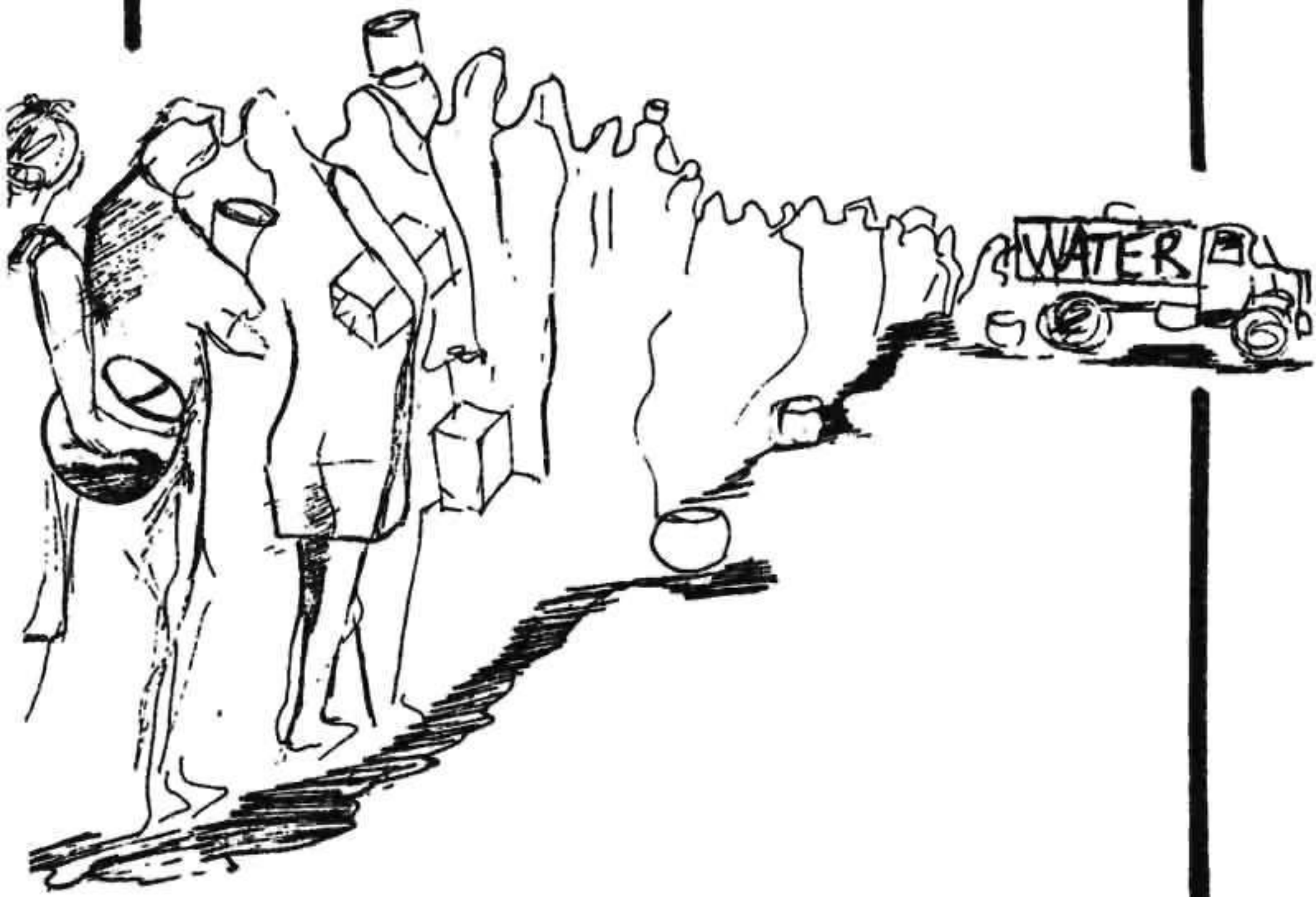
CHOLERA - SOME ISSUES



CHOLERA - SOME ISSUES

Cholera, a disease related to poor water supply and inadequate living conditions, struck South Africa last year. At the time of the outbreak of the epidemic, the disease received a tremendous amount of publicity. Now, it is virtually forgotten. It has become just another part of the statistics on health in South Africa.

Cholera is a relatively unimportant disease in this country. There are far more serious and widespread diseases which receive far less attention.

Yet cholera is important for a number of reasons. Firstly, it is an indication of the poor socio-economic circumstances in which many South Africans live. Secondly, it has shown the intimate relationship between disease, ill-health, and political and economic developments in South Africa. Thirdly, it has provided insights into how the state acts in health "crisis" situations, and has shown its motivations to be political rather than to promote health.

This article will attempt to place the matter in perspective. The author hopes to show what cholera actually is and how it and other health problems are related to the progressive underdevelopment which has occured in South Africa's rural areas. It must be noted that cholera has also occured in urban areas in places where conditions and services are extremely poor. The article, however, will concentrate on how the disease arose in rural areas, using Kangwane, the Swazi "homeland" as the main focus. An historical look at cholera aims to show that it is not merely a "tropical" disease, that is to be expected in South Africa, but rather that it is directly related to the presence of conditions which enable diseases like this to spread and flourish. The response of the state, and in particular the Department of Health, will be reviewed, focusing on attempts to stifle information and discussion of the real causes of health problems of this nature. The origins of public health in Europe and the colonies will be looked at briefly, to explain the motives for public health measures.

Finally, the author hopes to show that the solution to the dis

eases of underdevelopment, such as cholera, lie neither in the provision of medical care, nor of an adequate water supply but must of necessity entail the overcoming and prevention of the very social, environmental, political and economic factors that have resulted in poor health.

CHOLERA AND WATER

The relationship between cholera and poor water supplies has been long known. John Snow, the "father of epidemiology", studied cholera and water supply during the cholera epidemic in London in I853-4. He proved that the disease was being spread by a water company which did not purify the water it supplied because it was cheaper not to. The water had become infected with human waste matter. Snow proved his theory graphically by breaking the pump providing the contaminated water - resulting in a massive decrease in the number of cases of cholera. (I)

The value of good sanitation is demonstrated by two examples. Firstly, cholera has been transported to Japan and various European countries on a number of occasions, but the disease has not spread because of the relatively high standards of sanitation in these countries. (2) Similarly, the conditions under which the vast majority of South African whites live, will prevent their succumbing to the disease. Secondly, carefully evaluated studies have shown that the only way to overcome cholera in the short term is through the provision of clean water. Thus it can be shown that "the very existence of cholera and its spread is an indicator of the inadequacy of sanitation" in the area concerned. (3)

It must be noted, however, that a proper water supply - adequate in terms of both quantity and quality - is just one of the many factors necessary to promote good health. A good water supply will not guarantee health...but an inadequate water supply will ensure poor health.

CHOLERA - THE DISEASE

The cholera organism, known as Vibrio cholerae, only infects people. The infection is acquired through the use of water that has been contaminated with the organism by the faeces of an infected person. The polluted water can infect people when it is drunk, when it is used to prepare food, or even if raw vegetables have been washed with it. Direct spread from one person to another is very rare.

There are two main types of organism - that causing the current epidemic is known as the El Tor biotype. Infection with this type of the organism may be very mild, and as many as 75 percent of the people infected with the organism may feel completely well. Those people however, may still excrete the organism and infect others. They are thus known as "carriers" of the disease.

Of the twenty or twenty five percent of the people who feel sick, only a few will become severely ill. Cholera is thus a common infection but a rare disease. Although there have been more than 2000 cases of the disease. the Department of Health estimates that 50 000 to 80 000 people must be infected (1).

A few hours to five days after swallowing the organism, the symptoms (feelings of illness) of the disease begin. This usually starts with sudden severe diarrhoea without pain or blood, and may be followed by a bout of vomiting. The characteristic stools, initially brown, become clear with mucous and are described as "rice-water stools". The hands and feet of the infected person may become cold, and the eyes may become sunken due to the loss of salt and water. The sick person may develop muscle cramps and breathe slowly.

A tremendous amount of fluid is lost, and if not replaced rapidly, the sick person may die from dehydration. If, however, the water can be replaced, then death should not occur. It is thus very important to give these people lots of water, which should contain specific amounts of salt and sugar: one litre of water should be mixed with eight level teaspoons of sugar and one level teaspoon of salt. This sol-

ution should be given to those suffering from the disease even before they get taken to the hospital or clinic. At the clinic the person must be further rehydrated and treated with an antibiotic.

Measures to control the spread of the disease are important and should be introduced rapidly. Information about the disease, how to recognise it, how to deal with it, and how to prevent it, should be made available. Emphasis should be laid on the fact that it is due to poor water supply and political factors such as forced population relocation and overcrowding. Only by overcoming these will the disease be eradicated.

In the short term, the washing of hands and food in uncontaminated water is necessary. Water for drinking should be boiled and water supplies should be disinfeted with certain chemicals. Stools and vomit should be disposed of far away from any water source, and pit latrines should be dug if not already present.

Although a vaccine is available against cholera, it is largely ineffective as it lasts for less than six months and is only succesful in 50 to 60 percent of the people vaccinated. It is thus considered to be unwise to vaccinate vast numbers of people as it gives them a false sense of security and may inadvertently influence people to relax their precautions against eating or drinking contaminated foods (2).

Cholera is thus essentially a mild disease : few people who become infected actually get seriously ill from it. Nobody should die from this disease if treated early(3). It is a far less important cause of death and illness in SouthAfrica's rural areas than many other preventable diseases.

References :

(1) Epidemiological Comments, Dept. of Health, Jan. 1981
(2) Dept. of Health document, "Cholera", 17 Oct. 1980
(3) Prof. M. Isaacson, lecture at South African Institute of Medical Research, 19 March 1981

CHOLERA - A HISTORY

Cholera is not a new disease, although it has only recently affected South Africa. As long ago as 400 B.C. writers described epidemics with symptoms typical of cholera. Vasco da Gama's expedition was probably struck by cholera in I490, and British colonial forces in India lost thousands of soldiers from the disease in the eighteenth and nineteenth centuries. During the colonial period, cholera spread through east Africa along the trade routes, leaving hundreds of thousands dead - a disastrous consequence of imperialism (I).

The first time cholera reached the South African coast was probably in I890 when a ship arrived from Madras with 400 Indian labourers. Nine deaths were reported from "acute diarrhoea" and the survivors were placed in isolation where a committee of doctors found them to be suffering from cholera. (2).

Cholera epidemics occurred in the United Kingdom in the I830's and I840's. In the I850's, during the period of rapid urbanisation and industrialisation in Europe, over I40 000 people died in France, 24 000 in Italy and 20 000 in Britain because of the disease (3). The last major cholera epidemic occurred in I866-7. The disease has thus not been limited to "tropical" countries, but has struck wherever the prevailing conditions are suitable for its spread.

As has been shown, "tropical" diseases have frequently struck non-tropical areas, such as Britain. By calling a disease "tropical" the authorities can claim it is natural in a given area, and thus deflect the responsibility for actually creating the circumstances in which diseases, such as cholera, can flourish.

ADEQUATE WATER SUPPLY

WATER AND SANITATION

SAFE SANITATION

"Contrary to common belief, (these) diseases of underdevelopment are not necessarily bound up with the tropical conditions in the geographic or climatic sense. Cholera, plague, leprosy, smallpox, and many intestinal parasites have all thrived in Western Eurpoe in the past. Indeed, there is a striking similarity between disease patterns in underdeveloped countries today and the experience of the industrialised capitalist countries in the nineteenth century. In the third world, infant mortality rates, child wastage rates (death before I5 years), life expectancy and the incidence of major communicable diseases all show a clear parallel with nineteenth century Britain" (4).

Diseases such as Cholera and the Plague, have long since disappeared from the richer countries because living conditions in these countries have been substantially improved.

In I96I, a wave of cholera epidemics spread across the world. It started in Asia and spread westwards. The massive population shifts resulting from the Pakistani - Indian war in I97I lead to thousands of deaths and to further spread of the disease. The organism spread to Africa at about this time and since then the disease has spread rapidly across the continent. Angola, Malawi, Zambia and Zimbabwe have all had major cholera problems in the last decade. In I974 the disease was brought to South Africa by migrant labourers and was limited to a small number of mines. The disease has now reached South Africa again - the conditions being ideal for its spread.

References

(1)Bacteria, Newsletter of the South African Institute for Medical Research, 6, 1980
(2)Ibid
(3)Ibid
(4)Doyal, The Political Economy of Health, Pluto Press, London,1979,p101

CHOLERA AND THE RURAL AREAS

The Department of Health has identified a number of "receptive areas" to which cholera is expected to spread (see map). These receptive areas coincide with the "homelands". The Department has thus acknowledged that the conditions in these areas are so poor as to make the spread of the disease inevitable.

Cholera is a disease of underdevelopment - it has occurred in areas that have become impoverished in the process of the development of the powerful South African economy. A brief historical analysis of the development of this poverty is enlightening.

The poor conditions found in rural areas today were not present when the colonists first arrived in this country. Rather, they have resulted from the "progressive underdevelopment which has resulted from the interaction of an indigenous economy....and an intruding colonial cash economy, backed in the final instance by the guns of the settlers" (4).

The african people in the rural areas were progressively driven off their land and forced onto a meagre 13% of the land. Those african peasant farmers who were able to meet their needs and in fact to produce food surpluses for sale, were deprived of their economic power by political acts of the colonists (5). Large numbers of the able-bodied population were forced into the cities to work on the mines: this was achieved by compelling africans in rural areas to pay cash taxes such as hut, poll, and dog taxes. The indigenous economies degenerated under the pressure of overcrowding, erosion, and the loss of healthy young men. The reserves became a reservoir from which migrant labourers were drawn when needed for the South African economy. They also became the dumping grounds for the old, the infirm, and the unemployed. Those people no longer of use to the developing capitalist economy were discarded in these rural areas.

It is thus not surprising that so many diseases of underdevelopment should be found in the rural areas of South Africa. The conditions created in these areas have led to the high prevalence of numerous diseases such as mal-

nutrition, tuberculosis and typhoid fever. Any approach to dealing with these health problems must take into account the historical background to these conditions of poor health.

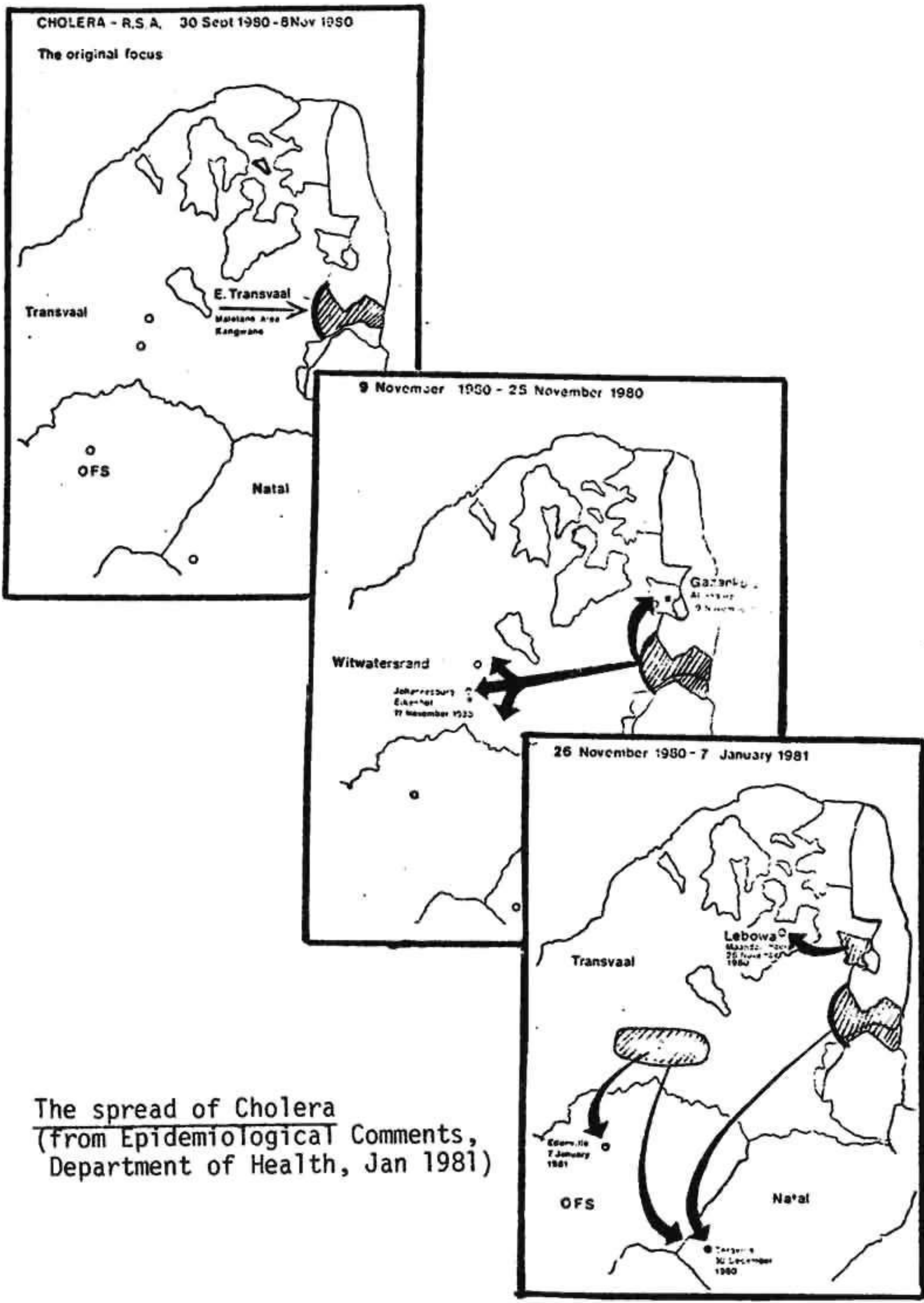
The conventional proponents of community medicine, however, see poverty as inevitable and therefore concentrate on improving the conditions in which the poor subsist. Poverty is seen as the problem of the poor, from which they must be taught to escape. The answer is seen in terms of self-help projects with "community involvement" (6). The provision of basic services such as good housing and sanitation are seen to be the complete answer to health problems. It is felt that no other changes are required.

It has been well documented that the major increases in the diseases and deaths of poor people and the working classes have resulted from environmental improvements (7). It must be noted, however, that these changes can only really result from a commitment from the state to achieve them. In South Africa, it is thus important to be aware of the historical context in which illness and death have become so common, and how this impoverishment has occurred and is maintained. Only then can one begin to tackle the real causes of ill health in South Africa.

CHOLERA AND KANGWANE

Cholera has occurred in the last few months in many areas of the country. It originated, however, in the Eastern Transvaal, and this area depicts very clearly the types of conditions necessary for the spread of the disease. The relationship between underdevelopment and poor health has been shown. This must be kept in mind when examining cholera and the area in which it started.

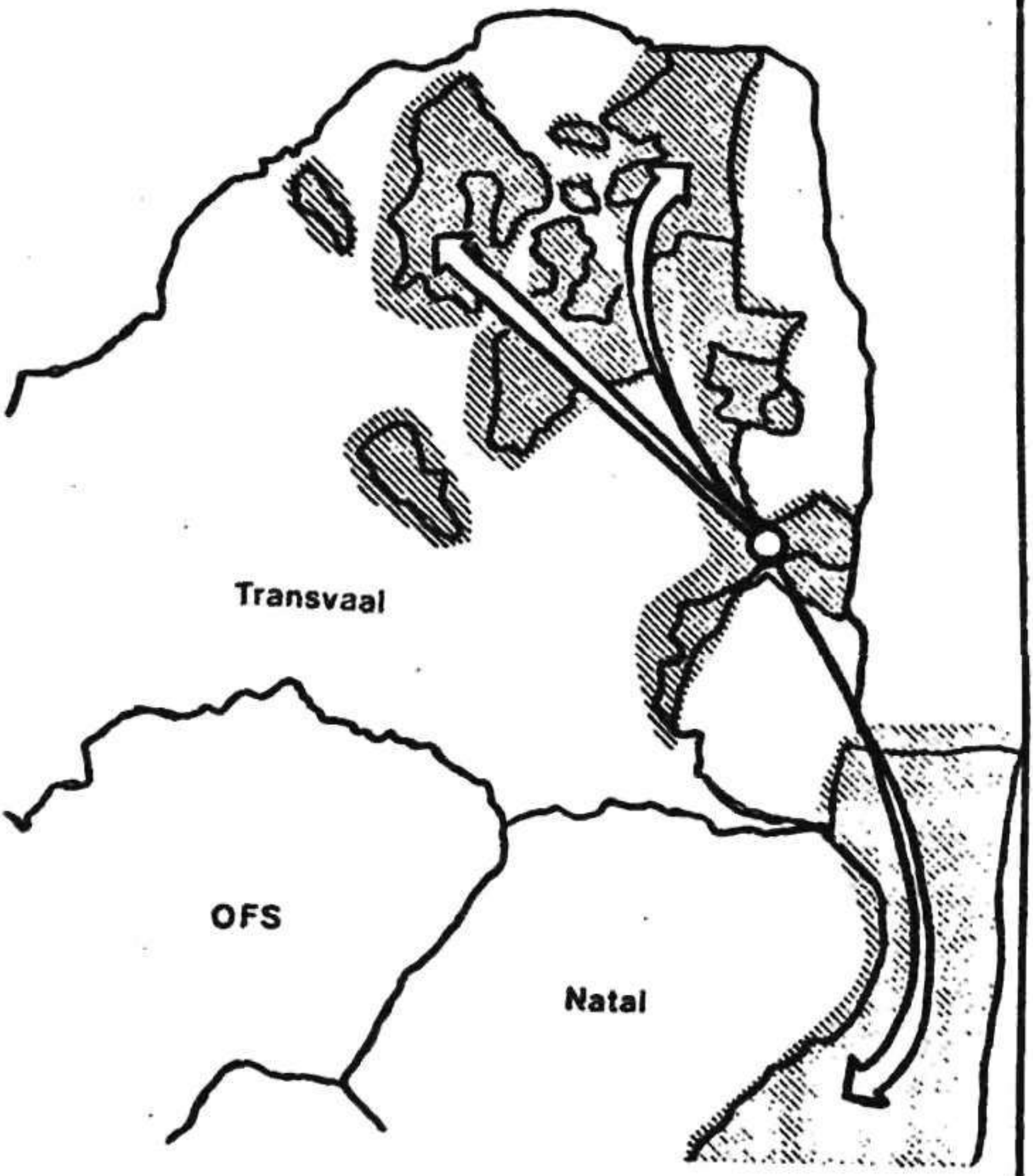
The Eastern Transvaal region, the focus of the epidemic, was described in a Department of Health publication on cholera as a "picturesque, mountainous area which nestles a very fertile valley abounding in estates and farms of various sizes. Crops grown consist of vegetables (cabbages, tomatoes, and tropical fruit and citrus) but there are also vast sugar plantations" (8).



The spread of Cholera
(from Epidemiological Comments,
Department of Health, Jan 1981)

Cholera - RSA 1980-1981

Receptive Areas



RECEPTIVE AREAS - NO DIFFERENT FROM THE "HOMELANDS"!

In the same publication, Kangwane, the Swazi "homeland" is mentioned in passing, but little detail is given to this part of the Eastern Transvaal in which the disease has flourished.

Kangwane presently consists of three seperate areas, strategically located on the borders of Swaziland and Mozambique. The three areas are known as Nkomazi, Nsikazi and a "new area" (9). The total area of land in Kangwane was 203 301ha in 1973 and with the consolidation proposals for the "homeland", the land mass is to be increased to 391 000ha (10). The population density in 1977 was estimated at 57,5 per square kilometer (11). Other sources estimated the population density at 144 people per square mile in 1970 (12). In the rest of South Africa the average population density was 35 people per square mile (13). The quasi-government BENSO report states that the present density is "indeed high for a predominantly rural population" (14), and with the forced relocation of people into Kangwane, it will increase substantially. A large number of the men are migrant labourers, forced to leave the area because of economic necessity and the poverty of the land itself (15).

The number of people in Kangwane was 117 890 in 1970 and it was estimated that there would be 213 900 people by 1977 (16).At the same time the Swazi population outside the reserve was estimated at 390 600 in 1970 and 439 200 in 1977 (17). Clearly the population in Kangwane is being dramatically increased by the government policies of forcibly relocating people into the reserves. (See article on resettlement).

The BENSO report describes this population relocation programme as being "the resettlement in Kangwane of Swazi from badly situated Black areas or other Black states" (18). It continues by saying that "since a start was made with the buying of farms in the newly added area, the resettlement of Swazis has started in earnest" (19). This massive influx of people has led to the formation of numerous squatter towns. Many of the squatters were labour-tenants who were forcibly removed from white-owned farms in adjacent areas. Many of the people are extremely poor and have no acess to land (20).

The considerable increase in population has led to major problems in providing housing and services. BENSO mentions that the two proclaimed towns of Ekulindeni and Eerstehoek "could not nearly keep pace with resettlement" (21). In addition, numerous squatter towns have developed in areas where new towns are being planned, such as Kabokweni and Matsulu (22).

It is against this background of relocation and the resultant population pressure that the spread of cholera in Kangwane should be seen. The massive increase in population with totally inadequate facilities is clearly a major factor in the spread of the disease.

Officially opening the second session of Kangwane's legislative assembly, Dr Willie Vosloo, Deputy Minister of Plural Relations and Development, acknowledged that the provision of services was under considerable strain. "The Swazi people who are clearly experiencing a national awakening, are still flocking to the territory in their thousands", (23) (sic) he said. He stated further that because so many people had moved into the area, services became inadequate, and the highest degree of administrative skill was needed to prevent a collapse. In its turn, this would create still greater inadequacies in the services available to the area's residents (24). "As far as we are concerned resettlement is a political bomb", said E.J. Mabuza, the chief minister of the Swazi "homeland". He claims that Kangwane has absorbed 150 000 people in the last few years, adding that "some resettlement areas have no amenities whatsoever, no running water, no sewage system, no schools and no clinics. Many of the people have no jobs. Some people have to drink dirty water. They think we are responsible. There is no message we can get across to them until their problems have been attended to" (25).

It appears that the administrative collapse Vosloo had warned of, had occurred, but as Pretoria desires, the inadequacies are blamed on the Kangwane authorities and not on the central government.

It is ironic that some of the people who have been moved to Kangwane had ostensibly been moved in order to promote their health. Residents of Doornkop in the Eastern Trans-

vaal were moved to Kangwane because it was said that they did not have proper water and sewage facilities and that the place was a health hazard (26). It seems apparant that present conditions are far worse, but the health hazard is now further away from the white residents of Doornkop.

One of the areas of Kangwane that has been particularly affected by cholera has been the township of Matsulu. This township is located at the southwest corner of the Kruger National Park, between the Crocodile and Nsikazi rivers. The township is partly administered by the Kangwane authorities, and has been described as a " disaster", with houses containing 10 to 15 people in each, packed closely together There are at least 11 000 squatters near Matsulu township, some of them having been recently moved off white-owned farms throughout the Eastern Transvaal. Other squatters have been there for months (28).

The township of Matsulu obtains its water from reservoirs containing water piped from an irrigation canal known as the Malelane-Crocodile Poort irrigation canal. It is this particular area of the Crocodile River that was initially infected with the cholera organism and was responsible for the outbreak of the disease (29).

The Department of Health was actually warned months ago by one of its own officials that epidemics were a grave danger in the squatter settlements of the Kangwane "homeland" - however, the warning was not heeded and a proper water source was not provided in the area (30).

It is not clear who in particular is responsible for the provision of water in the area:

> "Water authorities
> Here much the same applied as far as sheer numbers of authorities were concerned. In all there must be also about five different water authorities, or levels of authority, dealing with the canal and the rivers in the area. These include Local Irrigation Boards, the Kangwane Department of Works, the Local Administration Board, the Department of Water Affairs, the Department of Health, Welfare and Pensions. Under the circumstances it was sometimes difficult to establish exactly WHO is responsible for WHAT WHERE. So, for example, the canal was sometimes closed (shut off) to repair a leak in the system. The warning that this would occur did not always reach the estimated 10-12 000 people living at Matsulu in time. Under normal circumstances this can be very unpleasant. During a cholera outbreak it can be disastrous. In the presence of an empty reservoir the inhabitants are obliged to seek other water sources - and the closest alternative is the open river. The canal water was cut off on two known occasions, first on 10 October and again on 17 October" (31).

Clearly adequate water supply and sewage disposal was not available to the people in the township. Many of the other sufferers in the early stages of the epidemic were workers on farms and mines in the area. At least one inmate at a prison farm also suffered from the disease (32).

In addition to the bureaucratic backwardness in providing proper water, the authorities laid the blame on the individuals involved, and not on the state's inability or lack of willingness to provide these basic facilities. The Chief Director of the Eastern Transvaal Administration Board felt the blame could be shifted away from the state by saying:

> "It is a matter of education - these people have been drawing water from rivers all their lives" (33).

THE RESPONSE OF THE STATE

The response of the state, through the Department of Health and the Department of Water Affairs, has been interesting. Plans were made over seven years ago by the South African Institute of Medical Research for the possibility of a cholera outbreak in South Africa (34). These plans were specifically prepared for the mining industry which recruits workers from other southern African countries in which cholera had already occurred. More than a year ago, Department of Health officials prepared an in-depth report on how to deal with cholera, should it spread to South Africa (35). The state thus acknowledged that conditions in certain parts of South Africa were so poor as to easily facilitate the outbreak and spread of cholera. Nothing was done to alter those conditions.

When asked why nothing had been done to provide clean water the squatters in Matsulu and other nearby areas, Dr John Hoyland, said, "the squatters are a problem of the Kangwane government - I cannot speak about them"(36). Dr Hoyland is the regional representative of the Department of Health, and advises the Kangwane authorities on health matters. He also said that "as far as the squatters are concerned there are other factors involved which have nothing to do with us" (37).

The response of the Department of Water Affairs has been noticable, in that few, if any, statements have been made on the issue of water supply in Kangwane and elsewhere. The Department also did not seize this opportunity to "win the hearts and minds of the people" by providing a pure water source to Kangwane, a relatively small area. It seems that the demands by other communities and squatter settlements for proper water supply and sewage removal, which would follow the installation in select areas, would be too great for the state to meet. In other regions the state has used opportunities like this by having the army supply water in an effort to win the support of the local people. The Department of Cooperation and Development, involved in providing services such as water supplies in "homeland" areas made no comments on the cholera outbreak.

It seems that no authority was willing to accept responsibilty for the poor conditions. The blame however must lie with succesive generations of government in South Africa, that have forcibly removed people from their land, disrupted the indigenous subsistence economies, depleted the rural areas of able-bodied people and taken them to work on the mines and in industry, and forcibly relocated people onto overcrowded and unproductive pieces of land.

> "Both the extent of contemporary health problems (in the underdeveloped world) and also the evident failure to combat them, must be seen not as a 'natural' and unavoidable part of life in the third world, but as a consequence of a particular form of capitalist expansion" (38).

The applicability of this point to the underdeveloped rural areas of South Africa, was discussed earlier.

THE SOUTH AFRICAN ARMY IS THE GUARDIAN OF THE PEOPLE

This poster was found on a clinic door in the Eastern Transvaal. It illustrates how the army tries to win the "hearts and minds" of the people.

PUBLIC HEALTH AND DISEASE

The origins of public health in Europe, as well as the origins of the colonial health services, offer much to explain the current focus of activity on cholera.

Public health services in Europe began in an attempt to prevent the privileged classes from succumbing to the diseases of the poor.

> "The 'condition of the working class' was a topic of considerable concern in Britain throughout the nineteenth century. The ill health of the urban proletariat posed an immediate threat of infection to the inhabitants of the wealthier parts of the town, while at the same time epitomising the danger of the slums as a breeding ground for a wide range of social problems... Attempts by the expanding central and local state apparatus to solve these problems were concentrated on public health measures - the control of disease through the provision of clean water, sewage disposal, and some slum clearance"(39).

Thus, the factor which led to the starting of public health programmes was not concern for the poor and exploited masses who suffered from these diseases, but rather fear of catching these infectious diseases from the poor, and also concern that the working class would become sick and , therefore, far less productive.

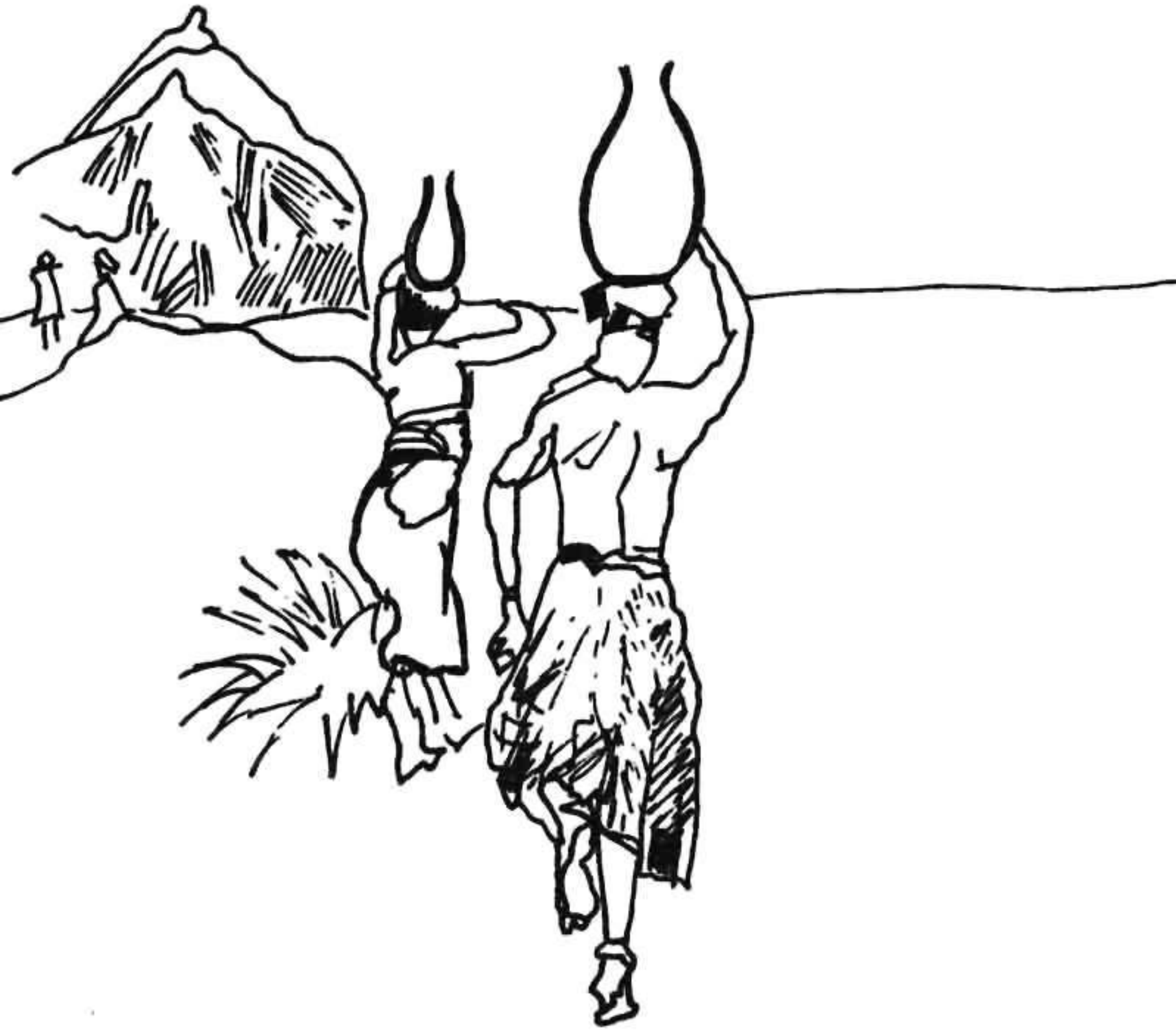
With regard to cholera in particular

> "it was fear of infectious disease in general and - after the epidemics of the 1830's and 1840's - of cholera in particular, which motivated middle-class support for public health legislation. Cholera was no respector of the social class of individuals. It attacked the poor and the respectable middle-class indiscriminantly (Author's note - in those times parts of working class and middle-class areas were supplied with the same water). Thus, for the middle-class in Victorian cities, public health reform was an important form of self- defence against contagion spreading outwards from the slums" (40).

It was felt in Victorian England that disease and ill health made people poor, and that disease therefore increased the number of people requiring poor relief. This is an additional reason for public health legislation (41)

The origins of colonial health policy reflected similar priorities:

> "The East African medical department was instructed firstly to 'preserve the health' of the European community, secondly to keep the African and Asian labour force in reasonable working condition, and lastly to prevent the spread of epidemics" (42).



THE DEPARTMENT OF HEALTH AND CHOLERA

The Department of Health has adopted a "public health" approach to dealing with cholera in South Africa. As discussed above, the aims of early public health measures in Europe were not primarily to improve the health status of those that suffered from preventable diseases. Similarly, colonial health services were not established primarily to serve the interests of the local people.

The Department of Health has been motivated by similar considerations in its fight against cholera. The amount of energy devoted to dealing with the epidemic was unprecedented and was in many ways out of proportion to the extent of the problem. Clearly there were reasons for devoting attention to this disease while far more lethal diseases such as tuberculosis, malnutrition, and gastroenteritis (diarrhoea and vomiting) have been left untouched by all the activity. The publicity given last year to the plight of thousands of malnourished black children received hardly any response from the Department.

The major reason for all the activity on cholera thus appeared to be the image of the disease as a "rapidly spreading fatal disease". Fear of the disease spreading to white areas has been a major factor in the massive amount of press publicity.

Also, no attention has been devoted to the vast number of other diseases of underdevelopment occuring in rural areas and Kangwane in particular.

> "Kangwane is susceptible to most of the diseases commonly occurring in developing countries. Those most prevalent are venereal disease, bilharzia, tuberculosis, malaria, other infectious and parasitical diseases, and typhoid fever. The last mentioned and infectious hepatitis result from poor standards of sanitation and water supply in Kangwane"(43).

A startling fact is that more than 20 percent of the cases of typhoid fever reported from throughout the country in 1980 occurred in Kangwane, in which fewer than one percent of the total population of South Africa live (44).

Tuberculosis too, is rife in Kangwane, the number of cases occurring there being more than double the rate for the rest of South Africa, and higher than in any of the other "homelands" (45). Although figures of officially reported cases of any disease must be viewed with caution, these figures tend to underestimate rather than overestimate the real situation.

The Department stated that it considered the outbreak in a serious light because it was a "strange disease" which killed and "deprived people of their joy of life", it taxed the time and services of the limited number of health personnel, and it was a pointer to defects in environmental health (46).

Economic considerations, too, seemed to be a major motivating factor in the whole campaign. The citizens of Nelspruit were annoyed by reports of cholera reaching epidemic proportions in the lowveld, as tourism in the area was suffering (47). The town clerk accused the Department of Health of spreading panic with reports of cholera. The Department of Health responded by increasing its public statements and encouraged tourists not to avoid the Eastern Transvaal as long as they took basic precautions to avoid contracting the disease.

In some cases, private companies printed, at their own expense, health educational material on the disease. The Department made a point of thanking the companies for their assistance (48). In at least one case, mine workers returning home for a short period were provided with chlorination tablets to temporarily purify the water they used while at home (49). The intention was not to improve the water supply permanently, but only to ensure that the workers returned to work healthy.

Another major aspect of the activities of the Department was a health education campaign. This was aimed at shifting blame for the disease away from the state and onto individuals. People were advised to wash their hands before eating and after going to the toilet, to wash fruit and vegetables with treated tap water, to boil water before drinking, and to build pit latrines (50). Over 500 000 pamphlets in various languages were distrib-

uted through garages along routes to the Northern and Eastern Transvaal (51). Even this, however was organised poorly. Many garage attendants were not fully informed of the purpose of the pamphlets and so they were not distributed. In addition, the languages in which they were printed were often not appropriate to the areas in which they were given out (52).

These pamphlets stated:

> "Drinking water is the main source of cholera infection. The germs responsible for cholera are found in the stools of human beings. Because of lack of hygiene these germs get into the drinking water"(53) (Author's emphasis).

The impression given is that people are deliberately unhygienic. As with much health education, individuals are accused of ignorance, and blamed for their poor health status, while little attention is given to the social and economic realities that lead to diseases of this nature.

In addition to attempting to shift the blame from the state to individuals, the Department has attempted to deflect the antagonism that exists against the state, to the Kangwane and other authorities. This is described in the sections on Kangwane and health statistics in this article.

Finally, it must be seen that even the purely administrative activities of the Department of Health in the Kangwane area, were limited by disorganisation in the health services of the region. There was a tremendous degree of duplication of administrative responsibility:

> "Co-ordinated action requires co-ordinated authority. This was not always easy to ensure in the face of at least five health authorities in the afflicted area:
> - The Department of Health, Welfare and Pensions of the RSA
> - The Transvaal Board for the Development of Peri-

Urban Areas
- The Kangwane Department of Health and Welfare
- The Transvaal Provincial Administration
- Certain local authorities" (54).

In summary, then, the role of the Department has been to attempt to suppress information about the disease, to attempt to prevent the spread of the disease to white areas, to shift the responsibility for dealing with the disease and its causes firstly onto the individual, and secondly onto the "homeland" authorities and away from Pretoria. Economic considerations have played an important part in motivating private enterprise to support measures to control the disease. Administrative activities have been limited by disorganisation. At the same time the Department has neglected to do anything about the more common and dangerous preventable diseases found in rural areas.

CONCLUSION

This article aimed to demonstrate that cholera cannot be viewed merely as a "tropical disease" but that it must be viewed in the context of a web of migrant labour, forced resettlement, overcrowding, poor housing, and inadequate services. These factors must be seen as resulting from the historical development of capitalism and apartheid in South Africa.

The article has attempted to trace the origins of cholera in South Africa, and the response of the state. It is hoped that the disease has been shown to be relatively unimportant in itself, but important in that it has demonstrated how clearly ill health and historical and political events are related.

Cholera has been shown to be one of many diseases related to underdevelopment. It has become apparent that the Department of Health cannot eradicate diseases of this nature and that they will remain a part of the South African health scene. To tackle them would be to tackle the South African state and the political and economic factors which preserve the status quo and result in poor health.

The solution to these health problems lies neither in the provision of health services, nor merely in the development of sanitary living conditions, but implies the eradication of the unequal access to wealth, resources, and political power which are present in this country. Only when the resources which influence health are democratically controlled in a truly democratic society, will health for all be promoted.

CHOLERA - ABUSE OF THE FACTS

The cholera outbreak has provided some interesting examples of the manipulation of statistics by the authorities. These will be briefly described below as well as some comments on how health statistics generally are abused in South Africa.

The Department of Health initially attempted to conceal aspects of the cholera epidemic (1), and Department officials agreed to discuss only "cholera in general", and not particularly in the Eastern Transvaal. They also would not identify the specific areas of the lowveld that were involved(2). The Department also instructed hospital officials in Hectorspruit, Kangwane, Nelspruit, and Barberton, not to talk to the press (3). The Progressive Federal Party spokesperson on health stated that the epidemic was far more serious than the official disclosures, and that the government should "come clean" on cholera figures (4). There were also allegations that the Department had attempted to hide news of the spread of the disease to Natal and the Orange Free State.

The Department denied that they had hidden anything from the public and said that they had, in fact, "made the public over-anxious about the issue" by the revelation of every notified case(5).

It is particularly interesting that the Department of Health has consistently stated that there have been only five cases of cholera in South Africa in the past decade (6). This, however, is untrue. A cholera outbreak occurred on one of the goldmines in 1974. On that occasion migrant mineworkers carried the germ from their home country to South Africa. Conditions in the acclimatisation chambers on the mines provided an ideal setting for the spread of the infection. Sixty three workers actually became infected with the germ

on one mine and a further six cases occurred on adjacent mines (7). It appears that publicity of these cases has been stifled to avoid adverse publicity of the harsh conditions on many mines and the acclimatisation programmes. Informing people about cholera and advising the public is perhaps the most important immediate educational measure to be taken, in any outbreak of this kind. It seems, however that the Department of Health had other considerations.

In the present epidemic the Department of Health also issued a statement that :

> "Epidemiological information between South Africa and the health departments of the national states is being seperated and therefore totals on cholera patients cannot be given" (8).

To date there are still no precise figures of how many cases of cholera have occurred in different parts of the country .

By making this separation government authorities firstly can claim that the vast majority of cases have occurred "outside South Africa", and secondly that it is the responsibility of the "homelands" and their health departments to deal with this and other health problems. This categorisation of statistics according to area of origin is being applied to all other notifiable health conditions as well.

One advantage of this separation into areas is that the harsh conditions in the "homelands" is well shown. Tuberculosis, for example, is shown to have a higher incidence in Kangwane, the Swazi "homeland" than any other area in the country.(9) Statistics like this make it impossible for the government to claim that conditions are optimal in these areas.

Finally, another abuse resulting from separation into regions, is that statistics can be dropped as "homelands" become

"independent". It can be shown that part of the reason for the decline in the number of cases of tuberculosis in South Africa in the last few years has been the the exclusion of health statistics from Transkei, Venda, and Bophuthaswana. If one excludes the thousands of cases that originate in these areas, the statistics appear to be improving.

Similarly, the Department of Health can claim to have no responsibility for providing services in "homeland" areas. A recent article by the chief epidemiologist of the Department of Health dealt with polio, another preventable disease. The article made a point of excluding information on the extent of the disease in the "independent homelands" of Transkei, Venda and Bophutatswana (10). It is notable that more than 20 percent of the cases of polio in South Africa in 1980 came from Transkei - which has much less than twenty percent of the population (11).

In these ways, the state is able to use statistics and information to serve its purposes. The collection of data which should be used to promote the health of all the people of South Africa is thus abused.

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