

Asia Has the Chance to Stem AIDS Spread

by Ian Steele

As many as one million Asians are infected with the virus that causes AIDS. And the worry is that many more people are at risk because Asia is home to over half of the world's population

HERE is a message here for Asia as it enters an alarming upswing in the spread of AIDS.

The message is that governments and individuals, are not powerless if they have the good sense and courage to act now in support of safe sexual practices. Cities like New York and San Francisco were prominent in the early 1980s for their heavy AIDS case loads, primarily among homosexual males and drug addicts. Today, there are encouraging indications that the tide is turning.

The AIDS case loads remain high, but the infection rate is coming down. Safe sex — principally through the use of condoms — appears to be containing transmission.

The flashpoints in the Far East today are South and Southeast Asia, with a conservative estimate of one million individuals whose blood have tested positive for the presence of the AIDS virus. Most, if not all, will ultimately develop the fatal Acquired Immunodeficiency Syndrome (AIDS), a disease which breaks down the body's immune defence system.

Most of these one million individuals — an estimate provided by the World Health Organisation (W.H.O.) — are in just two countries — India and Thailand. W.H.O. says the number could even be two or three times higher in the region.

W.H.O. has noted similarity between Asia's AIDS curve and the early days of the pandemic in Sub-Saharan Africa. But it could be worse in Asia, based on an adult population (500 million) which is more than twice that of Sub-Saharan Africa.

The worry, too, is that many more people are at risk because Asia is home to over 50 per cent of the world's population.

In some major African urban centres, between one-fourth and one-third of all men and women, aged 15 to 49, have been infected with the AIDS virus. W.H.O. estimates that most will die of AIDS-related illnesses within six years.

The vast majority of victims in Asia, as in Africa, are heterosexuals who are passing the virus through mainstream sexual behaviour. But the rapid escalation of the region's case load is also linked to the frequency with which many males visit prostitutes.

Surveys have shown that in some Thai brothels four out of five prostitutes are infected with the virus. If one considers this in the context of surveys which indicate there are at least 800,000 prostitutes in the country, the possibilities are truly alarming.

How many of these males return home to share a bed with wives or girlfriends? It's a terrifying thought in societies where the use of condoms is neither widespread nor rou-

tion. In Thailand's northern resort city of Chiang Mai, one study found that women who worked in brothels for between six months and a year had a 70 per cent chance of getting infected with the AIDS virus.

The Thai health ministry estimates that 50,000 women may already have been infected by their husbands, many of whom got the virus from prostitutes. Data indicates that more than 75 per cent of Thai adult males have visited prostitutes, often in the cheapest brothels where rates of infection are highest.

In one of India's largest cities, Bombay, prostitutes infected with the AIDS virus increased from 100,000 to 150,000, or from 1 per cent of prostitutes tested in 1987 to 30 per cent in 1990. This shows the extraordinary potential for the spread of AIDS in Asia, says Dr Jim McDermott, co-chairman of the US Congressional Task Force on International AIDS.

He extrapolates data from Bombay which has a population of 12 million people. "Prostitutes average six contacts per night. If one assumes then that 600,000 contacts with prostitutes take place nightly in Bombay and that a third of these prostitutes are infected, then each night there are 200,000 sexual contacts that might result in AIDS in-

fection," he says. At the very least — at an infection rate of 0.1 per cent — "at least 200 individuals could become infected each night, or 6,000 each month in Bombay alone," Dr McDermott says.

Dr James Chin, W.H.O.'s chief epidemiologist, says AIDS spread could reach "five to 10 million infected people in India and several million in Thailand by the year 2000."

Worldwide, about 5,000 people will become infected with the AIDS virus today. Many of the victims will be Asians. And most will be young adults who will go about their lives as usual, unaware of the infection, passing on the deadly AIDS virus through sexual contact with lovers and loved ones.

Women who become pregnant while infected will also pass it to their infants. Since AIDS was first recognised more than a decade ago, more than one million infants have been born infected with the AIDS virus. Most of them have died of related illnesses within five years.

Depending on their health, adults may be infected for as long as 10 years before AIDS-related illnesses take hold. In the absence of symptoms or routine testing for AIDS, the first indication which some parents have of their own infection is when an infant is diagnosed as positive for the

AIDS virus. There are other passive victims as well. They include the uninfected sons and daughters who are orphaned by the death of one or both parents. Then there are the aged mothers and fathers of the victims who rely upon health offspring to support them in old age.

Many are now finding that in old age they are in fact the last line of support for orphaned grandchildren. A study of AIDS in 10 African countries made by the UN Children's Fund (UNICEF) suggests there could be as many as six million AIDS orphans in the region by the year 2000.

AIDS takes no prisoners, and in the absence of a vaccine or cure, the only effective protection which individuals have against it is to change their patterns of sexual behaviour.

AIDS is a lifestyle disease. It may be transmitted sexually through anal, vaginal or oral intercourse with an infected person; through the sharing of needles, or intercourse with infected drug users; or through transfusions of contaminated blood or blood products.

Most industrialised nations have secured their blood banks against AIDS through testing and screening. Agencies like the W.H.O. are helping developing nations to employ the necessary technologies and know-how to do the same.

United Nations agencies and non-governmental organisations are also educating young people and adults about "safe sex" — for example, with one steady partner and not with prostitutes or by using condoms.

Public information programmes in communities and schools emphasise the fact that individuals and families can protect themselves by changing their sexual habits.

Without safe sex, it takes almost a conscious decision to go out and get the fatal virus. — *Depthnews Asia*

AIDS Epidemic Rages in Asia

SOMETIME before the middle of this decade, the number of Asians infected with the AIDS virus will exceed the number of AIDS-infected people in industrialised countries," says Jonathan Mann, Director of the Harvard AIDS Institute.

For many years, Dr Mann headed the AIDS Programme of the World Health Organisation (W.H.O.) and he knows what he's talking about.

And according to the W.H.O. there are at least one million Asians who have tested positive for the virus which causes AIDS, or Acquired Immunodeficiency Syndrome, the fatal disease which breaks down the body's immune defence system.

It takes anywhere between months to ten years before an infection develops into full blown AIDS, when opportunistic diseases overwhelm an impaired immune system. Because of the long incubation period — mostly without symptoms — the cases of full blown AIDS reported in Asia are small, under 1 per cent of the world total.

This, in turn, has lulled many in Asia into believing the epidemic does not threaten them.

But severe AIDS epidemics already exist in India, Myanmar (Burma) and Thailand where both sexual activity and injecting drug use play a significant role.

Countries where the rate of infection still appears low (in relation to population size) include China, Hong Kong, Taiwan, Indonesia, Malaysia, Nepal, the Philippines, South Korea and Sri Lanka.

However, Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, Laos, Mongolia, North Korea, Pakistan and Vietnam currently appear to have none or no more than a handful of cases of AIDS infection.

"Now, we're hearing about (AIDS virus infection) rates of up to 30 per cent among drug users and prostitutes in Thailand," says Dr James Chin, W.H.O.'s chief epidemiologist. In 1990, 14 per cent of young military recruits in northern Thailand tested positive for the AIDS virus — three times more than in 1989.

Infection has reached 50 per cent in some groups of drug users in Asia. "Drug users are a good conduit of heterosexual transmission," says Dr Chin. "This is my biggest worry for the future of the pandemic."

Ten years ago, the injection of illegal drugs was virtually unknown in Asia — today it is common. So much so that AIDS virus infection as a result of drug injection is a major problem in southwest China, Myanmar, Thailand and north-east India.

Another major transmission route are contaminated blood and blood products used in transfusions. In Japan, South Korea, Thailand and Singapore — where the Red Cross is responsible for all transfusion services — 100 per cent of blood is screened for the presence of the AIDS virus. Government screening in Sri Lanka, Malaysia and Hong Kong are also thorough.

But most countries in Asia do not screen at all or only in selected areas. In Vietnam, transfusion blood is screened in port cities but not inland.

Many commercial blood banks in India rarely screen donors. A study in Madras found that 4 per cent of paid donors were positive for the AIDS virus. Blood screening is limited to major cities and in 1989-90, only 30 per cent of donated blood was tested.

Prostitution and promiscuous sex is the major transmission route in Asia. Japanese authorities believe sex tourism is a factor in the sharp increase of AIDS virus infection among heterosexual males there.

Prostitution in Asia moves across national borders. Filipino, South Korea and Thai women are recruited to work in Japan and, sometimes, in Singapore. Young women from Myanmar, Laos, Vietnam and Cambodia are found in the brothels of Thailand.

Seven of 11 Nepalese known to be infected with the AIDS virus are women back from prostitution in Bombay. There, as many as 60,000 Nepalese girls and women reportedly work in the city's brothels.

Prevention is still the best defence against AIDS since there are no vaccines or cures for it yet. This means safe sex — for example, not having sex with prostitutes and using condoms. It also means screening blood banks, using sterilised syringes and for drug addicts, not sharing needles.

One success story is Hong Kong's methadone (heroin substitution) maintenance and rehabilitation programmes for its nearly 8,000 injecting drug users. Only five of the 200 known cases of AIDS and AIDS virus infection are related to drug abuse.

New Hope for Spastics

by Mulugu Somasackhar

SPASTICS and other children with non-progressive brain disorders can now hope to sit and walk like normal kids of their age, thanks to a new neuro-surgical technique.

Selective posterior rhizotomy (SPR), first introduced in India at the Nizams Institute of Medical Sciences (NIMS) in Hyderabad has produced satisfactory results in over 100 cases so far with no known side-effects.

Children on whom the operation was performed have started walking and NIMS scientists say the technique is also producing encouraging results in adults with non-progressive brain disorders.

Such disorders can be brought about by damage to the brain during premature birth, delayed birth cry, meningitis, forceps delivery, trauma to the head, severe neonatal jaundice and bluebaby condition.

Spastic children have stiff limbs which make them incapable of simple motor functions like sitting, crawling, walking, feeding and writing.

In their pursuit of a cure for these disorders, doctors have been using orthopaedic surgery with some success. However selective posterior rhizotomy is proving to be more beneficial. Dr A K Purohit, who heads the NIMS team conducting the operations, said.

SPR was first introduced in India at the NIMS in 1988 by an American neurosurgeon Dr W J Peacock from the University of California at Los Angeles. He operated on a young boy who is now almost like any other normal child.

In rhizotomy, doctors open the lower part of the spine (lumbar) and select abnormal roots using electrical shocks through a computerised electromyography machine. Doctors then divide abnormal roots in an operation that lasts for about six hours.

The surgery provides dramatic results in the sense that the spasticity of the legs subsides immediately — right on the operation table. The operation also prevents complications such as contraction of muscles and dislocation of bones and allows the child to carry himself more easily.

A spastic child can stand or walk after the surgery. The child also begins to feel more comfortable and confident, says Dr Purohit. However, all is not over. Immediately after surgery, an extensive course of rehabilitation therapy has to follow, aimed mainly at improving the motor functions like using hands, walking and writing.

Seventy-five of the 100 spastic children on whom SPR was tried at NIMS have shown

remarkable improvement like sitting, crawling and walking. The kids are progressively improving and are not showing any serious side-effects, Dr Purohit said.

NIMS doctors have extended the SPR technique to correct problems like spinal trauma, myelitis, tuberculosis of the spine and stiff legs following a head injury.

Dr Purohit also reported positive results with the use of a modified version of SPR to treat cerebral palsy cases with deformities in the upper limbs and spasticity of the bladder.

Not all spastics can, however, be treated by this new technique — in fact as many as 80 per cent of the cases are not suitable. "Our experience has shown that those kids with severe spasticity in legs, good motivation and normal upper body are good candidates for undergoing this surgery," Purohit said. A second major drawback is that the technique cannot be used in patients who have already undergone orthopaedic surgery.

The best candidates are those between 4-8 years of age, although doctors at NIMS have tried SPR on a 22-year old boy and a middle-aged man, with encouraging results. The NIMS has treated patients coming from not only different parts of India, but also from Saudi Arabia, Kuwait, Burma and China.

Rough estimates put the number of cases of cerebral palsy in India at 1.6 to 3.2 million, or 2 to 4 per 1000 live births. Even in the United States of America every second child out of 1000 born is a cerebral palsy case, despite the best of medical care available.

This shows that good medical care does not necessarily prevent the problem, said Dr Purohit. The best way to reduce the severity of the problem is to diagnose the disability before the child is six months old, create better awareness among parents and provide good rehabilitation therapy.

Dr Purohit also warned against the use of brain tonics that are of no use to the patient and only serve to delay the parents from taking the child to the right treatment.

SPR is a vastly-improved neuro-surgical technique in a series of developments since the first total posterior rhizotomy performed in 1908. SPR was first done during the 1970s and later modified by Dr Peacock in 1981 who first used it in South Africa and later popularised it in the United States.

The best method, however, is a "brain transplant" for complete cure of cerebral palsy.

Can Ageing Process be Halted?

IF America sets the trends which Britain follows, plastic surgery looks set to become boom business in the next century. For there in the USA, the number of clinic operations to tighten faces, such away fatty layers or resculpture sagging breasts has doubled in the past ten years.

With the faces of America's rich and famous fixed in a plastic surgeon's smile as permanent as the Mona Lisa's, who can argue that the trend does not have social approval?

Now, however, a review of new treatments in the top medical journal the Lancet suggests that the surgeon's knife is not the only way to keep back the tide of time. Hormones, the review concludes, like the elixir of life

might also be the magic formula to help keep people young.

The hormone under the Lancet microscope is known as "growth hormone", the substance which in childhood makes bones get longer and allows people to grow. But once adults have stopped growing, the body still produces growth hormone, and scientists are not sure why.

The Lancet says that young people who have a deficiency of growth hormone also show the signs of ageing — their skins become thinner, muscle mass decreases, exercise performance declines and body fat increases. Only when these youngsters are given growth hormone therapy does their body composition return to

what it should be. Growth hormone, therefore, might be the ingredient responsible for growing old — because studies also show that the growth hormone production of a man in his 50s is 30 per cent less than a 30-year-old man's.

To test this theory, American doctors gave growth hormone injections to normal elderly men for six months. They found that the classic signs of ageing were reversed — lean body mass increased by 9 per cent, body fat fell by 14 per cent, and skin thickness increased by 7 per cent.

The Lancet warns that no one knows what the long-term side effects of such therapy might be, but recognises the possibilities: "If, after extensive clinical trials, the beneficial

actions of growth hormone are shown to predominate, the prolongation of useful active life seems a legitimate aim of medical care."

More, however, is known about the influence of other hormones on the skin, and particularly the female hormone oestrogen which for post-menopausal women is the main ingredient of hormone replacement therapy.

A new review of HRT and the skin by the London menopause expert John Studd suggests that oestrogen therapy might be just as effective in keeping skin thick and tight. According to the review, hormone replacement therapy — and not the knife or suction tube of the plastic surgeon — holds the key to a

youthful skin. And Mr Studd insists that the skin of women on HRT looks healthier than the skin of women who are not.

Behind the claim lies an abundant body chemical known as collagen, which is woven like the strands of a rope to protect tissues like skin and give them their elasticity and strength. When the body gets older and tissues begin to fail, the rope strands are starting to fray.

Laboratory studies have shown that much of the skin's inner layer, where the blood vessels and sweat glands are found, is actually made up of collagen. And further studies have shown that growth and growing older influence colla-

gen change. For example, skin collagen has been shown to decline after the menopause at a rate of 2.1 per cent per year.

Mr Studd and colleagues found that the skin of women taking HRT was thicker than the skin of women who were taking nothing. They further found that the effect of ageing on the skin can be reversed within six months of using HRT.

HRT has so far carried the flag of health benefit to the women who use it — by halving risk of heart disease, stroke and osteoporosis, as well as relief of menopausal symptoms. If future studies confirm that HRT also keeps a woman's skin looking as healthy as it was before the menopause, that really will be a bonus. For even the plastic surgeons admit that there's a limit to how many face-lifts the human head can bear. — *Family Health*

To Tan or Not to Tan?

FOR a decade the stylish have turned their backs on the sun and preferred to turn a whiter shade of pale. Behind their ghostly action were health experts who warned that the sun wrinkles skin like freeze-drying a prune. Even more seriously, specialists showed that long exposures in sunlight were the main cause of skin cancers.

But the summer glow is fighting back. Psychologists say that a glowing skin bronzed from the sun provides a sense of well-being. We simply feel better when we're brown — more relaxed, more healthy, and more attractive. So how to resolve the burning issue — to tan or not to tan?

The scientists know that sunlight ages the skin, burns the skin, and damages cells which lie beneath the skin's surface. And the culprits are the different ultraviolet rays which constantly beam out from the sun.

The rays are identified as A, B and C, depending on the length of wavelength. UVA rays are the longest, and have been the subject of most recent controversy — especially over sunbeds. UVC rays are the shortest, but have never been controversial because they don't penetrate the earth's atmosphere. So the dramas lie with long and penetrating UVA rays and the rather shorter burning UVA rays.

UVB rays tan and burn the skin by stimulating the production of a melanin, the pigment which gives hair, skin and eyes their colour. But melanin is also the body's natural protection against the sun, so when the comes out melanin switches on.

Melanin's protection, however, only goes for far... and so fast. And certainly not fast

enough to keep up with powerful UVB rays burning down on a white back on a shadeless beach. The result is that the skin literally fries, and eventually peels to be replaced by new skin.

Sunscreen and sunblocks protect against UVB and UVA rays. But the protection factor number refers only to the degree of protection against UVB. The higher the number, the greater the protection.

UVA is also a tanning ray, which will rapidly turn white skin brown. But long UVA rays also penetrate deep below the skin's surface and weaken the mattress of fibres which give skin its tension and texture.

The visible signs of UVA damage are wrinkling, dryness, and sagging, but these ageing signals only show up about ten years after the tissue damage has occurred. And the damage is irreversible.

Skin cancer, like lung cancer, is fast becoming an epidemic of the civilised world. In the world's hot spots of Australia and California it is by far the commonest cancer — and one good reason why so many Australians wear a blob of sunblock cream as naturally as they wear a bush hat with dangling corks.

In the USA the American Academy of Dermatology went so far as to warn the public: "The majority of all skin cancers develop on unprotected parts of the face, neck, ears, forearms, and hands of persons constantly exposed to sunlight."

For optimal protection against developing skin cancer, people should avoid overexposure to the sun from infancy through adulthood.

In the USA skin cancers occur more often on the left arm and side of the face — because that's the side where car drivers sit, often with the win-

dows of growth hormone are shown to predominate, the prolongation of useful active life seems a legitimate aim of medical care."

Meanwhile, despite the case of sun worshippers who feel a bronzed skin is a sign of health and vitality, skin specialists remain in no doubt that tanning is no more than the skin's response to an injury inflicted on it by the sun. And as

Acne More Than Skin Deep

ALMOST one in two new patients attending a hospital clinic for skin diseases was experiencing some form of psychological suffering as well, a recent medical report has revealed. Most of the clinic attenders were victims of that fearsome scourge of adolescence, acne.

The report says: "Many of these patients find acne distressing and disabling, particularly since the cosmetic effects can drag on for many years."

"Even moderate acne can lead to shame, embarrassment, anxiety, loss of confidence and, occasionally, quite severe depression."

The report makes it quite clear that the damage done by acne is far more than skin deep. For example, a study carried out by a Leeds skin specialist in 1986 discovered that people with acne were twice as likely to be unemployed as those in the general population with cosmetically attractive skins.

The investigators suggested that teasing and mockery from workmates could be one reason for driving acne sufferers away from the workplace. Other studies have shown that

American experts warned in April: "Recent evidence has shown that there exists a strong positive correlation between UVA and the formation of malignant melanomas." People contemplating using sunbeds were urged to first consult their doctors.

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Acne remains almost as common today as it was thirty years ago. Estimates are that four out of five young adults will develop acne at some time in their teenage years, some worse than others. Women sometimes find that they still suffer spots well into their twenties and thirties.

The usual sites of suffering are on the face and back. Eruptions can range from a sprinkling of black or white-headed pimples to severe inflamed lesions which will eventually scar the skin.

And while doctors know that acne itself is not life and death, they are now becoming more and more aware of the psychological suffering which it causes. In this age when looking 'good' is inextricably linked to feeling good, appearance counts for a lot, especially to teenagers making their first independent steps in the world.

The cause of the scourge — as in so many disorders — is hormones in the body. That's why teenagers are so susceptible, because it's at puberty that the hormone system first goes into overdrive establishing sex characteristics and reproductive ability.

Beneath the skin lie many tiny glands which release a liquid substance known as sebum, and it's an excessive release of sebum which makes for greasy hair and an oily skin. When the ducts from these glands to the skin's surface become blocked they can become infected and then inflamed. And it's the infected and inflamed pore which is the beginning of a spot.

with all injuries, prevention is better than cure.

Advice for healthy tanning
• Healthy tanning depends on your type of skin, and its colour. If in doubt, think cautious, and sit in the shade.
• Sunscreen factor numbers will give you a guide to how long you can sit in the sun. A factor 10 offers ten times as much protection as the skin's natural defence. If, with red hair and a freckled face, you burn after ten minutes, a factor 10 sunscreen will mean you burn after 100 minutes.

• Pale sensitive skins should start slowly, protected by at least a factor 15 sunscreen.

• Avoid the mid-day sun, especially when it's really hot. Nearer the equator, sun rays even pass through cloud, so it's best not to go out in the mid-day sun. — *F. H.*

• Darker skins which tan easily should start at about factor 8. As the melanin rises and skin tans, exposure times can increase.

• Babies, toddlers and those with unusually sensitive skins should never burn; protection means total sunblocks, hats and parasols.

• Water allows sun rays to penetrate to about 3 feet — so swimming will not protect a burning back, even if it's cooler.

• Avoid the mid-day sun, especially when it's really hot. Nearer the equator, sun rays even pass through cloud, so it's best not to go out in the mid-day sun. — *F. H.*

hormones in the body (in girls as well as boys). So one course of doctor action in tackling acne is an antibiotic — as either a tablet or cream — to kill off the infection causing the inflammation. There are other hospital treatments derived from vitamin-A which have also been successful. And hormones can be given to reduce the activity of the sebun glands.

For women, the newer contraceptive pills containing hormones free from these "male" characteristics, can improve acne.

In the latest report, doctors call for "an explosion of popular myths regarding diet, exercise, hygiene and the condition of the hair". No study has yet shown any link between lifestyle and acne, not even eating chocolate.

Meanwhile, the doctors add that acne sufferers should never be fobbed off with the promise that the spots will just go away. The psychological damage which acne can cause, especially to a vulnerable teenager, necessitates the most concerned treatment, they warn. — *Family Health*