

Competing interests: FH was a member of the board and chairperson of ASH Ireland and is their current spokesperson. He was also a member of the board of the European Network on Smoking Prevention.

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## Partner reduction and the prevention of HIV/AIDS

*The most effective strategies come from within communities*

In an era of increasingly complex HIV/AIDS analyses and responses, Shelton et al reaffirm the simple truth that without multiple sexual partnerships, an HIV epidemic would not occur and that by extension partner reduction is the most obvious, yet paradoxically neglected, approach to the prevention of HIV (p 891).<sup>1</sup> They note that in the ABC model for preventing AIDS/HIV (abstinence, or deferred sexual inception—A, be faithful, or partner reduction—B, and condom use—C), sexual deferral and condom use have persuasive advocates but partner reduction does not.

Their analysis of the vital part played by partner reduction in reducing HIV infection in Western gay communities, Uganda, and Thailand is timely. We face a crisis in HIV prevention. The successes in Uganda and Thailand occurred 15 years ago, and in the intervening period no national declines of similar clarity or scope have occurred. Similarly, in HIV prevention research, the heady days of the Mwanza sexually transmitted infections trial were succeeded by the disappointing findings (albeit explicable) in the more ambitious Rakai sexually transmitted infections trial, the Masaka triplet IEC (information, education, and communication) and sexually transmitted infections trial, and most distressingly, the recent Mwanza adolescent trial.<sup>2-5</sup> Shelton et al's analysis may help to infuse new life into HIV/AIDS prevention. Their argument that partner reduction is the potential centrepiece of a unified ABC approach is good common sense—and good epidemiology.

Whether the ABC approach addresses the needs of women is debatable, with commentators arguing that many women are unable to negotiate relationships based on abstinence, faithfulness, or condom use.<sup>6</sup> The enduring contribution of gender inequalities, including economic inequality and gender violence, to women's vulnerability to HIV is incontrovertible. Yet it is intriguing that some of the steepest declines in HIV infection levels in Uganda seem to have occurred among women, particularly young women, putatively the most powerless members of society. Shelton et al present evidence that where HIV prevalence has declined among pregnant women (Uganda, Thailand, Zambia, Ethiopia, Cambodia, and the Dominican Republic) the primary reported behaviour change has

been partner reduction and monogamy by men, especially older men. Uganda's experience shows that achieving sexual deferral and partner reduction among men, particularly older men, may create safer environments for women, particularly young women. Community norms that proscribe older men having sexual relationships with younger women may be especially protective. A successful ABC approach that reduces HIV infection among women, particularly young women, is a vital element of a broader gender response. Uganda's ABC approach was reinforced by practical measures to increase women's participation in higher education and political life and to protect women from gender violence and sexual coercion.

Analysis of factors contributing to behaviour change in Uganda and elsewhere is even more challenging than the reaffirmation of partner reduction. Contexts as disparate as California, Uganda, and Thailand share unnerving similarities.<sup>7-10</sup> Above all, HIV prevention responses were rapid, endogenous, inexpensive, and simple.<sup>8,9</sup> They were based on the premise that communities, however disparate, have within themselves the resources and capital to reverse this epidemic. They preceded large scale exogenous assistance and occurred largely without the involvement of specialist agencies. They were locally led, by gay leaders and activists in California and by political, religious, and community leaders in Uganda. They promoted changes in community norms, thus creating enabling and protective environments long before the concept gained currency. They stressed simple messages and actions and in doing so achieved declines in HIV infection that preceded the growth in HIV services, including distribution of condoms and voluntary counselling and testing. They relied on interpersonal communication channels and networks, rather than mass media.<sup>8,9,11</sup>

Remarkably they combined high fear approaches with openness and the capacity to rise above discrimination and to integrate prevention and care effectively.<sup>8,9</sup> In doing so they created a context in which people perceived high personal risk of HIV infection and a personal proximity to the epidemic (measured, for example, by the extent to which we know people who have died of AIDS) that many communities with equally high HIV infection levels have not yet attained.

*Education and debate*  
p 891

Despite our lament that behaviour change is slow, they achieved rapid declines in risky sexual behaviour and HIV infection. The slowest element was our capacity to recognise the rapidity and extent of these changes. They unified personal values and societal messages to achieve conviction and consistency. As AIDS educators, we often publicly promote approaches that we would not countenance in our own personal lives, such as the notion that it is acceptable for our spouses or children to have multiple partners, provided condoms are used. In Uganda, emphasis on the primacy of partner reduction resonated with community perspectives.

Partner reduction is good epidemiology, not good ideology, and we must ensure that the ABC approach remains sufficiently scientifically grounded to withstand shifting ideological sands. Happily epidemiology's insights are diverse enough to affront all our ideologies in equal measure. While Uganda's achievements imply a major role for partner reduction, data from, for example, Nairobi, Abidjan, Accra, many other cities in Africa, and large swathes of Asia support a major focus on making sex work safe, through rights based legal reform, enhanced sexual health care, and promotion of condoms. Similarly, the epidemics in the former Soviet Union and much of Asia cry out for a major commitment to comprehensive initiatives to reduce harm to injecting drug users.

We are indebted to Shelton et al for calling attention to the importance of partner reduction and its possible determinants and the implications for our programmes. We must also recognise that many communities have not developed similarly effective local responses, and respond with improved epidemiological and social research to ensure we understand what happened in Uganda and elsewhere. We require this to communicate persuasively with hesitant communities and to improve our ability to facilitate and nurture

effective local responses. In short, we must foster endogenous responses founded primarily on the resources, capital, and leadership within communities while enhancing research to ensure these responses are understood, evaluated, and illuminated by science.

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## Minimally invasive parathyroidectomy

*Heralds a new era in the treatment of primary hyperparathyroidism*

Primary hyperparathyroidism is a more prevalent condition than many perceive. The overall incidence is 25 per 100 000 of the United Kingdom's population.<sup>1</sup> However, in women over the age of 45 it may affect one in 500, and more than 1% of postmenopausal women have raised serum concentrations of calcium.<sup>2</sup> Parathyroidectomy is the treatment of choice in symptomatic primary hyperparathyroidism. It cures fatigue and the bone, abdominal, urological, and mental symptoms associated with hypercalcaemia. Parathyroidectomy also results in a quantifiable improvement in health related quality of life.<sup>3</sup> Additionally a 25 year follow up of patients with untreated "asymptomatic disease" showed a notable increase in cardiovascular deaths compared with age matched normocalcaemic controls.<sup>2</sup> Support for an operative approach is further provided by lack of an effective medical treatment and the cost and doctor hours involved in the follow up of conservatively managed patients.

Traditionally parathyroidectomy involves a collar incision, bilateral exploration of the neck, identification of all four parathyroid glands, and removal of the diseased gland or glands. This approach, in experienced hands in large volume centres, has enabled cure rates of up to 97% with minimal morbidity, although a cure rate of 70% probably reflects general surgical practice more faithfully.<sup>4,5</sup> More than 80% of patients with primary hyperparathyroidism have a solitary adenoma, removal of which guarantees cure. In the 1980s a unilateral approach (through a collar incision) was advocated, based on the principle that removal of the single abnormal gland in the presence of an identified ipsilateral normal gland avoided the need for a contralateral exploration.<sup>6</sup> Despite its enthusiasts this approach failed to gain universal support because of concerns over the reliability of the localisation procedures available at the time and the possible presence of undetected double adenomas or asymmetrical hyperplasia.