



→ WASH WITHIN BEST

WASH in Environment

Although environmental aspects are key to disease control, they are often addressed separately from NTD programmes. When environmental aspects are included in NTD programmes, they rarely address all transmission routes while providing people with adequate water and sanitation services that meet their needs and preferences. A comprehensive approach that delivers sustainable environmental services is needed in order to achieve and sustain disease control objectives.

Key WASH considerations for NTD programmes

- **Open defecation:** Preventing open defecation by encouraging household toilet construction requires changing social norms around sanitation, especially in rural areas, and providing options for sanitation hardware. Not all households are able to build their own toilets, due to cost, soil conditions, land tenure etc., so solutions must be context-relevant. Cultural contexts may require separate toilets for men and women.
- **Pathogen-free environment:** The existence of a toilet does not immediately translate into reduction in exposure to disease. For this to occur, toilets should be used by everyone, always, including small children (through safe disposal of child faeces), pregnant women, older people, and people with disabilities, offering a pleasant, safe and desirable alternative to open defecation. Toilets should result in safe separation of faeces from humans, animals and vectors. This means that construction should consider the entire sanitation 'chain', including containment, pit/septic tank emptying, safe transportation, disposal/treatment of waste, and protection of water sources from contamination. Additionally, households with toilets are not protected from waste produced by neighbouring households without adequate toilets, and sanitation planning should consider entire communities.



- **Beyond the household:** Full community coverage of sanitation includes schools, healthcare facilities, markets, places of worship and other public buildings and spaces. In healthcare settings, this must include water, sanitation and hygiene infrastructure, Infection Prevention and Control, and vector control measures. Some environments, such as nomadic or itinerant communities, as well as areas affected by conflict, present further challenges for water and sanitation provision.
- **Water supply:** Safe, reliable, affordable, universally accessible and sustainable water infrastructure is needed to prevent consumption of contaminated water, reduce contact with surface water and enable personal hygiene practices.

Factors beyond the provision of toilets and water supply

- Many 'upstream' and 'downstream' water and sanitation aspects impact NTD control. For example, dam construction to increase availability of water for domestic and productive uses can increase the risk of schistosomiasis, and water bodies for various uses can act as vector breeding sites. Water containers, drainage channels and pit latrines/septic tanks should be constructed and maintained in a way that prevents access by animals and vector breeding. 'Upstream' aspects include water production and abstraction, water resource protection, river basin development, and water treatment, transport and distribution, while 'downstream' aspects include wastewater and faecal sludge transport, treatment and safe disposal.
- Solid household waste can encourage breeding of vectors, e.g. flies, mosquitoes and rats; in urban areas, it can block and damage drains and create vector breeding sites. Sanitation interventions should therefore include aspects such as appropriate waste management and disposal, as well as overall community cleanliness, and form part of Integrated Vector Management interventions.
- Animals, particularly livestock, are a crucial economic and cultural asset for many households and communities. Proximity to animals influences various disease transmission risks: animal excreta can be both pathogenic and attractive to flies, and animals can act

as vectors for human faecal pathogens within the household. Disease control programmes are more likely to succeed if they balance disease control imperatives with social and economic considerations. Veterinary Public Health services should be linked with disease control efforts, ensuring appropriate livestock keeping and food safety practices and utilising the available expertise for disease surveillance and control.

Additional resources:

[WHO Guidelines on Sanitation and Health](https://www.who.int/water_sanitation_health/publications/guidelines-on-sanitation-and-health/en/)
(https://www.who.int/water_sanitation_health/publications/guidelines-on-sanitation-and-health/en/)

[WHO Sanitation Safety Planning Manual](http://www.who.int/water_sanitation_health/publications/ssp-manual/en/)
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