



Why water, sanitation and hygiene matter

efforts need to be made to provide safe water, sanitation, and hygiene. Specific measures are also required in trachoma and lymphatic filariasis (LF) to address the symptoms and consequences of these diseases, e.g. trichiasis surgery to correct in-turned eyelashes and prevent corneal scarring in people affected by trachoma and hydrocoele surgery for male genital deformity due to LF. The existence of an MDA programme is not a reason to ignore these other measures.

Many of the drugs used in MDA can be given together, at one time, so making distribution much more efficient. In Africa, ivermectin should be given with albendazole to eliminate LF. Both these drugs have an effect on soil-transmitted helminths (STHs), and ivermectin also kills ectoparasites such as scabies. Where populations are treated for LF, onchocerciasis and STHs will be treated at the same time. Praziquantel can also be given with ivermectin and albendazole. At the present time, research is ongoing into co-administration of azithromycin with ivermectin and albendazole, but for the moment there should be an interval of 2 weeks between the administration of azithromycin and the other drugs.

Precautions

Drugs used in MDA have certain adverse effects and there are several precautions to be taken before using them. Where there is a high worm load in onchocerciasis, there will be symptoms of pain, fever, itching and swelling after treatment, depending on the number of parasites present. These symptoms last for up to 2 days and need symptomatic treatment. Second and subsequent rounds of treatments have far fewer side effects and after three annual treatments there are usually no further adverse effects.

In forested areas of Africa where the parasite *Loa loa* (tropical eye worm) is present, ivermectin should only be given following strict guidelines, otherwise the effects can be severe and sometimes life threatening. Praziquantel should not be given on an empty stomach and will provoke nausea and vomiting in some children, particularly if they have not eaten. Azithromycin also can cause some minor stomach problems. Apart from the *Loa loa* situation, the adverse effects are minor and are not contra-indications to treatment; however, in people who suffer with many different parasites, drugs should not all be given together at the first administration.

Reference

- 1 http://whqlibdoc.who.int/publications/2006/9241547103_eng.pdf

Georgia B Savage, Alison K Macintyre, James H Wicken

WaterAid Australia, Melbourne, Australia.

Yael Velleman

WaterAid, London, United Kingdom.

Virginia Sarah

Fred Hollows Foundation, London, United Kingdom.

Water, sanitation and hygiene (WASH) are crucial but often underplayed parts of the prevention and control of a number of neglected tropical diseases (NTDs).

Access to safe water and adequate sanitation, together with good hygiene practices, can reduce the transmission of some NTDs, for example trachoma and intestinal worms (page 29). Trachoma is transmitted by flies, fomites (e.g. skin, hair, clothing, or bedding) and direct contact. Preventing transmission of trachoma can be achieved through access to clean water, appropriate hygiene practices that promote face washing, and access to proper sanitation for the disposal of human waste. Intestinal worms, which affect nearly 900 million people worldwide, is most prevalent in communities where people have inadequate access to toilets and/or hand washing facilities. Worms are transmitted through faecal-oral contact or enter through the skin of the feet in areas of open defecation. Access to safe water and adequate sanitation will help communities affected by both trachoma and soil-transmitted helminths (STH) to escape from the perpetual cycle of infection and reinfection.

Some global¹ and disease specific² strategies have integrated WASH interventions into their programming guidelines. In the case of trachoma, for

example, the inclusion of the 'F' (face washing) and 'E' (environmental improvement) in the SAFE strategy formally acknowledges the strategic importance of incorporating WASH interventions for disease elimination.

Some practical opportunities for integration

The acknowledgment of the importance of WASH for comprehensive NTD control has not always translated into effective incorporation of WASH interventions in NTD control programmes. Reasons for insufficient integration include the lack of awareness and information sharing between the WASH and NTD sectors, and a short-term view of disease control which fails to recognise, and invest in, the necessary long-term comprehensive activities required for sustainable WASH implementation.

People involved in WASH and NTD programmes should work closely together, in a coordinated manner. This might involve forming local and global partnerships, sharing information and research about disease impact, combining efforts when advocating for resources and political commitment to action, and planning sustainable programmes that meet goals for both the elimination of NTDs and the provision of adequate water, sanitation, and hygiene.

Unless WASH issues are adequately addressed, neglected tropical diseases will not be eliminated in the long term. Control may be achieved by the year 2020, but to prevent continued transmission and re-infection, sustainable WASH interventions are a necessity.



WaterAid/Dean Sewell

Adapted from Savage G, Velleman Y, Wicken J, NTD NGO Network. WASH: The silent weapon against NTDs: working together to achieve prevention, control and elimination. Australia: WaterAid Australia; 2012.

References

- 1 'Crompton DWT (Ed). Accelerating work to overcome the global impact of neglected tropical diseases: A roadmap for implementation. Geneva, Switzerland: World Health Organization; 2012 (p.9).
- 2 Solomon AW, Zondervan M, Kuper H, Buchan JC, Mabey D, Foster A. Trachoma control: a guide for programme managers. Geneva: World Health Organization; 2006.

Access to water can help to combat NTDs.

