

**A GUIDE:
TRACHOMA
PREVENTION
THROUGH
SCHOOL HEALTH
CURRICULUM
DEVELOPMENT**



**World Health
Organization**

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INTRODUCTION

Why Trachoma?

Trachoma is the leading cause of infectious blindness in the world. Endemic in fifty-five countries, over 500 million people are at risk of being blind by this disease. It is estimated that 6 million people are blind from trachoma. Beginning in childhood, the disease in its active state primarily affects children aged 1-9. Repeated infections lead to the scarring of the conjunctiva lining the underneath part of the eyelid. This scarring causes the eyelid to turn inward, a condition known as trichiasis, allowing the eye lashes to begin to rub against and eventually abrade the cornea. The final stage of this process is irreversible blindness.

To control trachoma and to eliminate it as a blinding disease, WHO has endorsed the SAFE strategy. The four components of this strategy are:

- **S**urgery to correct trichiasis
- **A**ntibiotics to treat the active disease
- **F**acial cleanliness to prevent the transmission of active disease, particularly cleaning ocular and nasal discharge that attracts the flies that help spread the disease
- **E**nvironmental improvement that calls for the necessary water to allow for proper hygiene and for sanitation with a particular focus on latrines to reduce the population of flies that spread the disease.

Trachoma is a disease that is directly related to the poor socio-economic status of the populations affected, particularly their lack of access to water, sanitation and health services. This is compounded by a lack of knowledge about the disease, its transmission and its prevention; the condition, however, can be addressed through education – thus a school health approach.

Why Trachoma and School Health?

Investing in the health and well being of school-aged children is an investment in not only the individual child but also in the family, community, and country as a whole. Promoting the health of children now is laying the foundation for their health as adults and for the health of their children, the next generation. Schools offer a mechanism, an entry point for reaching a large part of the population directly (schoolchildren) and indirectly (their families and community members).

Improved health among children will improve their attendance, their learning potential and, as a result, their educational achievement. This is particularly important among girls, as the level of education attained by a woman is a critical determinant of her family's health.

The majority of trachoma infection occurs in children from 1-9 years of age, and thus school-based trachoma control programs have the opportunity to reach many of those most at risk. Learning about trachoma, the causes and consequences, and learning and practicing the behaviors to prevent the disease will help the student avoid contracting trachoma and will allow that student to take the knowledge home to share with parents, younger siblings and peers.

Investing in trachoma and school health individually and together will also contribute to a country's achievement of the Millennium Development Goals (MDGs). The contribution is described in Annex 1.

What is this Guide?

This guide describes a step-by-step methodology to develop a primary school curriculum to teach children about trachoma and what they can do to prevent the disease. The knowledge and skills are those that are essential to control trachoma among school children, their families and their communities. The methodology is based on the key assumptions that sustainability is promoted by a sense of in-country ownership achieved by engaging all potential stakeholders and that for a curriculum to be

successful, it must be appropriate to the cultural context.

The resulting curriculum will increase the knowledge of the students and promote behaviors that will contribute to the elimination of trachoma as a blinding disease both in the short-term as well as in the long-term. The methodology presented here is not limited just to trachoma and could easily be applied to other components of a school health program.

Who is this Guide for?

This guide is for people working in health or school settings who are committed to trachoma elimination. These people may include: coordinators of national trachoma programs, national school health coordinators, NGO trachoma and/or school health program managers and NGOs working in eye health.

Has this Methodology been Tested?

The methodology presented in this guide is a result of detailed field tests comprising a combination of qualitative and quantitative research conducted in two countries. These countries were chosen for their linguistic, cultural and socio-political differences to help ensure the replicability of the methodology. The individual experiences of these two countries are presented in detail in Part II.

The field tests were part of a four-year project funded by the Conrad N. Hilton Foundation and implemented by the World Health Organization and Helen Keller International.

The project was based on the idea that the goal of eliminating trachoma as a blinding disease will be greatly facilitated by developing tools that will provide children with the knowledge and skills needed to prevent the disease through a process that can be implemented in all trachoma endemic countries regardless of the linguistic, cultural and ethnic differences.

How is this Guide Structured?

Part I provides recommended steps and activities based on the quantitative and qualitative research conducted in each pilot country. An in-depth explanation accompanies each step offering suggestions and considerations that need to be made along the way.

Part II presents detailed descriptions of the experiences in each of the pilot countries. It explains the decisions made at each step of the implementation process, the outcome of each activity, the lessons-learned, the challenges encountered and the actions taken to meet those challenges. It also describes the quantitative and qualitative research and the outcomes of the research which were invaluable in understanding more fully the process and ensuring that the recommendations are evidence-based.

Part III contains the KASPI tool.

PART I: STEP-BY STEP GUIDE AND RECOMMENDATIONS

Based on the experiences and lessons-learned throughout the four-year project, the following eight steps to develop a trachoma-focused curriculum are recommended.

Step 1: Conduct a Situation Analysis

Step 2: Identify Key Stakeholders

Step 3: Engage Key Stakeholders

Step 4: Maintain Momentum

Step 5: Develop the Technical Framework

Step 6: Develop the Curriculum

Step 7: Field-Test the Curriculum

Step 8: Scale up

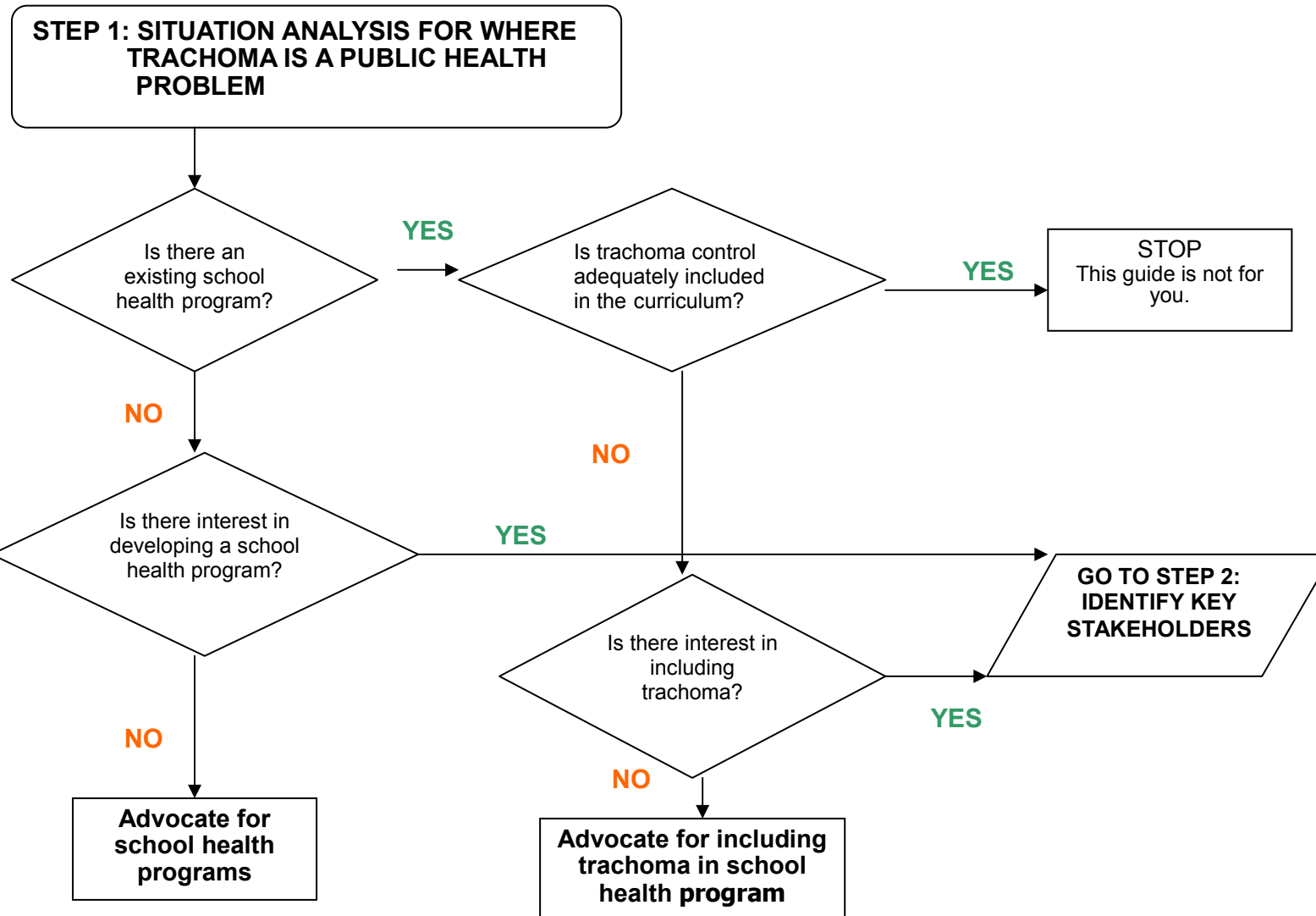
This section discusses each of the steps in detail and provides specific experiences and lessons learned from the two field-test countries (Country A and Country B). These examples are included in text boxes to assist the user of this guide in applying the experiences to his/her own context.

Step 1: Conduct a Situation Analysis

Objective: to gain a full understanding of the current situation as it relates to school health and trachoma in the geographic area under consideration for a trachoma curriculum.

Before undertaking the development of a trachoma-focused school curriculum, it is recommended that an analysis be conducted to better understand the current situation of school health and curriculum development/curriculum change, particularly in relationship to trachoma. Such an analysis will help identify opportunities for including trachoma education in primary schools.

To begin with, it is important to decide if this guide is appropriate for the country and to determine the most appropriate level of intervention, whether it be national, provincial, or district. On the following page, there are several questions to help with this decision.



Having decided that this guide is appropriate, the questions below will be helpful in understanding the overall situation.

Questions to explore concerning trachoma in your country:

- What is the prevalence rate of active trachoma?
- Is it a national problem or only in certain regions of the country? These factors will help determine the geographic scope of the project.

In **Country A**, the prevalence of active trachoma is not well known. A national survey identified areas where trachoma was most endemic, but more detailed surveys have not yet been conducted. Trichiasis and blindness from trachoma are, however, of relevance and considered to be a public health problem.

In **Country B**, prevalence rates vary among the different regions. Overall 40% of the districts are considered to be endemic. The national curriculum allows for local situations to be taken into account so trachoma will be taught only where trachoma is a problem.

Questions to explore concerning school health:

- What aspects of health if any are included in the present curriculum?
- Which Ministry oversees school health? Often both the Ministry of Education and the Ministry of Health have departments for school health.
- If both Ministries work in school health, how is the work coordinated? This is important to know in order to respect institutional protocols.
- If trachoma is not included in the curriculum, are there are other areas such as sanitation or hygiene that are covered and to which trachoma could be linked?
- What NGOs have school health programs? NGOs may also offer an opportunity to include trachoma into their educational programs.
- What school health teaching materials are available?
- How are teachers trained in school health? Is there an opportunity to introduce trachoma school health into on-going teacher training whether in-service or in teacher training institutes?

Questions to explore concerning curriculum development

- What agency is responsible for the primary school curriculum?
- Are decisions about the curriculum made nationally or at a lower level?
- Has a curriculum review been conducted recently or is one planned?
- How often do these reviews occur? Timing is a key element if trachoma of the curriculum.

In **Country A**, the last review was conducted in the mid 1960s and the results were not finalized and put into place until the late 1980s. The second curriculum review in the country's modern history is currently beginning. A curriculum review provides the opportunity to insert trachoma into the curriculum and ensure it is a part of the on-going teaching in the primary schools.

In **Country B**, systematic curriculum reviews have been conducted every 10 years for the past 30 years with the most recent review finishing in 2005. This project coincided with the review and as a result the trachoma component has been included as a part of the national curriculum and will be used for those regions where trachoma is endemic.

Questions to explore concerning the educational system of the country

-
- Who is involved in these reviews and how is the work coordinated?
 - In the past, who (individuals or institutions) has helped and who has hindered the process? Knowing this will help in Steps 2 and 3 later on.
 - In past curriculum reviews, what resources were made available for the process?
 - Does the current curriculum rely on the use of books or other types of visual aids?
 - What is the country's educational structure? An analysis of national level agencies and personalities as well as regional and local structures is called for.
 - Is the education system decentralized?
 - What donors fund primary school education?
 - How much teacher turnover is there? The answers to these questions will help determine the strategy and frequency for training teachers and/or their supervisors.
 - What are the enrolment and dropout rates in the schools being targeted?

In **Country A**, primary school enrolment rates are low. Enrolment for boys is below 50% and for girls below 35%. In such a situation, strategies that enable students to pass on their newly acquired trachoma knowledge to their non-schooled peers and siblings (especially sisters) should be considered.

In **Country B**, enrollment rates are very high for both boys and girls. In this situation, a school-based trachoma control program will reach the majority of primary school children living in endemic regions. The main concern in Country B is for nomadic children: a group that is difficult to reach.

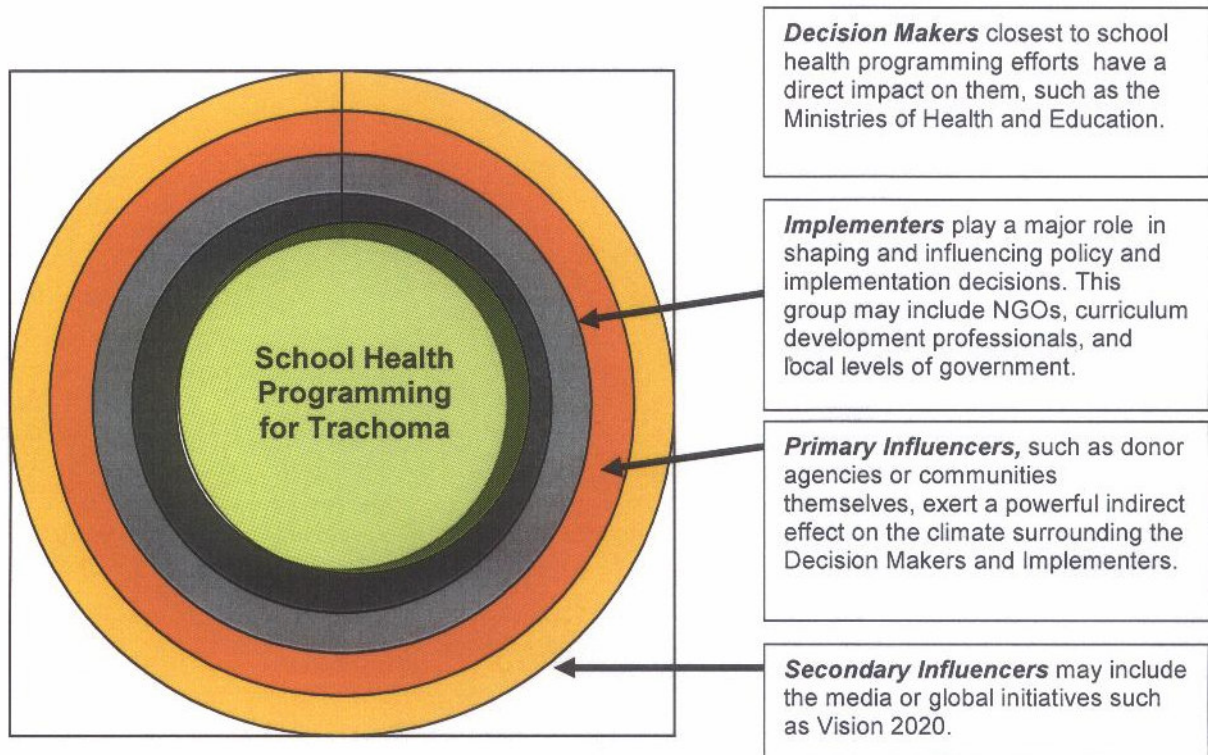
Step 2: Identify Key Stakeholders

Objective: to identify key technical and policy partners who can assist and facilitate the development and implementation of a trachoma curriculum.

Stakeholders are those persons or institutions that are involved in the program area of interest. In this case, persons involved with trachoma and school health will likely facilitate and sustain program activities. It is important to establish ownership in the program among the stakeholders. Identifying your key stakeholders is one of the first steps to consider. Key stakeholders will more than likely include the Ministers of Health and Education. Has there been a school health project in the target region or country before? If so, who was the main contact within the government? Some governments have structures that are charged specifically with curriculum review and development.

Determining Key Stakeholders in Developing a Trachoma Curriculum¹

¹ Institute for Social Marketing, Stirling and the Open University, UK



To successfully involve stakeholders ranging from decision makers to secondary influencers, one must analyze the needs of each group or person related to school health and trachoma as well as consider the benefits to be gained by each stakeholder through a successfully implemented curriculum for trachoma.

When exploring the potential role for each possible stakeholder, some questions to ask may include:

- What is this person or group currently doing to support school health/trachoma control?
- Why are they currently involved in these activities?
- To whom do they report regarding their activities?
- How might a trachoma curriculum help them to do *their* job better and meet *their* objectives?

Possible stakeholders at each level are:

Decision Makers:

- Minister of Education
- Minister of Health

Implementers

- President of a national (or sub-national) Blindness Prevention Task Force
- Director of a national (or sub-national) Trachoma Control Initiative
- Curriculum developers
- Teacher training institutes
- Teachers and teacher supervisors
- Sub-national health staff
- Water and Sanitation governmental agencies
- NGOs

Primary Influencers

- Affected Communities
- Visual disability support groups
- Interested embassies or political personalities
- Teachers' unions

Secondary Influencers

- International examples of successful programs
- International financial supporters
- Global initiatives (Vision 2020)

In **Country A**, most school health activities have focused on specific diseases and have been implemented in limited regions by NGOs working directly with Ministry of Health officials in departments created for battling these specific diseases. The Ministry of Education, despite having a national mandate to develop school health programs, was only involved to a limited extent and in a very decentralized manner, with activities coordinated at the district level where they were being implemented. With the impetus to create a national-level primary school curriculum for trachoma, confusion over the ownership of the activity (Ministry of Health vs. Ministry of Education) escalated quickly and had to be diplomatically diffused before activities could continue. In essence, each Ministry had to see trachoma education as an opportunity for them, rather than as happened initially, a threat.

In **Country B**, where school health programs have been active for over 80 years, the government has a clearly delineated protocol for school health activities with specific staff responsibilities for both the Ministry of Health and the Ministry of Education. However, there is limited interaction between the school health coordinators within both Ministries. School health activities in the country have been more disease specific and health service oriented. Thus the Ministry of Health has always been a major player of school health within the country. The thrust to develop a national primary school curriculum for trachoma led to greater participation of the Ministry of Education as curriculum development and teacher training fell under their work mandate. This in turn enabled greater cooperation – to the benefit of both Ministries and school health as a whole.

In addition to the obvious government players, be open to others who may prove to be indispensable in the curriculum development and implementation process. Certain ambassadors or UN agencies such as UNICEF and WHO typically focus on school health programs, particularly for girls (trachoma affects three times as many women as men). The newly created Millennium Challenge Cooperation also includes girls' completion of primary school as one of its criteria and thus is the focus of many new programs and activities in which trachoma control can play a pivotal role.

Personalities can be just as important as structures, sometimes even more so. Is there a particularly opinion leader, celebrity or individual who has made school health and/or trachoma control one of their pet issues? What about influential retired colleagues of those currently working in school health? Press agents or others involved in the media can be key players as well if they are shown how trachoma can be turned into a good story.

Step 3: Engage Stakeholders

Objective: to secure commitments from influential groups and individuals to support the development and implementation process

It is important to win the commitment of those persons in decision making positions that are relevant to school health, curriculum development and trachoma control in order to move the process along. Two approaches for securing the commitments are noted below:

Option 1: Once the stakeholders have been identified (Step 2), a workshop may be organized to assemble the key stakeholders to a) present the objectives of the program, b) orient the participants to trachoma, c) discuss the role of school health in trachoma control and d) conduct an open discussion to air concerns, answer questions, and plan for the next steps. Inviting the media to this workshop could help generate broader interest in the program and might influence a greater commitment from the stakeholders. This workshop may range in time from one hour to a half day.

Option 2: Workshops are often costly and the key stakeholders are typically very busy and difficult to assemble in one place. If this is the case, it is recommended to meet with these key people individually or in smaller groups. This may be more time-consuming than the above option but it is essential that decision-makers are aware of the objectives and support the aims of the program.

In **Country A**, the Stakeholders' workshop was more helpful in maintaining the commitment of the key technical players identified in Steps 2 and 3 than in securing any additional commitment or inputs. Nonetheless, members of the project's steering committee (see Step 5) felt strongly that this step was indispensable.

In **Country B**, an advocacy workshop was not deemed necessary as an established structure for supporting a national trachoma program, curriculum and school health projects has been existence for a few years. These forums were used to share information about the curriculum project. In addition individual meetings were held with a number of the key players to ensure that people were informed of the intentions and to answer any questions or address any issues.

Step 4: Maintain Momentum

Objective: to maintain commitments to the trachoma curriculum process secured in early steps from influential groups and individuals.

Once commitment from those persons/institutions that can influence the success of the project is secured, it is vital that this commitment is maintained. There are a variety of ways to accomplish this, for example: periodic update meetings, field visits to pilot and implementation sites and published newsletters or updates. The main objective regardless of the method(s) chosen is to encourage and sustain the stakeholders' interest and involvement and thus their sense of ownership.

Option 1: The formation of a steering committee or task force to oversee and monitor the progress was very successful in Country A. The membership of this committee should reflect the various sectors integral to the success of the project while at the same time being kept small enough that meetings are easily coordinated and that decisions are readily made. This mechanism allows for collaborative decision-making and promotes a sense of ownership among the various members and their respective institutions.

It is possible, as in the case of Country B, to use existing mechanisms for this same purpose. If such a committee already exists that could incorporate the development of a school-based trachoma curriculum, this may be preferable to avoid duplication of efforts. On the other hand, an existing committee will have other business to attend to and thus the curriculum project may not receive the level of attention needed.

In **Country A**, a Steering Committee was formed consisting of representatives from the Ministries of Health, Education, and Water. Several NGOs were represented as well. The Committee held regular meetings and made key decisions concerning the project. A mid-term evaluation of this group concluded that it played a critical role and should be continued. More details on this committee are discussed in the next section.

In **Country B**, the existing national trachoma task force and the national school health steering committee structures were used to make key decisions about the project. The committees met at different stages of the curriculum project to approve the curriculum, provide recommendations on pilot testing and validated the project.

Option 2: If a committee is not a viable option, momentum may also be maintained through periodic updates to the stakeholders in the form of reports, newsletters, or personal meetings. Invitations to visit field test sites may also help sustain interest and commitment. The local context will dictate what approach will have the greatest impact. Keeping the press involved may also promote a wider interest in the curriculum development process.

Step 5: Develop the Technical Framework of the Curriculum

Objective: To develop the technical framework outlining the key points of knowledge and the essential practices for school children to control trachoma.

The objective of this step is to develop through a participatory manner the knowledge and skills school children need to contribute to the control of trachoma in their communities. These may be filled out in a matrix (see annexes) that lists on one axis: 1) general knowledge of trachoma, 2) treatment of trachoma, facial cleanliness, 3) use of latrines, 4) environmental cleanliness, 5) flies (as a way trachoma is transmitted), and 6) shared towels (also as a way trachoma is transmitted). On the other axis are 1) knowledge, 2) skills and 3) policies (that schools should have) to support and promote trachoma control.

Option 1: One approach to develop this framework would be through a workshop. The participants may include most if not all of the key stakeholders identified in Step 2 who have technical expertise to bring to the curriculum development and implementation effort. The participants could also include staff from other NGOs working in school health and/or in trachoma control. Organizations who are involved in water and sanitation can also bring crucial technical knowledge to the project.

In **Country A**, a research group dedicated to innovative hygiene practices participated in this step and contributed their vast experience in the area of hand washing as it relates to latrine use.

Representatives from different levels of the Ministry of Education system should also be included in this workshop.

In **Country B**, curriculum developers charged with various aspects of the primary school curriculum attended and provided valuable insight into the pedagogical perspective of curriculum.

In addition to Health and Education, other ministries that might be included are the Ministry of Health, the Ministry of Agriculture and the Ministry of Water and Hygiene. Anyone involved in the education system as well as in F (face-washing) or E (environmental improvement) already identified in Steps 1 and 2 of this guide should also be included.

Country A
Participants in Technical Workshop:
Regional health authorities
Technical experts from the Ministry of Education
Technical experts from the Ministries of Agriculture, Water and Hygiene
Hygiene innovation research group
World Health Organization
NGOs with school health expertise such as CRS and Save the Children

Country B
Participants in Technical Workshop:
Curriculum development and review body of the government
Technical experts from the Ministry of Education
Technical experts from the Ministry of Health
Educational representatives from proposed pilot region
UNICEF
World Health Organization
NGOs working on school health and community development

The completed matrices from Country A and Country B are attached in the annexes. In conducting this technical workshop, these completed matrices may be presented to the participants as a starting point. Alternatively, the blank matrix may be used allowing the participants to create one that is entirely their own.

The advantage of this first option is the level of ownership developed and the potential synergy created by bringing all the stakeholders together.

Option 2: Another approach to consider, particularly if resources are not available for a workshop, would be to complete the matrix through meeting with sub-groups and/or individuals. This option should be considered also if it is difficult to bring people together due to conflicting schedules or time constraints. This approach may require more time from the person spearheading the initiative and it may be more difficult to reach a consensus as to the technical framework. Thus, the sense of ownership and result may not be as strong as those achieved through Option 1.

Option 3: The last option presented here is to use one or both of the completed matrices included in the annex and have the identified stakeholders either validate these results as being appropriate or provide constructive suggestions. As with Option 2, the final product should be circulated one last time to ensure all are in agreement with the framework.

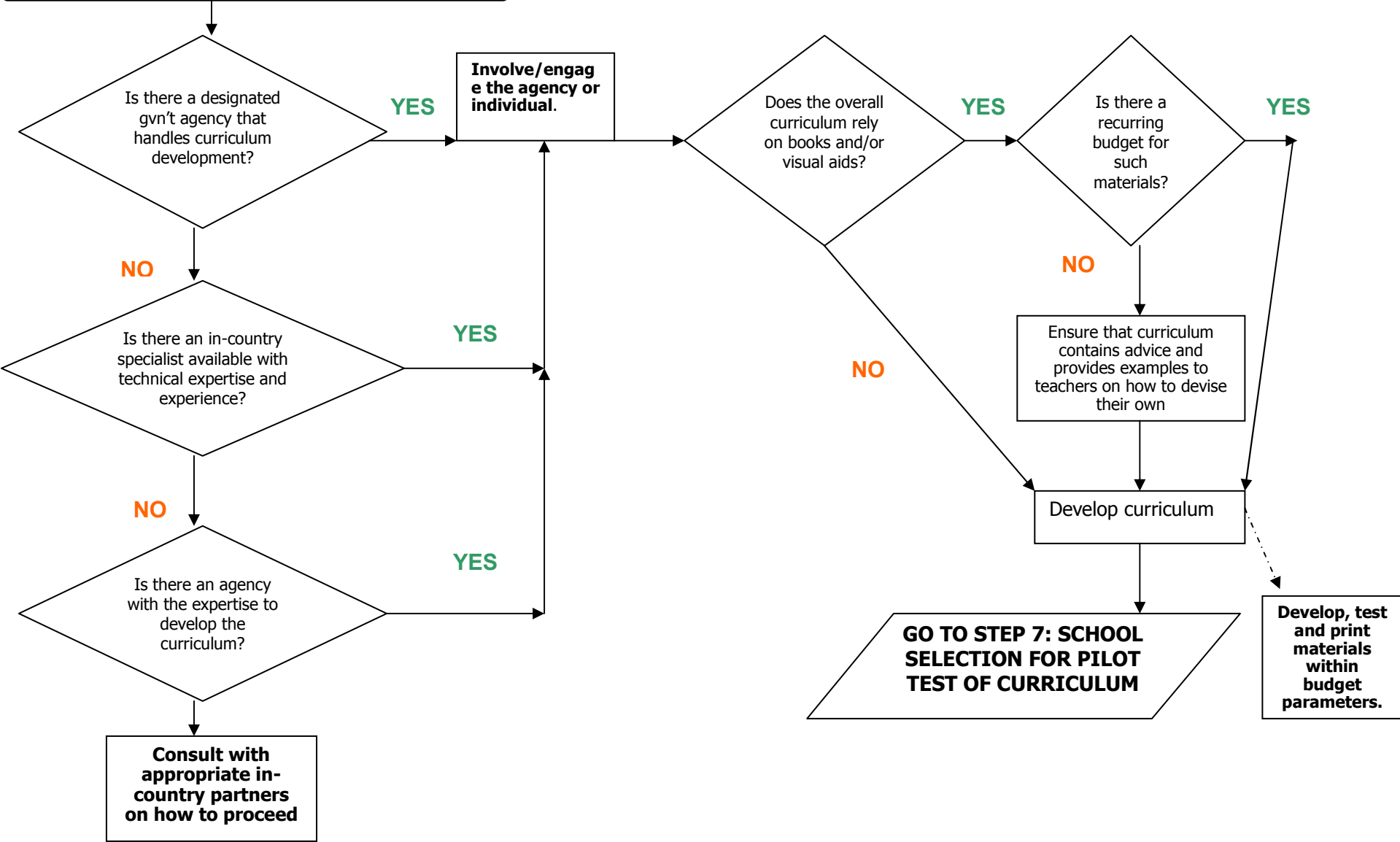
Step 6: Development of the Curriculum

Objective: to develop a technically sound trachoma curriculum that is consistent with already existing curricula in structure and methodology.

The trachoma curriculum should be consistent with the on-going school curriculum to ensure its acceptability by the educational system and to facilitate its uptake by the teachers who will be implementing it. It is thus important, if at all possible, to engage a curriculum developer who is familiar with the curriculum currently in place. As this curriculum is based on the matrix of knowledge and skills developed in Step 5, the curriculum developer should be identified early in the process.

In both pilot countries, there are government structures responsible for curriculum development. Any national level effort to modify or add to the existing school curriculum that had not involved these structures would have met with strong resistance. Even if the curriculum is to be implemented at a more local level, those responsible for curriculum development and implementation should be consulted.

STEP 6: DEVELOPMENT OF CURRICULUM



Both countries hired a consultant through the government structure responsible for curriculum development.

In **Country A**, there is one curriculum specialist at the national level of the Ministry of Basic Education. This person was contracted as a consultant to develop the curriculum upon the recommendation of the Steering Committee. The curriculum was then reviewed by the Committee, revised and approved.

In **Country B**, the government structure for curriculum development and review is an autonomous institution that serves the Ministry of Education and employing many curriculum specialists. To develop the trachoma curriculum, the institution itself was contracted. A small group of stakeholders from the curriculum institute, ministries of health and education, school inspectors and teachers developed the curriculum jointly in a 10-day workshop. The curriculum development institute took the lead in facilitating the workshop.

If possible, the key technical players that participated in Step 5 (Develop the Technical Framework) should be involved in this part of the curriculum development process. Their expertise will help in the development process, assuring technical correctness from both the trachoma and the pedagogical perspectives. By involving the various sectors, ownership and commitment to the process will be enhanced.

Books, flip charts, or any other printed teaching aids are not essential elements of a curriculum and should only be considered if the Ministry of Education has a recurring budget to support the printing and dissemination of these materials. Effective teaching and learning are possible without such supports. If there is no budget for books or visual aids, add a section in the curriculum to guide teachers on how to develop such materials at little or no cost.

If printed materials are deemed necessary (see decision tree on previous page), the production of the materials for a national curriculum coupled with implementation (Step 8) is one of the largest costs for the project budget. Decisions for developing and printing materials should be clear regarding:

- 1) **Who** will be responsible for:
 - Funding the materials?
 - Developing, testing and revising the materials?
 - Disseminating the materials?
 - Monitoring effectiveness of the materials?
 - Updating and reprinting the materials?
 -
- 2) **How** will the printing be accomplished? in-country printing? outside the country?(in which case, shipping and customs costs need to be considered.)

In **Country B**, plans are for the usual textbook company to continue printing the textbooks for the country. As the adoption of the new curriculum is planned for January of 2006, the new textbooks will automatically include the trachoma prevention material. Any increased cost for printing will be taken into account by existing government budgets.

Step 7 Field-Test the Curriculum

Objective: to test the cultural appropriateness, quality and effectiveness of the curriculum to allow for necessary revisions before implementing on a large(r) scale.

To ensure acceptability by the responsible authorities, any national or local guidelines for testing curricula should be followed. Additional information beyond what the government may require should be considered in order to produce the best curriculum possible.

Criteria for the test site(s) should include such considerations as trachoma prevalence, ability to monitor and assess the process (logistics and access), and commitment by the appropriate authorities to facilitate the process during the testing period. One should also decide at this point if the assessment of the curriculum pilot test will include quantitative as well as qualitative assessment data. Indicators to look at may include:

- Appropriateness of the level of the lesson for the grade and/or age of the students being targeted;
- Ease and confidence of the teachers in using the trachoma curriculum;
- Degree of teacher training that may be required or perceived by the teachers to be needed;
- Students' understanding of what is being taught;
- Students' reactions to the content and accompanying activities;
- Parents' reactions to the content being taught;

Protocols for the evaluation of the curricula developed in the two pilot countries are included in the annexes of the guide.

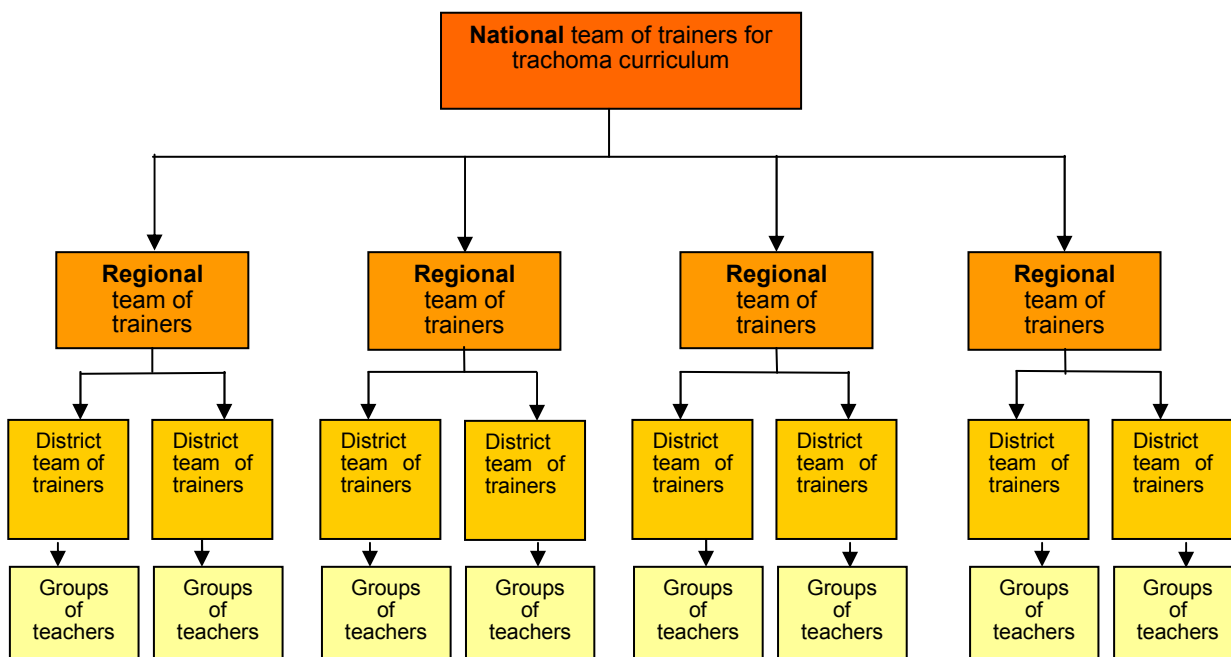
It is important to note that the effectiveness of school health programs was not in question for this project nor was the effectiveness of face washing and environmental hygiene as methods to control trachoma. These strategies have been proven elsewhere and are generally accepted by the scientific community. That being said, one must take into account the fact that many country governments require localized proof of impact before committing scarce resources to a program.

Step 8: Scaling Up

- *Objective: to prepare the teachers and others in the education system for a successful roll-out of school health trachoma curriculum.*

The main step in scaling up the curriculum is to prepare the teachers, their supervisors, and other education officials in the target areas in the teaching of trachoma in the classroom. The teachers must know about trachoma to teach it effectively and they must feel comfortable with the curriculum. Supervisors must also understand the content of the curriculum to adequately supervise and support the teachers. If teaching materials such as visual supports are available, their use should be included in the training.

Depending on the extent of the scale-up, a cascade approach to training is recommended. In this approach, a core team of trainers are trained to then train either the teachers directly if the target area is small, or to train other teams of trainers if the target area is larger. In a national scale up of the curriculum, a national team of trainers would train a number of regional trainers who in turn would train district level trainers. The district level trainers would be the ones to train the teachers. A diagram of cascade training is below:

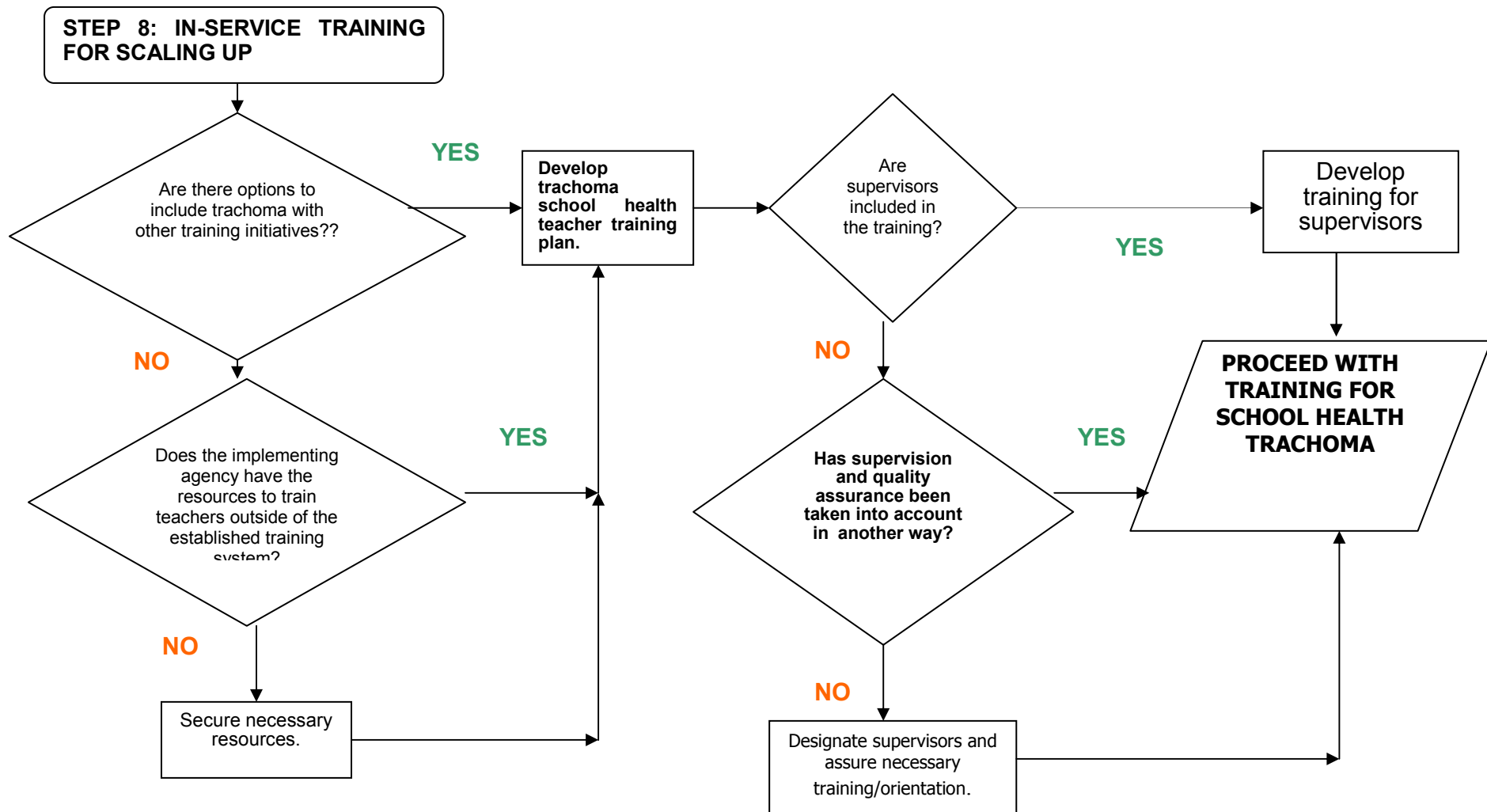


Though the cascade model is very efficient to conduct large scale training, it requires constant monitoring and supervision to ensure that the information being transferred at each level remains the same as it was at the top level. In developing the different levels of training teams, it is important that they are trained in training skills as well as the curriculum content.

In-service training requires both financial and logistical resources and the larger the scale up the more and more resources will be needed. If possible, it is advisable to identify other training initiatives to which the trachoma training can be added on.

In **Country A**, a teacher training of 4 days was organized the first year, with a 3 day refresher course the second project year. All involved teachers (usually 2-3 per school, but sometimes as many as 6) were trained each year. During the second year, teachers from 8 of the 16 pilot schools received an abbreviated training or orientation session only of one day.

In **Country B**, 40 teachers from the 10 pilot schools were trained in project year two. In addition to the 10-day (was this confirmed?) training for teachers, a 2-day training was conducted for teacher supervisors.



Rather than training the teachers all at once, an additional option is to integrate the new curriculum into periodic in-service trainings and meetings that are a natural part of every school year. This will probably take longer to scale up the curriculum but it will help minimize the costs.

A problem encountered with in-service training is that teachers retire, are transferred to non-endemic districts or leave the service for other reasons. For the long-term sustainability of trachoma being taught in schools in endemic districts, it will be necessary to introduce trachoma into the curriculum of teacher training institutes. This would guarantee that when a teacher graduates and assumes his /her new post, that teacher is already familiar with the content and the practices in the trachoma curriculum.

PART II: COUNTRY EXPERIENCES

This project was piloted by Helen Keller International in Burkina Faso and Tanzania while WHO provided the technical oversight. The choice of countries reflects the decision to choose dissimilar sites to broaden the range of experiences and to determine more concretely the necessary steps to develop an effective curriculum that would be accepted by both the Ministry of Education and the Ministry of Health in any number of endemic countries. The two characteristics shared by the countries are that both are located in Africa and both have endemic levels of trachoma.

Brief Description of Burkina Faso

Population: 10 200 000*
% active disease: 27% (<10yrs)*
School enrolments rates
Boys: 48.4%†
Girls: 33.4%†
Language of Instruction: French

*Source: Le Trachome au Burkina Faso; Ko, Bernadette et al; 1997
†Source: Plan Decennal de Developpement de l'Education de Base 2000-2009; 1997/98 school year data

Brief Description of Tanzania

Population: 34 500 000*
% active disease: 10-45%, public health problem in 10 of 21 regions[□]
School enrolments rates
Boys: 70.3%†
Girls: 69.1%†
Language of Instruction: Swahili

*Source: 2002 Census
[□] National Trachoma Program, MOH
†Source: DHS survey

In each country, a curriculum was developed through a multi-sectoral partnership and tested in a number of schools to determine if the curriculum indeed increased knowledge, promoted healthy behaviors and had an impact on trachoma among the students and the surrounding communities and whether the curriculum was teacher friendly. In both the countries, the trachoma curriculum developed has been accepted by the education authorities to be incorporated into the on-going primary level curriculum. This fact highlights the commitment of both governments to trachoma control and to school health and indicates that the teaching of trachoma will be on-going in all endemic areas of each country.

Again, it is important to recognize that a curriculum is only part of the teaching/learning process. Effective teachers and a conducive learning environment are also critical to the educational process.

During the course of the project great attention was paid to the fact that if this process was to be replicable in other countries, the resources necessary would need to be kept to a minimum. The result of the project is this guide.

Burkina Faso Situation Analysis

Health activities have been implemented in school settings for years in Burkina Faso, though it is difficult to say when they started as it has not been a policy of the Ministry of Health to identify students as a sub-group of the larger populations that have been targeted for various activities. Mostly consisting of smaller, regional health activities that include students among other larger populations (such as population-wide deworming activities), these activities were primarily guided by contact with structures in the Ministry of Health as they addressed specific health issues that just happened to take place in school settings. While the Ministry of Education always played a part, these activities were primarily viewed as health activities. In reality, the Ministry of Health does not have a structure designed to take charge of school health programs. This structure exists within the Ministry of Basic Education since 2000 when it was established by the World Bank supported Program for the Development of Basic Education.

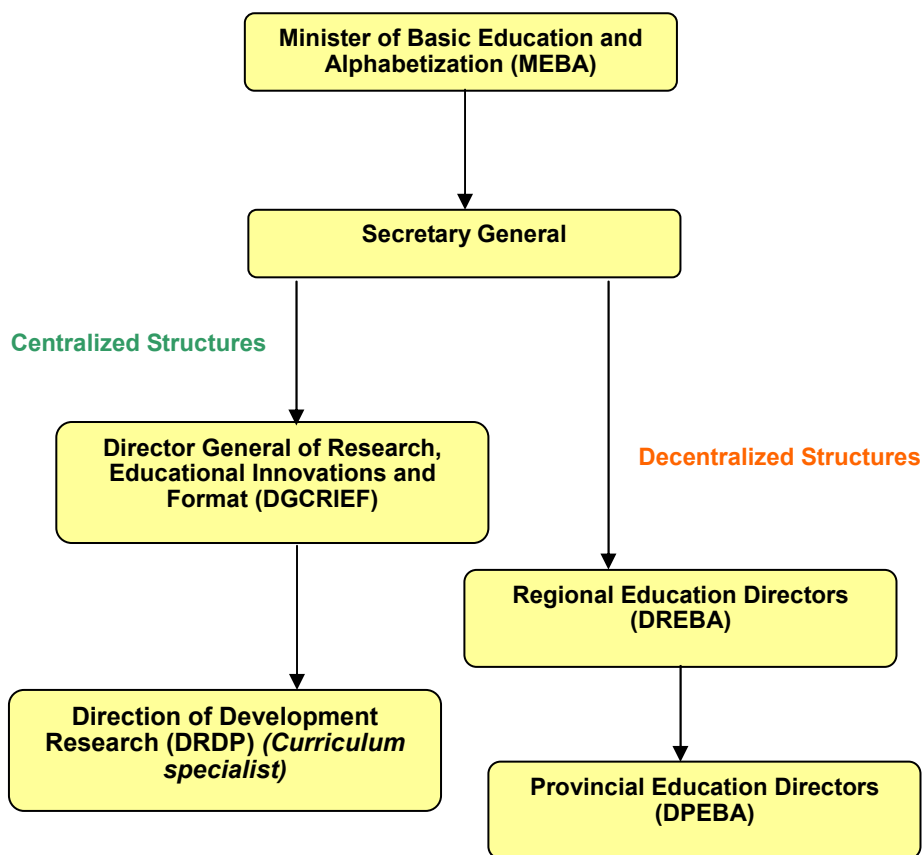
When the project began in Burkina Faso in 2003, there was no structured implementation of trachoma control at the national level. Trachoma control lessons have been integrated into the primary school curriculum in eight schools in Fada and eight schools in Piela, two districts in the Eastern region of the country. This region of the country has the highest trachoma prevalence rates at 45.6% for children under 10 years of age.

The modern school curriculum currently in use in Burkina Faso has been modified once previously, with the process beginning in 1960 and focused on reviewing the use of French versus local language(s) as the language of instruction as well as examining the levels and competencies designated for each level. The review process led to a lengthy adoption procedure, which was finalized in 1989. The second review of the curriculum is currently engaged. A predefined focus of this review will be to emphasize practical life skills over didactic knowledge transfer.

The review process will include the following stages:

- **Preparation:** This stage includes a national structure review of the existing curriculum with special attention to language(s) used and levels or grades delineated.
- **Content review:** This stage will involve an appointed commission that will review all focused adaptations to the school curriculum currently being piloted or tested by all NGOs, groups, UN agencies and other. The commission will make recommendations to the Minister of Basic Education and Alphabetization as to which elements should be included at the national level.
- **Approval:** The Minister approves the commission's recommendations, after any clarifications and/or modifications.
- **Implementation:** The national teacher training courses are modified to include the new curriculum. Cascade training of teachers already in the field may or may not occur at this point.

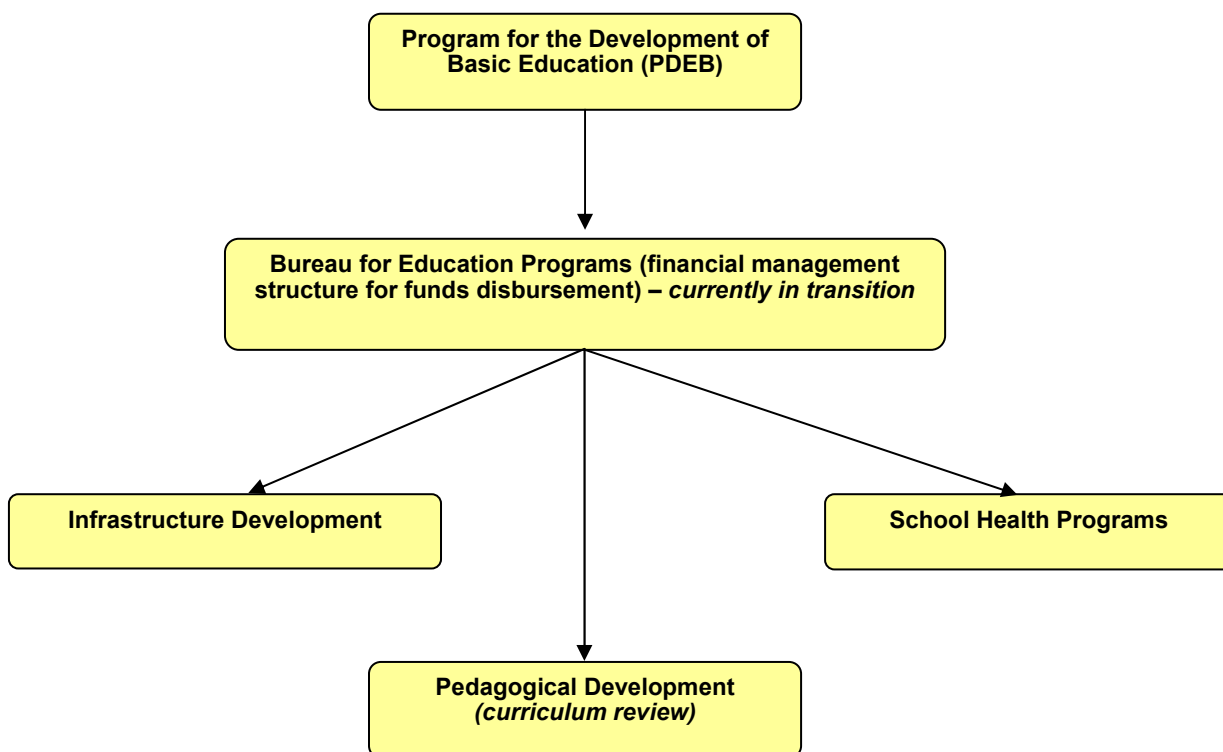
Figure 1: National Education Structure in Burkina Faso



In Burkina Faso, there are both formal and non-formal education structures. Formal education in Burkina includes traditional primary schools (*écoles mères*) and *écoles satellites* designed to increase school enrollment, particularly among girls, by providing schools in areas previously underserved by the traditional primary schools.

Within the formal school system, teachers for *écoles mères* receive one year of teacher training and are then posted by the government to a region/district/school. The government reposts teachers at *écoles mères* from year to year, sometimes posting teachers in regions far from their families and where they may not speak the local language. By contrast, the teachers in *écoles satellites* are members of the communities in which they work, chosen by the members of those communities. They receive a condensed 3-month teacher training that is focused on practical skills. As these teachers are community members, they are not reposted outside of their communities.

Figure 2: Structure of the World Bank Supported Program for Education



The class structure in Burkina Faso for primary school consists of three levels. Students spend 2 years in each class, for a total of 6 years of primary school. The three levels are *Cours Préparatoire* (CP), *Cours Elementaires* (CE) and *Cours Moyenne* (CM). All three classes are available in all *écoles mères*. All *écoles satellites* currently consist of classes for CP and CE, though some have added CM classes to meet the demand of their communities. For *écoles satellites* where CM classes have not yet been added, the students have the option to attend the closest *école mère* CM class. *Ecoles satellites* are usually within 4 km of an *école mère*.

The *Centres d'Education de Base Non Formelle* or DEBNF is the non-formal education government structure created in 1995. These structures typically serve older students (10-15 years of age) who have not succeeded on the various standardized tests in the formal education system, or who have never attended a formal education structure. The skills in the CEBNF focus on basic literacy and trade skills.

Identifying Key Stakeholders in Burkina Faso

HKI had already been working in trachoma control in schools through a project funded by the Bill & Melinda Gates Foundation. From the experience with this project, many key players were already involved: Ministries of Health (CNLC) and Education (PDEB, DGE), WHO and HKI. These key technical players served as a coordinating committee to develop and plan the two workshops, KASPI and advocacy, which eventually led to a nationally appointed steering committee to guide the Hilton Curriculum Project. The past experience of the Gates supported project gave the technical players involved the unique position of being perfectly placed to know the other existing implementers active in school health programs.

Technical Workshop in Burkina Faso

A technical stakeholders meeting was held in the opening days of the project. This meeting played two important roles: first was to resolve building tension between the Ministries of Health and Basic Education regarding the propriety of school health programs and this program in particular; second was to official establish the national steering committee which insured continued interdisciplinary guidance of the project. Permanent members assigned to the Curriculum Project Steering Committee included representatives from the Ministries of Health, Education, Water and Sanitation, representatives from CREPA, UNICEF and the National Committee for Blindness Prevention, as well as representatives from other NGOs working in school health, namely FDC/Save the Children US and Catholic Relief Services.

Engage Stakeholders in Burkina Faso

Trachoma is endemic in all 45 districts of Burkina Faso, with prevalence rates ranging from 11% to 46%. The fact that trachoma is a national public health problem means that trachoma avoids the geographic limits that can pigeon-hole other school health topics. This national endemicity also makes a strong argument when advocating for a trachoma control project and was exploited during the advocacy workshop held during the beginning stages of the project.

Maintenance in Burkina Faso

The Steering Committee continued to meet twice per year for the duration of the project. These meetings served to update members on key activities as well as to secure specific support where needed. Effort was made to include one member of the local steering committee at each of the national level meetings in order to have a first-hand experience from the field.

In addition to these regular meetings, a consultant was engaged at the end of the first project year to evaluate the effectiveness and the functioning of the steering committee. This evaluation served to ensure that members of the committee felt their opinions were valued and that the functioning of the steering committee was a priority for the program implementers.

Curriculum Development Process in Burkina Faso

In the whole of Burkina Faso, there is currently only one curriculum specialist and he is based at the DRDP. This employee is overburdened and often has limited time and energy to devote to all players who would like to incorporate messages into primary school curriculum, particularly as this is an area that is receiving increased attention in Burkina Faso. He is most responsive to projects with additional "motivation" such as a private consultant contract and the fact that he is overburdened weakens the probability that adequate attention and importance will be given to specific elements of curriculum adaptation.

The products developed for the Hilton supported project included:

- *Experiment Protocol*

The protocol was written by the team at the DRDP and presented to the Project Steering Committee for input, comments and eventual validation. It is included as Annex A.

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- *Teacher Training Guide*

The primary author for the guide was the curriculum development specialist also engaged to develop the content of the curricula themselves. The guide followed a similar editing and approval process as did the protocol – reviewed by the Steering Committee for the Project. This guide can be found as Annex B.

- *Adapted Curriculum Guides for CP, CE and CM classes*

As mentioned earlier, a consultant was engaged to develop the curriculum for each level. The consultant is the single curriculum development specialist in Burkina Faso. The three guides are included in the annexes (Annex C-E).

- *Visual aids for each class*

The visual aids used in conjunction with the curriculum guides are those developed previously for use with the Gates supported trachoma and school health project, and drawn by a local artist. Each drawing is the size of standard paper used in Burkina, A4. Laminated copies of 18 drawings were provided to each teacher implementing the new curriculum. Smaller versions are included in this toolkit as Annex F.

- *Hygiene kits for each class*

The hygiene kit provided to each class in Burkina Faso consists of a plastic bucket, a plastic tea pot and a plastic cup for systematic face washing at the school site.

Selecting the Pilot Zone in Burkina Faso

Two important key factors were discussed when deciding on the initial pilot zone in Burkina Faso: the first was the prevalence of trachoma in the region, particularly among children under 10 years of age, and the second was the fact that HKI has a regional presence and thus would facilitate regular access and support to the schools implementing the curriculum for the first time. Eight schools were chosen each year limited by the ability of a single pedagogical expert to conduct monthly supervisions. Criteria for the choice of schools included: equal number of *écoles mères* and *écoles satellites*; distance from district center (for ease of access).

Conducting the Baseline Study in Burkina Faso

At the time of the baseline study, there was still a certain amount of confusion over the prime responsibility of the project between the Ministries of Health and Education. As a result, the Ministry of Health was reticent to give leave to his agents (ophthalmologists) to participate in the baseline study. As a result, trachoma prevalence, while included in the conception and protocol of the study, was not included when conducting the study in the field due to a lack of trained personnel to perform the examinations. Trachoma prevalence was, however, included in the mid-term study and will be included in the final evaluation.

Implementation in Burkina Faso

In May, 2004, a mid-term evaluation was conducted in 4 out of the 8 project schools following 3 ½ months of implementation. As a result of this study, the decision was made to begin implementation in a second set of *écoles mères* and *écoles satellites* in which teachers would receive a briefing on the project and its goals as well as all project materials. The teachers would not benefit from a focused training around the use of the adapted curriculum, but would simply receive a one-day "orientation session" on the materials and the objectives of the project. These schools have become known as "Type II" schools while the original eight schools have been designated "Type I" schools.

Moving Forward

HKI, along with Catholic Relief Services and Save the Children/US (FDC) have formed a consortium that has been awarded the MEBA's World Bank funded school health project. The project will promote an "essential package" of health interventions that includes vitamin A and iron supplementation as well as once-yearly deworming treatments. Each NGO will also include additional activities in their implementation zone designed to eventually be implemented at the national level. HKI plans to include trachoma control as an additional activity in their zone which includes 2 provinces the first year. HKI also serves as the consortium's coordination body. The project will cover 25 provinces in its first year of implementation and all 45 provinces by the third project year.

In order to strengthen the achievements from the original pilot zone of the project, it is planned to integrate the supervision aspect of the teachers' integration of trachoma lessons with the district level supervisors' regular supervision tours. This integration will ensure sustainability of the activity, contribute to teacher quality concerning trachoma prevention lessons and focus training on supervisors rather than teachers as progress is made on the adoption of the curriculum at the national level. Due to the continued challenge of fair enrolment rates, efforts will also be made to strengthen the use of a child to child approach where the students benefitting from the trachoma control lessons are actively transferring the messages to their peers who are not in school as well as other community members

Tanzania Situation Analysis

Mainland Tanzania has a long history of school health programs, with activities beginning as early as 1921. In 1997, The National School Health Program (TNSHP) was developed with assistance from the Irish government. The aim of the program was to develop structures and guidelines for national coordination of district school health programs under the ongoing government reform. Under the TNSHP, a number of policies and activities were implemented.

1. A national school health office was established as a unit in the national Reproductive and Child Health Services Unit at Muhimbili National Hospital. A national School Health Coordinator was assigned to this office and is accountable to the Director of Preventive Services at the MOH. In addition a School Health Coordinator was assigned to the Ministry of Education and is supervised by the Director of Primary Education.
2. District School Health Coordinators were set up in district Ministries of Health and Education offices.

3. A national steering committee was established to guide the activities of the school health program. In addition a technical sub-committee was developed, which gives technical support to school health and nutrition activities.
4. A national survey of the health of school-aged children was conducted through interviews of health education teachers. Survey results were not very effective in assessing health status as they were based on teachers' knowledge of health conditions in their communities.

In November 2000, the National School Health policy guidelines were formulated to which both the Permanent Secretaries of the Ministries of Health and Education were signatories. The policy had three components to guide school health activities in Tanzania—health education, a healthy school environment and school services.

It was also determined that the TNSHP would:

- a. Provide guidelines for the implementation of school health activities in pre-primary, primary and secondary schools (i.e. screening, health education, first aid, safe water supply, sanitation etc.)
- b. Coordinate school health activities among key stakeholders
- c. Advocate the promotion of quality health and education services for school age children
- d. Strengthen the capacity of personnel to establish effective school health programs within the local government structure
- e. Explore ways to provide health services to out of school children

With the decentralization of the health and education sectors in Tanzania, the long-term objective of the school health program is to incorporate school health activities into district development plans and to get funds from the council basket funds where there is a common basket for the Ministries of Health and Education and Culture.

Despite the beneficial implementation of structures and policies at the national level, this has not been translated into school health activities taking place at the district level. Limited data is available at the national school health office about the current situation of school health activities at the district level.

There are also a number of financial constraints. Presently, the school health program receives funds only from the MOH. The districts have not been very successful in incorporating school health activities into their district plans. If they have done so, they receive very limited funds making implementation of activities a challenge.

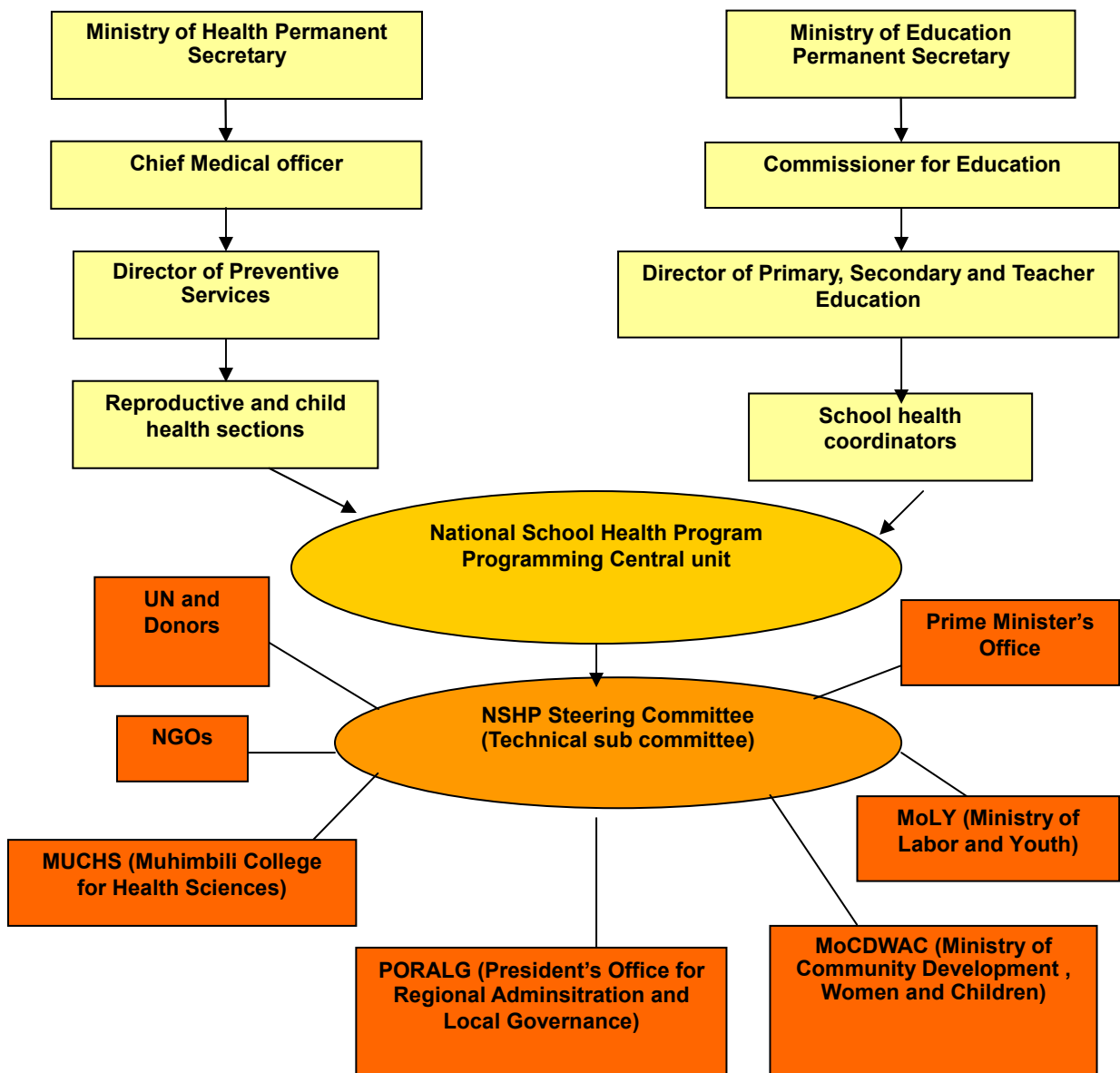
Health education in the classrooms, teacher training and curriculum development fall under the umbrella of the Ministry of Education in Tanzania. The Tanzania Education system comprises of both formal and non-formal sub-systems. In addition to the MOE, the the Ministry of Science, Technology and Higher Education (MSTHE) and the President's Office for Regional Administration and Local Governance (PORALG) are responsible for training and education. Formal education and training is organized and managed around of the following core divisions:

- Basic education division which includes pre-primary education, primary education, adult and non-formal education.
- A secondary education division which is sub-divided into ordinary level (Form 1-4) and advanced level (form 5 and 6)
- Teacher Education Division: This division caters for teacher training programs both pre-service and in-service
- School Inspection Division: This division monitors the delivery of education and adherence to the stipulated curriculum and set standards and ensuring efficiency and quality in education.

The directors of core divisions report to the Chief Education Officer (CEO) who oversees of all academic issues and is the chief policy maker. Four divisions fall under the purview of the CEO—radio education, registration of schools, adult education and special education.

There are 13,533 primary schools in Tanzania with 7.7 million pupils. The enrolment rates vary from 65 to 70% nationwide. In addition to primary schools there are around 9,500 pre-primary schools with 300,000 pupils aged 5-6 years. There are a total of 121,500 teachers divided fairly equally between male and female teachers.

Figure 3: Structure of the National School Health Program in Tanzania



Two bodies oversee school curricula, examination and certification in Tanzania. The first is the Tanzania Institute of Education (TIE) which is responsible for designing, developing, reviewing and monitoring the implementation of the school curriculum at all levels under the MOEC. The other is the National Examination Council of Tanzania (NECTA) which deals with examination and certification. There are centralized examinations at the end of Standard VII, Form 4, Form 6, Teacher Education Certificate and Diploma courses.

The Tanzania Institute of Education is a parastatal organization under the MOEC charged with the responsibility of ensuring the quality of education at the preprimary, primary, secondary and teacher training levels. It was established as an independent organization in 1975 after it became autonomous from the University of Dar es Salaam.

The chief role of TIE is to carry out the design, review, reform of pre-primary, primary, secondary, non-formal and teacher training curriculums in country. They are responsible for the quality of education at those levels and provide professional advice to the MOEC on these matters.

Currently in Tanzania, there is no structured implementation of trachoma control at a national level. However trachoma has been part of the social science curriculum of secondary schools. HKI has been implementing a school health program since June 2000. Through this program, HKI used the four-component approach to implement school health programs modeled after the FRESH (Focussing Resources on Effective School Health) in Tanzania. The four components include life-skills oriented health education, a favorable school environment conducive to behavior change, school health services and community outreach by using children as change agents. HKI piloted a multi-phase teacher training model, which included a pedagogical approach based on action learning with a special focus on the life-skills approach in a couple of districts in central Tanzania.

In Tanzania, the national primary and secondary school health curriculum has been reviewed three times since Tanzania gained independence. The first time was in 1985, then again in 1995, and more recently in 2004-2005. In the first two times, a few changes were made to sections of the curriculum based on its relevance to the environment. In 2004-05, there was a major shift to make it more competence-based and use active learning methods of teaching instead of just the chalk and talk methods.

TIE went through an intense review process of the entire curriculum and some major changes were made to all sections. The curriculum was reviewed by key stakeholders (validated) in March 2005. It is presently waiting approval by the Permanent Secretary of the Ministry of Education and Culture. It is hoped that this new curriculum will be approved by January 2006.

Identifying Key Stakeholders in Tanzania

HKI conducted a situational analysis of the national school health program in Tanzania. Key stake holders were identified. They included the MOH, MOEC, the TIE and the National Eye Care Program (NECP). During the mapping, HKI recognized that the Tanzania Institute of Education would be the key player in this process as it is responsible for curriculum development and review in the country for primary schools. In addition to developing the curriculum, it also plays a key role in outlining the steps involved in pre-testing and introducing the curriculum in schools.

It was decided during a follow-up meeting of the project's steering committee that no formal stakeholders committee would be formed in Tanzania as a national school health steering committee and a national trachoma task force already existed. A small group of stakeholders from these two forums would be called every six months to review the progress of the curriculum project.

Technical Workshop in Tanzania

In August 2003, a workshop was conducted to develop a framework that contained the appropriate Knowledge, Attitudes, Skills, Policies and Indicators (KASPI) on trachoma that would help shape the curriculum. Key stakeholders attended it from the health and education ministries and representatives from Singida and Dodoma region. Similar to the Technical Workshop in Burkina Faso, the A (attitudes) and I (indicators) were dropped from the framework. The concept of Attitudes proved too difficult and so much time was used to clarify this it did not seem worth pursuing. It

was decided that the Indicators and the overall monitoring of the project should be better decided by a smaller group such as a steering committee to allow the participants in this workshop to focus solely on knowledge, skills and the necessary policies to support the teaching content.

Engaging Stakeholders in Tanzania

In Tanzania, repeated efforts were made to hold a stakeholders' meeting, but eventually it was decided that as TIE, the government structure responsible for curriculum development and review was the key actor and intimately involved in all aspects of the project, a workshop was not necessary. However smaller stakeholder's meeting with key partners working on trachoma control and school health was conducted on a regular basis and support sought on project issues.

Maintenance in Tanzania

Trachoma Task Force meetings have proved to be the ideal conduit for preserving stakeholders' involvement in the curriculum project in Tanzania. These periodic meetings offer a forum for the project implementers to update those involved nationwide in trachoma control efforts on the activities of the project. In addition, a number of small meetings were held through out the life of the project to update stakeholders on curriculum development, validation of curriculum, pre test results and progress on the pilot project.

Curriculum Development Process in Tanzania

Helen Keller and the Tanzania Institute of Education signed a formal agreement,—on their collaboration to develop a trachoma curriculum for primary schools. A number of steps were agreed upon to develop, pre-test and train teachers in the use of the curriculum. HKI paid TIE a 10% consultation fee to develop the curriculum.

A curriculum development workshop was held in June 2004 during which TIE, HKI school health staff, school inspectors, zonal inspectors and coordinators of the school health program from the central regions in the country participated in the development of the curriculum. The KASPI framework served as a guideline for the group. To support the curriculum, TIE was commissioned to develop teacher's guides and learning guides in addition to the curriculum that would help in the facilitation of teaching and using the curriculum.

The products developed for the Hilton supported project included:

- The trachoma school curriculum, which consisted of a trachoma syllabus for, grades I to VII and a scheme of work for teachers.
- Trachoma teachers and learners guides were developed to facilitate the teaching and learning process and to serve as a technical and resource guide. Separate guides were prepared for grades I to VII for both teachers and students. A local artist was hired to draw the illustrations for the learner's guides.
- A pre-test questionnaire and focus group discussion guide was developed to pre-test the curriculum and teachers and learners guides in Kongwa district of Dodoma region. The teachers in the district have had considerable experience teaching school health and trachoma through a previously supported school health program and were able to provide invaluable feedback.
- A supervision and monitoring tool to assess the effectiveness of the syllabus and the ease in teachers use.

Selecting the Pilot Zone in Tanzania

TIE and the curriculum team decided that the curriculum should be pre-tested in Kongwa district, where teachers had already been implementing the school health curriculum, to solicit their feedback on the new trachoma curriculum. Based on the feedback from teachers and school inspectors, appropriate changes were made to the curriculum.

A validation workshop of the curriculum by key stakeholders was held in Dar es Salaam to finalize the changes. During this workshop, members of the project steering committee were invited to review the curriculum and provide their feedback.

Conducting the Baseline Study in Tanzania

The steering committee and TIE decided that the curriculum should be tested for its effectiveness in one district of Tanzania. A number of criteria were used to select the district—prevalence of trachoma, minimum school health interventions in that district, relatively fewer number of NGOs working there. The Manyoni district in Singida region in the central part of the country was chosen as the area for piloting. It is characterized by high school enrolment rates (70%), but is one of the poorest districts in the country, characterized by famine and frequent droughts. A prevalence survey was carried out in 30 schools in the district. 20 schools with the highest trachoma prevalence were then chosen as a subset from the 30 schools surveyed. These 20 schools were randomly assigned to program and control schools. In all the 20 schools a KAP (knowledge, attitudes and practices) survey was conducted among teachers and school pupils. The methodology used in selection of students for the KAP survey and the design and questionnaire have been attached as Annexes. An endline evaluation will be carried to assess the change in knowledge and practices among teachers and students in program and control schools.

Implementation in Tanzania

Forty teachers were trained in the selected pilot zone on how to use the new curriculum. The training was conducted by TIE in conjunction with the school health coordinators from that district. In addition to teacher training, a two-day training was conducted for school inspectors and ward education coordinators who work closely and supervise teachers in the districts.

Following the training, teachers and learners guides were distributed in 10 pilot schools. The learner guides were given to students in the ratio of 3:1 (3 students/ 1 set of books which is in line with the recommendations from TIE and the MOE.

Moving Forward

In Tanzania, the timing of the curriculum project was ideal as it occurred when Tanzania was in the process of reviewing its primary school curriculum. The decision by TIE to make their new primary school curriculum competence based also fit well with the project's needs to emphasize life-skills and active learning methods to promote decision-making skills among school children.

The trachoma curriculum developed under this project has been accepted into the new primary school curriculum. This provides us with an opportune time to roll it out into the districts where trachoma is endemic based on the MOE and district roll out plan for the curriculum.

HKI will work with the MOEC and TIE to support the roll out of the new primary school curriculum in Tanzania. Support will be provided in the areas of in-service teacher training, support and supervision and to develop a monitoring and evaluation plan to ensure quality assurance in the teaching of the new curriculum. Wherever possible, trachoma training of the new curriculum will be added on to the teacher training in country.

PART III: KASPI

KNOWLEDGE	ATTITUDES	SKILLS	POLICY	INDICATOR
Trachoma What it is, how its caused and that its preventable and...	T is nasty; protect	Recognise risky situations	Schools promote & protect eye health and	
Treatment Curable provided you comply	Full treatment is good & effective for all	Demonstrate: an argument for treatment and importance of compliance	Treat or refer trachoma Advocate for training and resources to treat	Number of untreated active trachoma cases
Flies Flies spread disease Flies are attracted by dirty faces	Keep flies off your face	Cleaning face Window screen	Latrines and dung / rubbish free schools	Fewer flies generally and on faces (perceived and actual)
Cloths Sharing cloths spreads T Cloths need drying	I like <u>my</u> cloth	Demonstrate an argument for a) own cloth b) not using other wipes Develop a way of identifying own cloth	Ensure availability of cloths Sharing cloths forbidden	Individual cloths available and used Cloths not shared
Clean faces Clean faces and hands prevent disease	Dirty faces are uncool, clean faces are cool	Can keep face clean Argue for water at school and home, face washing,	Water or individual cloths available at school	% of clean faces (no nasal and ocular secretions)
Latrines Using latrines reduces disease What is a good latrine	Defecating just anywhere is bad Latrines can be okay	How to maintain latrines; Argue for and explain how and why they should be built	Boys and girls Proper maintenance Identified responsible person Monitor use and acceptability	Latrines: available; in use acceptable & free of faeces
Environment Dirty environments are dangerous Need to clean up rubbish, dung and faeces Knowledge of safe disposal methods	Pride in your environment	Clean up after markets and animals Demonstrate arguments in favour of garbage and dung management	Maintain clean environment around school Identified responsible person Rules for safe disposal of all waste	Absence dung, garbage and faeces

Four stages

1) Orientation Session. Target key stakeholders (ministry National blindness Committee, Professional teacher trainers; teachers) and market idea to them. Identify head honcho in the country (eg Regional or District Education Officer).

2) Project Development Workshop. Work with ordinary teachers to prepare material and train them to deliver it. It is vital a) to include professional trainers (Ward Education Officers in Tanzania) and Curriculum Developers as part of team and b) to start by reviewing and building on existing teaching materials and policies.

3) Pilot Study. The newly trained teachers then get on with teaching the material, with professional trainers and curriculum developers involved in evaluating it.

4) Larger Scale Trial. Market to key stakeholders.

Guiding principals:

1. Start by reviewing existing policies and materials
2. Motivate teachers and schools
3. Ensure replicability
4. Include head teachers and small team per school to create critical mass
5. Go local and cheap to ensure actual trainers come, not free loading bosses
6. Use their facilities, and facilitate *them* running workshops
7. Identify responsible officer for management of project in each country
8. Ensure in-country ownership

Benefits

No additional teaching materials
Minimal training
Minimal classroom time
Helps across the curriculum
Ground breaking and world leading
Well resourced

Monitoring and Evaluation

Aim

To develop a **global** model for the design and implementation of a school based curriculum for the **effective** prevention of trachoma.

Objectives

These cover both effectiveness and replicability
Effectiveness. In terms of process and outcome.

1. the teaching is delivered
2. that children and teachers are knowledgeable about trachoma
3. school's have a clean environment
4. there is no untreated trachoma
5. there is an acceptable level of facial cleanliness
6. the profile of trachoma issues in the wider community is raised

Replicability To compare how this methodology works in the two intervention countries and identify key

- a. similarities and differences
- b. implications for replication in other countries

DIY:

Involve students and treat evaluation as a learning experience
Combine with other topics

Indicators

The process

Ease of implementation

QUESTIONS	INDICATORS
Is it implemented?	Teaching happening?
Is it implemented well?	Interactive as well as didactic teaching
How easily?	Teacher, trainer, leader availability Teachers like it Ministry buy in
How quickly?	Time between workshop and first lesson
How effectively?	Ownership
How cost effectively?	Cost per school
Can it be diffused more widely with in each country? If so, how?	
Can it be diffused more widely in other countries? If so, how?	Other countries requesting it

PDR, proliferative diabetic retinopathy
 Four-stage system used: none, mild NPDR, moderate–severe NPDR, proliferative DR
 () - Photographs ungradeable

Workshops Who attends?

Top level informed, not necessarily involved
 Go as high as you can
 UNICEF

Format

1. Rationale / problem definition
 2. Info about trachoma
 3. Info about the project
 4. Logic behind this learning method
 5. Existing resources
 6. Link between behaviours and KASPI
 7. Over to them to develop learning experiences (with template)
 8. Over to curriculum developers to turn into finish materials
-

