29.7
1974	76,398	2.48	47	17
1981	89,912	2.35	43	16
1991	111,455	2.17	33	12
2001	129,247	1.59	20	5

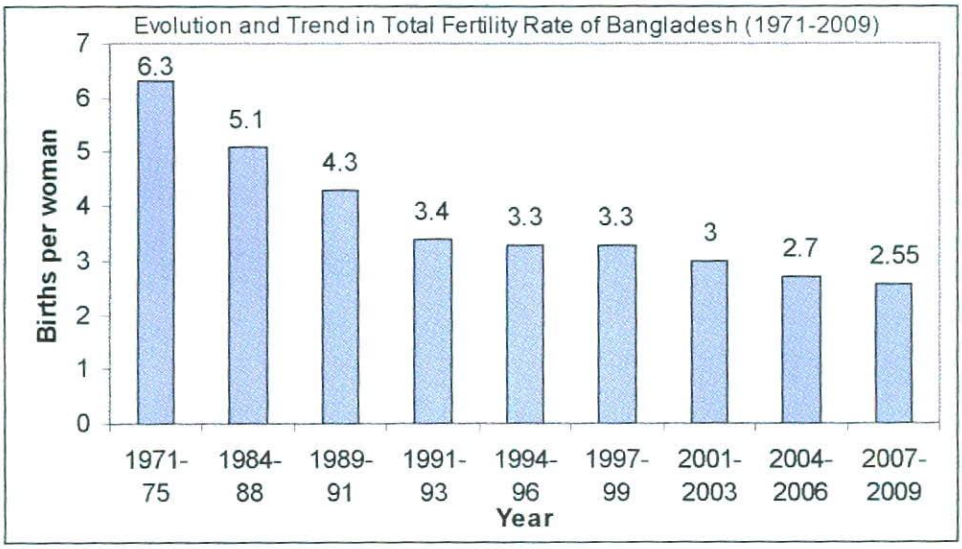
Source: Bangladesh Fertility Survey, 1975
World Development Report, 1994
Statistical Year Book of Bangladesh (28th Edition), 2008

Table No. 7.4: Evolution and Trend in Total Fertility Rate of Bangladesh (1971-2009)

Year	Births per Woman
1971-75	6.3
1984-88	5.1
1989-91	4.3
1991-93	3.4
1994-96	3.3
1997-99	3.3
2001-2003	3
2004-2006	2.7
2007-2009	2.55

Source: Bangladesh Demographic and Health Survey, 2007
Field Investigation

Figure No. 7.1: Evolution and Trend in Total Fertility Rate of Bangladesh (1971-2009)



7.4 Differentials in Contraceptive Use

Contraceptive use patterns vary across different subgroups of women in the population as it is an individual's response to particular needs and circumstances. Table No. 7.5 shows the percentage of currently married women age 15-49 by contraceptive method currently used, according to selected background characteristics (age, education and wealth), and the number of segments of use in five years prior to the survey, BDHS-2004.

Table No. 7.5: Differentials of contraceptive use by selected demographic and socio-economic characteristics

Characteristics	Contraceptive Methods								
	Pill	IUD	Injection	Condom	Sterilization	Periodic Abs	Withdrawal	Others	Total
Age									
<25	27.4	0.4	7.4	4.6	0.2	3.3	3.4	0.9	47.7
25-34	32.2	0.6	12.7	4.5	4.1	5.6	3	1.9	64.7
35+	18	0.9	8.8	3.3	14.5	11.4	4.6	1.5	63
Education									
None	23.1	0.7	12.2	1.5	9.5	7.1	2.4	2.4	58.8
Primary incomplete	25.5	0.4	11	2.5	5.6	7	3.8	1.1	56.7
Primary complete	30.9	0.5	8	4.1	3.6	7.5	3.8	1.2	58.9
Secondary incomplete	31	0.6	7	5.9	1.8	4.6	4.9	0.2	56.3
Secondary complete or higher	24	1	3.9	17.8	2.2	7	5.8	0.4	62
Wealth Index									
Poorest	22.8	0.4	12.1	1.3	7.3	5.6	2.4	2.1	54
2	28	0.7	11.7	2	6.6	5.8	2.9	1.4	59
3	29.2	0.8	9.4	2.9	5.5	6.7	3.2	1.8	59.5
4	25.2	0.5	8.3	3.3	5.2	7.2	4.2	1.1	55
Richest	25.9	0.7	7	11.3	4.6	7.3	5.2	0.8	62.8

Source: Bangladesh Demographic and Health Survey 2004 and Bangladesh Demographic and Health Survey 2007

The age of women shows possible relationship with contraceptive use, i.e. contraceptive use rate increases with age. The contraceptive prevalence is lowest at 48.0 percent among the youngest age group (less than 25 years), then sharply increase to 65 percent for women aged 25-34 and 63 percent among women of age 35 and above. As expected, younger women are more likely to use modern reversible methods such as pill and condom, while older women are more likely to use injection, sterilization and traditional methods.

Education has an effect on contraceptive use in Bangladesh, those who have completed secondary or higher level of education are more likely to use contraceptive than others. The pill is the most commonly used method among women of all educational categories. Injections and sterilization are more commonly used by the women who have no education of less than secondary education, while condom is more commonly used by the couples having secondary or above level of education. Since 1999-2000, contraceptive use rate has increased among women with little or no education.

Contraceptive prevalence rate is generally higher among women from higher economic class. About 63 percent of women in the highest wealth quintile reported to use contraceptive methods, compared with only 54 percent of those in the lowest wealth quintile. Pill is the most widely used method among women across all wealth quintile. Women from richest household are more likely to use condom, while poorest are more likely to use injection or sterilization.

7.5 Contraceptive Prevalence and Sexually Transmitted Diseases

7.5.1 Introduction

Bangladesh began activities in 2000 to support interventions for people most vulnerable to STDs/HIV. To date, FHI Bangladesh has received US$14,225,000 to lead the response to fight HIV in Bangladesh. FHI has supported USAID/Dhaka's strategy and the Bangladesh Ministry of Health's priorities by concentrating efforts on those groups most vulnerable to HIV/AIDS in this low prevalence setting. The IMPACT program of FHI, in collaboration with other key players, worked to reduce HIV/AIDS vulnerability among several high-risk groups including female, male, and transgender sex workers and their clients, men having sex with men (MSM), and intravenous drug users through targeted interventions.

The IMPACT Program of FHI of Bangladesh supported behavior change and care and support programs of a wide range of community-based organizations, including faith-based organizations, non-governmental organizations (NGOs) and groups for people living with HIV and AIDS (PLHA). By 2005, Bangladesh was managing sub-agreements with 18 implementing agencies. Program priorities included national surveillance system strengthening, behavior change communication to reduce risk and vulnerability to HIV (including condom promotion among high-risk populations), improving management of sexually

transmitted infections (STIs), and building capacity of government and NGO partners to plan, implement, and monitor HIV/AIDS interventions.

Over time, IMPACT/Bangladesh expanded its activities to include training of health providers in Syndromic Management of STIs, STI studies and five rounds of behavioral surveillance surveys (BBS) with the same targeted groups from 2001 to 2005, and Voluntary HIV Counseling and Testing (VCT) activities. The Bangladesh/IMPACT program of FHI supported several behavior change initiatives through its implementing agencies. Additionally, FHI sponsored HIV Clinical Management training for 13 doctors from partner organizations and other NGOs.

7.5.2 STDs and HIV at a Glance in Bangladesh

For many years, Bangladesh has escaped the HIV/AIDS epidemic that is affecting countries around it. However, recent national surveillance data indicate that the country should step up prevention efforts, with a 9 percent HIV infection prevalence rate among one group of injection drug users (IDUs) in the capital city, Dhaka. HIV prevalence remains less than 1 percent among other vulnerable groups surveyed, namely men, women, and hijras (transgender) who sell sex, and their male clients: truck drivers and their helpers, dock workers, STI patients and MSM.

Unfortunately, the low HIV infections present in these groups are not due to a decrease in their risk behavior. In actuality, the current situation is that more men including rickshaw pullers and students continue to buy sex more than anywhere else in Asia. The majority of men still do not use condoms in commercial sex encounters and female sex workers report the lowest condom use in the region. The alarming reality is that about two-thirds of rickshaw pullers and truck drivers surveyed have never used a condom and very few even realize they are at risk of exposure to HIV. Consistent condom use with regular and new partners remains low in all groups.

The HIV epidemic in Bangladesh, from an epidemiological perspective, is evolving rapidly. Bangladesh is poised to join the list of Asian countries experiencing an HIV epidemic among IDUs. After five completed rounds of National Serological and Behavioral Surveillance, FHI found that HIV rates in one cohort of IDUs in Dhaka reached 1.4 percent and 1.7 percent in 2000 and 2001 respectively, and increased sharply to 4 percent in 2002. In 2003, HIV prevalence reached 9 percent in this group. About 80 percent of IDUs in central Dhaka engaged in needle sharing with multiple partners the last time they injected drugs. Simultaneously, recent BSS data indicate an increase in risk behaviors such as sharing of injection equipment and a decline in consistent condom use in sexual encounters between IDUs and female sex workers. BSS data also indicate that

IDU population is well integrated into the surrounding urban community, socially and sexually, thus raising grave concern about the spread of HIV infection.

IDUs are highly mobile, traveling from other cities to Dhaka where they inject drugs. A considerable proportion of heroin smokers share needles/syringes during their injections. More than half of the heroin smokers had commercial and non-commercial female sex partners in the last year and many had multiple sex partners. Condom use, both in the last sex act and consistently in the last month, was very low with both commercial and non-commercial partners. In the past five years roughly 10 to 20 percent of drug users are new injectors. Contrary to the common belief, injection drug users are not isolated. These male IDUs are linked with the rest of society - they have regular sex partners, they buy sex from women, as well as other men, they sell blood and they also move between cities and inject.

The data from the fifth round of serological surveillance confirms the fears from the previous round that there is an impending epidemic among the injection drug users in Central Bangladesh and that one of their local neighborhoods is already experiencing an epidemic. However, one success story with IDUs seems to be in the Northwest of the country, needle exchange program where only a quarter of the participating injectors share needles and HIV infection remains extremely low.

7.5.3 STDs/HIV/AIDS – Knowledge, Attitudes and Behavior

The first case of HIV in Bangladesh was detected two decades ago. Throughout this time, the Government of Bangladesh (GOB) has been supporting awareness raising activities, subsequently adding monitoring of prevalence and risk behaviors, and finally, voluntary counseling and testing (VCT) and some support for people living with HIV/AIDS. Initially, the National AIDS Committee (NAC) guided the activities, along with a Technical Committee and smaller subcommittees. There have been several National Strategic Plans (the first for 1997-2002, second for 2004-2010) (Azim et al, 2008). The National AIDS/STD Program (NASP) within the Directorate General of Health Services has been active in defining policy and in coordination.

Substantial funding has been made available from the GOB, the World Bank, DFID, German Technical Cooperation (GTZ), USAID, and others. In recent years the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) has supported two major projects – round 2 for the period 2004-2009 (US$19.7 million) and round 6 for 2007-2012 (US$40 million). These funds tend to be channeled through a large network of NGOs and other agencies, and focus largely on prevention activities, especially behavior change communication among young people.

There are reasons to believe that these activities have been reasonably effective in keeping HIV prevalence at low levels. Among all high risk groups other than Injecting Drug Users (IDUs) prevalence has remained below 1 percent, in spite of

high levels of risky behavior, low condom use rates, high STD/STI rates, and high partner a rate among commercial sex workers (CSW). However, the IDUs pose a serious threat with the latest sero-surveillance levels around 7 percent (and higher in some areas) (NASP et al., 2005).

There have been needle/syringe programs in recent years (mainly through the NGO, CARE) which seem to have reduced sharing of used needles, but many erroneous beliefs persist on ways to reduce transmission, for example, by sharing only with family members, or shaking the needle between uses. Even when awareness of the risks of needle sharing is known, many IDUs complain that clean, unused needles are not readily available to them. This IDU epidemic is predicted to form the basis of the broader epidemic (as IDUs have contact with CSWs, and many have families), so a focus by the nation programs on the IDUs in vital.

Recent research has suggested that migrants returning from overseas employment may form another pocket of individuals at elevated risk, and many of them are more integrated into the community than IDUs. It is surprising it has taken so long to recognize this, as the first HIV cases detected in Bangladesh were among returned overseas labor migrants.

The expansion of voluntary counseling and testing (VCT) services has not paralleled by an effective increase in availability of anti-retroviral therapy (ART) drugs. Although two local pharmaceutical companies are now manufacturing

ARTs, these are expensive, and have not been made available through the GOB program. There are alternative options, such as approaching organizations like the Clinton Foundation which, through negotiation of discount drugs and donor contributions, seek to make ARTs available in developing countries at around US$140 per person, vastly lower than market price. They tend to direct their resources to high prevalence countries, so Bangladesh may not qualify.

As previously mentioned, the major focus of the various HIV and STD activities has been towards young people. The 2007 BDHS shows that the highest levels of awareness are among both male and female teenagers, suggesting that the targeting is effective. There have been impressive increases in the understanding that condom use and abstinence can prevent HIV transmission. Other types of awareness remain less promising, with substantial numbers still believing that HIV can be transmitted by mosquitoes, or by sharing food with an HIV-positive person.

It is of concern also, that there are still a sizeable proportion of women (40 percent) who are not aware that transfusion with contaminated blood can cause HIV infection. Although there have been substantial inputs into blood safety across the country, they have had a greater focus on the technical aspects of blood screening and storage than on information. This needs to be seen in the context that the leading cause of maternal death in Bangladesh is an ante-partum or postpartum hemorrhage, and efforts are being made to facilitate speedy transfusion where needed to safe a woman's life.

From my field investigation, I have found that a high percentage of people (98 percent males, 100 percent females) of higher educational background such as secondary complete or higher have some kind of knowledge about AIDS where only 45 percent of males and 74 percent of females of no education are aware of AIDS as shown in the table no. 7.6 below. Although the awareness level of the uneducated people is low (total 59.5 percent), it is positive that females are more aware of AIDS which can hopefully lead to wise decision making in terms of using contraceptive methods that prevent the risk of being infected with AIDS and other STDS, and ultimately reduce the spread of AIDS.

Table No. 7.6: Awareness of AIDS by Education, Residence and Wealth

Background Characteristic	Male per hundred	Female per hundred	Mean
Education			
No Education	45	74	59.5
Primary incomplete	63	91	77
Primary complete	77	94	85.5
Secondary incomplete	92	100	96
Secondary complete or higher	98	100	99
Residence			
Semi-Urban	85	95	90
Remote Village	55	98	76.5
Wealth Index			
Poorest	43	75	59
2	53	80	66.5
3	65	89	77
4	85	98	91.5
Richest	95	100	97.5

Note: Primary complete is defined as completion of class five.
Secondary complete is defined as completion of SSC

Source: Field Investigation

Unfortunately, I have found the same scenario in remote villages where male awareness is very low (55 percent) while female awareness is 98 percent. In semi-urban areas, the awareness level is fairly close between males (95 percent) and females (95 percent). And once again, among the poorest, when characterized by wealth, male awareness of AIDS is 43 percent while female awareness is 75 percent. On the other end of the spectrum, the awareness level among males of high wealth is 95 percent and the awareness level among females of high wealth is 100 percent.

7.6 Characteristics of the Respondents:

7.6.1 Introduction:

Man is born free and equal. But the activities, types and characteristics may vary from person to person with the variation of socio-economic condition, geographical condition, economic environment and cultural factors. Man's activities are largely conditioned by socio-economic factors where he is born, brought up and socialized through different agencies and institutions. As I have selected three types of villages with a view to compare the extent of socio-economic impact that have taken place due to contraceptive use. In this chapter, I want to examine and analyze the characteristics of the respondents of villages from the samples drawn for my study, since this was one of the objectives of the study. In the foregoing chapter, we have drawn a pen picture of the socio-economic profile of villages. In my observation, I have noticed that there were significant differences between the socio-economic conditions of currently contraceptive use and than that of the starting period of SMC of villages. Villages under study were developed in many respects, the considerable portion of which was the result of family planning activities of the GOs and NGOs and use of contraceptive method. As a matter of fact, the overall characteristics of the people of villages were largely different from those of the one or one and half decades ago that was observed in the study. It was not possible to study easy and every family and individuals and as such, I selected 1518 couples whose lady spouse

within 15-49, that's the childbearing age, interviewing over 84% of the selected from four of my sampling areas. For my close observation and in-depth analysis, I selected 20 respondents of both sexes from four Upazila/Thana Health Complexes as Thana/Upazila based officers and employees in the family planning sector/field.

For intensive analysis and detection, respondents that I selected from four Thanas or Upazilas out of this respondent no. 40, 20 were small shop keepers and the rest were either proprietor of pharmacy (that is the sale center of medicine) or conductor of the pharmacy. My selected respondents of mentioned area, which run as follows: Aligonj 382 couples (one of the spouses), where male 145 and female is 237; Mulghar: 248 couples (one of the spouses) where male is 100 and female is 148; Khidirpur: 270 couples (one of the spouses) where male is 93 and female is 177; Olinagar: 370 couples (one of the spouses) where male is 140 and female is 230. In the concerned field, UFPO/TFPO, a doctor (in the health and family planning sector), U/TFPA (one in number), pharmacist (one in number) and a FWV were interviewed for in-depth analysis and explanation. Five pharmacies and five small shops came under investigation from various segments of the sampling Thanas/Upazilas. Proprietor or conductors of the pharmacy or small shop were interviewed.

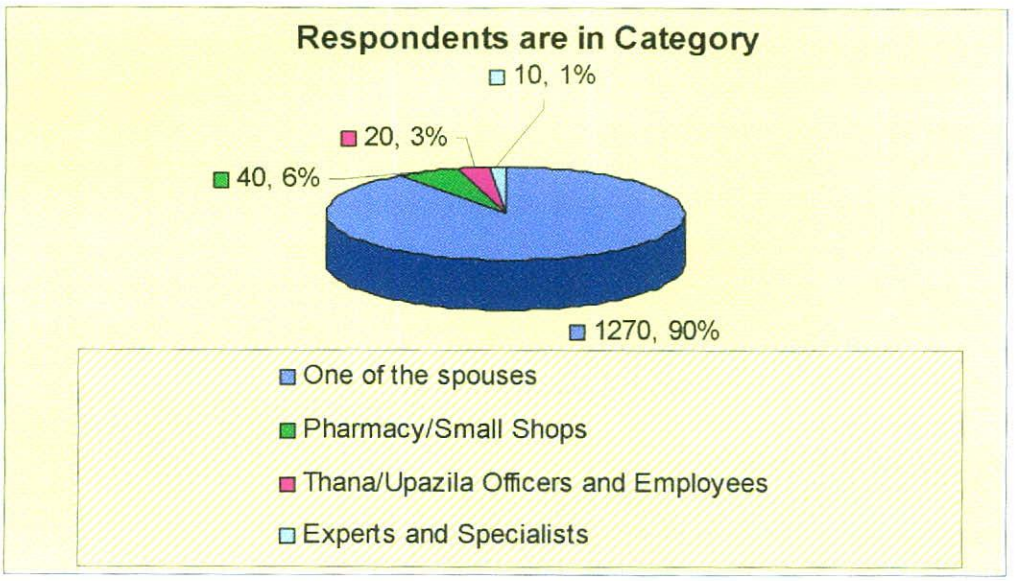
To take a more in-depth look at SMC, I interviewed 10 of SMC officers along with other specialists such as senior officers from the head office located at Banani, senior sales managers from their area office at Ringroad, Mohammadpur, Dhaka and Lalmatia, Dhaka and officers of the resource center at Uttara, Dhaka.

7.6.2 Respondents' Variation Category:

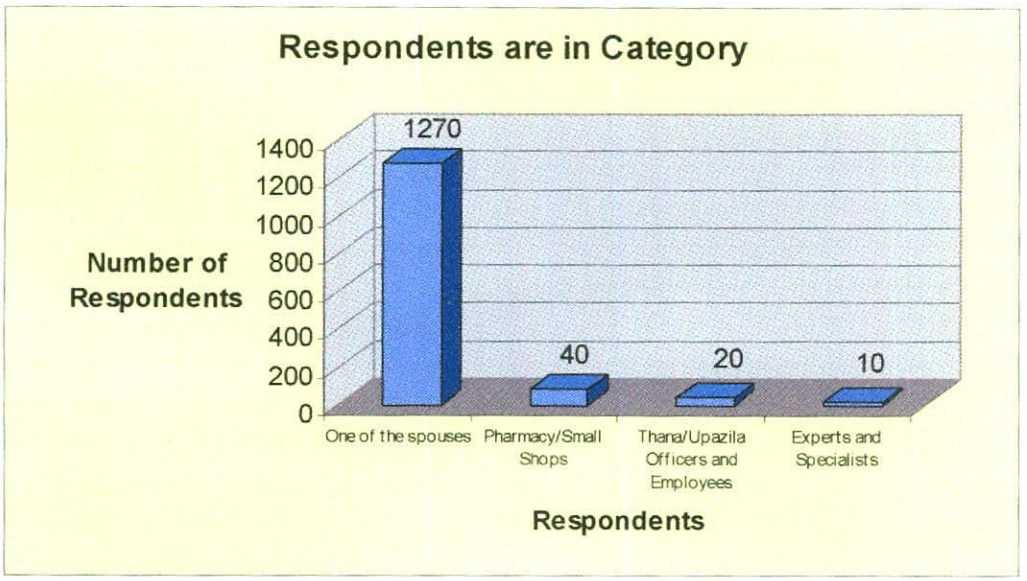
The total number of respondents is 1340. They are in some category.

1. One of the spouses: 1270
2. Pharmacy/Small Shops: 40
3. Thana/Upazila Officers and Employees: 20
4. Experts and Specialists: 10

The respondents by category are shown below in the pie chat (Figure No. 7.2):



The respondents by category are more clearly shown in the Figure No. 7.3 below:



7.6.3 Health Seeking Behavior in terms of Socio-Economic Scenario:

Health seeking behavior is a part of human behavior which is closely related to human habits and cultural pattern and level of education, level of income and so fourth. Health hazards are connected with the dysfunction of different parts of human body and their causal relationships with each other. Any health problem may be cured by application of proper medicine. But belief system associated with health hazards and treatment vary from society to society and culture to culture due to multifarious reasons. In my study areas also, we noticed such kind of variations i.e. belief system associated with disease. Shahnaj (2004) also noticed such kind of variation in her study in the village Petkata. Table No. 7.7 presents a comprehensive picture regarding health seeking behavior of semi-urban villages and those of remote villages under study. The table indicates that about 61% of the respondents of semi-urban villages applied allopathic method for their treatments. On the other hand, about 51% of the respondents of remote villages applied this method for their treatments. Allopathic treatment is costly compared to other methods, which involve various kind of pathological examination. Hence, the remote villagers can hardly afford this kind of treatment. Moreover, availability of doctors and belief system associated with disease and treatment of remote villagers were largely responsible for their inclination towards other mode of treatments instead of allopathic system of treatment. Dependence on homeopathic

mode of treatment in the semi-urban villages constitutes about 15%. On the contrary, the remote villager's dependence on this method of treatment was 14%. This method of treatment is comparatively cheap and the doctors are available in the remote villages under study, and as such, remote villagers could easily avail this opportunity and could also bear the expenditure of this treatment. The dependence on herbal treatment constitutes 6% in the semi-urban villages, and the percentage of dependence on this method of treatment was 9% in the remote villagers under study. Cosmopolitan method (i.e. more than one method at a time) applied by semi-urban villagers under study, constitute only 4% which was near about nil among the remote villagers. This was possibly because of high expense. Folk treatment has occupied significant percentage of importance in the remote villages under study indicating 17% in Jharfook by Imams of mosque, Ojha, Tabeez, Pani Para from Huzur and others. The dependence on such kind of treatments was quite few, only 8%, among the semi-urban villagers under study. The analysis of the table indicates that semi-urban villagers were highly inclined towards allopathic and cosmopolitan method of treatment which was mainly because of their outlook, educational background and economic ability.

Table No. 7.7: Health Seeking Distribution of the Respondents

Nature of the Health Service or Treatment	Olinager (semi-urban)	Khidirpur (remote village)	Mulghar (village)	Aligonj (village)	Mean (%)
Allopathic	61	51	46	31	47.25
Homeopathic	15	14	14	16	14.75
Herbal	6	9	6	9	7.5
Cosmopolitan	4	0	3	0	1.75
Quack	6	9	10	23	12
Jarfook, Pani Para from Huzur, Tabeez and others	8	17	19	21	16.25
Total	100	100	100	100	100

Source: Field Investigation

7.6.4 Economic Condition

Distribution of household by economic status is shown in the Table No. 7.8. It is evident from the table that in Bangladesh, economic condition of people were evenly distributed among different economic status such as – permanent insolvency (15.75%), temporary insolvency (19.75%), balanced income expenditure (27%), solvent (22.5%) and rich (15%).

Table No. 7.8: Distribution of Households by Economic Condition of the Institution

	Economic Condition					
	Olinagar	Khidirpur	Mulghar	Aligonj	Mean (percentage)	National Report from same indicator (2007)
Permanent Insolvency	10	18	20	15	15.75	15.5
Temporary Insolvency	12	25	19	23	19.75	20.9
Balanced Income and Expenditure	22	25	27	34	27	32.9
Solvent	26	20	24	20	22.5	19.4
Solvent with Saving (Rich)	30	12	10	8	15	11.3
Total	100	100	100	100	100	100

Source: Field Investigation

Report on Sample Vital Registration Supplier, 2007. Bangladesh Bureau of Statistics, Nov 2008

It is evident from the Table No. 7.8 that purchase of balanced income with expenditure household was the high (27%), followed by solvent (22.5%), temporary insolvent (19.75%), permanent insolvent (15.75%) and smallest percentage (15%) solvent with saving (rich).

Table No. 7.9:

Upzila: Sirajdikhan
District: Munsigonj
Division: Dhaka

7.7.1 Monthy Overview of Family Planning Program/Contraceptive Use

January to November 2009

Month	Childbearing couples Age (women): 15-49	Number of Contraceptive Users							Total Users	Rate of Users (%)	Mean %
		Pill	Condom	Injectable	IUD/ Cupper-T	Implant	Male Sterilization	Female Sterilization			
January	47596	17970	2643	4641	1239	745	48	4689	31975	67.18	68.66
February	47612	18030	2668	4662	1145	738	49	4706	31998	67.2	
March	47559	18071	2689	4712	1145	732	51	4723	32123	67.54	
April	47472	18199	2782	4872	1248	732	55	4756	32643	68.76	
May	47482	18240	2787	4932	1232	725	57	4773	32746	68.96	
June	47550	18254	2788	4972	1213	723	61	4774	32806	68.99	
July	47590	18258	2769	5004	1196	716	67	4886	32896	69.12	
August	47684	18290	2801	5045	1196	702	76	4958	33068	69.34	
September	47773	18274	2997	5058	1178	697	76	4965	33045	69.16	
October	47853	18302	2807	5073	1182	685	82	5026	33158	69.29	
November	47754	18352	2836	5129	1205	650	84	5049	33305	69.73	

Source: Upzila Health Complex, Family Planning Program, Sirajdikhan, Munsigonj, Dhaka

The information was collected from the above mentioned Upazila Health Complex from the register and display board of the Upazila family planning officer's office, where the contraceptive pill use rate is greater than any other contraceptive methods like condom, injectable, IUD, implant and sterilization. The concern officers and employees had mentioned that the supply of implant is no longer available. Monthly use rate of contraceptive had been mentioned in the table above and the mean of CPR by January to November had been mentioned in the last column.

Table No. 7.10:

Upzila: Sirajdikhan
District: Munsigonj
Division: Dhaka

7.7.2 Overview of Family Planning Program/Contraceptive Use by Year

2004 to November 2009

Year	Childbearing couples Age (women): 15-49	Number of Contraceptive Users							Total Users	Rate of Users (%)	Mean %
		Pill	Condom	Injectable	IUD/ Cupper-T	Implant	Male Sterilization	Female Sterilization			
2004	45153	15876	2227	4489	607	268	37	4096	27600	61.13	64.66
2005	45550	16529	2232	4819	712	468	43	4320	29123	63.93	
2006	45750	16921	2184	5044	922	597	46	4548	30262	66.14	
2007	46153	17736	2432	3573	739	428	31	4238	29177	63.21	
2008	46953	17795	2464	4191	916	604	34	4468	30472	64.89	
2009	47629	18204	2779	4918	1198	713	64	4846	32706	68.66	

Source: Upzila Health Complex, Family Planning Program, Sirajdikhan, Munsigonj, Dhaka

In Sirajdikhan Upazila, near about fifty thousand couples of which the woman spouse is of childbearing age live in this geographical boundary. The information was collected from the official register with the help of UFPO and his several assistants and was tabulated in the table no. 7.10 where CPR has been increasing from 2004 to present and the mean CPR is 64.66. The Upazila information for 2009 indicates the CPR to be 68.66 which is similar to my field investigation in Khidirpur of Sirajdikhan which indicates 64.07. Also the use of pill is more common than other contraceptive methods.

Table No. 7.11:

Thana: Fakirhat
District: Bagerhat
Division: Khulna

7.7.3 Monthy Overview of Family Planning Program/Contraceptive Use

January to October 2009

Month	Childbearing couples Age (women): 15-49	Number of Contraceptive Users							Total Users	Rate of Users (%)	Mean %
		Pill	Condom	Injectable	IUD/ Cupper-T	Implant	Male Sterilization	Female Sterilization			
January	27521	8827	1207	2184	297	312	280	1741	14848	53.95	
February	27549	8848	1203	2190	297	306	281	1741	14866	53.96	
March	27530	8862	1212	2195	299	303	281	1743	14895	54.1	
April	27521	8881	1213	2198	301	302	283	1746	14924	54.23	
May	27526	8893	1222	2202	305	300	283	1747	14952	54.32	
June	27511	8915	1225	2206	307	296	284	1749	14982	54.46	54.38
July	27522	8931	1235	2211	307	291	285	1751	15011	54.54	
August	27527	8953	1246	2221	312	285	285	1754	15056	54.7	
September	27539	8963	1252	2230	315	277	287	1754	15078	54.75	
October	27562	8976	1261	2237	316	265	289	1755	15099	54.78	

Source: Fakirhat Thana Health Complex, Family Planning Program, Fakirhat, Bagerhat, Khulna

The information was collected from the above mentioned Thana Health Complex from the register and display board of the Thana family planning officer's office, where the contraceptive pill use rate is greater than any other contraceptive methods like condom, injectable, IUD, implant and sterilization. The concern officers and employees had mentioned that the supply of implant is no longer available. Monthly use rate of contraceptive had been mentioned in the table above and the mean of CPR by January to October had been mentioned in the last column.

Table No. 7.13:

Upazila: Keranigonj
District: Dhaka
Division: Dhaka

7.7.5 Monthy Overview of Family Planning Program/Contraceptive Use

January to November 2009

Month	Childbearing couples Age (women): 15-49	Number of Contraceptive Users							Total Users	Rate of Users (%)	Mean %
		Pill	Condom	Injectable	IUD/ Cupper-T	Implant	Male Sterilization	Female Sterilization			
January	123346	40701	7178	17118	4809	2716	1167	10593	84282	68.33	
February	123349	40848	7230	17299	4819	2740	1186	10615	84737	68.7	
March	123704	40862	7269	17420	4855	2794	1212	10644	85056	68.76	
April	123924	40941	7489	17761	5009	2896	1237	10733	86066	69.45	
May	124099	40949	7555	17903	5026	2885	1234	10706	86258	69.51	69.48
June	124093	40962	7582	18029	5045	2876	1232	10747	86473	69.68	
July	124221	41001	7623	18138	5060	2839	1233	10738	86632	69.74	
August	123768	40910	7607	18141	5035	2798	1234	10814	86539	69.92	
September	123816	40966	7629	18222	5036	2786	1229	10838	86706	70.03	
October	123863	40988	7638	18259	5057	2745	1225	10889	86801	70.08	
November	123897	40942	7641	18291	5049	2708	1219	10920	86770	70.03	

Source: Keranigonj Upazila Health Complex, Family Planning Program, Keranigonj, Dhaka

The information was collected from the above mentioned Upazila Health Complex from the register and display board of the Upazila family planning officer's office, where the contraceptive pill use rate is greater than any other contraceptive methods like condom, injectable, IUD, implant and sterilization. The concern officers and employees had mentioned that the supply of implant is no longer available. Monthly use rate of contraceptive had been mentioned in the table above and the mean of CPR by January to November had been mentioned in the last column.

Table No. 7.14:

Upazila: Keranigonj
District: Dhaka
Division: Dhaka

7.7.6 Overview of Family Planning Program/Contraceptive Use by Year

2004 to November 2009

Year	Childbearing couples Age (women): 15-49	Number of Contraceptive Users							Total Users	Rate of Users (%)	Mean %
		Pill	Condom	Injectable	IUD/ Cupper-T	Implant	Male Sterilization	Female Sterilization			
2004	113839	36467	5298	19346	5475	1838	302	11286	80012	70.28	69.62
2005	115699	35650	5372	20572	6097	2453	311	11505	81960	70.83	
2006	115268	34678	5348	21689	6857	2767	453	11926	83718	72.62	
2007	123311	40412	6239	15126	4758	1982	764	10690	79971	64.85	
2008	124093	40960	7582	18029	5045	2876	1232	10747	86471	69.68	
2009	123825	40916	7495	17871	4982	2798	1219	10749	86029	69.48	

Source: Keranigonj Upazila Health Complex, Family Planning Program, Keranigonj, Dhaka

Keranigonj Upazila is largely populated with a large number of eligible couples. The Upazila is divided into two Thanas which is Keranigonj (North) and Keranigonj (South) but the Upazila Health Complex consists of both of the Thanas. Approximately one lac and twenty-five thousand couples of which the woman spouse is of childbearing age live in this geographical boundary. The information was collected from the official register with the help of UFPO and his several assistants and was tabulated in the table no. 7.14 where CPR has remained approximately static and the mean CPR is 69.62 that is 10 percent greater than the latest CPR (BDHS-2007) and 6.11 percent greater from the field investigation information of Olinagar of Keranigonj. Also the use of pill is more common than other contraceptive methods.

Table No. 7.15:

Thana: Poba
District: Rajshahi
Division: Rajshahi

7.7.7 Monthy Overview of Family Planning Program/Contraceptive Use

January to October 2009

Month	Childbearing couples Age (women): 15-49	Number of Contraceptive Users							Total Users	Rate of Users (%)	Mean %
		Pill	Condom	Injectable	IUD/ Cupper-T	Implant	Male Sterilization	Female Sterilization			
January	56390	24137	2535	5935	1324	913	845	8547	44236	78.45	78.62
February	56455	24170	2556	5953	1333	902	845	8549	44308	78.48	
March	56560	24215	2565	5963	1358	900	847	8550	44398	78.5	
April	56615	24276	2585	5982	1399	892	848	8550	44532	78.66	
May	56685	24301	2600	5983	1419	883	851	8553	44590	78.66	
June	56776	24317	2612	6005	1452	872	852	8555	44665	78.67	
July	56829	24362	2635	6043	1337	867	852	8556	44652	78.57	
August	56954	24407	2646	6050	1422	861	854	8561	44801	78.66	
September	57021	24451	2670	6067	1457	850	854	8558	44907	78.76	
October	57106	24498	2705	6081	1469	843	855	8559	45010	78.82	

Source: Poba Thana Health Complex, Family Planning Program, Poba, Rajshahi

The information was collected from the above mentioned Thana Health Complex from the register and display board of the Thana family planning officer's office, where the contraceptive pill use rate is greater than any other contraceptive methods like condom, injectable, IUD, implant and sterilization. The concern officers and employees had mentioned that the supply of implant is no longer available. Monthly use rate of contraceptive had been mentioned in the table above and the mean of CPR by January to October had been mentioned in the last column.

Table No. 7.16:

Thana: Poba
District: Rajshahi
Division: Rajshahi

7.7.8 Overview of Family Planning Program/Contraceptive Use by Year

2004 to November 2009

Year	Childbearing couples Age (women): 15-49	Number of Contraceptive Users							Total Users	Rate of Users (%)	Mean %
		Pill	Condom	Injectable	IUD/ Cupper-T	Implant	Male Sterilization	Female Sterilization			
2003	54831	23118	2044	5419	1027	1012	750	8476	41846	76.32	
2004	55195	23241	2095	5519	1053	1035	767	8487	42197	76.45	
2005	55538	23399	2152	5603	1092	1087	778	8495	42606	76.72	
2006	55895	23555	2247	5685	1137	1152	793	8512	43081	77.07	77.22
2007	56050	23723	2335	5765	1199	1095	811	8521	43449	77.52	
2008	56376	23956	2433	5847	1286	1007	831	8537	43897	77.86	
2009	56739	24313	2611	6006	1397	878	850	8554	44610	78.62	

Source: Poba Thana Health Complex, Family Planning Program, Poba, Rajshahi

In Poba Thana, near about sixty thousand couples of which the woman spouse is of childbearing age live in this geographical boundary. The information was collected from the official register of the Poba Thana Health Complex and was tabulated in the table no. 7.16 where CPR has been slightly increasing from 2003 to present and the mean CPR is 77.22. The Thana information for 2009 indicates the CPR to be 78.62 which is ten percent higher than my field investigation of Aligonj of Poba which indicates 62.04. Also the use of pill is more common than other contraceptive methods.

Table No. 7.17:

7.7.9 Contraceptive Use Analysis of Four Sampling Upazila/Thana

2004 to Nov. 2009

Year	Childbearing couples Age (women): 15-49		Number of Contraceptive Users (Mean)							Mean Total Users	User Rate (%)	Mean %
						IUD/		Sterilization				
	Total	Mean	Pill	Condom	Injectable	Cupper-T	Implant	Male	Female			
2003	-	40319	15712	1512	3701	584	675	469	4991	27644	68.56	68.73
2004	240192	60048	21008	2656	7844	1824	873	329	6365	40899	68.11	
2005	242908	60727	21011	2704	8265	2021	1092	343	6495	41931	69.05	
2006	243160	60790	20915	2718	8627	2281	1225	388	6666	42820	70.44	
2007	252312	63078	22639	3037	6652	1733	958	470	6290	41779	66.23	
2008	254408	63602	22856	3418	7564	1878	1195	593	6368	43872	68.98	
2009	255724	63931	23085	3528	7751	1971	1171	604	6474	44584	69.74	

Source: Field Investigation

In the table no. 7.17, the contraceptive use from 2003 to 2009 by contraceptive brand in the four sampling Thanas/Upazilas had been shown. Average number of contraceptive users has been increasing and the rate of users has also been increasing very steadily viz. I can say the use rate of contraceptive is at static position, where Upazila/Thana CPR was 68.56 percent in 2003, then 69.74 percent in 2009. Only 1.2 percent increased over seven years. It is evident that oral pill is a more popular contraceptive method over the others. Injectable is the brand/method which is second in position by use. According to the national record of CPR from several surveys including BDHS-2004, BDHS-2007 and several censuses of each year from 2003 to 2009, the Upazila/Thana CPR is, in on average, 10 to 12 percent more than national CPR.

7.8 Contraceptive use of SMC Brands

7.8.1 Contraceptive use of Social Marketing Oral Pills:

Bangladesh has an active contraceptive social marketing program that distributes pills, condoms, injectables and oral re-hydration salts (ORS) through a network of retail outlets those are pharmacies, small shops, kiosks and Blue Star providers spread across the country. The Social Marketing Company carries several brands of oral contraceptive, including Nordette-28, Femi-Pill, Femicon and Minicon. Obtaining information on the number of users purchasing the SMC brands, interviewers of BDHS-2007 had been conducted an effort to collect the authentic and reliable number of users whose are the users of SMC brands. The BDHS interviewers had tried to depict what brands the users use through the questionnaire and by using a chart depicting all major pill brands. Contraceptive use of social marketing oral pills had been shown below in the Table No. 7.18.

Table No. 7.18: Percent Distribution of Current Pill Users by Brand

Pill Brand	Total
Social Marketing	44.8
Nordette-28	8.1
Femicon	34.7
Minicon	1.9
Government	52
Shukhi	52
Private	2.7
Marvelon	1.1
Ovostat	1.6
Others	0.5
Total	100

Source: Bangladesh Demographic and Health Survey, 2007

According to BDHS-2007 and Table No. 7.18, 45 percent of pill users use social marketing brand compared with 52 percent who use the government supplied brand "Shukhi". The government supplied brand is provided free of change (cost) through govt. field workers and clinics and at a nominal price through non-governmental service providers. More than one third of pill users take Femicon, the most popular oral contraceptive of Social Marketing brand of pills. It is somewhat more common in rural (36 percent) than urban (32 percent). The next most widely social marketing brand is Nordette-28, which is used by 8.1 percent. Minicon is used by 2 percent of pill users. The percentage of pill users using social marketing brand has risen consistently from 14 percent in 1993-1994 to 40 percent in 2004 and 45 percent in 2007 (BDHS-2007).

7.8.2 Contraceptive use of Social Marketing Condoms:

Assessing the social marketing program's goal in condom use, the 2007 BDHS gathered information on what type of condoms couples used. In the similar way of investigation as the number the user of pills, BDHS-2007 showed a chart depicting all major condom brands to women who reported that their husbands were currently using condoms. They were asked to identify the brand they use. In this situation, men would presumably be a more reliable source of data on condom brands. The data on condom brands had been shown in the Table No. 7.19.

Table No. 7.19: Percent Distribution of Current Condom Users by Brand

Condom Brand	Total
Social Marketing	56.5
Raja	12.7
Panther	27.4
Sensation	13.4
Hero	3
Government	24.2
Nirapad	24.2
Private	6.3
Carex	1.6
Titanic	0.4
Twin Lotus	0.6
Feelings	0.5
Greenlove	3.3
Others	13
Total	100

Source: Bangladesh Demographic and Health Survey, 2007

Condom Brands sold by the Social Marketing Company have a high market share. Almost three in five condom users buy Social Marketing brands, with 27 percent of Panther, 13 percent each of Raja and Sensation and another 3 percent using the newly launched Hero condom. The Panther and Sensation condoms are more popular in urban than in rural areas, while the reverse is true for Raja and Hero brands. The total percentage of condom users supplied through Social Marketing Company has decreased slightly from 66 percent in 2004 to 57 percent in 2007. It may have been due to the interruption in the supply of Raja brand from Social Marketing Company during 2006 to 2007. The use of Raja decreased 11 percent that is from 24 percent to 14 percent over the year 2006-2007.

Table No. 7.20:

7.9.1 Use of Contraceptive & Non-Contraceptive Product of SMC and Others

Users of Mulghar

October, 2009

Interviewed	Childbearing couples Age (women): 15-49	Number of Contraceptive Users										Total Users	Rate of Users (%)	Upazila Mean %
		Pill		Condom		Injectable		IUD/ Cupper-T	Implant	Sterilization				
		Shukhi & Others	SMC Brand	Nirapad and Others	SMC's Condom	Inject	SOMA-JECT			Male	Female			
248	291	38	36	37	13	17	0	1	2	0	0	144	58.06	54.78

Use of Oral Saline

Interviewed	Brand Name	Number of Saline Consumer	Rate of Users (%)
248	SMC	182	73
	Oral Rehydration Salt from Govt.	41	17
	Others	25	10
	Total	248	100

Source: Field Investigation

7.9.2 Mulghar

In the sample point of Fakirhat Thana named Mulghar, the number of eligible couple is 291 and from these eligible couples, 248 were interviewed according to household by household. The interviews included questionnaires about knowledge of contraceptives, use of contraceptives and oral saline as well as various questions about their socio-economic condition. The brand of contraceptive and re-hydration products that the respondents use, SMC Products or non-SMC, came to be asked. Among the respondents that use SMC and those that use products besides SMC include contraceptive and oral saline is shown in the Table No. 7.20.

7.9.3 Olinagar

In the sample point of Keranigonj Upazila named Olinagar, the number of eligible couple is 523 and from these eligible couples, 370 were interviewed according to household by household. The interviews included questionnaires about knowledge of contraceptives, use of contraceptives and oral saline as well as various questions about their socio-economic condition. The brand of contraceptive and re-hydration products that the respondents use, SMC Products or non-SMC, came to be asked. Among the respondents that use SMC and those that use products besides SMC include contraceptive and oral saline is shown in the Table No. 7.21.

Table No. 7.21:

7.9.4 Use of Contraceptive & Non-Contraceptive Product of SMC and Others

Users of Olinagar

October, 2009

Interviewed	Childbearing couples Age (women): 15-49	Number of Contraceptive Users										Total Users	Rate of Users (%)	Upazila Mean %
		Pill		Condom		Injectable		IUD/ Cupper-T	Implant	Sterilization				
		Shukhi & Others	SMC Brand	Nirapad and Others	SMC's Condom	Inject	SOMA-JECT			Male	Female			
370	523	86	61	20	15	49	0	1	2	0	1	235	63.51	70.08

Use of Oral Saline

Interviewed	Brand Name	Number of Saline Consumer	Rate of Users (%)
370	SMC	307	83
	Oral Rehydration Salt from Govt.	35	9
	Others	28	8
	Total	370	100

Source: Field Investigation

Table No. 7.22:

7.9.5 Use of Contraceptive & Non-Contraceptive Product of SMC and Others

Users of Aligonj

October, 2009

Interviewed	Childbearing couples Age (women): 15-49	Number of Contraceptive Users										Total Users	Rate of Users (%)	Upazila Mean %
		Pill		Condom		Injectable		IUD/ Cupper-T	Implant	Sterilization				
		Shukhi & Others	SMC Brand	Nirapad and Others	SMC's Condom	Inject	SOMA-JECT			Male	Female			
382	417	101	63	18	9	36	0	1	1	0	8	237	62.04	78.82

Use of Oral Saline

Interviewed	Brand Name	Number of Saline Consumer	Rate of Users (%)
382	SMC	300	78
	Oral Rehydration Salt from Govt.	55	14
	Others	27	8
	Total	382	100

Source: Field Investigation

7.9.6 Aligonj

In the sample point of Poba Thana named Aligonj, the number of eligible couple is 417 and from these eligible couples, 382 were interviewed according to household by household. The interviews included questionnaires about knowledge of contraceptives, use of contraceptives and oral saline as well as various questions about their socio-economic condition. The brand of contraceptive and re-hydration products that the respondents use, SMC Products or non-SMC, came to be asked. Among the respondents that use SMC and those that use products besides SMC include contraceptive and oral saline is shown in the Table No. 7.22.

7.9.7 Khidirpur

In the sample point of Sirajdikhan Upazila named Khidirpur, the number of eligible couple is 287 and from these eligible couples, 270 were interviewed according to household by household. The interviews included questionnaires about knowledge of contraceptives, use of contraceptives and oral saline as well as various questions about their socio-economic condition. The brand of contraceptive and re-hydration products that the respondents use, SMC Products or non-SMC, came to be asked. Among the respondents that use SMC and those that use products besides SMC include contraceptive and oral saline is shown in the Table No. 7.23.

Table No. 7.23:

7.9.8 Use of Contraceptive & Non-Contraceptive Product of SMC and Others

Users of Khidirpur

October, 2009

Interviewed	Childbearing couples Age (women): 15-49	Number of Contraceptive Users										Total Users	Rate of Users (%)	Upazila Mean %
		Pill		Condom		Injectable		IUD/ Cupper-T	Implant	Sterilization				
		Shukhi & Others	SMC Brand	Nirapad and Others	SMC's Condom	Inject	SOMA-JECT			Male	Female			
270	287	57	37	35	12	1	28	0	1	0	2	173	64.07	69.29

Use of Oral Saline

Interviewed	Brand Name	Number of Saline Consumer	Rate of Users (%)
270	SMC	214	79
	Oral Rehydration Salt from Govt.	37	14
	Others	19	7
	Total	270	100

Source: Field Investigation

7.9.9 SMC's Contraceptive & ORS Brands Analysis in Four Sampling Points

From the four sampling points of childbearing age couples (Aligonj, Mulghar, Khidirpur and Olinagar), the total number of eligible couples was 1518 but nonetheless 1270 of these couples were interviewed (84 percent). The Table No. 7.24 expresses their contraceptive method and brand preference as well as which oral saline brand they use. In terms of numbers, 245 couples claim to use SMC brand pill and 106 couples claim to use SMC condoms, while 234 couples claim to use Shukhi or other types of pill and 53 have said to use Nirapad and other types of condoms. In the case of oral saline, all the interviewed respondents claimed to use some sort of oral saline when facing diarrhea or dehydration, which gives us a 100% use rate for oral saline. In terms of saline brand use, 79 percent claim to use SMC brand ORSaline, while 13.2 percent use the Oral Rehydration Salts from the Govt., and finally 7.8 percent use some other brand of saline or use homemade oral saline.

The table also includes from the Upazila/Thana Health Complexes, the Upazila Mean contraceptive use rate from analyzing the 2009 contraceptive use rate of these four Upazilas to be 69.74 percent. However, from intensive field investigation data that I have collected, 62.13% of the total number of interviewed couples uses contraceptives. It is found in the investigation that the pill and condom is not substituted in many time with each other, such as a woman using the pill but she forgot to take up to three days, in the situation male spouse of couple has to use condom. Similarly the effectiveness of the condom may become out of order somehow, in this case the woman of the couple has to use i-pill (as for example from the semi-urban investigation: Olinagar, November 2009). Thus we can expect the Use Rate of Contraceptives to be skewed if FWVs and other employees of Upazila/Thana Health Complexes did not have the hindsight to expect such events to take place.

Table No. 7.24:

7.9.10 Use of Contraceptive & Non-Contraceptive Product of SMC and Others

Four Sampling Points:
Khidirpur
Mulghar
Aligonj
Olinagar

Total Respondents of the Study

October, 2009

Total Respondents	Childbearing couples Age (women): 15-49	Number of Contraceptive Users										Total Users	Rate of Users (%)	Upazila Mean %
		Pill		Condom		Injectable		IUD/ Cupper-T	Implant	Sterilization				
		Shukhi & Others	SMC Brand	Nirapad and Others	SMC's Condom	Inject	SOMA-JECT			Male	Female			
1270 84%	1518	282	197	110	49	103	28	3	6	0	11	789	62.13	69.74

Use of Oral Saline

Total Respondents	Brand Name	Number of Saline Consumer	Rate of Users (%)
1270	SMC	1003	79
	Oral Rehydration Salt from Govt.	168	13.2
	Others	99	7.8
	Total	1270	100

7.10 Government Aim and Achievement to CPR

The government emphasized the family planning program as an integral part of the development process. In order to achieve compulsory aim of CPR, the program base was broadened by integrating MCH activities, recruiting FWAs and FWVs, setting up mobile service of contraceptive methods, encouraging NGOs and private sectors. Subsequently, Two Year Plan (1978-80), Second Five Year Plan (1980-85) and Third Five Year Plan was to raise CPR 22 percent, 38 percent and 40 percent respectively. But in the Two Year Plan of 1978-80, achievement was only 14 percent at the terminal year of 1980 and the second five year plan of 1980-85 where aim was to achieve 38 percent achievement was only 25 percent. The Third Five Year Plan aimed at raising the CPR from 25 percent to 40 percent. At the terminal year, the CPR reached close to 40 percent, that is 39.7 percent (SVRS-2007), resulting in the onset of fertility decline. The aim and achievement from TYP (1978-80) to TFYP (1985-90) were shown below in the Figure No 7.4.

Figure No. 7.4: Government Aim vs. Achievement of CPR

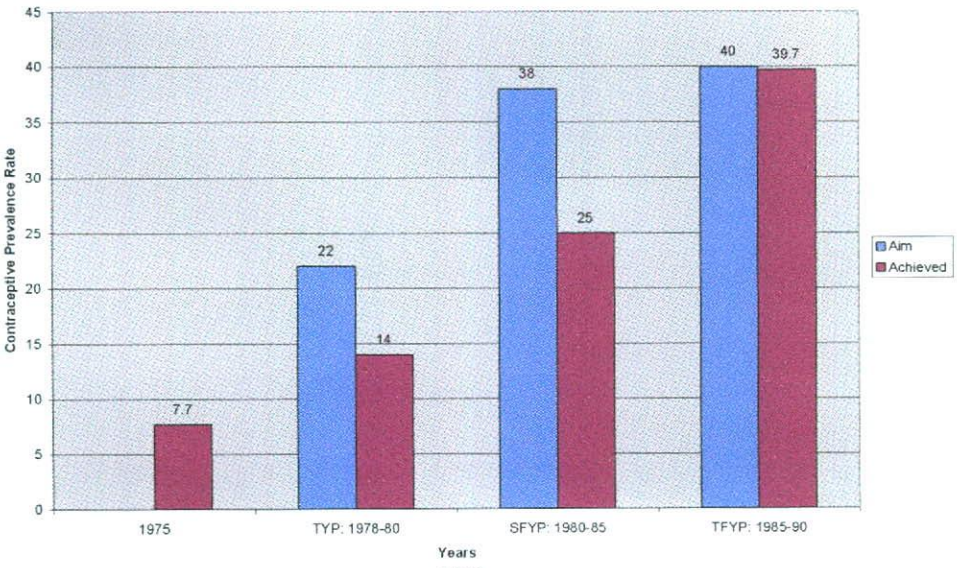


Figure No. 7.4 depicts the level and trend of contraceptive use in Bangladesh had been gradually growing from 1975. Here it can be said that SMC started its activity from 1974 when to increase CPR in order to decline birth rate was the burning question to the nation.

7.11 Cross Analysis between Total Fertility Rate (TFR) and Contraceptive Prevalence Rate (CPR)

Analyzing the secondary source of data, it can be established a relationship between the decline of TFR and the increase use in CPR. It is established that an increase in the CPR affect TFR, CPR being one of the proximate determinants of TFR. In Bangladesh, the decline of TFR since 1975 (when SMC's activities started) has been sharp and is consistent with the rise in contraceptive use. If the association between TFR and CPR is used to predict future decline, Bairagi (2001) suggested that an additional 0.5 children decline in TFR should have occurred between 1993-94 and 1999-2000. Consistent with the increase in CPR, the TFR in 2008-2009 should have been less than 2.7 children per woman. The information and functional relation between CPR and TFR what had been analyzed above, had been shown in the below Table No. 7.25.

Table No. 7.25: Establishing Relationship between TFR and CPR from 1989-2007

Source	Year	TFR	CPR	Change in TFR	Change in CPR
BFS	1989	5.1	30.8	-	-
CPS	1991	4.3	39.9	0.8	9.1
BDHS	1993-94	3.4	44.6	0.9	4.7
BDHS	1996-97	3.3	49.2	0.1	4.6
BDHS	1999-2000	3.3	53.8	0	4.6
BDHS	2004	3	58	0.3	4.2
BDHS	2007	2.7	59	0.3	1

The functional relationship between Total Fertility Rate and Contraceptive Prevalence Rate had been shown sharply in the following graph (Figure no. 7.5).

Figure No. 7.5: Contraceptive Prevalence Rate vs. Total Fertility Rate

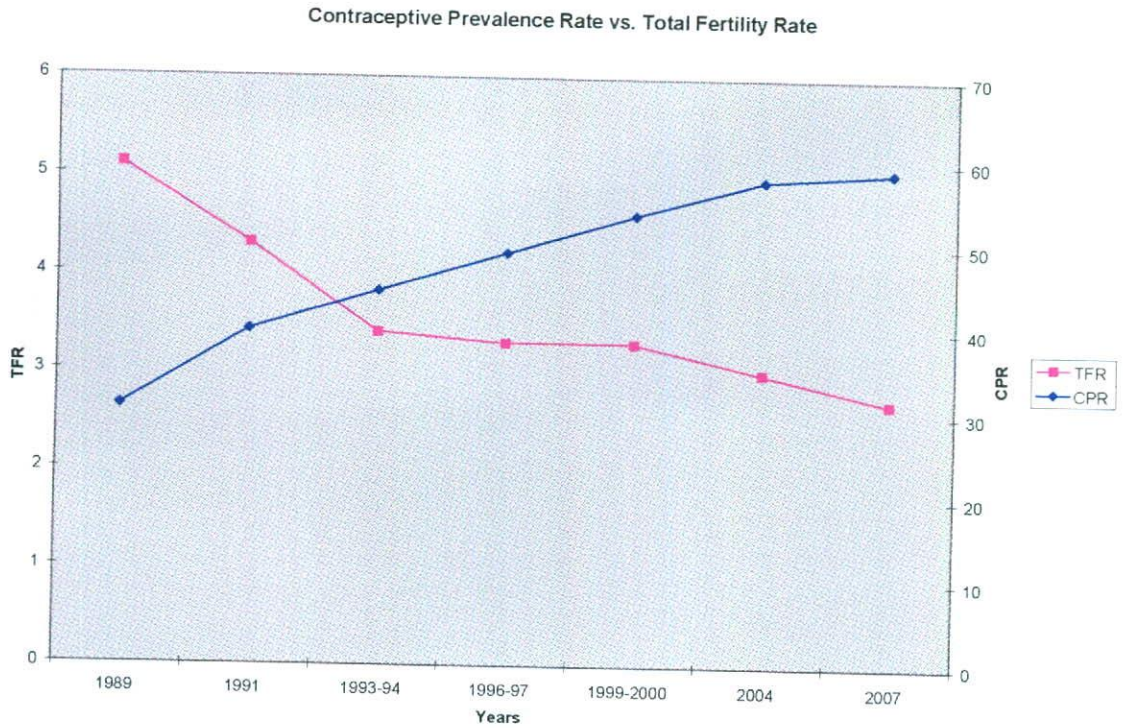


Table No. 7.25 indicates the decrease of Total Fertility Rate (TFR) of woman of childbearing age (15-49) from 5.1 to 2.7 percent in the years of 1989 to 2007 respectively. During this period, we can also see that the Contraceptive Prevalence Rate (CPR) had also been growing from 30.8 percent to 59 percent. One can safely state that the increase in CPR had directly influenced the TFR of these childbearing aged women.

In the Table No. 7.26 below, it had been shown the contribution of SMC on Contraceptive Prevalence Rate (CPR). From the data of 2004 to 2009, we can see the prevalence of SMC brands to be around 16.72 to 19.51 percent of the total CPR in Bangladesh which was 58 to 62.13 percent respectively, which is nearly one third contribution to the overall Contraceptive Prevalence Rate of Bangladesh.

Table No. 7.26: Contribution of SMC on Contraceptive Prevalence Rate (CPR)

Year	CPR in Bangladesh	SMC Brand			Besides SMC (Govt., Private and Other Brands)
		Pill	Condom	Total	
2004	58	13.12	3.6	16.72	41.28
2007	59	14	2.67	16.67	42.33
2009	62.13	15.66	3.85	19.51	42.62

Source: Field Investigation
Report on Sample Vital Registration System, 2007
Bangladesh Demographic and Health Survey, 2007

Undoubtedly Bangladesh is an overpopulated country where density of population is 927 per square km. According to the Govt. of Bangladesh including all democratic parties or even military govt., experts and intellectual men of the

country including researchers, foreign aid organizations and other friendly developed countries, overpopulation is one of the vital problems of the nation. Family planning is such an idea, by which the nation can overcome this problem that is acknowledged by all. According to not only our analysis but according to all, the control of population is a social, political and state's demand priority based. Family planning is also a social concept, by where the plan of family including offspring either more or less (in Bangladesh context – 2 or more), and contraceptive method is the part and parcel of family planning activities. As witnessed from 1989 to present, as the Contraceptive Prevalence Rate increased, the Total Fertility Rate of childbearing aged women decreased. From the data made available to me, the contribution of SMC in terms of CPR in 2004, the national CPR was 58 percent where SMC's contribution was 16.72 percent. In 2007, the national CPR was 59 percent where SMC contributed 16.67 percent, and finally in 2009 from my field investigation, the CPR was 62.13 where SMC's contribution was 19.51 percent. It is well accepted to all that, CPR has no substitute to birth control, thereby the control of population, and SMC had played a very vital and significant role since 1975 and continues to do so in present day. In order to develop in terms of socio-economic scenario of Bangladesh, family planning and birth control are correlated to all the indicators of socio-economic development including contraceptive prevalence rate, contribution to contraceptive prevalence rate by SMC, other NGOs and private organizations.

7.12 Trend of Contraceptive Prevalence Rate

The contraceptive prevalence rate for currently married women (ages 15-49) in Bangladesh has increased from 7.7 percent in 1975 to 59 percent in 2007, more than sevenfold increase in little over three decades. The dominant change in Bangladesh since the late 1980s has been a large increase in the number of couples using oral contraceptive. The proportion of married women relying on the pill increased considerably in last one and half decade, from 14 percent in 1991 to 26.2 percent in 2004. The use of oral pills has continued to rise after 2004, but the use of condoms seems to have dropped from 6.8 percent in 2006 to 4.7 percent in 2007 according to the SVRS-2007 (Sample Vital Registration System, 2007).

Table No. 7.27: Contraceptive Prevalence Rate from 1975 to October 2009

Method	1975 BFS	1983 CPS	1985 CPS	1989 BFS	1991 CPS	1993-1994 BDHS	1996-1997 BDHS	1999-2000 BDHS	2004 BDHS	2006 SVRS-2007	2007 SVRS-2007	Oct-09 Field Investigation
Pill	2.7	3.3	5.1	9.6	13.9	17.4	20.8	23	26.2	36.2	37	37.72
Condom	0.7	1.5	1.8	1.8	2.5	3	3.9	4.3	4.2	6.8	4.7	12.52
Sterilization, Injectiables, Traditional and Others	4.3	14.3	18.4	19.4	23.5	24.2	24.5	26.5	27.7	15.3	17.3	11.89
Total	7.7	19.1	25.3	30.8	39.9	44.6	49.2	53.8	58.1	58.3	59	62.13

According to my field investigation from the four Upazila/Thana sampling points of Mulghar, Aligonj, Olinagar and Khidirpur, the use of pills continued to increase from 37 percent in 2007 to 37.72 percent up to October-2009, the trend to use condoms has increased to 12.52 percent up to October-2009, and the overall contraceptive use has increased from 59 percent in 2007 to 62.13 percent up to October-2009. The Table No. 7.27 along with a bar graph (Figure No. 7.6) and line graph (Figure No. 7.7) have been created to illustrate the data more clearly.

Another positive key indicator of socio-economic change is the prevalence rate of modern methods of contraceptive over traditional methods. In 1994, near about 7 percent of the Bangladesh population relied on traditional methods of contraceptive while close to 40 percent used modern methods. Over 13 years, the use of modern contraceptives increased to 54.7 percent while the use of traditional methods has decreased to 3.54 percent in 2007. The Table No. 7.28 along with a bar graph (Figure No. 7.8) had been shown below.

Table No. 7.28: Use of Modern Methods of Contraceptive vs. Traditional Methods

Method	1994 BBS	1998 BBS	2000 BBS	2001	2002	2003	2004	2005	2006	2007
Modern Method	39.3	45.9	44.6	47.3	47.8	50.2	50.9	51.7	52.5	54.7
Traditional Method	6.9	5.6	9	6.6	5.8	4.9	5.1	5.3	5.8	3.54

Source: Bangladesh Demographic and Health Survey, 2007
TFR Research Studies, 2005, NIPORT & UNFPA

Figure No. 7.6: Trend of Contraceptive Prevalence Rate

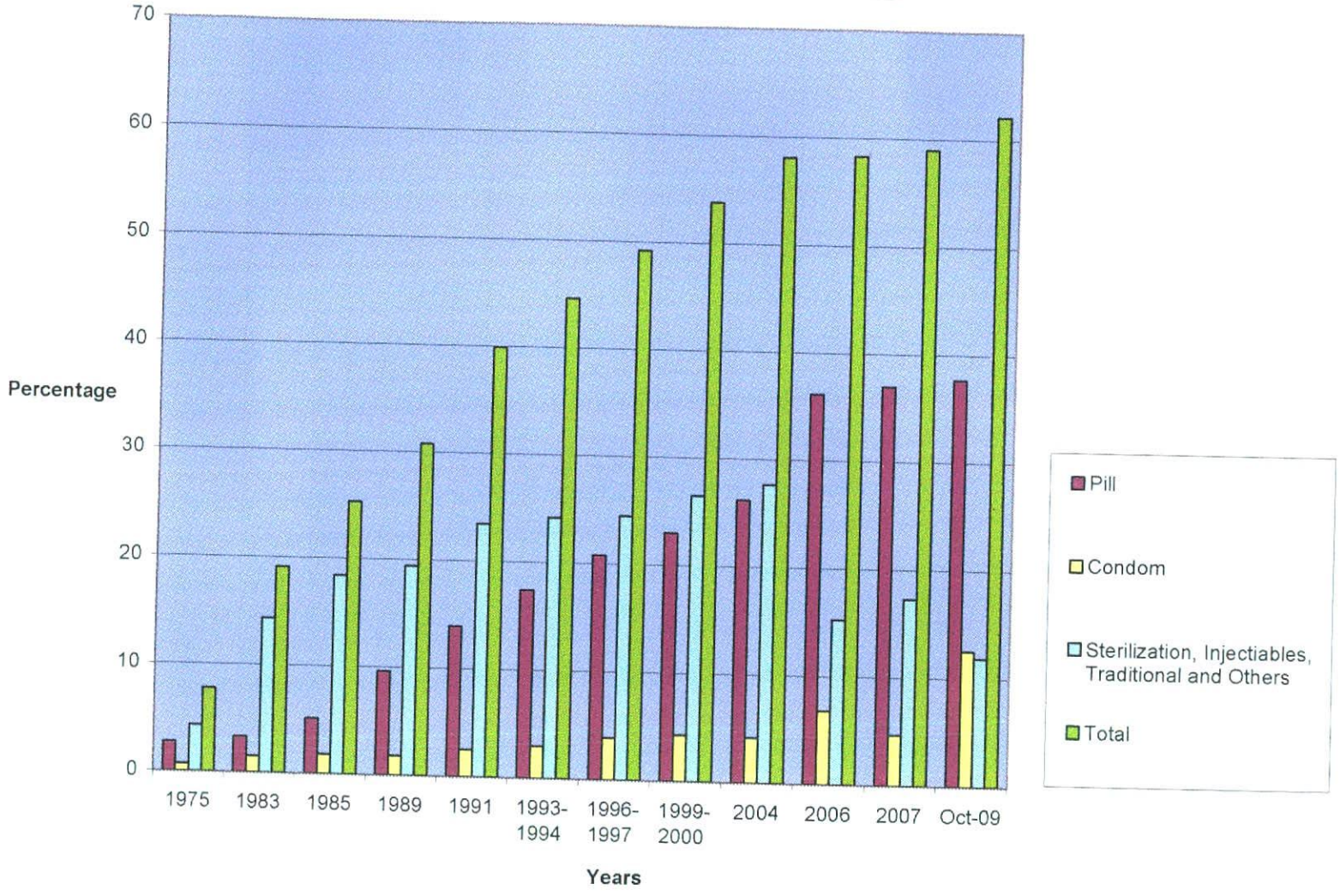


Figure No. 7.7: Trend of Contraceptive Prevalence Rate

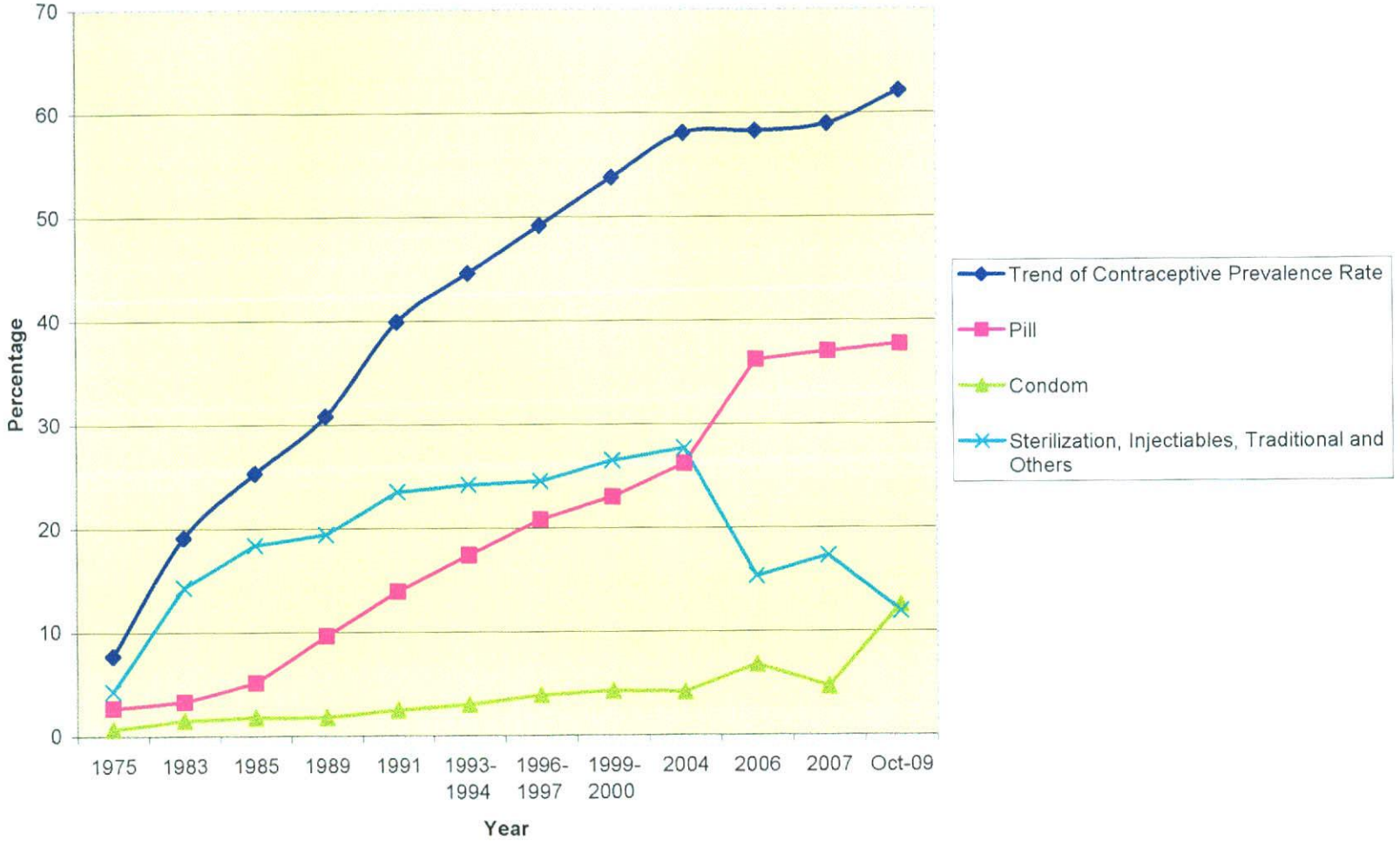
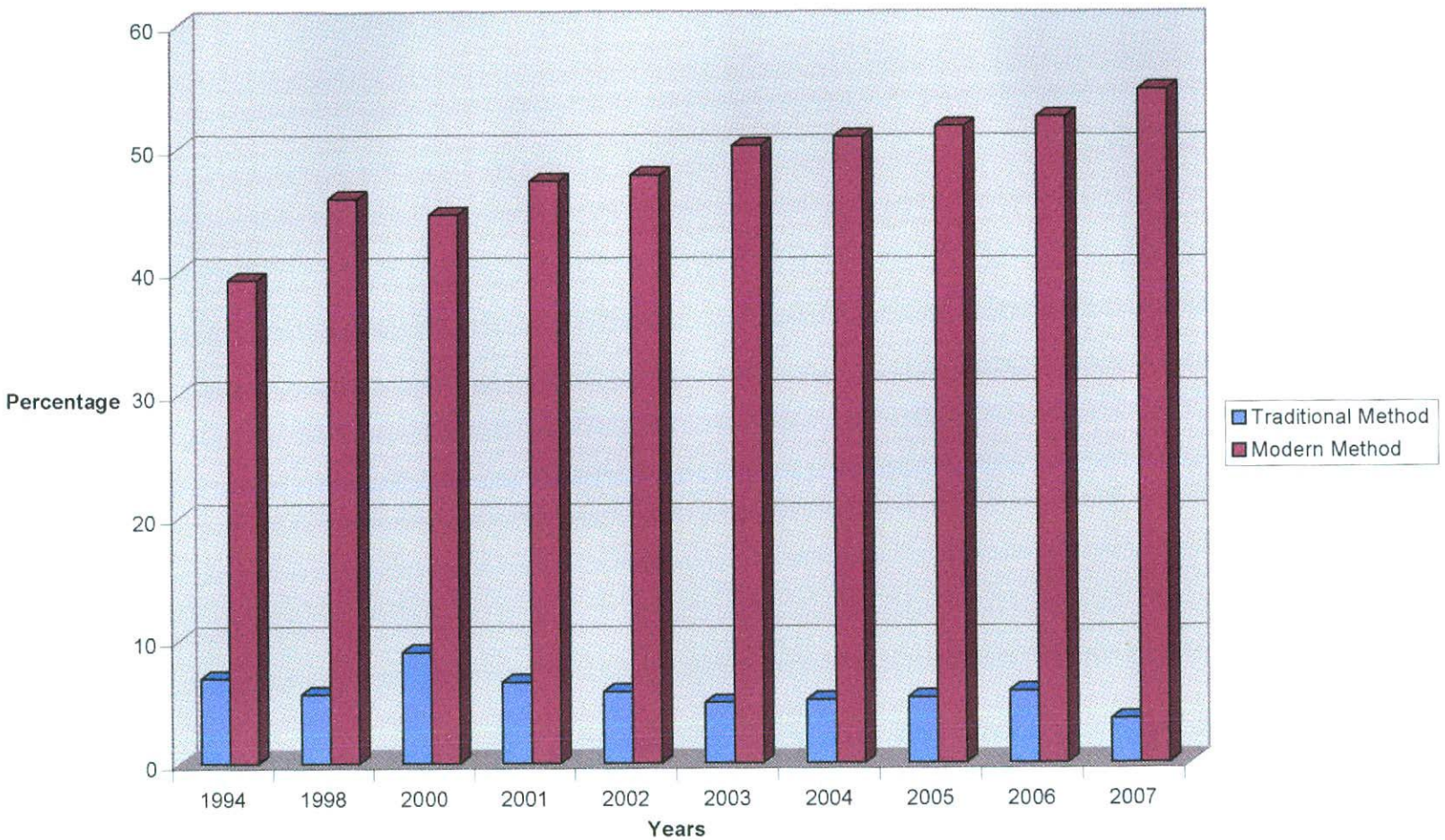


Figure No. 7.8: Use of Modern Methods of Contraceptive vs. Traditional Methods



Chapter Eight:
Conclusion & Recommendations

8.1 Background:

Family planning efforts began in Bangladesh in the early of 1950s (when Bangladesh was East Pakistan) with the creation of Family Planning Association, a non-profit national voluntary organization. These family planning activities began in all atmospheres of prejudice, ignorance and apathy toward the concept of planned family. The major achievement of the Family Planning Association was to focus only public attention on population and family planning issues, and this scenario continued up to 1960. Interest of the Govt. in family planning took shape with the establishment of the Directorate of family planning. During the phase

1965-70, the govt. expanded family planning activities in an all attempt to contain the rate of population growth and set a CPR (Contraceptive Prevalence Rate) of 25 percent by 1970. But the effort failed to achieve its objective due to the shortage of trained personnel to provide family planning counseling and service delivery. Then the Govt. started to establish training and research centers and different places and provided training. In 1971, Bangladesh became independent through a liberation war.

8.2 Introduction:

After independence, following a lull of time about three years (1971-1973), the program activities were revived beginning with the First Five Year Plan (1973-1978). The FIFYP attached priority to population control equal to that given to flood production. It marked the beginning of a multi-sectored and broad based population control and family planning program in the country. During this phase, one important strategy was user taken to bring the family planning services directly to the doorsteps of clients, especially to the rural women who are the majority (about 80 percent of the total population live in rural areas) and whose mobility and access to family planning services are restricted by the customs (purda), modesty and segregation. This custom restricts the mobility of women,

preventing them from traveling for health and family planning services. Even in a setting where Purda is not rigorously enforced, travel is difficult and expensive and isolation of a woman in household is the norm. Recognizing this issue of women's mobility as a factor in contraceptive use, the Govt. of Bangladesh introduced grassroots level of female planning workers, i.e. Family Welfare Assistants (FWAs) in 1976, and subsequently recruited 30,000 FWAs in different phases to visit couples in their homes and provide contraceptive information, supply and referrals. FWAs supply both pills and condom for free of cost; similar approaches in family planning service delivery system were proved instrumental in the success of family planning programs in many others developing countries such as Indonesia and China. Govt. family planning programs in these countries receive strong political bureaucratic and public support.

In 1976, population was declared the number one problem for the country and the Govt. emphasized all urgent need to make the family planning program all integral part of the development process. The program base was broadened by integrating MCH activities, recruiting field workers, setting up mobile sterilization teams, establishing Thana MCH clinics and encouraging the NGOs and the private sector to join the population activities. Subsequently a Two Year Plan (TYP: 1978-80) was formulated to raise the CPR to 22 percent. The second Five Year Plan (1980-1985) aimed to raise CPR from 14 percent to 38 percent by the terminal year through strategic comprising a substantial expansion and strengthening of family

planning service delivery and IEC activities. It may be noted that the family planning targets of the FIFYP, TYP and SFYP were not achieved during the corresponding plan periods. The visible changes at least from the view point of achieving the CPR targets started to show up in the Third Five Year Plan (TFYP: 1985-1990) period. The TFYP aimed at raising the CPR from 25 percent to 40 percent. In the last year of the TFYP, the CPR reached close to 40 percent, resulting in the onset of fertility decline.

A comprehensive Health and Population Program was drawn up for the Fourth Five Year Plan, which was to promote the development and operation of a comprehensive health and family welfare system capable of attaining two broad goals:

I. Health for all by the year 2000

II. Replacement level of fertility

A number of strategies were implemented to realize the FFYP objective Bangladesh Govt. adopted a National Population policy drafted in 2003 with the following policy objectives to make a desired balance between population and development in the context of the Millennium Development Goals (MDGs) and a Poverty Reduction Strategic Papers (PRSP).

8.3 Success of Family Planning

The Family Planning Program in Bangladesh has been considered as an example of a success story in a country without a high level of socio-economic development, often considered as a necessary precursor to the successful family planning (Koenig et al. 1987, Duza and Nag. 1993). Numerous factors have contributed to the increase in contraceptive use over the last three decades. Bangladesh has under gone a remarkable demographic transition over the last three decades through a concerted effort of the government, NGOs and development part users, despite its pervasive poverty low literacy, poor status of women, and high incidence of infant and child mortality. Of the twenty poorest counties in the world, Bangladesh is the only one where fertility is falling. The total fertility rate (TFR) has declined dramatically from a high level of 6.3 birth per woman in 1975 (GoB, 1978) to 3 births per woman in 2004 (NIPORT et al 2005) (Figure No. 7.1). The infant and under five mortality has also decreased over the period, and life expectancy has increased substantially. Several researchers argued that the fertility decline in Bangladesh was achieved primarily due to a successful family planning program (Cleland, 1994, Claduell et al 1999). The success of the Bangladesh Family Program also challenges much of the conventional wisdom of any changes in fertility rates must stern from shirts in the economic and social structure.

The elements identified as having contributed to the success of the program are:

- ❑ Intensive services provided by the Family Welfare Assistants and Family Welfare Visitors.
- ❑ Political commitment to FPP by successive government
- ❑ Reduce infant and under five mortality rate
- ❑ Ensure early childhood development (ECD) program
- ❑ Promotion of small family norm successfully
- ❑ Establish of a widespread infrastructure for delivering family planning and health services down to the village level
- ❑ Increased involvement of NGOs to support the compliment government's efforts

8.4 Recognizing the Current Urgency of AIDS Prevention

Program priorities included national surveillance system strengthening, behavior change communication to reduce risk and vulnerability to HIV (including condom promotion among high-risk populations), improving management of sexually transmitted infections (STIs), and building capacity of government and NGO partners to plan, implement, and monitor HIV/AIDS interventions. Given the high-risk behavior in Bangladesh, HIV will not be confined to the drug injecting community for long. All the risk factors that give birth to explosive HIV

epidemics are present in Bangladesh today. Once HIV prevalence crosses the 10 percent level, an epidemic becomes very difficult to control. Policy makers and programmers within the governmental of Bangladesh, bilateral agencies, and national and international NGOs have a key role to play in recognizing the urgency of this situation and taking immediate action.

8.5 Final Thoughts and Recommendations

The last one and half decades have brought notable changes to the way the health, nutrition and population activities are conducted in Bangladesh. In 1998, national program evolved from a project-based approach (Fourth Population and Health Project – FPHP; 1992-97) to a sector-wide approach (SWAP) with the Health and Population Sector Program (HPSP, 1998-2003). This brought many aspects of the health and population sector under a coordinated mechanism for funding, service delivery and monitoring. The current SWAP, the Health, Nutrition and Population Sector Program (HNPSP 2005-2010) has brought nutrition, HIV/AIDS/STDs and urban health under the same broad mechanism.

This period has also seen many developments in the policy arena. The National Health Policy was finalized in 2000. The National Maternal Health strategy was finalized in 2001; the Bangladesh Population Policy was completed in October

2004. The HIV/STD strategy was finalized in 1996. These policies are being revised consistent with these policies, the HNPSP reinforced the need to ensure that health, nutrition and population services are fully accessible to the poor. This has had implications for the design of service delivery systems and has highlighted the need not only to target service in headways, especially to the poor and those in low performing areas, but also to recognize that resources are simply not sufficient for the government sector above to be expected to deliver all services to the entire population.

It has long been known that the majority of household health expenditure is out of pocket in the private sector, rather than public expenditure. This indicates that demand for health services in all respects such as reproductive health, maternal health, child health, etc. are high, but also that public services are not able to satisfy the entire demand. Contracting mechanisms have been created where the NGO and the private sectors including SMC could assist the government in delivery of selected services. This shift of government towards taking a stronger role in policy and regulation and delegating some of the service delivery to other sectors is being reflected in the implementation of the HNPSP.

Finally, another major influence has become the emergence of the Millennium Development Goals (MDGs), which has highlighted even more strongly the links between poverty, nutrition, CPR and some of the specific areas of MDGs concern such as maternal health, reproductive health and child health. It also places

attention onto the importance of showing population growth if the poverty alleviation and nutrition MDGs are to be met.

Trends in fertility in Bangladesh since the early 1970s can be examined by observing a time series of estimates produced from demographic surveys fielded over the last three decades, beginning with the 1975 Bangladesh Fertility Survey (BFS). Data from the 2007 BDHS show that following a nearly decade-long plateau in fertility from 1993 to 2000, fertility in Bangladesh has resumed its decline. Fertility has declined sharply, from 6.3 births per woman in 1971-75 to 2.7 births per woman in 2004-2006 (Table No. 7.4 and Figure No. 7.1). There was an initial rapid decline in fertility of nearly two children per women up to the early 1990s. Fertility then created a plateau at around 3.3 births per woman for the most of 1990s. This was followed by another noteworthy decline in fertility during the current decade. The 2007 BDHS data, along with earlier rounds of the survey beginning in 1993, indicate that the decline in fertility has continued during the last three years, reaching 2.7 births per woman. Since 2001, a marked decline in fertility has been observed. The decline in fertility in the last two decades occurred mostly among older women (Mitra et al., 1994; Mitra et al., 1997; NIPORT et al., 2001; NIPORT et al., 2005). The results show that fertility has dropped substantially among all age groups over the past two decades.

Fertility levels are rather uneven, with large socio-economic and geographic differences. The TFR for rural women is 0.4 children higher than urban women

(BDHS-2007). For uneducated women, it is 0.7 children higher than for women with complete secondary school or higher. The poorest quintile has on average 1.0 child more than the richest. But the largest differential is across divisions, with higher fertility in the east side than the west side of the country – women in Sylhet have 1.7 more children than woman in Khulna, and women in Chittagong have 1.2 more.

The current national fertility level is still half a child above replacement level, and equates to a population doubling time of 40-50 years. Because of the fertility plateau, many organizations produced pessimistic population projections for mid century, 2050-51, of between 233 million (US Bureau of Census, 2009) and 254 million (United Nations Population Division, 2007). With the recent decline, these are being revised down to 218.6 million by the Bangladesh Bureau of Statistics (BBS, 2007) and 215.1 million by the Population Reference Bureau (PRB, 2008), but the lower projections still indicate that population stabilization is a long way off, and will probably be closer to 100 million more than the present population.

The fertility decline has resumed after a plateau, but is still half a child above the replacement fertility level of about 2.2 children per woman. Fertility patterns are still uneven, with high levels among the poor, and on east side of Bangladesh. Reaching and stabilizing at replacement fertility only will not insure that final population will stabilize below 250 million. Bangladesh needs to bring fertility to half a child below replacement as soon as possible, if population increase is to stop

at around 210 million. Bangladesh is exceptional for persistent early marriage and early childbearing. More emphasis is needed on female secondary schooling, and increasing rural employment opportunities. The national Family Planning program needs reinvigoration, with service delivery focusing outreach more in the east, on the poor, and on newly married couples. The GOB is focusing more on policy and regulation, and sharing service delivery with the NGO and private sectors so that higher performing groups can use the Ngo and private sectors for supplies.

Bangladesh remains exceptional in having almost the highest proportion globally of girls married as teenagers. Although there are a couple of west African countries (Niger, Mali, Guinea) with similar proportions, nearby countries sharing religious or cultural values with Bangladesh have much lower levels of early marriage and later commencement of childbearing. In Bangladesh, even with substantial investments in female primary and secondary schooling, one in three women are either pregnant or already mothers by age 20, and this proportion is no declining.

As most recent trends are of interest here, data are presented for young women ages 20-24 years (not 20-49 or 25-49). In BDHS 2007, the median age at marriage for women age 20-24 is 16.4 years, compared to 16.0 in the previous HDS, suggesting a small upward trend. Nevertheless, this median along do not necessarily guarantee social change.

The poor all across the country need to be included in the economic development of the country. Based on global experience, efforts to facilitate female schooling for these families will produce economic benefits, but will also result in later marriage and ultimately, in lower fertility. In the meantime, information and services will need to be specifically targeted to these disadvantaged groups. Entrance for young women into formal sector employment is also associated in many other countries with later marriage and delayed and reduced childbearing, but still only one in six teenage girls in Bangladesh are employed. Further efforts on this front can be expected to contribute to lower fertility over time.

The other major factor which can lower fertility is use of family planning. Levels of FP use have not increased much above half of all couples in this decade, although use is remarkably equitable across most socio-economic groups. There are constraints to increase uptake of FP and thus lowering fertility further, but lack awareness or knowledge of FP is not among them. Awareness has long been high, with roughly nine in ten women knowing of pills, IUDs, condoms, injectables, and female sterilization. On the other hang, attitudes towards some methods, especially clinical and permanent methods, have long been less than positive.

Logistics remain a challenge with numerous stockouts of FP commodities occurring. New, streamlined approaches to procurement, as tested in other countries, can be tried to ensure steady supply of FP commodities. A modernized BCC approach is needed to overcome negative perceptions about long-term

clinical FP methods. This assumes that quality of clinical services is maintained at a high level.

The national FP Program has not successfully addressed these negative impressions and misinformation about some of the most important methods. There has been relatively little BCC activity in the FP field for a long time. BBC does not just mean advertising of methods like pills and condoms, but attempting to correct misperceptions or erroneous beliefs about methods. It is well known what these misperceptions are (fear of migration of IUDs into the upper body, long-term inability to work after vasectomy, sterilization is a poor person's method of choice, etc.), but at the national level almost no BCC campaigns have been put in place to counter these obstructive and incorrect beliefs.

If BCC is to be effective, there must be a professional review of the impact of the approaches used previously. In an age of electronic media like television and radio, it may be that the traditional approaches of posters, brochures, etc., will be less effective. Also, approaches may differ, with targeting of one to one communication by FP fieldworkers or service providers for certain issues or groups, and larger scale community messaging for general information, where appropriate.

Another example of targeting information and motivation is in the health facilities. As facility deliveries increase, many countries target this period, when couples are most receptive to discussion about birth spacing, to promote postpartum

contraception. However, the combined oral pill is not recommended for postpartum FP as it may reduce breast milk production. As progestogen-only minipill, is suitable, but is only currently available through the private sector. The national program needs to consider adopting another such pill. IUDs inserted by well trained staff can also be promoted at this receptive time.

This targeted approach of BCC at the household and community levels highlights the issue of service providers, especially for the groups identified as most in need – the low performing areas in the east of the country, the young and especially the poor.

Overall, the public sector provides supplies to half of all FP users; but for the poorest quintile the public sector is particularly important. Two-thirds of women in the lowest wealth quintile rely on the public sector, compared to only one-quarter of women in the highest quintile.

The permanent methods continue to play a very minor role – one in ten FP users – half the peak level of two decades ago. There are signs that male sterilization is increasing from a very low level in parts of the country where quality services are being offered. Increasing availability and use of permanent methods involves close cooperation in training, supervision and logistics between donor funded NGO programs working with GOB staff in Upazila Health Complexes, and through "special days" at some upgrades Family Welfare Centers. Sterilizations have increased to several hundred thousand annually. This achievement is not obvious

in the BDHS results on current use of female sterilization, although male sterilization is increasing from a very low base.

IUDs are virtually nonexistent (1 in 60 users), and injectables, which should be an excellent method for Bangladesh, have fallen from one in six users in 2004 to one in eight users in 2007, not because they are not popular but because of supply issues. The decline in injectables highlights the important issue of logistics and procurement. Implants have also experiences some recent supply problems, though for different reasons, as the government has made the decision to switch from the five rod "Norplant" to the single rod "Implanon". Local production of condoms is underway, but maintaining quality is a major challenge. In addition, Bangladesh has pharmaceutical export production business, so the local production of hormonal contraceptives like pill may be an option for reducing procurement delays in future.

In summary, the future performance of the FP program will have a major impact on the rate of population growth over coming decades. This will determine where the country's population will ultimately stabilize within a wide range from 210 million to 260 million. Four decades of effort has shown that demand for FP is widespread, and not yet fully met, so fertility can fall further, hopefully to half a child below replacement level within the next decade.

This will require recognition that certain segments of the population probably no longer need special outreach efforts by the public sector, and can utilize the NGO

and private rectors to obtain their FP supplies and achieve their childbearing goals. Other sectors – those in the east part of the country, the poor, and young newlyweds – will continue to need encouragement and assistance, and a greater role in aconomic development of the country, to both lower and achieve their fertility goals.

The recommendation for more focus on hard to reach and low performing groups is not new, but must be seriously implemented. Finally, the obstacles to the adoption of long-term clinical FP methods for couples who face 20 to 25 years of reproductive life after achieving their desired family must be confronted. This requires correcting erroneous misperceptions, but more importantly, ensuring clients safe and affordable access to these services.

The Bangladesh Maternal Health Services and Maternal Mortality Survey (BMMS) 2001 produced the finding that antepartum or postpartum hemorrhage is the leading cause of maternal death in Bangladesh (NIPORT, et al., 2003). One of the approaches to minimizing the unpredictable complication of post-partum hemorrhage is to provide all women at the time of labor with Misoprostol, a prostaglandin which constricts uterine blood vessels and reduce blood loss. This is a promising approach which should be integrated into the national maternal health strategy, but its provision and use will require involvement and monitoring by trained birth attendants if it is to achieve its initial promise.

Another question related to the use of C-sections concerns whether women go to the private or NGO sectors because they are directed by medical staff, or do they choose the private sector because they lack confidence in the public sector to provide quality services and adequate safety at an affordable cost? A separate indicator of the "privatization" of safe motherhood is the extraordinarily rapid increase in the use of ultrasound to 35 percent of women in the 2007 BDHS, up from 13 percent three years earlier.

A new approach is currently being tested for motivating pregnant women, particularly poor women, to seek antenatal care and to give birth in a health facility responds to the issue of cost. A demand side financing approach, called the Maternal Health Voucher Scheme (MHVS) has been piloted in 33 upazilas since 2004 (GTZ et al., 2008). The scheme selects women in first or second pregnancies from poor families. The providers receive reimbursement for costs from the scheme.

Large investments in EmOC facilities over a decade have not been rewarded with major increases in facility deliveries. Manpower issues in the area of safe motherhood are, and will increasingly be, an obstacle to implementation of all approaches to improving facility based, medically assisted safe childbirth.

There are specific interventions for each of the major causes of maternal death, hemorrhage, eclampsia and obstructed labor, which can be promoted more widely and more forcefully in the national maternal health program. If the MDG for

maternal health is to be achieved, broader socio-economic interventions must be added to the medical interventions promoted for safe motherhood. These include raising the status of women through education, increased employment opportunities, and other approaches.

In summary, it may be time to reflect on diverse approaches to achieving safe motherhood in Bangladesh. A decade of inputs to create facilities suitable for responding to obstetric emergencies has not resulted in a high level of facility delivery. One approach being tried is to train a large fieldworker force who will attend home deliveries and identify and refer the complicated cases to appropriate facilities. Thus far, this approach is not making a noticeable impact, although there is anecdotal evidence that complicated cases are selectively going to the facilities, which is desirable.

Is Bangladesh on target for achieving the millennium development goals for child mortality? I had asked this question in the 2004 BDHS report, and I had concluded that Bangladesh is faltering in its effort to achieve MDG 4 reducing under-five mortality by two-thirds. The findings from the 2007 BDHS present an entirely different scenario. The 2008 report on Tracking Progress in Maternal, Newborn and Child Survival, i.e., the Countdown to 2015 (UNICEF, 2008) documented that of the 68 countries being tracked, 16 countries were on track to achieve MDG 4. This included Bangladesh and Nepal from South Asia. The official target for

Bangladesh is to reduce under-five mortality from 151 deaths per 1000 live births in 1990 to 50 in 2015.

From 1991 to 1997 (mid-years of the reference periods for the 1993-94 and 1999-2000 BDHS surveys), under-five mortality in Bangladesh declined by over one-quarter, i.e., about 5.6 percent per year, which compares very well with the required annual decline of 4.3 percent needed to achieve the MDG of a two-thirds reduction in under-five mortality by 2015 from 1990 levels. However, between 1997 and 2001 (the mid year of the 2004 BDHS reference period), the decline was only 1.6 percent per assume. Hence the conclusion in the 2004 BDHS report that declines in mortality appeared to have slowed down. The average annual rate of reduction for overall under-5 mortality from 1991 to 2004 (the mid-year of 2007 BDHS reference period) is impressive (5.4 percent, not shown in figure). The rapid rate of decline has returned after the slowing down seen prior to 2001.

Bangladesh is on track to achieve MDG 4 targets of reducing under-five mortality by two-thirds. Staying on track till 2015 and beyond will require implementation of new initiatives, particularly on neonatal health, while strengthening others. Almost 60 percent of all under-5 deaths occur in the first month and almost half of these neonatal deaths are due to infections. Community-based management of neonatal infections must be scaled up at high quality and coverage. Postnatal home visits by skilled community-based management of neonatal infections must be scaled up high quality and coverage. Postnatal home visits by skilled community-

based workers within 48 hours of birth will be critical in providing the care to substantially reduce neonatal deaths. Exclusive breastfeeding rates are not improving at all. Progress with this intervention will require that we reach all pregnant and lactating mothers with appropriate counseling support at home. This effort should be combined with the community-based interventions to improve neonatal survival. Reduction in undernutrition rates appears to be slowing down. The National Nutrition Project provides the best opportunity to achieve improvements in child nutrition in Bangladesh, and attention must be paid to improve program quality and coverage. While existing government community based health workers (CHW) will have a role in the community-based efforts, they are unlikely to be adequate. A well designed program should involve the targeted use of CHWs recruited by NGOs, and inclusion of the informal private sector providers that are currently the most widely used care providers for childhood illness.

The bright spot is the coverage of oral rehydration therapy (ORT) for the management of diarrhea. In the 2007 BDHS, the proportion of children with diarrhea who received ORT reached 81 percent, with, remarkably, no urban-rural difference. This is one of the highest ORT coverage rates in the world. In the 1996-97 BDHS survey, when this indicator was first measured, the coverage was 75 percent. Zinc, as therapy for diarrhea along with ORT, was scaled-up in Bangladesh starting in November 2006, but coverage still remains low with only

20 percent of diarrhea episodes treated with zinc and ORT. Zinc supplementation as a prevention intervention is not part of the program in Bangladesh.

Table No. 8.1: Intervention to prevent child deaths

Intervention	Type	Percentage of child deaths prevented
Oral rehydration therapy	Treatment	15
Breastfeeding	Prevention	13
Complementary feeding	Prevention	6
Antibiotics for sepsis	Treatment	6
Antibiotics for pneumonia	Treatment	6
Zinc	Prevention	5
Clean delivery	Prevention	4
Hib vaccine	Prevention	4
Zinc	Treatment	4
Newborn resuscitation	Treatment	4

Source: Jones et al., 2003

I conclude with brief references to two areas where Bangladesh has demonstrated exceptional achievement. The percentage of 12-23-month-old children who received all vaccines increased to 82 percent in 2007 from 73 percent in 2004. Compared to the 2004 survey, the urban-rural difference was narrower, with coverage being 86 percent in urban areas and 81 percent in the rural areas. The goal of immunizing at least 80 percent of children with all vaccines has been achieved; the aim now is to be bale to do this by 12 months of age where the current coverage is 76 percent. Bangladesh has also managed to sustain high vitamin A coverage among children age 9-59 months. The coverage is no 88 percent. These achievements highlight what is possible with the right planning, design, investments and systems. For example, several attributes of the immunization program are worth highlighting. These include data and evidence-

based decision making, e.g., the use of independent coverage surveys and data quality audits, the use of supervision and monitoring systems that are outside of and support the line managers, a very strong emphasis on achieving high coverage, and periodic program reviews involving national and international experts. Not least, the Bangladesh immunization program has benefited from the allocation of adequate resources.

Once female education is established to have an independent effect on fertility, it is important to ascertain the various mechanisms through which education influence reproduction. This study has documented that education raises age at marriage, lowers the demand for children and increases contraceptive use, strengthening the role of individual choice in the process of family planning and formation. Policies aimed at influencing directly some of these mediating factors, such as age at marriage or family-size preferences, are less likely to succeed than indirect strategies through education enhancement. The study has also documented that the aim to increase contraceptive prevalence is likely to have reinforcing effect on the impact of schooling, and may even assist in the improvement of women's educational status. Some **salient recommendations** are given below.

Motivation for small family is an important factor to promote the use of FP method. There are a number of advantages of a small family in terms of bringing down the expenditure of family and giving a good future to the children through better education, health and others. In the study areas, most of the respondents are

in different to limiting the family size. Low cost of living has probably also contributed to the indifference. Since raising children is not expensive, large family size has not been a matter of concern.

FP program is the past has been successful in motivating the couples to use FP methods in other places of rural Bangladesh. It means cultural rigidity, patriarchal domination or the fatalism have been overcome allowing the married women into using methods. Given social development in the study areas has not produced the motivation for small family among the respondents of this study. When the couples are strongly motivated intervention is not an important factor to popularize methods. Couples on their own ensure the access to FP methods. Otherwise, there is need for motivation from outside projecting the benefits of a small family as an incentive.

Finding ways to motive the couples with three or more children to use long-acting methods to avoid unwanted births.

Development and adoption of rapid and simple methods to monitor the performance of the above recommendations or any special efforts to reduce unwanted births.

Greater Efforts are needed to delay early marriage, and delay first births within marriage.

This must include greater investment in secondary schooling and employment for single women in rural areas.

Global experience indicates sustainable and high CPR must have substantial reliance on long-term clinical methods.

It is time to reassess the role of FWAs/FWVs regarding motivation and referral for long-term and clinical methods, rather than delivering pills and condoms.

The FWAs/FWVs can potentially play an important role in motivating couples for sound safe mother-hood practices, such as using antenatal care, facility delivery, and postnatal care. They can also convey behavior change communication for other reproductive health programs.

Strengthening and implementing programs to reduce neonatal deaths and deaths due to ARI is critical.

Large-scale programs are needed that provide appropriate counseling and support to pregnant and lactating women.

FWAs/FWVs need to identify newly pregnant women and motivate them to make an ANC visit in each trimester.

ANC needs to be promoted as part of a total care package through pregnancy, delivery and the post-natal period.

As awareness of dangers is raised, families must be motivated to make use of medically trained providers for these complications.

ANC, safe delivery, and postnatal checkups must be promoted as a total 'package' of maternity care.

Greater effort is needed to explain STIs and their link with susceptibility to HIV/AIDS.

More spousal communication is needed, along with greater capacity of wives to negotiate sex when their spouse has an STI.

My strong recommendation is that population, characteristic of population, socio-economic impact of population, CPR and socio-economic impact of CPR, maternal health, child health, reproductive health, quality of health service in all respects, education and education related al the phenomena and so forth should come under intensive research urgently, which will be helpful and essential for the policy makers of the nation.

A modern Behavioral Change Communication (BCC) approach is needed to overcome negative perceptions about long-term clinical FP methods. This assumes that quality of clinical services is maintained at a high level.

SMC and other NGOs had played a very vital role in the socio-economic scenario of Bangladesh in the context of Family Planning, Family Health, Family Welfare, and Contraceptive Prevalence Rate.

By applying rules, policy and motivation, the minimum age of marriage for women should be kept at 18.

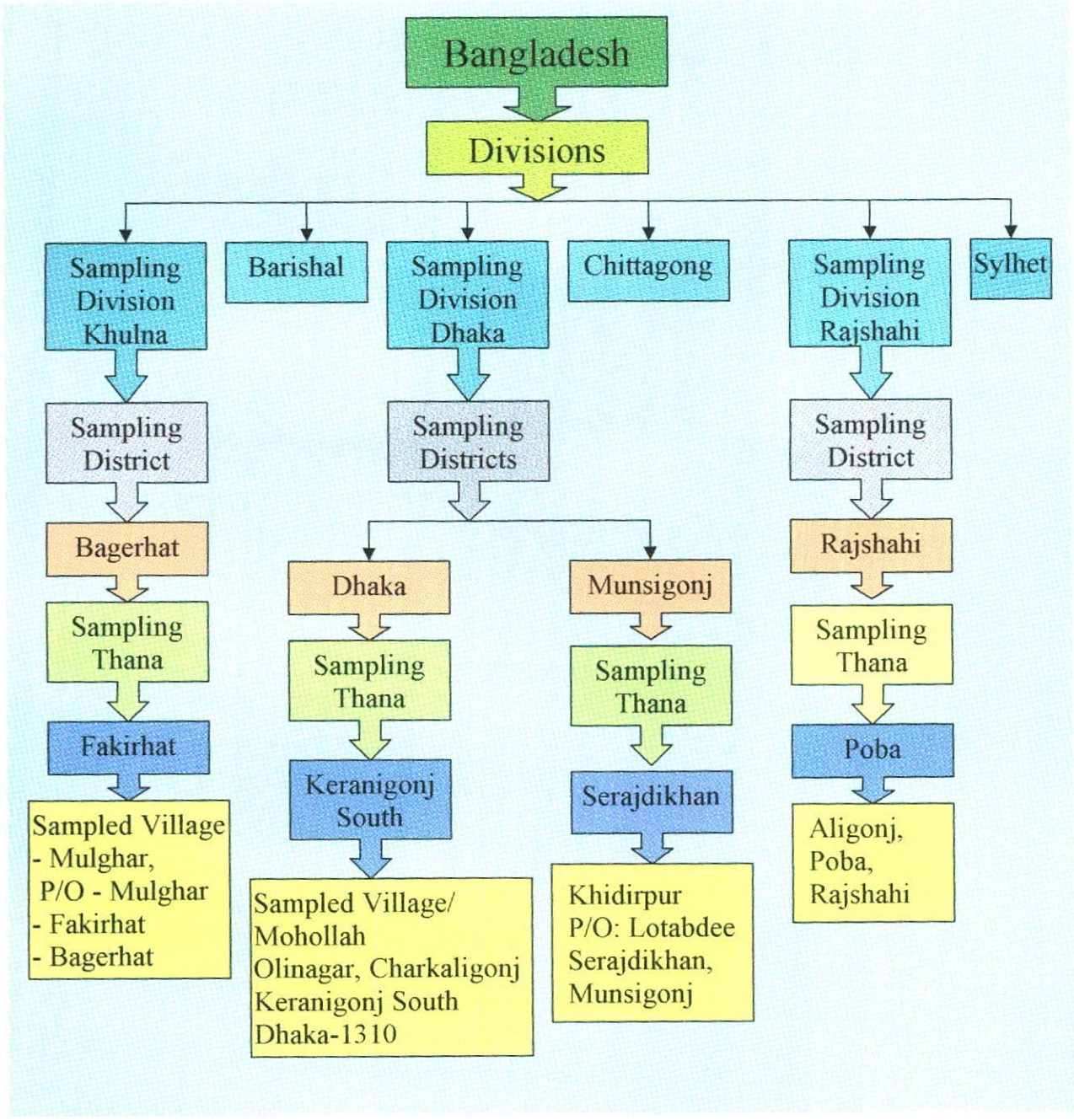
If it is possible to motivate the woman spouse of the couple or the couple to wait until the woman is of the age 24 to conceive an offspring, then this alone will decrease the Total Fertility Rate approximately 0.35 to 0.45 from its current status.

If it is possible to education all women up to S.S.C. and higher, then Total Fertility Rate will decline approximately 0.40 to 0.50 from its current status.

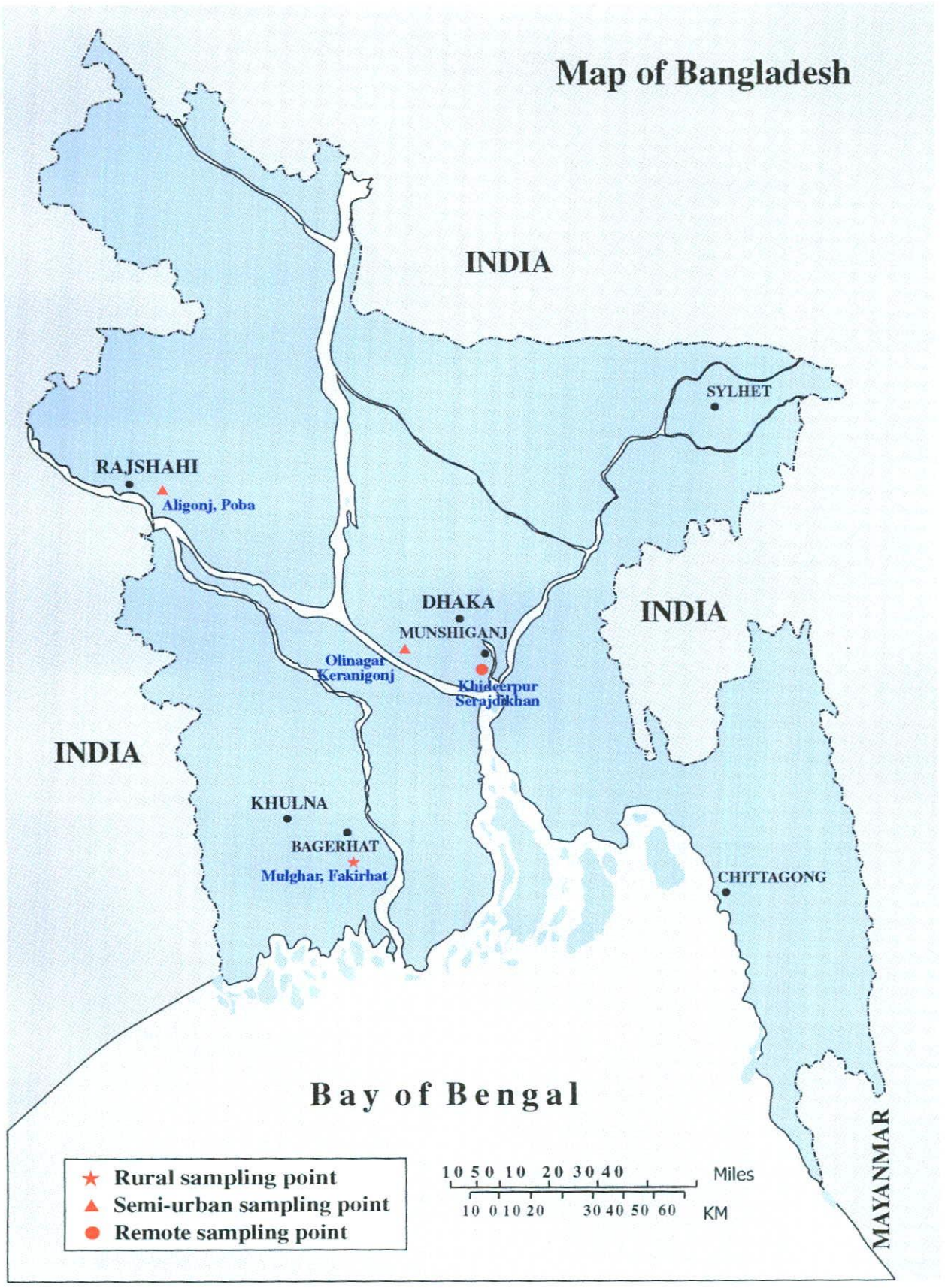
Contraceptive Prevalence Rate is directly correlated with education, where rate of literacy is high, CPR is also high. So last of all, I can say with hundred percent confidence that education has no substitution to increase all the key indicators including CPR in the context of socio-economic and socio-demographic scenario of Bangladesh positively. Both in the field investigation and all the previous surveys and studies in the level of GOs and NGOs, it had mentioned that where literacy rate is satisfied and upward there the efficiency, superstitions, unawareness, traditional believes, etc. are declined as well as contraceptive prevalence rate, life expectancy at birth, literacy rate of population, awareness of AIDS/STDs, income per capital, etc. are increasing, and under five mortality rate, child death rate, national mortality rate, crude birth rate, crude death rate, total fertility rate, dependency ratio, infant mortality rate, maternal mortality rate, etc. are all decreasing. To conclude, I recommend with great confidence that increasing the rate of education will have the greatest impact on the socio-economic and socio-demographic status of Bangladesh, and I strongly suggest that the Govt. of Bangladesh should take positive steps forward in achieving a monumental goal such as 100 percent rate of education in Bangladesh.

Appendices

Appendices 1: Sample Design



Appendices-2
Map of sampling points



Appendices 3: Questionnaires

Socio-Economic Impact of Marketing of SMC (Social Marketing Company) Products in Bangladesh- An Analysis

3.1: QUESTIONAIRE: Field Investigation
For consumer/user of Contraceptive Products & Oral Saline

1. Respondent's Personal Information

- Respondent's Name:_____ Address:_____
- Sex: M / F _____
- Age:_____ _____
- Occupation:_____
- Income:_____(monthly / yearly) Marital Status:_____
- Educational Qualification:_____

2. Do you hear about any contraceptive? Yes No

(If the answer is "Yes", then which?

a)_____) b)_____)

c)_____) d)_____)

e)_____) f)_____)

_____

3. Which brands do you use? _____

_____

4. Do you feel unwell for the use of SMC brands?

Yes No

5. How did you become motivated to use SMC products?

- Self-motivated
- Motivated by others
- Another way

6. Can you describe your regular food items of breakfast, lunch and dinner?

Breakfast: _____

Lunch: _____

Dinner: _____

7. What were the items of your regular food consumption about **10 years ago**?

Breakfast: _____

Lunch: _____

Dinner: _____

8. What were the items of your regular food consumption about **20 years ago**?

Breakfast: _____

Lunch: _____

Dinner: _____

9. How has your economic condition changed within the past **10 years**? _____

_____

10. How has your economic condition changed within the past **20 years**? _____

_____

11. Has using contraceptive method changed socio-economic condition of the user? ____

If so how? _____

12. Do you know about the disease called AIDS? If yes, do you know how this disease is spread, and what can be done to prevent being infected with AIDS? _____

_____

_____

_____

13. How many children do you have? _____

14. How many children would you prefer to have? _____

15. How many children would you recommend to a new couple? _____

16. (If the respondent is not newly married) Would you advise a new couple to use contraceptive? _____

17. How does society portray couples who have four or more children? _____

_____

18. Did your socio-economic condition change after the use of SMC products?

Yes	No

If so how? _____

19. Do you know about ORSaline (yes or no)? If yes, name a few. _____

_____

20. How are children and adults helped by SMC's ORSaline? _____

_____

21. Do you know any other Oral Saline brands besides SMC? If yes, name a few. ____

_____

22. Did you use/consume any of these products, If so, which? _____

_____

23. According to you, what role did SMC play in the socio-economic development of Bangladesh? _____

_____

_____

_____

24. According to you, what are other roles should SMC play in the socio-economic development of Bangladesh? _____

_____

_____

25. According to you, what role should the Government play in the socio-economic development of Bangladesh in regards to the control of the population? _____

_____

_____

26. What is your advice in regards to future development of birth control planning among the masses? _____

_____

_____

Thank you for your time and your concern about the socio-economic condition of Bangladesh.

Socio-Economic Impact of Marketing of SMC (Social Marketing Company) Products in Bangladesh- An Analysis

3.2: QUESTIONAIRE: Field Investigation

For the Thana/Upazila based Officers and Employees about reproductive health & contraceptive prevalence

1. Respondent's Personal Information

- Respondent's Name:_____ Address:_____
- Sex: M / F _____
- Age:_____ _____
- Occupation:_____ Designation:_____
- Income:_____(monthly / yearly) Marital Status:_____
- Educational Qualification:_____

2. How long have you been in your field of occupation? _____

3. How long have you been in this institution? _____

4. About how many patients/clients/users did you give service to in this field? _____

_____

5. Do you observe any socio-economic change (impact) in your patients/clients/users post use? _____

6. Which contraceptive method/product do you more advise your patients/clients/users to use? _____

7. If the suggested product is a SMC product, then Which SMC products?

a)_____) b)_____)

c)_____) d)_____)

e)_____) f)_____)

8. Except these, do you know about other SMC products either suggested or not? _____

_____

9. What are the names of SMC's ORSaline? _____

_____

_____

10. According to you, after the use of SMC's ORSaline, what development did you observe in child health sector? _____

_____

_____

11. What other brands are marketing Oral Saline? And what are the names of their products? _____

_____

_____

12. According to you, in every 20 consumers, how many use SMC's ORSaline over other brands? _____

_____

13. All in all, according to you, what role did SMC play in the socio-economic development of Bangladesh? _____

_____

14. According to you, what are other roles should SMC play in the socio-economic development of Bangladesh? _____

_____

_____

15. According to you, what role should the Government play in the socio-economic development of Bangladesh in regards to the control of the population? _____

_____

_____

16. What is your advice in regards to future development of birth control planning among the masses? _____

_____

Thank you for your time and your concern about the socio-economic condition of Bangladesh.

3.3: QUESTIONAIRE: Field Investigation For SMC Experts/Specialists

1. Respondent's Personal Information

- Respondent's Name:_____ Address:_____
- Sex: M / F _____
- Age:_____ _____
- Occupation:_____ Designation:_____
- Income:_____(monthly / yearly) Marital Status:_____
- Educational Qualification:_____

2. How long have you been in your field of occupation? _____

3. How long have you been in this institution? _____

4. What product mix does SMC market in Bangladesh?

a)_____) b)_____)

c)_____) d)_____)

5. What is the product line of each product mix?

5A. a I)_____) a II)_____) a III)_____)

a IV)_____) a V)_____) a VI)_____)

5B. b I)_____) b II)_____) b III)_____)

b IV)_____) b V)_____) b VI)_____)

5C. c I)_____) c II)_____) c III)_____)

c IV)_____) c V)_____) c VI)_____)

5D. d I)_____) d II)_____) d III)_____)

d IV)_____) d V)_____) d VI)_____)

6. Do you think the price of SMC products is affordable to the less fortunate people of Bangladesh? _____

7. Will SMC consider increasing (+) or decreasing (-) these prices in the future?

_____

_____ %

8. What role did SMC play in the socio-economic development of Bangladesh?_____

_____

_____

_____

9. What role does the Government play in the socio-economic development of Bangladesh in regards to the control of the population? _____

_____

_____

_____

_____

_____

10. According to you, what role should the Government play in the socio-economic development of Bangladesh in regards to the control of the population? _____

_____

_____

_____

11. What is your advice in regards to future development of birth control planning among the masses? _____

_____

_____

_____

_____

_____

Thank you for your time and your concern about the socio-economic condition of Bangladesh.

Socio-Economic Impact of Marketing of SMC (Social Marketing Company) Products in Bangladesh- An Analysis

3.4: QUESTIONAIRE: Field Investigation
For Retailers (Pharmacies/Small Shops)

1. Respondent's Personal Information

- Respondent's Name:_____ Address:_____
- Sex: M / F _____
- Age:_____ _____
- Occupation:_____ Duration:_____
- Income:_____(monthly / yearly) Marital Status:_____
- Educational Qualification:_____

2. How long have you been in this Pharmacy/Shop? _____

3. How long has this Pharmacy/Shop been conducting business? _____

4. What types of products are sold here? _____

_____

_____

_____

5. What SMC products do you carry? _____

_____

_____

_____

_____

6. What are the names of SMC's ORSaline? _____

_____

7. What other Oral Saline brands besides SMC are purchased here? _____

_____

_____

8. For every 20 customers/consumers, how many purchase SMC's ORSaline over other brands? _____

_____

9. In 100 sachets of Oral Saline, how many SMC brand sachets are purchased? _____

_____

10. Besides SMC, what other contraceptive brands do you carry? _____

_____

_____

11. Are contraceptive product customers more male or female?

> More Male, less Female > More Female, less Male

12. What is the ratio of contraceptive product customers of male to female (per 10 customers)? M_____ : F_____

13. Do you give them any advice regarding the purchase of contraceptive products? ____

_____

_____

_____

_____

14. Do you receive any feedback of the prices of these contraceptive products? If so, how many feedback for each cluster (per 20 customers)?

a) Too much_____ b) Just right_____ c) Too low_____

15. What benefit does the population of Bangladesh receive for using contraceptive products? _____

_____

_____

_____

16. Do you have any advice for promoting contraceptive products? _____

_____

_____

_____

Thank you for your time and your concern about the socio-economic condition of Bangladesh.

Bibliography

Aaker, Davir A. and Others, *Marketing Research*

Abdullah, T.A (1974), *Village Women As I Saw Them*, Dhaka, Ford Foundation

Afsaruddin, Mohammad (1979), *Rural Life in Bangladesh* (1st Edition), Dhaka, Nawroze Kitabistan

Alam, Jahangir (1989), *Organizing the Rural Poor in Bangladesh: The Experience of NGOs, GB and BRDB*

Alamgir, S.F (1977), *Profile of Bangladesh Women*, Dhaka, USAID, Mission of Bangladesh

Alchian & Other, *University Economics* (2nd Edition)

Amim, S. (1994), *The Bangladesh Development Studies, Special Issue on Women, Development and Change* (Volume XXII)

Bangladesh Bureau of Statistics (2005), *Bangladesh Economic Survey*

Bangladesh Bureau of Statistics (1995), *Bangladesh Health and Demographic Survey- Findings in Brief 1994 and 1995*

Bangladesh Bureau of Statistics (2003), *Population Census-2002*, Planning Division, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka

Bangladesh Bureau of Statistics (2008), *Report on Sample Vital Registration System, 2007*, November 2008

Bangladesh Bureau of Statistics (2009), *Statistical Yearbook of Bangladesh 2008* (28th Edition), March 2009

Bangladesh Bureau of Statistics (1994), *Women and Men in Bangladesh: Facts and Figures 1970-1990*, Dhaka

Bangladesh Institute of Development Studies (BIDS-1990), *Analysis of Poverty Trend's Study*

Bessaignet, Pierre (1960), *Social Research in East Pakistan*, Dhaka, Asiatic Society of Pakistan

Bogue, Donald J. (1969), *Principles of Demography*, John Wiley and Sons Inc., New York

Bottomore, T.B. (1972), *Sociology: A Guide to Problems and Literature*, George Allen and Unwin, Boston

Chowdhury, A. (1978), *Bangladesh Village: A Study of Social Stratification*, Centre for Social Studies, Dacca

Chowdhury, R.H. And Nilufar, R.A. (1980), *Female Status in Bangladesh*, BIDS

Cleland, J. and Others (1994), *The Determination of Reproductive Change in Bangladesh: Success in a Challenging Environment*, World Bank, Washington D.C.

Cox, Peter R. (2000), *Demography*, Kalpana Press, Delhi

Davis, Kingsley (1949), *Human Society*, MacMillan

Durkheim, Emile (1950), *The Division of Labour in Society*, translated by George Simpson, Free Press

Engle, James F. and Others, *Consumer Behaviour*

Farouk, A. (1980), *The Use of Rural Women (A Six Village Survey in Village)*, Dhaka, Bureau of Economic Research, University of Dhaka, Bangladesh

Ginsberg, M. (1958), *Social Change*, British Journal of Sociology IX

Ginsberg, M. (1939), *The Scope and Methods of Sociology in the Study of Society ed.*, F.C. Bartlett, London

Government of the People's Republic of Bangladesh (2004), *National Strategy for Accelerated Poverty Reduction*

Green, Paul E. and Others (1978), *Research for Marketing Decisions* (4th Edition), Prentice-Hall

Gunder, Frank (1959), *Sociology of Development and Under Development of Sociology*, Oxford University Press

Gupta, K.R., *International Economics*

Hamid, Shamin (1994), *Non-Market Work and National Income: The Case Study of* (Vol. XXII), Bangladesh Institute of Development Studies

Holmes, Parker M., *Marketing Research: Principles and Readings*

The International Encyclopedia of Social Sciences (Vol-12), 1968

Islam, Md. Narul (1997), *Effect on Modernization on Fertility: Socio-Economic Context and Couple Behaviour in Bangladesh* (Vol-XIV), Social Science Review No.021

Jahan, Rounaq (1974), *Women in Bangladesh*, Dhaka, The Ford Foundation

Kahler, Ruel and Others, *International Marketing*

Karim, A.K.M. (1956), *Changing Society in India Pakistan and Bangladesh*, Nawroze Kitabistan, Dacca

Kindleberger, *International Economics* (8th Edition)

Kotler, Philip and Other (1997), *Principles of Marketing* (7th Edition)

Kotler, Philip (2003), *Marketing Management* (Eleventh Edition), Published by Pearson Education (Singapore) Pte. Ltd., Indian Branch, Delhi, India

LaPiere, T. (1965), *Social Change*, McGraw Hill

Leaflet., Blue Star Program, Social Marketing Company

Lindenbaum, S. (1974), *The Social and Economic Status of Women in Bangladesh*, Dhaka, The Ford Foundation

Luck, Wales, Taylor, Rubin, *Marketing Research* (5th Edition)

Mabud, Mohammad A. (1992), *Bangladesh's Population Problems and Programme Dynamics*

Maclver, Robert Morrison (1931), *Society its Structure and Changes*, Long and Smith, NY

Mahmud, S., Razzaque, A. and Nahar, L. (2001), *Research Report on Women's Empowerment and Reproductive Change in Rural Bangladesh*, Bangladesh Institute of Development Studies

Malhotra, Naresh K. (2002), *Marketing Research- An Applied Orientation* (Third Edition), Published by Pearson Education (Singapore) Pte. Ltd., Indian Branch, Delhi, India

Malthus, Thomas R. (1978), *An Essay on the Principle of Population*

Mannheim, Karl (1956), *Essays on the Sociology of Culture (ed.)*, Oxford University Press, London

Marx, Karl, *Das Capital* (Translated of the 4th German Edition)

Mill, John Stuart (1948), *Principles of Political Economy* (Vol. 2 – 5th Edition), Parker, London

Ministry of Finance (1980-81), *Bangladesh Economic Survey*, Finance Division, Economic Advisor's Wing, Govt. of Bangladesh

Moser, Sir Claus & Other, *Survey Methods in Social Investigation* (2nd Edition)

Myers, John G. and Others (1980), *Marketing Research and Knowledge Development- An Assessment for Marketing Management*

National Institute of Population Research and Training (NIPORT-2005), *Bangladesh Demographic and Health Survey 2004*

National Institute of Population Research and Training (NIPORT-2009), *Bangladesh Demographic and Health Survey 2007*

National Institute of Population Research and Training (NIPORT-2003), *Bangladesh Maternal Health Services and Maternal Mortality Survey 2001*

National Institute of Population Research and Training (NIPORT-1997), *Gender Training for Government Officials of Ministry of Health and Population*

National Institute of Population Research and Training (NIPORT-2005), *Population Projection Studies*

National Institute of Population Research and Training (NIPORT-2005), *TFR Research Studies*

Oxford Advance Learner's Dictionary

Planning Commission Estimate- 1981

Planning Commission, Ministry of Planning (1998), *The Fifth Five Year Plan (1997-2002)*, Government of Bangladesh, Dhaka

Rahma Anisur (1996), *Impact of Government and Non-Government Women Development Programmes*, Population, Development and Evaluation Unit, Ministry of Planning, Government of Bangladesh

Rahman, M.A. (1981), *Determinants of Contraceptive use in Bangladesh*, Multivariate Analysis of World Fertility Survey Data for Selected ESCAP Countries, Asian Population Series No.49

Sokolov, V.B. *The Theory of Choice and Decision Making*, Translated from Russian

Stanton, William J. and Others (1991), *Fundamentals of Marketing* (9th Edition)

Thomas, William Isaac (1907), *Sex and Society*, University of Chicago Press

UNDP (1994), *Report on Human Development in Bangladesh, Empowerment of Women*, Dhaka, Bangladesh

UNDP (1980), *Rural Women's Participation in Development Evaluation Survey No. 3*, New York

United Nations (1998), *World Population Prospects*, the 1998 Revision, New York

Weber, Max (1930), *The Protestant Ethics and the Spirit of Capitalism*, translated by Talcott Parsons, London

World Bank (1998-1999), *World Development Reports*