Environmental health services in townships: some lessons from Soweto

Three years ago Soweto, like many other townships, embarked on a rent boycott. The boycott developed in response to rising rent and service costs which, under deteriorating socio-economic conditions, became increasingly less affordable.

Other issues related to housing and environmental health services heightened public dissatisfaction. There was an overall housing shortage, as well as a controversial government charge for the transfer of home ownership to tenants of long standing. As far as water supply and sanitation services (ie. sewerage and refuse removal) were concerned, the existing infrastructures were inadequate and poorly maintained. These services were nevertheless expensive.*

The local authority in Soweto tried unsuccessfully to break the rent boycott. One of its methods was to disrupt services intentionally and unnecessarily. The water supply was cut frequently and for prolonged periods. Sewerage pipes were left blocked and leaking and refuse was removed irregularly or not at all. It is apparent that the intention of these cuts was to cause residents so much discomfort that they would have to start paying rents again.

The Soweto Delegation emerged recently to represent the community in discussion directed at resolving the rent crisis. One of the Soweto Delegation's decisions at the end of last year was to commission PLANACT, a service organisation concerned with urban development, to evaluate housing and service provision in Soweto. PLANACT in turn requested the Centre for the Study of Health Policy to assess whether water and sanitation services in Soweto constituted a hazard for the health of Sowetans.

** It should be noted that the high service costs are linked to the separate tax base of Soweto and Johannesburg. Whereas taxes in Johannesburg benefit substantially from township labour and purchasing power, these taxes support Johannesburg services alone. In effect, therefore, Johannesburg rates are subsidized by Soweto residents, and Soweto services are underfunded.*

This paper briefly describes the Centre's findings. It explains how the health hazards caused by inadequate water supply, sewerage and refuse removal infrastructures were compounded in Soweto by the local authority's deliberate policy of disruption. As the findings are applicable to other townships in similar positions, suggestions are made as to how communities could respond to the disruption of already inadequate services.

Inadequate service infrastructure, service disruption and health risks in Soweto

PLANACT'S report indicated that the service infrastructure in Soweto was inadequate for the population served. It emphasised that the existing inadequacies were exaggerated by service disruption by the local authority. There is no formal data on the overall health effects of this disruption. Yet, as explained below, it is obvious that the service disruption must indeed have constituted a health hazard.

The frequent and prolonged cuts in water supply seriously reduced the availability of water in Soweto. Residents had to walk far to fetch limited water from distant supplies. In addition, the water shortage affected the functioning of the sewerage system. Toilets could not be flushed normally but had to have water poured into the cisterns by hand. This meant that often toilets were not flushed after each use. Consequently pipes blocked and then leaked and overflowed, contaminating yards and streets. This problem was aggravated by the long delay before repairs were made.

Due to prolonged cuts in water supply residents had to walk far to fetch limited water from distant supplies.

Unprotected refuse pollutes water and exposes children playing amongst the refuse to injuries.

When water supply and sewerage systems break down the spread of infectious diseases will increase. Less water is used for washing hands, bodies, clothes, food and cooking utensils and thus, although the initial quality of the water is good, the risk is greater that water-borne diseases (diarrhoeas) and water-washed diseases (diarrhoeas and dysenteries, worm infestations and a wide range of skin and eye infections, including lice and louse-borne infections) will be transmitted. As diarrhoea is a killer of children in developing countries, its certainly increased incidence in Soweto should be viewed with particular concern.

The risk of outbreaks of serious diseases such as poliomyelitis and typhoid is also increased by cuts in water supply. Food-borne diseases, including food poisoning, may arise since food maybe cooked less frequently and left standing longer.

Excreta-related infections may ensue from contamination of the environment by leaked sewage. These diseases include both the water-washed diseases mentioned above and infestation by the beef and pork tapeworms. Diseases transmitted by flies will also increase, particularly as flies can be expected to breed more readily in leaked sewage and piles of rotting refuse.

Although household refuse collection had improved by the time of the report, bins were in bad condition and few had lids. There was little attempt to clean up the unprotected piles of refuse which occurred in most open spaces. The fly problem associated with open refuse has already been mentioned; rats also breed more readily in such conditions and the threat of rat-borne diseases may be expected to increase. Unprotected refuse also increases the danger (especially to children) of poisoning and injuries, pollutes water, and poses a fire risk. The polluting effect of sewage and refuse

The bucket system for human waste removal: this system is an unacceptable health hazard.

is worsened when poor drainage allows stormwater to lie in stagnant pools.

In addition to the physical effects of service disruption one may add the effects of mental and social stress. Daily life is filled with difficulties and indignities. Although it is difficult to quantify the effects of such stresses, it is no doubt that the community's mental and social health was seriously compromised by the poor water and sanitation services. It would appear, too, that those most at risk were the elderly, the disabled and mothers of young children.

The local authority's policy of service disruption thus threatened the physical, mental and social health of the Soweto community. Unless Soweto is different from the rest of the world, one may say with a fair degree of certainty that this disruption led to an increased disease prevalence. In the interests of health, therefore, residents of Soweto and other townships need to address the problems of poor services and service disruption.

A basic infrastructure at affordable costs

In order to protect a community from the health hazards described above there should be:

- an uninterrupted, plentiful flow of good quality water, supplied by tap to each property;
- a water-borne sewerage system or, in smaller townships, a suitable alternative (note

that the bucket system is hazardous and should always be opposed);
- regular and frequent removal of both household and community refuse, together with the provision of sufficient well-constructed bins.

Although the communities have such services in name, poor maintenance of the infrastructure (eg delayed repairs) is still a major problem. The opinion of an engineer would be useful in the evaluation of water and sanitation services because of the complexity of the technical details.

Without the above services, appropriately designed and efficiently maintained, urban populations face unacceptable health risks. It must be mentioned that many other environmental factors have an impact on health, for example, road construction, electricity supply, stormwater drainage and housing. Demands focussing on water and sanitation thus address only the most urgent of such factors.

Not only must basic services be adequate: these services must be provided at reasonable and affordable prices. In Soweto, whilst residents accept that there should be service charges, there is great resentment that the currently poor services should be provided at such excessive cost. Arriving at a charge which is fair depends on proper community consultation and involvement in planning. In Soweto, as in other townships, it may depend also on a restructuring of the unequal tax base.

Community action in response to service cuts

The residents of townships where services have been cut in response to a rent crisis may react in a number of ways to this threat to their health. Firstly, residents may choose to organise around the issue of health risks arising from service disruption. Secondly, they may decide to negotiate with the relevant local authority, if this seems an appropriate strategy under prevailing conditions. Thirdly, they may consider taking legal action against the local authority. The following are the legal issues which are relevant to the last two alternatives.

Health authorities are governed by The Health Act, No 63 of 1977. This act describes the duties of local authorities and Medical Officers of Health. Their duties include the protection of health and prevention of diseases, such as those arising from poor water and sanitation (sewerage and refuse removal) services.

Under Section 20 of the Act, local authorities are expected to take all possible steps to keep the environment safe and hygienic, and to improve poor conditions. Intentional disruption of services therefore clearly contravenes the Act. Under Section 23, the Medical Officer of Health is expected to keep himself or herself informed of health conditions and to report unsatisfactory developments to the local authority. If s/he neglects this duty to protect the community against environmental health hazards, s/he is in contravention of this Act.

Therefore, if services have been disrupted intentionally, the community could make use of these legal obligations to negotiate that such disruptions be stopped and to pressure for improved service infrastructure and maintenance. Similarly, legal arguments can be used to remind the Medical Officer of Health of his/her duties. It must be remembered too, that should either the local authority or Medical Officer of Health fail to comply, Sections 14 and 15 of the Health Act require intervention by higher authorities, namely the provincial administrator and Secretary of Health.

The community may also consider taking direct legal action against the various health authorities: it may be possible either to lay charges against them in the event of neglect of their duties in terms of the law. However, the legal issues are complicated and, to our knowledge, have not been tested in court. Expert legal opinion should thus be sought by any community wanting to take a case to court. Threats of legal action nevertheless remain a strong bargaining point.

Reference

1. The Soweto Rent Boycott: a report by PLANACT. March 1989. Commissioned by the Soweto Delegation.
(This report is available at R10 from PLANACT, First Floor Scotch Corner, 7a Rockey Street, Yeoville, 2198. Telephone 648-2107.)

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