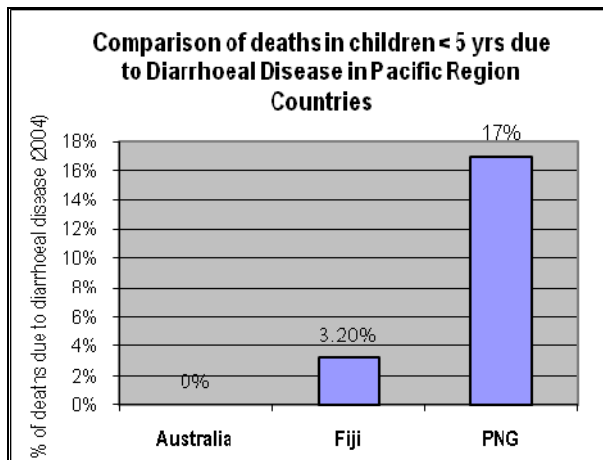




## Introduction

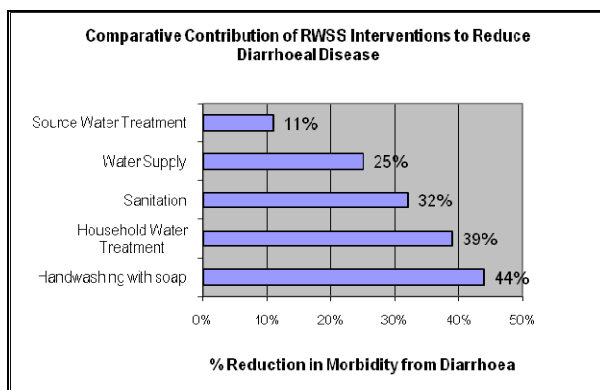
Water supply together with sanitation lead to significant improvements in community health, most notably incidence of diarrhoeal disease. Worldwide, diarrhoea is the second highest cause of death in children <5 years of age. The comparative statistics below show a heightened incidence of diarrhoea in PNG compared to other Pacific region countries, and provide evidence for the need to address water supply and sanitation (WSS) in PNG.



Source: WHO SIS 2009

## Evidence based interventions

The published literature on health impacts of WSS present a very convincing case for investing in WSS. The figure below shows the relative significance of different interventions in reducing diarrhoeal disease, with *handwashing with soap* as the single most effective intervention, followed by household water treatment/storage, followed by sanitation, water supply and source water treatment.



Source: Fawcett et al, *Lancet Infectious Diseases*, Vol 5, Issue 1, Jan 2005

Sanitation = safe disposal of excreta

Household water treatment = water treatment and/or safe storage

## Key Health Messages

Hygiene promotion programmes must target behaviours that will interrupt the disease transmission cycle. Without behaviour change accompanying improved water and sanitation, significant health improvements will not occur.

**1. Handwashing:** Washing hands with soap (after defecation, before preparing food and before eating) is preferable to using ash (or anything else) as a rubbing agent. Either of these is preferable to using water alone. The practice of drying hands on clothes or other materials risks contaminating the hands.

**2. Safe household water storage and use:** piped water supplies of adequate microbial quality can pose infectious disease risks if they become contaminated due to unclean collection and storage conditions and practices in the household. Therefore water must be protected from contamination during storage and use. This is achieved through using storage containers with taps or a narrow mouth, covering the water container, pouring not dipping to get water or wash hands, and not drinking directly from the water storage container.

**3. Sanitation (hygienic disposal of faeces):** disposal of faeces must occur in a safe place where contamination cannot occur. Using VIP (Ventilated Improved Pit) latrines is the preferred approach. The handling and immediate safe disposal of children's faeces is crucial, either in a latrine or by burial. In many cultures, the faeces of children are regarded as less harmful than other faeces, when in fact they are more likely to contain pathogens.





### **Hygiene promotion strategies**

Hygiene is promoted in the PHAST and CLTS participatory methodologies, both of which will be applied in RWSSP, with communities participating fully in their health education.

**PHAST (Participatory Health and Sanitation Transformation)** covers a number of important topics that link water and sanitation to improved health, including:

- Causes of diarrhoeal disease
- Dangers of diarrhoeal disease
- Preventing transmission
- Health awareness (evaluation of own behaviours, identifying how to improve hygiene behaviour)
- Community change.

**CLTS (Community Led Total Sanitation)** focuses on sanitation and promotes zero tolerance of open defecation. Using participatory approaches with communities it allows communities to understand very clearly the relationship between open defecation and disease, and focuses on intensive motivation to reduce open defecation in communities and assist households to find local solutions to work towards achieving an “open defecation free” (ODF) status. More details are found in TAN 3.3.

**Supplementary Hygiene Promotion Strategies** are needed and must target a *small number of key behaviours*. Messages must be *relevant, practical, understandable* and *positive*, using *appropriate and multiple channels of communication* which may include (but not be limited to):

- printed materials (posters, charts, calendars)
- theatre groups/village drama
- puppetry
- the Healthy Islands Strategy.



The strategy must identify *key target audiences*. This will include children who will be found in both the village and school environment. Child-child approaches can be developed to get messages accepted by children. They have potential to be instrumental in changing behaviours of adult family members. Teachers will need to be engaged in this process.



Health care providers are also a group to be used in promoting the hygiene messages of RWSSP. They can take opportunities when individuals present for health care, and when clinics are held e.g. MCH clinics, where large groups of mothers congregate to discuss the hygiene practices that support improved health.

### **Concluding Comments**

A combination of Water, Sanitation with strong Hygiene Education will significantly improve health. It is important that health and hygiene education is facilitated well, and key health messages are promoted to achieve positive hygiene behaviours. Key behaviours to focus on should include Handwashing, Water Storage, and Sanitation. Posters developed by NDOH on handwashing will be available to NSAs. NSAs may also develop their own interventions to address other behaviours and practices.



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