Draft 15 March 2005

Sex Without Birth or Death:
A Comparison of Two International Humanitarian Movements

John Cleland
London School of Hygiene & Tropical Medicine

Susan Cotts Watkins
University of Pennsylvania

Word Count: 7,803

Introduction

The international population control movement, which started in the mid 1950s and was led by the United States, defined population growth in developing countries as a crisis with global consequences and identified a global solution: sex was to be de-coupled from birth through the use of modern methods of family planning. By the turn of the century, sex presumably continued to be practiced and enjoyed, but fertility had declined, or had begun to decline, almost everywhere. Beginning in the mid-1980s, a new global threat appeared. Again, both the problem—AIDS—and the solution—primarily the delinking of sex from death through the use of condoms—were defined in the West and exported to developing countries. The approaches that the two movements took to persuade governments and people in non-Western countries to change their intimate behaviour were surprisingly similar: a choreography of measures ranging from the use of international conferences to persuade national leaders to adopt appropriate policies and implement them in standard ways to the emphasis on technology (clinical contraceptive methods in the case of the population movement, condoms in the case of AIDS prevention). The ambitions, assumptions and implementation of both movements are strikingly similar and the social processes by which the AIDS crisis is ultimately resolved are likely to be similar to the processes that earlier led to the widespread adoption of fertility control.

The aim of this paper is to identify the lessons of the earlier population movement for AIDS control. We begin at the international level, where problems and solutions were defined, funding raised, interventions conceived. Although the problems and solutions were perceived as global, the multilateral and bilateral agencies that directed the interventions necessarily had to work through the governments of sovereign states, or at the least with their permission. We then examine the local responses that, in the case of the population movement, led to fertility decline and, we predict, will lead to a downturn in the spread of HIV. In our conclusions, we attempt to distill the key points of these sagas: what have we learned about the process of delinking sex from birth that is relevant for current humanitarian efforts to sever the connection between sex and death?

Creating International and National Agendas

Efforts to change the beliefs and behaviour of others for their own or society's good are not new. Rather, both the population control and the AIDS prevention movements are on a historical continuum that extends from the earliest efforts to spread Christianity and Islam on through movements to promote universal suffrage and human rights, reduce tobacco consumption and save the environment. What unites population and AIDS movements and sets them apart from other movements to change mass behaviour is that both attempt to modify central but highly sensitive domains of behaviour by breaking the link between sexual intercourse and its undesirable consequences.

At the outset, differences between the two movements should be acknowledged. First, population control emerged earlier and more gradually onto the international agenda in the 1950s and 1960s[1], than AIDS control: international meetings were held to warn the world about AIDS within a few years of the identification of HIV. Second, the issue of rapid population growth was and remains intellectually divisive. The very existence of a problem was denied by many, including both Marxists and liberal right-wing economists (McQuillan 1979; Simon 1981). The proposed solution - the vigorous promotion of modern contraceptives - was attacked by the Vatican and some feminists and was regarded as inherently ineffective by a fair number of demographers (Davis 1967, Hartman 1987; Pritchett 1994; Demeny 1988). By comparison, denial of the problem of AIDS and its main mode of transmission has been confined to a few mavericks (and one key African leader) though serious disagreements exist about the relative feasibility and effectiveness of condoms, abstinence and fidelity, the three pillars of prevention. Not surprisingly, death control is intrinsically less controversial than birth control.

Third, the problem of rapid population growth was perceived to be shared by all low income countries but of little relevance to richer industrialised countries that had already achieved moderate birth rates by the middle of the last century. HIV, on the other hand, has the recognised potential to spread in any society: indeed, in the 1980s, there were justified concerns that HIV infections would diffuse from gays and injecting drug users to become endemic in the general populations of Europe and North America, and such fears have not entirely abated. The fact that AIDS in the West was initially associated with socially marginalised groups exerted a

[1] For detailed accounts see Donaldson (1990), Harkavy (1995), Hodgson and Watkins (1997).

profound effect on AIDS control strategies - in particular the emphasis on human rights and the need to address stigma - that have no parallel in the population control movement. Moreover, AIDS cannot be seen as a common problem of all poor countries. So far it has disproportionately affected sub-Saharan Africa, notably the east and southern parts of the sub-continent: all countries with severe generalised epidemics (sero-prevalence at 5% or more among women aged 15-24) are in Africa.

A fourth important difference concerns the target population. Family planning efforts were directed primarily at respectably married women and the mode of action of modern contraceptives was distanced from the coital act. Discussion of sexual partnerships and sexual practices thus could be largely ignored. In contrast, AIDS control programmes have had to focus on men as well as women, with a greater emphasis on non-marital than on marital sex and with attention to sexual practices such as anal and 'dry' intercourse.

Finally and most obviously, HIV/AIDS is an infectious disease - while childbirth is not. The relationship between behavioural change and fertility is rather straightforward: a strong linear relationship exists between the level of contraceptive use in a society and its fertility level. With AIDS, the relationship is much more complex and still not well understood because the effects of changes in behaviour on infections are mediated by many other factors.

The similarities between the two movements, however, are more striking than these differences. In both, the nature of the problem and the solution were defined in the West, with warnings of the extreme consequences of inaction. Large sums of money were mobilised for the development of new bio-medical tools (e.g. hormonal contraceptives, microbicides, vaccines) and for action programmes. New dedicated international agencies were created to coordinate action (UNFPA and UNAIDS). Sceptical national governments of poor countries were persuaded, cajoled and even occasionally blackmailed into support (Luke and Watkins 2002). New government agencies were created to coordinate or implement programmes and rather similar blueprints for action were drawn up at national level with the assistance of foreign experts (Watkins and Hodgson 1998; Chimbetwe, Zulu & Watkins, in press). In the following paragraphs, some of these similarities are further outlined.

The literature of the 1950s, 1960s and 1970s abound with apocalyptic visions of the future if decisive action to curb population growth was not taken immediately, perhaps best exemplified by the writings of biologists such as the Ehrlichs:

"The explosive growth of the human population is the most significant terrestrial event of the past million millennia. No geological event in a billion years….. has posed a threat to terrestrial life comparable to that of human over population". (Ehrlich and Ehrlich, 1970)

The pioneers of the international population movement drew on several plausible rationales: health benefits to mothers and children; extension of reproduction choice; avoidance of famine and environmental protection. However, the enduring rationale was provided by an extensive demographic-economic analysis of India that showed that economic and social progress in that country was jeopardised by rapid growth of population (Coale and Hoover, 1958). During the next decade, key leaders in the United States coalesced round this characterisation of the problem. In 1969, Robert McNamara, then President of the World Bank, described population growth as *"the greatest single obstacle to economic and social advancement of the majority of the peoples in the underdeveloped world"* (Symonds and Carder, 1973:17). And Lyndon Johnson famously declared that a dollar spent on family planning was worth one hundred dollars spent on other forms of international assistance. Moreover the promise that fertility control was a *sine qua non* for development was particularly attractive to developing country governments (for "developmental idealism", see Thornton, forthcoming). With enthusiastic support from Scandinavian governments and more cautious endorsement by the British government, together with the creation of the United Nations Population Fund, the stage was set for the era of mass family planning programmes.

Similarly the AIDS problem was defined internationally, though in this case the single most important catalyst was based in Geneva rather than New York or Washington DC: Jonathan Mann, at WHO's Global Programme on AIDS. It attracted the same level of hyperbole as population, for instance, being characterised by Carol Bellamy, then director of UNICEF as "the worst catastrophe ever to hit the world" (Guardian newspaper Dec. 10 2004). AIDS control had a particularly compelling humanitarian rationale, namely the prevention of premature death and suffering, with its potentially dire effects on families and children. Though these considerations are still prominent, intriguingly, AIDS, just as population, is increasingly framed as a threat to development and even to international security, thereby making AIDS control more relevant to the World Bank and the UN. Thus Kofi Annan in the preface to the UNAIDS 2004 Report describes AIDS as: *"an unprecedented threat to human development"*. And the first sentence of

the section on impact states that "*in both law- and high prevalence settings HIV and AIDS hinder human developmen*t" (UNAIDS 2004)

The first sentence of the UK's Call for Action on HIV/AIDS (DFID 2003), goes even further: *"HIV/AIDS is the greatest threat to development in the world today"* and this position is endorsed in the preface by the Prime Minister who characterises AIDS as the *"biggest barrier to tackling poverty"*. African leaders might justifiably feel bemused by such an abrupt shift in international rhetoric from the vision of too many people and too few productive jobs as a consequence of rapid population growth to a vision of a labour force so diminished by AIDS mortality that agricultural and industrial production is threatened.[2]

The solutions were also defined internationally. Encouraged by survey findings that most couples in Asia and Latin America wanted relatively small families, the leaders of the population movement argued that the remedy was to persuade people to use clinical or surgical methods of contraception - initially the intra-uterine device but soon followed by sterilization and the pill. The task ahead was to launch information and educational campaigns and create accessible services initially through static family planning clinics, and later through social marketing and community-based schemes.

To the experts who initially led the AIDS prevention movement, the solution also lay in modern technology, primarily the condom but also treatment of curable sexually transmitted diseases and HIV-testing. The programmatic blueprint was even more standardised than for population control. In the late 1980s and early 1990s, national AIDS control programmes with medium-term action plans proliferated. Treichler's (1999) description seems particularly apt: *"Despite local variations, it sometimes seems as though public health campaigns draw ideas and images from some secret central vault, so similarly are they structured over time and space"*. Underlying both movements was the assumption that people, if properly informed and with ready access to appropriate services, would act rationally to avert the undesirable consequences of sex.

The Family Planning Story: 1960-2000

State-sponsored family planning programmes started in most of Asia and in a few countries of Africa and Arab States in the 1960s and 1970s. In Latin America, the lead was taken by well-

[2] While it is true that, in the longer term, unchecked spread of AIDS spells economic disaster, the empirical evidence for serious macro-economic impacts in the short or medium term is rather weak. See Ainsworth et al. (1998).

funded NGOs such as Profamilia, Bemfam and Mexfam in Colombia, Brazil and Mexico, respectively. Despite persistent widespread scepticism among many population scientists, the mood was buoyant, even evangelical. Donald Bogue, the prominent US demographer characterised the movement as a "*crusade*", a "*Holy war*", and "*revolutionary*" in its aspiration to lower fertility as a early step on the pathway to modernization in distinction to the more patient but passive approach of awaiting the elimination of illiteracy, poverty and traditionalism (Bogue 1968: 539-540).

By 1980, the mood had changed. There had been few "success stories". Fertility had clearly declined in islands such as Mauritius, Sir Lanka and Fiji, in the city states of Hong Kong and Singapore and in South Korea and Taiwan. But these examples could be dismissed as exceptional. In the larger and poorer countries of Asia - India, Pakistan, Bangladesh, Indonesia, Thailand and Philippines - there were few trusted signs of widespread falls in fertility. Large changes in reproductive behaviour in Latin America appeared to be confined to metropolitan elites. Throughout most of Africa and the Middle East, fertility appeared to remain resolutely high.[3] The sceptics reasserted their ascendancy. Events appeared to vindicate the deeply held and time-honoured view that human reproduction was firmly embedded in economic, social and cultural settings and that transformation of these settings was a necessary precondition for fertility decline.

Specifically, three main types of obstacle to fertility change were identified. The first centered on poverty and related insecurity. The idea that poor couples find large families to be more advantageous than small families can be found in the earliest theoretical statements of fertility transition (Notestein 1945). In poor families, children are cheap to rear and they contribute to the domestic economy from an early age. Costs are kept low by the fact that children of the very poor do not attend school or do so for only a brief period and that aspirations for a better material life are overshadowed by the day-to-day struggle to make ends meet.

Closely related to poverty were considerations of the value of children as a form of security in old age and more generally as mitigators of risk. The argument were marshalled and applied with particular force to Bangladesh by Mead Cain (1978, 1983). In a poor country such as Bangladesh, the lack of state welfare safety-nets combined with a high risk environment

[3] This perception of unchanging fertility was in part illusory, a reflection of lack of sufficient evidence and distrust of the available evidence. It is now clear that declines in fertility prior to 1980 were more widespread than believed at the time (Chesnais 1992).

stemming from lawlessness, a high incidence of premature death and disability and periodic climatic crises, children provide the only dependable form of assistance to parents. The policy implication was clear. Sustained fertility decline was an unrealistic proposition pending radical improvements in the social fabric.

A second type of obstacle was gender inequality. A common assertion in the voluminous literature on links between the status of women and fertility is that women tend to be less pronatalist than their husbands but lack of decision-making power renders them unable to implement their preference (Dyson and Moore, 1983). Moreover in societies where women are barred or discouraged from paid employment outside the home, the opportunity costs of childbearing remain low, and male-dominated social systems lead to a preference for sons over daughters, which, in the absence of sex-selective abortion and confidence about child survival, sustains moderate to high fertility.

The third type of barrier, though less commonly invoked than the other two, was cultural in nature. The persistence of high fertility in Moslem populations was explained by the pronatalist values of Islam (Leete 1996, Goldscheider 1999), and in an influential article, the Caldwells argued that traditional religious beliefs and associated cultural values would act as a serious barrier to fertility decline in Africa (Caldwell and Caldwell, 1987). In Latin America, machismo was invoked as a prop to high fertility (Beckman, 1983).

By 1990, however, it could be shown that these barriers were far from immutable. Reproductive change had swept across Asia, encompassing Bangladesh and Nepal, among the poorest countries in the world. Fertility decline in Latin America had spread from urban educated elites to less privileged, rural strata. Decline was firmly established in several Arab States and had clearly started in sub-Saharan Africa. Since 1990, this globalisation of fertility transition has continued. The level of childbearing is now under three births per woman in developing regions compared with over six 50 years earlier. Only in countries of West and Central Africa has fertility mainly largely unchanged.

No consensus exists about the fundamental underlying reason for these fertility declines but there must surely be a single common cause, or nexus of causes, for such widespread and synchronous reproductive change in such a variety of national settings. But there can be little doubt about the crucial importance of social networks and the diffusion through these networks of new ideas and new information. Evidence from both surveys and ethnographic research

suggest that both the very idea of pregnancy-control within marriage and the means to achieve it were unknown in many developing countries prior to the initiation of family planning programmes, and perceived as alien or even unthinkable (Jeffery et al., 1989; Maloney et al., 1981; Knodel et al., 1984; van de Walle and van de Walle, 1991).

In most but not all settings it is also clear that the idea marital birth control and its methods was initially greeted with suspicion, ambivalence, and fear. Fear of side effects or more serious damage to health were among the most commonly cited reasons for non-use. Religious objections and concerns about social disapproval figure in some settings but not in others. Much of the early evidence is summarized in Bogue (1983). More recently, Simmons et al. (1988) have described the initial uproar caused by the advent of female family planning workers in Bangladesh. Casterline and Sathar (1997) conclude from their detailed study of unmet need in the Punjab province of Pakistan that the three decisive obstacles to contraceptive use are: fear of side effects; concerns about social, cultural, and religious acceptability; and perceptions of husband's disapproval. The most vivid evidence comes from the studies by Watkins and collaborators in South Nyanza, Kenya (e.g., Watkins, Rutenberg and Wilkinson 1997; Watkins 2000). The ambivalence, fear, and anguish with which women viewed modern contraception is unmistakably portrayed.

It thus appears that contraception was not seamlessly incorporated into reproductive strategies, whenever the need arose. On the contrary, in many societies, it encountered serious resistance, the most common expression of which took the form of concerns about health. Alarming stories about the hazards of contraception erupted in many societies. Men feared that vasectomy would render them impotent and that women's methods would lead to promiscuity. Women were scared that methods would result in cancer or the birth of deformed babies, but this articulation of health concerns probably reflected more profound disquiet about a radical innovation that went to the heart of one of life's central preoccupations.

These feelings naturally provoked frequent discussion. One of the very few detailed accounts of the nature of discussion comes from research in South Nyanza, Kenya. Discussions of contraception among women were embedded in more general debates about family size and modern life. Information exchange went hand in hand with assessment and evaluation. The substance of the diffusion was thus a bundle of interrelated topics: the concept and legitimacy of birth control, the characteristics of particular methods and ideas about family size. Formal health

care providers were valued sources of technical information but they are socially distanced in a way that eroded complete trust (Rutenberg and Watkins, 1997). The experiences of close friends, neighbours, and relatives appeared to be of particular importance (Kohler, Behrman and Watkins 2000, 2001). What mattered most was the direct testimony of those who had actually tried a method. The metaphor used by Watkins et al. (1995:51) aptly sums up the general impression from their work: "*Women in these areas are not navigating the domain of uncertainty alone, but rather in flotillas, convoys in which the topics of conversation are relevant, the debates widespread and sometimes intense*."

If reproductive control and specific methods of contraception are frequent topics of discussion, it is to be expected that the decisions and behaviour of individuals will be influenced by perceived attitudes and behaviour of social network members. Cross-sectional studies show that a woman's perception of community approval is predictive of her own contraceptive use but conclusive evidence requires costly prospective study designs (Retherford and Palmore 1983; Beckman 1993; Valente et al 1997). Complex statistical modelling of temporal-spatial patterns of fertility decline in Taiwan and Costa Rica provided more persuasive evidence that social influences are important (Montgomery and Casterline 1993; Rosero-Bixby and Casterline 1993, 1994; Kohler et al. 2000, 2001). But the most powerful argument in favour of the importance of social influence remains the simple and obvious one of the speed with which new behaviour can spread. It is unconvincing to explain rapid marital fertility change solely in terms of increased knowledge or access to contraception. Awareness of contraceptives and supply source was often well established long before changes in behaviour. Nor is it plausible to conclude that couples, independently of each other, performed the same cost-benefit calculations and came to the same conclusion about family size and fertility regulation within a short span of time (Freedman & Freedman, 1992). The simplest and most convincing explanation for rapid rises in contraception and declines in fertility is that people were influenced by one another.

In sum, a recognition that behavioural changes in centrally important areas of life usually encounter resistance, together with a social interaction perspective provide a compelling explanation of the lagged behavioural response to programmatic exhortations and services and the speed with which changes in behaviour eventually spread across whole societies. [4] Private

[4] For the classic exposition of the innovation-diffusion framework see Rogers (1983). For a more recent assessment of the evidence see Casterline (2001).

cost-benefit calculations may suffice for choices of minor significance but, for more important choices such as family size and family planning, collective scrutiny of the empirical evidence provided by the experience of others appears to be necessary.

Parallels with the AIDS Movement

AIDS-Control programmes started in the late 1980s or early 1990s and, since then, substantial sums have been spent on information and education campaigns and on the distribution and marketing of condoms. As in the first decade or so of family planning programmes, the record of success is limited. In only two low or middle income countries (Uganda, Thailand) is there decisive evidence of the reduction in HIV-incidence and new epidemics have started in Asia and Eastern Europe. Even the achievements of specific intensive interventions targeted at small geographical sub-populations or at special groups have been, at best, mixed (Oakley et al 1995a; Oakly et al. 1995b; Grunseit et al. 1997; Jemmott and Jemmott 2000; Stephenson et al. 2000 Speizer et al. 2003). A particularly discouraging example comes from a well-designed and theoretically sophisticated intervention in South Africa, where despite substantial funding, the involvement of a variety of stakeholders (government officials, epidemiologists, social scientists, a community-based NGO) levels of infection increased over the course of the intervention (Campbell 2003).

AIDS-control programmes appear to be approximately at the same stage reached in 1980 by the family planning movement. Confidence in the effectiveness of the classical public health approach (information and services) has diminished. As in the earlier decades of population control the refrain "they know but they don't change" is repeated in conferences and workshops. Increasing emphasis is given to contextual obstacles to behavioural change: societal factors that severely constrain individual decisions and freedom of action regarding protection against HIV-infection. And, just as in the case of family planning, three main types of constraining factor are typically identified: poverty, gender-inequality and culture. Poverty increases vulnerability by dislocating families, through its association with labour migration and above all by forcing women to sell their bodies to survive and provide for their children (Parker et al. 2000; UNAIDS 1999). Gender-inequality is seen by many as the overridingly important factor and the following typical statement would be widely endorsed: "*If we are to contain the HIV epidemic we must tackle its root cause - gender inequality*" (Gupta 2002:184).Enmeshed with gender-relations are

cultural constructions of sexuality. Men are frequently portrayed as slaves to concepts of masculinity that validate risk-taking, sexual conquest and prioritisation of immediate sexual pleasure over health considerations (Dunckle et al. 2004; Jewkes et al. 2003). Conversely women are imprisoned by models of desirable femininity that stress innocence, passivity and acquiescence. The behavioural consequences of this combination of gender stereotypes, it is claimed, are lethal.

Perhaps these analyses are correct. Perhaps radical revolutions in the economic structure of societies and in gender-relations and associated cultural constructions are necessary to stem severe generalised epidemics. Nor would we deny for a moment that radical changes are highly desirable in their own right. Nevertheless, we are sceptical of the prevailing pessimism for reasons outlined below.

First, behavioural change is unlikely to occur rapidly. Both the disease itself and the means of preventing it are particularly vulnerable to denial and distortion. The chronological remoteness of cause and effect and the apparently arbitrary way in which infection strikes allow alternative compelling explanations - divine retribution or witchcraft for instance - to flourish. And the main protective measure, condom use, often encounters fierce resistance on the grounds that it will encourage promiscuity among the young. Just as it took a long time to time to observe and evaluate the advantages and disadvantages of the experiences of friends, relatives and neighbours who bravely decoupled sex from birth, so also it takes time for infection with HIV to result in weight loss, diarrhoea and death, and for the consequences of following admonitions to decouple sex from death through abstinence, fidelity and condom use—all considered to be inconsistent with the joys of sex-- to become evident in a decline in the number of village funerals.

Second, behavioural change is difficult to measure, either directly through surveys or indirectly through declines in HIV prevalence. Surveys respondents are cagey about the details of their sexual activity, and probably even more so as HIV prevention programmes become increasingly widespread, persistent and strident. And the current method of tracking changes in HIV infections through annual testing of pregnant women is crude, capturing prevalence rather than the incidence of new cases. Thus, behavioural change may be occurring but overlooked. Indeed, the survey evidence for Africa and Latin America reveals marked upwards trends in condom use among sexually active single people (Ali and Cleland 2004). Resistance to condom

use within marriage is certainly stronger but there is some evidence of change and that wives are more influential than often assumed (Maharaj and Cleland 2004)

Third, evidence of behavioural change may be brushed aside by those national and international actors implementing and monitoring prevention programmes because, perversely, the incentives favour continued pessimism. Funding for AIDS control may appears stingy to spokespersons for the AIDS control movement. But it supports fiefdoms of bureaucratic power in official agencies and NGOs in Washington, London and Geneva as well as in other national capitals, and throughout the AIDS-affected countries it provides the best jobs in town, international travel, opportunities for patronage, vehicles, and per diems for workshops and seminars.

Fourth, it is unlikely that those engulfed by severe epidemics would not respond, and indeed there is scattered evidence of attempts to navigate the epidemic (Watkins 2004, Kaler 2004). In rural Malawi, where the epidemic is mature and generalized, the consequences of its ravages is strikingly evident. At least since 1998, about the time that deaths from AIDS became evident in rural villages, respondents in a longitudinal survey have attended several funerals a month, funerals that are preceded and followed by conversations about those who appear to be on the verge of death, and by verbal autopsies that draw on local knowledge to narrate the successive symptoms and sexual partnerships of the deceased.

The particulars of the deaths provide a basis for domesticating the prevention messages disseminated by donors, the government and NGOs. Just as modern methods of family planning, initially were perceived as suitable only for foreigners, became routine through social interactions among friends, relatives and neighbors, in the same way, conversations about local people observed suffering and dying from AIDS lead to generalisations about the causes of the epidemic, and to advice on how to avoid death. Thus the Malawi evidence refutes the common assertion that people in Africa do not discuss AIDS because of the stigma attached to it. Modified versions of abstinence and fidelity, such as a reduction in the number of sexual partners and a more careful selection of partners, are typically seen as more attractive than condom use, although in some circumstances the moral lesson drawn is one of free will: that those who do not use condoms with bar girls are deliberately choosing, and paying for, death. The evidence for other countries in sub-Saharan Africa with mature and generalized epidemics is less rich, but it suggests that the same process is occurring there as well (Watkins 2004).

Conclusions

In this paper we have described the international and national responses to two problems that were defined as threats on a global scale: unprecedented rates of population growth in developing countries and the advent of the HIV pandemic that has already brought in its wake huge rises in mortality in the worst affected countries of East and Southern Africa and threatens to do the same elsewhere. Solutions to both required at their roots changes in intimate behaviour-procreation and sex respectively. In both instances the international response was similar: mobilization of huge resources, the creation of new dedicated UN agencies and national bureaucracies, immense pressure on governments to take action, and similar blueprints for action with an initial emphasis on the provision of information and services. In both movements, the desired behavioural response was slow to occur, giving rise to much pessimism, even incomprehension that people, when possessed of correct information did not behave in a rational fashion. In the case of family planning, couples continued to spurn contraception despite stated desires to have no more children. In the case of HIV individuals continue to have unprotected sex with non-cohabiting partners despite full knowledge of the risks involved.

In both movements, the slowness of the behavioural response led to new conceptualisations of the problem in terms of intransigent barriers to change posed by poverty, gender inequality and culture. It was compellingly argued that the problems of excessive fertility and continued heterosexual spread of HIV would never be overcome unless poverty and income inequality were reduced, a revolution in gender relations was achieved or deep-rooted cultural beliefs overcome. As a result, the agenda for action widened far beyond the mere provision of information and services to address these newly identified barriers. In the case of population control, some government policies edged towards coercion, most notably in China's 1979 one child policy. A stronger commitment to human rights has prevented similar moves in most AIDS control programmes but interventions to address gender inequality and empower women are increasingly common. It is too early to assess the validity of the redefinitions of the AIDS problem and the new action-agenda. HIV-incidence has fallen in only a handful of countries and their circumstances diverge so widely that the identification of general lessons is premature. But because the family planning movement started some 40 year earlier, it is more feasible to use what has been learned about the timing and determinants of fertility declines to draw conclusions

about the role of different types of policies and programmes. We contend that these lessons have direct relevance to HIV control.

Perhaps the most important lesson from the family planning experience is that ideational and behavioural adaptations to new threats, particularly to threats that relate to core concerns of sex and procreation, take time to emerge. The central reason for the apparent slowness of response is that the problem, and especially the remedies, were socially constructed in the West and were thus considered alien in other regions of the world. Thus, the definition of the problem and of the solutions must be domesticated, a process that occurs in local social networks where international and national messages are evaluated and reinterpreted. In essence this domestication of the agenda involves the passing of ownership from the domain of officialdom to the people themselves. A convincing body of family planning evidence indicates this phase is a necessary precursor to widespread changes in ideas and behaviour. The process is one of discussion and debate within networks of relatives, friends and associates, in which stories of the personal experience of those known to the network members is of special importance. This process takes time and even carefully designed and theoretically driven interventions have proved largely ineffective at accelerating the pace of change in the general population.

The implication is that AIDS-prevention approaches that genuinely foster local ownership of the agenda are likely to be most successful. This verdict is consistent with analysis of the reasons for Uganda's success at epidemic containment and Botswana's failure (Allen and Heald, 2004). In Botswana, local government is relatively weak and little attempt was made by the AIDS Control Programme to engage local authorities and institutions. Rather the response to AIDS was highly centralised and driven by the international priority of condom promotion, which provoked intense antagonism among religious and spiritual leaders. By contrast in Uganda, local councils were given a key role in AIDS control and became actively involved; and, perhaps inevitably when local groups assume genuine control, some of the ensuing actions did not conform to recommended international standards. In some areas of Uganda, rules of sexual conduct were harshly enforced, for instance by the beating and banishment of sex workers and of those thought to be spreading the disease through witchcraft. Of equal importance to Uganda's success is that public health messages placed a much greater emphasis on fidelity than on condoms and thus harnessed broader-based support than was achieved in Botswana.

The central importance of this process of domestication and local ownership, however, does not imply that actions of donors, governments and NGOs are irrelevant. First, information and education campaigns provoke conversational networks in local communities. While it is not possible to quantify the contribution of knowledge dissemination, it is one obvious way in which change in ideas and behaviour can be facilitated. Second, donors, governments and NGOs can provide services that are appropriate, affordable and accessible. The experience of the provision of modern contraceptives suggests that a wide array of approaches to meet a diversity of needs is the most effective strategy. Third, clearly vigorous information programmes and the speedy creation of services is most easily effected when political will is favourable to the cause.

Despite differences outlined earlier between population-control and AIDS-prevention, we believe there are lessons from the past for AIDS. The primary one is that the formulation and deployment of effective strategies of AIDS prevention by the communities at risk takes time but we believe it will occur, much as pessimism over high fertility was overtaken by events. Many observers have mistaken the initial turbulence in the early stages of the spread of an innovation for a more profound resistance to change. Just as the domestication of the population agenda occurred worldwide, the domestication of the HIV prevention agenda appears to be occurring in Malawi, and there is reason to believe a similar process is occurring in other heavily afflicted areas such as Zambia where partner reduction and selection together with greater recourse to condoms have been documented. Sooner would certainly have been better, and it seems at best insensitive and at worst immoral to recommend patience in the face of so many predictable deaths and so many predictable orphans. However, if we are correct that the appreciation of risk and the domestication of prevention strategies must be done by those who themselves face that risk, it is unlikely that interventions to promote foreign prescriptions of behaviour change can do much to hasten local responses. The evidence reviewed in this paper supports this view. The few instances of successful behavioural interventions relate to groups with special characteristics that facilitate change, such as the collective identity and organization of western gay men and the structural features of sex work in some Asian societies.

Our diagnosis gives great grounds for optimism, for it suggests that supposedly insurmountable barriers to ideational and behavioural change that are described in the literature will not be insurmountable in stemming the AIDS pandemic, as they were not insurmountable in preventing rapid and pervasive fertility declines. For instance, it seems to us predictable that the

high premium placed on “flesh to flesh@ sex, the emphasis on men=s uncontrollable sexual urges (also a feature of the portrayal of men that justified non-coital contraceptive methods), the belief that men are programmed to need sex with more than one women and other cultural barriers to change will prove to be adaptable to the new circumstances. Nor will poverty or inequitable distribution of resources stand in the way of people=s desire to prevent an untimely death. Most importantly, we think that women are more capable of protecting themselves than is commonly believed, and that the characterization of men as indifferent to their own death is ridiculous. No doubt behavioural change promotion projects to address presumed cultural barriers, structural obstacles and gender inequality will continue to proliferate under the justification that these are the only ways to stem epidemics. We are not denying that such projects are driven by compassion, nor do we wish to deny the magnitude of problems of poverty and gender inequality. However, there are sound grounds for scepticism that they will be effective in stemming HIV epidemics, and the danger exists that they may divert funds and energies from the more prosaic actions that really matter: the dissemination of basic information and appropriate services.

References

Allen, T., Heald, S. (2004) HIV/AIDS policy in Africa: What has worked in Uganda and what has failed in Botswana? *Journal of International Development* **16**: 1141-1154.

Ainsworth, M, Transen, L., Over, M. (eds) (1998) *Confronting AIDS: Evidence from the Developing World*. Brussels, The European Commission.

Beckman, LJ. (1993) Communication, power and the influence of social networks in couple decisions on fertility. Pp.415-443 in *Determinants of Fertility in Developing Countries, Volume 2*, R.A. Bulatao and R.D. Lee, Eds. New York: Academic Press.

Birdsall, N., Kelley, AC., Sinding SW. (eds) (2001) *Population Matters*. Oxford, Oxford University Press.

Bogue, DJ. (1968) Progress and problems of world fertility control. *Demography*, **5** (2): 539-540.

Bogue, D. (1983) Normative and psychic costs of contraception. Pp. 151-192 in *Determinants of Fertility in Developing Countries, Volume 2*, R.A. Bulatao and R.D. Lee, Eds. New York: Academic Press.

Cain, MT. (1978) The household life cycles and economic mobility in rural Bangladesh. *Population and Development Review,* **4**(4): 421-438

Cain, MT. (1983) Fertility as an adjustment to risk. *Population and Development Review*, **9**(4): 688-702

Caldwell, JC., Caldwell, P (1987) The cultural-context of high fertility in sub-Saharan Africa. *Population & Development Review,* **13** (3): 409-437.

Caldwell, JC,. Caldwell, P., Quiggin, P. (1989) The social-context of AIDS in sub-Saharan Africa. *Population & Development Review,* **15** (2): 185-234.

Campbell, c. (2003) *'Letting them Die': Why HIV/AIDS Prevention Programmes Fail*. Oxford: James Currey.

Cassen, R. (ed) (1994) *Population and Development: Old Debates, New Conclusions*. Oxford, Transaction Publishers.

Casterline J (ed) (2001) *Diffusion Processes and Fertility Transition*. Washington DC. National Academy Press.

Casterline, J., and Z. Sathar. (1997) *The Gap Between Reproductive Intention and Behavior*. Islamabad, Pak.: Population Council.

Chesnais, J-C. (1992) *The Demographic Transition*. Oxford, Oxford University Press.

Chiweni, C., Zulu, EM, Watkins, SC. Forthcoming. The evolution of Population Policies in Kenya and Malawi. *Population Research and Policy Review*.

Cleland, J., Ali, M. (2004) The use of demographic and health surveys to monitor reproductive behaviour in single women. Paper presented at International Quetelet Seminar, Nov. 17-20, Louvain-La-Neuve, Belgium.

Coale, AJ., Hoover EM. (1958) *Population Growth and Economic Development in Low-Income Countries: A Case Study of India's Prospects*. Princeton: Princeton University Press.

Davis, K. (1967) Population policy: will family planning programs succeed? *Science*, **158**(3802):730-739.

Demeny, P. (1988) Social science and population policy: *Population and Development Review*, **14**(3):451-479.

DFID (UK Department for International Development) (2003) *Call for Action on HIV/AIDS*. London.

Donaldson, PJ. (1990) *Nature against us: The United States and the World Population Crisis, 1965-1980*. Chapel Hill: University of North Carolina Press.

Dow, TE., Werner, LH. (1983) Prospects for fertility decline in rural Kenya. *Population & Development Review,* **9** (1): 77-97.

Dunckle, KL., Jewkes, R., Brown, HC. et al. (2004) Gender-based violence, relationship power, and the risk of HIV infection in women attending antenatal clinics in South Africa. *Lancet*, **363**:1415-1420.

Dyson, T., Moore, M. (1983) On kinship structure, female autonomy, and demographic behavior in India**.** *Population & Development Review,* **9** (1): 35-60.

Ehrlich, PR., Ehrlich, AH. (1970) *Population Resources, Environment: Issues in Human Ecology*. San Francisco: W.H. Freeman and Co.

Frank, O., McNicoll, G. (1987) An interpretation of fertility and population-policy in Kenya. *Population & Development Review,* **13** (2): 209-243.

Freedman, R., Freedman, D. (1992) The role of family planning programmes as a fertility determinant. In J.F. Phillips & J.A. Ross (eds) *Family Planning Programmes and Fertility*. Oxford: Clarendon Press: 10-27.

Goldscheider, C. (1999) Religious values, dependencies, and fertility: evidence and implications from Israel. In R. Leete (ed) *Dynamics of Values in Fertility Change*. Oxford, Oxford University Press. Pp. 310-330.

Green, M. (1993) The evolution of United-States international population-policy, 1965-92 - A chronological account. *Population & Development Review,* **19** (2): 303-321.

Grunseit, A., Kippax, S., Aggleton, P., Baldo, M., Slutkin, G. (1997) Sexuality education and young people's sexual behavior: A review of studies. *J Adolescent Res*. **12** (4): 421-453.

Gupta, GR. (2002) How men's power over women fuels the HIV epidemic. *British Medical Journal*, **324**:183-184.

Harkavy, O. (1995) *Curbing Population Growth: An Insider's Perspective on the Population Movement*. New York: Plenum Press.

Hartman, B. (1987) *Reproductive rights and wrongs: the global politics of population control and contraceptive advice*. New York: Harper and Row.

Hodgson, D., Watkins, SC. (1997) Feminists and neo-malthusians: Past and present alliances. *Population & Development Review,* **23** (3): 469-523

Jeffery, P., Jeffery, R., Lyon, A. (1989) *Labour Pains and Labour Power*. London: Zed Books.

Jemmott, JB., Jemmott, LS. (2000) HIV risk reduction behavioral interventions with heterosexual adolescents. *AIDS,* **14** (Suppl. 2): S40-S52.

Jewkes, R., Levin JB., Penn-Kekera, LA. (2003) Gender inequalities, intimate partner violence and HIV prevention practices: findings of a South Africa cross-sectional study. *Social Science and Medicine*, 56: 125-134.

Kaler, A. (2004). AIDS-talk in everyday life: HIV/AIDS in Men's Informal Conversations in Rural Malawi. Social Science & Medicine 59 (2): 285-298.

Knodel, J., Havanon, N. Pramualratana, A. (1984) Fertility transition in Thailand: A qualitative analysis. *Population and Development Review,* **10**(2):297-328.

Kohler,HP, Behrman, JR and Watkins, SC. (2000) Empirical assessments of social networks, fertility and family planning programs: Nonlinearities and their implications Demographic Research, v.3. http://www.demographicresearch.org/volumes/vol.

Kohler,HP, Behrman, JR,Watkins, SC.. (2001). The density of social networks and fertility decisions: Evidence from South Nyanza District, Kenya .*Demography,* **38**(1): 43-58.

Leete, R. (1996) *Malaysian's Demographic Transition: Rapid Development, Culture and Politics*. Kuala Lumpur. Oxford University Press.

Luke, N., Watkins, S.C. 2002. Reactions of developing-country elites to international population policy. *Population and Development Review* **28**(4):707-733.

Maharaj, P., Cleland, J. (2004) Condom use within marital and cohabiting partnerships in KwaZulu-Natal, South Africa. *Studies in Family Planning*, **35**(2): 116-124.

Maloney, C., Aziz, KMA., Sarker, PC. (1981) *Beliefs and Fertility in Bangladesh*. Monograph No. 2 Dhaka: International Centre for Diarrhoeal Disease Research.

Montgomery, MR., Casterline, JB. (1993) The diffusion of fertility control in Taiwan: Evidence from pooled cross-section time-series models. *Population Studies* **47**:457-479.

McQuillan, K. (1979) Common themes in Catholic and Marxist thought on population and development. *Population and Development Review,* **4**(4):689-698.

Notestein, F. (1945) Population - the long view. In: TW Shultz (ed) *Food for the World*. Chicago, University of Chicago Press: 36-57.

Oakley, A., Fullerton, D., Holland, J. (1995) Behavioural interventions for HIV/AIDS prevention. *AIDS,* **9**:479-86.

Oakley, A., Fullerton, D., Holland, J. et al. (1995) Sexual health education interventions for young people. *British Medical Journal,* **310**:158-62.

Parker, RG., Easton, D., Klein, CH. .(2000) Structural barriers and facilitators in HIV prevention: a review of international research. *AIDS*, **14** (Suppl. 1): S22-S32

Pritchett, L. (1994) Desired fertility and the impact of population policies. *Population and Development Review* **20**(1):1-55.

Retherford, RD., Palmore, JA. (1983) Diffusion processes affecting fertility regulation. Pp. 295-339 in *Determinants of Fertility in Developing Countries, Volume 2*, R.A. Bulatao and R.D. Lee, Eds. New York: Academic Press.

Rogers, EM. (1983) *Diffusion of Innovations*. New York, Free Press.

Rosero-Bixby, L., Casterline, JB. (1993) Modelling diffusion effects in fertility transition. *Population Studies* **47**:147-167.

Rosero-Bixby, L., Casterline, JB. (1994) Interaction diffusion and fertility transition in Costa Rica. *Social Forces* **73**(2): 435-462.

Ruttenberg, N., Watkins, SC. (1997) The buzz outside the clinics: Conversations and contraception in Kenya. *Studies in Family Planning* **28**(4): 290-307.

Shisana, O. & Davids, A. (2004) Correcting gender inequalities is central to controlling HIV/AIDS . *Bulletin WHO,* **82**(11): 812.

Simon, J. (1982) *The Ultimate Resource*. Princeton, Princeton University Press.

Simmons, R., Baqee, L., Koenig, MA., Phillips, JF. (1998) Beyond supply: The importance of female family family planning workers in rural Bangladesh. *Studies in Family Planning* **19**(1): 29-38.

Speizer, IS., Magnam, RJ, colvia, CE. (2003) The effectiveness of adolescent reproductive health interventions in developing countries: a review of the evidence. *Journal of Adolescent Health*. **33**:324-348.

Stephenson, JM., Imrie, .J, Sutton, SR. (2000) Rigorous trials of sexual behaviour interventions in STD/HIV prevention: what can we learn from them? *AIDS,* **14** (Suppl. 3): S115-S124.

Symonds, R. Carder M. (1973) *The UN and the Population Question 1945-1970*. New York; McGaw-Hill.

Thornton, A. Forthcoming. *Reading History Sideways*. Chicago: University of Chicago Press.

Treichler, P.A. (1999). *How to Have Theory in an Epidemic*. Durham, NC: University of North Carolina Press.

UNAIDS (1999) *Gender and HIV/AIDS: Taking Stock of Research and Programmes*. Geneva.

UNAIDS (2004) *2004 Report on the Global AIDS Epidemic*. Geneva

Valente, TW., Watkins, S., Jato, MN, Van der Straten, A., Tsitsol, LM. (1997) Social network associations with contraceptive use among Cameroonian women in voluntary associations. *Social Science and Medicine* **45**: 677-687.

van de Walle, E., van de Walle F. (1991) Breastfeeding and popular aetiology in the Sahel. *Health Transition Review* **1**(1):69-81.

Watkins, SC. (2000) Local and Foreign Models of Reproduction in Nyanza Province, Kenya. *Population and Development Review*.

Watkins, SC. (2004) Navigating the AIDS epidemic in rural Malawi. *Population and Development Review* 30 (4): 673-705

Watkins,.SC., Rutenberg R., Green, S. (1995) Diffusion and debate: Reproductive change in South Nyanza Province, Kenya. Paper presented at the annual meeting of the Population Association of America, April 5-8, San Francisco, CA.

Watkins, SC., Hodgson, D. (1998) From mercantilists to neo-Malthusians: The international population movement and the transformation of population ideology in Kenya. Paper presented at a Workshop on Social Processes Underlying Fertility Change in Developing Countries, Committee on Population, National Academy of Sciences, Washington, D.D. 29-30 January 1998.

Watkins, SC., Rutenberg, N., Wilkinson, D. 1997. Orderly theories, disorderly women. In G. W. Jones, R. M. Douglas, J. C. Caldwell and R. M. D'Souza (Eds), *The Continuing Demographic Transition*. Oxford: Clarendon Press, pp. 213-245

Wilmoth, J., Ball, P. (1992). The population debate in American popular magazines, 1946-1990, *Population and Development Review* 18 (4):631-668.