THE BEGINNING OF FERTILITY DECLINE IN SUB-SAHARAN AFRICA

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Until recently sub-Saharan Africa remained the last major region in the world where there were no signs of fertility decline. Fertility was low in some oceanic islands classified with Africa for statistical purposes, notably in Mauritius and Reunion, and there had been some decline in South Africa. But in the great area stretching from the Sahara to the northern border of South Africa, the 1988 World Development Report (WORLD BANK, 1988) showed for 1986 only four countries with total fertility rates below six : Gabon, Central African Republic, Chad, and Lesotho. The explanation in the first three countries was certainly pathological sterility and not fertility control and this may also have been a factor in Lesotho. In contrast, most of the world's countries with total fertility rates of seven or more were in sub-Saharan Africa : Côte d'Ivoire, Kenya, Malawi, Niger, Rwanda and Tanzania.

There was debate about the reasons for this persistent high fertility. World Bank publications usually argued that the region was the least developed in the world and that eventually fertility transition would follow a similar path to that characterizing most Asian and Latin American countries (WORLD BANK, 1986). This was contested. CALDWELL and CALDWELL (1988) compared the situation of seven African countries, Côte d'Ivoire, Ghana, Kenya, Nigeria, Senegal, Tanzania and Zambia, with four Asian countries, India, Indonesia and Thailand, and, for a few comparisons where data were available, China. In the mid-1970s the African countries recorded per capita incomes that were, on the whole, higher than the Asian ones. The proportions of their gross domestic products originating in agriculture were similar, as were the proportions of urban population. There were no striking differences in the proportions of children in primary school, although the Asian countries did a little better in the

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secondary school comparison, especially in the case of girls. Although India had established a national family planning programme in 1952, in the other Asian countries such programmes had not been set up until the very end of the 1960s and during the 1970s. This was the same period when they were established in Kenya, Ghana, Senegal and Zambia. Their impact was, however, not the same. In the early 1960s the Asian countries exhibited total fertility rates mostly a little over six while the African countries were somewhat higher, being closer to seven. In the next 20 years fertility levels fell by 29-57 per cent in the four Asian countries while there were no falls at all in the African countries, and indeed fertility appears to have risen in two of them.

Why did Africa react differently from Asia ? CALDWELL and CALDWELL (1987) suggested a number of reasons. Traditional African religion centred on fertility, and prestige was closely related to fertility. Barrenness was abhorred, and punished as sinful. Conditions were still sufficiently insecure for large families to provide a measure of physical safety. Indeed, they could usually use their strength to prosper disproportionately even in commerce and in modern towns. Land was usually communally owned and larger families had a claim on more land. In these circumstances, it was impossible to invest in land, and the only possible agricultural investment was in cultivators, namely children and wives.

In West Africa there was a division in responsibilities. Husbands and their families of origin made decisions about fertility and fertility control, partly because most societies were patrilineal and partly because their right to do this was recognized as resulting from the payment of bridewealth. However, the lineage structure of West African society, and the fact that women retained the money they earned from marketing and much of the produce from their farming meant that they could provide support for their children and they were expected to shoulder much of the burden. This division between fertility decision-making and the resulting economic burden meant that fertility decisions were unlikely to result in constraints on reproduction. The situation was compounded by widespread fostering, especially in West Africa, which meant that there was often little relationship between biological parentage and the number of children being reared. Even polygyny tended to have a like effect on men because each wife and her children constituted a partly separate economic unit. The situation was compounded further by the fact that children,

in later life, returned much economic wealth to their parents, especially to their fathers, with no relation to how much had been spent on them by the parent or to the effort made in rearing them. Support for parents in old age – and long before old age – was a return not for earlier help but for the gift of life. Not to make such a return was not only an attack on tradition but religion and could be punished by the curse of either a living father or a dead ancestor. This curse was likely to take the form of misfortune, often barrenness or the deaths of successive children.

It was the belief that fertility control was unAfrican, and in any case, was unlikely to succeed, that led to only half-hearted efforts in the early family planning programmes. The state was new in most of the region and there was no equivalent to the political and moral leadership provided by the Asian national elites in ensuring the success of their national family planning programmes.

Nevertheless, fertility decline was to begin in some parts of sub-Saharan Africa. By 1991 fertility had probably fallen by 30 per cent in Botswana and Zimbabwe and by 20 per cent in Kenya. Furthermore, it had become clearer than black South African fertility had been falling for around 30 years and had declined by about one-third, thus accounting for about two-thirds of the births averted in the whole of sub-Saharan Africa. These changes were historic, but they have not yet reduced the fertility level of the whole region. There are trends in the opposite direction, and the 1993 World Development Report (WORLD BANK, 1993) estimates that fertility has risen over the last two decades in two-fifths of all sub-Saharan African countries. There are two reasons : one is a reduction in the level of pathological infertility; the other is a shortening in the duration of postpartum sexual abstinence.

PRECURSORS TO FERTILITY DECLINE

The Nigerian segment of the Changing African Family Project showed that there was a considerable demand for contraception in Ibadan City 20 years ago. Contraception had been practised by one-sixth of all women and was currently being practised by one-tenth. More significantly, the proportion practising contraception had been doubling every four years and the use of

oral contraceptives was rising steeply (CALDWELL and WARE, 1977). Although the increasing level of contraceptive use was likely eventually to reduce fertility levels, very little of this practice was intended to achieve this result. In fact, a study of the whole population of the city showed that only 0.3 per cent of women over 40 years of age had deliberately and successfully constrained their fertility to fewer than six births (CALDWELL and CALDWELL, 1978).

The demand for contraception in Ibadan arose principally in two ways. The first was its practice before marriage, largely to prevent pregnancy and possibly enforced marriage, outcomes that would probably cause adolescent girls to cease their education, thus destroying their chances of employment in the modern sector of the economy. The second was to substitute at least partly for postpartum sexual abstinence, thus allowing the maintenance of traditional birth-spacing intervals while resuming sexual activity earlier. This substitution was greater among the more educated and those living in urban areas.

The question has been repeatedly raised whether the lack of fertility decline in sub-Saharan Africa was not merely the absence of large and efficient family planning programmes of the Asian type. There has, in fact, been a family planning programme of Asian intensity in sub-Saharan Africa, that is the one in South Africa, but survey data demonstrating its impact began to be published only from 1990 (CALDWELL and CALDWELL, 1993). Survey data were required because the vital registration system is complete only for the white, Indian and coloured populations and is unusable for the majority black population.

White fertility decline has been occurring for the last hundred years, more slowly among the Afrikaans-speaking than the English-speaking population, with convergence since the Second World War as convergence also occurred in levels of education and urbanization. Indian fertility declined from about 1940 as the earlier rural population working in the sugar cane industry increasingly moved to Natal's towns and entered commerce.

Non-governmental family planning clinics date back to the 1930s, but from 1963 the government began to fund family planning in both these clinics and the government health sector, and from 1974 a national family planning programme was instituted. There are now over 60,000 clinical "family planning

service points" or twice as many locations as there are for all health services. Some of these are stationary in health centres or hospitals but most are mobile, visiting towns and villages and factories and farms at regular times. Even by 1987 the annual expenditure per eligible woman was US$10. Clearly, the basic aim was political and was an attempt to prevent disproportionate black population growth. However, the African National Congress (ANC), although suspicious of the motives for the programme, has not opposed it, and will almost certainly sustain it in some form when they gain power. The reasons are twofold. First, black women, earlier faced by restrictions on keeping children in urban areas, and still faced by great difficulties in urban residence and frequently without partners, have often felt a strong need for contraception. Secondly, the demographic battle has been won, for the 32 million black South Africans form over 80 per cent of the population and will inevitably increase to at least 90 per cent. The ANC also fears indefinite population growth in a dry country with only limited agricultural potential.

The vast human experiment constituted by this family planning programme has yielded results which probably are relevant to much of sub-Saharan Africa. Contraceptive prevalence among women in any type of union is now over 60 per cent for the whole population and in the black population around 50 per cent. White fertility is below replacement level, Indian fertility is just above replacement, while the coloured fertility rate is under three. Black fertility has been falling since the early 1960s and this undoubtedly constitutes the first African fertility transition south of the Sahara. However, it has fallen by only one-third and the total fertility rate is still 4.6. Moreover, this decline has been achieved almost entirely by dense, free clinical services. Over 70 per cent of black fertility control is achieved by the use of injectables, the IUD and female sterilization, and any move to a less dense programme, or a market one, would probably lead to rising fertility. Abstinence, withdrawal and rhythm constitute only two per cent of black fertility control, while the balance of 98 per cent of contraceptors using modern efficient means is probably the world's highest use of such methods. Abortion is stringently controlled and is not a major element in determining the fertility level.

The persistence of moderately high black fertility in South Africa can be explained partly by a deep suspicion of very low fertility and partly by the fact that the restriction of family size still does not allow blacks to rise to the top either socially or economically in this essentially caste society. In spite of substantial sexual activity among adolescents, contraceptive use is at a low level among them. One reason is a fear that contraceptives may impair their fecundity. The other reason is that, although premature childbearing may give rise to transient anger in their wider families, these families are usually pleased to see a baby, and cheerfully look after it while the mother returns to school.

THE ONSET OF FERTILITY TRANSITION ELSEWHERE

By 1990, the Demographic and Health Survey (DHS) programme had demonstrated that fertility had definitely fallen by 15-25 per cent in Botswana, Zimbabwe and Kenya, and had probably fallen in southern Nigeria. More recently, the new Zambian DHS indicates that fertility has begun to fall in that country too.

The first three of these countries with fertility declines share a number of characteristics which may indicate thresholds for fertility decline. Perhaps the most important is child survival. Botswana, Zimbabwe and Kenya are the only countries between the Sahara and South Africa where fewer than 11 per cent of births result in deaths by five years of age : this measure is chosen rather than infant mortality because the balance between infant and toddler deaths is very different in tropical Africa from what it is in Southern Africa, for in the latter area infant deaths predominate, cf. on the different tropical pattern CANTRELLE (1975). The second most important factor in the fertility decline may be the level of education, especially that of girls. The proportion of girls of secondary school age who are in school ranges from 19 per cent in Kenya to almost 50 per cent in Botswana and Zimbabwe. The only comparable levels in the region are in Lesotho and Namibia, in both of which fertility decline may have begun, and in Ghana and Cameroon. Per capita income is probably not an important determinant, because, although Zimbabwe and Botswana are among Africa's richest countries, Kenya occupies only a midway point in the scale. However, if the measure is economic stability and hence the expectation that savings in money rather than children will not be wiped out, then

Zimbabwe and Botswana, which are within the South African economic system, and also Kenya, are in a rather better position than most other anglophone African countries. Urbanization does not appear to be a significant indicator of fertility decline. It might be noted that black South Africans surpass all these thresholds while southern Nigeria just reaches the threshold. There is another criterion which may be as much an effect as a cause, but which is probably, nevertheless, a necessary condition and that is the practice of contraception. For women in a union and of child-bearing age, Kenya, Zimbabwe, Botswana and black South Africa all fall within the 25-50 per cent range of current contraceptive prevalence, the only countries in sub-Saharan Africa to exhibit such high levels of fertility control.

If we take these thresholds as the criteria, then the other candidates for possible early fertility decline are the remaining small countries within the South African economic system, Namibia, Lesotho and Swaziland, and, further to the north, Zambia and Ghana. There is also a somewhat weaker possibility of early fertility declines in Senegal, Gambia, Togo and Cameroon.

The African fertility decline already gives evidence of being a new type of transition. The previous fertility transitions, in Europe, Asia and Latin America, were early characterized by stopping behaviour; that is, there was evidence from the fact that fertility rates were lower at the older ages than one would expect on the basis of fertility at the younger ages that people were limiting the sizes of their families after they had borne a certain number of children. Africa appears to be different, with broadly similar proportional fertility declines at all ages and, in absolute terms, much greater numbers of births averted under 30 years of age (BRASS and JOLLY, 1993).

In most African countries, again in marked contrast to the Asian decline, there is a major demand — often a majority of the demand — for contraceptives by unmarried women. This has a secondary effect. In countries like Nigeria and Cameroon, half of all contraceptive users are willing to pay much higher prices for contraceptives from commercial retailers rather than from government programmes. The reason is the anonymity provided. The only people who are happy to be recognized in family planning clinics - and certainly not all of them - are married women who have had at least one child and whose youngest

child is no longer an infant. Other married women, most unmarried women, and nearly all males are apprehensive of being seen in clinics and wish to purchase contraceptives in pharmacies or medicine stores when no one else is present.

THE ADO-EKITI STUDY

A collaborative programme of Ondo State University, Nigeria and the Australian National University has been examining various aspects of demographic change in the Ekiti District of Nigeria, situated about 300 kilometres northeast of Lagos. During the research it became clear that contraceptive use was rising steeply in the district headquarters, Ado-Ekiti, and that fertility was falling. Accordingly, both survey and anthropological methods were used to investigate what was happening in this city of 150,000 inhabitants (CALDWELL, ORUBULOYE and CALDWELL, 1992).

Ekiti, like the rest of southwest Nigeria, moved towards mass primary schooling in the 1950s and 1960s and, funded by the oil boom, to near-universal secondary schooling in the 1970s. The 1986 Ondo State DHS showed for the state that includes Ekiti that over 80 per cent of 15-19-year-old females had at least some secondary schooling. The 1990 Nigerian DHS showed that 15 per cent of the births in the whole of southwest Nigeria had resulted in deaths by five years of age, but the level was probably lower in Ekiti and certainly as low as 11 per cent in Ado-Ekiti. From the late 1980s, incomes fell, an economic structural adjustment programme was applied, and many believed that sudden severe economic pressures had led to increased fertility control.

In 1988, Nigeria had announced a population policy, and the frequent reiteration by the President that four children was enough empowered many women to argue with their husbands that there was a moral case against more, or even to take fertility control into their own hands. The various elites, affected by government attitudes and the economic difficulties, moved towards supporting fertility control. The major factor was probably, however, the ready availability of contraceptives. The American government's technical aid organization, USAID, paid a commercial firm to import contraceptives on a large scale into Nigeria to supply them to government and family planning organization clinics. In Ado-Ekiti and elsewhere this meant that clinics are well

stocked. More importantly, it meant that the system leaked a guaranteed supply of contraceptives to local pharmacies and medicine stores. Because of the national campaign against AIDS, these supplies contained a plentiful number of condoms, although the fact that the epidemic had not arrived in Ekiti meant that condoms were largely used to prevent conception.

The project showed that almost half the married women in the town were using contraception (higher figures are now cited for Ibadan). About 50 per cent of contraception was practised by women before marriage in order to delay pregnancy in marriage. Their aim was usually to complete schooling, to find a job in the modern sector of the economy, or to hold that job long enough to guarantee their re-employment if they should take time off for a birth. Another 11 per cent of contraceptive practice was by women who described themselves as newly married, although often the expected elements of marriage had not all been performed and there was some doubt about their exact marital status among their relatives and the community. The next largest group, 29 per cent, were substituting contraception for traditional postpartum abstinence, while four per cent were refusing their husband a child because of unsatisfactory relationships, often concerned with his taking another wife. Only six per cent of all contraceptive use was avowedly stopping behaviour and even half of this was a substitution for terminal abstinence among women who were grandmothers or who would have been ashamed for some other reason to become pregnant. Thus, in a highly contracepting urban area, only one contraceptor in 30 was practising contraception to limit family size and only one woman in 60 was doing so.

The form of contraception most used, except between spouses, was condoms, partly because much sexual activity was decided upon at short notice in a situation where most women, and certainly most adolescent girls, are not continually on the pill. This should be understood in a situation where condoms are now available for anonymous purchase in medical stores and where earlier research had shown that 60 per cent of the most recent sexual activity in the community was not between spouses (ORUBULOYE, CALDWELL and CALDWELL, 1991). Among married women, the pill was in most use. The pharmacies and medical stores sell at premium prices oral contraceptives, condoms,

contraceptive foaming tablets and even injectables. Those purchasing injectables promise that they will get a nurse to give the injection, but it is not clear how often this does occur.

OVERVIEW

There will be an African fertility transition but it may not be rapid, not even as fast as the United Nations and World Bank medium projections forecast. Some countries will begin long before others.

In Southern Africa the early onset of fertility transition probably owes much to the economy of South Africa and perhaps something to the example of fertility control there. In the whole of East and Southern Africa families usually have single budgets, even in polygynous marriages, and so men are more conscious of the cost of children. There is also a relatively strong tradition in East and Southern Africa of the national provision of health services, upon which national family planning programmes can be relatively easily built. Most of the clients, even of these programmes, are, however, married women.

The situation in West Africa is different and this probably explains why fertility decline has not begun even in such a highly educated country as Ghana. Budgets are divided and men benefit from large numbers of children. Older women are likely to find themselves separated from husbands and need sufficient numbers of children to ensure that some will survive and be willing to help them. Family planning programmes are not convinced that there is a real demand and accordingly are not zealous in the provision of services.

Throughout the region, but particularly in West Africa, contraceptive use is long likely to be demanded most for premarital and extramarital sexual relations and for birth spacing. If contraceptives are readily available, they are likely to be increasingly used. With this use, it is probable that fertility will gradually and persistently fall. But the decline in fertility will occur across all age groups and many of our generalizations about the nature of fertility transition will be invalidated.

BIBLIOGRAPHIE

BRASS (W.), JOLLY (C. L.), 1993 – Population Dynamics of Kenya. Washington, D.C. : National Academy Press.

CALDWELL (J. C.), CALDWELL (P.), 1978 – "The achieved small family : early fertility transition in an African city", Studies in Family Planning 9(1) : 2-18.

CALDWELL (J. C.), CALDWELL (P.), 1987 – "The cultural context of high fertility in sub-Saharan Africa", Population and Development Review 13(3) : 409-437.

CALDWELL (J. C.), CALDWELL (P.), 1988 – "Is the Asian family planning program model suited to Africa ?"Studies in Family Planning 19(1) : 19-28.

CALDWELL (J. C.), CALDWELL (P.), 1993 – "The South African fertility decline", Population and Development Review 19(2).

CALDWELL (J. C.), ORUBULOYE (I.O), CALDWELL (P.), 1992 – "Fertility decline in Africa : a new type of transition ?" Population and Development Review 18(2) : 211-242.

CALDWELL (J. C.), WARE (H.), 1977 – "The evolution of family planning in an African city : Ibadan, Nigeria", Population Studies 27(1) : 7-31.

CANTRELLE (P.), 1975 – "Mortality : levels, patterns and trends", in John C. Caldwell, N.O. Addo, S.K. Gaisie, A. Igun and P.O. Olusanya (eds.), Population Growth and Socioeconomic Change in West Africa, New York : Columbia University Press : 98-118.

ORUBULOYE (I.O.), CALDWELL (J. C.), CALDWELL (P.), 1991 – "Sexual networking in the Ekiti District of Nigeria", Studies in Family Planning 22(2) : 61-73.

WORLD BANK, 1986 – Population Growth and Policies in Sub-Saharan Africa. Washington, D.C.

WORLD BANK, 1988 – World Development Report 1988. New York : Oxford University Press.

WORLD BANK, 1993 – World Development Report 1993. New York : Oxford University Press.

ACKNOWLEDGEMENTS

This paper benefits from assistance from Wendy Cosford and Pat Goodall.

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