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# WASHing away blinding trachoma

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Trachoma is an infectious eye disease that is one of the world's leading causes of preventable blindness. It is one of 17 neglected tropical diseases (NTDs), which affect over 1 billion of the world's poorest people<sup>1</sup>. Improved access to safe water and adequate sanitation, and the implementation of good hygiene practices, are essential for trachoma prevention and control.

The challenges of trachoma, access to water, sanitation and hygiene (WASH) and poverty are mutually reinforcing and highlight the need for a holistic approach to development that tackles both the symptoms and the underlying causes of poverty and ill-health. With the increasing pressure on government and aid resources, it is critical that integrated approaches are implemented to deliver better value for money and, more crucially, sustainable, long term impact.

Recent disease control successes have shown what can be achieved through collaboration; however, the gains that have been made are fragile. As long as the risk factors such as environments contaminated by human and animal waste, poor hygiene practices and poverty remain, there is a risk of trachoma returning to communities that have been declared disease-free after medical interventions. The fact that trachoma elimination was achieved in European countries without the use of antibiotics serves as a reminder of the need for comprehensive approaches to disease control.

## Trachoma: a cause and a symptom of poverty

Trachoma is a disease of poverty; it is endemic among poor communities characterised by low access to adequate water and sanitation services, over-crowded living conditions, and limited access to healthcare services. The cycle of poverty and infection caused by trachoma can limit access to education and prevent individuals from being able to work or care for themselves or their families. Globally, it is estimated that 110 million people live in confirmed trachoma endemic areas and another 210 million live in areas where trachoma is suspected but there is no data to confirm or guide interventions<sup>2</sup>. It is estimated that 41 million people, mostly women and children, have active trachoma infection and need treatment<sup>3</sup>. Pre-school age children are most at risk of infection<sup>4</sup>.

More than two million people are currently either blind or suffer from a very painful disability because of trachoma<sup>5</sup>. A further 4.6 million have reached the trichiasis stage of the disease, in which they are at immediate risk of blindness because repeated trachoma infections have caused their eyelashes to turn inwards and rub against their eye, damaging the cornea<sup>6</sup>. It has been estimated that the annual lost productivity costs of trachoma are as much as US \$2.9 billion<sup>7</sup>.

## The SAFE strategy for trachoma control

We have the tools to prevent transmission of trachoma, and to eliminate blinding trachoma by 2020<sup>8</sup>. Each active infection can be treated with antibiotics, and measures such as facial hygiene, hand washing, and latrine use have been shown to be effective in reducing trachoma transmission<sup>9</sup>.

The WHO-endorsed **SAFE** strategy<sup>10</sup> for the control and treatment of trachoma seeks to end the infection cycle through interventions to prevent new infections and treat existing cases of trachoma and trichiasis<sup>11</sup>, and is comprised of four components:

<b>TREATMENT</b>		<b>PREVENTION</b>	
<b>Surgery:</b> eyelid surgery, to stop eye lashes from rubbing against the cornea, is performed to treat those at risk of blindness from corneal scarring.	<b>Antibiotics:</b> Zithromax® is donated by Pfizer Inc. and distributed to all eligible members of the community to treat the trachoma infection and limit its spread.	<b>Facial cleanliness:</b> hygiene promotion raises awareness of sources of trachoma transmission and promotes face washing to reduce its spread .	<b>Environmental improvements:</b> proper sanitation for disposal of human waste is needed to reduce fly population and transmission. Provision of water for face washing and personal hygiene.

### Comprehensive implementation: combining treatment and prevention

All four elements of the SAFE strategy must be implemented for trachoma programmes to be successful and for the global elimination targets to be met. The whole community must be able to implement full SAFE; otherwise trachoma infections will persist because the risk factors remain. Equal weighting must be given to both the treatment and preventive elements. WASH elements are a crucial, but often underplayed, part of the elimination and control of NTDs<sup>12</sup>. It is vital that the F and E components of the SAFE strategy underpin benefits of preventive chemotherapy in

order to ensure that the underlying causes, as well as the symptoms, of the disease are addressed to break the transmission cycles. WASH elements must be embedded within trachoma control and elimination programmes from the outset<sup>13</sup>. Although the scope of the F and E components can be challenging for standard disease-control programmes that are usually focused on delivery of medical interventions, these components must be prioritised and can be successfully achieved through multi-sectoral collaboration between education, WASH, and health stakeholders.

### CONVERGENCE ON HYGIENE AND SANITATION PROMOTION IN GHANA

The Ghana Trachoma Control Program, part of a joint programme targeting trachoma, Guinea worm and cholera, reduced the prevalence of active trachoma from 9.7 -16.1% to less than 3.0% in endemic districts between 2000 and 2010<sup>14</sup>. This success provides valuable lessons on coordinated approaches to disease prevention. The programme brought together government, donor, multilateral and international and local NGO actors<sup>15</sup>, to ensure the full implementation of the preventive aspects of the SAFE strategy alongside the treatment elements. Interventions included water and schools latrine provision, sanitation promotion using the Community-Led Total Sanitation approach<sup>16</sup>, and hygiene promotion by community health workers, volunteers and mass media broadcasting. A school health education programme was also designed to ensure that the SAFE strategy was added to the national curriculum. In endemic areas, booklets for children were developed and distributed, and teaching materials were also developed. The implementation of a full and robust SAFE strategy through this partnership has embedded preventive elements alongside the treatment components and ensured that the gains in decreasing trachoma prevalence are sustained in the long run.

**Outcomes:** The initiative contributed to better collaboration between the WASH and health and education sectors. The addition of cholera and Guinea worm elements to the trachoma programme resulted in an increase of boreholes and latrines provided. Leadership played a key role in this success, and the formation of a joint taskforce facilitated collaboration instead of competition, while allowing the Ministry of Health to fulfil its coordination and leadership role.

# A healthy environment for EVERYONE – Inclusive WASH

The success of both preventive and curative elements of the SAFE strategy requires that they are inclusive of and accessible to all community and household members, including children, women and men of all ages, people with disabilities, those living with chronic illness and others who are socially marginalised. Community WASH decision making should be inclusive of all, and health promotion activities including hygiene and sanitation promotion should engage all community members.

To ensure that the implementation of SAFE reaches the most marginalised members of a community, such as those who are disabled, there is a need to address the environmental, attitudinal and institutional barriers that marginalised populations face. This includes, for example, producing accessible health promotion materials, conducting health promotion activities in accessible locations, and equipping latrines with modifications to aid accessibility.

## INTEGRATED AND INCLUSIVE COMMUNITY WASH IN MALI: THE IMPORTANCE OF COLLABORATION

The village of Tienfala in Mali had struggled over a number of years with more than 5,000 people leaving the village to escape the blinding effects of trachoma and river blindness, leaving it virtually deserted. However, the community has rebuilt itself through collaboration between the Malian government's Ministries of Health and Social Welfare and a range of NGOs with expertise in social inclusion, NTDs and WASH.

Sightsavers, WaterAid and AMPDR (a local disability NGO) worked together with the community to implement the SAFE strategy and provide inclusive WASH facilities, to enable the whole community, including people with disabilities, to contribute to implementing the full SAFE strategy. Infrastructure, such as accessible wells and accessible latrines, adapted

for people with disabilities, were developed in consultation with the entire community. While Sightsavers leads on implementation of the treatment elements of the strategy WaterAid leads work on the prevention elements.

Trachoma has now been brought under control in Tienfala and the focus has now turned to elimination. People with disabilities remain actively involved in the improvement of the community's sanitation conditions.



**Sory Diarra (pronounced Sorry Deerah) Age: 75 at the accessible well**

# Recommendations

**To deliver effective and sustainable trachoma programmes in partnership with communities at risk of trachoma, international agencies, donors and government partners must:**

- Commit to supporting the achievement of the WHO roadmap on NTDs which aims to eliminate blinding trachoma by 2020.
- Contribute to the elimination of blinding trachoma by supporting comprehensive implementation of the SAFE strategy.
- Ensure, through clear planning, role allocation and monitoring, that the full SAFE strategy is implemented through cross-sectoral collaboration and integration of WASH and trachoma programmes.
- Prioritise integrated community-led WASH from the outset of trachoma programmes and incorporate disease-control objectives into WASH programmes.
- Explicitly target programmes towards the poorest and most marginalised communities, and ensure inclusive design and service delivery for people with disabilities.
- Ensure that funding and other resource commitments reinforce an integrated approach to implementation of the SAFE strategy.

## References

- 1) World Health Organization, Acceleration work to overcome the global impact of Neglected Tropical Diseases: A roadmap for implementation, 2012 Available at [http://www.who.int/neglected\\_diseases/NTD\\_RoadMap\\_2012\\_Fullversion.pdf](http://www.who.int/neglected_diseases/NTD_RoadMap_2012_Fullversion.pdf)
- 2) Haddad D, Community Eye Health. Ten years left to eliminate blinding trachoma (2010) September; 23(73): 38. PMID: PMC2975121 Ten years left to eliminate blinding trachoma
- 3) The International Trachoma Initiative, The World's Leading Cause of Preventable Blindness Available at <http://www.trachoma.org/about-trachoma>
- 4) Emerson P and Frost L, with Bailey R and Mabey D, Implementing the SAFE Strategy for Trachoma Control: A Toolbox of Interventions for Promoting Facial Cleanliness and Environmental Improvement, (2006) <http://www.cartercenter.org/documents/2302.pdf>
- 5) International Coalition for Trachoma Control The end in sight. 2020 INSight (2011) <http://www.trachomacoalition.org/sites/default/files/uploads/resources/ICTCEnglishJuly21.pdf>
- 6) ibid
- 7) Frick K D, Hanson C L, Jacobson G A Global burden of trachoma and economics of the disease Am J Trop Med Hyg. (2003) Nov;69(5 Suppl):1-10. Source Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland 21205-1901, USA. [kfrick@jhsph.edu](mailto:kfrick@jhsph.edu)
- 8) International Coalition for Trachoma Control The end in sight. 2020 INSight (2011) <http://www.trachomacoalition.org/sites/default/files/uploads/resources/ICTCEnglishJuly21.pdf>
- 9) Bartram J Cairncross S (2010) Hygiene, Sanitation, and Water: Forgotten Foundations of Health. PLoS Med 7(11): e1000367. doi:10.1371/journal.pmed.1000367
- 10) World Health Organization Prevention of Blindness and Visual Impairment Available at <http://www.who.int/blindness/causes/trachoma/en/index.html>
- 11) ibid
- 12) The Neglected Tropical Disease Non-Government Development Organisations Network: The Sydney Communiqué (2012) Available at <http://www.hollows.org.au/nnn-forum>
- 13) WaterAid and Neglected Tropical Disease Non-Government Development Organisation Network (NNN) WASH: The silent weapon against NTDs: Working together to achieve prevention, control and elimination Available at [http://www.wateraid.org/~media/Publications/wash\\_the\\_silent\\_weapon\\_against\\_ntds.ashx](http://www.wateraid.org/~media/Publications/wash_the_silent_weapon_against_ntds.ashx)
- 14) International Coalition for Trachoma Control The end in sight. 2020 INSight (2011) <http://www.trachomacoalition.org/sites/default/files/uploads/resources/ICTCEnglishJuly21.pdf>
- 15) The partnership included the Ministry of Health, Ghana Health service, Community Water and Sanitation Agency, District Assemblies, Ministry of Education, Ministry for Women and Children's Affairs, CBM, CRS, DANIDA, ITI/Pfizer, RTI/USAID, Operation Eye Sight Universal, Sightsavers, Swiss Red Cross, The Carter Centre UNICEF, WaterAid, and World Vision. New Energy and ProNet WHO
- 16) Community Led Total Sanitation (CLTS) mobilises communities to eliminate open defecation. Communities conduct their own appraisal and analysis and take action to become 'open defecation free' (adapted from Institute of Development Studies Community-Led Total Sanitation website (<http://www.communityledtotalsanitation.org/page/clts-approach>), accessed 5 March 2013.

## Contact us

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