

Trachoma: great gains, but elimination target missed

WHO has announced huge gains in trachoma control over the past 17 years, but its aim of elimination by 2020 will not be met. Talha Burki reports.



On June 27, 2019, WHO released its latest figures on the global control efforts against trachoma. As of March 11, 142 million people worldwide lived in trachoma-endemic districts (and were therefore at risk of blindness). That represents a reduction of 91% since 2002, when over 1.5 billion people lived in such places. Nonetheless, it means that WHO's aim of eliminating trachoma as a public health problem by the end of 2020, which requires no endemic districts, will not be achieved.

The elimination goal was adopted in a 1998 resolution by the World Health Assembly. It stipulates cuts in prevalence of trachomatous trichiasis in adults to less than 0.2% and of active trachoma in children to less than 5%, in every formerly endemic district. The establishment of a health system that can detect and manage incident cases of trachoma is also required. "You need around 150 lifetime infections with *Chlamydia trachomatis* to get trichiasis and start going blind", explains WHO's Anthony Solomon. "So the overall intention is to drive down transmission to a critical threshold below which people could occasionally have inflammatory disease but without acquiring sufficient eyelid scarring to get trichiasis later in life."

142 million equates to the number of people who still live in districts where prevalence of active trachoma in children is greater than 5%; elimination entails reducing this figure to zero. But although trachoma continues to be a public health problem in parts of 44 countries on four continents, there is plenty of cause for optimism.

"Data targets focus the mind and galvanise action; they are immensely useful", said Matthew Burton (London School of Hygiene & Tropical Medicine, UK). "But it would not be fair to think of missing the elimination target as

a failure. The bulk of the job is done; many countries have already landed on the target, or will do in the next few years." WHO has confirmed that eight countries have eliminated trachoma. One of these nations was Nepal, which included a module on trachoma within the school curriculum. Five countries, including China, have declared elimination and await validation from WHO. In 2018, more than 142 000 people with trachomatous trichiasis had surgery and 89.1 million people were treated with antibiotics. "We are on a good trajectory", Burton told *The Lancet Infectious Diseases*.

The SAFE strategy remains the cornerstone of control efforts: surgery, antibiotics, facial cleanliness, and environmental improvement. Pfizer has committed to continue its donation programme for azithromycin until at least 2025; it has already provided over 740 million doses. Mass distribution of antibiotics, alongside the facial cleanliness and environmental improvement components of the strategy are crucial for the districts that remain endemic for trachoma. The combination of the SAFE strategy, vastly improved data thanks to the Global Trachoma Mapping Project (which concluded in 2016), and socioeconomic development in many endemic nations has helped bring about a fall in the number of individuals with trachomatous trichiasis from 7.6 million in 2002, to 2.5 million this year.

A new global target for elimination will probably be set for some time towards the end of the 2020s. The best chance of success will be to ameliorate the underlying conditions that leave populations vulnerable to trachoma infection. The factors that promote transmission of *C trachomatis* are not fully understood, but socioeconomic



development was enough to drive trachoma from Europe.

Perhaps Ghana could provide a template. The Ghanaian trachoma programme included active case-finding, widespread promotion of facial cleanliness, free distribution of azithromycin, and energetic efforts to encourage those with trachomatous trichiasis to undergo surgery. "Ghana intensively implemented the SAFE strategy, they pioneered height-based dosing of the antibiotic, and they were the first country to deploy community health workers for trachoma", said Solomon. The programme coincided with a period of more general advances, such as drops in population density, improvements in sanitation, and increased availability of piped water. In June 2018, WHO officially recognised Ghana as the first sub-Saharan African country to eliminate trachoma.

"Ghana has experienced general socioeconomic developments that have probably contributed to suppressing transmission of trachoma, at the same time infection prevalence was pushed down with the antibiotic", explains Burton. "With these increasingly favourable conditions, I think it is very unlikely that the infection will ever re-emerge."

Talha Burki

Published Online
June 27, 2019
[http://dx.doi.org/10.1016/S1473-3099\(19\)30345-7](http://dx.doi.org/10.1016/S1473-3099(19)30345-7)