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Perceptions and Practices relevant to the Transmission of Plague, Leptospirosis and Toxoplasmosis

Cato Crest, Durban, South Africa July 2004



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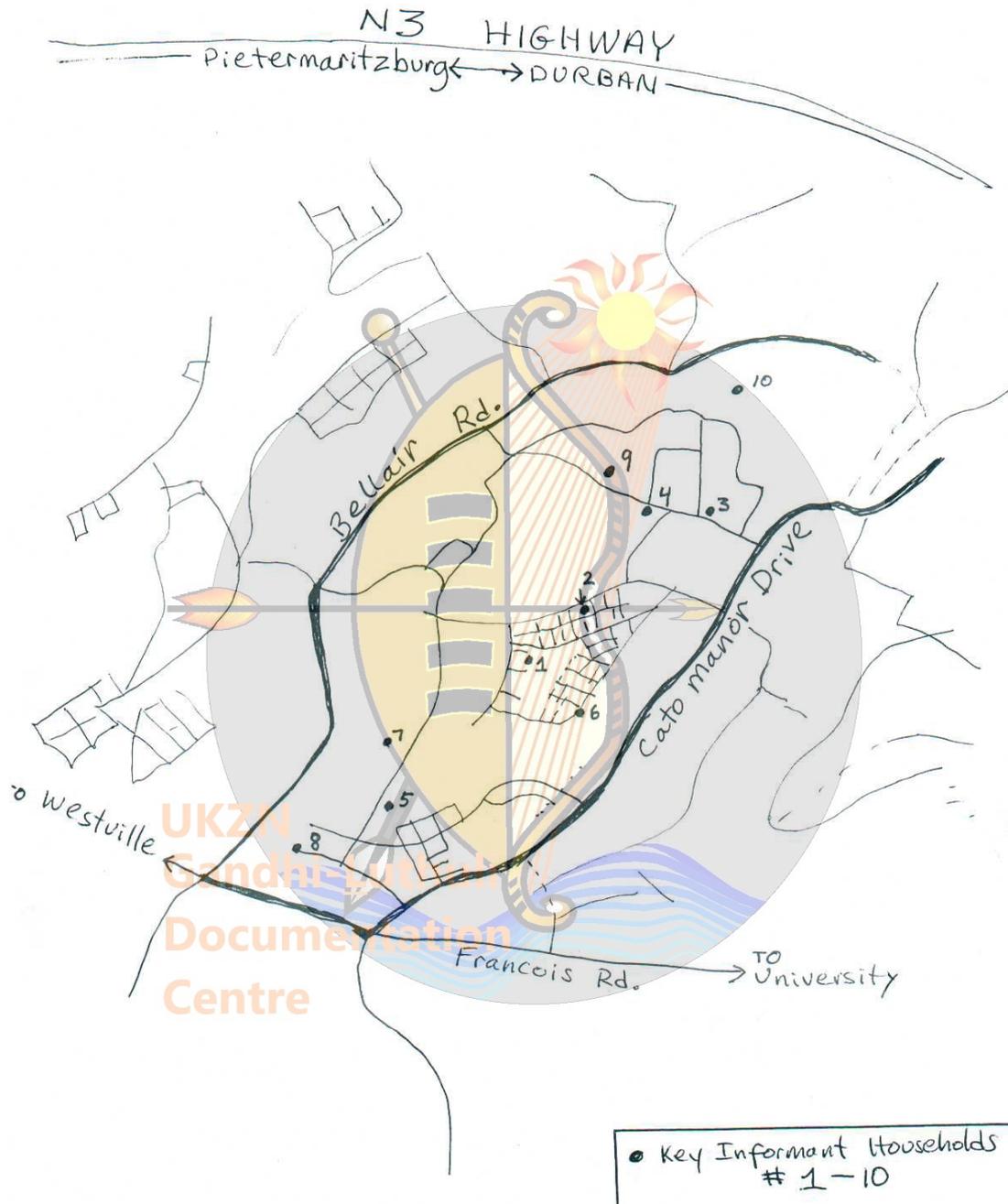
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CATO CREST

Bordered by Bellair Rd. and Cato Manor Dr.



INTRODUCTION

History of Cato Manor and Cato Crest

The area known as Cato Crest is one of six 'informal' settlements that comprises the community of Cato Manor, a community with a rich history. Cato Crest is located along the ridge or crest of Cato Manor. Approximately seven kilometers to the west of the Durban central business district, Cato Manor is regularly serviced by taxis that take less than 10 minutes to reach the city centre. Its close proximity to town has been an important factor in the shaping of its past and present.

Cato Manor takes its name from George Cato, the 1st Mayor of Durban. Mayor Cato was given the 1800 hectares of land in 1845 as compensation for land owned at the beachfront that was then required for military purposes. Over the next half-century George Cato and his descendents farmed the hilly and fertile soil of Cato Manor. At the turn of the century the land was subdivided and sold to white landowners in small parcels.

Between 1900 and 1930, much of this land was rented or sold to Indians who had decided to remain in South Africa after their contracts as indentured labourers had expired. They sought land close to Durban for growing fruits and vegetables for market sale. This period also saw a steady influx of Africans from the rural areas seeking work opportunities in Durban. Landowners in Cato Manor began renting to African workers, while other Africans simply started erecting shack dwellings along the Umkhumbane River that snakes through the area. National laws of the time prohibited Africans from owning land or building houses in the urban areas. In 1932 Cato Manor was incorporated into the Durban Municipality, and the African shack settlers were declared illegal inhabitants. Yet the steady influx of Africans to the urban areas continued, with government reacting by passing a series of Influx Control laws to help curb this growing national problem.

By the mid-1940s it was estimated that 50,000 people were living in the Cato Manor area (Makhathini and Xaba 1995). Conditions were typical of an urban slum of that size at that time, with much overcrowding and little in the way of proper sanitation. This contributed to the pressures that led to the eruption of conflict between the African and Indian populations of Cato Manor in 1949. Known as the Cato Manor Riots, and allegedly sparked by the assault of an African boy by an Indian man, the violent two-day long riot resulted in many Indians fleeing the area. The riots also resulted in the neighboring white residents putting pressure on local government to clear the area of all remaining illegal inhabitants. This helped to support the implementation of the Native's Urban Areas Act and the Group Areas Act in the following years (Peterson 1994).

These two government acts were used as the basis to commence with forceful removals of both landowners and tenants of the Cato Manor Area. During the 1950s the township of Chatsworth was built to accommodate the Indian residents of Cato Manor, while the township of KwaMashu was completed in 1957 for the re-settling of Africans. Although there were continuous tensions

and conflicts as residents resisted forced removal from their homes, eventually the combined might of the bulldozer and the police forces triumphed in the enforcement of apartheid Group Areas Laws (Makhathini and Xaba 1995). By the late 1960s, all that remained in Cato Manor were a few Hindu temples amongst the numerous mango, litchi and avocado trees that were once the pride and joy of the Indian market gardeners. All traces of African informal dwellings were erased from the landscape. Between 1968 and 1980, Cato Manor was largely vacant and left to fallow. Slowly, from the early 1980s, people started to quietly resettle the area. Increasing violence in the African townships during the final stages of struggle against apartheid in the late 1980s and the imminent scrapping of the Group Areas Act in 1991 prompted this new wave of settlement. By the late 1980s a new 'squatter' settlement had emerged in Cato Manor. It is from this that the current community of Cato Manor traces its origins. The first area to be re-inhabited at this time was the upper ridge, what today is called Cato Crest.

Cato Crest

Cato Crest consists of 97 hectares of the 1800 hectares of Cato Manor. It forms part of Ward 30, and is home to an estimated 20,000 people (SA Census 2002). The population is almost 100% African, represented by a rich diversity of ethnic groups with Zulu predominating, followed by Xhosa, Sotho and Ndebele amongst others. In addition immigrants and refugees from other African countries have recently settled in the area, including people from Burundi, Zimbabwe and Malawi. The most commonly spoken language is Zulu, although most if not all people are fluent in English to varying degrees. Along with the array of ethnic groups, there are numerous religious groupings. While some claim to be followers of established Christian churches such as the Catholic or Anglican churches, recent years have seen the rise of various brands of charismatic Christianity, mostly movements originating from the United States. Several times per year large tents are set up on the outskirts of Cato Crest, while residents can be seen in numbers making their way towards the loud preaching and singing emanating from the tented 'revivals'.

In addition there is a highly visible presence of African 'traditionalist' faith groups, namely the Zulu Zionist and Shembe, that are to be found in Cato Crest. Both of these are well-established faith groups that represent a blending of Christian ritual with aspects of African traditional ritual and forms of worship. These groups believe in polygamy, ancestor honouring and the reality of witchcraft. Both have prohibitions on the eating of pork and the Shembe are against the keeping of pets of any kind, including cats and dogs (Mhkize 2000).

Traditional healers are said to be numerous in Cato Crest, though it is difficult to estimate their numbers. According to informants the *isangomas* or female diviners predominate, charging on average of 20 Rands for a consultation. In general most people adhere to beliefs in the powers of the ancestors and the propensity of envious neighbors to use witchcraft to bring misfortune or cause harm to others. Traditional beliefs maintain that witchcraft activity is not uncommonly carried out through the agency of 'familiar', that is animals believed to be under the authority and command of witches and sorcerers. The

animals most often used by evildoers in this way are cats, monkeys and snakes. As a result there is a certain mistrust directed at these animals. Key informants in Cato Crest confirmed the endurance of these beliefs amongst many residents in that community. A stray cat entering a person's property or home would be met with suspicion. Although it is acknowledged that they may have simply wandered in, they may have been 'sent' by a witch to deposit *umuthi* (witchcraft medicine) or to harm a particular person. A degree of suspicion surrounds these animals. The rich mix of ethnic groups, the frequent comings, goings and settlings in the community by different people for various lengths of time, and the lack of a common and enduring history amongst residents all make for a relatively high degree of mutual mistrust amongst neighbors. Cato Crest can be described as having generally low levels of what some social scientists call 'social capital'. No doubt this helps to explain why most of the informants interviewed for this study reported to never or very infrequently share food with others.

Often referred to as a 'squatter settlement', dwellings in Cato Crest are typically of the 'informal' type. These can be divided into three categories: 1) wattle and daub 2) wood and plastic 3) concrete block. Many homes are made of materials that combine all three types. Roofs are typically of tin sheeting, often supplemented by plastic sheets held down by blocks, bricks, stones or automobile tires. With the exception of the newly developed Area 9, known as the 'Smartie Houses', which are solid concrete formal 3-room homes, most of the informal Cato Crest dwellings are 1 or 2 room, with 3 rooms representing a largish dwelling. The houses are typically small, with small windows that do not supply much in the way of ventilation. Doors hang feebly on their hinges, and houses are in close proximity to one another, about one to two meters apart. Inside the houses curtains or tall boards divide rooms. Rooms are 'clustered' in the sense that they are multipurpose in their use. In the case of 1-room dwellings, all activity happens in the same room, with certain corners demarcated for food preparation or sitting/ sleeping. In a 2-room dwelling the room used for food preparation is always separate from the one used for sitting/entertaining visitors/sleeping. Whether or not somebody sleeps in the food preparation/kitchen area depends on the number of occupants in the home.

It would seem that the general rule guiding household usage patterns is to keep the kitchen/food preparation area separate from the rest and relaxation area. Old furniture such as chairs, tables and sometimes cupboards and mattresses are the major pieces of furniture. Almost all homes have radios, and some have either televisions or hi-fi stereos. In recent years residents of Cato Crest have had access to electricity through the 'card system'. This is where one buys a card at a cost ranging from R20 to R200, and with the appropriate box fitting in the home, one pushes the card through a slot and electricity is supplied until the card expires. It is very similar to the 'pay as you go' system for cellular phones. Residents also have access to public telephones located along the main access road and next to particular public buildings. Some homes have private lines, and people with private phones often allow others to use their phones for a fee. However in more recent years, cellular phones have become extremely popular and are to be found even

amongst the poorest or the poor, who are able to buy stolen phones from local criminals for a cheap price.

A short distance from most houses are small toilets in the form of pit-latrines that are encased by large pieces of wood and corrugated iron. Many look as if they are likely to fall with a strong wind. With the exception of homes in the newly developed 'Smartie' area (Area 9), none of the homes have piped sewerage. Pathways between houses are commonly strewn with refuse and consist of sand, mud and stagnant pools of water, sometimes interspersed with pieces of cardboard to provide a dry cover for walking. In the surrounding areas are trees and bushes that are used for dumping household refuse that is not readily accommodated in the black plastic bags provided to households by the municipality. Broken cars, beds, buckets, pots, furniture, pieces of wood, iron, plastic etc, can be found in piles in the surrounding bush of Cato Crest. Black refuse bags full of garbage also form part of the general heaps of refuse strewn about the settlement. Although the municipality picks up refuse twice a week in Cato Crest, the problem of numerous unsightly and unhealthy garbage heaps remains. These refuse sites are constantly visited by local dogs and cats that scavenge about, and no doubt provide ideal breeding and nesting places for rodents. As one research assistant described the area:

'The physical environment is a health hazard, due largely to the numerous unattended refuse heaps and garbage disposal bags. With pit-latrines in so close proximity to houses, and pools of dirty stagnant water everywhere, the smell is sometimes unbearable. Oddly, the soil seems to be constantly damp and moist, even when there's been no rain for a long period' (Glenn, 10/03/04).

According to records kept by the Ekuphileni Clinic, patients who visited the clinic in 2002 presented with a variety of illnesses. Chief among those was HIV/AIDS related illnesses (55%), tuberculosis (30%), and diarrhea (15%). Clinic records also reveal high rates of malnutrition in children but no exact statistics were available for that year (Nursing Department 2002). When asked to identify the health conditions that the people themselves felt to be especially prevalent in their community, key informants identified common colds, influenza, skin sores and diarrhoea. They also spoke about high rates of violence, rape, child abuse, and domestic violence as common crimes in the community. People associated these crimes with the high rates of unemployment and the fact of many men spending time sitting around and consuming alcohol. Also, a growing problem of drug abuse and theft as a means for supporting expensive drug habits was identified as a new and growing trend, especially amongst the younger men.

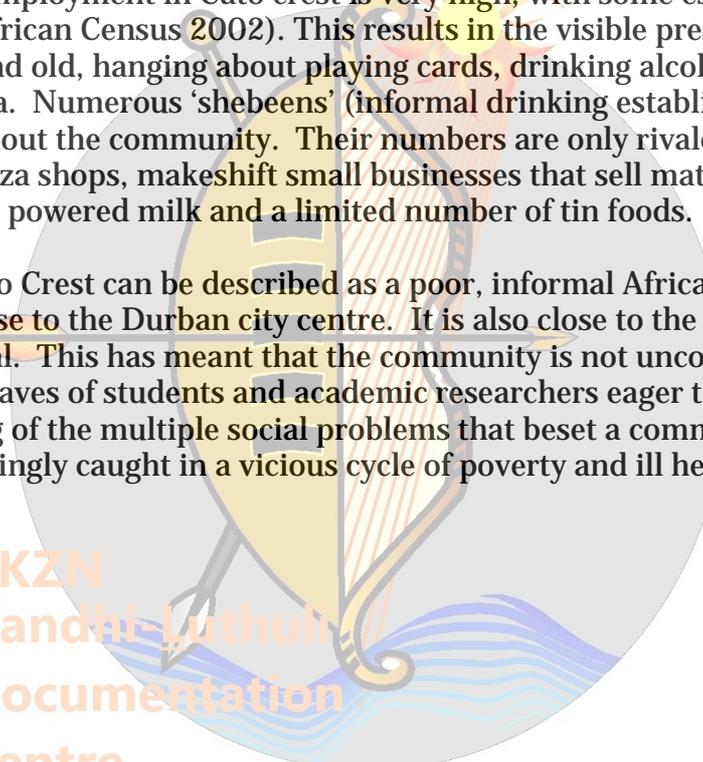
Modern Developments

Shortly after the dawn of democracy in South Africa in 1994, Cato Manor as a whole was declared a "Presidential Lead Project". This meant that the area was to be 'fast-tracked' for development, and over 6 million Rands was made available for the building of over 2000 homes. With this money the Cato Manor Development Association (CMDA) was established, and work commenced on building modern facilities and bringing services to all the

settlements of the Cato Manor community, including Cato Crest. A community newspaper, ISWE, was launched to keep residents abreast with all new developments. As part of this new development, three schools were built in Cato Crest, two primary schools and one high school. Also, a new 'Multi-Purpose Centre' was built that currently houses a community hall, public library, sports field, a pre-school and a primary school. A modern clinic, the Ekuphileni Clinic, was completed in 1997 and it offers a range of primary health services. King Edward the VII Hospital, the province's largest hospital, is located a few kilometers away, and serves as the referral hospital for the clinic.

Entrepreneurship in Cato Crest is encouraged and supported by government funding that provided for the establishment of 'Container Park'. Here, a group of 22 large metal containers have been re-fashioned and are used as workshops, offices and market outlets for aspiring businessmen of the area. However, unemployment in Cato Crest is very high, with some estimates put at 45% (South African Census 2002). This results in the visible presence of many men, young and old, hanging about playing cards, drinking alcohol or smoking dagga. Numerous 'shebeens' (informal drinking establishments) are found throughout the community. Their numbers are only rivaled by the number of spaza shops, makeshift small businesses that sell matches, candles, paraffin, soap, powdered milk and a limited number of tin foods.

In general Cato Crest can be described as a poor, informal African urban settlement close to the Durban city centre. It is also close to the University of KwaZulu-Natal. This has meant that the community is not uncommonly subjected to waves of students and academic researchers eager to gain a better understanding of the multiple social problems that beset a community such as this one, seemingly caught in a vicious cycle of poverty and ill health.



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METHODOLOGY

The aim of this study was to gather information on practices and perceptions relevant to the transmission of plague, leptospirosis and toxoplasmosis. As the three diseases are associated with rodents, the study focussed primarily on peoples' ethno-ecological views and behaviours related to these animals. In addition the study focussed on other animals found in the domestic environment, namely cats – which play an important role in the transmission of toxoplasmosis - and dogs. Research took place between February and May 2004. The first month was devoted to reviewing relevant literature, briefing research assistants, and forging links with community leaders in Cato Crest who helped to facilitate the research process. Classic anthropological techniques of participant observation and in-depth, open-ended interviews were employed as the main research methodologies. Fieldwork was undertaken between March and May 2004.

A review of relevant local literature revealed that students from the Department of Nursing at the University of KwaZulu-Natal had been conducting yearly studies of the health situation in Cato Crest since 1997 (Nursing Department 1997-2002). While these took the form of undergraduate student reports and were not of a high academic standard, they were nonetheless valuable as documents that provided a longitudinal view of the community spanning seven years and pointing to topics of relevance to the present study.

Fieldwork was carried out with the assistance of three post-graduate students from the Anthropology Department at the University of KwaZulu-Natal. This afforded the students an opportunity to gain experience in doing firsthand fieldwork in a poor, urban setting. Two of these students were selected to do daytime research, while the third conducted research after-hours, in the evenings. This was deemed necessary for 2 reasons. Firstly, most working people (those likely to be heads of households) were not at home during the day, but were there in the evenings. Secondly, as rodents are known to be more active at night, observation of their activities (and the people's responses to them) would be more likely a possibility at night. At all times the research assistants were under the guidance and supervision of the head researcher. Interviews were conducted in both Zulu and English.

An interview schedule was drawn-up and 10 households were selected as key informant households. Five of these were sub-samples of the socio-economic survey conducted by Mr. Malcolm Illes and facilitated by Dr. Peter Taylor as part of the broader RATZOOMAN project of which this study forms a part. Initial research (Phase 1) was conducted in teams of 2. Team 1 consisted of the two research assistants who conducted research during the day. Team 2 comprised the head researcher and the research assistant who conducted research in the evening. Team 1 accessed five households that were a sub-sample of the socioeconomic sample. Their visits followed on from visits by the enumerators. While one researcher conducted the interviews and led the conversation, the other took notes on observations of the habitat and the immediate environment. Key informants were selected on the basis of self-identification as heads of households. During the daytime only women were

found in the 5 key informant households and thus interviews were conducted with them. Nighttime informants consisted of 2 men and 3 women.

An effort was made to get a spread of households across different sections of the community and representative of different socioeconomic levels and levels of general hygiene. Of the 10 key informant households, 4 were selected as representative of 'very poor' households, judged on the basis of the size and poor quality of the construction materials used. These could be described as essentially one or two-roomed mud shacks with little more than a bed, table, water container and basin, and paraffin stove in a corner. Three were judged to be 'medium poor', that is a two or three-roomed houses usually made of mixed mud, plank and block construction, with several pieces of furniture, usually a table, chairs, sometimes a refrigerator, radio, and make-shift cupboards. Three of the households were judged to be 'above poor'. These were homes made mostly of concrete blocks, usually 3 or more rooms, with access to electricity, sometimes sewerage, and wardrobes, television and/or hi-fi stereos in addition to basic furnishings. Also covered in the selection of these 10 households were other differentiating characteristics such as ethnic representativity, number of inhabitants and proximity to bush and water. It is important to note that as an 'informal' settlement, almost all households can be considered as poor, and indeed the people themselves, even those from the relatively comfortable Area 9 (the Smartie houses) consider themselves to be poor.

For Phase 1, the initial research, interviews lasted on average 30–50 minutes and were conducted up to mid-April. After the initial phase the researchers met to discuss their progress, exchange ideas and findings, and to refine their research tools and focus for the second round of interviews. Each of the ten households was then re-visited for follow-up interviews that lasted approximately one hour each. On three occasions the nighttime research assistant was accommodated in the community for an overnight stay. This allowed him to observe and listen to the activities of the rodents that gained entry into the kitchen areas of the homes in which he was spending the night.

After Phase 2 (the second round of interviews), the research teams met to identify any existing gaps in data that required further study. This precipitated a third and final round of research that was conducted by the head researcher. It was also the opportunity for thanking those who had participated in the study and to get an indication of who would be willing to make themselves available for further participation in the Ratzooman project if required. All indicated a willingness to cooperate with future researchers.

CONCEPTS OF ILLNESS IN CATO CREST

Amongst the Zulu (see Nugubane 1977, Leclerc-Madlala 1994 and Leclerc-Madlala 2002) the Xhosa (see Jewkes and Wood 1999), and also among other Nguni groups outside of the country, i.e. the Shona and Ndebele of Zimbabwe (see Lunga 2003), ideas of bodily 'dirt' and the state of being 'dirty' inside the body represent broad ethnopathological explanatory models for disease. People interpret symptoms of illness as evidence of internal 'pollution' and accumulated 'dirt'. Therapeutic responses then to almost all types of ill-health commonly commence with an internal purging, and often involve a regular regime of purging throughout the duration of the illness. The use of enemas, diuretics, laxatives, and other forms of purgatives are often the first course of action taken against the signs and symptoms of ill-health (Leclerc-Madlala 1994).

Illness is often believed in Cato Crest to be brought about through witchcraft. *Umuthi* (witchcraft medicine) is commonly believed to be the cause of illness, and this is believed to be transmissible through both rats and cats, particularly the latter. A witch can 'send' one of these animals to someone's house, carrying *umuthi* with it. Because of the belief in witchcraft as the cause of illness, people in Cato Crest do not necessarily believe that they have an illness which is caused by an agent which is treatable only by modern medicine. There is frequent recourse to traditional healers who are able to deal with illness as a 'curse' placed by a witch, as well as dealing with the physical symptoms of the illness. Informants claimed there to be many ill-intentioned people (*umthakathi*) as well as many actively practicing *isangoma* or traditional healers in the community.

It is noteworthy that while cats can be used by witches, it is also believed among Zulu people that cat urine is a substance that neutralizes or cancels the negative effects of what some might call 'black magic' (see below under discussion of toxoplasmosis).

Understanding these local concepts of illness and causation associated with illness is important in understanding how people are likely to conceive of illnesses like plague, leptospirosis and toxoplasmosis. Many, perhaps most, people in Cato Crest have heard of plague, while almost none have heard of leptospirosis or toxoplasmosis; but explanations of all three illnesses, and how they are caused, need to be formulated and delivered in the context of an appreciation of the culturally encoded association between sickness and the internal state of the body (rather than the external state) on the one hand and of the role of witchcraft in causing and treating illness on the other.

GENERAL HYGIENE: PRACTICES AND PERCEPTIONS

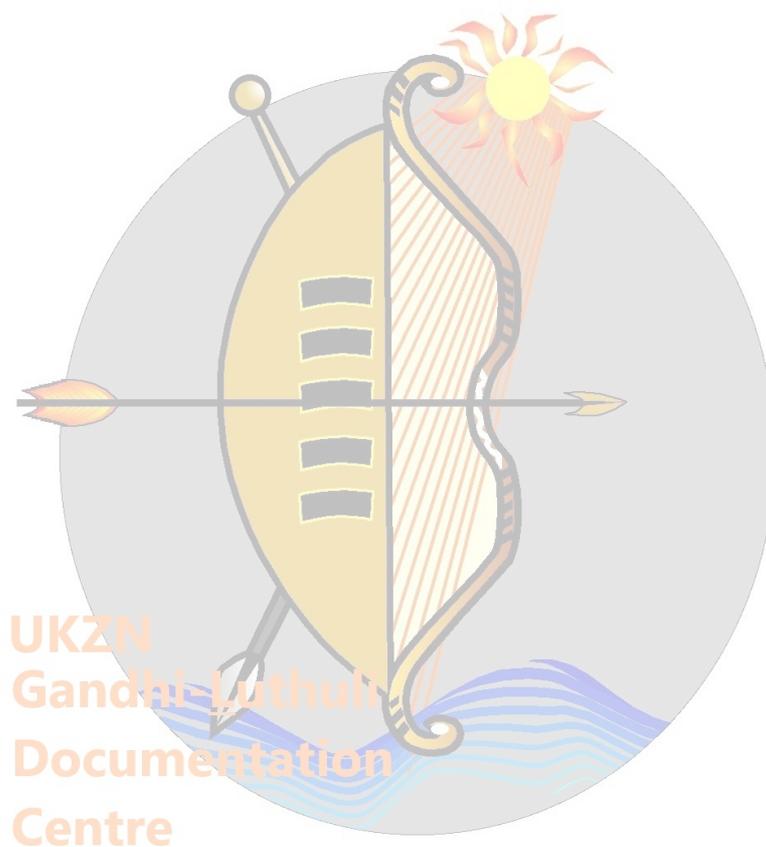
Because local notions of hygiene are rooted in a concept of illness as associated with *internal* rather than *external* dirt, concerns about hygiene locally in Cato Crest, while they overlap in some ways with these, are not the same as concerns which are based on modern scientific research and which are transmitted through education and health promotion. Responses to efforts to improve levels of hygiene may be unexpected, with certain themes being taken up and others evoking no response.

Concerns about hygiene and about projecting social standing overlap, too, which complicates the situation. Housewives are concerned with maintaining health, and where they believe (or come to be convinced) that certain food- or water-handling practices will lead to illness they may change these; but they are also concerned with cleanliness as tidiness, in relation to social standing – as indeed women tend to be the world over.

As a heavily populated African urban informal settlement, standards of hygiene maintained by many of the inhabitants of Cato Crest often fall short of 'Western' biomedical ideals for healthy living. These ideals are only somewhat approached by residents of formal homes, most especially the residents of Area 9 ('Smartie' houses), who benefit from indoor plumbing, solid walls and roofs, electrification, and regular waste disposal services provided by the council. This is not to imply that people residing in informal, shanty-type homes (those similar to the ones described as medium and very poor), do not try to maintain hygienic standards to the best of their ability. While there appears to be a relatively high degree of awareness about the importance of washing hands with soap before eating or preparing food, there does not seem to be much importance placed on hand washing outside the context of handling food. No special emphasis is placed on the need to wash hands when returning from the toilet, and such a practice does not appear to be routine to any extent. This applied across all 10 key informant households. In general people place a high degree of importance on the practice of washing the entire body, commonly in the morning, as soon as water is heated on the stove for use. Much gossip accrues about people who 'wake up and go', a expression often used when describing mostly unemployed people, usually men, who did not wash their bodies or change their clothes before heading off to shebeens (drinking establishments) in the morning.

The sweeping of floors, dusting of furniture and washing of dishes and clothes are important markers of social standing, and are seen as daily routines which are primarily the duty of the women of the house. In cases where there are no women in the house, the expectation is for male occupants to complete these tasks, or to find a woman neighbour or girl willing to assist. Sweeping away debris around the immediate frontage of houses was also a routine task. Local gossip helps to maintain these domestic practices as basic functions of any self-respecting occupant of a home, no matter how poor and shabby the dwelling may appear. People commonly take pride in and are highly conscious of the cleanliness of their internal domestic space, no matter how small or humble.

With outdoor long-drop pit-latrines being the standard type of toilet in Cato Crest, all informants expressed a desire to have toilets located further from their homes than was the case at present. The overcrowded nature of the community meant that toilets had to be closer to the homes of people than they would like. Yet, while informants professed a dislike for toilets in close proximity, they also saw a benefit in having them nearby. That benefit had to do with the fear of visiting a too-distant toilet, especially at night, given the high rates of rape and other crimes in the community.



RATS: PRACTICES AND PERCEPTIONS

Rodents which occur in Cato Crest are mainly the Norway rat and the house mice; the black rat, *rattus rattus*, does occur but has, in this part of Durban, been largely displaced by the Norway rat. Cato Crest residents describe some rats as being 'big rats' and 'strong rats', and these are clearly Norway rats. Rats are ubiquitous in Cato Crest, except in the formal 'Smartie' homes, whose residents report no rats in their homes, and associate rats with the shanty-type houses on the other side of the valley.

The struggle to manage rats is part of the general struggle to survive and create a clean domestic space for oneself in a broader environment that is perceived as unclean and unhealthy. However, in general people are not aware of the disease-carrying potential of rats. Rats are seen as a problem because they eat their food, nibble their clothes, and gnaw at their furniture. Beyond that, rats are tolerated as another unpleasant and unwelcome part of what all informants describe as an unhealthy place to live.

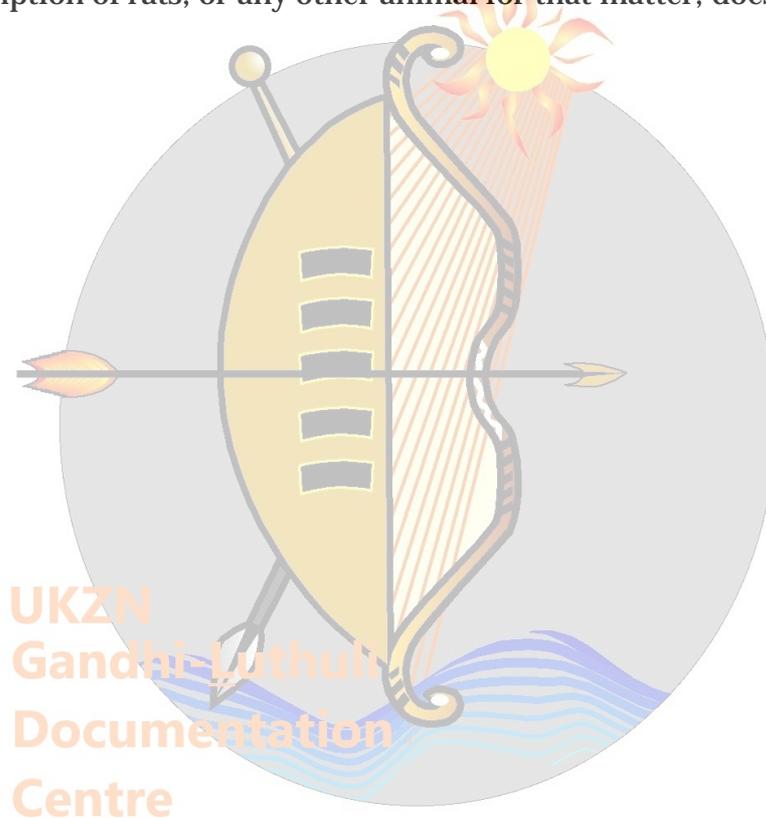
Rodent pests are perceived primarily as competitors for scarce resources. All discussions about rats included descriptions of how people try to store food in tightly sealed containers or otherwise place things where they are out of reach of rats. Eating or 'stealing' food, destroying the few bits of furniture that people possess, consuming soaps and cosmetics, and being unafraid of cats, dogs or people shining bright lights into their faces these are amongst the most common themes in peoples' narratives about rats.

Rats are a particular problem at night. People report that rats try to get into water containers at night. While some informants seemed to have less concern about this, many informants took all possible measures to avoid this happening. During the daytime, water containers are covered by items such as a simple metal tray, a broad flat piece of wood, or a large lid from a tin pot. These are used to protect water sources and at the same time provide easy access to water when household members are around. During the nighttime, or when people leave their homes for any length of time, many people reported that an extra effort is made to ensure that rats or other pests cannot tamper with the water. Putting water into Tupperware containers sealed with a plastic lid was a common method used for this secure storage.

Although cats are seen as a potential means of controlling rats, many people commented that they are quite unable to catch and kill the big rats (Norway rats). Chemical means (Rattex poison) is the preferred way of managing rats in and around homes, although people concede that for the 'big rats' they believe Rattex is ineffective as a poison. While keeping the domestic environment free of rodents, flies and fleas was construed as woman's work in a general sense – part of good housekeeping – the setting of traps to capture rodents was identified as a man's task. However, given the high percentage of households without a man permanently in residence, women informants said they were forced by circumstances to take responsibility for managing rodents. Without men to set traps or otherwise deal with rats, women preferred what they viewed as the less cumbersome and complicated way of managing rats, i.e. through the use of Rattex poison.

The management of rats was seen as primarily the responsibility of women, since they are responsible for the management of the home and it is only in the home that rats are seen as a problem. Men and women take different approaches to rats. While men will on occasion take a direct approach to control, using traps (a popular approach to rats among men was to shine a light in their faces if they entered the house at night, to frighten them off) women prefer to use Rattex to kill rats since they don't have to deal with the dead rats afterwards.

The research team could find no evidence that little boys or other residents of Cato Crest consumed rats. All showed great disgust at the prospect of roasting and eating rats. However, given the high rates of unemployment and malnutrition in the community, it would be difficult to say with certainty that the consumption of rats, or any other animal for that matter, does not occur.



PLAGUE: RISKY ACTIVITIES

Contact with fleas from rats

While any direct contact with rats is avoided, peoples' contact with the fleas from rats is difficult to assess. It was noted by all researchers that, with the exception of the people from the solid 'Smartie' houses, all others consistently identified the problem of fleas when asked about pests in their homes. Cockroaches, mosquitoes and flies were also mentioned, but they were spoken of as seasonal and not a persistent irritant as were fleas. People spoke of fleas in the bedding, fleas that jumped from the floor, and fleas in clothing. Even the researchers complained about fleas, most notably in those houses identified as very poor. When asked where the people believed the fleas to have originated, they gave an array of answers including marauding cats, neighborhood or family dogs, and rats that occasionally entered the homes. The limitations of our study did not allow for a more exact understanding of the nature of the flea infestations that informants described. Nevertheless, fleas and flea bites appear to be a real health concern amongst residents in Cato Crest.

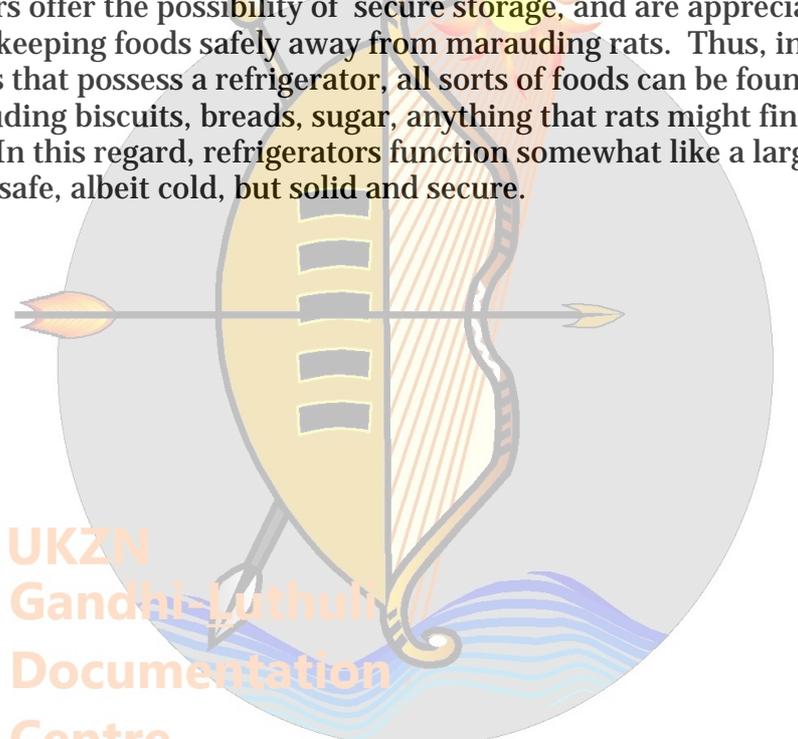
Consumption of potentially contaminated meat

The most common type of meat eaten by residents was reported and observed to be beef, followed by chicken. All meat was purchased; no wild meat was seen to be eaten. While meat is primarily cooked and eaten in the homes, it is also popularly roasted on outdoor fires in the form of 'braiis' or barbecues. Large slices of beef are often cooked side-by-side with large links of sausages, known locally as boerwors (farmers' sausage). Drinking establishments commonly have a sitting area outside that includes a make-shift grill where the clientele (usually men) pool money to buy meat for roasting. Whether cooked outdoors or indoors, according to informants meat is consumed immediately. Everyone spoken to claimed that they prefer their meat to be very well cooked before eating.

Meat is a very high prestige food that is jealously guarded, and it would seem jealously eaten. All informants, including those from the formal houses, report little to no food sharing amongst neighbors. Meat is an expensive food, so lack of food sharing may be linked to the financial situation that most people in this community find themselves. Also, given the low levels of trust and social cohesiveness that pervade Cato Crest, as previously discussed, it would follow that people report very little convivial sharing of food between households. Most routine sharing of food outside of the homes (with the exception of ritual occasions such as funerals and weddings) would appear to occur primarily between men in the context of drinking beer and 'braii' ing meat together.

Lack of food sharing may also be linked to persistent beliefs amongst many people in the region that food can be easily tampered with by one's enemies and used as a vehicle for ingesting poison or witchcraft-related substances. There are many social prescriptions that inform people about who one may accept food from, and who one must avoid accepting food from.

Households which can afford to buy a refrigerator are likely to do so. A refrigerator is among the first appliances purchased by people who have access to electricity in the homes. Households in the “above poor” category of informants had refrigerators, and many less well-off homes had refrigerators as well. The social value of the refrigerator is not so much measured in health-related terms, but rather measured in more financial terms. For one thing, people are aware that food stays fresh for longer in a refrigerator, thus not necessitating frequent trips to the shop that entails costs of transportation as well as costs of foodstuffs. Secondly, drinks can be kept cold and sold to neighbors, a common practice, and frozen ice-lollies can be made in small plastic bags and sold to local children, another common practice. Thirdly, all refrigerators in the key informant homes have been purchased with locks and keys. This prevents food from being stolen while the residents are at work or otherwise not at home, and it prevents the children or other members of the household from nibbling on foods intended for wider mealtime. In addition refrigerators offer the possibility of secure storage, and are appreciated as a facility for keeping foods safely away from marauding rats. Thus, in households that possess a refrigerator, all sorts of foods can be found stored there, including biscuits, breads, sugar, anything that rats might find attractive. In this regard, refrigerators function somewhat like a large household safe, albeit cold, but solid and secure.



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LEPTOSPIROSIS: RISKY ACTIVITIES

Contact with river or pond water

From past reports on daily life and the health situation in Cato Crest (see Nursing Reports 1997-2003), it would appear that people have lessened their direct contact with the main river that runs through the bottom of the community in recent years. This is no doubt related to the provisioning of piped water into the area, and in the case of formal homes, indoor plumbing. Where women once went to the river to wash clothes, bathe children and collect water, they now walk to the standing pipes along the road where free access to clean water is available. It was reported that some very poor women might go to the river to wash their clothes, but it would be unusual, as free water from taps was readily available.

However, people could not help but come into contact with standing water in the course of daily living and walking within the community. There are no ponds per se in Cato Crest, but there are numerous pools of stagnant water of varying sizes that dot the pathways between houses and pit-latrines. These are used as drinking holes by animals; cats and dogs were observed drinking from standing pools of water, and birds were observed swooping over these pools. In the immediate vicinity of almost every shebeen observed by researchers, men could be seen on a regular basis urinating in the near-by bush or along the back wall of the shebeen. In these particular locations, pools of urine compete with stagnant pools of water to create a wet and odorous environment. In some instances taps left to run for a length of time produced long streams of water that snaked down from the road, along the pathways, and into the immediate 'yards' of homes. Damp soil is a feature of most parts of Cato Crest.

Children in particular come into contact with water. This happens at the river, which is still widely attractive to children as a place to explore, play, and collect mud for modeling toys. On each visit to the river, researchers saw children playing along the muddy banks. On occasion children could also be seen playing in the pools of water, but even more frequently they were observed playing in water that was the run-off from taps along the road.

Going barefoot is a risk factor in relation to leptospirosis, particularly if the ground is damp. Young children often go barefoot, and so are more exposed to this risk. Except for some mentally disturbed adults or chronic drunkards, teenagers and adults wear shoes in Cato Crest. However, these are often slip-on shoes or sandals which do not offer much protection against mud or water. Therefore there is the potential for all individuals in Cato Crest to come into contact with leptospirosis through this route.

Water storage

As discussed above, there are differences in daytime and nighttime storage of water, with efforts made to keep water well sealed at night. People are aware of the importance of protecting their domestic water supply from rodent and other pests, and key informants report a two to three day maximum time of water storage in the homes before replenishing at the taps. Containers are fully emptied before fetching a new supply of water.

However, water is not boiled or otherwise treated before use, as it is piped water from communal stand pipes, and it is believed to be clean. Also, in some of the households visited covering of stored water was not fully effective, and it is possible that rats might gain access.

Food preparation and storage

All food-related activities fall within the domain of woman's work.. Women of the house prepare, cook and serve food to other family members. Learning how to prepare food is a key task in the socialisation of the local girl child. Girls as young as six or seven could be observed preparing food and stirring pots. This is not to say that men are exempted from the task, as indeed circumstances often result in men or boys taking on these domestic tasks. Rather, it is food preparation, possibly above all other domestic activities, that represents the primary duty associated with being a woman.

Washing of hands is carried out almost ritualistically when women or girls prepare to handle food, and indeed, hand washing and food handling are closely linked. In general, there is little appreciation for or understanding of the need for washing hands outside the context of food handling.

There are risky practices associated with the preparation of food. The knife used to slice meat is often the same one used to chop vegetables, as it is often the only sharp knife in the house. On two occasions researchers observed women dipping knives into small tubs of water when moving from cutting meat (in one case chicken, the other sausages) to chopping vegetables. No soap or dish cloth was used to wash the knives.

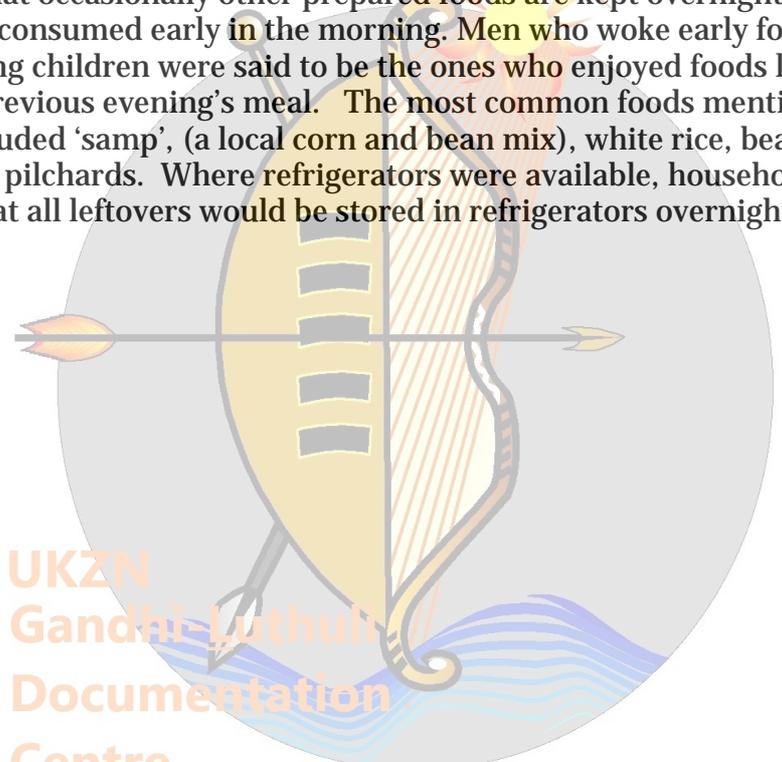
Fresh foods that are commonly not stored but are placed in open bowls on tables includes tomatoes, onions, bananas, avocados, oranges and green and red chilies. Bags of potatoes are left in their bags, often on the floor. As discussed in the data provided on the specific households, it is not common practice to peel fruits and vegetables that are eaten raw. These foods could easily come into contact with rats, particularly when left at night.

In homes with no refrigeration, people say they try to keep as few leftovers around as possible and most food is reported to be eaten immediately. Plastic Tupperware containers are the preferred dishes for storing food.

However, there are occasions when cooked food does sit out for significant amounts of time, and could well be exposed to rats. Where a household member is expected home after normal mealtime hours, a separate plate of

food will be dished-up, covered with a pot lid or a large plastic bowl, and placed on a shelf or tabletop where the person can see it when he/she enters. This reserved plate of food is not commonly re-heated, but eaten as it is. Sometimes a household member will not return until very late or even the next day, and women reported that this was common especially if the person had been out drinking at a shebeen. When this happened, it was left up to the person for whom the food was meant to decide what to do with the food, i.e. eat it, throw it away, or feed it to a dog or to the chickens. One woman homeowner commented, "Sometimes they are so drunk they don't think about food. The rats come and eat the food, and then they lie and say it was them". Given the possibility of rats eating some of the food placed on reserved plates, it is probably not uncommon that some people occasionally eat food that has been previously in contact with rats.

In addition to prepared plates being put aside for later consumption, women reported that occasionally other prepared foods are kept overnight, in covered pots, to be consumed early in the morning. Men who woke early for work, and school-going children were said to be the ones who enjoyed foods leftover from the previous evening's meal. The most common foods mentioned in this regard included 'samp', (a local corn and bean mix), white rice, beans, meat, and tinned pilchards. Where refrigerators were available, household members claimed that all leftovers would be stored in refrigerators overnight.



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TOXOPLASMOSIS: RISKY ACTIVITIES

Consumption of potentially contaminated meat

Pork is seldom eaten, and key informants report that most people perceive pigs to be 'too dirty' to eat. Purchased beef and chicken are the two favoured meats, with beef either roasted on an outdoor grill or fried in a pan on a stove, and chicken either boiled or deep-fried.

As discussed above, there is no evidence of eating rodents, and food is rarely shared between households except at festive events in any case. It does not then seem likely that toxoplasmosis could be spread through meat being eaten which is not thoroughly cooked.

Contact with cats

The quasi-domestic nature of cats in Cato Crest presents a real challenge to any effort that would aim to control the cat population in that community. As discussed, some cats are claimed as pets by some individuals, but most roam freely, coming and going between households, looking for food and perhaps attention. No difference (in terms of better-off and less well-off households) could be discerned between homes where food was offered to cats and those where it was not. It would seem that while visits by cats into homes may be tolerated for a few minutes, or for the duration of someone continuing to throw bits of food down for it to eat, they are soon shooed away. Tolerance is shown to children's interest in cats, and children's efforts to invite them into yards or into homes. Children were observed petting cats and playing next to them. However, for the most part adults appear to be eager not to encourage cats to become attached to their children or too accustomed to their homes.

Cat faeces in the immediate yard of homes are commonly swept away, as discussed, and viewed as 'dirty'.

The persistent association between cats and witchcraft, and the possibility that they can be 'used' by evildoers for mal-intent, helps to keep cats at a social distance. Yet the cat's association with witchcraft also carries a positive valence that potentially makes the domestic cat 'useful' to members of the community. Amongst many Zulu people cat urine is well known as a substance that neutralises or cancels the negative effects of what some might call 'black magic'. Cat urine is conceived as a type of antidote to witchcraft-related spells or curses. While the limitations of this present study do not allow for an assessment of the degree to which people or traditional healers may be involved in somehow collecting cat urine, it would not be inconceivable that this may be practiced from time to time by particular members of the community. Given the high degree of suspicion and mistrust between residents as reported by informants and previously discussed, and given that people claim there to be many ill-intentioned people (*umthakathi*) as well as many actively practicing *isangoma* or traditional healers in the community, it may be the case that cats have a special utility that is not immediately obvious to most outsiders, including researchers.

SUMMARY AND CONCLUSIONS

Rats and cats

The people of Cato Crest view rodent pests of all kinds as an inevitable part of the generally unhealthy urban informal reality. Along with a host of other undesirable facts-of-life such as shoddy dwellings, mosquitoes, high rates of serious illness like tuberculosis and AIDS, high levels of crime and unemployment, people seem to have resigned themselves to living amongst rodent pests. These pests, including what the people know as 'large rats', are not so much viewed as disease-bearing creatures, but as formidable competitors for scarce resources. Narratives of peoples' experiences with rats emphasise their deftness and skill at opening containers and eating the small bits of surplus foods, soaps, cosmetics, and the already-shabby furniture. With most people living in poor conditions, having their limited food and few material possessions eaten by rats is a cause of great irritation. Thus peoples' desire to rid their homes and surroundings of rodent pests is rooted in their perception of them as competitors and destroyers of scarce resources. Informants' descriptions of rat activities resonate with descriptions of burglars who enter homes in the night and make off with goods or destroy property. The following are a few quotes by informants:

"They wait until it is quiet, when everyone is sleeping. Then they come and turn things upside down." (middle aged woman)

"They are so bold and cheeky. They can open pots and eat plastic lids. They are like professionals." (middle aged man)

"Sometimes rats will run if you shine a light on them. But others, the big ones, they just look at you. They are used to this job every night."

Frequent reference was made to the large size of rats and the fact that cats and dogs were both 'afraid' of the larger rats. Some indicated that cats and rats had learned to more or less accept each other in the shared environment, with cats sometimes appearing 'to play' with the rats. Informants believed that the rat population had grown both larger in numbers and larger in body size during the time that they had been resident in the area. The preferred solution to eliminating rodents in the home was through the use of chemical 'Rattex' which was easily available (sold in small packets at the local spazas) and relatively cheap. However people also claimed that Rattex was not effective against the bigger rats that they said were stronger and did not die when they consumed Rattex. When asked about the roasting and eating of rats, all people, including small boys, showed much disgust at the prospect. Boys claimed to catch and roast small birds on occasion, but never rats. Adults confirmed that children were not likely to eat these creatures, although one older man said that children and adults, if hungry enough, would eat anything including rats.

There are many wild cats that roam Cato Crest. Yet the word 'wild' is somewhat inappropriate here. Although it seems that most cats are not formally 'owned' by particular individuals or households, they are semi-

domesticated in the sense that they come and go freely in many homes. Residents in general seem to maintain a nonchalant attitude towards their presence. Sometimes they are fed, and sometimes not. Small children on occasion play with cats. Their faeces in the yard are usually swept away by the woman of the house or a big child with a branch or picked-up and thrown in the bush with a spade. Perhaps their persistent association with witchcraft and the idea that evildoers can potentially use these creatures function to keep cats at a social and geographic distance. The marginality of cats can be contrasted with the relationship that people have with dogs. While some dogs do seem to roam around as 'wild' dogs, particular individuals do claim them as pets and animals of the household. Although there are exceptions, cats in general do not appear to be accepted at this level of household pet.

Leptospirosis

Overall there seems to be a high awareness regarding the polluted quality of the near-by river and streams. Key informants claimed that nobody fetched water from these sources and nobody bathed in the river. This hygienic practice is probably one of the biggest changes to have occurred in the area in recent years. Old nursing reports from 1997 revealed that women frequented the river for washing clothes and bathing children. Now, it appears that educational campaigns to make people aware of the hazards of using river water, and easy access to piped water have been effective. However, there is a good deal of standing water around, and children in particular are likely to have regular contact both with this and with river water, since it was observed that children frequent the river to play and they collect mud-clay for making toys.

There is a fairly high degree of awareness about the importance of washing hands before meals or when preparing food, although this same awareness does not apply in the case of washing hands after the toilet. This means that adults at any rate are less likely to transmit leptospirosis from physical contact with standing water or river water; children, however, who have more physical contact with water and who are more likely to put their hands to their mouths in between meals, may well be in contact with leptospirosis either from hand to mouth contact or through cuts and sores.

Plague

Fleas were identified as problematic in the community. Many residents have visible signs of skin disorders that could be the result of insect bites from fleas and other insects, and persistent scratching.

There is no apparent consumption of meat which is not fully cooked, and so plague is not likely to be transmitted via this means.

Toxoplasmosis

As already stated, there is no apparent consumption of meat which is not properly cooked, so toxoplasmosis is not likely to be transmitted in this way from rodents or other animals; in any case wild animals do not appear to be eaten, although the possibility that this occurs cannot be entirely excluded.

However there are significant numbers of cats, and these are allowed into houses albeit for brief periods of time – long enough to deposit faeces which need to be swept away. Children in particular, whose cuddling of cats was observed to be tolerated by adults, are likely to come into contact with toxoplasmosis via cat fur and bodies. Adults were much less likely to come into physical contact with cats. Cats may also walk over food, particularly cooked food which is left out, and this could mean that toxoplasmosis is transmitted via their paws to the food.

It may be of relevance to the current research that many people in this focused ethnographic study, as well as those interviewed over the course of the past 6 years (see Nursing Reports 1997-2003) report that constant colds and flu are major health problems in the community. The usual symptomology of toxoplasmosis is said to resemble that of a very bad case of flu. It is not unlikely that the people of Cato Crest suffer from a variety of illness conditions that share a similar symptomology to toxoplasmosis, but it is possible that these symptoms are expressions of this illness.

The future: improving health and lives in Cato Crest

Means of transmitting public health messages include print media and the radio. The major form of print media found in the homes was the two Zulu-language local newspapers, ILANGA and umAFRIKA. Many people are reported to read these papers, which are passed around between neighbors. The most popular radio station is UKHOZI FM, a Zulu-language station. In several of the households visited during the day and night, this radio station was playing.

Social cohesion in Cato Crest is currently low, and local politics and meetings are not always successful means of bringing about change. On occasion key informants said that people attend community meetings held in the new Multi-purpose Community Hall. However, some say people try to avoid these meetings as they are often 'too full of politics'. Persistent political tensions and rivalries are a factor in the area, and experience has caused some people to avoid public meetings.

As a poor urban informal settlement, Cato Crest provides its residents with many daily challenges. Like people in similar communities throughout the world, people here are trying to do the best with what they've got. Almost all dream of a better life with better, more solid and more permanent homes. Ten years after democracy, the once 'Presidential Lead Project' to upgrade greater Cato Manor has run its course. A few hundred formal houses have been built from the thousands planned. The local housing crisis remains. The mandate of the Cato Manor Development Association, formed to deliver housing and other infrastructure to the area, has been disbanded. The community newspaper that it once sponsored, ISWE, has been discontinued. For many residents of Cato Crest and the surrounding communities, the unacceptable poverty, high levels of crime, sickness, unemployment and HIV/AIDS, leaves them with little motivation and enthusiasm for tackling other problems such as rodent pests in their environment. Rats have come to be somewhat accepted as part of the wider decrepit environment in which they live. As one informant put it succinctly, "Rats are rats. They just want food like us, that's all". Getting past this level of apathy and resignation will probably be the biggest challenge for any intervention programme aimed at preventing sanitary risks associated with rodents here.

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ANNEX: KEY INFORMANT HOUSEHOLD PROFILES

Household #1 - Area 2 (Above poor)

This house consisted of a main structure of white washed mud brick with a tin roof. The floors were all of leveled mud. Interviews were conducted in the shade of a canvas sheet tied to a wooden frame, which served as the patio. Seven smaller wood and cardboard rooms surrounded the main house, each with a door, window and canvas or tin roof. These were rented accommodation for 'lodgers'. Three of these rooms were open, revealing a bed, mats and occasionally other furniture such as cupboards and minors. The path leading to this group of houses led through an overgrown field strewn with household refuse. A tap stood at the entrance area, the pathway was wet, and a toilet structure stood behind the row of rooms.

Several women were nearby, one looking after an infant in a wooden room to the side, one walked past with a fully laden bucket of water. We sat in the shade with two women, one being the wife of the man who owned the house. Both were friendly and talkative, and conducted our interviews in a relaxed and peaceful atmosphere. Smoke from burning trash a few houses up carried past us, and the sound of taxis and people rose up from the road. Two dogs were lazing about in the shade, and a large cat walked by on the outskirts of the property. The women claimed to give this cat food every morning, mostly leftover porridge or beans from the night before. They had come from Eastern Cape (Xhosa speaking) three years before. The women's main concerns lay with their houses leaking, the numerous mosquitoes and the criminals and 'trouble makers' from the taverns.

Household characteristics, attitudes and opinions:

- **General.**
 - A family of two brothers and three sisters lived in the main house.
 - The women saw their role as one of cooking, cleaning and looking after children. They believed men should provide financial support and treat them like ladies. A good housewife was one who kept the home clean and prepared meals.
- **Cats.**
 - The women claimed to own three dogs but no cats. Stray cats did come into the house on occasion, where they were fed and then shooed away. Nobody treated the cats as pets.
- **Rats.**
 - The house was open to rodents through the eaves and doorways. The women reported that it was common to hear rats in the home at night.
 - The family frequently saw rodents in their area, with rats being seen in the house and in the crops more than once a day (crops were mentioned although researchers did not see any crops in the area).
 - Rats were seen as a problem as they ate the family's soap and any food that was left out or not well sealed, such as bread. They saw rats as

'thieves' that stole food and pests that were part of a generally negative environment.

- The women did not believe that rodents carried disease and a rat had bitten only one family member, however the bite did not become infected.
- The family uses chemicals (Rattex) to control the rats, but they claim that this is not effective in killing the bigger rats. The women were not familiar with any medicines available from traditional healers specifically for killing rats. They believed Rattex was the best solution, but ineffective against 'strong' rats.
- They said that they did not have a problem with fleas but they pointed out that many others in Cato Crest do.
- **Hygiene.**
 - We were told that children in this household are taught to wash their hands before meals. Washing after going to the toilet was not seen as necessary unless one was going to eat food directly afterwards.
- **Water.**
 - Water was kept in a plastic, well-sealed drum. The women kept their water buckets sealed with a tight plastic lid when not in use. They kept water for two days normally, sometimes up to four days. The women carry water into the house where they have one room demarcated as a bathroom was they wash. Dirty bath water is thrown outside, in this case in the bushes along the side of the house.
- **Food preparation and storage.**
 - The family's food was stored in plastic containers and kept off the floor.
 - The family's diet consisted mostly of maize meal with vegetables bought from the spazas (small local shops) or town.
 - Meat was bought occasionally (about 3 times a month) and eaten immediately as there was no electricity for refrigeration.
- **Disposal of waste.**
 - Paper, clothing and readily burnable waste was burnt near the home. Other household waste was bagged and brought to the road for collection.
 - The women saw the municipal services as unreliable, sometimes only coming once a week or even less, and at times not giving them black bags for their rubbish. They believed that the rubbish on the roadside was a factor in the rat problem and they saw this as a serious problem.

HOUSEHOLD #2 - Area 9 (Above poor)

Mrs. Msomi's house is down a row some distance from the main access road into the 'Smartie' area of Cato Crest's second valley. This area is well kept and clean save for occasional roadside litter. There are no piles of either bagged or exposed litter in this area, nor is there any running water or stagnant pools in or along the streets. Besides uncut hedges and bushes there are many fruit trees and vegetable gardens scattered about. Banana, peach and avocado trees, as well as dagga bushes and several plots of squashes could be seen. Two dogs and four chickens walked about. The people were Zulu and said they were Christians.

All of the houses here are made from brick and mortar and have corrugated iron roofs. Most are painted and all have access to running water, electricity and sewage pipes. Some, like Mrs. Msomi's house, have a patio and space for a car (in this case an old sedan). The houses are not large, however, varying from two to three rooms. This particular house was of the three-room variety and was shared with a son, daughter and grandson. Both Mrs. Msomi's and her daughter's clothes were clean and bright and of a more modern cut than the clothes people wore in the adjacent valley. In her house was a fridge, sink and tiled floors. The inside of the roof was paneled with wood. The house looked neat, cheerful, very clean and well kept.

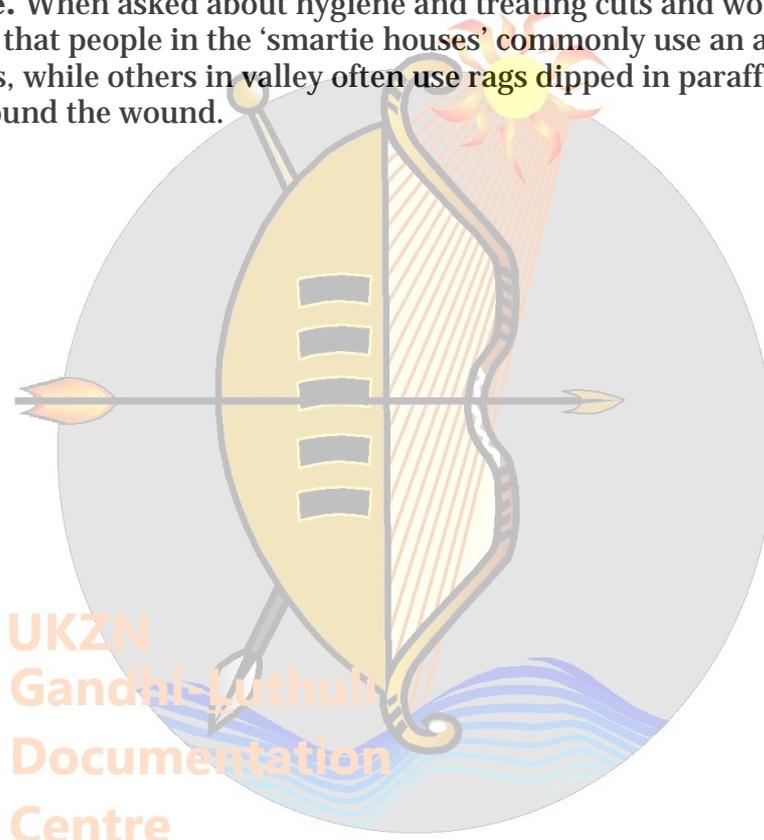
Mrs. Msomi was at first cautious about being interviewed, but quickly opened up once we told her about the project. Interviews were conducted in her lounge while she sat holding her grandson.

Household characteristics, attitudes and opinions:

• General.

- Mrs. Msomi is the head of her home. She is 53 years old.
- She said that all of the people staying in the new houses originally come from Cato Crest, where there were rats and other 'problems'. She says she is happy living in the area, but thinks the houses are too small. Children in this area have a park to play in, and dogs and cats look healthier overall.
- Mrs. M thinks that most of the houses in her area are led by women who have jobs, and they are very concerned with keeping their modern homes neat and tidy.
- **Waste disposal.** The council collects her refuse regularly, twice a week. She thinks the municipal services are good, but do not provide enough black bags.
- **Food preparation and storage.** She prepares food in her kitchen. She has a stove for cooking. Her food is stored in sealed buckets and Tupperware. Other foods stored in refrigerator. The family eats meat often (about 4 times a week) and stores it and other foods in the refrigerator.
- When asked about food sharing, she mentioned that occasionally people will share small amounts of food with neighbors, but it is not usual except during ritual occasions like weddings and funerals.
- **Cats.** There are many cats around but she does not let them into her house.

- **Rats.** When asked about rats, this informant admitted to seeing the smaller house mice in the house at times, and only rarely seeing the bigger rats in the vegetation on the other side of the road. On the whole she was not worried about rats.
- She doesn't know of any superstitions attached to rats, they are merely pests that 'make a mess' and 'destroy furniture'.
- While she views them as 'dirty', she doesn't believe they carry disease.
- Rodent management would be the women's responsibility in the home, she said.
- She has, she says, no need for rodent control.
- **Water.** There is no need to store water in the home, as she has piped water. She drinks the water from the taps. The house has a real bathroom, flush toilet and hot running water for washing.
- **Hygiene.** When asked about hygiene and treating cuts and wounds, she reported that people in the 'smartie houses' commonly use an antiseptic and bandages, while others in valley often use rags dipped in paraffin and wrap these around the wound.



HOUSEHOLD # 3 – Area 3 (Above poor)

If there was a standard of affluence to go by in this area, then this house would be at the top end of the scale. Situated on a fenced-in, open piece of land (big enough for four small dwellings), this three-room mud brick and cardboard house looked well kept and neat. The roof consisted of a large canvas sheet held down by tires and bricks.

However, the household did not have running water within the house, or a flush toilet. Neither did it have a refrigerator. A tap was situated just outside of the gate in the neighbour's garden and a tin shack pit-toilet stood around the far side of the house. A clothes rail held laundry being put up by a young woman and her daughter. Several chickens foraged in the grass outside of the low wire fence. A pile of debris lay behind the side of the house.

We were introduced to the landowner's wife, a large and friendly middle aged woman called Mrs. Hlope. Interviews were conducted in a well-lit lounge where we sat opposite each other on the two comfortable sofas to conduct the interview. The room displayed several tasteful wall hangings, and had a TV cupboard that held a new looking stereo and various family photographs. The room across from us was a kitchen. We visited the kitchen, which was clean and well kept. Several pots and buckets stood on the floor.

Household characteristics, attitudes and opinions:

- **General.**
 - Mrs. Hlope lived with her husband, two daughters, two sons and a granddaughter.
 - She believes that a woman's role is to clean, cook and look after the children. It is good for women to work, but she asserted that most do not. Men should give financial support to their families.
 - She said that in this area of Cato Crest, of 10 households, 5 would be women headed, 3 headed by men and 2 headed by older children.
 - Mrs. Hlope's main concerns were mosquitoes, cockroaches, not having electricity, and the rats competing with her chickens for food. Mrs. Hlope had eight chickens that were kept for eggs.
 - She said that the high density of housing led to 'one's neighbours problems becoming your own', such as the trash heaps and the pests that these were said to breed. When asked about the cleanliness of people in Cato Crest she said that some people cared about their environment being clean and others did not. Many people have messy yards, but the worst offenders in this regard were the people who rented because it was not their property. The landlords typically 'do not do anything' about messy tenants.
- **Cats.**
 - Stray cats occasionally came into her house, and she fed them outdoors.
 - When asked if the cats make any difference to the rodent problem, she said that they do not, the cats are scared of the rats, as they are bigger than the cats.

- This informant said that cats were chased out of the houses before they could defecate in them, although they did sometimes defecate in the yard. Typically children were given the job of sweeping and picking up cat faeces from yards.
- **Rats.**
 - She sees rats in her house once per day and in the bushes more than once per day.
 - She believes that rodents do carry diseases. A rat bit her husband in 1994 and his arm swelled up and went black. He went to hospital several times but in the end his arm healed.
 - She uses both rattraps and poison to kill the rats. Mrs. H said that there were many traditional healers in Cato Crest, but she said that they did not have any special *muti* (magical substance/medicine) for killing rats.
- **Water.**
 - She collects water every day. She stores it for no more than two days, in closed buckets.
 - In this household the family drinks the tap water without boiling it.
- **Food preparation and storage.**
 - The family's food is stored in closed buckets.
 - Meat (typically beef and chicken) is occasionally eaten (once a week), but their stable diet is dry foods as they do not have cold storage.
- **Waste disposal.** Paper waste was burnt, while the municipality removed other household waste. She is happy with the municipal services that come about once a week.

HOUSEHOLD #4 – Area 3 (Medium poor)

After following a twisting route around some houses and up a narrow path that climbed to the contour level we wanted to be on, we came to another collection of four small houses. Bushes and loose refuse were scattered around the area. A pit-latrine could be seen tucked around the back and a shared tap stood further up on the next level of houses. A channel of muddy, stagnant water ran down the bank from the tap. These four houses were made of mud and daub and covered by canvas sheeting or iron. They were not in very good condition with wooden frames sticking through the cracking mud at points and none of the walls had ever been painted. A large pile of household waste (mostly old blankets and mattresses) stood next to one house where we interviewed a teenage boy. One small kitten lay in the shade while two others played together in the doorway of the house.

Moving to the house next to this we were invited into a one-room dwelling. It was quite dark with only one window, but well ventilated as the door stood open to let in light. A plastic tile mat covered the mud floor, while flattened cardboard juice containers decorated the walls. Crammed into this small space was a bed, cupboard, couch and kitchen area piled with sealed buckets and Tupperware. Our arrival woke the middle aged female occupant (Bonisile), yet she received us warmly and was happy to have us interview her. It turned out that she was renting the room for R100 per month.

Household characteristics, attitudes and opinions:

- **General.**
 - Bonisile was the only resident and rented the room. Although she herself lives alone, when asked about gender roles, she felt that it was a woman's place to wash, clean and cook. However if it happens that a woman works and her husband stays at home then he should do these things, although she added that he usually does not.
 - Her main concern was with the high level of crime and break-ins in the area, the poor housing and the lack of electricity.
- **Cats.**
 - Cats did come into her house occasionally, where she tolerated their presence.
- **Rats.**
 - Rats could get into the house through the door ways and she had sees rats in her house about once a month on average, and sees them in the nearby bush about once a day.
 - She said rats were a problem in that they ate her Tupper ware, food and cosmetics.
 - She felt that cats did little good in controlling the rats. The rats were too big - she indicated longer than a foot - and that it seemed as if the cats and rats actually played together. She added, "It is as if they enjoy each others company."
 - She uses chemical means (Rattex) to control the rats.

- She often keeps her light on at night as “the rats don’t like the light.” She did not know of any other way to rid her room of these nighttime pests.
- She didn’t think rodents carried diseases and didn’t know of anyone who had been bitten by rats.
- **Hygiene.**
 - Bonsile said she washed hands before eating, but not usually after going to toilet.
- **Water.**
 - Bonisile carries water into her house and washes inside.
 - She never keeps water for more than two, sometimes three days.
 - She throws her wastewater very near to her home, as other houses are very close by.
 - She claims that nobody used river from the water.
- **Food preparation and storage.**
 - Bonisile said that she keeps food sealed and where possible above ground level.
 - Mostly she eats bread and staple dry foods, however when she does buy meat (beef) she eats all of it at once, as she cannot store it.
- **Waste disposal.**
 - Bonisile’s garbage was all collected by the municipality. She thought the municipality did a good job of collecting her trash, which they do twice a week.
 - She did feel that the trash lying around the area was causing the rat problem. The dirty habits of her neighbours were, she said, causing trash to build up in her area and therefore resulting in an increase in the numbers of rats in the area.

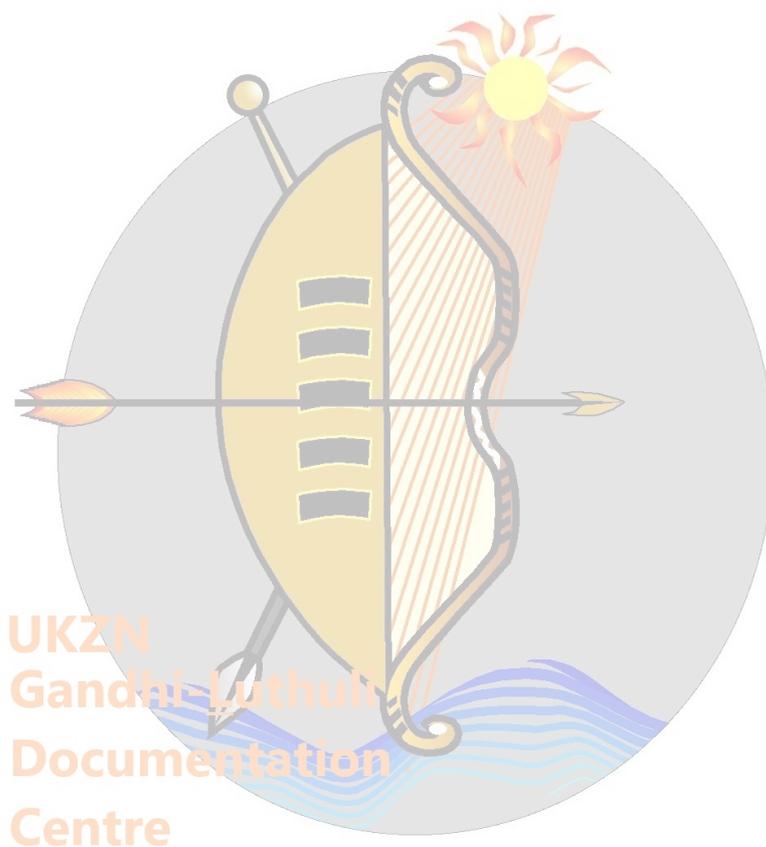
HOUSEHOLD #5 – Area 4 (Medium poor)

This house was a typical 2-room tin shack, with one room used as a kitchen and the other used for receiving visitors and sleeping. Its inhabitant was a middle-aged Zulu woman who was a self-employed dressmaker. Her name was Zanele, not of any particular religion.

Household characteristics, attitudes and opinions:

- **General.**
 - Zanele's idea of a good housewife was somebody who cooked and cleaned, and did not gossip with neighbors. Cleanliness of herself, children and home was also the hallmark of a good housewife.
- **Cats.**
 - Wild cats did visit Zanele, but she did not allow them in, as this would make them 'used to her house', which she did not want
- **Rats.**
 - She did experience rats in the kitchen area at night, but she said 'rats are just rats', meaning that they are not a serious threat other than wanting to eat your food.
 - She claimed that rats gained entry from under the roof.
 - Zanele pointed to the shabby pit-latrine outside and said that that was the place where rats could be found at night.
 - Zanele believed that small rats (mice) could be eaten and frightened by cats, but not the big ones. She worried about rats eating the cloth material that she stored and used for making aprons (this is her source of income). She kept Rattex chemicals to kill them.
 - Zanele recalled that she once saw dogs scavenging on a rubbish heap and eating the body of a rat that had been poisoned by her neighbors. She claimed that those dogs became sick and died soon after, and therefore she believed that rats could transmit illnesses.
- **Fleas.**
 - Fleas were reported to be her biggest problem; she displayed bites on her arm.
- **Hygiene.**
 - She did not like having to share her toilet with other neighbors, as this resulted in it being dirty all the time and no one in particular taking responsibility for its cleaning.
 - She claimed to wash her hands after visiting the latrine, but believed that most people in her area only wash their hands before eating or preparing food.
- **Water.**
 - She said that she usually kept water for only one or two days.
 - She fetched her water from the tap along the road and covered it – not very securely – with a tin tray. She claimed to put a brick on the tray at night to ensure that rats did not get inside.
- **Food preparation and storage.**
 - She does not peel fruit and vegetables before eating them.

- She eats meat in the form of beef or sausages (boerwors) about once a week, boiled or fried, and consumed immediately.
- She stored little food, and therefore said she was 'not popular' with the rats.
- Like others she reported never to share food with neighbors.



HOUSEHOLD # 6 – Area 1 (Medium poor)

We found a mud shack occupied by a young woman tenant, aged 29, Siphon. This shack was more like a room, part of the landlady's house. Siphon was unemployed and spent her days looking after her landlady's four-year-old child. This was another one-room used-for-everything home. There was a large rubbish pile to the left of her house. A radio took pride of place on the table.

Household characteristics, attitudes and traits:

- **General.**
 - Siphon looked forward to moving out of the area if she could find real employment. She feared rapists in the community, and therefore hardly ventured out after 5 PM.
- **Cats.**
 - A cat would sometime wander past and the child would call it. Siphon would offer it old bread so that the child could watch the cat eating. She claimed not to like cats, but the child liked them.
- **Rats.**
 - Rats were a problem, scratching around the kitchen at night.
- **Hygiene.**
 - All tenants, including her and five others, used the same toilet. Siphon complained about the unhygienic toilet that was shared by many tenants. She claimed that this was the reason for the foul odor and the numerous rats in the vicinity.
 - She considered that it was necessary to wash her hands before eating.
 - She used a plastic dish on a table for washing her hands and cups during the day. Also for washing the child before his mother arrived home from work.
- **Water.**
 - She fetched water once a day from the tap near the road. At night the water was sealed in a small plastic drum and put on the table.
- **Food preparation and storage.**
 - Siphon mostly ate fruits and vegetables washed but unpeeled.
 - She seldom ate meat unless her landlady gave her some. While she claimed to like meat, she said that she would not trust meat provided by strangers, as it could be 'poisoned' in a witchcraft sense. Only her landlady could be trusted, and the meat was well cooked (fried).
 - Siphon said that being unemployed meant that she could not share food with others; only her landlady sometimes brought her food.
- **Waste disposal.**
 - She said that the large pile of refuse by the house was the result of the council not coming often enough to remove refuse.

HOUSEHOLD #7– Area 5 (Very poor)

This home, located on a hillside, was a mud shack owned by an unemployed and unschooled middle aged man, Ben. He has lived in the area for four years. Inside a Primus stove and a radio sat on a table, with an old mattress rolled under the table. Ben said he was 42 years old. He is unemployed, but receives assistance from his elder brother, who brings him food, including meat, regularly. He was a man who was proud of his little space. However, our interview had to be conducted while standing, as there were no chairs except one that was piled with clothes and blankets. Ben is a follower of the Zulu Zionists.

Household characteristics, attitudes and opinions:

- **General.**
 - Ben's main activity was visiting his friend, a shop-owner during the day. The home looked more like a place to sleep, a bedroom only.
 - He wants to find a woman who could 'make a nice home' for him. Ben's idea of a good housewife is a woman who is quiet and makes nice food. She must also wash herself regularly and keep animals out of house.
 - The house was kept clean with plastic sheeting pinned to the walls as a sort of wallpaper. He claimed that this kept the house warm at night, and prevented rodents from entering.
- **Cats.**
 - He said that although there were many wild cats around, he did not allow them into his house.
- **Rats.**
 - Sometimes rats enter the house under the plastic 'wallpaper'. When this happens Ben shines a torch on them and shouts. He says they then run away. The idea of shining a bright light on rats when they are in the house seemed a popular one amongst the men in Cato Crest.
- **Fleas.**
 - Fleas were his biggest problem. This has caused Ben to go to the clinic several times. He says he cannot sleep sometimes because his skin is so itchy.
- **Hygiene.**
 - The pit-latrine that he uses is in an especially poor condition, but he reports that it is not a problem as he often uses the bushes nearby when he urinates, and the toilet at his friend's shop for other business.
- **Water.** There was no evidence of stored water.
- **Food preparation and storage.**
 - Ben never stores food, he eats it immediately.
 - The meat he eats is usually sausages (boerwors).

HOUSEHOLD #8 - Area 5 (Very poor)

This home was a two-room mud shack in an area with a lot of bush, occupied by an unemployed married woman whose husband was often away. The shack is not very close to neighbouring ones, though it is very small. Mrs. Xaba was reluctant to say what her husband did for a living, but the poor state of her home betrayed the fact that there was not much money to be had. A couple of old apples and oranges were in a bowl on a box.

Household characteristics, attitudes and opinions:

- **General.**
 - Mrs. Xaba's idea of a good housewife is tied to cleanliness and domestic tasks like food preparation.
 - She claims that men are very irresponsible, and would not care if rats were a problem in their home unless they ate their food or bit them personally.
 - Cockroaches and fleas were identified as problems in the home and throughout the local area.
 - She complains of fever and coughing.
- **Cats.**
 - Mrs. Xaba said that she does not allow the stray cats into her home, as she said they came from the river with dirty paws and made a mess. She tolerates in the yard, but not in the house, and she sweeps away their mess.
- **Rats.**
 - Small and large rodents reported to be frequently seen near the river and enter homes at night. The researchers saw evidence here of rats biting legs of table and scratching tray-top of water source.
 - Mrs. Xaba says that she used to sustain small rodent bites on her toes at night, but not anymore. She believes that this is due to rats knowing that she is poor and doesn't have food left out at night.
- **Hygiene.** Mrs. Xaba has a pit-latrine of her own, which she keeps very clean.
- **Water.**
 - Mrs. Xaba kept water in a bucket in the kitchen room, with a large tin tray as a cover. Mrs. Xaba demonstrated how she puts a heavy iron pipe across the tray cover at night so as to protect the water from rodent pests. She keeps water for about two, sometimes three days.
 - There is a small stream nearby. It was obvious that children play by the edge of the stream, and collect mud-clay for making little pots and animal figurines for play. Mrs. Xaba says that some women wash their clothes there, but never use the water for drinking. Mrs. Xaba was aware that rats were frequently seen near the stream, but she felt that the children were safe since 'rats sleep in the daytime'.
- **Food preparation and storage.**
 - She eats mainly cabbage and mealie-meal, and consumes it all at one sitting. Fruits are eaten raw and unpeeled.

HOUSEHOLD #9 – Area 3 (Very poor)

This was another mud shack, inhabited by a female pensioner in her late 60s. Mrs. Mayekiso was a proud woman who had much to say about hygiene and the problems of her community. She has been here 9 years. Other elderly women are said to be frequent visitors to this home where they sit outside and chat for hours on end.

Her shack was bordered on one side by the back walls of tenant rooms, where wastewater from bathing was regularly thrown. There are many pit-latrines within sight of this woman's house. The stench in the area is strong. Mrs. Mayekiso claimed to be constantly complaining to the landlord about these tenants, their noise as well as their untidiness, but said she had stopped complaining because 'some of the young ones started saying I was *umthagathi* (a witch). She claimed that many young people were less concerned about hygiene and the state of their environment, as opposed to older people.

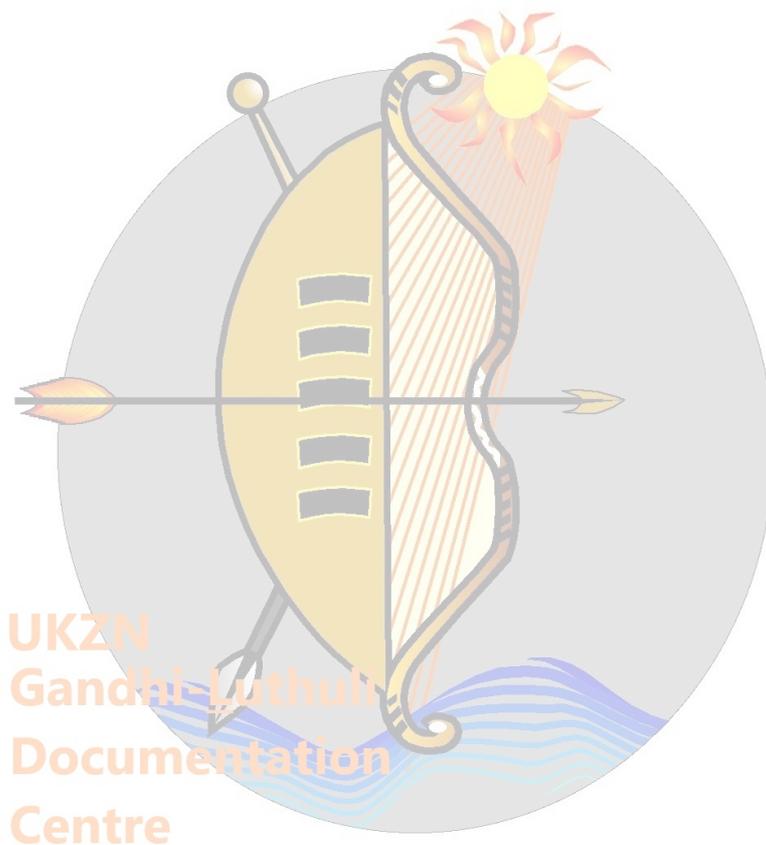
While this was a one-room shack, it was neat and tidy inside. Two chairs outside were used for sitting in the daytime, from where Mrs. Mayekiso watched the children of the tenants playing. A muddy pool of water nearby was frequented by two dogs for drinking purposes while we conducted our interviews. A sickly-looking cat walked past and Mrs. Mayekiso picked up a small stone to throw at it.

Household characteristics, attitudes and opinions:

- **General.**
 - Mosquitoes were identified as a big problem by Mrs. Mayekiso, along with flies.
- **Cats.**
 - Mrs. Mayekiso said cats were a nuisance, and were useless for controlling mice and rats.
 - She claimed not to let them in her home, but said that many people did allow them 'to visit' for a short while. She said cats just roam and scavenge about freely.
- **Rats.**
 - This informant said that most of the rats that come out at night originate from the toilets of the tenants nearby. Big rats are said to be a problem, most especially because 'they just look at you when you put a light on them.'
 - Mrs. Mayekiso believes that rats today are more fearless and fearsome than they were when she was a girl and living in the rural areas.
 - Rattex is her favoured control strategy for dealing with rats.
- **Hygiene.**
 - Mrs. Mayekiso claims to wash her hands about 10 times a day. She said the missionaries were the best ones at teaching people about the importance of washing hands, and hence she developed the habit of frequent washing from their teaching her when she was a girl. She said that teachers today, especially in township schools, do not worry about teaching children things like that today. Mrs. Mayekiso says teachers

today are 'all after money at the month-end, that is all'. She sees a great need to teach young people today about proper hygiene.

- **Waste disposal.**
 - Waste seemed to be well controlled in the immediate vicinity.



HOUSEHOLD # 10 – Area 6 (Very poor)

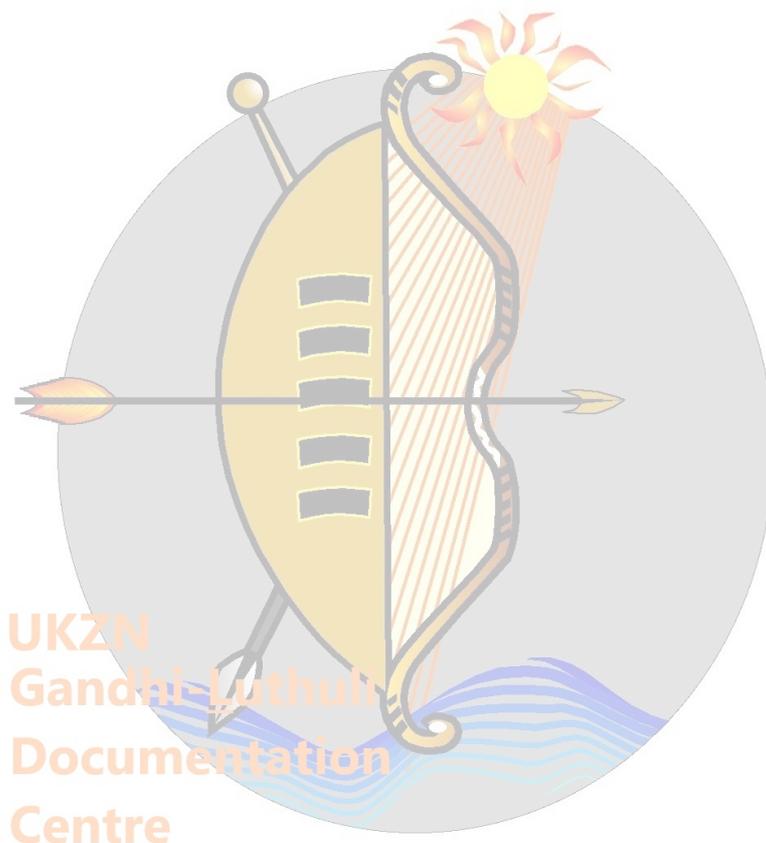
This is a one-room mud dwelling inhabited by a middle-aged man named Mandla. This man seemed to be somewhat of an alcoholic, and his clothes and home were in a shoddy condition. A litter-strewn path came along the side of this house, and he complained that men, when returning from the tavern, sometimes stopped and urinated against the wall of his house. He claimed that this was the reason for the strong smell of urine in the home. The researchers suspected that it was the man himself and the close proximity of the half-fallen pit-latrline that was responsible for the smell. Dirty plates with dry bits of old food were visible. Only a wooden crate was available as a seat. A chicken, owned by the man, was nesting behind this crate. Interviewing here was not pleasant.

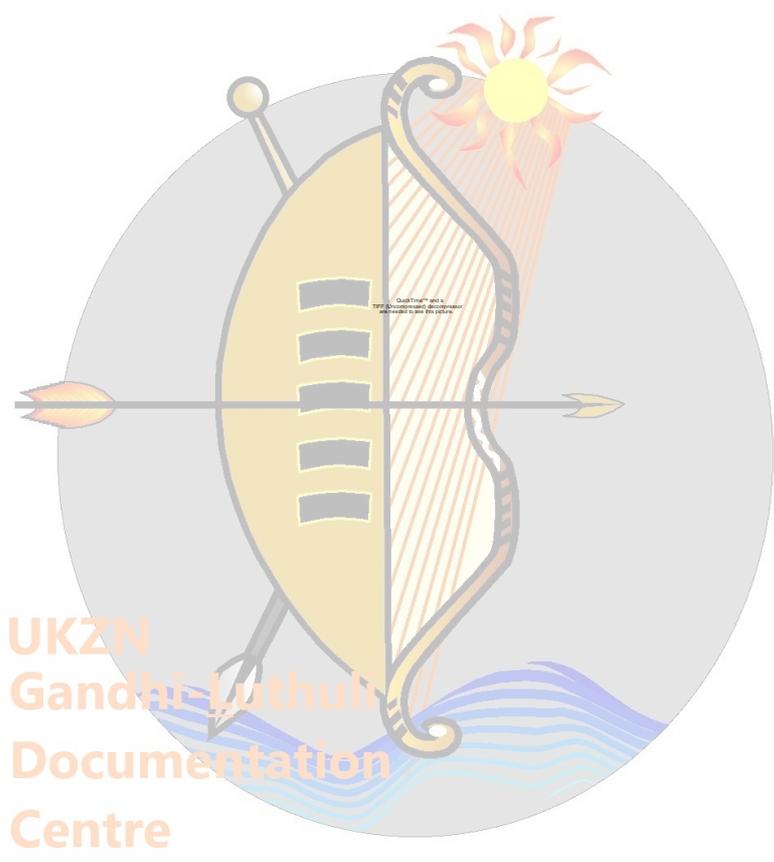
Cats freely roam in and out of this unemployed middle age man's one-room mud dwelling. During our two visits to this home, four different cats seemed to call this place home. Mandla, the occupant, said that they were his cats by way of them coming to his house regularly. Initially they were wild, but Mandla befriended them by giving them old *samp* (corn and beans). He said he liked the cats because they gave him company.

Household characteristics, attitudes and opinions:

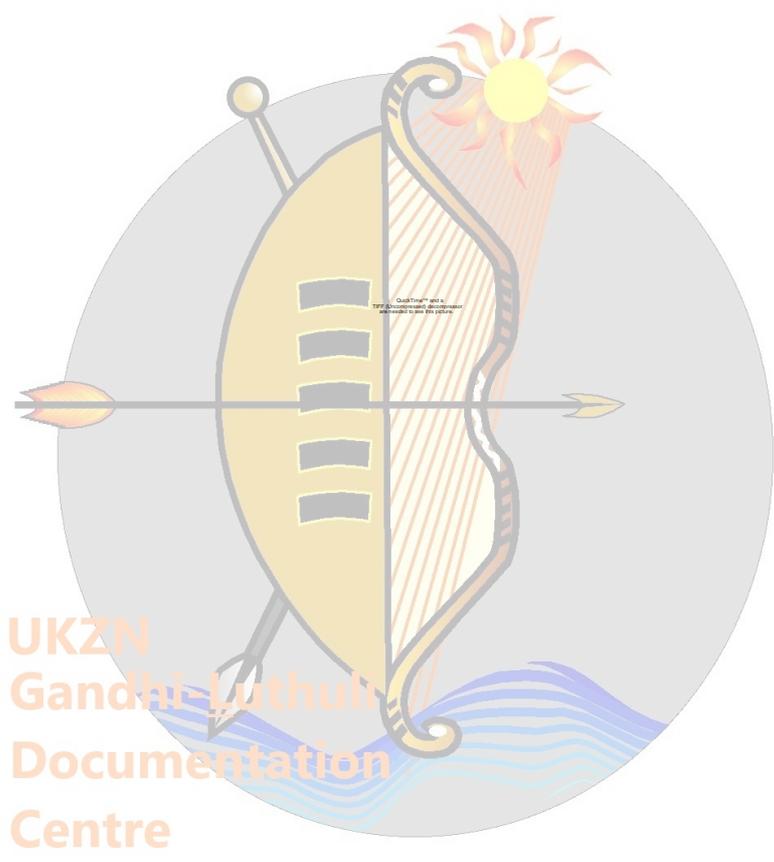
- **General.**
 - The **shabbiest** of the ten key-informant households.
 - Mandla complains of mosquitoes in summer and cockroaches, and says he has the flu often during winter.
- **Cats.**
 - Mandla obviously has a close relationship with the cats which visit his house. He said they didn't usually mess in his house or near his door. However the low level of hygiene in this household means that when they do it is probably not cleared up.
- **Rats.**
 - Mandla reported that rats were a problem at night. He said big and small ones entered his house 'in numbers', where they scratch around for food and try to open the lid over the water. He says they are especially bad when they fight amongst each other, and this excites the chicken that sleeps in the kitchen area.
 - He cannot afford Rattex, and says his cats are afraid of the rodents.
- **Fleas.**
 - Fleas, fleas and fleas, the researchers had itchy skin after interviews here. Even Mandla saw house fleas as a problem.
- **Hygiene.**
 - Mandla did not seem concerned with hygiene at all.
- **Water.**
 - Water is fetched from the taps along the main road, and stored in a plastic bucket. An ordinary steel lid, cracked and chipped, for a pot is used to cover the water in a small Tupperware. Mandla says water is stored 'for a few days', used only when 'he's thirsty'.

- Mandla says he does not like to waste water and therefore he does not often wash his clothes.
- **Food preparation and storage.**
 - Very little vegetables and fruits were said to be eaten. When they are, they are not peeled and not washed. He says he likes meat, and men buy it for him at the tavern where they cook it outside.
- **Waste disposal.**
 - It was clear that the household waste was thrown into the river near-by, and the man confirmed this. He said the council only picked up refuse that was along the main roads.





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