

# NATIONAL MICROBIAL MONITORING PROGRAMME

2004

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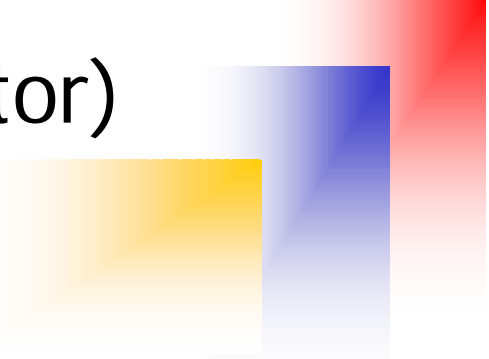
Microbial Water Related  
Disease Management

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# Classification of Water Related Diseases




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- **Water Borne** (drinking water/food-faecal oral route).
  - **Water scarce** ( Hygiene compromised).
  - **Water based** (skin penetration-recreation)
  - **Water vectored** (Insect vector)
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# Management through interruption of routes of transmission



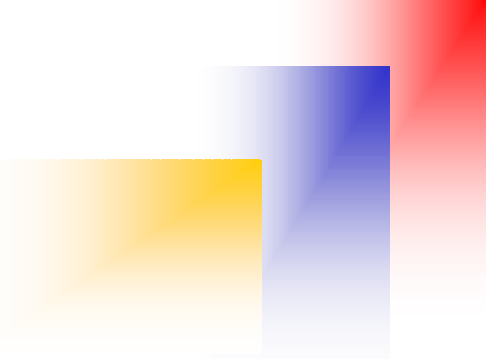
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- Routes of excretion of causative micro-organism can be (1) Faeces (2) Urine (3) Saliva and other body fluids.//
  - Spread can be minimized through breaking the faecal-oral (contaminated food or water) chain of transmission.
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# Proper disposal of Wastes

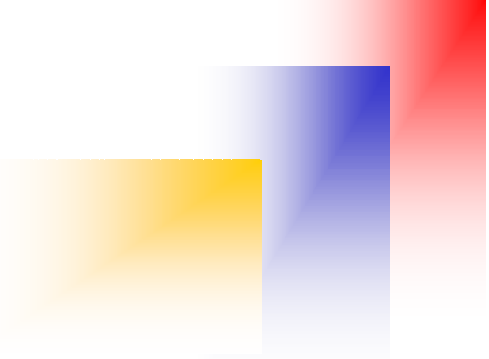
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- Sanitation
  - Disinfections of Faecal Wastes either at central waste treatment facility or on site.
  - Rules for irrigation of edible crops eaten raw (indirect route of faecal oral transmission) and adage: “If you can’t peel it wash it or cook it forget it”
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# Alternative's to conventional water borne sanitation



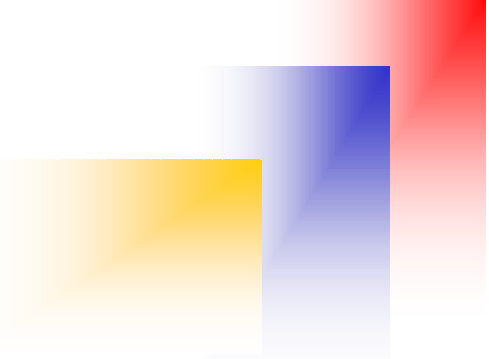
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- Various types of latrine's (VIP's, chemical, bucket, etc).
  - Manuring (composting/ organic fertilizer).
  - Seeding of wastes with bio-organisms typical of healthy waste treatment processes (dealing with the odour problem).
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# Drinking water treatment


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- Flocculation and Filtration// “Sarie”, sand, membrane.
  - Disinfection// Chlorine/ UV etc.
  - Prevention of secondary contamination (a) in distribution system or (b) in consumer’s home.
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# Effective Hygiene


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- Toilet hygiene// wash your hands
  - Kitchen hygiene// wash utensils, cutlery and cutting boards. Food refrigeration and cooking.
  - Clothing and bedding washing
  - Soaps, detergents and disinfectants.
  - Fly and Rodent control.
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# What to Measure?

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- Disease incidences-Diarrhoea.
  - Chlorine Residual.
  - Indicator Organisms- E.coli/Faecal coliforms.
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# What to Audit

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- Hygiene Awareness, particularly in critical areas, such as Taverns, Creche's, Schools etc.
  - Sanitation Practices.
  - Affordability and Availability of safe water, food, and soaps and disinfectants.
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