Letter from . . . Chicago

AIDS update

GEORGE DUNEA

Since its first description in 1981 the acquired immune deficiency syndrome (AIDS) has developed into a major pandemic. It has now claimed victims in 113 countries and may infect as many as 100 million people within a decade. In the words of the United States secretary of health, Otis Bowen, it "could well become one of the worst health problems in the history of the world . . . an awesome health problem that could involve millions of people who are going to die as a result."

Already this plague has struck 26 500 Americans—41 000 if patients with encephalitis and failure to thrive are included—and more than 22 000 have died. About 1·5 million are believed to have been infected with the human immunodeficiency virus (HIV), 20-30% of whom may develop the disease within five years. By 1991 AIDS may afflict 270 000 Americans, causing 5000 deaths yearly, its annual cost exceeding $70 billion (up from $5 billion in 1985)—including direct medical care costs of $10-16 billion (up from $1 billion in 1986). It would then consume 1·4% of the total health care budget, possibly requiring new methods of raising revenue.

So far 90% of victims are drawn from two groups: the homosexuals—2·5 million practising exclusively and 2·5 to 7·5 million practising intermittently—and the addicts, some 1·3 million. Only 4% have arisen through heterosexual contact, largely from sexual partners of addicts. Even among prostitutes spread is mainly by addicts, so that in Miami, for instance, 40% of inner city prostitutes but none from an escort service were found to be infected. About 2%, or 700 patients, are drawn from the 34 million who received blood transfusions before 1985, of whom 12 000 may have been exposed to AIDS. Another 1% comes from America's 20 000 haemophiliacs, of whom 70% are HIV positive and 330 have already developed AIDS. Blacks and Hispanics account for a disproportionate share of patients (11% and 8% of the population but 25% and 14% of patients with AIDS) and young blacks are five times more likely to develop the disease than whites. About 6% of cases have occurred in women, again mostly black (50%) or Hispanic (20%), often drug addicts (50%) or infected by sex with addicts (20%). So far New York holds the record with 9871 cases, followed by San Francisco (3557), Los Angeles (3246), Houston (1178), Washington DC (1097), Miami (1082), Newark, Chicago (873), Philadelphia, and Dallas.

Effects on social behaviour

The epidemic is wreaking profound social changes. Gay parades are a thing of the past; public bath houses are closing; whole districts have seen their population decimated. Monogamy and chastity are said to be coming back, or at least people are being cautious. Thus a newly divorced woman was recently heard complaining bitterly that she had just missed the sexual revolution. Some think that fear of AIDS could bring back the virtuous 'fifties and spur another baby boom, with virginity back in fashion, babies everywhere, the family again in vogue, husbands and wives bound together by love, caution, or fear. Also making a comeback is the forgotten condom, openly distributed to schoolchildren, as may be free needles to addicts. Above all, there is fear of an uncontrolled spread of the disease into the heterosexual population.

Already some cases are occurring unaccountably. Such was the case of a Methodist bishop in Texas, who had led an unimpeachable life but had worked with AIDS victims. So far officials continue to reassure the public that the chances of catching this virus of low infectivity through non-sexual contacts are remote; that only standard blood precautions need to be observed with AIDS patients; that haemodialysis patients need not be isolated. Even when three hospital workers developed AIDS last spring it was explained that in each instance a break in the skin (abrasions, acne, dermatitis, or chapped hands) may have allowed entry of the virus and that there was no cause for alarm.

Yet the people are running scared. In schools incidents have occurred where parents protested, sometimes forcefully, against the admission of children with AIDS. Some of these cases went to the courts, which have tended to favour admitting children with AIDS provided precautions are taken. But fear and resentment persist. Hospital patients report being isolated and left helpless, their food tray deposited on the floor at the door. Surveys show that many doctors dislike treating AIDS and that some residents think that they should be able to choose if they wish to care for such patients. When an AIDS infected prisoner hanged himself last year the guards refused to handle the body. When a famous entertainer died from opportunistic infection earlier this year the public had to be reassured that draining the blood flushed out during embalming into the city sewers constituted no public danger. Increasingly, there is talk about "an epidemic of prejudice," a backlash against gays and addicts; and writers are harking back to Typhoid Mary, the cook who, after causing 51 diagnosed cases of typhoid fever, including three deaths, was locked up for her last 25 years in a hospital in the Bronx without much fuss about civil rights. Then we read about an HIV positive private being courtmartialled for knowingly exposing his pregnant fiancée and a male friend to the virus; and about a man who sold his AIDS infected blood to a plasma producing company being charged with attempted murder.

Then there are political implications. Thus when a doctor was found to have AIDS in a public hospital the municipal council suspended him (with pay) after he refused to transfer to administrative non-clinical duties. Explaining that it owed a responsibility to the indigent people who could not choose where to go, the council overruled the medical staff's recommendation to reinstate the doctor. Some outraged residents donned black armbands and demonstrated, as did civil rights groups—whose lawyers threatened to go to court. But at least one newspaper agreed with the councillor who said that he would not like a doctor with AIDS sticking a finger down *his* throat. Many patients also seemed to agree, voting with their feet by staying away from the clinics for a week after the

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incident. Even some liberals admitted that they would not like their doctor to have AIDS. Subsequently the council partially reversed its decision and allowed the doctor to do routine physical and neurological examinations but not invasive procedures that would require breaking the skin or inserting instruments into body orifices. But the civil rights lawyer remained indignant and said that he would advise his client to sue, serenely confident that doctors with AIDS could safely carry out procedures on patients. Meanwhile the hospital administration announced that it would protect its health care workers by requiring them to wear gloves, gowns, masks, and goggles when treating HIV positive patients, thus going beyond the recommendations of the Center for Communicable Diseases.

Conflict with civil rights

Politics also count when it comes to formulating programmes to combat AIDS. While conservatives emphasise the need to control the disease, liberals fear a return to the McCarthy era, and others are beginning to perceive the problem as a confrontation between public health and civil rights. Most people agree on the need for better education, but not necessarily on how to go about it. Visibly in the forefront has been US surgeon general Dr Everett Koop, called by some a "national hero" for his forthrightness, who has made AIDS education his personal campaign. Emphasising in his published report that teenagers tend to consider themselves immortal and need educating, he advocates abstinence or at least "safe sex," with condoms made available but not advertised, or at least not in bad taste, and testing of prisoners, immigrants, and patients before surgery. But the administration has proposed more extensive measures. President Reagan has called AIDS public health enemy number one, and health secretary Bowen has suggested that controlling the epidemic may require some sacrifice of individual rights. At present the administration has come out for mandatory testing of people seeking marriage licences, pregnant women, hospital patients, prisoners, and immigrants. Others would go even further and one congressman has introduced a bill requiring everybody to take the test. But civil libertarians and homosexual groups contend that testing is ineffective, fraught with errors, and likely to drive sufferers underground and cause untold misery. They tell stories of HIV positive people being denied work, insurance, housing, schooling, and medical and dental treatment, and point to the ineffectiveness of the laws and courts in protecting AIDS victims.

Yet civil rights notwithstanding, most state legislatures are on the move. Some are considering bills requiring the forced isolation of "recalcitrant" patients or making the transmission of the disease from one patient to another a punishable offence. Texas now requires mandatory premarital testing. Other states are thinking of testing prostitutes, prisoners, hospital patients, and pregnant women. Last June Illinois passed a bill requiring the state to trace sexual partners, permitting the isolation or quarantining of carriers who knowingly spread the disease, requiring doctors and laboratories to report HIV positive patients to the health department, but mandating the department to preserve the confidentiality of reports. Some thought that the bill was the result of panic or was politically motivated, reminiscent of burning witches. More moderate were the recommendations issued by the board of trustees of the American Medical Association, which called for voluntary but not compulsory testing, education, compassionate treatment of victims, and the development of an overall plan to deal with the epidemic.

Other issues concern the financing and logistics of caring for AIDS patients. Should the needed funds come from new general taxes, from a surcharge on health insurances (of perhaps $200 per year), or, as someone suggested, from taxing HIV positive individuals? Should patients be cared for in special AIDS hospitals, and if so who should pay? Already in Houston an AIDS hospital has had to stop admitting indigent patients after losing $5 million in the first year. AIDS is also sending ripples through an insurance industry at risk of having to pay out millions of dollars to AIDS sufferers and concerned that some victims may conceal their condition when applying for insurance. Some companies would want to test applicants taking out large policies, an approach opposed by civil rights groups and now forbidden in four states.

Problems in the penal system

AIDS has also damaged the pornographic industry because of a decline of interest in pornographic material and a reluctance of amateur actors to perform with untested partners. It poses challenges to blood banks and has given an impetus to the storage of blood for autologous transfusion. It has raised problems in the penal system, where early release of prisoners on parole may become conditional on their willingness to dislose their condition to their spouses or lovers. Dentists have become worried since in a recent survey one out of 1231 seems to have been infected by a patient. And the lawyers are about to be busy as more people resort to the courts claiming discrimination, compensation, or breaches of confidentiality. There are suits by patients claiming damages from people who infected them, by people who received blood transfusions, by parents whose children are kept out of school, and by employees dismissed because of AIDS, as well as suits for medical malpractice, alleged negligence, child custody, or product liability. For the historian, however, the jury is still out. The disease may well burn itself out—and already we read about a sharp decline among Chicago's homosexuals as a result of "safer sex." Or it may go down in history as yet another great pandemic, that like the bubonic plague of the middle ages changed decisively the course of human affairs.

A large proportion of the children who fail the Ishihara test have passed the Farnsworth-Munsell D-15 test. Do these children not have a colour vision defect? Would it be acceptable to do the initial screening by the Ishihara test with the recommendation that any who fail should be retested by the Farnsworth-Munsell D15 test?

Colour vision tests serve two main applications that are not equally well met by any one portable test. One requirement is to separate the normal group from those with even the slightest impairment. This is becoming less important because instruments are now used in jobs for which good colour discrimination was formerly a great asset—for instance, anaesthetists. With this growing tolerance of small anomalies the emphasis is shifting towards the other purpose of assessment, especially for identifying the more serious defects that may interfere with work at school and elsewhere. The Ishihara test* meets the first application fairly well. There is, however, no sharp "pass-fail" criterion. The probability that the subject has defective colour vision progressively increases with the number of errors, but even 14 mistakes (in a set with 24 plates) do not rule out the possibility of normality.[1] Neither the type of defect nor its severity can readily be deduced. The Panel D-15 test† makes better assessments, especially of the more serious conditions. It does not detect slight defects (Ishihara misses a few of these too, as well as large yellow-blue deficiencies that are shown up by D-15). Small anomalies, however, may often be inferred if the neutral sample is reported to resemble some of the coloured ones, even when these have been placed in the correct order. Moderate to severe defects are indicated and graded by any disarrangements. As the questioner supposes, the two tests used together are much better than only one; a child who makes more than one mistake on the Ishihara test or whose colour vision for other reasons is suspect should be assessed with the D-15 test. The facts reported suggest small anomalies, possibly of little consequence. Some of the children may well be normal. Only a trichromatic colorimeter could fully resolve this point.—D A PALMER, senior lecturer, Institute of Ophthalmology, London.

*Various editions available from H K Lewis & Co, Ltd, 136 Gower Street, London, WC1.

†Available from D G Colour Ltd, 138 Greenwood Avenue, Laverstock, Salisbury, Wilts SP1 1PE.

1 Cruz-Coke R. *Color-blindness*. Springfield: Charles C Thomas, 1972:60.