WASH and Health Working Together

GUIDELINES ON SANITATION AND HEALTH

World Health Organization

www.who.int/water_sanitation_health/publications/guidelines-on-sanitation-and-health/en/

World Health Organization

"Sanitation prevents disease and promotes human dignity and well-being, making it the perfect expression of WHO's definition of health, as expressed in its constitution, as "A state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity...

The guidelines recognize that safe sanitation systems underpin the mission of WHO, its strategic priorities and the core mission of ministries of health globally."

WHO Director-General, Dr Tedros Adhanom Ghebreyesus, 1 October 2018

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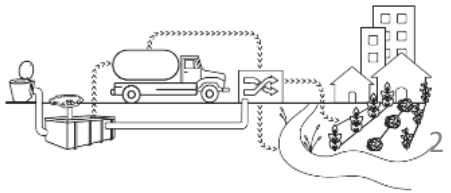
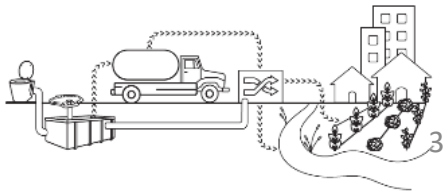


World Health Organization

Why are health-based Sanitation Guidelines needed?

- Evidence on sanitation shows less health impact than expected
- Ministries of Health role in sanitation has declined over the last 50 years
- Sanitation is critical to get out of health response-mode (e.g. Cholera, typhoid), to sustain progress and eliminate disease (e.g. NTDs), and to also to combat Antimicrobial Resistance
- There is a lack of public health guidance covering all aspects – technology, behavior change, policy, legislation



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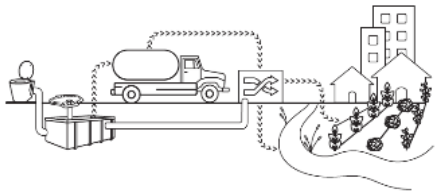
Objectives:

- Maximise the health impacts of sanitation interventions and
- Articulate the role of health sector in sanitation

Audiences

- Health and non-health actors involved in sanitation



Content highlights

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Introduction, scope and objectives	Chapter 1: Introduction
Recommendations and actions	Chapter 2: Recommendations and good practice actions
Implementation guidance	Chapter 3: Safe sanitation systems Chapter 4: Enabling safe sanitation service delivery Chapter 5: Sanitation behaviour change
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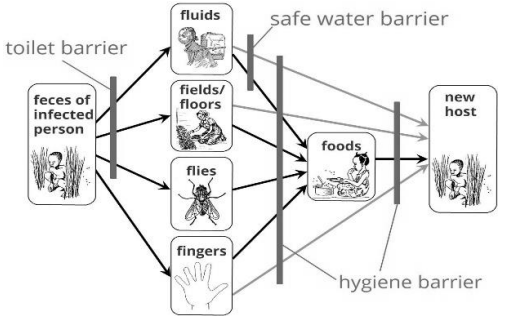
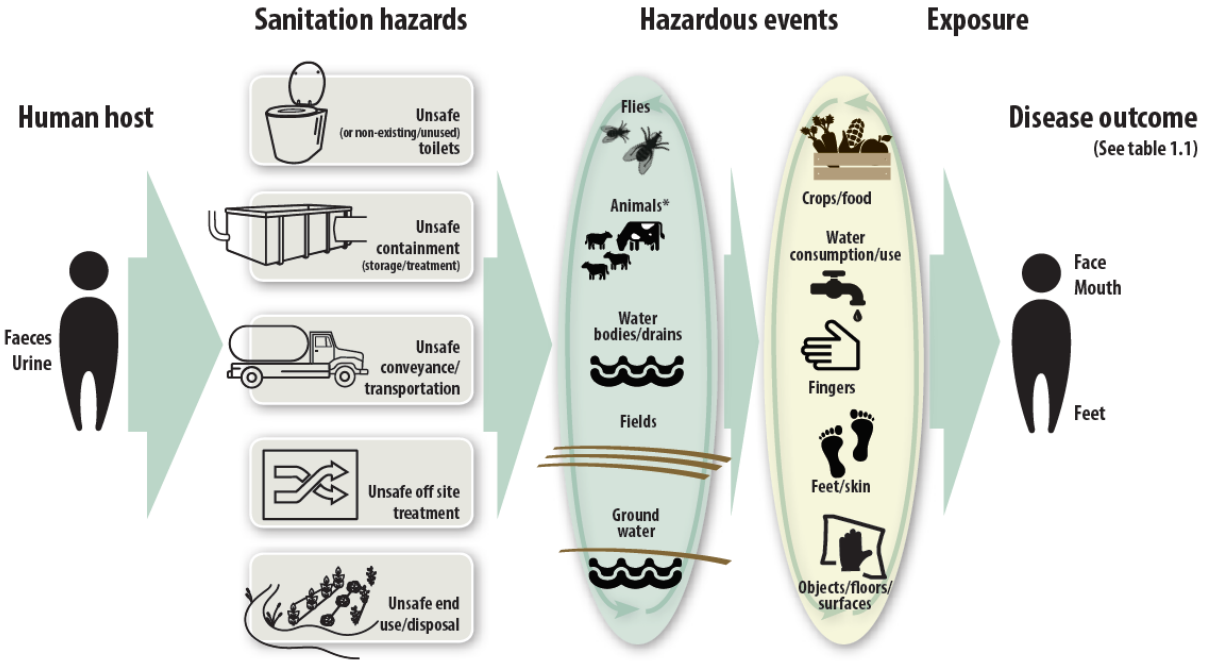
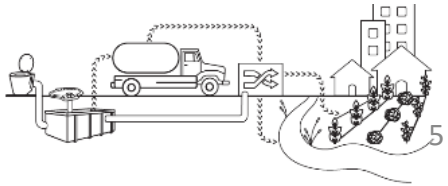
A new F-diagram







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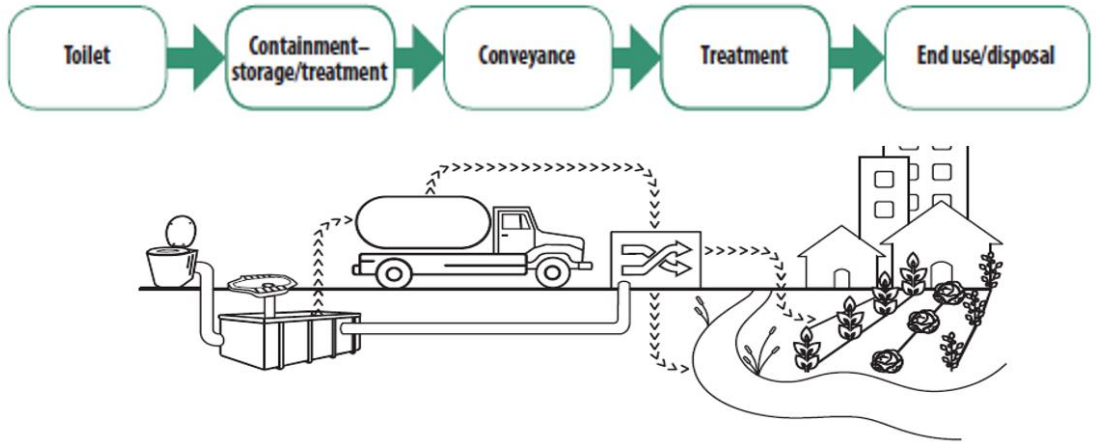
What does safe mean?

Definitions for safe management



Expanding on JMP SDG 6.2 definitions to give more detail for implementors – design, O&M, incremental measures

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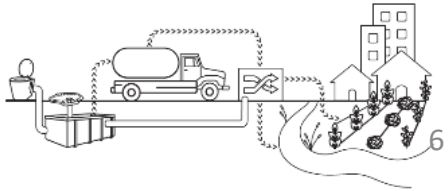

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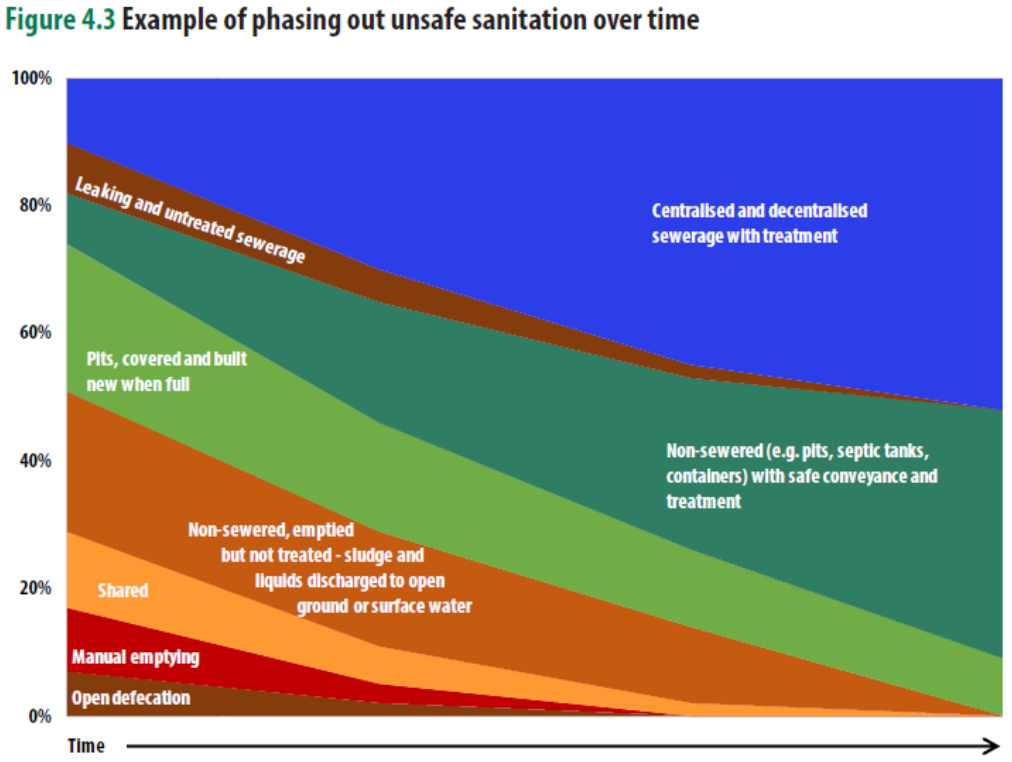
Policy, planning, legislation, regulation, etc



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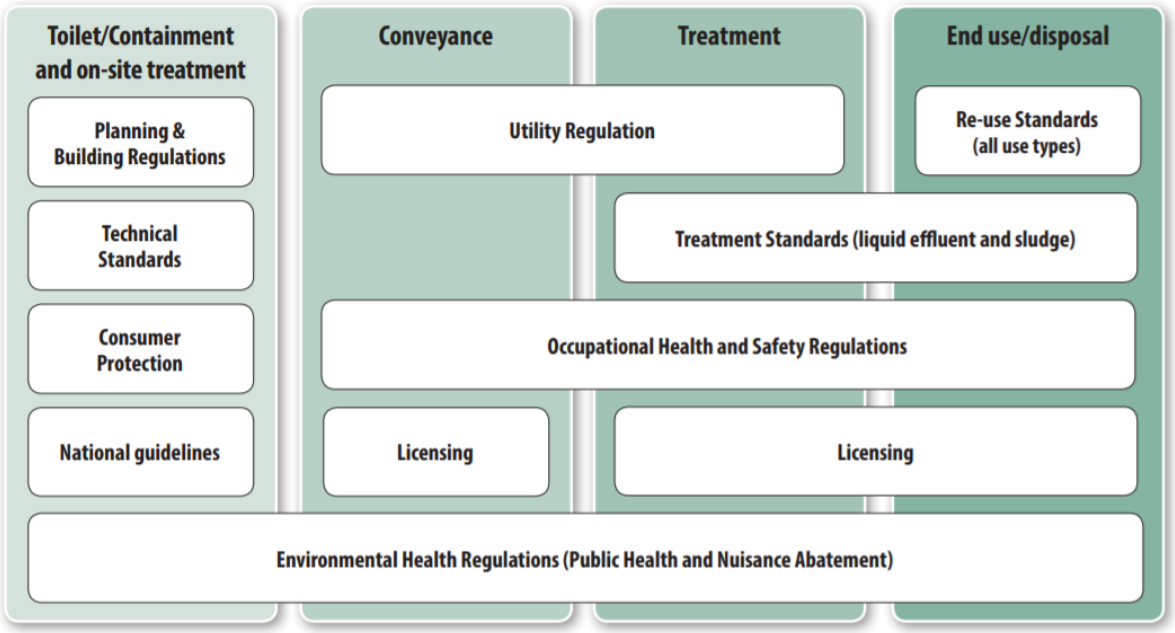
Policy, planning, legislation, regulation, etc

Figure 4.4 Sanitation service chain regulatory mechanism options



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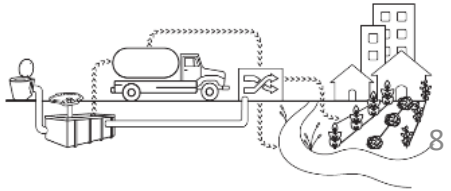

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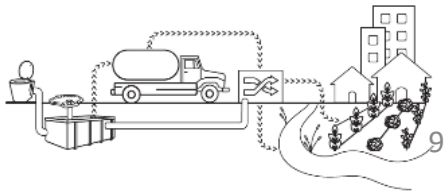
Beyond specific tools to developing behavior change strategies that address determinants

Table 5.2: Stages in behavior change strategy design

Documenting existing behaviour	Understanding behavioural drivers	Developing the intervention	Testing intervention delivery	Implementation
• Situation analysis • Surveys Nationally-representative data sets • Stakeholder and key informant engagement	• In-depth interviews • Direct observations • Interactive methods	• Engagement of relevant specialists and stakeholders • Content development and pre-testing • Definition of activities and protocols	• Behavioural trials/trials of improved practice • Pilot projects	• Delivery of intervention at the desired scale • Regular review and adaptation • Evaluation



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Lots of technical information on sanitation related pathogens

Table 6.1 Excreta-related pathogens (main source: Mandell, Bennett & Dolin, 2000)

Pathogen	Health significance	Transmission pathways	Important animal source	Likely importance of sanitation for control†	Concentration excreted in faeces	Duration of excretion	Additional references
BACTERIA							
Campylobacter spp.	Most common	Predominantly	Poultry	Low	106 – 109 / g	Up to 3 weeks	
VIRUSES							
Adenoviruses	A large group of distinct viruses	Person-to-person, through both	None – strict human	Low	10^{11}/g (lower with	Months after	
PROTOZOA							
Cryptosporidium spp.	One of the most common causes	Person-to-person, and		Of the two main species, C. parvum	High	—	—	Hunter & Thompson,
HELMINTHS							
Ascaris lumbricoides (roundworm)	One of the most common human helminth infections globally. Largely asymptomatic. Can lead to bowel/ intestine obstruction,	Via consumption of contaminated soil and food, and hand contamination.	No (animal roundworm species not thought to be pathogenic to human).		High	10^5 eggs/g	While infection persists	Bethony et al., 2006

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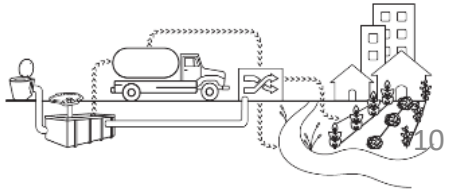

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System factsheets and inspection form – PDF and tablet ready versions.

Factsheet 1

Dry or flush toilet with onsite disposal

Toilet	Containment	End use / disposal
Dry or pour flush toilet	Single pit or VIP	Onsite disposal: Fill and cover / Arborloo

Summary

This system is based on the use of a single pit technology to collect and store excreta. The system can be used with or without flushwater, depending on the toilet. Inputs to the system can include urine, faeces, cleansing water, flushwater and dry cleansing materials. The use of flushwater, cleansing water and cleaning agents will depend on water availability and local habit. The toilet for this system can either be a dry toilet or a pour flush toilet. A urinal could additionally be used. The toilet is directly connected to a single pit or a single ventilated improved pit (VIP) for containment. As the pit fills up, leachate permeates from the pit into the surrounding soil.

When the pit is full, it can be backfilled with soil and a fruit or ornamental tree can be planted. The sludge acts as a soil conditioner with the increase in organic matter resulting in improved water holding capacity and providing additional nutrients, which are slowly reduced over time. A new pit has to be dug and this is generally only possible when the existing superstructure is mobile.

When it is not possible to dig a deep pit or the groundwater level is too high, a shallow, raised pit can be a viable alternative: the shallow pit can be extended by building the pit upwards with the use of concrete rings or blocks. A raised pit can also be constructed in an area where flooding is frequent in order to keep water from flowing into the pit during heavy rain [2].

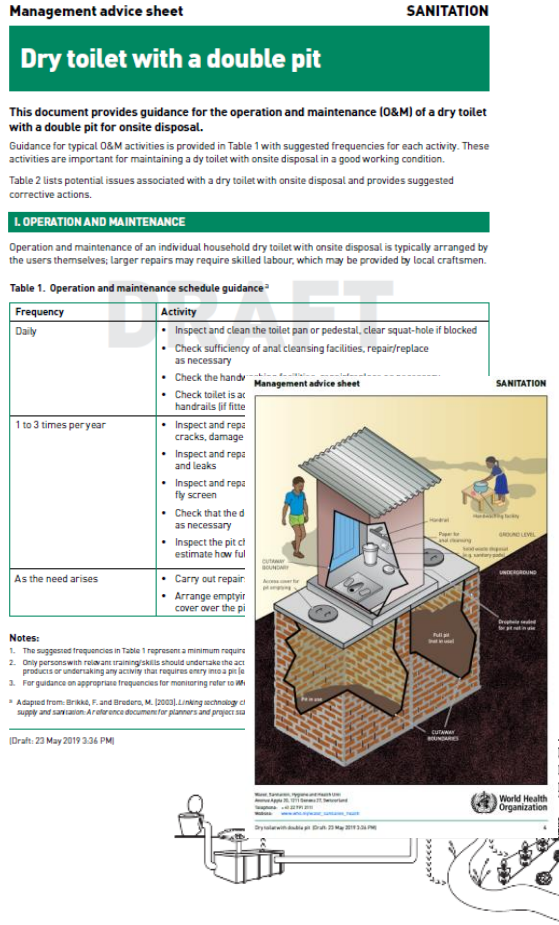
Cost: This system is one of the least expensive to construct in terms of capital cost and maintenance cost, especially if the superstructure is mobile and can be reused [2,3].

Design considerations

Toilet: The toilet should be made from concrete, fibreglass, porcelain or stainless steel for ease of cleaning and designed to prevent stormwater from infiltrating or entering the pit [2,3].

Containment: On average, solids accumulate at a rate of 40 to 60L per person/year and up to 90L per person/year if dry cleansing materials such as leaves or paper

Applicability



Management advice sheet SANITATION

Dry toilet with a double pit

This document provides guidance for the operation and maintenance (O&M) of a dry toilet with a double pit for onsite disposal.

Guidance for typical O&M activities is provided in Table 1 with suggested frequencies for each activity. These activities are important for maintaining a dy toilet with onsite disposal in a good working condition.

Table 2 lists potential issues associated with a dry toilet with onsite disposal and provides suggested corrective actions.

I. OPERATION AND MAINTENANCE

Operation and maintenance of an individual household dry toilet with onsite disposal is typically arranged by the users themselves; larger repairs may require skilled labour, which may be provided by local craftsmen.

Table 1. Operation and maintenance schedule guidance [2]

Frequency	Activity
Daily	• Inspect and clean the toilet pan or pedestal, clear squat-hole if blocked • Check sufficiency of anal cleansing facilities, repair/replace as necessary • Check the handw • Check toilet is ac handrails [if fitte
1 to 3 times per year	• Inspect and repa cracks, damage • Inspect and repa and leaks • Inspect and repa fly screen • Check that the d as necessary • Inspect the pit cl estimate how ful
As the need arises	• Carry out repair • Arrange emptyir cover over the pi

DRAFT

Notes:

1. The suggested frequencies in Table 1 represent a minimum require
2. Only persons with relevant training/skills should undertake the acc products or undertaking any activity that requires entry into a pit [o
3. For guidance on appropriate frequencies for monitoring refer to WH

[Draft: 23 May 2019 3:36 PM]

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CORE RECOMMENDATIONS

Derived from comprehensive evidence review and wide expert, and end user input

1 . Universal safe toilets that contain excreta

- Entire community coverage with a minimum level of service
- Using demand side and supply side approaches concurrently
- Shared/public if necessary, to reach everyone
- All settings (schools, HCF, etc)
- Equitable progress

2. Safe sanitation chain

- Containment, transport, treatment, end use/disposal
- Context specific technologies and services (i.e. technology agnostic)
- Incremental improvement based on local level risk assessment (e.g. SSP)
- Protection of sanitation workers

3. Sanitation as part of local services

- Efficiency with other local services (solid waste, transport, etc).
- Sustainability and health impacts through coordination with other interventions, water supply, hygiene, animal waste, child faeces

4. Role of the health sector

- Increasing health sector engagement in core functions (but not taking on functions that are better done by others)

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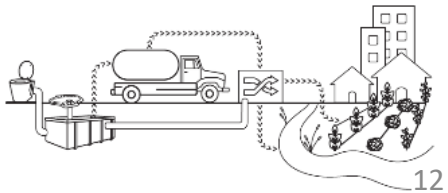

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Role of the Health Sector

a. Contribution to sanitation sector **planning and coordination**

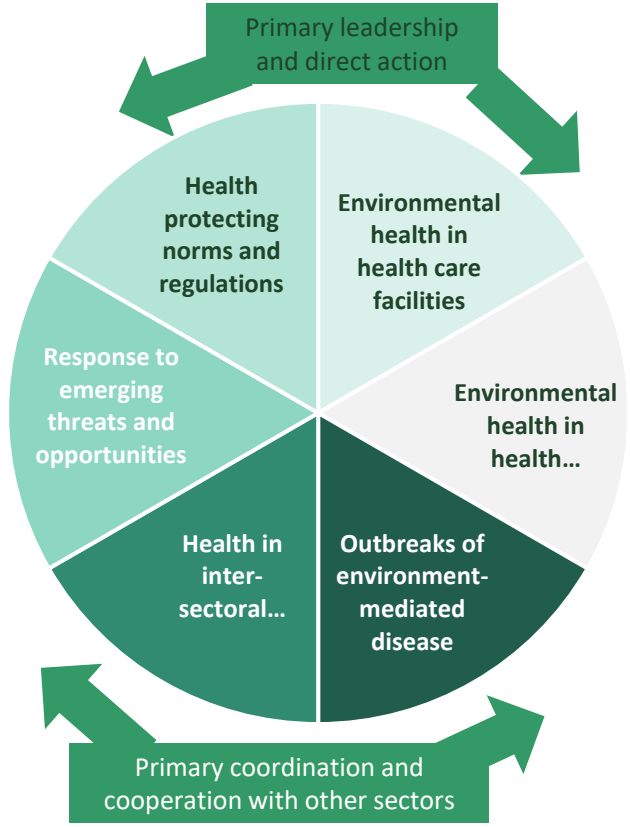
b. Ensuring health protective **norms and standards**

c. Adding **sanitation in health policies** where necessary for primary prevention

d. Including **sanitation within health surveillance**

e. Including **sanitation promotion and monitoring within health service delivery**

f. **Sanitation in healthcare facilities** for IPC (patients, staff and carers) and to prevent community exposure to facilities waste.



Bartram & Rehfuess 2010

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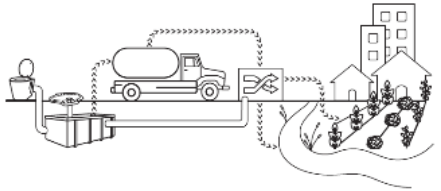

An example of WASH and Health Sector collaboration in practice

A new WASH-NTD strategy to action new WASH targets in the NTD roadmap

4 Strategic Objectives

SO1

Increase awareness of the co-benefits of joint action and engagement on WASH and NTDs by sharing experiences and evidence throughout the programme cycle.

SO2

Use WASH data in NTD programmes and NTD data in WASH programmes to highlight inequalities, target investment, and track progress.

SO3

Strengthen evidence and establish best practice on integrated approaches to NTDs based on robust documentation and analysis, and embed the findings in guidance and national strategies.

SO4

Jointly plan, deliver and evaluate programmes to enhance the accountability, sustainability and equity of programme impact.

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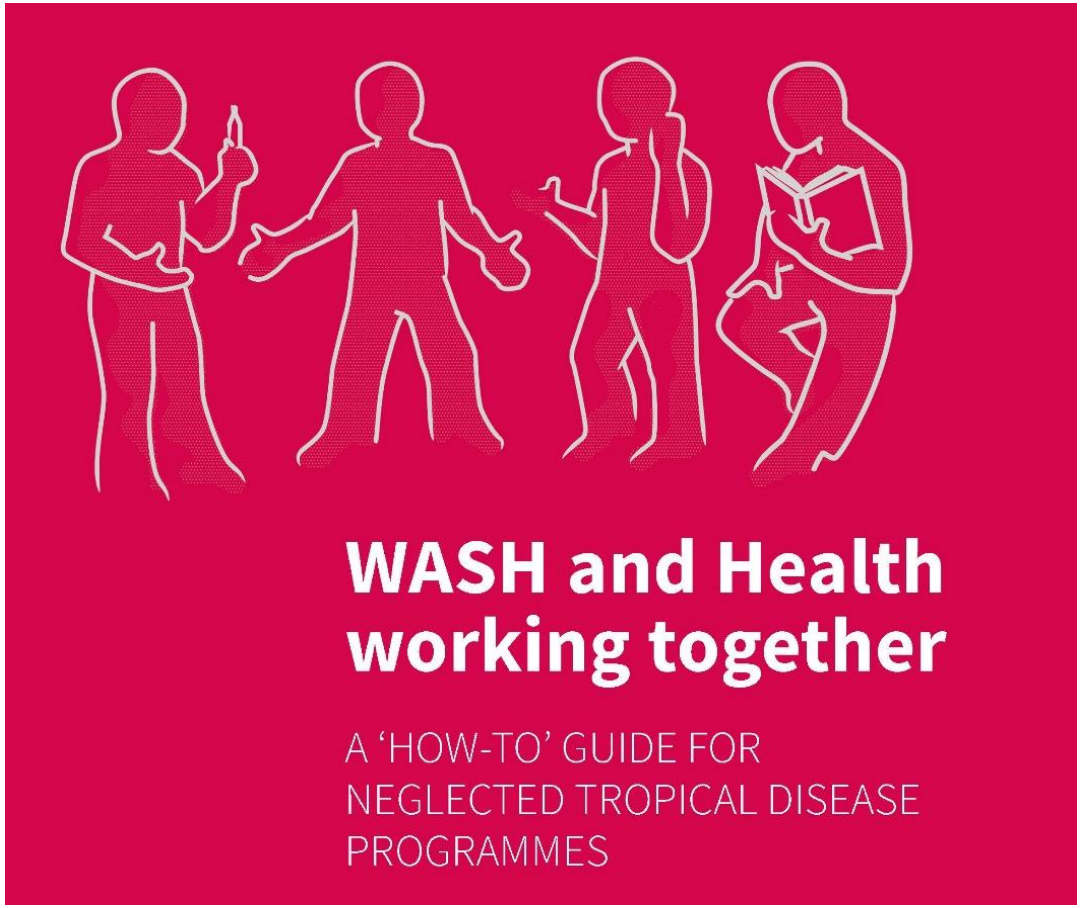
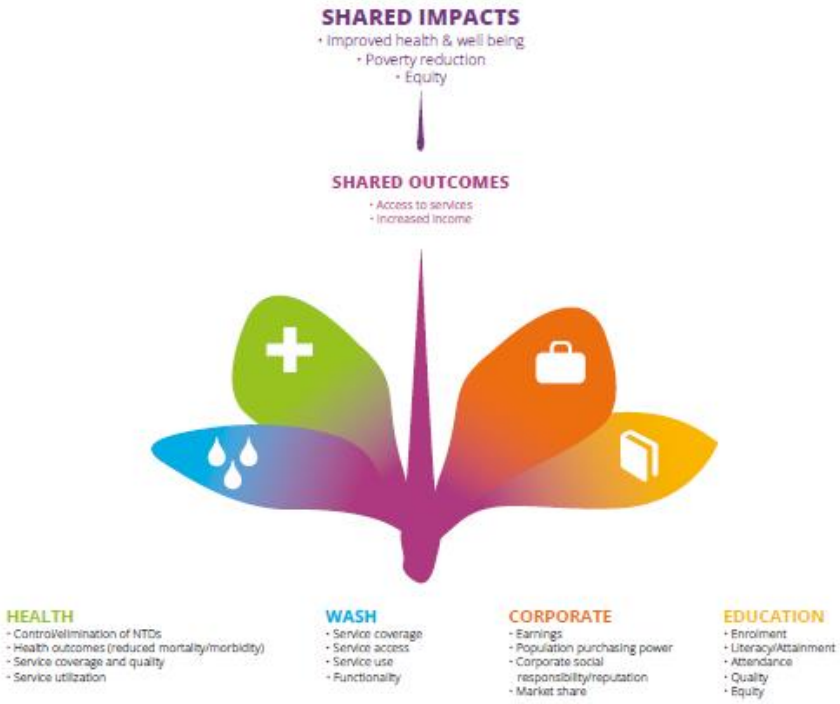
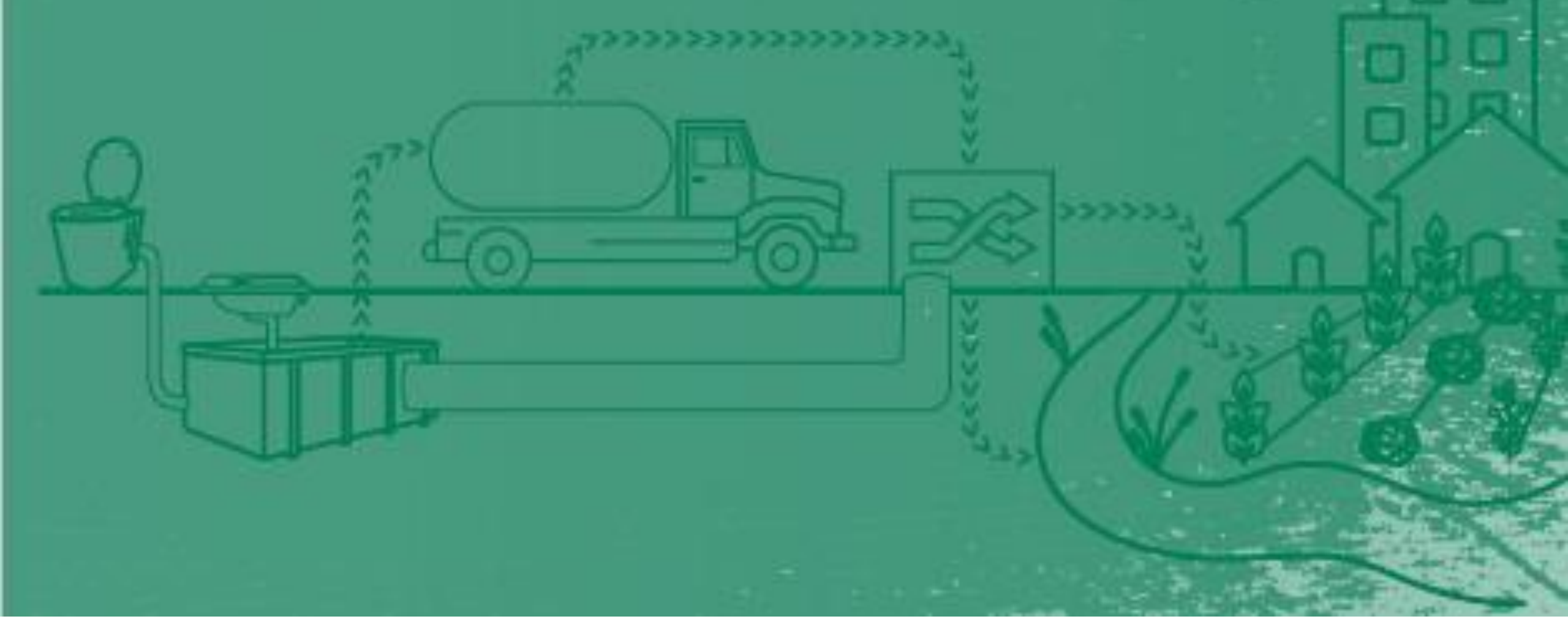




Online and PDF tools to:
1) Set the programme vision 2) Build partnerships
3) Analyse the situation 4)Plan and design programmes
5) Implement, monitor & evaluate, adapt



THANK YOU

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An example of WASH and Health Sector collaboration in practice

Lymphatic filariasis / importance of water and soap for managing morbidity