

The end <sup>i</sup>~~o~~ of sight.

**I T**

**International Coalition  
for Trachoma Control**

"If we have any hope of achieving 2020, we need a global plan and this is the time to lay it out."

Global Plan for the Elimination of

"Our trachoma grants are up for renewal and I will need to explain to my board why they should invest in trachoma over competing priorities. I would benefit greatly from a document that explains where we are, what the next steps are and how we'll get to 2020. We all know how important it is to invest in trachoma, but we need to show the case."

Global Plan for the Elimination of

"We think about the world in terms of NTDs and are very closely involved with other development programs such as water and sanitation as well. Yet, the SAFE strategy is so complex and unique that I see a lot of value in a document explaining how it will all come together for trachoma specifically and for all NTDs. We need to see how it fits into the wider development agenda and how it can be integrated with other programs. We need to see how it can be implemented in a way that is sustainable and cost-effective. We need to see how it can be implemented in a way that is sustainable and cost-effective. We need to see how it can be implemented in a way that is sustainable and cost-effective."

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Trachoma is an eye infection that for thousands of years caused many people to go blind across all continents. As the result of development and targeted interventions, trachoma is now limited to an estimated 57 countries, often affecting the poorest populations of the world. Today, more than 2 million people are either blind or suffer from a very painful disability as the result of trachoma.

### Where are we?

In 1998, the World Health Organization (WHO) Alliance for the Global Elimination of Blinding Trachoma by 2020 (GET 2020) was created to tackle this challenge and the Fifty-first World Health Assembly (WHA) in 1998 called upon its member states to collaborate in the WHO alliance to eliminate the public health impact of trachoma by 2020. At that time, Pfizer Inc. also committed to donate Zithromax® for the preventative antibiotic program that can help stem transmission of the disease. These efforts have catalyzed many other organizations to participate in the challenge and seeded a broad community of partners tackling trachoma today.

There is much great news to report since then. The value of the WHO-endorsed SAFE strategy (Surgery – Antibiotics – Facial cleanliness – Environmental improvements) has been firmly established and continues to be improved by smart innovation; the first countries have reached or are reaching their intervention goals; the total burden is shrinking; and players are starting to prepare for the end-game by 2020. While progress is encouraging, a significant upward trajectory is needed to make the 2020 ambitions come true.

This global strategic plan was written in the spring of 2011 with input from a diverse set of stakeholders to accelerate progress and has three specific objectives: (a) sketch the current situation of trachoma and lay out what is left to be done, (b) describe milestones needed to reach global elimination of blinding trachoma by

the year 2020, (c) convince donors and partners that a dollar spent on trachoma is a dollar well spent.

Today, best estimates suggest that close to 110 million people live in areas where trachoma is confirmed to be endemic and implementation of the full SAFE strategy is needed. Another 210 million people live in districts where trachoma is suspected but where no data are available to guide interventions. In the confirmed districts, an estimated 4.6 million people suffer from the final stages of the disease and require surgery to prevent them from going blind. Additionally, more than 80% of the burden of active trachoma is concentrated in 14 countries, where immediate action is needed.

We believe that no one should suffer needlessly from the agonizing effects of trachoma.

### What's next?

In order to achieve GET 2020, we urgently need to fill the data void and map the full extent of the challenge. In addition, a significant scale-up is needed across all components of the SAFE strategy. This, of course, needs to happen in close coordination with the broader Neglected Tropical Diseases (NTD) agenda (especially for the A component) and with the help of other development activities (especially for the F and the E components). This global strategic plan contains a list of milestones to ensure we stay on track to 2020 and will allow us to celebrate our progress and plan our next steps. Reaching the milestones will depend on country leadership, international coordination, logistical and planning support, and adequate financing.





## Is it worth it?

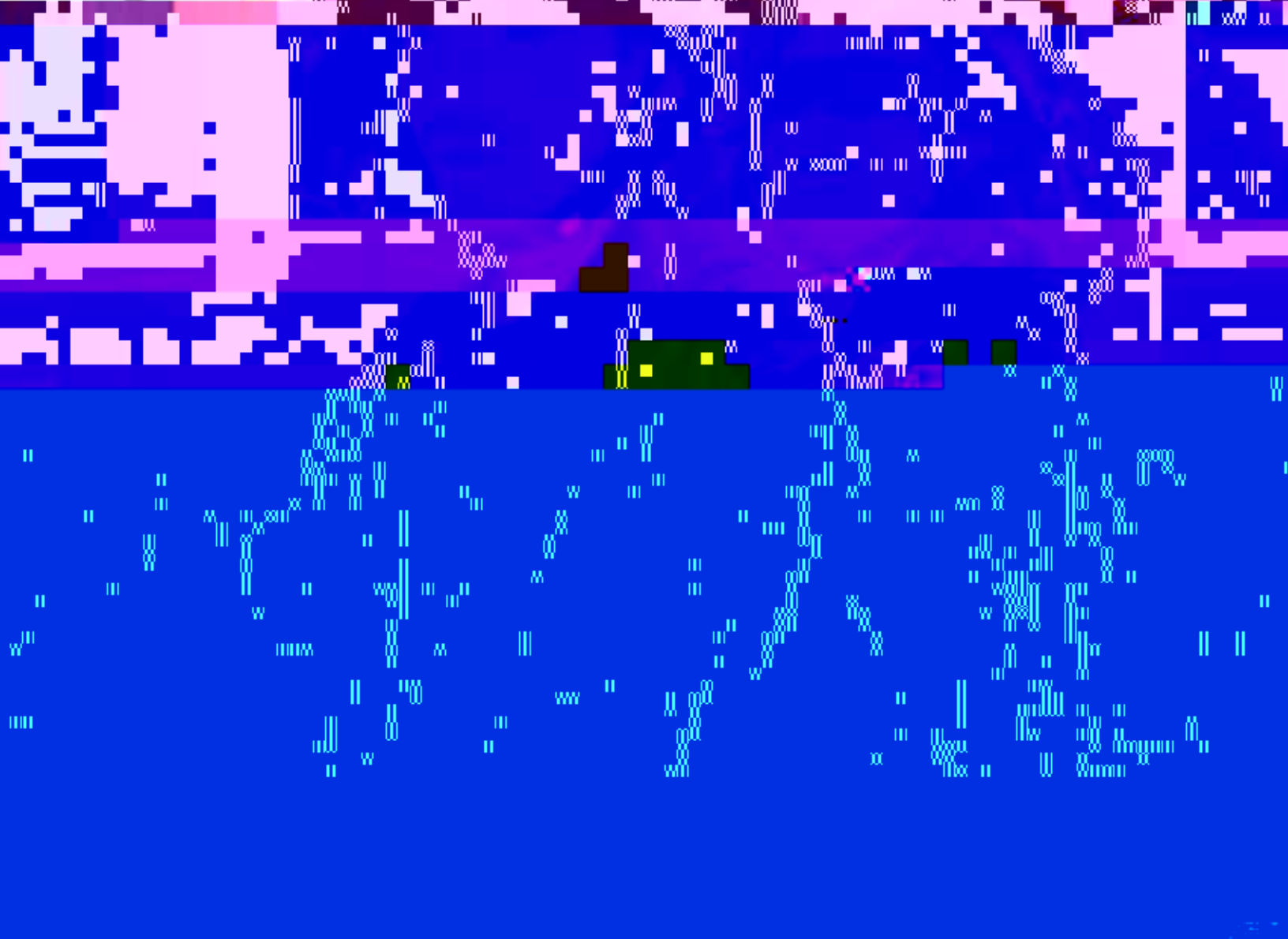
The total cost of implementing the SAFE strategy in all remaining known endemic countries can be estimated at \$430 - \$748 million. The potential of this funding, in combination with the significant drug donation (just over about 1 billion USD in 2010 alone), could make an enormous impact. Four dollars spent per person on trachoma elimination could enable implementation of full SAFE in endemic areas. Further, we could stop a disease that makes one person experience severe sight loss

every four minutes and blinds four people every hour.

The elimination of blinding trachoma in Africa alone would boost the continent's GDP around 20-30 percentage points based on conservative annual productivity loss estimates. We know that every \$20 invested in trachoma elimination translates into one additional year without severe vision loss or blindness. With coordinated action to meet milestones and scale up activities, the elimination of blinding trachoma by 2020 is well within sight.

*This global strategic plan and simultaneous planning at the national level can help mobilize partners and resources to accelerate our efforts along a common path, giving us a good chance of reaching the ambitious but achievable WHA goal of global elimination of blinding trachoma by 2020.*







A long list of endemic country and international partners contributed in different capacities with their expertise and perspectives to the creation of this document (listed below). The International Coalition for Trachoma Control (ICTC) is grateful for their hard work and inspiration. We would also like to thank the management consulting firm McKinsey & Company. The independent analysis and interviews conducted by McKinsey & Company provided a critical fact base for this report, and we thank them for their time and dedication. This document was funded and coordinated by the International Trachoma Initiative through a generous grant from Pfizer Inc.

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Trachoma is the largest infectious cause of blindness in the world and the eighth most common blinding disease worldwide. It mainly affects people living in the poorest areas of the world. At least 110 million people live in areas where the disease is confirmed to be endemic and about 4.6 million are in advanced stages of the disease (trichiasis), steadily progressing along a painful path to blindness. In addition, another 210 million people live in areas where insufficient data have been gathered to date, but where there are strong indications that trachoma is present.<sup>1,2,3</sup> In those areas, an additional 3.6 million cases of trichiasis can be expected.<sup>4</sup>

The path to blinding trachoma starts with a benign infection of the eye with *Chlamydia trachomatis*. The disease presents in young children as a chronic inflammation of the eyelid: Trachomatous Inflammation – Follicular (TF) and Intense (TI). Repeated re-infection can start a downward spiral and cause scarring of the eyelid, which leads to entropion and trichiasis; the in-turning of the eyelid with painful contact between eyelashes and the eyeball (Trachomatous trichiasis or TT) and scarring of the cornea. The combination of repeat cornea trauma and secondary infections can cause severe pain and will ultimately lead to corneal opacification (CO) and blindness.

Typically, children get infected at an early age and develop vision loss and blindness mostly later in life (about 45-60 years). Women are almost twice as likely as men to develop TT from trachoma.<sup>5</sup> Trachoma has disappeared from large parts of the world as the result of economic development but the disease continues to affect some of the most vulnerable populations.

While estimates vary, it is likely that at least 1 million people worldwide suffer from low vision and an additional 750,000 are blind as the result of trachoma.<sup>6</sup> This means that at least one new person starts to experience severe vision loss every four minutes and one additional person is going blind roughly every 15 minutes as the result of this devastating disease.<sup>7</sup>

In 1998, the Alliance for the Global Elimination of Blinding Trachoma by 2020 (GET 2020) was formed to drive the systematic roll-out of the SAFE strategy that has been proven to lead to elimination with a clear and ambitious vision (see Exhibit 1).

The Fifty-first World Health Assembly in 1998 also called upon its member states to “implement ... the SAFE strategy for elimination of blinding trachoma” and to “collaborate in the WHO alliance for the global elimination of trachoma and its network of interested parties for the global coordination of action and specific support.”<sup>8</sup>

1 Estimates of epidemiology are based on the Trachoma Atlas ([www.trachomaatlas.org](http://www.trachomaatlas.org)), maintained by the London School of Hygiene & Tropical Medicine, International Trachoma Initiative, and The Carter Center, and related databases. The confirmed population is the total number of people that live in districts where district-level surveys found prevalence of TF in children between ages 1 and 9 years old to be 10% or higher. The suspected population lives in districts (a) where TF > 10% from a Trachoma Rapid Assessment (TRA) or a regional level survey, or (b) that is categorized as suspected endemic by local experts.

2 India, China and Brazil have not been included in any of the analysis in this document because of the high degree of data uncertainty. Some estimate that in those countries alone 750 million people are living in areas that could be endemic, and they could contribute ~2.8 million cases of TT. (Mariotti et al., 2009).

3 The TT estimates are based on the best available data. We used 3 sources in order of preference: backlog as reported by countries to the GET 2020 meeting in 2010, Mariotti et al., 2009, and estimates based on TT prevalence communicated to ITI in 2010 (for details see appendix 1).

4 3.6 million is the gap between the calculated trichiasis in the confirmed region and the total estimate in Mariotti et al., 2009.

5 “Women and Trachoma”, The Carter Center & Kilimanjaro Centre for Community Ophthalmology, 2009.

6 The 2nd scientific meeting of trachoma in 2003 estimated about 1.8 million and 1.3 million to have reduced vision and be blind respectively (WHO GET 2020 Alliance. Report of the 2nd scientific meeting on trachoma. Geneva, 25-27 August, 2003 and Burton et al., 2009). Of these, ~1.05 million and 750,000 respectively can be considered confirmed while the rest are currently suspected.

7 The yearly incidence of trichiasis can be estimated at 8%, and ~10% and 35% respectively are blind or suffer from low vision (Ngondi et al., 2007 and Ngondi et al., 2009). These estimates are in line with field observations by Munoz et al., 1999 and mathematic modeling by Gambhir et al., 2009.



*The GET 2020 Alliance defines its goal of elimination by 2020 using WHO criteria:*

*(a)*

## **The economic burden of trachoma is considerable**

Several estimates of the economic burden of trachoma have been made in recent years.<sup>11</sup> Extrapolation of the most conservative methods to 2010 burden estimates suggests a total loss of productivity for the vision-impaired or blind and their caregivers between \$3 billion and \$6 billion every year.<sup>12</sup> As economic development is increasing the GDP per capita, this burden will only increase.

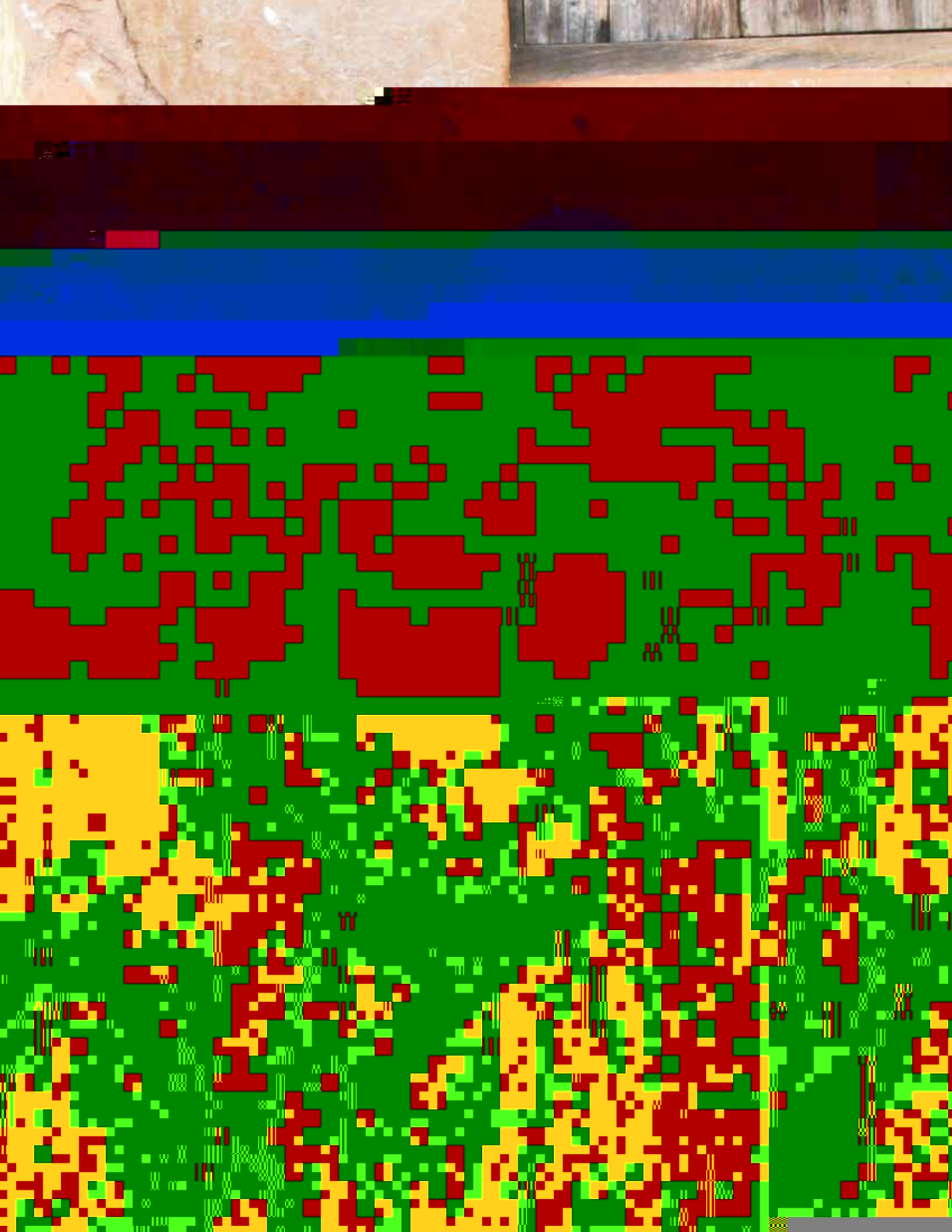
We have turned the page on the first half of the effort to eliminate blinding trachoma and significant progress has been made. There is a much better understanding of the disease and how to tackle it, and the implementation of a multipronged approach has led to elimination in a small but growing number of countries. However, the challenges are still great and it will be very important to coordinate efforts and scale up interventions in the near future to reach the 2020 mark.

## **The purpose of this global strategic plan**

At the time of the 14th GET 2020 Alliance meeting in 2010, the International Trachoma Initiative was tasked by the global alliance to “develop a trachoma action plan template for distribution by the alliance.” The Trachoma Action Plan (TAP) template was designed to delineate specific actions and milestones focused on elimination by 2020 at the level of individual nations. The development of the country-specific TAP served as a catalyst for the creation of this global strategic plan, 2020 INSight, which charts the path

to global elimination of blinding trachoma by the year 2020 and serves as a tool to continue to drive collective action, coordination, and focus. In addition, 2020 INSight can be used to demonstrate current progress and, as an advocacy document, to increase awareness, political will and funding.

The calculations in this document are based on the best available data as of summer 2011 – we are aware of several ongoing efforts in costing and epidemiology that will improve upon the current data set. This document is also the result of discussions with many country representatives at Trach

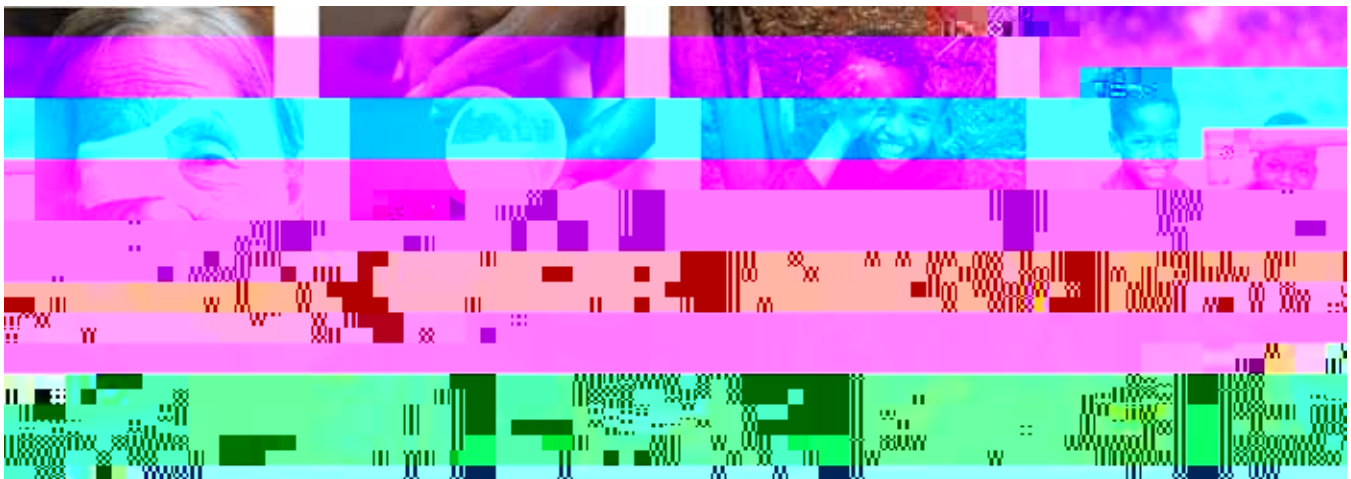


## Trachoma can be prevented by the roll-out of a WHO-endorsed strategy

Extensive research has shown that the four-pronged WHO-endorsed SAFE strategy (illustrated in Exhibit 1) can be effective to eliminate trachoma in vulnerable populations: **Surgery** is needed to stop eye lashes from rubbing against the cornea and halt the cycle of trauma and secondary infection that leads to blindness. **Antibiotics** are key to treat the infection and decrease disease prevalence and transmission in endemic regions. **Facial** cleanliness

helps to reduce transmission by fingers, flies and fomites, and **Environmental** improvements (such as access to water and basic sanitation) reduce exposure and re-infection. The F and E components should be put in place whenever TF prevalence exceeds the 5% mark in children aged 1-9 years<sup>13</sup> and district-wide distribution of antibiotics should be added in any district with prevalence of TF higher than 10%. In addition, surgery programs should be put in place when district TT prevalence exceeds 0.1%.

EXHIBIT 1 - Illustration of each of the SAFE components







Ghana is coming very close to eliminating trachoma as a public health problem. The Ghana National Trachoma Control Program run by the Ghana Health Service/Ministry of Health started in 2000 and needed to tackle an estimated 2.8 million people at risk of trachoma infection, with 11,600 cases of trachoma-related blindness, and about 13,000 people with trichiasis - the potentially blinding stage of the disease. The program has been running for about 10 years, implementing the SAFE strategy: national and international partners have provided surgery to people suffering from trichiasis, distributed about 3.5 million doses of Zithromax® to about 1 million people,

rolled out health education programs on face washing and built household latrines and safe water sources. From 2000 to 2010, the Ghana Trachoma Control Program reduced the prevalence of active trachoma from 9.7 -16.1% to less than 3.0% in endemic districts. The backlog of people with trichiasis has been reduced to about 1,500 cases. The Program also managed to increase water coverage to more than 90%, and latrine coverage from a low 1% to a high 30.8% of households. Ghana is set to achieve the elimination of blinding trachoma thanks to this comprehensive implementation of the SAFE strategy. Ghana Health Service is the overall owner, implementer and coordinator for the

program. But they have been supported by a strong partnership that helped create this success. The strong collaboration between the health, education and water/sanitation sectors within the National Trachoma Taskforce has demonstrated how a disease of poverty can be successfully eliminated. Finally, the ability to identify and operate on the remaining 1,500 people with trichiasis, as well as new cases, is being developed within the health system with support from partners. In order to ensure Ghana's advances are sustained, plans have been developed for ongoing surveillance and continued advocacy for water and sanitation to governments, agencies, and organizations.<sup>19</sup>

of districts that recently took place in Kenya as the geographic borders were redrawn.

### **Great progress has been made, but significant action is needed now**

The progress over the last decade has been remarkable by any measure.

A number of countries recently reported having achieved WHO elimination targets. These successes illustrate that trachoma elimination is possible and is a strong encouragement to continue fighting.

The trachoma community is bound by a very strong partnership that exemplifies how an international public-private partnership can achieve remarkable results. The success of the trachoma campaign is the result of a powerful and sustained collaboration between

the ministries of health, education, water and sanitation in the affected countries; international organizations such as the WHO; a long list of donors (e.g., DFID, Hilton Foundation, Lavelle Fund for the Blind, Lions Clubs International Foundation, USAID); international NGOs (including The Carter Center, CBM, The Fred Hollows Foundation, Helen Keller International, International Trachoma Initiative, Light for the World, Operation Eyesight Universal, ORBIS, Organisation pour la Prévention de la Cécité, Sightsavers, Ulls del Mon, World Vision); a large number of academic institutions (e.g., Emory University, Johns Hopkins University, Kilimanjaro Centre for Community Ophthalmology, London School of Hygiene & Tropical Medicine, University of California, San Francisco, University of Melbourne); and a corporate sponsor, Pfizer Inc., that donates the antibiotic Zithromax®

14 India, China and Brazil have not been included in any of the analysis in this document because of the high degree of data uncertainty.

15 192 million people live in "suspected endemic areas", where either a TRA or regional survey has found trachoma prevalence above 10%; or where other strong evidence exists of trachoma presence.

16 A district is defined as the administrative unit for health care management and for purposes of clarification consists of a population unit between 100,000-250,000 people.

17 District estimates based on Trachoma Atlas database and in line with other published estimates.

18 Trachoma Atlas database and historic data.

19 Ghana case study based on literature review, data review and expert discussions with Dr. Agatha Aboe and Dr. Oscar Debrah.

used to treat trachoma in many endemic countries and provides certain financial support for ITI and GET 2020.

The power of the trachoma community partnership is evidenced in how the number of surgeries per year has exploded from about 40,000 in 2005 to about 160,000 confirmed at the GET 2020 meeting in 2010;<sup>20</sup> antibiotic distribution has rapidly expanded from about 1 million in 1998 to about 37 million doses in 2010<sup>21</sup> and important efforts have been made on both the F and E components, often in collaboration with other programs. Overall, more than 30 countries have elimination programs underway.

However, all of this energy and progress might still fall short of the 2020 target date. At the current prevalence and intervention levels, it would take until 2032 to address the surgery backlog in isolation with 160,000 surgeries per year.<sup>22</sup> And if we continue to expand the drug distribution program at the same speed, all districts with a confirmed need for treatment will only be reached by 2028. Reaching non-confirmed districts would take many more years - and no significant activity is currently ongoing or planned.

While the trachoma community is working closely together with other partners to help address the F and the E components of the S until E o21

EXHIBIT 3 - Segmentation of countries based on the current status

<b>Countries</b>			
<b># of countries</b>			
<b>% of endemic population</b>			
<b>% of TT burden</b>			





*“With elimination of blinding trachoma, millions of people will be spared the painful and disabling path towards blindness. Additionally, helping individuals retain their sight for the duration of adulthood will allow them to be more productive, and will help break the cycle of poverty. With hard work and continued commitment, the world can be free of the burden of blinding trachoma”*

*– K. Schlosser, History of Trachoma*

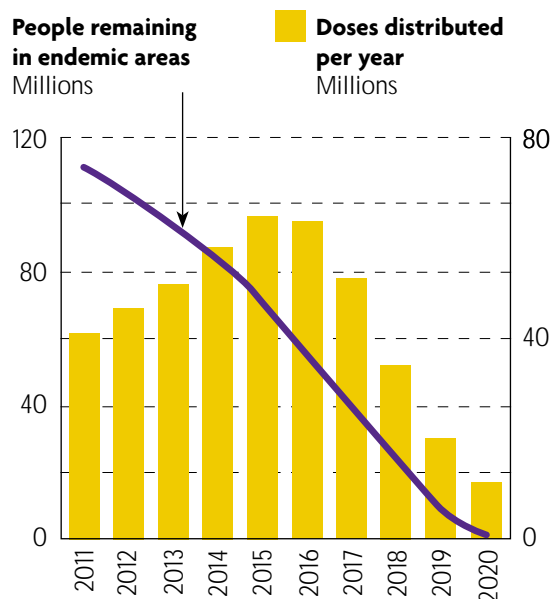
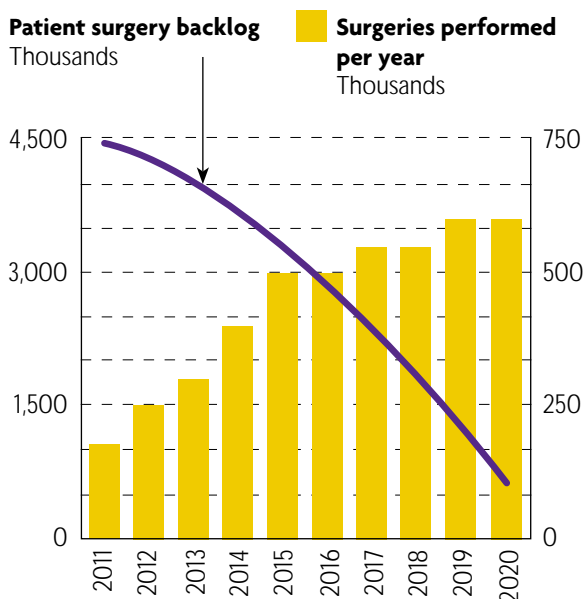
### Scale-up of interventions is critical but will require addressing important barriers

The goal of elimination by 2020 can be brought within reach by scaling up each of the interventions as modeled in two scenarios illustrated in Exhibit 4 for the S and A components. A focused scale-up plan is needed for each of the four components of the SAFE strategy.

In addition to the intervention-specific requirements

and barriers discussed below, elimination will require epidemiological assessments in the 1,293 districts where trachoma is currently suspected to be endemic. While the optimal geographic level to conduct the survey and tactics can vary, the outstanding challenge is equal to what has already been done (about 1,115 districts surveyed in last 12 years). It is also important to determine whether trachoma initiatives can be combined with surveys for other diseases to save time and cost.

EXHIBIT 4 - a) scenario for surgery scale-up, and b) scenario for antibiotics scale-up with the impact on surgery back-log and number of people remaining in confirmed endemic areas <sup>26</sup>



<sup>26</sup> The scenarios in Exhibit 4 are only one of the possible paths to scale-up surgery and antibiotics to 2020. The specific rate of growth and year-over-year change depends on choices made by individual countries and individual partners.







> **Main barriers: Behavioral change is not easily achieved** – Educational programs and focused campaigns can help penetrate deeply into some target groups, but behavioral change remains a difficult public health intervention to achieve, maintain and measure. Coordination with broader campaigns and other NTDs can be part of the solution (e.g., include face washing in national hand washing campaigns).

> **Scale-up: Access to clean water and latrines needs to be improved dramatically** – Because trachoma is concentrated in poor areas, access to clean water and latrines is often very limited. While the trachoma community cannot in itself ensure both elements are addressed in each community, it is important to advocate and work with partners to materially improve the situation and to reach in trachoma-endemic areas the objectives set by Target 7c of the Millennium Development Goals: <sup>31</sup> “Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation.” This scale-up is needed both in districts where trachoma activities are ongoing today and in new districts.

> **Main barriers: Coordination and cost** – In some countries, less than 25% of the population has access to clean water. The last component of the SAFE strategy would in this context require significant infrastructural activities as part of a broader development agenda. The trachoma community can push for more coordination and better information


sharing with ministries and non-NTD partners focused on water and sanitation.

### **Advocacy needed to increase political will and funding for SAFE strategy**

Overcoming the barriers to scaling up SAFE interventions requires advocacy to increase political will and funding at both a global and a national level. Global partners need to do a better job of coordinating their efforts at the global level and within countries. An increase in global funding for trachoma with greater multi- and bi-lateral support can help generate a budget for countries that do not have the necessary health budget to finance a trachoma control program. It is, however, very important that national governments own and take the lead to fund, promote, and manage their own trachoma control programs. For that reason, it will be important to develop and roll out a coordinated advocacy program that increases awareness amongst all key stakeholders at all levels.

### **Different paths to elimination can work depending on the context**

- › Data gathering above the district level can help create useful data quickly and cost-effectively -



SAFE interventions in a district take at least four to six years from start of the survey to elimination - and often longer. In addition, elements of S, F and E need to be scaled-up alongside the 'A' component and continue beyond the time when the targets are first met. This timeline presents a major logistical challenge for the global community, as each of the endemic districts needs enough time and focused effort to work through the elimination sequence before 2020. Coordination and sequencing of interventions in each district and among all districts will be a key factor for success in reaching 2020.

This strategic plan contains five guiding principles that provide a framework for the path to elimination. Combined with the sequence of activities in an individual district, they result in five specific strategic drivers that help determine and sequence activities between now and 2020. Finally, this plan then translates the principles into a set of very specific milestones to lay out the annual progress needed to make 2020 a reality.

### Five guiding principles form the basis of the approach

*The guiding principles set out how the trachoma community thinks about its fight for elimination. They make the underlying philosophy of the strategic plan explicit.*

- 1. Urgency** – There is an urgent need for action to avoid additional suffering and unnecessary blindness in hundreds of thousands of people. In most trachoma-endemic countries, there is a need for immediate and rapid scale-up to achieve the 2020 elimination target.
- 2. Accountable ownership** – Countries should be the leaders of the elimination strategy and entire elimination process (including planning, implementation, and integration into national health services). They can solicit and coordinate contributions from donors and partners with whom they work to achieve the 2020 goals but, in the end, they are responsible to their own people for eliminating trachoma as a blinding disease.

- 3. Integration** – The trachoma-focused efforts of global and local communities need to be aligned with other plans and activities, including (a) broader NTD activities and plans, (b) VISION 2020, integrated, comprehensive eye care models that provide sustainable opportunities to deliver the S component (c) national health and development strategies, and (d) initiatives focused on the F and E components of the SAFE strategy such as the ones led by the ministries and partners focused on water, sanitation and education.

- 4. Efficient, coordinated partnerships** – The coordinated contribution of all partners and stakeholders is key to scale-up of interventions and increased coverage, especially as efforts expand into new countries. Partners should coordinate their activities to maximize the impact of the contributions of each stakeholder.

- 5. Tailored** – Interventions should be tailored to local needs using best available data and knowledge. Where not currently available, information on the magnitude of trachoma needs to be generated as soon as possible. Research is still needed to help influence the adoption of appropriate programs and policies; these often need to be tailored to the local context.

### Individual districts take at least four to six years from start to elimination, often more

*The timeline for an individual district defines how much coordination and time it takes to eliminate*

*blinding trachoma in one district and forms a basis for the timing of global activities.*

There is a wide range in the total time it takes a district to reach the elimination targets (Exhibit 5). In general, the fastest possible path is about four years in areas where the baseline prevalence of TF in children 1-9 years old is between 10 and 30% (three years of SAFE strategy implementation are required).<sup>35</sup> This fast track increases to six years or more if prevalence is higher.

Once the elimination goals have been achieved, countries need to maintain the WHO intervention thresholds for three years before they qualify for certification.

While these timelines are possible, realistically they are often longer because data gathering may be delayed, significant time might need to be invested in planning interventions and raising funds, and, finally, scale-up of each of the components of the SAFE strategy might take longer than expected to implement and therefore further stretch the timelines.

- > **Data** (about 6 months) – A detailed epidemiological survey needs to be conducted in all suspected geographies. The methodology and approach are well established but can be adapted (e.g., regional surveys helped accelerate impact in Ethiopia, while sub-district surveys in Kenya helped to narrow down the area where interventions are required). Impact surveys are needed to assess whether active trachoma is below thresholds, and post-elimination surveillance is important to confirm that the program has indeed met the thresholds for 3 years and is likely to continue afterwards.
- > **Planning** (about 6 months and ongoing) – Once the survey data are available, each of the SAFE components needs to be planned, partnerships built, and funding acquired. While timing varies greatly between districts, interventions can be implemented as soon as 6 months after survey results are made available. The planning of the scale-up of the interventions has a big impact on the total timeline. If, for example, the application for drug donation is

not timely or complete, six months to a year might be added to the timeline.

- > **Fundraising and advocacy** (ongoing) – To increase awareness and available funds, significant fundraising and advocacy efforts are needed both at the national and international levels. It is important to evaluate the options and design an advocacy strategy at the start of the planning, but also to revise and update that strategy as needs and circumstances change.
- > **Scale-up and implementation of SAFE elements** (3-5 years) – Once the SAFE elements are in place, A, F and E interventions can be started right away, but three to five years of consistent annual MDA are needed to meet elimination criteria. The timeline is mainly determined by the duration of scale-up and interventions and the length of MDA. However, implementation of behavior change programs in schools and communities as well as latrine and water programs take time. Also, some districts manage to implement each of the SAFE interventions at full scale within a year, but others go through a much longer scale-up phase. MDA should be conducted for at least three years where prevalence of TF is 10-30% and at least five years if it is above 30%. The time to reach the elimination criteria for TT depends largely on the burden, surgical capacity and productivity.
- > **Time to certification** (3 years) – A district needs to maintain its performance through three years of post-elimination surveillance before WHO certification can be granted. It is important to note that surveillance as well as the behavior change and surgery programs need to continue throughout and even beyond certification as part of the core tasks of local health care systems.

### **Five strategic drivers help to define the path to 2020**

*The strategic drivers help determine the activities along the path to 2020 based on the guiding principles and the timeline of an individual district. They explain the rationale for the path to 2020 and form the basis of the main milestones.*

**1. Additional data should be collected, but should not delay scale-up** – Countries need to assess their trachoma burden by 2013 to have hopes of reaching elimination by 2020.

There are currently at least 17 countries where lack of data is a roadblock to planning efforts. An estimated 210 million people are living in the 1,293 districts where trachoma is suspected but where more detailed information is needed before an appropriate set of interventions can be designed. It is therefore of primary importance to investigate the size of the challenge in the currently uncharted areas. Methods to gather necessary data across

multiple districts can be considered if it helps to speed up this process.<sup>36</sup>

**2. Aim for the fastest timeline possible in each district**

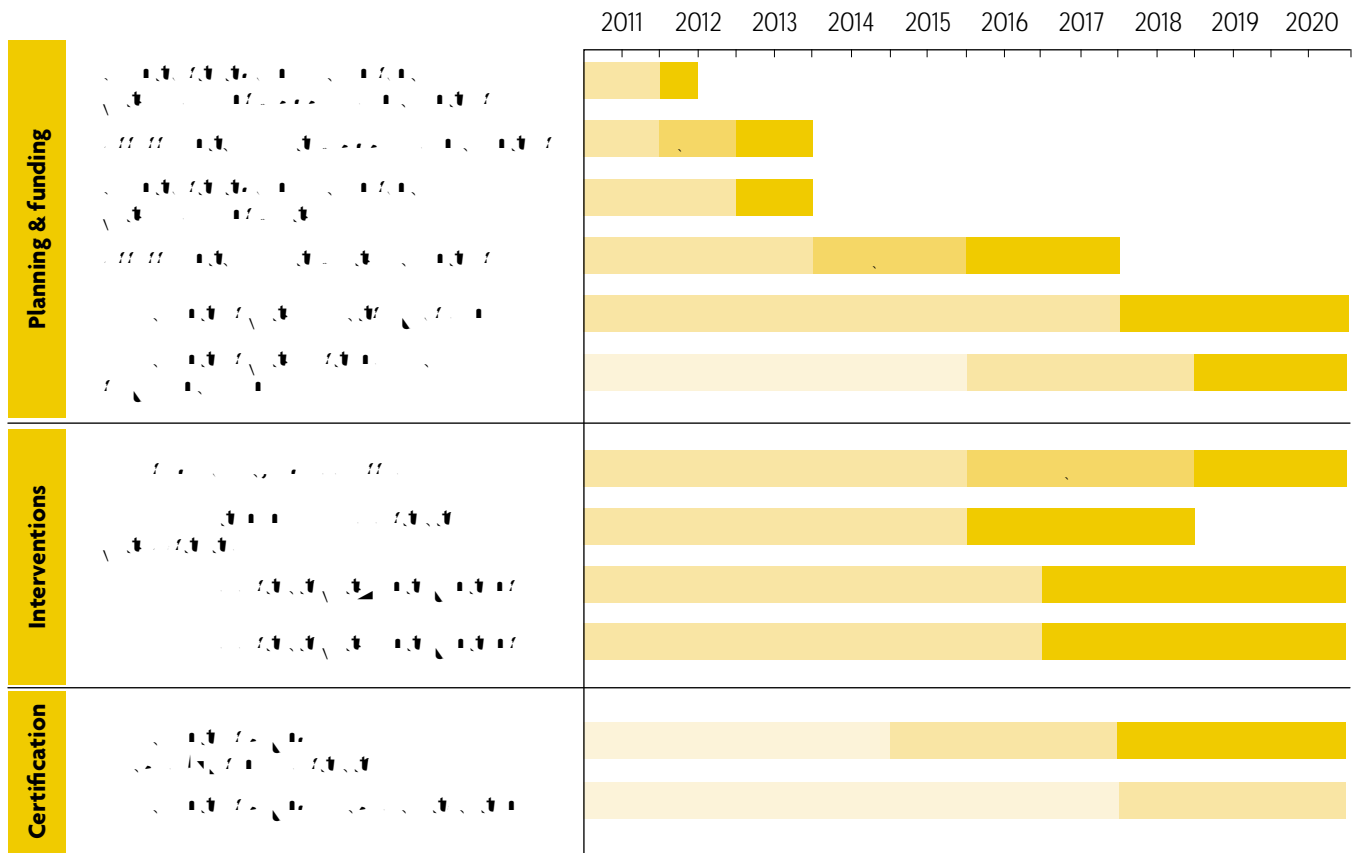
– The 4-6 year timeline is aggressive and requires seamless transition between phases, parallel planning and execution of different activities (e.g. mapping and planning), and rapid scale-up. Meeting these timelines is challenging; however it will speed up the overall path to elimination.

Example 1: Pre-plan surgery and antibiotics interventions before full epidemiological data is  
682 reS278943 0.796

<sup>35</sup> Timing based on WHO-treatment guidelines and interviews

<sup>36</sup> The decision to survey by district or across multiple districts needs to be made case by case. If the burden is high and the timeline pressing, regional surveys can make a real difference. If a district level survey can help identify those subdistricts that need or don't need treatment, they can be helpful to target the interventions and resources.

EXHIBIT 6 – Overview of major milestones to hit in order to achieve the 2020 goal of elimination



Example 2: Avoid creating new programs to achieve the F components, but build on existing efforts that are focused on broader behavioral change (e.g., general hand washing campaigns, include in school curriculum, etc.).

Example 3: Leverage interventions and advocacy efforts across NTDs and other diseases (e.g., joint malaria-trachoma surveys such as those pioneered in Ethiopia).<sup>37</sup>

Example 4: Continue to innovate and share best practices rapidly with other countries and partners to revise conventional wisdom or strengthen service delivery.

**3. Focus early on high-burden countries** – Given that it can take six or more years to eliminate trachoma in high burden districts and countries, the global community should ensure adequate attention is

given to the highest burden countries and the most complex situations early in the path to 2020.

The district lifecycle of 4-6 years is aspirational – many countries require more time. The 2020 goal can only be achieved if partners ensure that activities are initiated everywhere while prioritizing particularly challenging areas sooner. This will help ensure all countries can make the 2020 goal. Swift action and thoughtful coordination in high burden countries, along with specific attention to those communities that live in border areas or are nomadic, is necessary.

**4. Proactively tailor approaches based on progress**

– Interventions need to be planned according to WHO and the ITI Trachoma Expert Committee guidelines but tailored to each context.<sup>38</sup> Periodic impact surveys help to assess impact and adjust interventions, saving both time and money. For example, prevalence in Baw (district in Sudan) and

in areas of The Gambia was around 10% when MDA started. TF practically disappeared after one or two years of intervention.

- 5. Plan beyond elimination** – While the first priority is to drive towards the elimination targets, it is important to prepare soon for the time post-elimination when the programmatic efforts will likely be reduced but not completely discontinued.

The main driver of success is integration of trachoma surveillance initiatives within the local health and eye care systems. Several initiatives can help smooth the transition from the focused programmatic approach pre-elimination to integration in the local health care system post-elimination, such as: proactive planning of transition of interventions, training of local health administrators and professionals, preparation of surveillance surveys, and investment in data management capacity.

### Specific milestones to 2020 and beyond

*“What gets measured, gets done”*

The 2020 goal is ambitious, and success is highly dependent on the rapid scale-up of interventions across countries and districts. Exhibit 6 lays out the most important milestones that need to be achieved over the coming 10 years. These milestones are a proxy for the actual elimination events; they are not the end goal. They serve as guideposts laying out what needs to get done to stay on track for success.

They are not only useful for planning but are also excellent tools to track overall progress of the global trachoma community against its goals and to celebrate success. In addition to these milestones, the global trachoma community should track other metrics such as the total spent per year on trachoma, percent of countries making progress, and number of people going blind from trachoma per year.

### Plan for post-elimination

*As indicated in the strategic drivers, planning for post-elimination activities is very important. Dedicated financial support will likely diminish once the thresholds are met, but a series of activities will need to continue to ensure trachoma remains under control:*

› **Post-elimination surveillance and certification**

– Once the ultimate intervention goals are met, regular surveillance needs to be carried out to detect potential resurgence early enough that appropriate action can be taken. In addition, post-elimination surveillance will likely become an important part of the certification criteria that WHO is developing.

- › **Continued F and E activities** – The behavioral changes that result from F and E interventions can form an effective barrier against resurgence, so it is important to continue to drive for facial cleanliness, latrine use, and improvement of the water and sanitation infrastructure. Inclusion of facial washing in educational programs and other washing campaigns as well as coordination with other water programs is key to making elimination sustainable.

- › **Maintained surgery capacity for new cases** – The trichiasis backlog needs to be addressed before the elimination goals are reached, but new cases of trichiasis will continue to appear post elimination. Some people that grew up in endemic areas and were exposed to the active disease and eyelid scarring will continue to progress towards trichiasis. It is therefore of utmost importance to maintain sufficient surgical capacity to provide the necessary services to prevent this group of people from going blind.<sup>39</sup>

- › **Integration of trachoma capabilities in the health system** – A deliberate and well-planned shift of capabilities and responsibilities from trachoma-focused initiatives to the local health system is important to ensure all of the above can be maintained post elimination.

<sup>37</sup> Emerson et al., 2008.

<sup>38</sup> See list of recommended resources for stakeholders on pg. 33.

<sup>39</sup> The incidence of progression to trichiasis in the absence of continued exposure is unclear. Munoz et al., 1999, and Gambhir et al., 2009, are sources for further reading.





The human cost of trachoma occurs when vision loss or worse, blindness, leads to loss of social status, stigmatization and reclusion from society. The economic burden of trachoma on the lives of individuals, families, and communities is enormous. Even conservative estimates suggest an annual loss of productivity due to trachoma between \$3 billion and \$6 billion. Eliminating blinding trachoma will clearly bring benefits at the human and economic level. What is the cost of achieving that elimination goal?

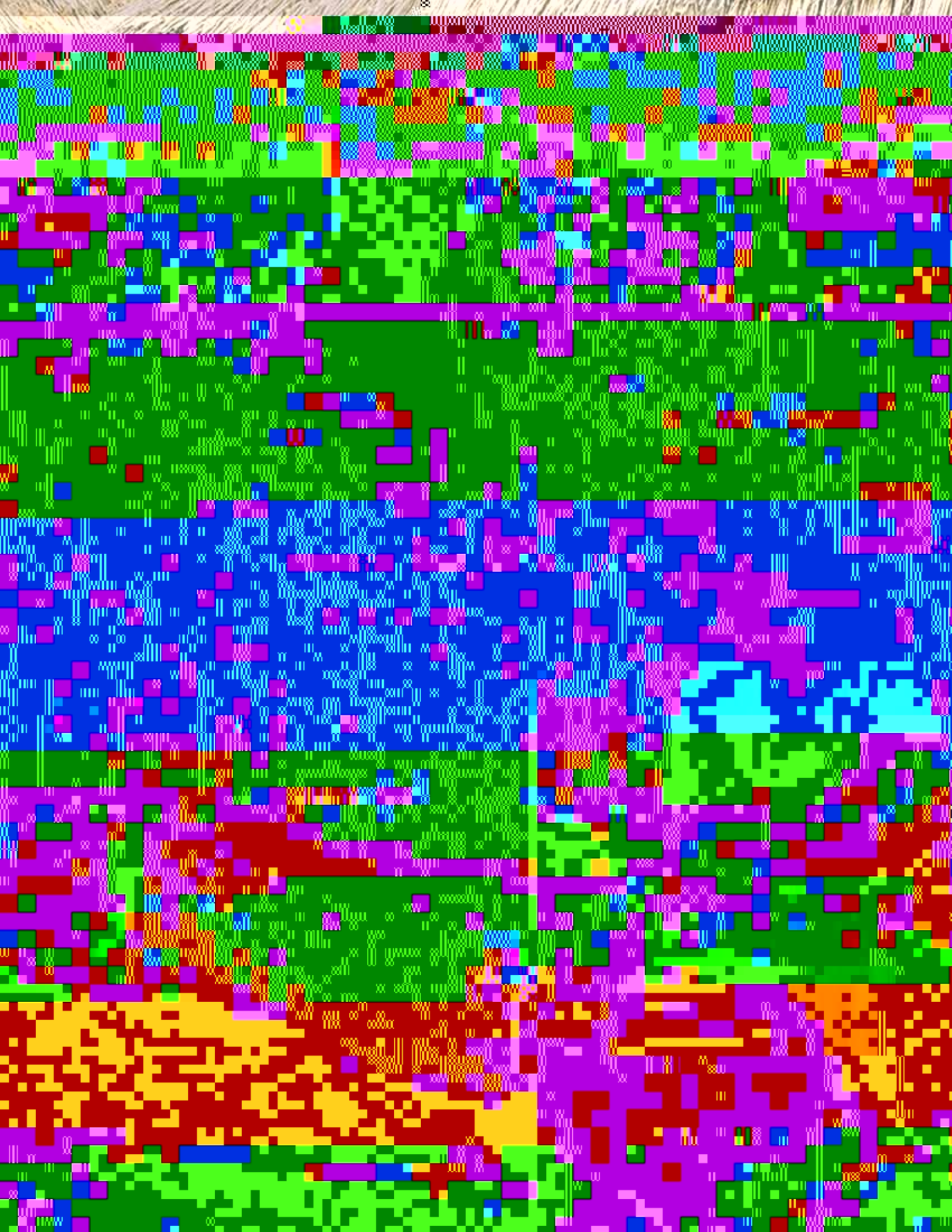
### **Total cost estimated at about \$430 million for confirmed burden** <sup>40</sup>

*(Please see Appendix 2 for details about the calculations)*

Based on the current best available data, the total cost of all interventions to address the confirmed disease burden is expected to be about \$430 million. This estimate excludes the cost of the drugs, a large portion of which are donated as part of the Pfizer donation program, and only includes a minimal cost for building of latrines and digging of boreholes, which are often part of a broader health and development agenda. This estimate will need to be refined as countries finalize their own costing exercise (in the context of the NTD and trachoma planning process) and as standardized costing tools become available.

- > **Data gathering: \$14 million** - District mapping, impact surveys post-intervention and post-elimination surveillance each make up about a third of the total data cost. This estimate may be affected by the use of multi-district surveys and changes in the method of surveillance and impact measurement over time.
- > **Surgery: \$182 million** - TTT (of multi-di)10(strict s)10

> **Contribute to E efforts: \$112 million** - Similarly, the trachoma community may need to contribute part of the cost of latrine construction and borehole drilling which often happens by partners that focus on broader development of water and sanitation. This estimate reflects the need for \$20,000 per district per year which can be used to build latrines or contribute to clean water provision in select cases.



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- > WHO Weekly Epidemiological Record, Meeting of the International Task Force for Disease Eradication of October 2010, published 11 Feb 2011

## Recommended resources for stakeholders

- > A guide for environmental sanitation and improved hygiene, WHO/PBD/GET/00.7/Rev.1, WHO, 2000
- > [http://www.cartercenter.org/health/trachoma\\_education/mtResources.html](http://www.cartercenter.org/health/trachoma_education/mtResources.html)
- > Implementing the SAFE Strategy for Trachoma Control, a Toolbox of Interventions for Promoting Facial Cleanliness and Environmental Improvement, Emerson P and Frost L, The Carter Center and the International Trachoma Initiative, 2006
- > Trachoma Action Plan; template submitted to GET 2020 during April 2011 meeting
- > Trachoma Atlas, London School of Hygiene & Tropical Medicine/ ITI/Carter Center ([www.trachomaatlas.org](http://www.trachomaatlas.org))
- > Trachoma epidemiologic survey control, WHO/PBL/93.33, WHO, 1993
- > Trachoma Control: a guide for programme managers, WHO, 2006
- > Zithromax® In The Elimination Of Blinding Trachoma: A Program Manager's Guide, ITI, 2010 (<http://www.trachoma.org/guides-and-manuals>)
- > WHO grading protocol ([www.who.int/blindness/causes/priority/en/index2.html](http://www.who.int/blindness/causes/priority/en/index2.html))
- > WHO protocol for sampling populations ([www.who.int/blindness/prevalence\\_protocol\\_English.pdf](http://www.who.int/blindness/prevalence_protocol_English.pdf))
- >



Key inputs			
	Number	Unit	Source
<b>Data gathering</b>			
<ul style="list-style-type: none"> <li>• 2000 household surveys</li> <li>• 100000000 people</li> <li>• 100000000 people</li> </ul>	2000	household survey	2000 household surveys
<b>S</b>	1	person	100000000 people
<b>A</b>	100000000	person	100000000 people
<b>F</b>	100000000	person	100000000 people
<b>E</b>	100000000	person	100000000 people

Notes: This analysis excludes China, India and Brazil

Calculations					
	Number of interventions		Cost per interventions		Total cost
• 2000 household surveys	2000	household survey	100000000	household survey	100000000
• 100000000 people	100000000	person	100000000	person	100000000
• 100000000 people	100000000	person	100000000	person	100000000
• 100000000 people	100000000	person	100000000	person	100000000
• 100000000 people	100000000	person	100000000	person	100000000
			100000000	person	100000000



Blinding trachoma is bringing extraordinary human suffering and economic devastation to









## Prevalence of trachoma

- ▶ Trachoma causes 1 person to experience severe sight loss every 4 minutes.
- ▶ Trachoma blinds 4 people every hour.
- ▶ About 300 million people are at risk of trachoma and at least 100 million need treatment.

## SAFE strategy

- ▶ The 4-part SAFE strategy (Surgery, Antibiotics, Facial cleanliness, Environmental improvements) prevents and treats this largest infectious cause of blindness in the world.

## Trachoma and the Sustainable Development Goals