

Republic of The Gambia
Ministry of Health and Social Welfare
14th April 2015

Investigation Report on *Trachoma*

Introduction:

The report of a suspected outbreak of trachoma in a madrassa boarding school in Maka Ali Sarr (MAS) triggered response by Epidemiology and Disease Control (EDC) unit and Health Promotion Directorate of Ministry of Health and Social Welfare (MOHSW) to ascertain the cause of the outbreak by assessing associated risk factors for trachoma transmission. This informal quranic boarding school which was initially designed to accommodate approximately fifty 'talibehs' or pupils, is now congested with over 200 pupils. MAS is predominantly rural farming community with a population approximately 800 inhabitants is situated in Lower Saloum District of CRR, 18 km east north of Kaur village where the nearest health centre is located. The village falls within Njau primary health care (PHC) circuit which is supervised by a CHN. The Senior Ophthalmic Medical Assistant (SOMA) is located 25 km west in Farafenni. The village has a local community health worker (CHW) and a traditional TBA.

The visit to MAS was made possible with supported from MOH&SW and UNICEF through WASH focal point.

Section 1. The main objective of the investigation:

- a. To identify the source of the outbreak and associated risk factors for transmission

Section 2. Specific objectives:

- a. To identify the index case of the outbreak
- b. To determine the associated risk factors for trachoma transmission in the madrassa
- c. To find out ways of controlling the spread and prevent future cases of trachoma in the community

Section 3. Investigation method:

The method applied in the process achieving the above mentioned objective involved two things;

- I. Record review
- II. Administering a predefined set of questions and discussions.
- III. Observation of pre identified parameters.

Section 4. FINDINGS

Table 1: summary data on the first two case that were seen by the SOMA

Index cases	Sex	Age /yrs	POB*	DOEnr*	NLTY*	TB*-9.3.15 yes/no	VB*-9.3.15 yes/no	Eye Cndt*	Clean face yes/no
1.	M	7	Kaye	1 yr	Senegalese	No	No	Cu*	No
2.	M	8	Bamba	2 yrs	Senegalese	No	No	Cu	No

Note: POB: place of birth, DOEnr: date of enrolment, NLTY: nationality, TB: travelled before, VB: visited before, Cndt: condition, Cu: cornea ulcerated, Aftd: affected

Analysis of the summary data

It can be analysed from the above table that, despite being none Gambians, none of first two cases travelled or was visited by any of their relatives prior to the onset of the disease. This has ruled out the possibility of acquiring the infection outside of the immediate locality or through a visitor.

The first two cases were in close contact with others by the time they became infective. The condition of their eyes is worsened by delay in seeking of medical attention until the sign became very apparent. As a result they now have ulcer of the corneal and gradually becoming blind even after treatment.

Table 2: Shows screening data of the “madrassa”

total No. of “talibehs”	average age	age range	total screened	results		Infection rate (%)	Prevalence rate Per 10000 ‘talibehs’
				Trachoma	No Trachoma		
300	10.8	11	209	209	0	100%	690/10000

Analysis of the screening data

Close to $\frac{3}{4}$ of the pupils 'talibehs' were observed to be infected. The rate of infection among those screened was 100% within a short period of time. This could probably be due to close contact between pupils as well as the existence of the enabling factors for transmission. The situation could be much worse in the event of an introduction of other infectious diseases such as meningitis, cholera, etc..

Hygiene and sanitation

The finding revealed that personal hygiene was generally poor among the pupils 'talibehs'. Dirt was all over their clothes and face washing as well as hand washing was not a common practice. Equally according to a teacher, pupils do not take bath regularly (at least once daily) and most have only one cloth to wear for seven days without changing. It was also observed that there were no hand-washing facilities within the enclosed campus (their learning environment) where pupils spend most time of the day. The campus is unpaved and dusty. No toilet facility and water supply was found within the campus. In the dormitory where pupils sleep, only three toilets were found with broken doors. One of the toilets is blocked and filled to the brim and flies and maggots were all over the place.

The above findings were consistent with the observations made earlier by the screening team. However, there are some improvements following the intervention of health authorities. Personal hygiene has been instituted through the installation of a 100 litres bucket of water mixed with bleach at the main entrance of the dormitory for hand washing. No signs of (severe) malnutrition were observed.

Shelter and clothing

Although there are two available solid buildings with five rooms to accommodate more than 300 pupils 'talibehs', indicating gross housing inadequacy. There is no supervision to ensure that all the talibehs properly and regularly take bath, wash their faces and hands especially after using toilet and before eating meals. Due to inadequacy of the rooms, most of the pupils spend the night outdoors including the shed initially built for learning. Beds mattresses and bed sheets were grossly inadequate. Initially a shed as built for teaching and learning and because of the limited size, pupils now learn in a large open environment with no classrooms, furniture or mats.

The pupils were found wearing torn clothing the laundry of which are irregular (once a week) and normally left to the mercy of generous volunteers according to the narratives of the TBA and their teacher 'Oustaz'.

They live in very close contact in a house initially designed to accommodate approximately 50 pupils.

The environment

Children have been observed to be learning and playing in a dusty enclosed but not built campus without any water and toilet facilities. No waste heaps were observed around but the evidence of intense fly population is a manifestation of the existence of a good source breeding sites within the surrounding. The *talibehs* spent most time during learning days in the open dusty campus with the only shade from few trees. Generally it was found out that the community of MAS had a history of existence of trachoma since some adults were observed to be suffering from post-trachoma infection of the eyes

There is no stock of supplies to ensure adequate personal hygiene

Section 5. Discussion:

The investigation revealed that there is overcrowding coupled with inadequate hygiene, shelter, poor sanitation as well as the proliferation of flies, were the main contributing factors to the scale of the observed transmissions of *trachoma* among pupils. The practice of open defecation by pupils near their learning environment as well as faeces of domestic animals particularly cattle could serve as breeding grounds for the massive fly population. With this availing situation, people living in such environment are at risk contracting diverse types of other infectious diseases. This is substantiated by the information obtained from the TBA (Traditional Birth Attendant), that children have had diarrhoea in the past.

Despite attempts to improve the condition of the pupils, the situation is still far from what is desirable. Therefore there is an urgent call for support to address the worsening condition of these children. Similar conditions may exist elsewhere in these types of informal learning environments within the district of Lower saloum, thus the need for urgent diverse assessment. If the current condition of the pupils is not immediately addressed the achievements registered in the progress towards trachoma elimination will become futile.

Section 6. Recommendations

For the purpose of addressing the current trachoma situation in the School, the appalling sanitary and hygiene conditions and overcrowding are contrary to the ordinances of the public health regulations and therefore requires immediate attention. That is by temporarily closing the school to ensure all recommended measures are respected and provided through collaboration with relevant authorities. Further threat of highly communicable and infectious disease outbreaks are vividly eminent and may trigger major national catastrophic and devastating consequences if the following measures below are not immediately addressed or implemented;

The MOBSE to immediately take stock of the contents of the report and act accordingly prior to implementation of the Public Health Act.

The Regional Director of Health Services, RHT CRR to ensure the recommendations of the report are taken into consideration and necessary actions are applied through the relevant regional authorities.

The Supreme Islamic Council to be consulted and involved in addressing the prevailing situations at the "Madarasas" countrywide.

The relevant MOH&SW authorities to ensure the following below are looked into;

- I. Additional toilet facilities to prevent open defecation
- II. Provision of hand washing facilities and supplies
- III. Clothing and shelter to prevent sleeping out in the open
- IV. Food supplementation
- V. Intensification of behavioural change communication BCC/IEC on trachoma in the entire district
- VI. Further investigation required to determine trachoma as well as helminthiasis prevalence among other children in order to carry out appropriate intervention and map out and assess the existence of *trachoma* in similar madrasas in the district.

- VII. Child aid organisations should promptly respond to the children's immediate needs
- VIII. The Ministry of basic and secondary education should initiate registration of all informal learning establishments in the country
- IX. There should be regular joint monitoring of the situation of unregistered as well as registered madrassas throughout the country.

The EDC and the NEHP are particularly concerned, not only with the current wave of the Trachoma saga which is under control as a disease under elimination status, but also threat of the following:

1. The devastating nature of Trachoma and its burden (blinding) on low socio-economic communities
2. Reintroduction of Trachoma and possible spread to the general population
3. Threat of an epidemic and or outbreak of more deadly notifiable communicable/infectious diseases that will have serious consequences.

Annex 1: Acknowledgements

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- Epidemiology and Disease Control Coordinator
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- Staff of Kaur Health Centre
- Senior Ophthalmic Medical Assistant, Farafenni
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- CHWs of Maka Ali Sarr; Alieu Drammeh and Fatou Janneh(TBA)

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