DRINKING WATER AND HIV AIDS

The Aids epidemic has compelled us to become more careful about our activities and relationships Since the HIV virus was discovered in the early 1980s, a lack of understanding about the disease and the virus that causes it has unfortunately produced panic and suspicion.

Transmission routes for the HIV virus

Most of us do not know much about AIDS, except that it is fatal, we are afraid of catching it from any number of sources. These fears are often groundless. The HIV virus can only be transferred from one person to another through blood or other body fluids, such as semen.

Activities that could cause a person to become infected with the virus include sexual intercourse with an infected person, receiving a transfusion of contaminated blood, or using a needle or syringe previously used by an infected person. Babies may also be infected through the breast milk of an HIV-positive mother. HIV is also found in sweat or saliva but in such low numbers that transmission of the virus through these fluids has not been known to occur.

Transmission of the virus through water

Viruses such as HIV are not "made" for transmission through water. Viruses typically transmitted through food or water is known as enteric viruses. Found in the stomach, the intestines and in faeces, they are protected by a highly resistant shell that helps them survive unfavorable conditions such as sunlight, detergents or disinfectants once they leave the human body.

In fact, HIV is not stable in environments outside the human body. This is because it has a lipid envelope (outer shell) that is highly vulnerable to unfavorable conditions such as drying, high temperature and agents such chlorine.

Drinking and playing in water

All available evidence shows that drinking water and recreational water will not contain viable HIV virus. Even if it did, the numbers will be far below the minimum infectious dose. This includes all possible routes of infection, including drinking water or exposure of open wounds to the water. Even exposure to raw sewage would not pose a significant risk of infection.

Although the rapid spread of AIDS throughout the world is worrying, it is like all other viruses, it is transmitted only in certain, limited ways and can be avoided if we know what these are. It is only by understanding how the virus operates that we will overcome our fear about AIDS, and learn how to deal with the disease and those who are impacted.

Rand Water drinking water supply

Firstly, our purification process is designed to inactivate viruses much more resistant than HIV. The tests we do before and after our water is treated have proved this conclusively over many years.

Rand Water has stringent monitoring processes in place to check for the presence of hardy viruses (e.g. enteric viruses) that can be transmitted through water. These viruses would occur in much higher numbers in water than HIV and they are much more resistant to our treatment process than HIV. Therefore the absence of these hardier viruses in our treated water offers reliable proof of the absence of HIV.

Visit **www.reservior.co.za** for further information on water quality in your area.

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RAND WATER