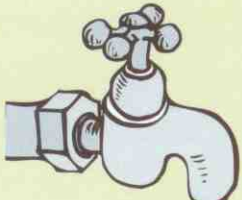


infosheet

## SANITATION SAVES: PREVENTION IS BETTER THAN CURE!



did you know  
the smelly,  
pan-closet toilets  
of old were  
sometimes  
known as  
thunderboxes!

Diseases spread quickly in crowded places. In cities like Durban it is important to dispose of urine and faeces responsibly so that people can stay healthy. Using toilets is the best way of doing this, but they must be used correctly and kept clean.

Many homes are linked to Durban's **waterborne sewerage**. Sewage from houses flow into sewage treatment works where it is 'cleaned-up' and the **pathogenic bacteria** killed. The treated **sewage effluent** is then **discharged** into rivers or the sea.

Durban, like many South African cities, is having to cope with a rapid increase in informal settlements. In these areas, dry toilets such as pit latrines or chemical toilets are often used instead of flush toilets.



it's a fact!

the faeces of  
babies and young  
children is just as  
dangerous as the  
faeces of adults!





PHOTOCOPY

## PEARLS OF WISDOM FOR PIT-LATRINES

Pit-latrines can be a safe and healthy way of disposing of human faeces and urine, if they are built far away from bore-holes and river beds.

**REMEMBER: PIT-LATRINES ONLY WORK PROPERLY IF LOOKED AFTER IN THE CORRECT WAY.**



- Label a clean piece of paper "Pearls of Wisdom for Pit-Latrines".
- Make 2 columns and give them the headings: DO NOT and DO.
- Cut the blocks out.
- Read through the blocks. Each block should start with either the words 'Do' or 'Do not'. Glue the blocks into the correct column
- Discuss your final lists in small groups
- Prepare interesting and colourful posters using the information on how to look after pit-latrines at home or at school.

...ensure that the toilet door is always closed.

...throw old engine oil into the pit.

...remove the fly screen from the vent pipe.

...ensure good ventilation to the pit-latrine at all times.

...keep the area around the pit-latrine clean. This will stop the spread of disease and keep flies away.

...check that the vent pipe is open to the pit.

...use a disinfectant to wipe the seat regularly. This will kill any harmful bacteria on the seat.

...throw stones, clothes, food-stuffs, plastic, etc. into the pit.

...pour any disinfectants (Jik, Jeyes Fluid, Sanpic, Dettol, Lime etc.) into the pit. These will kill the bacteria and cause the pit to start smelling.

...keep a lid on the opening of the pit. This stops flies laying their eggs and spreading disease. It also prevents small children falling into the pit.

...allow any water to enter the pit. It could cause the sides of the pit to collapse and the ground around the pit will become waterlogged and the pit will not drain.



## SCHOOL TOILET AUDIT

1. Ask the learners to complete an **audit** of the school toilets. They can work in small groups. An example of an audit sheet is provided, but classes should preferably be encouraged to develop their own.

Ask the learners to discuss their findings with other groups. The groups must provide reasons for why they are satisfied or dissatisfied with what the audit has revealed. Each learner should then summarise and comment on the findings of the audit in a written paragraph.

A summary of the audit can be presented to the school at assembly, and the other classes encouraged to discuss and plan suitable actions.

2. If the state of the school toilets is found to be unsatisfactory, ask the learners to plan ways in which the toilets can be made more pleasant to use. The following questions may be useful:

- what needs to be done?
- what will it cost?
- what can we do?
- when can we do it?
- who can do what?
- how can we start?

3. Ask the learners to develop their own pledge on using the toilets responsibly. Learners may wish to extend this beyond the toilets to include the school kitchen or home economics room and the science laboratory.





## AUDIT OF SCHOOL TOILETS

### TOILETS

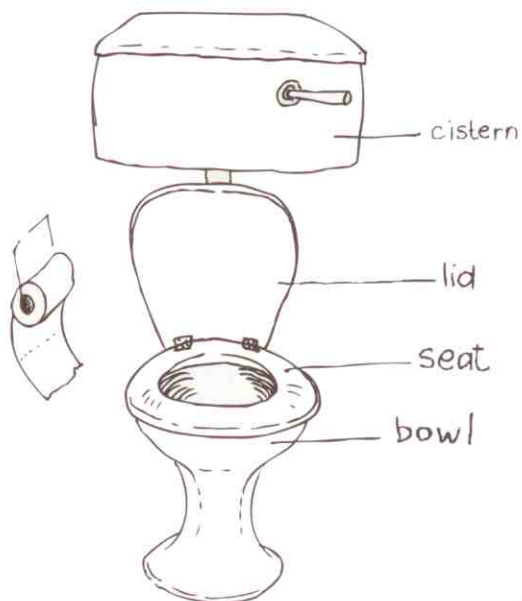
- are they pleasant to use? \_\_\_\_\_
- what is the condition of the seat? \_\_\_\_\_
- the cistern? \_\_\_\_\_
- the bowl? \_\_\_\_\_
- the floor? \_\_\_\_\_
- how clean are the toilets? \_\_\_\_\_
- do the toilets flush properly? \_\_\_\_\_
- do the toilet doors close/lock? \_\_\_\_\_
- is there a regular supply of water to the toilet? \_\_\_\_\_
- is toilet paper provided? \_\_\_\_\_
- are sanitary bins provided? \_\_\_\_\_
- number of boys' toilets \_\_\_\_\_
- number of boys in school? \_\_\_\_\_
- number of girls' toilets \_\_\_\_\_
- number of girls in school \_\_\_\_\_

### WASH-HAND BASINS

- are they pleasant to use? \_\_\_\_\_
- what is the condition of the basin? \_\_\_\_\_
- the taps? \_\_\_\_\_
- is the basin clean? \_\_\_\_\_
- is there a supply of soap? \_\_\_\_\_
- is there a regular supply of water to the basins? \_\_\_\_\_
- are rubbish bins provided? \_\_\_\_\_
- are the rubbish bins used? \_\_\_\_\_
- are hand towels provided? \_\_\_\_\_
- are hand towels changed every day? \_\_\_\_\_

### CLEANING / MAINTENANCE

- who is responsible for cleaning the toilets and hand basins? \_\_\_\_\_
- who is responsible for maintaining and fixing the toilets and hand basins? \_\_\_\_\_
- To whom do toilet users report dirty, blocked or broken toilets and basins? \_\_\_\_\_





## MEDIA WATCH: SEWAGE AND COMMUNITY HEALTH

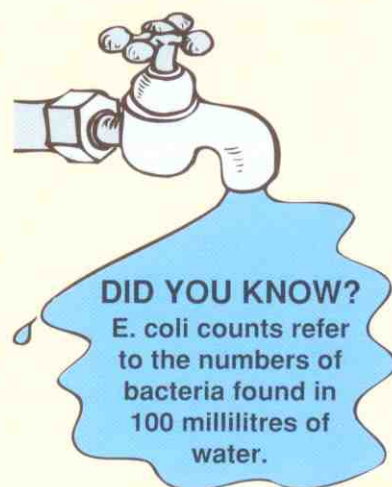
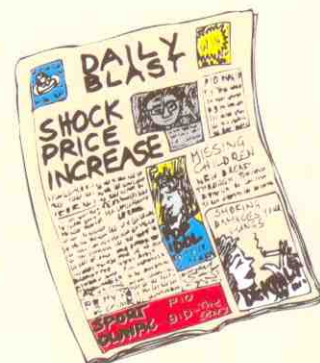
- Ask learners to collect newspaper articles related to **sewage**, water **pollution**, community health and **waterborne** diseases. Discuss these articles with the whole class.
- Hand out photocopies of the newspaper articles *Durban's 'river of sewage'* and *Durban Deep in the Quagmire*. Ask learners to read them carefully and to answer the following questions. They can work individually or in small groups.

### Questions:

1. Use a dictionary and write down the meanings of the underlined words.
2. What does Dr. Robinson mean when he claims that the Cato Manor river is an 'open sewer'? Support your answer with information on *E. coli* counts from the articles.
3. The 'river of sewage' article tells us that the committee members 'sat in silence' during Dr Robinson's speech. What do you think the writer of the article is trying to say when he gives us this information?
4. What are the costs of the shigella dysentery epidemic? Are all the costs measured in rands and cents?
5. In the 'river of sewage' article, Dr. Robinson says that the problem must be tackled at its source. What does he mean by this? Support your answer with information on the Cato Manor informal area.
6. Dr Robinson stresses the need to speed up the sewage provision to informal areas. What solutions does he offer  
for the long term?  
for the short term?

What do you think is the biggest question that Durban Metro has to answer when deciding on solutions?

7. Dr Robinson is worried that increases in *E. coli* counts in the sea may discourage tourists from visiting Durban. Why is the tourist industry important?  
Explain what might happen if tourists stopped coming to Durban, using an example from your own knowledge or experience of the tourist industry.
8. Suggest any other ideas of your own which you feel may help to reduce the shigella dysentery epidemic in Cato Crest.





Plan to fight deadly dysentery

# Durban's 'river of sewage'

*Some of Durban's rivers are no better than open sewers, breeding grounds for killer diseases. ALAN COOPER reports.*

Durban civic leaders, shocked at the mounting toll of the deadly dysentery epidemic gripping the province and city, are considering plans to speed up sewage provision to the **informal areas**.

Records show that thousands of people have been referred to city hospitals and hundreds have already died from shigella, a particularly **virulent** strain of dysentery since the epidemic caught the public eye late last year.

The decision to act follows an urgent appeal to the metro council's executive committee from top city health officer Dr Andrew Robinson, who told them Durban's Cato Manor River was effectively an "open sewer".

Committee members sat in silence as the acting deputy city

**"Tests on the Cato Manor River have shown that it is to all intents and purposes a sewer."**

DR ANDREW ROBINSON  
City Health official

medical officer of health spelled out the enormous cost to the province of shigella dysentery epidemic and other diarrhoea-related diseases.

"It costs us R 125 million a year in KwaZulu-Natal to treat shigella cases and another R 940 million a year to tackle other diarrhoeal diseases.

And that doesn't take into account the huge human cost. How do you calculate the loss of a child, of a **breadwinner**?" he asked.

The main symptom of the disease was blood in stools. Other symptoms included, **nausea**,

fever, vomiting and cramps.

Dr Robinson said the conflict in Zaire could have serious implications for KwaZulu-Natal as refugees brought together, drug-resistant strains of the disease.

"It doesn't matter how many hospitals you build: it won't do a thing to prevent the disease. For that you have to tackle it at its **source**".

"Tests on the Cato Manor River have shown that it is to all intents and purposes a sewer. It's no use giving people houses if they're going to have no proper sewage infrastructure, no sanitation," he said.

The incidence of shigella and other similar diseases could be cut by as much as 30%, the moment effective sanitation was implemented.

"Can the city afford to wait 10 years before the basic infrastructure is in place? I'm asking you to **accelerate** that

process so we can take the next developmental step".

"Ancient Greek and Roman cities had this **infrastructure** thousands of years ago."

Exco chairman Margaret Winter described the figures revealed by Dr Robinson as "shocking" and said other senior officials would be called to brief the committee on the **feasibility** of speeding up sewage provision to informal areas.

## Durban deep in the quagmire

Durban health officials say run-off from home-built pit toilets and river banks is one of the main causes of pollution in Durban's rivers.

The health and environmental pressures in these areas are staggering.

In Cato Crest an estimated 4 070 shack dwellings are served by a mere 200 informal 'rough' construction ground toilets. This means one toilet facility for about 100 people.

"It is essential that the sanitation plans for Durban be brought forward", said Dr Robinson. "We must cut the red tape and get on with the task. Linking the informal settlements to a sewage system is not an impossible task. It just needs commitment."

This week Dr Robinson shocked Durban civic leaders with a hard-hitting report on the deteriorating health scenario.

He said that, while a proper latrine system connected to a sewage network was the ideal, this would take time and money.

One of the suggestions put forward for a short-term solution was to introduce portable chemical

toilets to high risk areas. These could be installed and serviced at a cost of R70 a week.

Said Dr Robinson: "Although this may sound like a large expenditure, it is small compared to the amount spent on treating disease associated with poor sanitation."

The accepted counts for *E. coli*, the bacterial strain that causes diarrhoeal-related disease, is zero for drinking water and a maximum of 120 for **recreational** water. Recent monitoring showed that the Cato Manor rivers running through Cato Crest had a count of 37 000. The Umgeni River count was 1 500 while rivers in Chatsworth had a count of 13 000.

Latest CSIR reports on 20 strategic beach points showed that the levels of *E. coli* in sea water was still within acceptable limits, although there was a dramatic rise in pollution near river mouths.

"But if the situation deteriorates further, those *E. coli* counts will rise," said Dr Robinson. "For our burgeoning tourist industry it could be very bad news."