FERTILITY DECLINE UNDER POVERTY

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July 20, 2004

Introduction

The availability of censuses since the early 1900s allows the identification of three distinct phases of changing population growth in Bangladesh. The first phase from 1911 to 1931 was the period of very low growth, often even negative growth in specific years, with moderately high fertility and very high mortality levels. The second phase, between 1931 and 1981, was a period of rising growth characterised by falling mortality levels but unchanging fertility levels. This was followed by a third phase up to the end of the twentieth century of declining population growth rate characterised by continued falling mortality levels, but at a much slower pace, and falling fertility levels, the decline in population growth rate gaining momentum after 1985 with rapid fertility decline. There now appears to be a slowing down or 'plateauing' of the fertility level in the sense that higher contraceptive use is not leading to further expected reductions in the TFR[1]. Further decline in mortality level and improvement in life expectancy are also proving to be difficult, especially reduction in under five mortality[2].

Thus, by the late 1990s Bangladesh was well into the third phase of classic demographic transition (See Figure 1), proceeding from a high mortality-high fertility regime to a relatively low mortality-low fertility one, but by no means near the end of transition heralded by replacement level fertility (TFR of 2.2). The Bangladesh transition is noteworthy in a number of ways and has generated considerable interest and debate both among academics and among policy makers[3]. First, very high population growth, averaging over 2.5 percent per annum, existed in Bangladesh only between 1960 and 1980. Hence, the common belief that Bangladesh had 'explosive' population growth rates

[1] The TFR remained unchanged at 3.3 between 1996-97 and 1999-00 although the use of modern contraceptives increased slightly from 41.6 percent to 43.4 percent (BDHS 1999-00).
[2] Most of the mortality decline occurred during the early part of the last century up to 1960, and both the CDR and the IMR stagnated during the 1970s, beginning to decline again only after mid-1980s.
[3] The debate around demographic transition in Bangladesh is well documented (Clelland et al 1994; Kabeer 1994; Dasgupta and Narayana 1994; Schuller and Hashemi 1994; Mahmud 1997; Caldwell et al, 1999; Basu and Amin 2000).

for a long period in the past is more myth than fact. Second, fertility decline has been almost in defiance of conventional explanations in terms of standard preconditions of decline, namely significant socio-economic development and modernization, large perceptible decline in child mortality and substantial improvement in the status of women[4]. The uniqueness of the Bangladesh transition is reflected in the fact that between 1990 and 1997, while low income country populations world wide grew at the average annual (exponential) rate of 2.1 percent, the population of Bangladesh grew only at the rate of 1.6 percent (World Bank 1998)[5].

Undoubtedly, by reducing the population pressure on scarce natural resources, especially land, and on overburdened physical and social infrastructure the demographic transition has been genuinely beneficial at the aggregate level, with enormous practical implications for the socio-economic development of the country. In fact, the so-called 'demographic bonus' from fertility reduction has meant that Bangladesh today can claim one of the highest growth rates in per capita income levels among the low-income countries of the world[6]. It has also meant that even with limited domestic resources and dwindling foreign aid Bangladesh has been rather an exception in that fiscal adjustment, as part of economic reforms, did not compel government to squeeze the budgetary shares of the social sectors, namely health, education and targeted food distribution.

However, the 'demographic bonus' is not immediately apparent because of large incremental additions to the population every year[7]. This built in growth momentum, termed by one economist as the 'macro inertia' of population (Ray 2000), is aggravated by very small gaps between generations and rapid replacement of cohorts, the consequence of the existing pattern of family building, namely a very early start to childbearing and relatively short spacing between subsequent births. In addition, low levels of aggregate economic development, continuing widespread poverty and poor living standards indicate that the gains from reduced fertility are differentially experienced

[4] In terms of percapita income Bangladesh is the poorest country in the world to have a TFR of under five births per woman and the only country to have reached this low level of fertility with an infant mortality as high as 82 infant deaths per 1000 live births (Caldwell et al 1999).
[5] In South Asia India and Sri Lanka also had similar growth rates but the case of Bangladesh is more extreme. In fact according to the Bangladesh Bureau of Statistics natural population growth in Bangladesh in 1998 was 1.5 percent.
[6] This is because growth in per capita income equals GDP growth minus population growth.
[7] Even with a growth rate of less than 2 percent the size of the population grew by one third between 1981 and 1995.

within the population, and raise questions about how equitably the benefits and costs of the demographic transition are distributed.

This paper will show that while the poor have contributed the most in achieving the demographic transition they actually lose out from enjoying the 'demographic bonus' from reduced fertility levels because they are unable to strike a favourable trade-off between reducing family size and investing in children. There is also a gender aspect to the transition because women bear an inequitable share of the burden of limiting fertility without always reaping the full benefits of lower birth rates. This undoubtedly poses a serious equity concern for social and economic policy aimed at poverty alleviation and growth, not the least because the fairly high economic growth and reduction in poverty levels claimed by Bangladesh today has only been possible because the poor have opted for smaller families. A good starting point for addressing this policy concern is to understand the rationale behind this important and in many senses profound behavioural change, in other words, why have couples in Bangladesh, poor and rich alike, decided to limit family size by using modern contraceptives?

Explanations for fertility decline

It is well recognized that the demographic transition in Bangladesh departs from the classic pattern predicted by theory in a number of important ways. First, significant change in reproductive behaviour was initiated in the absence of concurrent improvement in income levels and standards of living, contrary to the assumption that socio-economic development and modernisation must precede demographic change[8]. Second, the movement through the entire trajectory of the three phases was much more rapid and the pace of fertility decline, when it began, was quite unprecedented even in the West. This makes theorizing about the causal explanations for fertility decline open to many interpretations.

In 1973, when the Bangladesh population policy was first unveiled, the assumption was that a sustained demand for contraceptive services could be generated by concerted public action. At the time demographers found this logic to be flawed and seriously questioned the likelihood of success

[8] An assumption premised upon the transition experience of industrialized populations in the West.

of motivational and service delivery efforts alone to generate demand for birth control in a context where high fertility was the best response individual couples made in adjusting to their own environment (Demeny, 1975; Sirageldin et al 1975). Although it was conceded that lowering of the price of birth control would elicit some new demand, evidence supporting the existence of significant effective demand for modern contraceptive services was not believed to be sufficient to justify "building up a large-scale subsidized service-delivery system anticipating a yet to be proven demand" (Demeny 1975, pp 310). The "real bottleneck" was seen as the generation of demand and the belief was that there would have to be "serious efforts that go beyond family planning" (Sirageldin et al 1975, pp 24). It was argued that demand for birth control could only be induced through transformation in the socio-economic conditions that generated demand for large families, or in short, that "Development was the best contraceptive".

Much to their surprise and everyone's delight, fertility levels started to decline from 1975, slowly at first but with increased momentum after the mid 1980s (Table 1). In fact, fertility decline in Bangladesh had actually begun very slowly from as early the mid 1960s[9], but in the 20 years from mid-1970s to mid-1990s the total fertility rate dropped by more than 50 percent, from nearly 7 live birth per woman to 3.3. Fertility decline was experienced in varying degrees by all sub-groups of the population, with greater declines being evident for more educated and older women, in urban areas compared to rural areas, and more visibly among women from the upper and the lowest income classes. Differentials converged but gaps according to schooling level continue to persist, as does regional variation and rural/urban differences, although declines have been identical in all areas. Modern contraceptive use increased from 5 percent of eligible couples (primarily women) in 1975 to 23 percent in 1989, 36 percent in 1993 and 43 percent in 1999[10]. Observed fertility preference, measured by desired or ideal family size, also declined up to the mid 1990s, from as high as 4.1 in 1975 to 2.9 in 1989 and 2.5 in 1996, but remained unchanged since then. The proportion of women wanting to stop childbearing increased from 39 percent in 1991 to almost 50 percent in 1993-94, and another 22 percent wanted to wait two years before having another child (BDHS 1996), so that by the mid-1990s 70 per cent of eligible women wanted to either stop or

[9] In 1960-62 the TFR was 7.6, which declined to 7 by 1965 according to the Pakistan National Impact Surveys.
[10] The proportion of couples using traditional methods has declined over time and was 19% in 1999.

delay childbearing, indicating strong motivation for limiting fertility and a huge demand for family planning services.

In trying to understand the phenomenon of rapid increase in the demand for birth control demographers now presented a completely opposite explanation in terms of the 'sociology of supply'. According to this hypothesis the availability of family planning services in a fairly widespread manner from the mid-1970s generated a demand for birth control and caused the subsequent fertility decline. It was argued that long before the onset of fertility decline in the mid-1970s aggregate demand for children had fallen in response to the significant decline in mortality during the early part of the last century. Due to lack of access to birth control methods, however, actual levels of childbearing exceeded desired levels, causing 'surplus' or 'unwanted' childbearing, which formed a large component of the fairly high levels of total fertility before the mid-1970s. The consequence, it was believed, was a large 'latent' demand for contraceptive services waiting to be tapped by the nation-wide family planning programme or, in other words, that "Contraceptives were the best contraceptives". In addition, the lack of recognition of other less perceptible socio-economic change made it relatively easy to attribute the entire decline in the TFR to the provision of family planning services, almost precluding any demand side explanations (Cleland et al 1994).

Both these explanations for the generation of effective demand for birth control are only partial, given that fertility transition is also a shift from 'natural' childbearing to deliberate limitation, or a process of conscious adoption and use of birth control methods resulting from the intention to limit fertility[11]. This process is causally linked not only to actual reproductive behaviour but also to underlying socio-economic and cultural variables that shape demand for and supply of children, and is therefore likely to vary by socio-economic class. Economists have provided a useful way of framing the causal mechanisms leading to the adoption of birth control, although not always popular with demographers (Caldwell et al 1999, pp70), in terms of motivation for limiting family size, attitudes regarding small families and birth control and actual access to birth control

[11] The degree to which the decision to limit fertility is a conscious one may be assessed from the proportion of respondents in demographic surveys who respond to the question 'how many children do you want?' with a numerical answer instead of 'don't know or up to Allah'. This proportion increased significantly from 71 percent in 1975 to 92 percent in 1989 (BFS 1989).

methods[12]. Motivation depends upon the economic demand for children and fertility preferences; attitude is shaped by childbearing norms and social and psychological acceptability of birth control methods; access is determined by availability and choice of methods and the associated money and time costs of using those methods.

The most plausible explanation is that declining demand for children leading to increased motivation for family limitation, favourable attitudes to small families and modern birth control, and increased access to contraceptive services have all been crucial in the adoption of modern contraceptives by individual couples. Even prior to the intensification of the family planning programme in 1975 there was some motivation for family limitation, particularly among educated women from higher socio-economic classes, in other words the innovators[13]. However, in 1975 the negligible use of traditional methods (2.7%), which did not depend upon access to services, despite fairly common knowledge of family planning (82%) indicated that motivation was certainly not very widespread at that time. One study estimated that during the late 1960s and early 1970s only 15 percent of ever-married women under 40 in rural areas and 21 percent in urban areas had any intention of using birth control (Sirageldin et al 1975). This gave an upper limit to effective demand for contraceptive services, confirming that in the early 1970s motivation to limit family size was still quite limited.

It is highly improbable that the subsequent fertility decline across different population subgroups could have taken place purely in response to availability of family planning services in the absence of significant increase in the motivation to limit family size[14]. Certainly, women's reports of 'unwanted' fertility (measured as the difference between the actual number of children and the desired number) attests to a rising rather than a pre-existing demand for contraceptive services after 1975, only plausible if the motivation for family size limitation was also becoming

[12] This explanation draws upon the 'Synthesis' framework of Easterlin and Crimmins (1982) also used by Clelland et al (1994) to garner support for the "latent demand" hypothesis.
[13] In 1969 a small proportion (3.7%) of couples were actually using modern contraceptives reflecting that by late 1960s there was a small effective demand for family planning services.
[14] The potential for achieving significant reduction in fertility levels merely by addressing the "unwanted" component of total fertility through family planning programmes alone is yet to be established (Westoff et al 1989).

stronger[15]. The changing socio-economic environment in the late 1970s and early 1980s (discussed below) also indicates that the economics of family building were undergoing revision after the mid-1980s, with the demand for children falling not only among the wealthy and better educated classes but more importantly among the vast majority of the population belonging to the poorer less educated classes living in rural areas (Kabeer 1996; Caldwell et al 1999; Dasgupta and Narayana 1994; Mahmud 1997).

Within the context of declining demand for children and growing motivation to limit family size the Bangladesh family planning programme undoubtedly speeded up the pace of fertility decline by supporting the efforts of couples to implement changing fertility preferences (Bongaarts 2002). With its single-minded focus on contraceptive delivery the programme was able to increase access by lowering the average money and time cost of contraception, although women (and households) internalized high health costs. Through its aggressive motivational campaign and reliance on female workers and home visits, the programme also played a role in promoting a favourable attitude to the two-child family and in legitimizing the use of modern birth control methods.

The significance of the family planning programme for Bangladesh's fertility decline lay precisely in its ability to increase access to modern birth control methods and raise the acceptability of using them by reducing both the subjective and the objective costs of contraceptive use, especially for the poor who constituted the overwhelming majority of the population. The greater relevance of the programme for the poor derived from the fact that existing pronatalist values and practices that militate against birth control, such as early initiation into childbearing, the high premium placed on motherhood, sanctions against childlessness, the prestige attached to dependence upon sons in old age and so-called religious restrictions, all tend to be reinforced by poverty[16]. Poverty also increases psychological costs associated with contraceptive use by restricting access to information and services. Thus, the national family planning programme had a "marked effect over a short time within the larger framework provided by socio-economic change" (Caldwell et al 1999, pp71).

[15] In 1975 only 11 percent of ever-married women reported higher actual family size compared to desired family size but this proportion had doubled to 23 percent by 1989 (BFS 1989).
[16] These values and practices are eroded by modernization and improvements in women's status.

The recent slowing down of fertility levels confirms that the socio-economic rationale for limiting fertility is, if anything, even more important today. This is evident from persistent socio-economic differentials in desired family size, observed fertility and in the proximate determinants (contraceptive use, age at marriage and mean duration of insusceptibility) (Table 2). The lack of further decline in the birth rate despite increasing contraceptive prevalence, although much more slowly, is because current fertility preferences (measured by mean ideal family size in 1999-00 of 2.5) are still high relative to replacement level fertility especially among the poor[17], termed the 'micro inertia' of population (Ray 2000).

Declining demand for children and the quality-quantity trade-off

Changes in the underlying socio-economic context of childbearing have not been duly recognized because of their imperceptible effects on aggregate indicators of economic development (GDP growth, urbanizaton, industrialization), but they do signal a reappraisal of the cost benefit calculations of children to poor parents generally and to poor women in particular, altering the quality-quantity trade-off with respect to family size[18]. Children's economic contribution to poor households and parents started to decline at least from the early 1980s because of the sectoral shift in household income sources from agricultural livelihoods to non-farm livelihoods like trading, labour selling and service. In rural areas there was less opportunity for children's labour contributions not only on own farms but also from non-farm employment due to lack of marketable skills and low labour productivity[19]. Transfer of rural land poor to urban areas also meant that children had to acquire new marketable skills in order to be employable in the urban settings[20].

Poor parents were also beginning to consciously invest in children to acquire skills needed for non-

[17] If schooling is taken as a proxy for socio-economic status, mean ideal family size was 2.7 among the poorest women (no schooling) and 2.3 among the wealthiest (secondary or more schooling) in 1999-00 (BDHS 1999-00).

[18] Children are valuable to parents for a number of reasons such as their present labour contributions, future earnings potential, old age support and psychological satisfaction. In situations of limited resources parents can invest in child quality (improving health, increasing survival, increasing skills and schooling) by reducing the quantity of children, i.e., by limiting family size.

[19] The expansion into new non-farm occupations, mostly low-productivity self-employment, absorbed the growing numbers of landless rural workers and diversified the income sources of the poor (Mahmud 1996). However, overcrowding in these activities undermined productivity growth and limited scope for children's labour contributions.

[20] Landless and marginally landless households grew at a faster pace than all rural households, with substantial transfer of rural land poor to urban areas where earnings are on average higher.

farm employment by sending children, boys and girls, to school[21]. Other evidence of increased conscious parental investment in children includes the widespread use of ORS and rapid uptake of immunization to improve health and survival prospects of children, with closing gender gaps as well. During the 1980s most of the costs of investing in children were borne by parents themselves, although since the early 1990s a significant proportion of the cost of these parental investments was mitigated by increased access to public services and financial incentives[22].

However, there were other less visible costs that parents experienced and internalized, such as perceived (and real) low returns from primary schooling and direct costs in terms of clothes, private tuition, etc., low quality of public provision and non-accountability of providers, unequal access to services, and so on. Moreover, faulty programme design leading to unofficial user fees, unresponsive service delivery, people's lack of voice in delivery mechanisms and over-ambitious targets imposed considerable costs on poor parents wishing to avail public services; costs that often compelled people to rely on the market thus increasing inequality. Another aspect of rising cost of children was the increased incidence and amount of dowry payments since the late 1960s, forcing parents to incur huge expenses for the marriage of daughters. In a perverse way the rise in the incidence of dowry was actually due to a 'marriage squeeze', a fallout of the demographic transition itself, causing a shortage of grooms for marriageable girls (Amin and Cain 1997).

Thus, during the 1980s and early 1990s poor parents were confronted with the prospect of declining economic contributions from children[23] and increasing costs of raising children because of the need to invest in human capital development. However, the quality-quantity trade-off faced by poor parents was not as straightforward as the trade-off faced by the non-poor because of poor people's lack of resources, limited choice and inability to influence policy and programmes. The absence of efficient institutions and performing markets also prevented the poor from accessing services and goods that helped to mitigate the costs of children or to consolidate the benefits of small families.

[21] In the Matlab area the percentage of children with schooling increased from 51 percent to 71 percent between 1976 and 1996 (Razzaque et al 1998, pp58).
[22] Programmes like the FFE and FSSP provided financial incentives to parents to send children, especially daughters, to school.
[23] However, little change in the living arrangements of the elderly indicates that children's value to parents in their old age remains (Amin 1995).

The cost and benefit calculations of children not only altered for poor parents, but were different for women and men within the household. This is because a common household utility function for children is most unlikely given the gender specific distribution of burdens and benefits of childbearing (under existing conditions of negligible responsibility of men for childrearing), making children costlier to women than to men. Hence, women were more strongly motivated to limit fertility, and the greater burden placed on poor women for fertility regulation could actually have speeded up the process of fertility decline. In an unintended way, therefore, women's agency was an invisible force behind the rapid uptake of modern birth control methods. In fact, women's agency in fertility limitation was probably greater in poor households that relied relatively more on female incomes[24].

Who gains and who loses from fertility decline?

From the perspective of parents the expected return from fertility limitation is an increase in child 'quality', in terms of increased potential for future earning and better health and survival prospects, both of which ensures the security of parents against income erosion and vulnerability in old age. Indeed, there have been genuine and significant improvements in this respect at the aggregate level: children's school enrollment has increased, health and nutrition status of the population and particularly children has improved and survival has increased. Unfortunately, there are unacceptable and perhaps avoidable differences between the poor and the non-poor in these same achievements, indicating that not everyone is able to reap the benefits of a small family equally and that poor parents largely lose out[25]. Women are another category who bear an unfair responsibility for family size limitation but are unable to fully enjoy the advantages of lower birth rates to the same extent as other household members or the broader society.

First, although primary school enrollment has increased tremendously and over three-fourths of school-age children are enrolled, with a closing or even a reversal of the gender gap, access of

[24] Labour force participation of women increased during the period of fertility decline, especially in poor households.

[25] The continuing high demographic dependency ratio of 0.8, a legacy of relatively high past fertility, and even higher economic dependency ratio since not all working-age adults are fully and gainfully employed, suggests that for people living in poverty the benefits of the 'demographic bonus' are not that obvious.

children from very poor or hardcore poor households is far below average[26], and households that are unable to take advantage of school incentive programmes (like the FFE) and keep children out of school are on average poorer[27]. The most important reason for not enrolling in primary school, cited by 32 percent of surveyed households, was poverty (after child too young) rather than the fact that child had to work, reported by only 4 percent of households. While most poor children start school they are far less likely than non-poor children to continue schooling up to a level that can ensure reasonable returns. Ironically, the greater investment gains for girls has come at a cost to poor parents and to boys because parental investment in girl's secondary schooling (in response to incentives) has had the effect of reducing investment in sons schooling (Khandkar et al 2001). Thus, the greater female advantage in poor households means that the negative effect on boys is likely to be greater the poorer the household.

A similar picture of greater disadvantages for the poor emerges with respect to the outcomes of parental investment in children for better survival and health, such as infant mortality and under five mortality, children's stunting and under-nutrition, prevalence of child morbidity from diarrhea and respiratory illness, lower expectation of life at birth. The prevalence of child under-nutrition (stunting, wasting and under weight) declines with the amount of land owned by the households and annual and per capita household expenditure, as well as annual household food expenditure, and is significantly higher in the 'most vulnerable' households[28]. Children's morbidity from diarrhoea and ARI is significantly lower in the 'least vulnerable' households. IMR and U5 mortality rate were both significantly higher in poor households, i.e. where mothers had no schooling (Table 3). An obvious explanation for these differentials is the much lower access to health services by the

[26] An analysis of 1995-96 HES data showed that the major share of out of school children in rural areas belonged to a hardcore group of the bottom 20 percent of households according to household per capita income. The net enrolment rates for 6-10 year old children was 88 percent in 'surplus' households compared to 66 percent in 'always deficit' households, which was significantly lower than the average net enrolment rate of 77 percent. These household categories were made according to self-identified socio-economic categories on the basis of household food availability. Mother's education had positive effect on children's net enrollment at the primary level (Campe 1999).

[27] IFPRI's FFE survey of 2000 reported that in unions that had schools participating in the FFE programme 13 percent of households did not send children to school. Their per capita monthly expenditure (Tk 396) was lower than the per capita monthly expenditure of beneficiary households (Tk 432), i.e. with children going to school and receiving wheat rations. Non-beneficiary households were more likely to have adults who had never been to school and to have farming as the principal occupation of the head (Ahmed et al 2001).

[28] The association with per capita expenditure remained even after controlling for other determinants of child nutrition. Household vulnerability was defined in terms of land ownership and regularity of income HKI 2001).

poor indicated by significantly lower rates of immunization coverage of children from poor households (mothers with no schooling) compared to children from non-poor households (mothers with secondary or higher schooling) (Table 4).

Secondly, while the reduction in child-bearing burden by half is undoubtedly favourable for women (because of the high mortality and morbidity risks associated with pregnancy and childbirth), the benefits of lower birth rates are partly offset by the fact that women have to bear almost the entire burden of increased use of modern birth control, including excess contraception related morbidity and exposure to unsafe abortion. The heavy female bias of the family planning programme is a structural one, without adequate safeguards to ensure the health and safety of women users. The extreme inflexibility of the programme lends itself more easily to errors of decision and abuse of policy, and even encourages violation of liberties and freedoms in the form of over ambitious targets, client's lack of choice and service provision that is unresponsive to the needs of women contraceptive users. For example, the target of attaining replacement level fertility by 2005, which implies a CPR of 70-75 per cent of eligible couples, can be a violation of human rights if poor couples, for whom there are still no adequate institutional or market substitutes for children's old age security and risk insurance value, are under pressure to comply. The overemphasis on raising the CPR has allowed the programme to abuse women's liberties through the absence of choice in birth control methods, very low quality of care and negligence to health needs, and non-accountability of service providers (such as the refusal to remove an IUD or norplant when demanded) as these have no legal basis for correction. It has also produced a service structure that is gender biased, placing all the costs of using modern contraceptives disproportionately on women, but at the same time denying women decision making power with respect to contraceptive use. For example, women typically do not have any preference regarding choice of method and require husband's permission to obtain an MR.

Moreover, although small family norms are well-established, early marriage and early childbearing continue to be widely practiced, leaving women still vulnerable in terms of health and nutrition. Women's access to antenatal and post-natal care is far too low in general, but even lower for poor women. Even TT coverage, which is fairly good (on average 81% of last births in the past five

years), is lower for poor women compared to non-poor women (Table 4). Not surprisingly, the level of maternal mortality is still unacceptably high, no doubt because emergency obstetric care is expensive and not easily provided, but also because women's health remains a low investment priority at both household and state level. In all these respects poor women are relatively more disadvantaged, both because they have a greater need for birth control to limit family size but also because they experience relatively higher costs of using modern contraceptives.

Policy challenge

Recently stagnating fertility levels have very succinctly brought to light several challenges facing population policy in particular, but that have considerable human and development policy consequences as well. A direct consequence of demographic transition is that the base of the population pyramid has begun to shrink, which is welcome, while the proportion of persons above age 60 is on the rise and the mean age is increasing with the gradual increase in life expectancy. To the extent that the health needs of the elderly should be addressed by population policy, this poses a challenge since the existing programme is almost exclusively geared towards married women of reproductive age.

The more direct implication for population policy is the built in growth momentum of the population age structure, ensuring a substantial annual incremental increase in population for a considerable number of years to come despite falling fertility levels. This is particularly challenging for policy because of the need to address resilient marriage and family building values and practices, specifically to increase female age at marriage and first birth and increase the space between subsequent births. The policy rationale of such strategies lies in the fact that delaying marriage and first birth and are beneficial of themselves in terms of improved health of women and children, and there are almost no negative externalities that complicates policy making.

The other challenge facing policy is the fact that relatively high fertility preferences have kept birth rates from declining further. Bringing down the birth rate further to reach replacement level fertility is contingent upon lowering the existing average desired family size of 2.5 children and of ensuring excellent control of fertility (Bongaarts 2002). This is likely to be difficult with

existing high under-five mortality creating an upward pressure on desired fertility (Islam 2002) and an unresponsive service delivery system. A recent review of fertility transition in the developing world concludes that the pace of fertility decline decelerates in the later stages of the transition, and that future course of fertility depends crucially upon both progress in human development and on more efficient fertility control (Bongaarts 2002).

However, the motivation of women, the primary users of contraceptives, to change family building behaviour or of couples to reduce family size further is unlikely to be strong given the existing socio-economic context of unequal access and opportunity. For women motivation is weak because of lack of choice and influence in fertility decisions and in household decisions about investment in children. For poor couples motivation is weak since they are neither able to take full advantage of smaller completed families because of inability to invest in children, nor able to compensate adequately for children's reduced contributions to their present and future consumption because of lack of economic opportunities.

Conclusions

In development policy discourses it is usual to treat population change as an exogenous process that has little interaction with economic processes. Demographers have been partly responsible for this misunderstanding, because of their inflexible views regarding the explanation for Bangladesh's demographic transition. Explanations have gone from one extreme to the other, almost negating the fertility preferences of people and the agency of couples and women in adopting modern birth control methods.

The unexpected rapid fertility decline between 1985 and 1995 was possible primarily because poor women, couples and households preferred smaller families and decided to act upon those preferences. Today, the stalling of fertility levels, so worrisome to policy makers, is also largely the conscious choice of poor couples and of women. These choices, restricted as they are by existing opportunity structures, have strong rationales and are based upon individual cost benefit calculations emerging from both economic and social processes. The aim of policy seeking to modify behaviour to serve both individual and collective interests will not be achieved if this

calculation is not recognized and respected, taking precautions that peoples' liberties and rights are not abused or violated.

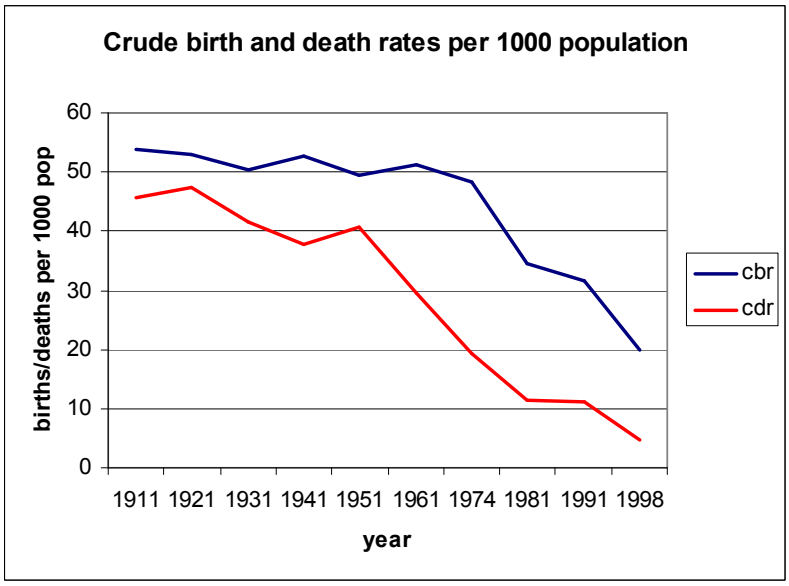

Figure 1

Table 1: Trends in birth rate, total fertility rate, contraceptive use and life expectancy, 1975-2000

Year	Crude Birth Rate[1]	Total Fertility Rate[2]	Contraceptive Prevalence Rate[3]	Crude Death Rate[1]	Life Expectancy At Birth	
					M	F
1975	-	6.3	5.0	-	-	-
1883	-	4.9	13.8	-	-	-
1985	34.6	4.6	18.4	12.0	-	-
1989	33.0	4.9	23.2	11.4	56.0	55.1
1991	31.6	4.3	31.2	11.2	56.5	55.7
1993-94	28.8	3.4	36.2	10.0	58.2	57.7
1996-97	25.6	3.3	41.6	8.1	59.1	58.6
1999-00	19.9	3.3	43.4	4.8	60.7	60.5

Note: 1=per 1000 population; 2=per 1000 women; 3=percent of eligible couples using modern methods.
Source: Statistical Yearbook, various years; BDHS 1993-94, 1996-97 and 1999-00.

Table 2: Socio-economic differentials TFR, CPR, ideal family size and duration of post partum insusceptibility, 1994-96

Education level	TFR[1]	CPR[2]	Mean Ideal Family size[2]	Median age at marriage	Median months of PPI
None	3.93	45.8	2.6	13.6	10.8
Primary incomplete	3.27	51.2	2.5	13.8	8.0
Primary complete	3.01	51.1	2.4	14.6	6.1
Secondary or more	2.12	56.0	2.2	17.7	7.0
All levels	3.27	49.2	2.5	14.2	9.0

Note: 1=ever married women aged 15-49 years; 2= currently married women aged 15-49 years; 3=currently married women aged 20-49.
Source: BDHS 1996-97

Table 3: Socio-economic differentials in health outcomes, 1999-00

Socio-economic Indicator	Infant Mortality Rate[1]	Child (1-4) Death Rate[1]	Contraceptive Prevalence Rate[3] (%)	Total Fertility Rate[2]	Child (1-4) Stunted (%)	Child (1-4) wasted (%)
Residence						
Urban	47	5.4	48.7	2.45		
Rural	66	7.3	42.2	3.54		
Sex						
Male	58	5.8	-	-		
Female	56	6.6	-	-		
Mother's education						
None	92.0	42.3	41.5	4.12	60.9	15.4
Primary incomplete	79.1	27.9	44.0	3.30	-	-
Primary complete	65.4	26.3	41.5	3.42	54.5	12.8
Secondary or more	54.7	13.5	47.0	2.40	42.2	10.8

Note: 1=per 1000 live births; 2=per 1000 women; 3=percent of eligible couple.
Source: BDHS 1999-00; Nutritional Surveillance Project 1999,HKI (2001).

Table 4: Socio-economic differentials in access to health care, 1999-00

Socio-economic Indicator	Received ante natal care (%)	Received TT (%)	Last delivery at home[1]	Last delivery at health facility	Child 12-23 months received BCG (%)	Child 12-23 months received Measles (%)
Residence						
Urban	58.6	72.9	74.2	25.1	95.2	80.7
Rural	28.0	61.8	95.1	4.6	90.2	68.9
Sex						
Male					92.5	73.2
Female					89.3	68.2
Mother's education						
None	20	66.0	96.6	3.1	86.3	63.7
Primary incomplete	29.1	65.1	94.6	4.7	91.6	63.0
Primary complete	33.6	76.9	94.5	5.3	95.5	79.5
Secondary or more	60.0	63.7	78.2	21.4	97.0	85.1

Note: 1=births in five years preceeding survey
Source: BDHS 1999-00

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