

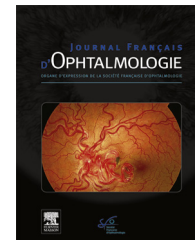


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ORIGINAL ARTICLE

# Elimination of blinding trachoma in China<sup>☆</sup>



*Eradication du trachome cécitant en Chine*

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## KEYWORDS

Blinding trachoma;  
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disability

## Summary

**Objective.** – To present the change in the prevalence of blindness caused by trachoma between 1987 and 2006 by secondary data analysis based on two China National Sample Surveys on Disability (CNSSD).

**Methods.** – Secondary data analysis was performed on two China National Sample Surveys on Disability (CNSSD), which were national representative household surveys conducted in 1987 and 2006. The prevalence of blindness caused by trachoma was estimated by 10-year age group. In addition, the proportion of various causes of blindness was evaluated. The geographical distribution of blindness caused by trachoma both in 1987 and 2006 was analyzed in order to visualize the hot spots of blinding trachoma in China.

**Results.** – The prevalence of blindness caused by trachoma in China decreased from 51.5/100,000 in 1987 to 17.6/100,000 in 2006. In addition, the proportion of blindness attributed

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to trachoma also decreased from 10.1% (1987) to 0.9% (2006). Moreover, the prevalence of blindness caused by trachoma was over 200/100,000 in 2.2% of sampled counties in 2006 as compared to 8.6% in 1987. The hot spots of blinding trachoma were shown to be limited to underdeveloped mountain areas in Hubei and Guizhou provinces.

**Conclusion.** – Although blinding trachoma is no longer the leading cause of blindness in China since the 2000's, the prevalence of trachoma should still be monitored in some underdeveloped mountain areas. Therefore, health organization must continue to fight against blinding trachoma in underdeveloped areas.

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## MOTS CLÉS

Trachome cécitant ;  
Analyse secondaire ;  
China national  
sample surveys on  
disability

## Résumé

**Objectif.** – Analyser l'évolution de la prévalence de la cécité provoquée par le trachome entre 1987 et 2006, par l'analyse secondaire des données de deux enquêtes nationales chinoises.

**Patients et méthodes.** – Une analyse secondaire a été réalisée à partir de deux enquêtes nationales sur la population chinoise datant de 1987 et 2006 (*China National Sample Surveys on Disability* [CNSSD]). La prévalence de la cécité provoquée par le trachome a été estimée par groupe d'âge de 10 ans. Par ailleurs, la proportion des différentes causes de cécité a été évaluée. La répartition géographique des cas de cécité causés par le trachome en 1987 et en 2006, a été analysée afin de visualiser les foyers de trachome cécitant en Chine.

**Résultats.** – La prévalence du trachome cécitant a diminué en Chine de 51,5/100 000 en 1987 à 17,6/100 000 en 2006. D'autre part, la proportion de cécité attribuée au trachome a également diminué de 10,1 % en 1987 à 0,9 % en 2006. La prévalence de la cécité provoquée par le trachome était supérieure à 200/100 000 dans 2,2 % des zones géographiques échantillonnées en 2006 par rapport à 8,6 % en 1987. Les foyers de trachome cécitant étaient limités aux zones montagneuses moins développées des provinces du Hubei et du Guizhou.

**Conclusion.** – Bien que le trachome cécitant ne représente plus la principale cause de cécité en Chine depuis les années 2000, sa prévalence doit encore être surveillée. Le système de santé chinois doit ainsi poursuivre la lutte contre le trachome cécitant dans certaines zones montagneuses moins développées.

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## Introduction

Trachoma is an eye infection caused by *Chlamydia trachomatis*. The chronic inflammation of the eyelids induces scarring of the conjunctiva that can subsequently cause entropion and trichiasis with eyelashes scratching the cornea. Eyelashes as well as other alterations of the ocular surface can cause severe ocular pain, corneal opacity and consequently vision loss [1]. According to the estimation of the World Health Organization (WHO) in 2003, active trachoma affected nearly 84 million people worldwide with 7.6 million people having end-stage trachoma, of which about 1.3 million suffer from blindness [2].

Fortunately, previous studies showed that trachoma is a preventable cause of blindness, and the prevalence in the world has significantly decreased [3]. Poor personal and community hygiene are closely associated with the transmission of *Chlamydia* infection that leads to trachoma, especially in poor rural areas of many developing countries. The Alliance for the global elimination of blinding trachoma by the year 2020 (GET 2020) established by WHO in 1997, recommended the SAFE strategy for trachoma

control: surgery for trichiasis, antibiotics to treat *Chlamydia trachomatis* infection, facial cleanliness through personal hygiene and environmental improvement with education and improved local economy [4]. Over the past decades, lots of progresses have been made. According to the current WHO estimates, the prevalence of trachoma as well as blindness caused by trachoma has been decreased. However, there is little recent information available for India and China [5].

There are different epidemic research approaches recommended by WHO to investigate the prevalence of trachoma and leading blindness, including population-based prevalence surveys (PBPS) [6], trachoma rapid assessment (TRA) [7] and acceptance sampling trachoma rapid assessment (ASTRA) [8]. All these methods have their own advantages and disadvantages, but population survey is the gold standard method to provide the most relevant information for policy makers and health workers [1]. As estimated, half of the global burden of trichiasis is concentrated in three countries: China, Ethiopia and Sudan [4–8]. In fact, the SAFE strategy has been implemented in China since 1970s, especially during the past two decades. With the

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