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Trachoma elimination in Togo: lessons and recommendations for African countries

Taiwo Oluwaseun Sokunbi[a,b], Vishnu Unnithan[a,c,d], Brigid Unim[e], Janice Odhiambo[a,f], Zakariya'u Dauda[a,g] and Fortune Benjamin Effiong[a,h,i]

[a]Directorate of Research, TORASIF, Calabar, Nigeria; [b]Faculty of Pharmacy, Obafemi Awolowo University, Ile-Ife, Nigeria; [c]Department of Nuclear Medicine, Seth GS Medical College and KEM Hospital, Mumbai, India; [d]Research Committee (Education Sub-group), Global Health Workforce Network (GHWN) Youth Hub, World Health Organization, Geneva, Switzerland; [e]Department of Cardiovascular, Endocrine – Metabolic Disease and Aging, Istituto Superiore di Sanita, Rome, Italy; [f]School of Pharmacy, University of Nairobi, Nairobi, Kenya; [g]School of Medical Laboratory Science, Usmanu Danfodiyo University, Sokoto, Nigeria; [h]Department of Clinical Chemistry and Immunology, Faculty of Medical Laboratory Science, University of Calabar, Calabar, Nigeria; [i]African Community for Systematic Reviews and Meta-analyses (ACSRM), Lagos, Nigeria

Trachoma is a neglected tropical disease that is endemic in poor, rural populations, and common among children, causing visual impairment [1]. It is caused by *Chlamydia trachomatis*, a Gram-negative bacterium, which can be transmitted indirectly via fomites, directly via close contact with infected people, or via vectors like bush flies, bazaar flies, and eye gnats. Repeated ocular infections can progressively cause inflammation, follicular trachoma, scarring of the eyelid, and trachomatous trichiasis. It is estimated that about 150 reinfections are needed to precipitate trichiasis [2], causing blindness in more than 1.9 million people globally [1]. Trachoma is the leading infectious cause of irreversible blindness globally [1]. Trachoma has a severe socioeconomic impact, with the global disease burden estimated to be 181,000 disability-adjusted life years in 2019 [3]. The estimated economic cost is 2.9 billion US dollars annually which increases to 8 billion US dollars when trichiasis is included [1]. Thus, efforts to achieve trachoma elimination are of paramount importance.

Global efforts to combat Trachoma have employed the use of 'Surgery, Antibiotics, Facial cleanliness, and Environmental improvement' (SAFE) and 'Water, Sanitation, and Handwashing' (WASH) strategies [1,4]. Mass drug administration with azithromycin has also been recommended for community control of trachoma [4]. Although progress has been made with endemic districts managing to sustain lower prevalence rates, recrudescence has been a concern. The disease was targeted by the World Health Organization (WHO) for global elimination by 2020. However, this has not been achieved yet, and 2030 has been set as the new target date [1].

Among African countries, elimination was achieved in Morocco in 2016, Ghana in 2018, and Gambia in 2021 [4]. Togo is the most recent African example, having eliminated trachoma as a public health problem in May 2022. In Togo, the overall prevalence of active trachoma in children stood below 5% in 2011 based on population prevalence surveys [5], but Togo could not meet the goal of trachoma elimination due to trachomatous trichiasis prevalence, which was above the WHO threshold of under 0.2% in young adults from age 15 and above [1]. Just over a decade later, the country is certified by the WHO as one of the four African countries to be trachoma free [1]. This commentary aims to highlight the lessons that we can learn from their elimination campaign, which can also serve to guide other African countries, where trachoma is disproportionately endemic, and also provide recommendations for the elimination of the tropical disease.

Lessons from Togo elimination campaign

In Togo, the first approach used to eliminate trachoma was the identification of an Implementation Unit (I.U) to help to determine the districts where the burden of the tropical disease was more dominant compared to the WHO thresholds of trachomatous trichiasis prevalence lower than 0.2% in adults from age 15 and above and trachomatous follicular prevalence lower than 5% in children aged 1–9 years [1]. In collaboration with the I.U., the Federal Ministry of Health, and the Centers for Disease Control and Prevention developed a novel approach that integrated public health interventions targeting trachoma and four other neglected tropical diseases with mass drug administration to at-risk populations [6].

Community participation was another major strategy in the campaign. Participation in continuous awareness programs, personal and community hygiene campaigns, and high investment in clean

CONTACT Vishnu Unnithan vbunnithan@ymail.com Department of Nuclear Medicine, Ground Floor, Seth Dhurmal Bajaj Orthopaedic Centre, Seth GS Medical College and KEM Hospital, Mumbai-400012, India

water and sanitation are major factors that ensured trachoma elimination in Togo. Swift identification of infected people by community health workers, and their transfer to health centers for further examination and treatment, also contributed.

Recommendations

In the areas or regions where there is a high prevalence of trachoma, governments should mandate periodic sanitation of houses and communities because sanitation is one of the major public health strategies in combating and controlling trachoma. Following Sustainable Development Goal 6 on water and sanitation, priority should be given to the accessibility of clean water, especially in rural areas.

Besides access to clean water, the prevalence of trachoma has been demonstrated to be influenced by many factors, such as the use of latrines, the separation of animals from human living space, personal and community hygiene, and the size of the population [7]. Therefore, the SAFE strategy of trachoma elimination should be complemented by the 'WASH' program for maximum effectiveness of the strategy.

Furthermore, governments should collaborate with both local and international non-governmental organizations to strengthen educational campaigns on the need for personal and community hygiene to eliminate trachoma, especially in rural regions and regions where there is a high burden of trachoma. Geospatial studies to identify areas of potential recrudescence, continued serosurveillance by employing technologies like bead-based multiplex assays and lateral flow assays as well as vaccines could likely be long-term strategies to ensure trachoma elimination by 2030.

To ensure maximum community participation, community health workers should be well trained to be able to detect infected people, and education programs targeting at-risk populations should be provided.

Conclusion

In Africa, only four countries are verified to be trachoma free, even though the tropical disease is endemic in more than 30 countries on the continent. There are several lessons to learn from the countries that are trachoma free, especially from Togo, which recently achieved the goal. It is time other African countries adopt these strategies that have helped them reach this momentous goal.

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