

## <u>ICDDR,B:</u> Centre for Health and Population Research

he Centre was established in 1978 as the successor to the Cholera Research Laboratory, which was formed in 1960 to study the epide-

miology, treatment, and prevention of cholera. The Centre is an independent nonprofit organization for research, education and training in population and health and to provide clinical services.

Located in Dhaka, the capital of Bangladesh, the Centre is the only truly international health and population research institution based in a developing country. Re-

## ICPD Update **Partners in Population and Development** A South-South Initiative Launched

en developing countries have formed an exciting new international alliance to advance the aims of the Programme of Action that

was endorsed by 1979 countries at the 1994 UN International Conference on Population

and Development (ICPD) held in Cairo, Egypt. From its inception, this initiative has been supported by a variety of multilateral and bilateral agencies and by other international institutions, particularly the United Nations Population Fund (UNFPA), and the Rockefeller

Foundation. The ten

countries that

make up this new international initiative - **Partners in Population and Development** are: Bangladesh, Colombia, Egypt, Indonesia, Kenya, Mexico, Morocco, Thailand, Tunisia and Zimbabwe.

These ten countries all have one important characteristic in common. Over the past

20 years, they have each been successful in creating dynamic national family planning programmes helping couples have the number of children they want, when they want them.

All 10 countries have strong track records in

establishing population policies, programmes

and services that have also helped improve

general conditions of maternal and child

health, lower birth rates and slow rates of

population growth.

The accomplishments of all ten Partner countries in the fields of family planning and reproductive health reflect the vast pool of expertise that now exists in many developing regions. Much of this expertise has been tailored to the very specific social, cultural and economic situations of the developing world. This means that the Partners are ideally suited to provide effective and innovative technical assistance responsive to the special needs of other developing countries.

The Partnership was officially launched on the occasion of the ICPD in Cairo in 1994 as a means to help implement the Programme of Action. Intrinsic to this Programme of Action is a set of broad and interacting population and development objectives that include: "sustained economic (Continued...p.4)

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Asem Ansari



search findings of the Centre provide guidelines for policy makers, implementing agencies, and health and family planning professionals not only in Bangladesh but all around the globe.

(Continued...p.4)

# What Accounts for the Sustained Fertility Decline in Bangladesh?

angladesh is the ninth most populous country in the world. Despite pervasive poverty and underdevelopment, however, Bangladesh has achieved considerable decline in fertility. Indeed, Bangladesh represents an apparent anomaly for considerable decline in fertility, despite the absence of conditions believed to be necessary for such reproductive changes. Bangladesh is the only country among the world's 20 poorest countries where such changes have occurred.

An analysis was done to examine the nature of fertility transition in Bangladesh by looking at the trends in contraceptive use and fertility and identifying some of the major factors accounting for fertility decline in Bangladesh. It is important to understand what might have accounted for the fertility transition in Bangladesh, despite its poor socioeconomic conditions. There may be two sets of factors accounting for the fertility decline: (a) positive factors which encourage eligible couples to contracept for spacing and/ or limiting births; and (b) negative factors which compel women to contracept for spacing and/or limiting births. Positive factors include education, especially female education, modernization, access to media, and ideational changes, etc. Negative factors include: landlessness, poverty, and reduced employment opportunities, thereby affecting the economic value of children, and so on.

Three main sources of data were used in this analysis: various national surveys, particularly the 1993-1994 Bangladesh Demographic and Health Survey (BDHS); longitudinal data from the ICDDR,B's Matlab Maternal Child Health and Family Planning (MCH-FP) Project Record Keeping System (RKS) and Demographic Surveillance System (DSS); and longitudinal data from the ICDDR,B's MCH-FP Extension Project (Rural) Sample Registration System (SRS).

#### Findings

In this analysis, the relationship between sociodemographic characteristics and the use of contraception and fertility was investigated, using three data sets: the 1993-94 BDHS, the



women in the national sample came more from households with radios. access to tube well drinking water and those with working status (other than home production) than in the other two samples. In addition, the women sample in the MCH-FP Extension Project SRS had more access to sanitation and safe drinking water than did those in the Matlab sample.

Doorstep delivery: an effective method of family planning service

MCH-FP Extension Project SRS, and the Matlab DSS/RKS. The analysis included a comparison of the sociodemographic characteristics of the women in the three samples; crosstabulations between two dependent variables, contraceptive use and having no birth in the



reference period, selected characteristics; and logistic regression analysis of the relationship between contraceptive use and fertility and the characteristics.

The women in the national sample had more access to modern influences than did the women in the two ICDDR,B samples. With similar age, education and religion, the The results of the

cross-tabulations between contraceptive use and the selected sociodemographic characteristics indicated a positive association with education; women's working status; having a sealed latrine, radio, tubewell, and electricity för both national BDHS sample and the MCH-FP Extension sample. However, there appears to be little relationship between use and these characteristics in the Matlab sample. The cross-tabulations between having nobirth during 1984-1993 (no birth during 1988-1993 for the BDHS) and sociodemographic characteristics found similar positive associations for the BDHS and MCH-FP samples, but not for the Matlab samples.

The results of the logistic regression analysis indicated that the probability of using contraception was positively associated with educational level, possession of tubewell, and possession of radio in the National BDHS data and MCH-FP Extension SRS data. In addition, the employment status of the woman was strongly associated with contraceptive use in the national sample although not in the Extension Project sample. For the Matlab DSS data, there was a positive association only with education and Hindu religion.

The second regression analysis investigated the probability of having no birth during the reference period. In all three data sets, having no birth was positively associated with age, and employment status of the woman. Educational level was positively associated only in the SRS and DSS data sets.

2

Logistic regressions were also run, using composite scores of employment status, sources of drinking water, possession of tubewell water, possession of sealed latrine, possession of radio, and possession of land. Contraceptive use was positively associated with the composite score in all three data sets. However, the relationship was stronger for the National BDHS and the MCH-FP Extension Project samples. The relationship between the composite score and having no birth was the strongest for the MCH-FP Extension SRS, less strong for the BDHS women, and not significant for the Matlab sample.

#### Conclusions

Bangladesh has been experiencing fertility transition, despite pervasive poverty and underdevelopment. The evidence from Bangladesh has, therefore, challenged conventional demographic transition theory, which generally associates fertility decline with economic development. Accordingly, population scientists are trying to understand the factors that have contributed to this change in Bangladesh.

The Bangladesh case certainly strengthens the argument that a strong family planning programme can make a positive contribution to the process of demographic transition. Already, there is evidence of the impact of family planning programmes on contraceptive use dynamics. A more pronounced effect is observed, when standard quality of care is ensured. However, it is also clear that after a certain level of contraceptive prevalence is achieved, a strong family planning programme can be more effective, when it is accompanied by major social changes.

Female education has emerged as the single most important variable affecting both contraceptive use and fertility regulation. Indeed, the powerful effect of education on reproductive behaviour is undisputed. Other positive factors accounting for reproductive change in Bangladesh include: female employment, access to the media (radio), etc. The evidence indicates that improvement in women's status is a critical determinant of fertility decline in Bangladesh. Ideational changes resulting from increased access to the media have fostered modern outlook and attitudes, thereby depressing high fertility norms, even among the poor. Furthermore, landlessness and impoverishment have altered the economic value of children, especially sons. Consequently, there is evidence of a poverty-led demand for contraception.

The findings have clear policy implica-

tions. The Government of Bangladesh should further strengthen its family planning programme efforts to accelerate the rate of fertility decline, especially in view of the existence of considerable unmet need for contraception - 10 percent and 9 percent respectively for spacing and limiting births. The mean ideal family size was 2.5 children in 1994, a sizeable decline from 4.1 in 1995. Nevertheless, while vigorously pursing family planning programme efforts, the government should attach greater priority to development in the social sector, including enhancement of women's status, especially through increased female education and employment opportunities; improved access to the media; etc. Such efforts, in addition to their direct benefits, would accelerate the process of fertility decline in the country.

Contributed by Barkat-e-Khuda, Project Director and Mian Bazle Hossain, Demographer, MCH-FP Extension Project (Rural).

### New Members of the Staff

Professor Patrick Vaughan, MD (London), FRCP (Edinburgh), FFPHM (UK), has joined the Centre in September to head the Community Health Division on secondment from the London School of Hygiene & Tropical Medicine: Patrick Vaughan graduated in medicine from Guys Hospital, University of London in 1961 and then specialized in internal and tropical medicine. He subsequently worked as a consultant physi-

cian and hospital superintendent in Papua New Guinea (1966-68), where he became interested in epidemiology and public health. Following postgraduate training, he joined the faculty of



Patrick Vaughan

the new medical school in Tanzania (1969-73), where he organized undergraduate and postgraduate medical courses and undertook epidemiological research on cardiovascular disorders and tuberculosis.

From 1973 to 1975, he was involved in developing the teaching programmes in community health at the Medical School in Nottingham, U.K. However, from 1975 until joining the Centre he has been an academician at the London School of Hygiene & Tropical Medicine, where he became a full professor of public health in 1987 and was the Head of the Department of Public Health and Policy. At the School he directed two specialized research programmes in tropical epidemiology and health systems research, particularly in health evaluation and planning. He has been involved in many research projects in child health and safe motherhood, and recently he has become interested in health policy studies. In addition, he has had extensive advisory and consultancy experience in Latin America, Africa and Asia, the World Health Organization, the World Bank, UNICEF; ODA, and other bilateral agencies.

eroen K van Ginneken, Ph.D., has joined the Centre in November as Project Director of the Demographic Surveillance System (DSS) of Matlab. After his graduation in the Netherlands,

van Ginneken pursued his doctoral studies in sociology at the

State University of New York, Buffalo in the United States. Upon completion of his doctoral studies, van Ginneken worked for many years in the Population Council in New York and the



Jeroen K van Ginneken

Planned Parenthood Federation in London. Since 1977 he headed the Machakos Project in Kenya with the Medical Research Centre under the aegis of the Royal Tropical Institute of Amsterdam for five years and was the principal author of the critically acclaimed "Maternal and Child Health in Rural Kenya: An Epidemiological Study" published in 1984. Upon his return to the Netherlands in 1982, he worked for several years in the Netherlands Institute of Preventive Health Care in Leiden. During the last five years, Jeroen van Ginneken was responsible for the international projects of the Netherlands Interdisciplinary Demographic Institute in the Hague.



#### Partners

#### (Continued from p.1)

growth in the context of sustainable development, education, especially for girls; gender equity and equality; infant, child and maternal mortality reduction; and the provision of universal access to reproductive health services, including family planning and sexual health." Within this framework, the Partners in Population and Development are committed to helping women and men throughout the developing world gain access to one of their fundamental human rights: to be able to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so. and the right to attain the highest standard of sexual and reproductive health.

#### What is the Partnership?

The ICPD Programme of Action recommends that "more attention should be given to South-South cooperation, as well as new ways of mobilizing private contributions, particularly in partnership with non-governmental organizations." Accordingly, the Partners in Population and Development will promote coordination, collaboration and the transfer of experience not only at the government level but also at the private-sector level and among non-governmental organizations.

The purpose of the Partners is to create a more effective mechanism through which developing countries can share the wide range and depth of their hard-gained experience in the field of population and development. In a true process of South-South technical assistance and coordination,



the Partnership will promote the exchange of expertise so that developing countries wishing to expand and improve their family planning and reproductive health services can learn about and apply strategies that have proved to be successful in the Partner countries.

#### How does the Partnership work?

Each Partner country has officially designated

an institution that is responsible for its activities within the Partnership. The focal institutions coordinate these activities, which include observation-study tours, training courses, consultancies, internships, seminars and workshops. Several international donors have already expressed strong interest in funding projects of this type in response to specific proposals from developing countries.

The "Partners in Population and Development", at its meeting on 19-20 April

#### Mission Statement of the Partners in Population and Development

The mission of the Partners is to expand and improve South-South collaboration in the fields of family planning and reproductive health. Each Partner will strengthen institutional capacity to undertake South-South exchange activities and will rapidly expand the number of South-South training and consultative programs. Long-term collaborative arrangements will be encouraged. The Partners Secretariat will provide a central point for networking among Partners and for identifying opportunities for South-South exchanges and sources of financial support

1995 in Harare, Zimbabwe, accepted the offer made by the Government of the People's

Republic of Bangladesh to host the Partners' Secretariat on the campus of ICDDR,B. The role of the Secretariat will be to help design and implement collaborative projects that meet the particular needs of developing countries. The Secretariat will help countries identify appropriate funding sources for specific activities and programmes, even though it will not itself provide funding for projects.

#### How is the Partnership governed?

The Partners in Population and Development are governed by a Board made up of the highest-ranking official responsible for reproductive health and family planning in each of the 10 Partner countries. Over time, the composition of the Board will reflect the changing and possibly growing membership of the Partnership. An Executive Committee of the Board, made up of representatives from four Partner countries, advises the Secretariat. Until the permanent Secretariat is established in Dhaka, the Partners have decided that the Rockefeller Foundation in New York City serves as the interim Secretariat.

The Partnership in Population and Development demonstrates in a practical form the ICPD's vision of a "new global partnership among all the world's countries and peoples, based on a sense of shared but differentiated responsibility for each other and for our planetary home."

Excerpted from documents of the Partners and based on contributions by Syed Shamim Absan.

#### **The Centre** (Continued from p.1)

As the leading international health and population research institution located in a developing country, the Centre has several comparative advantages. Its rural and urban hospitals, backed by state-of-the-art laboratories, allow rapid completion of research on diagnostic techniques, and clinical, pharmaceutical and nutritional interventions. The Centre has rural and urban community-based extension services and 35 years of experience in meticulous record-keeping and data management. Its surveillance systems for clinical, epidemiological, and demographic data yield an incomparable wealth of information and invaluable opportunities for health, population and family planning studies.

The Centre's Strategic Plan: "To The Year 2000" outlines work in three key areas: **Child Survival, Population and Reproductive Health** and **Application and Policy** in improving both supply of and demand for existing health technologies, and in replicating the successful interventions piloted in its projects through health systems research.

#### How is the Centre Organized ?

The Centre is governed by a distinguished multinational Board of Trustees comprising researchers, educators, public health administrators, and representatives of the Government of Bangladesh. The Board appoints a Director and Division Directors who head the four scientific divisions of **Clinical Sciences**, **Community Health, Laboratory Sciences**, and **Population and Family Planning**.

# **Contraceptive Failure Explained**

Failure of a contraceptive method is one of the most important factors of its use. Whatever the prevalence and continuation rate, the effectiveness of a family planning programme will be limited if contraceptive failure rates are high. Studies have estimated that worldwide about 20 million unintended pregnancies occur each year from contraceptive failures. These failures can lead to increased abortions, which in turn, increases maternal morbidity and mortality in the developing countries.

Only a few studies reported on contraceptive failure in Bangladesh, and the findings are also not consistent. The 12month failure rates for oral pills varied from 0.9 to 26.0 percent; for injectables, it varied from 2.4 to 3.1 percent; for IUD between 1.6 and 6.3 percent; and for condom, it varied from 1.3 to 12.3 percent. Such wide variation in failure rates for different methods in the same country is most likely due to problematic data, variation in the definition and perception of failure, and response error in these studies.

Since high quality data on contraceptive failure are not found even in the developed countries, and methodological pitfalls in the studies of contraceptive failure are on more reliable data and stronger methodology is needed to have a better understanding of the contraceptive failure in Bangladesh.

The risk of failure may be related to characteristics of the method itself, but is more likely to depend on the characteristics of users. Failure rates among highly motivated users are likely to be lower. On the other hand, such motivation depends largely on the characteristics of clients. Family planning managers need to know not only the failure rates of different methods. but also the socioeconomic and other determinants of failure, so that they can develop appropriate

In the intervention area, approximately 3,000 eligible women of reproductive age were interviewed on the basis of a multistage random sampling. These women form the basis of the



strategies to enable the prospective users to make informed choices.

This paper attempts to gain better

estimates of userfailure rates for different contraceptive methods used by rural Bangladeshi women and explore their socioeconomic, demographic and programmatic determinants from a set of prospective data.

#### Data

The data for this analysis come from the ICDDR,B's intervention areas in

Asem Ansari tervention areas in Matlab where a

comprehensive MCH-FP programme has been in operation in a population of about 100,000 since 1977. A comparison area of almost similar size has continued to receive only the much more limited services provided by the government programme.

In 1984, a Knowledge, Attitude and Practice (KAP) survey was conducted in both intervention and comparison areas of Matlab. current study.

Education of women and size of dwelling space were used as socioeconomic indicators in the study. The size of dwelling space was found to be a good indicator of wealth and economic status in the area, and among the socioeconomic status (SES) variables available from 1982 SES survey in the area, this parameter was found to be the best indicator.

The information about contraceptive use, continuation and pregnancies came from the Matlab's Record Keeping System (RKS) 1977-89. RKS is a continuing prospective data collection system of the Centre. As part of the regular service delivery activities, workers maintained information on all married women of reproductive age (currently, the number is approximately 16,000) on a monthly basis in respect of current contraceptive use status, reproductive status and breastfeeding status.

The study women received services during the study period from 56 Community Health Workers (CHWs). The effect of the quality of these 56 CHWs on contraceptive use behaviour is of central interest in the present study. These village workers provided family planning services through door-to-door visits once in two weeks.

The use failure of a method was calculated on the basis of total months of use



not unexpected, retrospective data on failure rates in the developing countries can be presumed to be even less reliable. Examining the wide variation in contraceptive failure from the Demographic and Health Survey (DHS) data from 15 developing countries, the reports have concluded that inter-country and intra-country variation may be attributable to errors in the data. Therefore, a study based



of that method, continuously or with a break. To measure the demographic impact of failure of different methods, the cumulative probability of conception that led to a live birth among all non-users at different time points was also estimated by life table technique.

#### Findings

Temporary methods were classified as pills, IUD, injectables, and others. The group "others" included condom, sampoon, withdrawal, *kabiraji* and rhythm. The cumulative failure rate at 12 months was 1.2 percent for injectables, 2.7 percent for IUD, 15.1 percent for oral pills, and 15.2 percent for the "other" methods. Among non-users of contraception, 37.8 percent conceived within the subsequent 12-month period.

Failure of oral pills was very high at the beginning of use, but it declined after 1 year, and especially after 2 years of use. The "other" methods (condom, rhythm, etc.) did not have such a decline in failure with the time of use. So the declining failure rate of pills was not, most likely, due to early pregnancy among the most fecund. Rather it suggests that pill use become more effective after 1 or 2 years of initial use. On the other hand, the failure of IUD was the highest after around 2 years of use. This is an indication that an IUD (the Copper T-200 in the Matlab programme at the time of the study) becomes ineffective after 2 years and needs replacement after that time. Interestingly, failure of injectable did not change with duration, remaining low at all times. Among non-users, the conception rate declined very rapidly with time. It suggests that fecundity among the non-users differed, and the women of higher fecundity conceived very quickly, leaving the less fecund women in the cohort.

The quality of the workers emerges as a significant determinant of failure of oral pills, IUD and "other" methods, but not of injectables users. Failure of only "other" methods decreased with maternal age. However, failure of injectables increased with the number of children. Failure of each method declined with education, and it is significant for "other" methods. Dwelling space was not significantly associated with failure of any methods. Hindus had significantly lower failure rates, compared to Muslims for oral pills, IUD and injectables.

#### Conclusions

Despite several limitations of this study, the analysis reveals that the failure of all temporary methods except injectables and IUD is a

major problem among family planning users in Bangladesh. The IUD and injectables, which have lower failure rates, are not much in use at the national level. The pill is a popular method with roughly 18 percent of eligible women using pills, and another 15 percent using condoms, rhythm, withdrawal, etc. in Bangladesh as of 1991. With a 12-month failure rate of 15 percent (for pills and other methods in this study), these 33 percent users would have a failure of  $0.33 \ge 0.15 = 4.95$ percent. The general fertility rate in this country is about 20 per 100 married women of child bearing age. This means about 25 percent birth (4.95/20 x 100) is due to contraceptive failure. This is an alarming situation. In a

figure showing the relationship between contraceptive prevalence and total fertility rate (TFR) in 50 countries between 1984 and 1992 in the Population Reports Series' No. 11, the TFR for Bangladesh was shown to be far above the regression line. The post-partum amenorrhoea in this country is one of the highest in the world and will be an additional source of protection from conception. Its TFR, therefore, for a certain level of contraceptive use, should be below the regres-

sion line. A higher TFR than expected on the regression line may very likely be due to high failure rate of oral pills, and other temporary methods in Bangladesh.

The results of this study suggest that contraceptive failure needs serious attention to make the family planning programme a success. Policy makers need to give attention to the contraceptive failure issue in the country. Some changes in the method mix may be part of the solution. This study suggests that more attention should be given to young women for any methods and to the pill users for the first 1 or 2 year(s), to reduce failure in the programme. The quality of the workers, which may be improved by training, can play an important role in avoiding unwanted pregnancy during contraceptive use.

Contributed by Radheshyam Bairagi, Population Studies Centre and Mizanur Rahman, Demographer, MCH-FP Extension Project (Rural), Population and Family Planning Division. The full paper will be published in the March 1996 issue of the International Family Planning Perspectives.

### Reasons for the low rate of ORS use in rural Bangladesh

espite attempts to create community awareness of the importance and efficacy of oral rehydration soultions (ORS), the low rate of ORS use still remains a major medical problem. For instance, though awareness of ORS amongst parents in Bangladesh is over 90 percent, its use in diarrhoea is only around 30 percent. Overall, in developing countries less



Despite high level of awareness the rate of ORS use is still low

than one in three children with diarrhoea receives ORS. This explains why dehydration, easily preventable with ORS, still causes 1.5 million deaths worldwide annually.

A study was carried out in 1993, as part of a Masters thesis, in a rural area of Bangladesh to investigate the home management of childhood diarrhoea, as practised by mothers and local practitioners. The methodology involved, in addition to clinical examination of 179 children with active diarrhoea, in-depth interviews with their mothers on their perceptions and practices related to the illness. Interviews were also taken of local practitioners involved in the treatment of those cases of diarrhoea that had sought their help.

The study found that only 29 percent of the diarrhoeal episodes were treated with ORS. As expected, the use of ORS was positively associated with maternal literacy levels and the severity of the diarrhoeal illness. However, a number of other interesting reasons were also identified.

One of the main reasons given by mothers for not using ORS was that the episode was not perceived as the watery type of

(Continued...p.8)

6

Maru MM, Haaga JG. Social Dimensions in Health: A South East Asia Perspective. New Delhi, India. National Institute of Health and Family Welfare. 1994:82-102

660 he paper documents unprecedented increase in contraceptive prevalence rate and consequent decline in fertility in the ICDDR,B's Matlab MCH-FP area and the two experimental thana of its MCH-FP Extension Project. It then discusses innovative program strategies developed and tested in these experimental field projects. These include recruitment of appropriate female field workers, decentralization of clinical contraceptive and MCH services, expansion of contraceptive choice, and improvement of quality of care and program management. Evidence on the impact of various interventions under each of these strategies on program performance is also presented. The authors also discuss the efforts to scale-up these innovations to the national program and conclude that these innovative strategies have also contributed to increased contraceptive prevalence and decrease in fertility at the national level. Lessons learnt from this experience are summarized."

Shahidullah M. The sisterhood method of estimating maternal mortality: the Matlab experience. Studies in Family Planning 1995;26,2:101-106

his study reports the results of a (() test of validation of the sisterhood method of measuring the level of maternal mortality using data from a Demographic Surveillance System (DSS) operating since 1966 in Matlab, Bangladesh. The records of maternal deaths that accrued during 1976-90 in the Matlab DSS area were used. One of the deceased woman's surviving brothers or sisters, aged 15 or older and born to the same mother, was asked if the deceased sister had died of maternity-related causes. Of the 384 maternal deaths for which siblings were interviewed, 305 deaths were correctly reported, 16 deaths were under reported, and the remaining 63 were misreported as nonmaternal deaths. Information on maternity-related deaths obtained in a sisterhood survey conducted in the Matlab DSS area was compared with the information recorded in the DSS. Results suggest that in places similar to Matlab, the sisterhood method can be used to provide an indication of the level of maternal mortality if no other data exist, though the method will produce negative bias in maternal mortality estimates."

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Phillips JF, Hossain MB, Kuenning MA. The long-term demographic role of community-based family planning in rural Bangladesh. The Population Council, New York. Work Paper No. 73, 1995

" xperimental studies demonstrating the effectiveness of nonclinical distribution of contraceptives are typically conducted in settings where contraceptive use is low and unmet need is extensive. Determining the long-term role of active outreach programs after initial demand is met represents an increasingly important policy issue in Asia where contraceptive prevalence is high in most countries and fixed service points are conveniently available. This paper examines the long-term rationale for household family planning in Bangladesh-where growing use of contraceptives, rapid fertility decline, and normative change in reproductive preferences are in progress-bringing into question the rationale for largescale deployment of paid outreach workers. Longitudinal

data are analyzed that record outreach encounters and contraceptive-use dynamics in a large rural population. Findings demonstrate that outreach has a continuing impact on program effectiveness, even after a decade of household visitation. The observed impact derives from sustaining support for contraceptive practice that does not naturally arise from social and familial sources, and generating new demand for contraception through the impact of outreach on reproductive motives and gender preference. The policy implications of this finding are reviewed."

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These results suggest that, to reduce perinatal

mortality, programmes targeted at primipa-

rous women, at those who had had fetal

losses and to both younger and older mothers

should be considered. Serious attention

should be given to the types of antenatal and

delivery care that may be feasible in the con-

text of rural developing countries. It can also

be recommended that efforts to increase fer-

tility control practices that lengthen the inter-

pregnancy interval to more than 24 months

would be effective in reducing individual ex-

perience with perinatal mortality."



Mostafa G. The influence of socio-biological factors on perinatal mortality in a rural area of Bangladesh. Asia-Pacific Population

Journal, Vol 10, No.1, March 1995

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he study has confirmed that survival of the perinatal period is separately related to both maternal age and primiparity. Once

maternal age is taken into account, high parity shows no evidence of decreasing survival chances.



#### Low rate of ORS use (Continued from p.6)

diarrhoea portrayed in the ORS promotional campaigns. Mothers used as many as 12 different folk labels of illness to describe the 179 episodes of diarrhoea, and of these, only 3 folk labels corresponded to the diarrhoeal type portrayed in the ORT promotional messages. Thus the current ORT campaign has evidently not encompassed, in its present format, all the folk types of diarrhoea that correspond to clinical diarrhoea.

A finding of crucial significance regarding ORS use that emerged from this study was its extremely low use in infants aged less than 7 months. Of the 23 infants in this age group, only 2 (9%) had been given ORS, against 27 percent for older infants and 29 percent for children aged 5 years or less. This finding has grave implications in that infants in this age group are particularly vulnerable to the effects of dehydration.

Why did mothers not give ORS to these infants? One reason was that many of the watery diarrhoea episodes in infants in this age group were attributed by mothers to breastmilk. Thus their intervention efforts were mainly aimed at improving the quality or reducing the quantity of breastmilk production through modifying their own diets. ORT did not fit into this scheme of management.

However, an even more important reason relates to weaning age. In rural Bangladesh, weaning starts relatively late at about six or seven months of age, and in many cases, even later. Mothers in this study generally had the perception that infants aged below 6 months should not drink any fluids other than breastmilk, and they were introduced to drinking water or other clear fluids only at the age of 6 months or more. They also had the fear that offering such fluids to very young infants would cause "chest congestion" or pneumonia-like illnesses. Hence the concept of giving them ORS to drink went against one of their basic feeding tenets.



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In this study, the most common form of ORS used was the *laban-gur* solution made with common salt (*laban*) and mollasses (*gur*) and less than a fifth of the ORS used was commercial formulation of glucose-ORS available in local pharmacies.

One of the important reasons for low ORS use was related to the availability of *gur. Gur* is most readily available between January and March after the sugarcane harvest. In lean months, especially between October and December, it can be found in only about 10 per cent of rural households.

Thus while refined sugar appears to be replacing gur, or will replace in the near future, the present ORS promotion efforts are still centred around the *laban-gur* solution. Thus many mothers may be missing the point that ORS can be made from refined sugar as well.

Another important reason for low rates of ORS use was the difficulty mothers often had in making children drink ORS. While many children with diarrhoea typically have a decreased appetite, the taste of ORS was often cited as the reason why children disliked ORS. Thus future research can look into improving the taste and acceptability of ORS amongst young children.

An often overlooked reason for low ORS use is the role played by health practitioners who are consulted for diarrhoeal episodes. In the present study, less than half of the cases with watery diarrhoea who sought treatment at a local practitioner were advised to use ORS. Since most of these practitioners were unqualified or semi-qualified, it is likely that they were not fully cognizant of the crucial role played by ORS in the management of diarrhoea. Thus there is an urgent need of training programmes for these rural practitioners in the field of diarrhoea management.

The results of this study indicate that ORT promotion can be made more effec-



tive if the wording and format of promotional messages take into account the cultural and social factors that impact on ORS use. These factors can be elicited with studies that include a mix of both quantitative and qualitative research strategies.

For the first time, a diplomat from the Russian Embassy paid an official visit to the Centre. The Counsellor of the Embassy of the Russian Federation in Bangladesh Mr. Youri I Roudnev (2nd from right) was shown around the Centre's facilities by Graham Wright, Ken Tipping, and Taqsem Khan. Mr. Roudnev showed keen interest and was moved by effectiveness of the clinical case management at the Intensive Care Unit of the Centre's Dhaka Hospital.



