Calculating cost of Aids

The Kenyan economy which

has been performing poorly

for some time now, is headed

for yet another crisis arising

from the Aids pandemic.

Apart from the obvious human

losses, the economy is rapidly

losing potentially productive

human resources in addition to

incurring high medical expenses.

By January this year, about 33,000 Aids cases had been reported

to the National Aids Control

Programme (NACP). It is

estimated that for each case

reported two others went

unreported:

The cummulative number of

Aids up to January is thus estimated

at around 100,000.

Transmission of the Aids-causing

virus in Africa is largely

through heterosexual (male/female)

contact which accounts for

about 75 per cent of the transmission.

Both vertical, mother to

child; and blood transfusion

account for about 5 to 10 per cent

each.

Current estimates indicate a

probability of between 25 and 45

per cent of transmission of the

Aids virus from mother to child

mainly during pregnancy and at

birth.

In Kenya, one may then say

with a high degree of accuracy

that for every three children born

to mothers infected with the Aids

virus one will be infected.

Incubation

Aids has a relatively long

incubation period, which

distinguishes it from many other

diseases. During the incubation

period, the health of the. patient

is apparently normal. In Kenya,

such a patient lives for about 8

years before he/she shows the

symptoms of full blown Aids, if

he/she is not a child. infants infected

with the virus rarely go beyond

the age of four.

What makes the incubation period

very important is the fact

that the infected patient who often

may not know it, could easily

transmit the virus, mainly

through heterosexual contact.

Another peculiar aspect of Aids

is that once its symptoms have

appeared, .the virus goes ahead

wrecking the body's immunity

system, thereby opening the door

for other diseases to attack and

kill the patient.

By January, Kenya had about

700,000 people aged 15 and

above, who were infected with

HIV. Many of these people look

quite healthy and could thus be

transmitting the virus over the

next couple of years.

Currently, the concentration of

HIV infected people in the population

is estimated to range between

50 to 67 per cent in the

rural areas, compared to urban areas on average.

However, given that about 85

per cent of Kenyan's population

lives in rural areas, even this relatively

lower concentration leads

to a high absolute sum of those

infected among the rural

population.

HIV infection patterns in

Africa indicate that the 15 to 49

age group is worst hit by the epidemic.

Here in Kenya available

statistics underline this view.

Out of about 33,000 Aids cases

reported to NACP by January

1993, 82 per cent were within the

15 to 44 age group, and out of

these 85 per cent were in the 20

to 44 age bracket.

These statistics have severe social-

economic implications. One,

at age 15, one is expected to have

reached standard eight of the

education ladder. Loss of such individuals

after education and

training leads to "brain drain".

Two, between the ages 20 and

44 years, we have a high concentration

of employed people and

people undergoing on-the-job

training who have internalised

special skills. Within this age

bracket output/labour ratios are

high. Loss of individuals in this

age bracket leads to loss of potential

productivity.

Three, between the ages 20 and-

49 years, we have a high concentration

of parents with young children to take care of. Loss of these parents spells doom to the

lives of these young children who

need parental love and care,

leadership and guidance, and

material provision.

Aids orphans have to contend

with enormous problems. Many

have to do without education.

Provision of basic necessities including

food, shelter and clothing

becomes a chronic problem. Lack

of adequate care exposes many of

these orphans to diseases that

could easily be prevented.

A combination of problems and

lack of guidance and leadership

, could lead many of these children

to the streets, possibly engaging

in activities that could fuel the

Aids pandemic.

The treatment of Aids is exorbitant,

and will definitely become

a major strain on our public

health budget. At the household

level, previous resources will also

be consumed by the scourge.

In Kenya Aids medical costs

are estimated at around Sh50,000

per year, at current 1993 prices.

This compares badly with our

per capita income. In 1991 our

per capita income which stands

at about Sh7,900 per annum.

Given the deteriorating economic

performance coupled with rising

population our per capita income

has declined. Hence few Kenyans

can afford to seek private hospital

care for Aids. Rather the bulk

of Aids patients will continue to

rely on the public. health care system.

Given that we had about

700,000 HIV positive patients

among the 15 and above age

group in January, we have a serious

problem even if we assume

that nobody else is infected.

To assist us in our analysis let

us have a few simplifying assumptions.

One, that the 700,000

HIV infected patients reach their

terminal Aids stages in an evenly

spread manner over the next ten

years. Two, only half the terminal

Aids patients seek in-patient

care. Three, non-terminal Aids

patients receive minimal medical

treatment. Four, in-patient care

costs double the cost of out-patient

care.

Based on these assumptions,

we can estimate the direct medical

cost of Aids resulting from the

700,000 individuals already infected.

Granted that over the

next 10 years, terminal Aids cases

will be evenly spread, each year

we shall have 70,000 Aids terminal

cases.

Out-patient

Out of this number 35,000 will

seek in-patient care and the other

35,000 will only seek out-patient

health care. Given that currently

our national health care system

has only about 34,000 beds and

cots, it means that even if we discharge

everybody else, we shall

not have enough room for half of

the terminal aids patients.

Given that it will take about

Sh50,000 at current 1993 prices,

it means that 35,000 Aids in-patients

would require K£87.5

million, while the other 35,000

Aids patients seeking out-patient

care would incur K£43.8 million.

Based on these assumptions,

then direct medical costs involved

in treating terminal Aids

cases among the 15 and above age

group, will be K£131.l million at

today's prices.

This amounts to about 0.7 per

cent of the 1992 Gross Domestic

Product (GDP), and 79 per cent

of the 1992/93 Ministry of

Health's printed recurrent

budget.

The strain on the public health

budget might soon lead to the

shifting of scarce resources from

preventive and promotive to curative

health care. However, even

curative health will not have

enough resources, given the imbalanced

nature of our public

health recurrent budget, in

favour of personnel expenditure.

Apart from the medical bill, a

lot of man-years of potential economic

productivity will be lost.

Most of this will involve Aids patients

in the 20 to 44 year age

group.

Calculations indicate that if

the trend continues, then from

this age group, Aids deaths will

lead to a loss of an average of at least 26.3 potential years of productive

life, assuming life expectancy

at birth to be 57 years.

Given that crude death rate in

Kenya stands at 37/1000, then

2,590 out of the 70,000 reaching

their Aids terminal stages would

be expected to die through other

causes even if there was no Aids.

Thus out of the 70,000 patients,

67,410 would be expected to die

annually strictly due to Aids for

ten years.

Assuming the current pattern

of AIDS cases among the population

continues then 85 per cent of

the 67,410 expected to die each

year will be aged between 20 to

44. This will lead to a loss of

about 1,506,964 man years per

year - assuming that life expectancy

at birth and crude death

rate do not change.

If we assume that labour productivity

for the 20 to 44 age

bracket is equal to the 1990

national average, of Kenya

K£426. at constant 1982 prices,

and an average interest rate of 30

per cent over the next several

years, then we can estimate the

discounted value of GDP lost

each year, for ten years, to Aids.

Each year, the potential productivity

lost to Aids from the 20

to 44 year age group would be

K£81,283,215, equivalent to

about 2 per cent of the 1990

GDP.

Considering that the average

productivity among the 20 to 44

age group could be about double

tl}e national average, one would

then estimate that about 4 per

cent of GDP will be lost each

year. Combining this lost GDP

with the medical bills the total

GDP loss will be 4.7 per cent.

Aids poster: Disease will strangle

Kenya's economy.