

Delivering trachoma interventions to special populations:

A toolkit for program managers

ICTC International Coalition for Trachoma Control

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The views expressed are based on ICTC members' experiences and do not necessarily reflect the official positions of individual member organizations.

This toolkit is dedicated to Aryc Mosher—a passionate and tireless advocate in the fight against neglected tropical diseases—who contributed significantly during the early stages of this task team before his passing in July 2023.

Front cover image: An indigenous woman in the Tocantins Special Indigenous Health District, Brazil, being assessed for trachoma. Photo credit: Karina Zambrana, OPAS/OMS

Foreword

Trachoma, the world's leading infectious cause of blindness, disproportionately affects the most remote and marginalized communities.

Within the global population at risk of trachoma, some groups face additional barriers to accessing interventions due to social, ethnic, cultural, religious, and/or geographical factors. These "special populations" include, but are not limited to, refugees, internally displaced persons (IDPs), and indigenous and nomadic communities. These groups are often referred to as "statistically invisible," as their disease burden may be masked by the dominant population in population-based surveys. Achieving equitable access to trachoma services requires targeted efforts to identify and reach these groups, remove systemic barriers, and tailor interventions to their specific contexts and needs.

This toolkit can be used in several ways:

- 1. as a guiding resource for organizations with limited or no experience working with special populations;
- 2. as a step-by-step planning guide for organizations already engaged with these groups;
- 3. as a reference document outlining key planning components; and
- 4. as a tool to engage non-trachoma partners in the planning and delivery of trachoma interventions for special populations.

We believe this resource is important because, ultimately, including special populations in the global trachoma program isn't just about fairness; it's about achieving our goal of eliminating trachoma as a public health problem with no one left behind. Neglecting these groups means leaving an important portion of the global at-risk population vulnerable, undermining the effectiveness of the entire program and prolonging the social, health, and economic burden caused by trachoma. By actively seeking out and tailoring interventions for these communities, we ensure that no one is left behind while maximizing our contribution to the achievement of universal health coverage.

Dr. Angelia Sanders

Executive Group member, International Coalition for Trachoma Control, 2019–2025

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List of acronyms

AE	Adverse event	MoU	Memorandum of Understanding
CBC	Community-based counselor	NGO	Non-governmental organization
EU	Evaluation unit	NTD	Neglected tropical disease
FAO	Food and Agriculture Organization of the United Nations	SAFE	Surgery, Antibiotics, Facial cleanliness, Environmental improvement
GBV	Gender-based violence	SAE	Serious adverse event
GESI	Gender, equity, and social inclusion	SGBV	Sexual and gender-based violence
ICTC	International Coalition for	TF	Trachomatous inflammation-follicular
	Trachoma Control	TT	Trachomatous trichiasis
IDP	Internally displaced person	UN	United Nations
IOM	International Organization for Migration	UNHCR	United Nations High Commissioner
IRB	Institutional review boards		for Refugees
ITI	International Trachoma Initiative	UNICEF	United Nations Children's Fund
KAP	Knowledge, attitude and practice	WASH	Water, sanitation, and hygiene
	surveys	WHO	World Health Organization
MDA	Mass drug administration		Č

Introduction

In 2023, the International Coalition for Trachoma Control (ICTC) convened a task team to document strategies and challenges associated with implementing the World Health Organization (WHO)-endorsed SAFE (Surgery, Antibiotics, Facial cleanliness, and Environmental improvement) strategy and surveys among special populations. The aim was to develop this toolkit to support more effective planning and implementation.

The practices outlined in this publication are the result of extensive stakeholder engagementincluding consultations with health ministriesto identify the various special populations within trachoma-endemic countries and to better understand why it is essential to recognize them as such. This process emphasized the importance of acknowledging the unique barriers these groups face and how these barriers shape the challenges of delivering equitable trachoma interventions. The task team also documented examples of how and where these populations have been included in program implementation and the lessons learned.

This toolkit outlines key considerations for stakeholders planning trachoma interventions targeting special populations, as well as those funding them. It includes guidance on conducting situational analyses and surveys, building strategic partnerships, planning for implementation, and advocating for inclusive approaches. In addition, it offers a collection of practical tools that can be used or adapted to enhance program efficiency and effectiveness.



A community drug distributor with a child during a trachoma mass drug administration campaign in Yemen. Photo credit: Gabreez Production/Sightsavers

SECTION ONE

Situational analysis

A situational analysis is a systematic approach to understanding the key factors that influence health interventions in a specific setting.

In the context of trachoma elimination among special populations, it helps identify social, economic, political, and health system-related conditions that shape access to care. This process involves assessing service delivery gaps, policy frameworks, community dynamics, and barriers to implementing trachoma interventions. By conducting a thorough analysis, stakeholders can develop tailored community-focused strategies to address the unique challenges of reaching special populations with trachoma interventions.

This chapter highlights key factors influencing strategies for effectively reaching special populations with trachoma services. While not exhaustive, it provides essential foundational knowledge for effective program planning and implementation, ensuring interventions address the unique needs and barriers faced by special populations.



Dr Koba Mjumbe Crispin, CBM, leads a team preparing to travel by motorised canoe to remote villages in the Democratic Republic of Congo. Photo credit: Joseph Moura/The END Fund/CBM

Understanding the context

What is the local context?

Tailoring trachoma interventions to the specific needs of special populations requires a deep understanding of the local context. This includes not only identifying barriers to accessing services but also understanding the social and cultural factors that shape whether services are trusted, accepted, and used. The local context includes environmental, social, and economic factors that shape health outcomes and may include conflict dynamics that affect daily routines. When planning interventions, it is crucial to consider how these factors may also influence their effectiveness. Below are key elements to guide this understanding:

Healthcare access and acceptability: Assess the availability of healthcare services, including clinics, mobile health units, and health workers. In conflict zones or remote areas, healthcare may be limited or disrupted, making outreach services essential to ensure these populations are not excluded from trachoma elimination efforts. Equally important is the need to design or tailor services and programs that are perceived as safe, respectful, and responsive to the needs of diverse groups-particularly women, people with disabilities, and other socially excluded populations. Understanding the attitudes of health system personnel towards special populations and how this may shape trust and treatment-seeking behaviors, is critical.



A community-based counselor (right) offers emotional support to a Maasai woman before TT surgery in Tanzania. Photo credit. Gerald Thadeus Moshi/Kilimanjaro Centre for Community Ophthalmology

Community structures: Traditional leadership and decision-making roles within communities play a crucial role in how health services are received and used. Engaging key community leaders, such as elders or religious figures, helps build trust and ensure intervention success, as it can legitimize interventions and promote community-wide acceptance. Considering gender dynamics and leadership structures is essential when designing programs.

Conflict sensitivity and conflict dynamics:

Conducting a conflict analysis and sensitivity assessment is an important component of a situational analysis. These assessments help identify how conflict affects the community and how trachoma interventions might interact with ongoing tensions. Further, these analyses can also help assess how conflictrelated trauma or mistrust may affect whether special populations accept and participate in trachoma services. Understanding these factors helps prevent unintended consequences and ensures interventions are conflict-sensitive.

Community-centered timing of interventions:

Daily routines—including work, school, caregiving responsibilities, and travel hours significantly influence when and how programs should be delivered, especially in conflictaffected settings. Designing interventions around these routines helps ensure services are both accessible and acceptable. Developing a community calendar that includes religious and cultural events can further align program delivery with local rhythms and avoid unintended disruptions. It's also critical to consider the opportunity costs of participation, particularly for women and low-income households. Engaging in health interventions may require foregoing income, household duties, or essential tasks like collecting food and water. Timing services to minimize these tradeoffs can increase participation and equity.

Case study: Knowledge, perceptions, and experiences of trachoma among Maasai in Tanzania

In northern Tanzania, research was conducted to better understand Maasai populations given their unique population dynamics and risk of trachoma. Researchers learned that while awareness of the disease and its basic symptoms was relatively high, there was limited understanding of its causes and prevention. Knowledge of MDA was inconsistent, and many community members rely on traditional treatments for conjunctival inflammation—including the harmful practice of using a rough leaf to scratch the inside of the

Moreover, trichiasis was commonly perceived as a condition affecting older women and not something that could be prevented. The findings were used by partners to better engage with indigenous knowledge systems to develop culturally appropriate, context-specific interventions. Working within local belief systems and building trust will be critical to improving prevention, treatment uptake, and overall eye health in these communities.

Learn more

Population movement and migration patterns:

eyelid until it bleeds.

In communities where migration is common, it is important to consider who migrates, for what reasons, at what times of the year, and to where. This information is crucial for planning outreach and ensuring continuity of care for those affected by trachoma, particularly in mobile populations such as pastoralists.

Economic conditions: Poverty significantly impacts healthcare access and participation in trachoma interventions, such as surgery to treat trachomatous trichiasis (TT). Economic hardship often limits travel options for treatment and follow-up, and it hinders engagement with health programs, especially in conflict-affected or displaced communities and among underserved populations. It also shapes the perceived value of interventions. Notably, families or households may not prioritize participation if services are not clearly seen as urgent, effective, or feasible. This insight can help programs account for how economic hardship limits not only physical access but also people's willingness or ability to participate.

Operational planning and coordination: In insecure and rapidly changing environments, program planning must also account for the broader operational landscape. Coordinating with other health and humanitarian actorssuch as those providing immunization or distributing food—can help avoid duplication, reduce logistical burdens on communities, and improve program efficiency. Timely information on conflict dynamics is essential for planning and safety. Various agencies actively monitor and report on conflict situations in specific countries and regions, offering critical updates that support evidence-based decisions on where and when programs can be delivered safely and effectively.

Water, sanitation, and hygiene: Access to clean water, sanitation, and hygiene (WASH) is crucial for preventing and sustaining progress for trachoma. In many conflict-affected or crisis settings, WASH services may be inadequate, increasing disease transmission. Understanding community perceptions around cleanliness, hygiene, and disease transmission is important to ensure WASH interventions are not only available but also culturally acceptable and sustainable. Conducting formative research on how different groups use and distribute water within families, communities, and for livestock provides essential insights for program planning. More broadly, such research can help understand and inform WASH behaviors and interventions, supporting the development of context-appropriate and effective strategies across the full spectrum of WASH needs.

Cultural beliefs, social norms, and their impact on programming

Designing culturally appropriate and gendersensitive health messages is essential for effective programming. Cultural beliefs about health, disease, and medicine significantly influence the success of trachoma interventions, especially among special populations. Factors such as perceptions of eye health and hygiene, as well as cultural beliefs related to age and gender, can shape access to and acceptance of healthcare services. These factors may include:

Traditional beliefs and practices: Many communities rely on traditional healers and community-based health knowledge sources for healthcare. Understanding how these practices influence beliefs about eye health, hygiene, and treatment-seeking is essential. Programs should identify both the beneficial and potentially harmful practices related to trachoma, working collaboratively with traditional healers and community influencers to align messaging and promote safe, culturally accepted care. Traditional healers can be important allies in building trust, encouraging participation in interventions, and reinforcing behavior change messages.

Perceptions of eye health: Perceptions of eye health and illness vary widely across cultures and communities. In some communities, blindness or eye disease may be attributed to spiritual causes, natural aging processes, or other factors, rather than medical conditions. These beliefs can shape how people perceive the cause of trachoma and whether they see medical interventions, like mass drug administration (MDA) or TT surgery, as necessary or appropriate.

Designing culturally appropriate and gender-sensitive health messages is essential for effective programming.

WASH practices: Improving hygiene, particularly face washing, plays a crucial role in reducing trachoma transmission. Designing culturally appropriate and gender-sensitive health messages is essential for promoting behavior change. While women and girls are often expected to manage household hygiene, programs should avoid reinforcing these roles and instead promote shared responsibility among all household members. Understanding how social norms shape hygiene behaviors across genders and age groups can lead to more equitable and sustainable behavior change strategies.

Gender, age, and intersecting dynamics:

Cultural and social norms around gender and age significantly influence who can access healthcare, whose health needs are prioritized, and how people experience trachoma-related services. In many settings, men may have greater autonomy in seeking care, while women and girls may face mobility restrictions or require permission from male family members to seek care. At the same time, men may be missed entirely due to work-related travel or social norms discouraging preventive care. Additionally, other intersecting factors, such as disability, ethnicity, marital status, displacement status, and income level, can compound barriers to equitable access and influence how interventions are received. Tailoring interventions to these intersecting dynamics is critical to ensuring they are inclusive, equitable, and contextually appropriate. This includes adapting delivery strategies, staffing models, communication approaches, and follow-up mechanisms based on local realities.

Further information about conducting gender, equity, and social inclusion (GESI) assessments is available in **Supplementary material 1**. The material provides a structured approach to identifying and addressing GESI gaps in trachoma programming. However, elements of GESI analysis should be captured through the situational analysis covered in this chapter. Programs should consider how to pair these approaches and determine when a dedicated, more focused GESI assessment is warrantedparticularly in settings with heightened vulnerability, social exclusion, and/or complex power dynamics.

Communication strategies: Health messaging must be tailored to the cultural context, language, and literacy levels of the target population. Qualitative research is often essential to understand which communication channels and messages are most effective, what resonates, who delivers the messages best, and how trust is built. Using local languages, cultural references, visual tools, and trusted voices, including targeting appropriate literacy levels, enhances uptake. Involving members of the target community in message development and pre-testing materials ensures that the intended message aligns with community perceptions and needs. In the context of working with refugees, the program should consider contacting the trachoma program/partner in the origin country, as health education tools in the refugees' language will likely already have been developed.

Challenges in reaching special populations

Special populations are often underserved for trachoma elimination due to a combination of social, economic, geographic, and political factors. These groups face systemic and intersecting barriers that not only limit their access to healthcare services but also their acceptance and trust in those services. Their unique circumstances necessitate targeted strategies that are intentional, communitydriven, and equity-oriented to ensure trachoma interventions are accessible, inclusive, and effective. Understanding these challenges—and how they vary across and within population groups—is critical for designing inclusive and responsive programs.

Mobility and displacement: Many special populations are either mobile or displaced. Pastoralists frequently migrate in search of grazing lands, and refugees and internally displaced persons (IDPs) may move due to conflict, climate shocks, or insecurity. This mobility complicates efforts to maintain consistent healthcare interventions like MDA and follow-up care for TT surgeries. Population movement may also result in communities crossing international borders that are recognized by the national government but not the local communities. Therefore, districts along the border are likely to have fluctuating population numbers, which can impact intervention targets and achievements. Additionally, mobility can intersect with gender and age-men, women, and children may move at different times or for different reasons, affecting who is present and reachable when services are planned.

Geographic isolation: Populations such as indigenous groups, pastoralist communities, and refugees often reside in remote, hardto-reach, or insecure areas with limited infrastructure. Refugee and IDP camps may be located in isolated regions with poor access to health services, sanitation, and clean water, all of which contribute to trachoma transmission and complicate service delivery. Physical distance can also be compounded by social and political distance, as these populations could be unfamiliar to health actors, live outside typical service areas, or fall through administrative gaps.

Case study: Achieving health equity for indigenous populations at risk of trachoma in Colombia

Reaching indigenous populations with trachoma interventions in Colombia provided several practical examples and key lessons. First, community engagement is essential for building trust and increasing the uptake of health services. Second, integrated approaches not only improve overall health outcomes but also help reduce the cost of interventions. Experiences from Colombia also highlighted the importance of coordinated efforts across multiple

stakeholders and funding sources. Finally, the country demonstrated how government policies can accelerate progress; notably, Colombia's peoplecentered and rights-based approach to health care has enhanced access and participation among indigenous communities, ensuring interventions are both inclusive and effective.





A cattle camp in Budi, South Sudan, which was assessed for trachoma. Photo credit: Stella Abuda/ The Carter Center

Limited healthcare infrastructure: Special populations may not be integrated into health systems. Refugees, for example, may rely on services provided by international organizations or non-governmental organizations (NGOs), while indigenous and nomadic groups may have minimal interaction with formal health systems or may rely on informal providers, resulting in exclusion from routine health interventions. As a result, needs may not be captured in official planning or data systems, and certain populations may be unaware of available services or lack trust in unfamiliar providers. This can lead to a disconnect between service availability and actual participation, particularly where health-seeking behavior is shaped by previous experiences of neglect, discrimination, or confusion over who provides which services.

Legal and administrative barriers: Refugees, stateless persons, and undocumented individuals may face legal barriers, such as a lack of identification, fear of legal repercussions, or unclear eligibility for care, that prevent them from accessing healthcare services. Indigenous or nomadic groups may not be formally recognized within national policies or health planning structures. These legal and administrative barriers not only prevent access but also reinforce exclusion, making it harder for individuals to seek care confidently and for programs to account for them in official systems.

Discrimination and societal exclusion: Special populations may face discrimination based on ethnicity, tribe, religion, caste, nationality, and/ or displacement status. This can manifest in disrespectful care, lower prioritization, or even active exclusion. In some settings or contexts, seeking care may expose individuals to real risks, such as sexual harassment at health facilities, retaliation for accessing services without a male guardian, arrest or deportation for undocumented individuals, or ethnic targeting in politically tense areas. Others may face community backlash for engaging with 'outsider' programs or be coerced into paying bribes or offering favors in exchange for care. These dangers, alongside fear of mistreatment or judgment, can significantly deter participation in trachoma-related services. This exclusion is often multi-layered, with certain subgroups experiencing severe or compounded barriers that further isolate them from essential services.

Distrust and historical marginalization: Many special populations, particularly refugees, IDPs, and indigenous persons, carry deep-seated distrust of authorities and external actors due to past trauma, broken promises, or coercive interventions. This can lead to hesitation, nonparticipation, or resistance—even when services are technically available. Trust must be earned and cannot be assumed. Understanding how past experiences shape current attitudes is essential for planning respectful, communityaccepted approaches that build rather than erode confidence.

See **Appendix A** for a checklist of key contextual considerations.

Health system and service delivery: Evaluating capacity and gaps

Evaluating the capacity and gaps in service delivery is essential to ensuring that trachoma interventions reach special populations effectively. Key considerations include the availability, quality, and accessibility of health infrastructure, the presence of trained healthcare personnel, and the integration of trachoma services into broader health, development, and humanitarian programs. Health personnel, if not a member of the target community, should at minimum be familiar with and empathetic towards the

community's culture and, critically, trusted by the communities they serve. Furthermore, coordination between national programs, NGOs, and local health services is critical to avoid duplication of efforts and ensure continuity of care. Strengthening supply chains for essential medicines and surgical services, improving data collection and monitoring systems, and fostering community-based healthcare approaches are all crucial steps in addressing these capacity gaps and enhancing service delivery for trachoma elimination.

Policy and programmatic landscape: Reviewing guidelines and existing interventions

Understanding the policy and programmatic environment is essential for designing effective trachoma interventions. This includes:

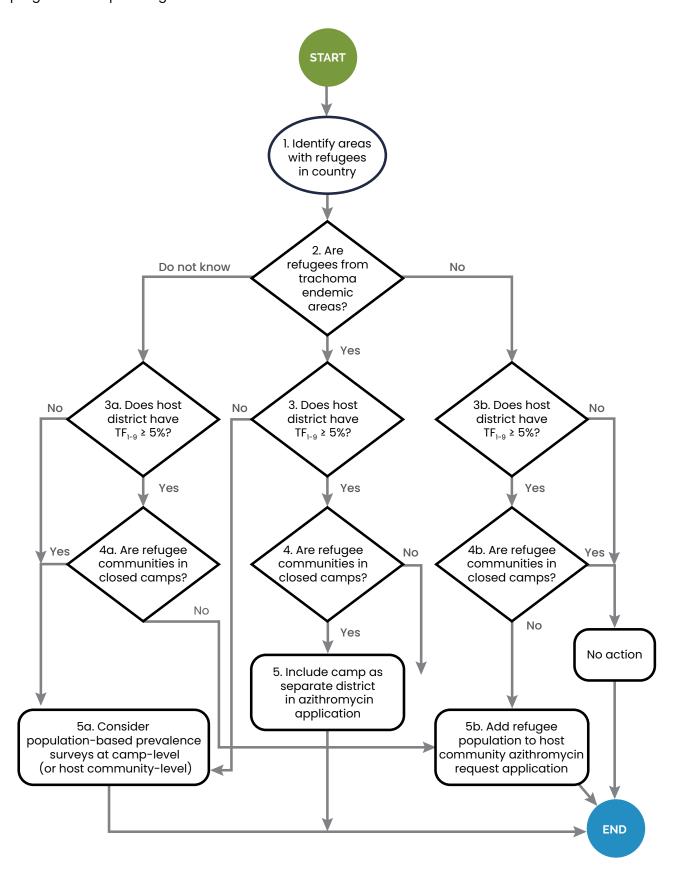
- Reviewing national and international guidelines and best practices for neglected tropical disease (NTD) programs and determining how they apply to special populations. For example, the trachoma program has guidelines that can be used when requesting a drug donation through the International Trachoma Initiative (ITI) for certain special populations (Figure 1).
- Identifying whether existing health or NTDrelated policies explicitly recognize or include provisions for special populations.
- Mapping existing initiatives that already target or work with special populations and understanding their scope, effectiveness, and community engagement strategies.
- Reviewing funding mechanisms and donor priorities, especially those emphasizing equity, localization, and/or community-led approaches.
- Ensuring alignment with national government policies, health system strategies, and humanitarian coordination frameworks.

A strong understanding of this landscape not only supports operational coherence, but it also helps ensure that programs avoid duplicating efforts, build on existing trust, and support the long-term integration of special populations into national health systems.



A refugee camp in Gambella, Ethiopia. Photo credit. Madison Bearden/The Carter Center

Figure 1. This flow chart was developed by the International Trachoma Initiative (ITI) and the Trachoma Expert Committee to determine inclusion of refugee communities in annual azithromycin requests for donations through ITI for trachoma mass drug administration. It is not a tool for programmatic planning.



SECTION TWO

Surveys

Introduction

Prevalence surveys determine if trachoma is a public health problem and inform the number of required MDA rounds, if MDA is needed. They also provide the necessary data for WHO to validate countries as having eliminated trachoma as a public health problem. There has traditionally been a standard method to conduct surveys; however, it is recognized that special populations may require adapted approaches to generate data that would be helpful to health ministries and their supporting partners. Furthermore, these adapted approaches may be needed to generate data that is not only technically valid but also contextually relevant and ethically sound. This chapter summarizes considerations to take into account when conducting prevalence surveys with special populations. More detailed information on survey design and implementation is provided in **Supplementary** material 2.



Maasai community members in the Ngorongoro District participating in a mass drug administration campaign for trachoma elimination. Photo credit: Birgit Bolton/ International Trachoma Initiative

Standard trachoma prevalence survey methods

Standard trachoma prevalence surveys, as recommended by WHO, utilize a two-stage sampling method within Evaluation Units (EUs), focusing on providing prevalence estimates in individuals ages 1-9 years for trachomatous inflammation-follicular (TF) and ≥15 years for TT. In general, an EU is a district, which, for trachoma elimination purposes, WHO defines as "the normal administrative unit for healthcare management, consisting of a population unit between 100,000-250,000 persons." In the first stage, clusters (communities)

are generally selected with a probability of selection proportional to population size. In the second stage, households are selected, with the most common methods being simple random sampling, systematic sampling, and compact segment sampling. Within each selected household, all individuals ages ≥1 year are examined for clinical signs of trachoma, including TF and TT. The majority of surveys worldwide are conducted with Tropical Data support. Learn more at tropicaldata.org.

Partnerships and collaboration

For effective surveys with special populations, it is important to consider collaborating with relevant stakeholders like WHO, funders, and specific organizations such as the United Nations High Commissioner for Refugees (UNHCR) for refugees or the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) for IDPs, tailoring your

approach to the context and population. These partnerships can provide critical information, such as the most recent population data, which will be needed to ensure appropriate survey methods and implementation support, particularly crucial for vulnerable groups like refugees, IDPs, and those in insecure or mobile areas.

Understanding the context

An important basic principle for surveys is that communities and field teams should not be put at risk. The Global Trachoma Mapping Project included "where undertaking mapping might put field teams at a security risk" as an exclusion criterion for where to map. Therefore, it is essential to assess the local security situation and determine whether survey activities can safely proceed. This includes evaluating conflict dynamics, physical accessibility, and coordination with local authorities and humanitarian actors. Establishing clear safety protocols and communication mechanisms is critical, especially in conflict-affected or hard-toreach areas.

It is also important to understand the broader context in which the program is collecting data in order to determine the best survey methodology and its implementation. This might include the timing of population movements, patterns of population settlement, An important basic principle for surveys is that communities and field teams should not be put at risk.

cultural norms, community beliefs, power dynamics, and previous experiences with health surveys or government actors. Programs should assess how these factors may influence participation, trust, and data quality. This deeper contextual understanding can inform decisions about team composition, messaging, consent procedures, and community entry strategies. A strong grasp of the social and cultural context helps ensure that the survey is not only technically sound but also inclusive, respectful, and locally accepted. Where possible, teams should refer to findings from a situational assessment (see Section 1) to ensure alignment and avoid duplication of efforts. This also helps ensure that survey planning builds on a comprehensive understanding of the population's needs, vulnerabilities, and social dynamics.

Key questions to consider when surveying in a refugee/IDP camp:

- · What is the reason for wanting to survey the camp?
- Where do the refugees/IDPs come from? Are trachoma prevalence data available from their home location?
- · Is the camp closed, with limited movement between camp residents and the host population?
- Should the camp population be surveyed separately from the host district or as part of the host district?
- · What existing prevalence data are available for the host district?

- · If survey results indicate a trachoma prevalence that warrants SAFE interventions, is the program capable and willing to implement SAFE activities within the camps?
- What local actors (e.g., camp leadership, NGOs, community health workers) should be engaged in advance to build trust and support for the survey?
- Are there any protection concerns—such as fear of authorities, trauma, or stigmathat could affect participation or consent?
- How will gender, language, and cultural norms be addressed in the composition and training of the survey team?

Understanding when to survey

Determining survey timing involves multiple variables, with insecurity requiring tailored approaches and continuous monitoring for safe implementation windows. In insecure areas and in refugee/IDP camps, pre-survey censuses and adherence to access regulations (such as when survey teams can physically be in a camp) contribute to accurate data collection and

team safety. It is also important to understand any unique population movements that could impact when certain segments of a population may be unavailable, for example, if the dry season results in cattle herders being away from the village for extended periods of time, or if the rainy season prevents access to certain geographical locations.

Cultural and linguistic considerations

Programs must consider factors such as the reason for the survey, population origin, camp access, and intervention capacity, alongside cultural and linguistic aspects, to tailor survey methodology effectively. Survey population characteristics—such as nationality, ethnicity, tribe, culture, and language-should be considered, especially when working with marginalized or at-risk populations. These factors may influence survey methodology, including team composition, as well as how the survey is received and whether participation is safe, meaningful, and inclusive.

A woman has her eyes checked for trachoma in a refugee camp in Ethiopia. Photo credit. RTI International/Yonas Getachew

For example:

Gender dynamics: In some cultures, men are not allowed to examine women, which could lead to the under-representation of women in survey data. In such cases, ensuring that women are trained as graders and recorders is crucial.

Language barriers: Communication is essential for informed consent, accurate responses, and respectful engagement. It may be necessary to include field team members who speak the local language or dialect and who are trained to communicate in culturally appropriate ways, which can significantly improve both data quality and community trust.

Building trust and community legitimacy:

Surveys require participants to share personal information and often permit physical examination of children. In communities with histories of marginalization, this can provoke fear or suspicion. A well-composed, culturally competent survey team, including trusted community members, is key to fostering confidence in the process and encourages participation. Programs should invest in sensitization activities before fieldwork begins to introduce the team and the purpose of the survey in a transparent and respectful manner.

Ethical protocols, consent, and safeguards

Prior to conducting surveys, programs must consult relevant ethical authorities such as institutional review boards (IRB), which may grant waivers for programmatic surveys. Surveys involving special populations may require heightened ethical clearance and official permissions from agencies overseeing the camp and district-level administrative authorities. Informed consent, in a comprehensible language and format that is culturally and linguistically appropriate, must be obtained from all participants and must consider varying levels of literacy and trust in institutions. Programs should avoid using authority figures or gatekeepers in a way that might imply coercion, especially in settings where participation may be perceived as linked to access to services or protection.

Data confidentiality is critical, particularly when working with displaced, undocumented, or stigmatized groups. Programs must ensure that personal or identifiable data are stored securely, anonymized where possible, and never used in ways that could place individuals at risk.

In contexts where trauma, discrimination, or forced displacement are part of the population's experience, ethical engagement goes beyond standard procedures. Survey teams should be trained in trauma-informed practices and respectful communication, and community engagement should begin early to build trust and clarify the purpose and voluntary nature of the survey.

Additional data collection considerations

While household surveys typically include standardized questions, programs may consider incorporating additional questions to better understand the social, cultural, or demographic aspects of special populations that will inform decision-making. For example, when conducting surveys in refugee or IDP camps or among mobile/migrant populations, it may be useful to ask about their place of origin. This information can help programs cross-reference disease prevalence data with population movements.

Survey teams are equipped with information to assess for trachoma and provide information to communities in areas where trachoma is suspected to be a public health problem. Photo credit: Karina Zambrana, OPAS/OMS

Given the challenges of surveying special populations, the program should assess whether additional indicators should be included to enhance the quantity and quality of data collected. For example, in areas with a history of insecurity, incorporating the collection of dried blood spots for serological testing into the survey could provide valuable data on past exposure to ocular C. trachomatis, while also offering insights into other NTDs, vaccine-preventable diseases, or vectorborne diseases. Additionally, eye photography could be used for supervision and quality assurance purposes, particularly for hardto-reach populations. However, before incorporating additional diagnostic indicators, it is essential to confirm that the populations are receptive to these additional data collection methods. For example, some refugees may be uncomfortable with blood sample collection or eye photography. Additionally, diagnostic test inclusion requires careful consideration of logistics and increased survey human and financial resource allocation.

Sampling and data collection methods for special populations

EU formation

A number of different EU formation approaches can be used for each type of special population.

Special population surveyed as a standalone EU

This approach is typically used for populations that are distinct from the surrounding communities, such as residents of refugee or IDP camps, or highly mobile migrant populations. In these cases, the survey does not include individuals outside of the target group. Determining EU boundaries within these special populations involves considering factors like camp population size, trachoma history, demographic similarities, and host district prevalence. Examples of standalone EU formations include:

- Refugee/IDP camps: The EU consists only of individuals residing within the camp. Those living outside the camp in neighboring villages are not included, even if they are in the same district.
- Pastoralist populations: WHO has proposed that EU population sizes can be modified for migratory populations that move across administrative boundaries, particularly in EUs experiencing persistent or recrudescent TF. In such cases, pastoralist populations may be surveyed separately from settled populations if it is determined that this will enable more precise epidemiological and programmatic planning.
- Indigenous populations: In cases where indigenous populations are statistically small but geographically dispersed, separate surveys for indigenous and nonindigenous populations may be warranted. For example, indigenous communities may be scattered across the country, vary significantly in size, and experience frequent migration. Additionally, sociodemographic data about these populations may be limited. Conducting separate surveys could allow for the identification of differences in trachoma endemicity between indigenous and non-indigenous populations.

Special population surveyed alongside the host or majority population

The special population may also be surveyed alongside the host or majority population; for instance, the EU could consist of both refugees and the host population. IDPs may be included in the EU sampling frame because they are generally established, with long-term settlements recognized in local census lists.

Case study: Assessing the prevalence of trachoma in refugee camps in Cameroon

In Cameroon, a decision was made to survey multiple refugee camps as a single EU. The decision was based on the camps being in the same geographical area, the fact that refugees were restricted from leaving the camps, and the relatively similar age and gender distributions across sites. However, variations in the places of origin and ethnic background of the refugees were noted. The program planned to analyze the data for potential differences between camps and, if necessary, reconsider EU boundaries in future surveys.

Sampling frames

Sampling strategies for special populations rely on understanding population size, structure, and household distribution, often obtained from United Nations (UN) agencies, NGOs, government institutions, or through aerial imagery. The standard two-stage sampling approach, using probability proportional to population size for cluster selection and methods like simple random or stratified systematic sampling for household selection, is adaptable to camp settings (Table 1). Simple random sampling is recommended for faster surveys and quicker decision-making, while stratified systematic sampling involves calculating sampling intervals and following a predetermined path through neighborhoods to select households.

Table 1: Challenges and benefits of standard trachoma survey design in refugee/IDP camps

Survey strategy	Quality factor	Definition
Two-stage sampling approach	Larger sample size	Geographically large camp, concentrating fieldwork in approximately 30 clusters
	Need cluster population sizes	
	Need population data for adjustment	
Simple random selection of households	Need household list	Statistically more efficient than two- stage cluster sampling
nouscrioius	Sample is geographically dispersed, which can increase fieldwork time	No between-household design effect needed
	Often do not have accurate population data for age (or for TT, gender) adjustment	
Stratified systematic household sampling	Empty households, risking not meeting sample size	Could use existing Tropical Data analysis code

Modifications to standard methods

In some cases, adjustments to standard survey methods are necessary to accommodate local security and logistical challenges. For example, Global Positioning System (GPS) coordinates may be omitted if collecting such data poses security risks. Similarly, if carrying smartphones or other electronic devices in the field is unsafe, data collection can be conducted using paper forms. However, this method should only be used as a last resort, as it increases the time, resources, and costs required for data processing and raises concerns about data quality. Paper-based data collection does not allow for real-time monitoring, making additional supervision in the field highly advisable.



Blood is being collected from a child as part of serological testing in a trachoma-endemic area of South Sudan that has experienced insecurity. Photo credit: Angelia Sanders/ The Carter Center

Surveying districts that are inaccessible due to insecurity

Security challenges can significantly disrupt trachoma prevalence surveys, necessitating careful pre-fieldwork planning to assess cluster accessibility and mitigate risks. Strategies include delaying surveys, modifying team configurations for efficiency, and establishing robust communication channels, like WhatsApp. Data management in insecure areas may involve delayed uploads and unique data cleaning considerations, such as verifying cluster locations and addressing gender imbalances. Geostatistical analysis might be considered for inaccessible areas using data from contiguous regions and historical records, but its use and ability to predict prevalence estimates are limited by the need for historical geo-referenced data and the assumption of similarity to neighboring areas.

Interruption of surveys

If a survey has already started but clusters become inaccessible due to insecurity, it is recommended that teams consult with the national program focal point to determine the best course of action. The standard WHO recommendation is to wait until the security situation improves before resuming data collection, as replacing clusters can compromise the accuracy of the prevalence estimate and lead to the need for future surveys. However, if a cluster must be replaced, teams should do so in consultation with the national program and replace it with either the closest accessible village, provided that village was not already part of the original survey selection, or a previously determined "replacement cluster". In cases where surveys have been halted due to insecurity, WHO has confirmed that teams may resume data collection even after a prolonged interruption. There is no official time limit between the start and completion of a survey within an EU.

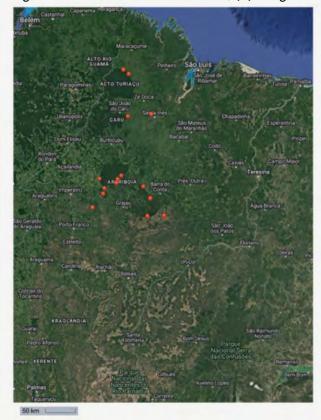
If a cluster is inaccessible due to logistical challenges, such as flooding or extreme terrain, rather than insecurity, teams should make every effort to reach the cluster. In such cases, waiting for improved conditions is preferable, as excluding difficult-to-reach locations could introduce bias into the results.

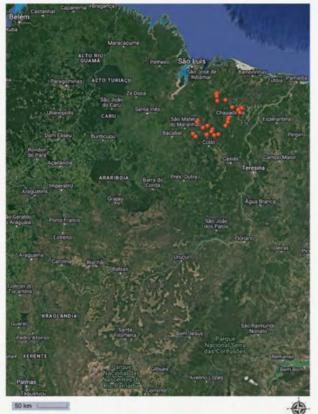
Case study: Assessing the prevalence of trachoma in indigenous and nonindigenous areas of Brazil

For indigenous populations, surveys may be divided so that indigenous and non-indigenous populations are surveyed separately. In Brazil, the indigenous population is very small in relation to the total population. Villages are scattered across the national territory and vary greatly in population size. Inhabitants frequently migrate from one place to another, and sociodemographic information on the indigenous population is scarce. Surveying these populations separately from the non-indigenous populations meant that trachoma endemicity differences between these populations could be identified.



Figure 2. Maranhão evaluation units, (a) indigenous, (b) non-indigenous.





SECTION THREE

Key partnerships

Engaging key stakeholders for special populations

Reaching special populations requires strong partnerships with various stakeholders. These collaborations ensure that trachoma interventions are not only technically sound but also community-driven, trusted, and responsive to the unique challenges and lived realities these groups face.

Programs should conduct comprehensive stakeholder mapping and analysis to identify and engage key actors across sectors and levels. This includes those with decision-making power, service delivery responsibility, lived experience, and social influence (Table 2).



Student leaders of the local health club in a Maasai community prepare for an afterschool session at a primary school in Narok, Kenya. Photo credit. Sala Lewis

Table 2. Example of stakeholder data to collect

Stakeholder Category	Definition
Government agencies	Health ministries, NTD programs, and local health authorities responsible for healthcare policies.
International and local NGOs	NGOs focused on NTDs, WASH, humanitarian response, and community health.
Community leaders and representatives	Traditional, religious, and tribal leaders, as well as women, youth, school teachers, traditional healers and other non-traditional leaders or gatekeepers who influence health-seeking behaviors and access to services.
Health service providers	Mobile health units, community health workers, and local hospitals.
Donors and funding organizations	Organizations that provide financial resources and support for health and development programs.
Humanitarian organizations	United Nations agencies, such as UNHCR, the International Organization for Migration (IOM), UN Migration, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), as well as other humanitarian organizations such as the Red Cross, which facilitate access to special populations.

Formal agreements and approvals

In many settings, formal agreements and approvals are required to operate in specific areas, particularly for interventions in humanitarian or conflict-affected locations. These agreements can also serve as opportunities to clarify expectations, establish accountability, and promote joint ownership. Programs should identify and secure the necessary legal and administrative permissions, including:

- Memorandum of Understanding (MoU) with relevant government ministries, local authorities, or implementing partners.
- Ethical approvals from IRBs or Ethics Committees secured prior to conducting research or surveys.
- Clearance from humanitarian agencies that control access to targeted populations, such as UNHCR, for conducting surveys or interventions in refugee camps.
- Authorization from local health offices, ensuring compliance with national health regulations.
- Community-level permissions and informal agreements, where engagement with local leaders is necessary to build legitimacy, gain trust, and encourage participation.



Community drug distributors prepare materials for mass drug administration targeting Maasai communities in Orboma Village in Sekenani, Narok, Kenya. Photo credit: Sala Lewis

Building relationships and trust in special populations

Establishing trust with special populations is crucial for ensuring successful program implementation and should be a core strategy for effective programming. Many displaced and marginalized groups have experienced systemic exclusion, discrimination, or trauma, making relationship-building essential. Strategies for fostering trust include:

- Early, ongoing dialogue with diverse community leaders and representatives to understand cultural sensitivities and local needs and help shape priorities and delivery models. Community engagement must go beyond formal leadership structures. Programs should also listen directly to members of the affected populationespecially those typically excluded from decision-making-to understand who truly influences acceptance, behavior, and trust. Caregivers, youth, informal providers, or peer networks may have a greater day-today impact than formal leaders.
- Collaborative program design, ensuring that members of special populations are involved in decision-making processes, not just recipients.

- Transparent two-way communication about survey objectives, treatment plans, and follow-up activities, to build confidence and reduce suspicion and misinformation.
- Hiring and training local staff, including members of the affected populations, to strengthen credibility and community acceptance.
- Showing follow-through and responsiveness to community feedback, to reinforce trust and show continued community engagement.

Case study: Increasing MDA coverage among migratory pastoralist populations in South Sudan

Within South Sudan there are trachoma-endemic counties that are primarily populated by migratory pastoralist populations that frequently move in search of pasture, water, or to evade security threats from cattle raids. Herders often prioritize the well-being of their livestock, as animal health is integral to their livelihood and survival. While medicine may be available for human treatment, concerns about the health of their animals frequently lead to hesitancy or delay in taking medication, such as that provided during trachoma MDAs. In an effort to increase MDA coverage and reach these mobile populations, the South Sudan Ministry of Health piloted conducting a trachoma MDA alongside a mass animal vaccination campaign being supported by the Food and Agriculture Organization of the United Nations (FAO) in Eastern Equatoria State. Guided by the cattle herders, the MDA and animal vaccination teams travelled together to cattle camps. This collaboration streamlined logistics, reduced fatique for MDA distributors and animal vaccinators, and improved treatment coverage in all cattle camp locations in a shorter amount of time. This partnership demonstrated the importance of cross-sector collaboration and underscored the relevance of One Health in addressing unique populations. The partnership also helped foster trust among herders who view livestock health as integral to their well-being.

Embedding GESI principles into partnerships

Programs must move beyond tokenistic inclusion and embed meaningful GESI into every level of partnership. This includes who is at the table, whose voices shape the work, and how resources and responsibilities are shared. Programs must actively engage women, marginalized communities, and persons with disabilities. This approach ensures that trachoma interventions are inclusive and culturally appropriate. Strategies include:

- Partnering with women-led and community-based organizations that have authentic relationships with marginalized groups.
- Engaging organizations supporting persons with disabilities and communitybased advocacy groups—not only for outreach but also for design, monitoring, and accountability, to improve the accessibility of interventions.
- Ensuring diverse representation in decision-making, including individuals from affected communities.
- Training staff on culturally sensitive and GESI-responsive approaches to healthcare delivery.
- Using disaggregated data and equity-focused indicators to monitor participation, access, and outcomes across population groups.



Representatives from Kenya and Uganda gather at the launch of the cross-border trachoma mass drug administration in Amudat District, Uganda. Photo credit. RTI International

Strengthening cross-sector collaboration

Successful trachoma elimination efforts require integration with broader health and humanitarian programs. Establishing partnerships across sectors helps maximize resources, improve coordination, and enhance the reach and impact of interventions. Programs should seek to:

- Leverage existing health infrastructure, integrating trachoma services into existing and routine healthcare programs, such as maternal and child health and immunization.
- Coordinate with WASH initiatives, ensuring sustainable environmental improvements that reduce trachoma transmission.
- Collaborate with education and social protection programs, promoting hygiene awareness and health-seeking behaviors in schools and communities.
- Work alongside humanitarian response teams, ensuring trachoma interventions are included in emergency health strategies for displaced populations.

By fostering strong, inclusive partnerships, securing formal agreements, and embedding GESI principles, programs can enhance the reach, effectiveness, and sustainability of trachoma elimination efforts among special populations.

Case study: Increasing efforts to deliver trachoma interventions to refugees in Sudan

In 2022, the Sudanese National Trachoma Program, led by the Ministry of Health, conducted MDA and health education campaigns in several refugee camps hosting individuals from Ethiopia and South Sudan. To ensure that interventions were ethically and safely delivered and appropriately tailored to the needs of the target population—the program partnered with the Humanitarian Aid Commission and the Commission of Refugees, which served as the main

administrators of the camps. Additional coordination involved the Gedaref State Ministry of Health, the Gedaref State Health Promotion Department, and the Health Affairs departments in the El Rahad, El Mafaza, Galabat East, and Basonda localities. These partnerships helped establish the necessary security protocols for safe delivery of interventions and enabled crosssector collaboration. The local school, which had previously participated in widely trusted health campaigns and remained open throughout the day, also took part in the MDA campaign, helping to build community trust and increase reach.



SECTION FOUR

Security

Security considerations

Programs must prioritize the safety and security of staff and communities in all settings. While risks cannot be entirely eliminated, careful planning can help mitigate and reduce them to an acceptable level. Most organizations and programs already have security procedures in place, and it is essential to follow those procedures. This chapter provides additional considerations for working with special populations, particularly those in insecure areas.



This image shows the No Guns signage that is frequently seen on NGO vehicles in South Sudan. Photo credit: The Carter Center

Security assessments

As part of the situational analysis to determine whether a geographical region or targeted population is accessible, a risk assessment should be conducted to evaluate potential threats to the program. Identified risks may include threats to team and community members, program supplies, data security, and the organization's reputation. Once risks are identified, a mitigation plan should be established before any interventions take place.

Security assessments are most effective when information is gathered from multiple sources. Many locations have NGO forums that provide regular security updates, and local, regional, and national government personnel may also have relevant information. However, it is important to recognize that official government reports may differ from on-the-ground realities. Security assessments should be ongoing and updated regularly to reflect changes in the environment. Some categories to consider in a security assessment are provided in Table 3. Once risks have been identified it will be important to have a mitigation strategy in place. Appendix B provides an example of risks, mitigation, and other information that may be useful.

Table 3. Possible information to consider as part of a security assessment

	ossible information to consider as part of a security assessment			
	Example District-1	Example District-2	Example District-3	
Estimated travel time and distance	6 hrs, 280 km	1 hr 30 min, 86 km	2 hrs, 100 km	
Road Status (motorable/bad)	Bad	Motorable	Motorable	
Security (military/ police) escort required (yes/no)	Yes	No	Yes	
Ability to sleep overnight and curfew time	Yes (chief's compound) 6pm	No 6pm	Yes 8pm	
Phone use (data collection, mobile, or satellite) allowed (yes/no and type)	Yes, data collection; Yes, mobile phone; No, satellite	Yes, all devices	Yes, all devices	
Types of insecurity and frequency	Militant attacks, sporadic	Cattle raiding, seasonal during dry season	Road insecurity resulting in car jackings, robbery, physical injury and/or death, year round but heightened during the hunger season	
Name of security threat present in district		Local tribal groups	Local attackers	
Targets of security threat	Government forces and civilians	Neighboring tribes with cattle	Civilians, NGOs, businesses	
Risk level (high, medium, low)	High	Medium	Medium	

Program implementation considerations

Working in areas affected by insecurity or humanitarian emergencies increases risks for staff and communities. These risks must be accounted for throughout the program cycle, including planning, budgeting, implementation, and monitoring and evaluation. For example, hiring armed escorts will not only impact the budget but may also dictate the timing of travel and activities. Additionally, while two locations may be geographically close, security concerns may require teams to take alternate, longer routes, increasing costs and logistical complexity.

Coordination with security authorities is critical before and during program implementation. Teams should be aware of required permissions and documentation for operating in certain locations or with specific populations. Some settings, such as refugee or IDP camps, may require additional approvals from UN agencies, NGOs, or government entities. Similarly, cross-border populations may necessitate security clearance from both countries, and documentation should be carried at all times.

Data security and electronic considerations

As part of security planning, teams should determine what electronic devices and data collection methods are permissible in the field. In some locations, tablets or mobile phones with GPS functionality may not be allowed, requiring a shift to paper-based data collection. If carrying electronic devices is permitted, staff should remove any politically sensitive data from personal phones and back up programrelated data in advance. While ensuring data

security is important, it should never come at the expense of staff safety. In the event of a security threat, preserving the well-being of team members must take precedence over securing data, supplies, and equipment. Additionally, programs that work in areas that lack mobile networks may consider alternate forms of allowable communication, such as satellite phones or very high frequency (VHF) radio.

Staff considerations

Organizations should evaluate whether security-specific staff are needed to support operations. Some organizations have security personnel at headquarters, while others have country-specific security teams. Additional training, such as Hostile Environment Awareness Training (HEAT), may be required for staff working in high-risk environments, and such training should be repeated periodically for new team members or as risks evolve.

Adjustments to team composition may be necessary depending on the security context. In some settings, traveling in larger groups increases security, while in others, it makes teams more visible targets. The ethnic or tribal background of staff should also be considered, particularly in areas where interethnic tensions exist. Language barriers can pose additional security risks if team members cannot understand critical communications in real time.

Working in areas affected by insecurity or humanitarian emergencies increases risks for staff and communities. These risks must be accounted for throughout the program cycle, including planning, budgeting, implementation, and monitoring and evaluation.

Engaging local community members, including chiefs, religious leaders, and tribal officials, can enhance the legitimacy of program activities and improve security. Transport personnel should also be selected carefully, as local drivers familiar with the area may provide an added layer of security. In some cases, hiring locally owned vehicles rather than NGObranded or government vehicles can reduce visibility and risk. In other cases, NGO-branded or government vehicles may provide an added layer of protection given the status of those entities within the community.

Psychological and emotional considerations

Working in insecure areas can take a psychological toll on staff. Exposure to or even fear of violence, threats, or detention—either personally or within the community—can cause significant stress. Engaging with security forces and experiencing community distrust may further impact well-being. Organizations should consider how to support staff, such as by providing mental health services.

Gender-based violence considerations

In conflict-affected and fragile settings, the risk of gender-based violence (GBV) increases due to weakened legal protections, disrupted social structures, and limited access to services. Women, girls, and marginalized groups including displaced individuals and persons with disabilities—are particularly vulnerable. Structural inequalities may increase the risk of harassment, exploitation, or violence when accessing healthcare services, including trachoma interventions.

To mitigate these risks, NTD programs should integrate GBV prevention strategies from the outset. Risk assessments should identify potential GBV threats, and referral pathways should be established to connect survivors with clinical care, psychosocial support, and legal services. Maintaining confidentiality and using survivor-centered approaches are critical for building trust and protecting individuals. Programs should also implement safeguards such as gender-sensitive service delivery, gender-balanced staffing, and secure reporting mechanisms.

Community engagement plays a crucial role in addressing GBV risks. Collaborating with local leaders can promote safer environments and encourage cultural shifts that reduce vulnerabilities. Mobile clinics, integrated service delivery models, and partnerships with GBVfocused organizations can further enhance protection measures. Global guidelines, such as the Inter-Agency Standing Committee Guidelines and the GBV Pocket Guide, offer practical recommendations for integrating GBV prevention into health programs.

In conflict-affected and fragile settings, the risk of gender-based violence increases due to weakened legal protections, disrupted social structures, and limited access to services.



Security incident reporting

Organizations should establish clear procedures for reporting security incidents. Standardized reporting mechanisms enable programs to track security trends, refine risk mitigation strategies, and contribute to the safety of staff and communities. Organizations should also ensure staff are trained in recognizing and reporting security threats, as timely and accurate incident reporting is critical for staff safety and operational continuity.

Key elements of an effective security incident reporting system include:

- Incident classification: Define and categorize incidents based on severity, such as minor disruptions, threats, attacks, or major security breaches.
- Immediate response protocols: Outline the steps staff should take following an incident, including ensuring personal safety, alerting designated security personnel, and securing critical data or resources.
- Reporting chain of command: Specify who incidents should be reported to, whether within the organization or to donors and local authorities, and the timeframe for reporting.
- Documentation and verification: Maintain a standardized reporting template to capture key details, including the nature of the incident, location, time, individuals involved, and any immediate actions taken.

- Confidentiality considerations: Ensure sensitive details, especially regarding threats against individuals or communities, are handled with discretion to prevent further security risks.
- Follow-up actions: Define post-incident procedures, such as conducting a security debrief, updating risk assessments, and adjusting mitigation strategies as needed.
- Lessons learned and adaptation: Review incidents periodically to identify trends, improve security protocols, and share best practices across teams.

See Appendix C for an example Serious Incident Report form that can be used or adapted by programs.

Case study: Navigating insecurity to conduct trachoma surveys and MDA

Conducting trachoma surveys in Yemen has posed significant challenges due to its volatile and fragmented security landscape. Survey teams can face extensive risks, including threats of kidnapping, exposure to gunfire, and traversing mined areas. Critical infrastructure, including roads and health facilities, is often inaccessible or under threat, while security checkpoints can expose teams to inspection, psychological stress, and loss of supplies or data.

To mitigate these risks and ensure the success of prevalence surveys and MDA, teams adopted a comprehensive risk-reduction strategy. This included close coordination with tribal and religious leaders to secure local protection, continuous security monitoring, and the selection of trusted local drivers from tribal or security backgrounds. Surveys were carefully timed and planned using the safest known routes, and teams avoided any political affiliations or discussions to maintain neutrality.

Operational adaptations included transporting supplies in small batches, creating backup copies of data, and replacing paper forms lost or damaged in transit. Enhanced field supervision ensured logistical and security coordination in real-time. Though risks could not be fully eliminated, these tailored measures significantly improved the feasibility and success rate of field surveys in one of the world's most insecure environments.

Additional security considerations

Other security-related factors to consider include:

- Visibility of NGO/government branding: In some settings, branded materials, vehicles, or staff attire may increase risk by signaling affiliation with high-value targets, while in other settings, it might be protective. Understanding the context is essential to developing nuanced and appropriate security protocols.
- Cultural and political sensitivities: Be aware of colors, symbols, or language that may be politically charged, especially during election periods. Additionally, having the program team all wear the same color or t-shirt can make it easier for the community to know that individuals are part of a community-serving activity.
- Adverse events (AEs) and serious adverse events (SAEs): Develop a plan for AEs and SAEs as they may have security

- implications, such as community reactions to treatment-related adverse events.
- Local resource use: Tensions may arise in resource-scarce areas if program teams compete for limited water or food supplies. Engaging with communities on resource management can prevent conflicts.
- Food security considerations: In insecure areas, program staff carrying food may become targets. In some cases, sharing meals with key community members may build goodwill and improve safety.
- Logistical adjustments: If attacks on supply convoys are common, different strategies may be needed, such as transporting supplies in smaller, more manageable batches or transporting supplies by air.

By proactively addressing these security considerations, programs can operate more safely and effectively while maintaining the trust of the communities they serve.

Case study: Conducting security assessments before trachoma prevalence surveys in Nigeria

If an activity is to be conducted in an area affected by insecurity, it is important to understand the nature of the insecurity to determine the most suitable way to implement activities. For example, in Nigeria, before prevalence surveys are conducted, the targeted areas are categorized as low, medium, or high-risk following security assessments. These assessments involve physical visits to districts by security consultants and daily monitoring of security incidents before the survey teams begin training. The risk categorization then dictates how fieldwork is conducted, with surveys not taking place in high-risk areas due to safety concerns. However, by continuously monitoring the security situation and ensuring all preparations for survey implementation are in place (e.g., protocol development, training, and data collection tools), teams are able to conduct surveys as soon as conditions improve. Additionally, before conducting the survey, the team in Nigeria performs a census to determine population size and demographics, accounting for potential population movement due to insecurity within the evaluation unit.

SECTION FIVE

Effective planning for implementation

Timing of implementation

The timing of implementation, whether it be for MDA or TT management, should align with seasonal calendars, population movement patterns, and the daily routines of individuals, to ensure maximum reach and community participation. For many special populations, including indigenous peoples, the seasonal calendar is deeply rooted in cultural knowledge and environmental rhythms. It not only marks typical weather patterns but also guides access to territories, livelihoods, and social activities.

Trachoma interventions must respect and adapt to these contextual calendars, which may differ significantly from those of the majority population. Implementation should not compete with other health initiatives. Understanding the scheduling of other initiatives is crucial so that all programs can benefit. Coordinating efforts with other health activities may create a synergistic impact for both the programs involved and the communities receiving the services.

Guiding questions for determining the timing of implementation

To effectively plan for implementation, the following guiding questions may be considered:

- What are the patterns of movement within the target population(s)? When are the populations requiring special consideration most likely to be found in the area?
- If applicable, when have trachoma interventions been conducted in the past? Has that timing been effective in ensuring high coverage in the target populations?
- For populations requiring special consideration, what does their daily schedule entail? Are there times of day that will facilitate or hinder participation in trachoma interventions?
- · Are there specific cultural, social, agricultural, or religious periods that might make it difficult to implement trachoma interventions?
- What, if any, health or non-health campaigns are scheduled for this area?
- Are there opportunities to integrate or cost-share logistics and implementation?
- For TT surgery camps, are there general eye care outreach activities that could be conducted jointly?
- · What days and times are considered acceptable and convenient by the community for service delivery? Have community members helped determine this?

By systematically addressing these considerations, national-level planning and coordination can optimize implementation timing to ensure the highest possible coverage and effectiveness of health interventions.

Stakeholders involved in determining the timing of implementation

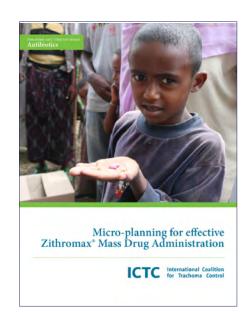
Programs should consider engaging additional participants who can offer insights on optimal timing to ensure the inclusion of special populations. This may include:

- District and sub-district leaders who are responsible for services for special populations.
- Community leaders and representatives from the special populations.
- Representatives from organizations actively working with the population.
- Members of the affected population themselves, particularly women, youth, and persons with disabilities, who can provide essential insights into lived realities, decision-making rhythms, and preferred times for engagement. Community members who have previously received successful TT surgery could play an important role in advocating for others to accept surgical intervention.

Micro-planning

Once the timing of interventions has been determined, dates and locations for micro-planning can be set. Microplanning is a crucial step that builds on the processes outlined in the previous chapters. Its primary objective is to maximize intervention coverage by defining specific tasks related to service delivery for special populations and establishing corresponding timetables and responsible parties. These include, but are not limited to, identifying drug distributors, training, social mobilization, AEs/SAEs, supervision, reporting, and monitoring and evaluation. Micro-planning should be conducted with community representatives to ensure that local context and knowledge are utilized in planning.

Appendix D presents key questions to be answered during micro-planning activities.





Access the ICTC preferred practice on micro-planning

Social mobilization

Social mobilization and communication strategies play a crucial role in informing communities and encouraging the uptake of trachoma interventions. To maximize reach and impact, these strategies must be carefully timed and contextually relevant, ensuring that messages are delivered when and how they are most likely to be received and understood. Communication materials should be developed within a strategic framework that not only raises awareness but also addresses behavioral drivers, fears, misconceptions, and social norms that may influence participation or serve as barriers to participation.

The primary goal of a social mobilization strategy is to maximize equitable coverage of individuals participating in trachoma interventions, whether they be MDA or TT screening. However, communication strategies for special populations must be co-developed and/or tailored to their unique cultural, social, and economic contexts. These communities may have distinct decisionmaking processes, and the channels through which they receive and trust information can differ significantly from the general population. Strategic selection of communication channels and messaging is essential to ensuring effective outreach and maximum coverage. It matters who delivers the messages. Trusted local voices—such as community health workers, religious leaders, women's group members, or youth influencers-should be identified and engaged. Messages should be delivered in local languages and through accessible formats such as radio, in-person discussions, community theater, or visual aids.

The primary goal of a social mobilization strategy is to maximize equitable coverage of individuals participating in trachoma interventions.

Social mobilization should also prioritize twoway communication to create opportunities to listen and respond to concerns, rather than only delivering information. Engagement strategies should address misinformation, clarify side effects or eligibility, and reduce stigma where present.

Additionally, all social mobilization materials should be pre-tested before the campaign launch to confirm that the messages are interpreted as intended and resonate with the target audience.

For TT screening, in addition to social mobilization, counseling materials culturally tailored to the specific target audience will also be needed to increase uptake of the surgical services.

Appendix E presents a list of considerations when developing a social mobilization plan for special populations.



In Nauru, the phrase "Poo Einabarara Poo" carries deep cultural significance, rooted in the ancient tradition of storytelling and the legend of Eigigu. This connection helped draw attention to trachoma. The Nauru trachoma team used the slogan in drama skits, on radio, and through other communication channels to spread awareness. As a result, people across Nauru came to understand that everyone has a role to play in eliminating trachoma. Photo credit: International Trachoma Initiative

Choosing campaign workers and outreach sites

Selecting health workers and volunteers including TT case finders, graders, surgeons, and MDA drug distributors—as well as identifying appropriate distribution and surgical camp sites, is a critical factor influencing coverage. Health workers who are trusted, respected, and embedded within the target community-especially those who speak the local language and understand cultural dynamics and social norms—play a key role in fostering acceptance and ensuring high uptake of interventions.

When selecting outreach sites, national programs and implementing organizations must consider factors that could systematically exclude certain segments of the population, such as mobility constraints, disability, gender norms, religion, socioeconomic status, or tribal identity.

While fixed-site MDA distribution points (e.g., at community centers, schools, or health facilities) may be effective for some populations, it may not be suitable for pastoralists, migrant workers, or other mobile groups who relocate seasonally or for employment. In such cases, door-to-door distribution—where distributors deliver medicines and services directly to households-or hybrid models combining fixed-site and mobile approaches may be more effective in reaching these special populations, particularly those with limited access to transportation or caregiving responsibilities that restrict their movement. The same applies to the organization of TT outreach. The key is identifying the obstacles people face in accessing services and breaking those barriers down by bringing the services to them.

Appendix F presents a list of considerations when choosing MDA distributors, TT case finders and developing distribution strategies.

Case study: Addressing trachoma among refugees in Zambia's Mavukwavuwa settlement



Trachoma screening in Zambian refugee camp Photo credit: International Trachoma **Initiative**

Mayukwayuwa, Zambia, is one of Africa's oldest refugee settlements and hosts a population of approximately 15,000 people from Angola, the Democratic Republic of Congo, Rwanda, and Burundi. To increase the uptake of interventions among the diverse cultures living in the settlement, the trachoma program incorporates residents of the settlement in social mobilization activities. These activities include door-todoor communication campaigns conducted by community-based volunteers and community leaders, who deliver information about trachoma and the planned interventions. Local languages are used to provide health information, supported by community members, ensuring the interventions are understood by residents.

Another crucial aspect of intervention uptake

is enrolling residents of the refugee settlement as MDA distributors. These individuals undergo a one-day training session on intervention implementation and safety protocols for MDA. Zambian health personnel, who manage the health facilities, supervise the community-based volunteers to ensure the campaigns are executed safely and effectively, and UNHCR representatives also participate in MDA supervision.



Training

Training and capacity building for trachoma interventions are essential to ensure program staff, such as MDA distributors, TT case finders, surgeons, and supervisors, can effectively implement activities while addressing the unique challenges of special populations. Training should not only build technical skills but also equip implementers with the ability to engage respectfully and responsively across different cultural, gender, and social contexts. To maximize impact, training materials should be tailored to reflect the language, communication, cultural beliefs, social, and gender norms of the target communities.

Timing is critical to ensure participants are adequately prepared before interventions begin. The training process typically follows a cascading model, where trainers first receive instruction before passing on their knowledge

and skills to field staff. Involving trainers from the target community can enhance the program's effectiveness, as they bring valuable insights into cultural sensitivities and preferred communication approaches. Equally important is ensuring that those who train the trainers are well-equipped to uphold the quality and consistency of information and will conduct training respecting the fundamentals of adult learning.

Ongoing supervision and monitoring are essential for reinforcing training outcomes. Special populations may require additional or tailored support, making it important to establish follow-up mechanisms and equip teams with the necessary supervision tools to ensure interventions are delivered effectively and inclusively.



A mass drug administration campaign targeting indigenous communities in Colombia. Photo credit. © Pan American Health Organization CC BY-NC-SA 4.0

Supervision and monitoring

Supportive supervision is critical to ensuring equitable access to quality trachoma interventions, particularly for special populations. Supportive supervision takes a team approach to ensuring the quality of the program. Supportive supervision is less about evaluating the performance of the distribution teams or surgical outreach, and more about helping with troubleshooting and providing the personnel with assistance.



A community drug distributor supporting a trachoma mass drug administration campaign in Yemen. Photo credit. Gabreez Production/ Sightsavers

Monitoring coverage during MDA and surgical uptake, an aspect of supervision, is essential to verify that interventions are equitable. Special populations are not homogeneous, and disparities may exist within them, particularly among women, persons with disabilities, and other subgroups. Supervision teams should be attentive to these differences and take corrective measures during implementation to ensure no one is left behind.

Various tools have been developed to support coverage monitoring, such as the WHO Supervisor Coverage Tool and the Global Polio Eradication Initiative's Independent Monitoring of Polio Supplementary Immunization Activities. These instruments help assess whether interventions are reaching intended populations and inform real-time adjustments.

Similar challenges may arise in TT surgery, where women, who bear a greater burden of trichiasis than men, may not receive care proportional to their disease status. Addressing these disparities requires careful oversight and targeted strategies to improve access. Another challenge facing surgical programs targeting special populations is providing the recommended post-surgical follow-up, especially among populations that move locations throughout the year. Ideally, patient follow-up should be conducted the day after surgery, 7-14 days after, and then again 3-6 months later. Specific strategies will be needed to ensure that patients are seen at these intervals to remove sutures (especially if absorbable sutures are not being used) and to identify and manage any potential surgical complications.

Adverse events and serious adverse events

AEs and SAEs are rare but must be promptly identified, reported, and managed to ensure the safety of trachoma interventions. For special populations, where access to healthcare may be limited, having clear referral pathways and contingency plans is critical.

Supervisors should be trained to recognize AEs and SAEs and facilitate immediate medical attention, particularly in remote or marginalized communities. Reporting mechanisms must align with national pharmacovigilance guidelines and WHO recommendations, ensuring timely documentation and response. Regular analysis of AE and SAE data can help address disparities in care and improve intervention strategies.

Community engagement is essential, as special populations may have unique concerns about side effects or medical procedures. Providing culturally appropriate information on intervention safety and available support can build trust and encourage participation. Strengthening AE and SAE monitoring and response ensures interventions remain safe, effective, and inclusive.

Case study: Reaching vulnerable groups with trachoma interventions in post-conflict Tigray

The 2020-2022 conflict in Tigray, Ethiopia, devastated the region's health system, displaced large populations, and disrupted access to essential health services, including trachoma prevention and treatment. A GESI assessment conducted after the conflict revealed that populations most vulnerable to being missed by the resumption of MDA included survivors of sexual and gender-based violence (SGBV), IDPs, people with disabilities, women with increased care burdens, and youth.

Trauma, stigma, and self-isolation were common among SGBV survivors, many of whom refrained from seeking preventive care due to shame or fear of public exposure. Women's caregiving roles intensified post-war, especially when caring for injured male relatives, further limiting their time and ability to participate in trachoma interventions. Meanwhile, IDPs that had integrated into host communities lacked representation in community decisionmaking spaces and were often overlooked during social mobilization activities. People with disabilities reported mobility challenges and unequal treatment when trying to access services, particularly those who were disabled before the war. Youth were cited as less likely to participate in MDA, either because they did not perceive themselves to be at risk for trachoma or because trachoma programs were not effectively engaging them.

To address these barriers, the assessment emphasized the importance of tailoring trachoma interventions through inclusive strategies such as house-to-house drug distribution, early and tailored community mobilization, and sensitization of key influencers. Elderly women, religious leaders, and local associations such as women's and youth groups were identified as trusted messengers capable of reaching hidden or isolated populations. Additionally, the inclusion of disability status in MDA registration forms, aligning trachoma interventions with urgent community needs like food aid, and adapting timing and locations of MDA delivery were all recommended to increase equity.

By acknowledging the deep social wounds left by the conflict and adapting delivery to the realities of a post-war context, trachoma programs in Tigray are laying the foundation for more inclusive, resilient service delivery that leaves no one behind.

Case study: The role of patient counseling in increasing the uptake of TT surgical services among Maasai communities in Tanzania

In 2022, a community-based counseling approach was introduced in Ngorongoro District, Tanzania, to address hesitancy around TT surgery and improve uptake. The district is home to Maasai communities, who have traditionally engaged less with institutional health services. Many patients decline surgery due to fears of pain, concerns about permanent damage, limited understanding of the procedure, and the burden of household or livestock responsibilities. Some prefer traditional epilation, which offers temporary relief, while others face logistical barriers such as long travel distances to access TT management services.

To address these concerns, a local community-based counselor (CBC) was selected and trained. Chosen for their strong communication skills, community trust, and understanding of local customs and languages, the CBC received training in culturally sensitive counseling,

active listening, and how to address misconceptions about TT surgery. The CBC engaged with patients at outreach sites and in their homes, offering personalized support, answering questions, and fostering informed decision-making. They also spoke with family members to build wider support for surgery. This model has proven effective in increasing surgical acceptance through respectful, community-led engagement. Importantly, the model has improved the uptake of trachoma interventions among women, who are disproportionately affected by trachoma and can face additional barriers to accessing trachoma interventions than men.





In Terekeka County, South Sudan, many indigenous populations travel with their cattle. Photo credit: The Carter Center

SECTION SIX

Advocacy

Advocacy is an important tool for promoting equity in trachoma programming and ensuring that special populations receive the same quality of services as the general population.

The global target of eliminating trachoma as a public health problem is defined as:

- A prevalence of TT unknown to the health system of <0.2% among people ages ≥15 years in each formerly endemic district.
- A prevalence of TF of <5% among children ages 1-9 years in each formerly endemic district.
- Evidence that the health system can continue to identify and manage incident cases of TT.

However, these criteria do not always account for special populations that are underserved or most likely to be overlooked. In particular, refugees, IDPs, nomadic groups, and indigenous communities can fall outside traditional



A health ministry representative supporting the national trachoma program in Narok, Kenya. Photo credit: Sala Lewis

service delivery systems or data collection efforts, rendering them "invisible" in the eyes of programmatic targets.

To close these gaps, advocacy must aim to influence health ministries, national agencies, implementing partners, and donors to go beyond minimum elimination thresholds and ensure these populations are meaningfully included in elimination efforts. This includes mobilizing resources, adapting program designs, and building accountability mechanisms that recognize the needs of all affected groups.

Crucially, advocacy must also guard against narratives that stigmatize or blame these communities for the transmission of disease. Language that frames special populations as barriers to elimination, risks entrenching discrimination and shifting responsibility away from health systems that have failed to adapt to their needs. Instead, advocacy efforts should emphasize inclusive strategies, shared responsibility, and the obligation of programs to reach everyone—regardless of mobility, legal status, or ethnicity.

In practical terms, this means disaggregating data to monitor equity, ensuring that service delivery models are tailored to special populations, and investing in local engagement strategies that build trust and overcome structural barriers to access. Only by embedding these considerations into national strategies and global frameworks can we ensure that trachoma elimination is truly inclusive and sustainable.

In designing an advocacy strategy, professionals often refer to the nine strategic questions:

Question 1. What do we want? To understand the situation and define objectives...

Question 2. Who can make it happen? To understand stakeholders, their relative power, and how change happens...

Question 3. What do they need to hear? To reach a specific audience with the right message...

Question 4. Who do they need to hear it from?

To identify the right messenger for your audience...

Question 5. How can we make sure they hear it?

To identify processes, opportunities, and entry points ...

Question 6. What do we have? And Ouestion 7. What do we need? To recognize capacities and gaps...

Question 8. How do we begin to take action? To set goals and interim outcomes and develop an action plan...

Question 9. How do we tell if it's working? To monitor and evaluate advocacy...

Source: UNICEF-Advocacy-Toolkit-2010.pdf

Many of these concepts are similar to designing a strategy for behavior change. Whereas behavior change focuses on the individual and communities, advocacy seeks institutional change.



Masaai women of Orboma Village in Sekenani, Narok, Kenya. Photo credit: Sala Lewis

APPENDIX A

Key contextual considerations checklist

Checklist of key contextual considerations for a situational analysis

- 1. What is the target group or population?
- 2. Why is it difficult to reach or serve this group? What challenges are encountered when trying to reach this group?
 - Socio-cultural barriers
 - Pastoralism
 - Migrant lifestyle
 - Geography
 - Societal stigma
 - Tribal
 - Conflict
- 3. Where does this target group or population reside in the country?
 - Are they concentrated in a specific region/district?
 - E.g., Individuals with disabilities live all over the country and are not concentrated in one area or region.
 - Do the areas in which the target populations live comprise one EU? Multiple EUs?

Collect information: Prior to conducting any activities, it is important to assess what information may already be available about this population.

- 4. Does the health system reach this group otherwise? If yes, how so?
 - Are there special outreach programs?
 - What ongoing health activities also focus on this group?
 - Other NTD programs
 - Vitamin A distribution
 - Malaria programs (bed net distribution, seasonal chemoprevention)
 - · Immunization programs
 - Eye health initiatives
- **5.** Do other sectors reach/serve this group?
 - Is there educational outreach that serves this group? (i.e., primary education)
- 6. What other organizations serve this group?
 - Development efforts

- 7. What research is available about this group?
 - Qualitative research
 - · Look into anthropological studies or resources
 - Quantitative research
 - Consider researching other health topic areas that serve this group
 - Knowledge, Attitude and Practice surveys (KAP)
- 8. What epidemiological trachoma data are available?
 - TF/TT at the district(s) level
 - TF/TT among the target group
- 9. Other relevant data
 - WASH
 - Expanded Programme on Immunization
 - Education
 - GESI
- 10. If near borders, are there any data available from bordering districts in the neighboring country?

- 11. For refugees/IDPs
 - What data are available for the areas the target population has left?
 - What data are available for where they have taken refuge?
 - Are the populations housed in a camp?
 - How is the camp structured?
 - » Closed
 - » Open
 - What health services, if any, do they receive?
 - What authority runs the camp?
- 12. What is the security situation in areas where the target populations live?
- 13. What advocacy efforts are required?
- 14. What other information is needed? Template/checklist (include as an appendix)

APPENDIX B

Example of a security mitigation plan

Risk	Comment	Mitigation
Improvised explosive devices (IEDs) and suicide bombing	Attacks often target military infrastructure and personnel but pose significant risks to civilians and implementing organizations operating nearby.	 Provide daily security briefings to all personnel working in high-risk areas. In the event of an explosion, take cover and avoid converging with onlookers.
Targeted attack by extremist groups	Attacks have occurred at the village level, sometimes randomly, with no specific target (e.g., militants, extremist groups, fundamentalists).	 Maintain a reserve of bottled water and dry food at all times. Conduct daily security briefings. A security expert should be hired; satellite phones should be available; International NGO Safety Organization alerts should be monitored daily; high-risk areas should be excluded from operational mapping.
Kidnapping/ detention	Personnel may be at risk of kidnapping or temporary detention, particularly in insecure areas.	 Teams receive daily security updates and are briefed on appropriate responses if detained. In such situations, follow all instructions given by captors, surrender any equipment or materials requested, and do not resist.

APPENDIX C

Serious incident report form example

SERIOUS INCIDENT REPORT			
Report from:		Report to:	
Incident details			
Incident date:	dent date: Time:		
Incident description:			
Location:			
Status:	Initial	Interim	Final
Initial report. To include Who, When, Where, and What Interim report. To include a detailed account of the incident			
Final report. To include what actions were taken to support/manage the incident After action review. A comprehensive review of the incident from initial reporting to incident closure			
Recommendations. A review of policies and procedures and any lessons learnt to prevent reoccurrence			

APPENDIX D

Key components of micro-planning

Tasks	Key considerations	
Identifying case finders, health educations, drug distributors, and other relevant health workers	Who will be responsible for distributing resources to special populations?	
Organizing training	What training is necessary for health workers and/or volunteers to effectively reach special populations?	
Determining the organization of outreach campaigns	How will outreach campaigns be structured to ensure accessibility and efficiency?	
Preventing, managing, and reporting adverse events	What protocols need to be in place to handle adverse events effectively?	
Setting coverage targets	What are the coverage goals for reaching special populations?	
Developing a monitoring system in case coverage targets are not met	How will gaps in coverage be identified and addressed?	
Planning for supervision	Who will oversee training, community sensitization, and implementation of interventions?	
Planning for reporting	What reporting mechanisms will ensure accountability and continuous improvement?	
Problem solving	How will challenges unique to the population be anticipated and mitigated?	

Problem-solving considerations		
Questions	Considerations	
What problems are anticipated due to the unique nature of the population?	Identifying potential barriers such as geographic isolation, language, or cultural differences.	
What actions may be needed to minimize the anticipated problems?	Implementing tailored approaches such as multilingual communication, alternative distribution channels, or cultural engagement.	
Who is best suited to resolve the problem?	Identifying key stakeholders, such as local leaders, community health workers, or NGOs.	

Guiding questions for implementation		
Questions	Considerations	
What is the specific task?	Clearly defining the task to ensure alignment with objectives.	
Where do the special populations live, work, and frequent?	Conducting social mapping to determine key locations.	
Are there particular challenges in completing these tasks given the dynamics of the population?	Understanding mobility patterns, seasonal variations, and accessibility constraints.	
What mitigation strategies will be needed?	Developing contingency plans and alternative approaches.	
When will the task be done?	Establishing a clear timeline for implementation.	
Who is responsible for ensuring the task is completed on time?	Assigning accountability to specific individuals or teams.	

APPENDIX E

Social mobilization: Interactive field tool

This interactive tool is designed to help field teams plan, implement, and monitor social mobilization efforts for trachoma interventions among special populations. Use this tool as a step-by-step guide to ensure that communication strategies are inclusive, culturally relevant, and effectively timed.

Step 1: Assess the existing strategy Review the current approach

- Have you reviewed the current social mobilization plan?
- Does it specifically address the needs of special populations?

Identify gaps

- · Are there specific barriers preventing special populations from accessing trachoma services?
- Have past communication efforts been effective in reaching this group?

Step 2: Learn from past experiences

- Look at other programs
 - · Have we identified lessons from other campaigns that successfully engaged this special population?
 - · What worked well, and what could be improved?
- Engage local partners
 - · Have you consulted with community leaders, NGOs, and local health workers who have experience working with this population?

Step 3: Refine messaging for the target population

- Define key messages
 - · What are the critical messages we want to communicate?
 - · Are they clear and easy to understand, considering literacy levels?
 - · Are they culturally appropriate and relevant?
- Pre-test messages
 - · Were members of the special population involved in crafting the messages?
 - · Have the messages been tested with representatives from the special population to ensure clarity and effectiveness?

Step 4: Choose the right Step 5: Plan the timing and rollout communication channels Align with community routines Select the best methods · When is the earliest that social mobilization Radio activities can begin? · Mobile messaging · Are there key cultural, religious, or seasonal events that may impact participation? · Community leaders ☐ Coordinate with other health initiatives Visual materials (posters, leaflets, infographics) • Are there existing health campaigns that we can integrate or collaborate with to Assess accessibility enhance impact? • Does the target group have access to these communication channels? Step 6: Monitor and adapt the approach Who or what are the most trusted sources □ Track engagement of information for this population? · What monitoring tools are in place to track Build trust and engagement the impact of the communication strategy? · What steps are needed to engage · Are we collecting feedback from the target respected community figures and population? local organizations? Adjust as needed · How can we adapt the strategy in real time to improve effectiveness?

· Are there unexpected challenges that need

to be addressed?

APPENDIX F

Choosing health workers: Interactive field tool

This interactive tool helps field teams identify the most appropriate programmatic methods for special populations. Use this checklist to ensure that trachoma interventions are equitable, accessible, and culturally appropriate.

Step 1: Identify suitable distributors/TT case finders/health educators

- ☐ Prioritize community-based health workers and/or volunteers
 - Are health workers and/or volunteers from the community being targeted?
 - · Do they speak the same language as the target population?
 - · Are they familiar with cultural norms that could impact participation?
 - · Are they known and respected by the community?
 - · Are there cultural considerations as to whether a man or woman would be better for the job?
 - · Has the person participated in other health initiatives?
 - · Does the person have experience in the specific tasks required, such as drug distribution, health education, and related activities?
 - · Does the person have the commitment to be available when needed?
 - · Are the expectations of the person regarding incentives in line with the program's ability to provide them?
 - · Is the person's physical condition sufficient to perform the expected tasks?

- ☐ Ensure representation and inclusivity
 - Are there female health workers and/ or volunteers available for populations where women may not engage with male health workers?
 - · Have diversity factors such as tribe, religion, and social status been considered in selecting distributors?
 - Do health workers and/or volunteers have experience working with marginalized groups or special populations?

Step 2: Select the best implementation model

- Assess population mobility
 - Highly mobile (e.g., pastoralists, migrant workers, economic migrants)?
 - · Stationary but socially isolated (e.g., housebound women, GBV survivors, community-integrated IDPs)?
- Evaluate accessibility needs
 - · Are target groups far from infrastructure (e.g., roads, marketplaces, health facilities)?
 - Do individuals have physical disabilities or vision/hearing impairments that may impact their ability to access services?
- ☐ For MDAs, determine the most effective distribution model
 - · Fixed-site distribution (e.g., community centers, schools, clinics)
 - Door-to-door distribution (for mobile, hard-to-reach or isolated populations)
 - · Hybrid models (combining fixed-site and door-to-door approaches based on population needs)

Step 3: Address barriers to access

- ☐ Mitigate social and cultural exclusion
 - · Have cultural factors that may prevent participation been identified (e.g. gender norms, religious practices, tribal dynamics)?
 - · Are there safe and accessible locations for all groups, including persons with disabilities?
- ☐ Provide additional support for vulnerable populations
 - · Does any group require one-on-one counseling or tailored health messaging to encourage participation?
 - · Are there trusted local figures (e.g., traditional healers, religious leaders) who can help encourage uptake?

SUPPLEMENTARY MATERIAL 1

Determining the need for GESI assessments in trachoma programs

Why conduct a GESI assessment?

In many contexts, the last 5–10% of individuals missed by trachoma interventions represent populations that are not reached through routine outreach, messaging, or service delivery approaches. These groups are often statistically invisible, underrepresented in coverage data, and excluded from community mobilization or leadership structures. A GESI assessment provides a rigorous, intersectional lens to:

- Identify barriers rooted in social, cultural, economic, and institutional structures.
- Analyze how intersecting identities (gender, age, ethnicity, disability, displacement, marital status) shape risk, access, and health behaviors.
- Surface localized, contextually grounded strategies for inclusive and equitable programming.
- Increase trust, participation, and community ownership—especially among marginalized populations.
- Inform structural and behavioral adaptations to ensure high, safe, and equitable MDA coverage.

A GESI assessment adds unique value by:

- Centering the lived experiences of excluded populations through participatory and community-driven methods (e.g., FGDs with women, youth, persons with disabilities, and hard-to-reach groups).
- Diagnosing power dynamics and social norms that drive non-compliance, absenteeism, or lack of trust-factors that situational analyses may overlook or generalize.
- · Generating tailored, actionable recommendations for social and behavior change (SBC), workforce deployment, supervision, and trust-building that are grounded in local social realities.
- · Elevating voices that are often absent from formal planning processes—including caregivers, informal leaders, or survivors of stigma and discrimination.

For example, while a situational analysis might identify "low MDA coverage among women in rural communities," a GESI assessment would go further to reveal why: whether it's due to gendered labor burdens, mobility restrictions, mistrust in male distributors, or fears around side effects tied to fertility myths.

When a GESI assessment is especially critical

Even if a situational analysis includes GESI elements, a standalone assessment is particularly valuable when:

- There is insufficient disaggregated data or anecdotal evidence of systematic exclusion.
- The program is reaching a plateau in impact and needs deeper behavioral and social insight.
- Previous situational analysis relied mostly on institutional or external perspectives, rather than community voices.
- There are high-stakes decisions on SBC redesign, elimination thresholds, or crosssectoral coordination that demand a more granular understanding of community dynamics

In these cases, a GESI assessment should be viewed not as duplication, but as complementary and necessary, offering a deeper dive where surface-level data stops short.

When to conduct a GESI assessment

A GESI assessment is warranted under the following circumstances:

1. Programmatic triggers

- · MDA coverage has plateaued or is below target despite repeated rounds
- · Disease prevalence remains above thresholds where treatment is required, even after multiple rounds of treatment
- Systematic non-compliance or absenteeism is reported among specific population groups

2. Population dynamics

- Presence of special populations (e.g., pastoralists, refugees, IDPs, undocumented persons, indigenous groups)
- Known or suspected disparities in access or outcomes based on gender, age, disability, or socio-cultural group
- · Migration, urbanization, or climateinduced displacement

3. Strategic planning milestones

- · Scaling MDA or transitioning into validation or surveillance
- Piloting or adapting SBC strategies or community mobilization approaches
- · Expanding into new geographies or high-risk settings (e.g., conflict-affected, border zones)
- · Preparing to conduct or analyze prevalence surveys in complex environments

Decision tree (non-prescriptive)

Use the following tool to help guide decisionmaking. It is not meant to be prescriptive, but rather to stimulate critical thinking among country programs:

Step 1: Are there consistent coverage or impact gaps?

- Disease prevalence above a certain threshold (e.g., TF ≥5%) despite multiple MDAs?
- Systematic refusals or consistent absenteeism?
- Yes → Proceed to Step 2

Step 2: Are there vulnerable or special populations present?

- · Nomadic, displaced, stateless, or marginalized ethnic groups?
- People with disabilities or groups with low trust in the health system?
- Yes → Proceed to Step 3

Step 3: Is a programmatic shift or redesign planned?

- New MDA strategy? SBC redesign? Expanded geographic coverage?
- · Upcoming validation or certification activities?
- Yes → A targeted GESI assessment is highly recommended

Analytical framework: Domains of gender and social inclusion

A robust GESI assessment draws from internationally recognized gender analysis frameworks and includes core domains that influence how people access, experience, and benefit from trachoma programming:

Domain	Sample inquiry
Access to assets and resources	Who controls access to transport, water, phones, radios, or health information?
Roles and responsibilities	Who collects water, manages hygiene, or cares for children? Who is available at distribution time?
Decision-making power	Who decides whether household members participate in MDA or health outreach?
Norms and beliefs	Are there cultural or religious norms around women's mobility, eye health, or medicine that affect behavior?
Policies and institutions	Do health facilities accommodate people with disabilities, language minorities, or women-only spaces?
Safety and GBV risks	Are there risks to participating in community activities or engaging with health staff–especially for women or minority groups?

These domains should be applied using an intersectional lens that recognizes how gender interacts with other forms of identity and structural inequality.

Methodological considerations

1. Mixed-methods design

- Key Informant Interviews (KIIs) with health officials, CDDs, traditional leaders, women's groups, disability organizations, and other local decision-makers
- Focus Group Discussions (FGDs) with women, men, caregivers, youth, persons with disabilities, and individuals missed or refusing MDA
- Participatory tools (e.g., social mapping, mobility calendars, risk matrices, barrier analysis)
- · Triangulation with quantitative data (e.g., MDA coverage, TF prevalence, WASH access)

2. Inclusive sampling

- · Ensure diversity across age, sex, ability, ethnicity, religion, and displacement status
- · Engage interpreters or culturally competent facilitators for marginalized groups

3. Ethical and safe engagement

- · Obtain informed, voluntary, and culturally appropriate consent
- · Avoid any procedures that require documentation in contexts with undocumented individuals
- Ensure that questions do not reinforce stigma or place respondents at risk
- · Prioritize trauma-informed and survivorcentered approaches

Translating findings into action

GESI assessment results should feed directly into programmatic adaptations such as:

- · Adjusting MDA schedules, delivery strategies, and distribution points
- Revising social mobilization plans to address norm-based barriers and trust deficits
- Enhancing provider training to address bias, improve inclusive communication, and uphold ethics
- · Integrating referral mechanisms for gender-based violence or disability support
- Informing policy advocacy for resource allocation or inclusive monitoring systems

Findings should be validated and disseminated in ways that build community trust and ownership, including local translation, dialogue sessions, or co-created action plans.

SUPPLEMENTARY MATERIAL 2

Additional survey considerations

Sampling and data collection methods for special populations

Understanding key aspects of the survey population is essential for establishing the correct sampling strategy. For example, if the survey includes a refugee population, their population structure should be assessed to determine the most appropriate sampling frame. If they reside in a standalone refugee or IDP camp, they may be considered their own EU. However, if they are integrated within a hosting district, they may be surveyed as part of an EU that includes both population types. The choice of approach should be informed by an assessment of the local context and based on program needs.

Determining EU composition for standalone surveys

Standalone surveys focus exclusively on a specific special population within an EU. This approach is typically used for populations that are distinct from the surrounding communities, such as residents of refugee or IDP camps, or highly mobile migrant populations. In these cases, the survey does not include individuals outside of the target group. Once a decision has been made to conduct a standalone survey for a special population, the program must define the boundaries of the EU. If multiple camps or communities exist, further decisions must be made regarding whether each site should be treated as a separate EU or whether multiple sites should be combined into one EU.

Key considerations include:

- Population size: What is the population size of each camp or settlement?
- Trachoma history: Have residents of different sites received MDA at different times, or have some received MDA while others have not?
- Community composition: Do the residents share similar backgrounds, such as country of origin or displacement history?
- Host district prevalence: Are the camps or settlements located in districts with different trachoma prevalence levels?

Special populations surveyed alongside non-special populations

In some cases, special populations may be surveyed alongside "non-special" populations within the same EU. For example, an EU may include both refugee camps and the host population as part of the same EU. In this situation the camps would be included in the sampling frame with camp residents and host population residents having an equal chance of being selected for evaluation.

Sampling frames

Different sampling approaches can be used depending on the type of special population being surveyed. The selection of a sampling frame depends on data availability and population dynamics. To determine the most appropriate strategy, programs require information on population size, population structure, and household distribution patterns. Collecting this data before fieldwork reduces the need for in-field counting and segmentation, improving efficiency.

In camp settings, population data is often available from the organizations managing the camp. For refugee camps, the UNHCR is typically the primary source of this information, while IDP camps are often managed by one or more NGOs. Government institutions may also hold relevant data. In some cases, aerial imagery may provide high-resolution visualizations of camp layouts. However, while household lists are frequently available in refugee and IDP camps, these lists may be outdated and should be verified at the start of the survey.

Two-stage sampling approach

The standard WHO-recommended two-stage sampling methodology is typically followed for trachoma prevalence surveys.

- 1. First stage: Clusters are selected using probability proportional to size, where the measure of size is the population count. In refugee/IDP camps, these first-stage clusters may correspond to designated blocks within the camp.
- 2. Second stage: Households are selected using methods such as compact segment sampling, simple random sampling, or stratified systematic sampling.

Simple random sampling

Simple random sampling involves randomly selecting households from a complete household list. The total number of households is numerically listed, and the required number of households is randomly selected (e.g., using the RANDBETWEEN function in Excel). To account for missing or unoccupied households on the survey day, it is advisable to generate a "replacement" list, adding an extra 10% of households. In camp settings, where logistically feasible, simple random sampling is recommended as it enables faster survey implementation and quicker data availability for health ministries. This is particularly useful in dynamic settings with high population movement.

Stratified systematic sampling methodology

Stratified systematic sampling follows these steps:

- 1. Determine the number of households to be selected (based on the target number of children to survey and the average number of children per household) = n
- 2. Count or estimate the total number of households = N
- 3. Calculate the sampling interval by dividing the total number of households by the number of households to be surveyed $(\mathbf{k} = \mathbf{N/n})$. For example, if $\mathbf{k} = 7.4$, round down to 7 to account for empty households.
- **4.** Determine a path through each neighborhood that passes through all households.
- 5. Select the first household randomly from the first k households.
- 6. Count k households from the selected household and survey the next one.
- 7. Continue this process across the neighborhood until the required number of households is surveyed.

If N was estimated correctly, this approach should result in selecting the desired number of households while covering all neighborhoods within the EU.

An overview of other sampling strategies applicable to IDPs and migratory populations has been published by Eckman & Himelein (2022).

Table 1. Sampling strategies for IDPs and migratory populations (taken from Eckman & Himelein (2022)

Sampling method	Advantages	Disadvantages	Applications
Satellite or aerial images Sampling households from images of camps or settlements	Works when cooperation with UNHCR or other agencies is not possible	Images may not be up to date. Difficult to distinguish households from other structures	Tested in Uttar Pradesh, India
Household selection with screening Traditional clustered household selection with screening to identify target population	High coverage of target population	Expensive when target population is a small fraction of entire population. Screening criteria may be sensitive	The Migration and Remittances Household Surveys in Burkina Faso, Kenya, Nigeria, Senegal, South Africa, and Uganda used screening to find immigrants and returned migrants
Time-location sampling Select centers or organizations where members of target population congregate, then select members	Can recruit small or hidden populations. Less expensive than other methods	Calculating probabilities of selection is difficult; may be a nonprobability in practice. Excludes those not visiting organizations	Survey of immigrants, including some illegal migrants, in Italy
Respondent-driven sampling Interview members of target population and ask them to recruit additional members, keeping track of recruitment links	Can recruit sample from small, sensitive, or hidden populations	Calculating probabilities of selection is difficult; may be a nonprobability in practice. Excludes isolated members of target population	World Food Program study of refugees in Turkey. See book Applying respondent driven sampling to migrant populations: Lessons from the field
Adaptive sampling Similar to "Household selection with screening," but additional households selected in areas where target population found	Best for geographically clustered populations	Calculating probabilities of selection is difficult	Used by the European Union Agency for Fundamental Rights to sample Roma in the second wave of the European Union Minorities and Discrimination Survey
Random geographic cluster sampling Select asl members of target population within specified distance of randomly selected points	Can capture those who have no permanent dwelling or are away from home	Interviewing all target members within clusters is logistically challenging. High burden on interviewers	Tested in Afar region of Ethiopia to recruit pastoralists
Mobile phone trace data Work with mobile network providers to identify neighborhoods where refugees live or congregate	Nearly all populations of interest use mobile phones	Requires a working relationship with network providers. Requires target population to have unique mobile phone behavior	Identified neighborhoods in Ecuador where Venezuelan immigrants lived

Data management considerations

In insecure areas, data upload delays may occur, similar to when locations have poor network connectivity. This has implications for training and supervision, as real-time data monitoring may not be possible. Additional quality control measures may be required, such as:

- Verifying cluster locations, as security restrictions may result in clusters appearing to be grouped together.
- Assessing gender imbalances, which may arise due to security-related limitations on male or female field team members, and documenting these findings in the data cleaning log for record-keeping.

Alternative data analysis approaches

In insecure EUs where field surveys are not possible, geostatistical analysis may be applied to data from accessible, contiguous areas combined with historical data from the inaccessible location to predict TF/TT prevalence. However, this approach is only viable if the reason for inaccessibility does not make the area significantly different from its neighboring regions. Additionally, this method requires the availability of historical geo-referenced data and is therefore unsuitable for baseline surveys (Harte et al., 2025).

Training

Since 2023, trachoma grader training conducted by Tropical Data has transitioned from requiring live inter-grader agreement (IGA) assessments in the field to a phonebased assessment (Harding-Esch et al., 2025). This change facilitates training for surveys in special populations, particularly in insecure areas, as it eliminates the need to locate a community with TF for training purposes, allowing for more flexibility in selecting training locations.

Other training considerations include the availability of certified trainers within a country, the need for refresher training for previously trained teams, and whether international trainers are required. If in-country trainers are unavailable, teams may need to be sent abroad for training. While it is always recommended that supervisors attend training sessions, their presence is even more crucial when conducting surveys in insecure areas to ensure strong relationships and clear lines of communication between teams and supporting personnel. The program should also allocate additional time before or after training sessions to discuss security, logistics, and communications-especially when operating in high-risk areas.

References

Harding-Esch EM, et al. Tropical Data: Supporting health ministries worldwide to conduct high-quality trachoma surveys. Int Health. 2025 Jan 3;17(1):1-3.

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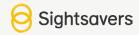


























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