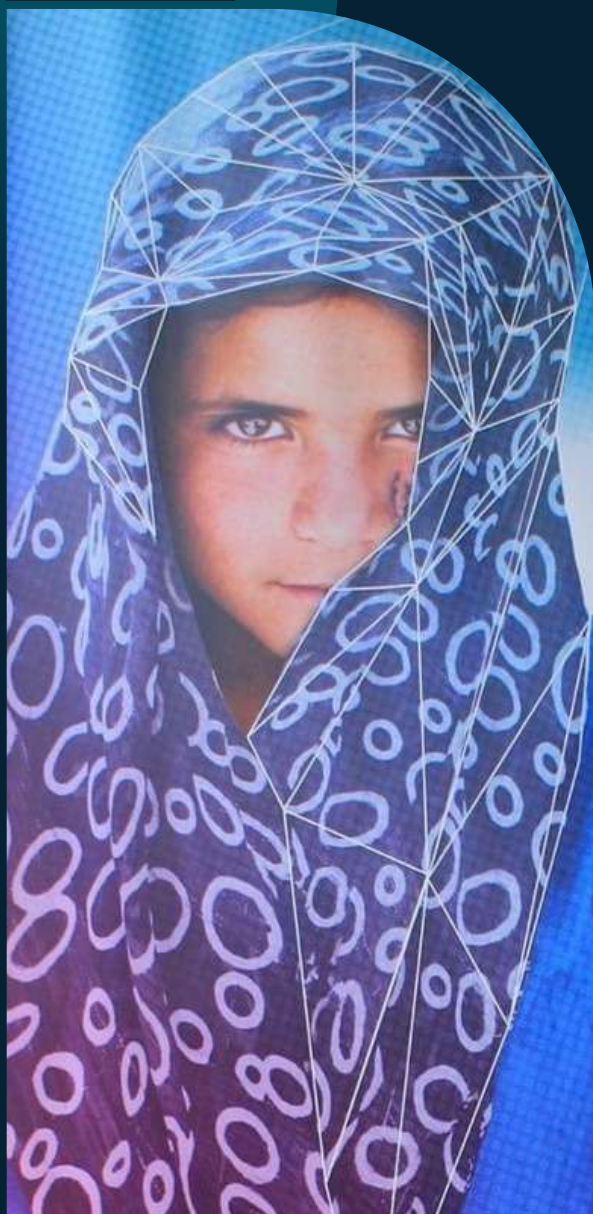




WORLD
NEGLECTED
TROPICAL
DISEASES DAY



2022

ONLINE STUDENTS' ORAL & POSTER PRESENTATIONS

Beat NTDs. For Good. For All.
Together, We Can Combat NTDs.
Something for everyone. Something for you.

MINI ORAL PRESENTATIONS

GROUP DISCUSSION

E-POSTER PRESENTATIONS

29 JANUARY 2022
7 PM (IST)



ORGANIZED BY:
PG DEPARTMENT OF ZOOLOGY
BARASAT GOVERNMENT COLLEGE

SUPPORTED BY:
IQAC, BGC

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IMAGING OUR FUTURE WITHOUT NEGLECTED TROPICAL DISEASES

Neglected tropical diseases are a diverse group of 20 diseases affecting more than 1.7 billion people worldwide in the most vulnerable and poorest communities. These diseases have severe impact on people's livelihood, health and social life. Today India is the home to the world's largest burden of about eleven major NTDs.

Eleven Neglected Tropical Diseases of India

- Ascariasis
- Trichuriasis
- Trachoma
- Dengue

- Lymphatic Filariasis
- Cysticercosis
- Hookworm disease
- Cystic Echinococcosis

- Rabies
- Leprosy
- Visceral Leishmaniasis



LONDON DECLARATION ON NTDs ON 30 th JANUARY, 2012

The declaration aimed to control or eliminate 10 NTDs by 2020



World Health Assembly endorsed a decision in May, 2021 recognizing 30th January as World Neglected Tropical Diseases Day



World NTD Day will commemorate the launch of the first NTD road map

WORLD NTD DAY

Aim is to effectively eliminate all NTDs by 2030



IMPACT OF NTDs

- ✓ Affecting the world's poorest people
- ✓ On children's and Women's Health

Challenges in tackling NTDs

1. Lack of Priority: Little attention from policy-makers.
2. These diseases receive less funding for treatment and research than AIDS and malaria or tuberculosis.
3. No vaccines or simple tests available for diagnosis.
4. Treatments are costly and time consuming.
5. Prevalence of social stigma.

Dr. Jayati Ghosh, Associate Professor,
Department of Zoology,
Barasat Government College

This year marks the launch of the WHO NTD Roadmap 2021-2030 which outlines a strategic framework for 149 countries to chart out a way forward in building a world without NTDs.

Safe drinking water, sanitation and hygiene

Integrated vector management



Large scale preventive treatment

Veterinary public health



Innovative and Intensified disease management



What are NEGLECTED TROPICAL DISEASES?



Illness that mainly affect the developing world, rarely addressed by researchers because most of the people who suffer from them are too poor to pay for new medicines.



DENGUE AND CHIKUNGUNYA

LEPROSY

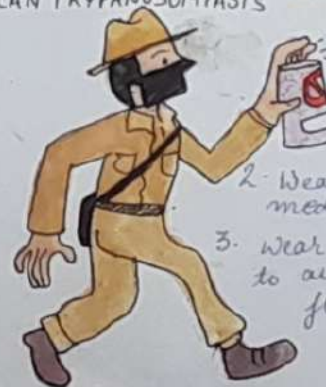


HUMAN AFRICAN TRYPANOSOMIASIS



HOW TO AVOID TRYPANOSOMIASIS

1. Always carry an insect repellent.
2. Wear long-sleeved medium weight clothes.
3. Wear neutral colors to avoid attracting the flies.



THE NEGLECTED TROPICAL DISEASE (NTD)

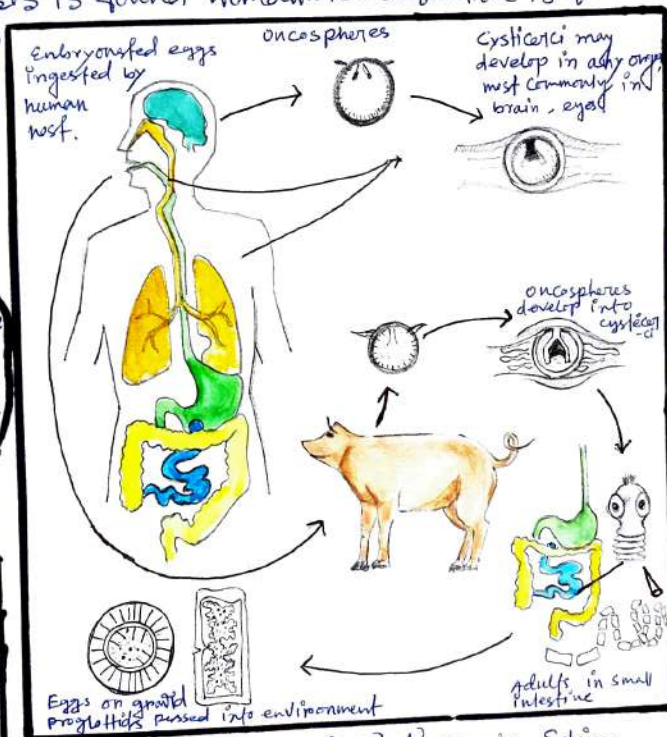
Neglected Tropical Diseases (NTDs) are a group of diseases that cause substantial illness for more than one billion people globally. Affecting the world's poorest people, NTDs impact physical and cognitive development, contribute to mother and child illness and death, and limit productivity.

CYSTICERCOSIS

disease caused by Taenia Solium (worm). This is the most affective infected tropical disease. The larvae of the parasite Taenia Solium get into tissues such as muscle, brain, and form cysts there. This is called Cysticerci.

Cysticercosis is found worldwide. Infection is found most often in rural areas of developing countries, where pigs are allowed to roam freely and eat human feces and feces. These hygiene practices are

Human is definitive host and pig is primary intermediate host



Through this infection lungs, brain, eye, liver, thyroid are most effected

Life cycle and spreading of Taenia Solium.

A person gets cysticercosis by swallowing eggs found in the feces of a person who has an intestinal tapeworm. People living in the same household with someone who has a tapeworm have a much risk of getting cysticercosis.

SYMPTOMS

- pain in abdomen.
- Nausea or vomiting.
- Headache, lump, seizures or swelling of optic disc.

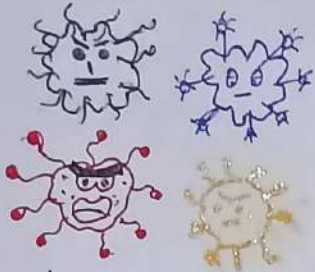
PREVENTION

- Infections are generally treated with anti-parasitic drugs in combination with anti-inflammatory drugs.
- Surgery is sometimes necessary to treat cyst in certain locations.

DENGUE

DENGUE FEVER IS CAUSED BY DENGUE VIRUS CALLED -

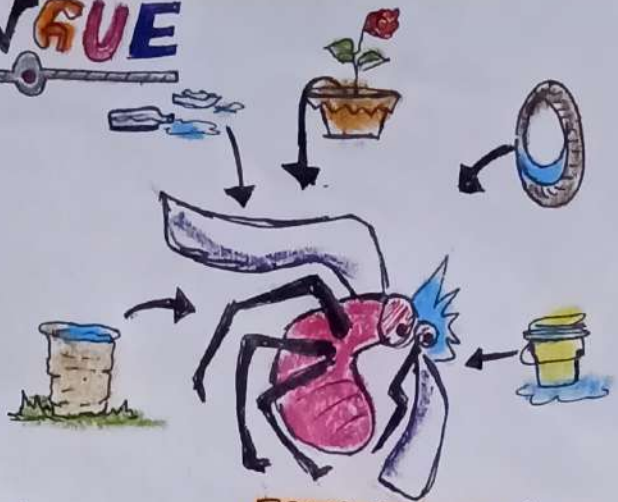
[*Flavivirus* genus]



4 TYPES OF DENGUE VIRUSES :

DENV-1, DENV-2

DENV-3, DENV-4



FEMALE AEDES AEGYPTI MOSQUITOES ARE CARRIERS

[3.9 billion people in 128 countries are at risk]

TAKE 10-12 DAYS FOR DENGUE VIRUS TO INCUBATE



INFECTED PERSON GETS DENGUE 4-13 DAYS LATER



WILD, UNINFECTED MOSQUITO



BITES DENGUE INFECTED PERSON



DENGUE INFECTED MOSQUITO BITES UNINFECTED PERSON

SYMPTOMS:

- High fever.
- Severe headaches.
- Pain behind the eyes.
- Severe joint and muscle pain.
- Nausea.
- Vomiting.
- Skin rash.

PREVENTION:

- Eliminate standing water.
- Use mosquito repellents.
- Stay indoors.

- Wear protective clothing.
- Use mosquito nets.



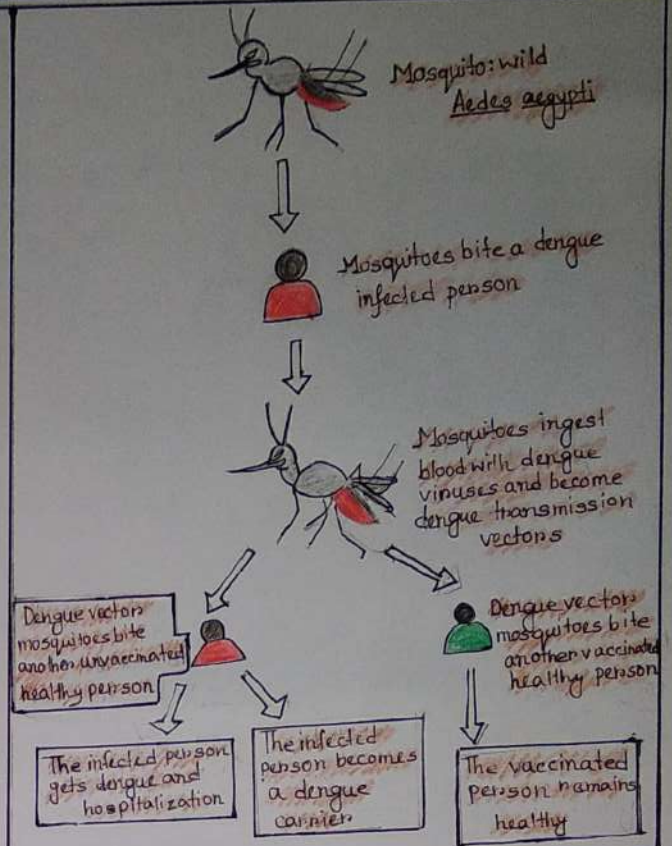
PLATELET COUNT GOES DOWN TO 20,000 OR EVEN LOWER

WORLD NTD DAY (30th JANUARY, 2022)

DENGUE

INTRODUCTION

Dengue is a mosquito-borne viral disease occurring in tropical and subtropical areas. It is spread to people through the bite of an infected *Aedes* species (*Aedes aegypti*) mosquito. Almost half of the world's population live in areas with a risk of dengue. Severe dengue was first recognized in the 1950s during dengue epidemics in the Philippines and Thailand. Dengue is caused by a virus of the Flaviviridae family and there are four distinct, but closely related, serotypes of the virus that cause dengue (DENV-1, DENV-2, DENV-3 and DENV-4). Recovery from infection is believed to provide lifelong immunity against that serotype.



PREVENTION

- Use mosquito repellents, even indoors
- When outdoors, wear long-sleeved shirts and long pants tucked into socks
- When indoors, make sure window and door screens are secure and free of holes. In sleeping areas use mosquito net.
- To reduce the mosquito population, get rid of places where mosquitoes can breed. These include old tires, cans or flower pots that collect rain. Regularly change the water in outdoor bird baths and pets' water dishes.
- If someone gets dengue fever, firstly consult the doctor and should take appropriate precautions.

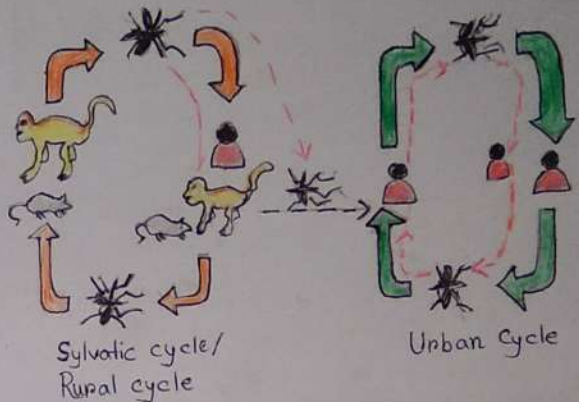


DENGUE SYMPTOMS

CHIKUNGUNYA

INTRODUCTION

Chikungunya is an infectious disease caused by the Chikungunya virus (CHIKV) occurring in Africa and Asia, outbreaks have been reported in Europe and the Americas since the 2000s. The virus is spread between people by two types of mosquitoes: Aedes albopictus and Aedes aegypti. They mainly bite during the day. The disease was first identified in 1952 in Tanzania. The virus may be circulate within a number of animals including birds and rodents.



TRANSMISSION CYCLES OF CHIKUNGUNYA VIRUS



SYMPTOMS OF CHIKUNGUNYA

 Rash	 Back Pain	 Joint Pain	 Vomiting
 Nausea	 Headache	 Chills	 Fever

PREVENTION

- Use mosquito repellents
- When outdoors, wear long sleeved shirt and lock pants tucked into socks
- If someone has chikungunya, prevent mosquito bites for the first week of your illness. Use the mosquito net to prevent the infection of virus from the infected person. Take proper rest. Drink fluids to prevent dehydration.
- Take medicine such as acetaminophen or paracetamol to reduce fever and pain. If you observe symptoms of chikungunya, firstly consult your physician. Then take the proper action.

"FIGHT FOR BITE-DENGUE"

What is Dengue?

Dengue is a mosquito-borne viral infection

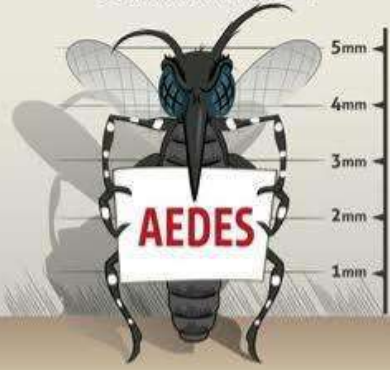
About 40% of the world's population are potentially at risk



3.9 Billion people in 128 countries are at risk

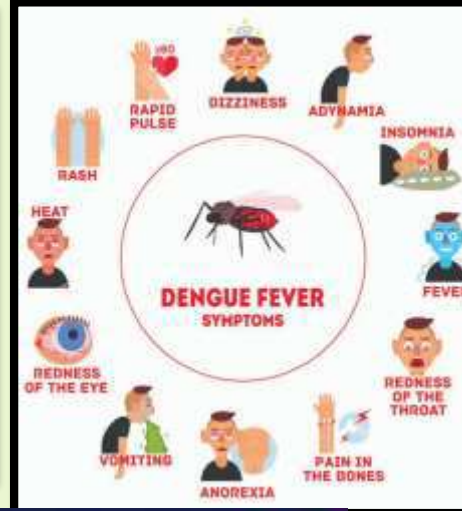


CRIMINAL



Causes:

- Caused by dengue virus
- Spread by Aedes mosquito
- If infected mosquitoes bite a man
- Aedes mosquitoes grows in standing water



Ways to protect yourself from Dengue



Treatment:

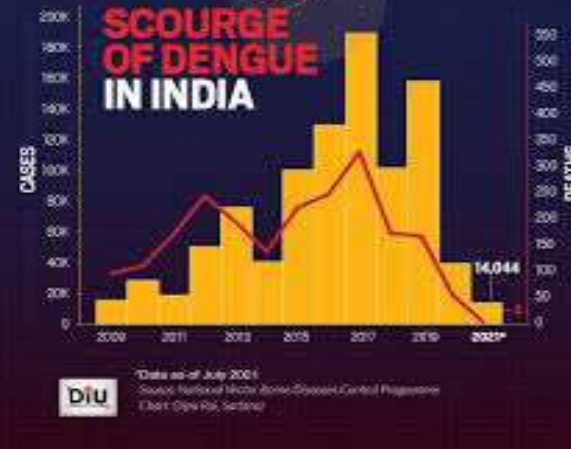
- No specific treatment
- Consult doctors, take blood test
- Use paracetamol for muscle and joint pain
- Drink enough liquids
- Take enough rest

WORLDWIDE DENGUE CASES IN 2021

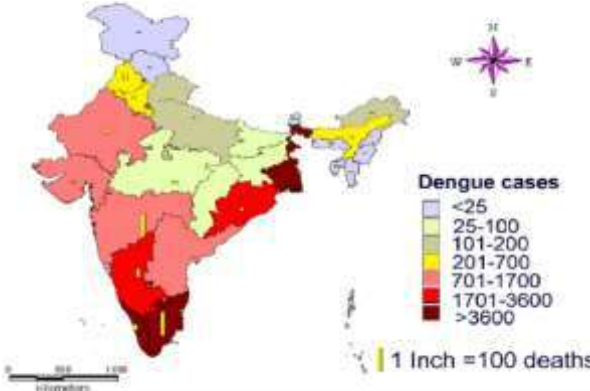
TROPICAL COUNTRIES INCLUDING BRAZIL, MEXICO AND INDIA AMONG WORST HIT



SCOURGE OF DENGUE IN INDIA



Dengue Epidemic Cases in India (2012)



Covered by:

- Nipa Barai, Roll-24
- Soumodip Das, Roll-27
- Sahin Ali, Roll-06
- Pratik Halder, Roll-29

ASCARIASIS - THE MOST FREQUENT NEGLECTED TROPICAL DISEASE IN INDIA

30 January 2022, The 3rd Annual World NTD Day

Ankita Mondal, Post Graduate Department of Zoology, Barasat Government College

NTDs are a diverse group of tropical infections which are common in low-income populations in developing regions

1 out of 5 peoples are affected by NTDs

These diseases are neglected due to their asymptomatic nature and long incubation period.

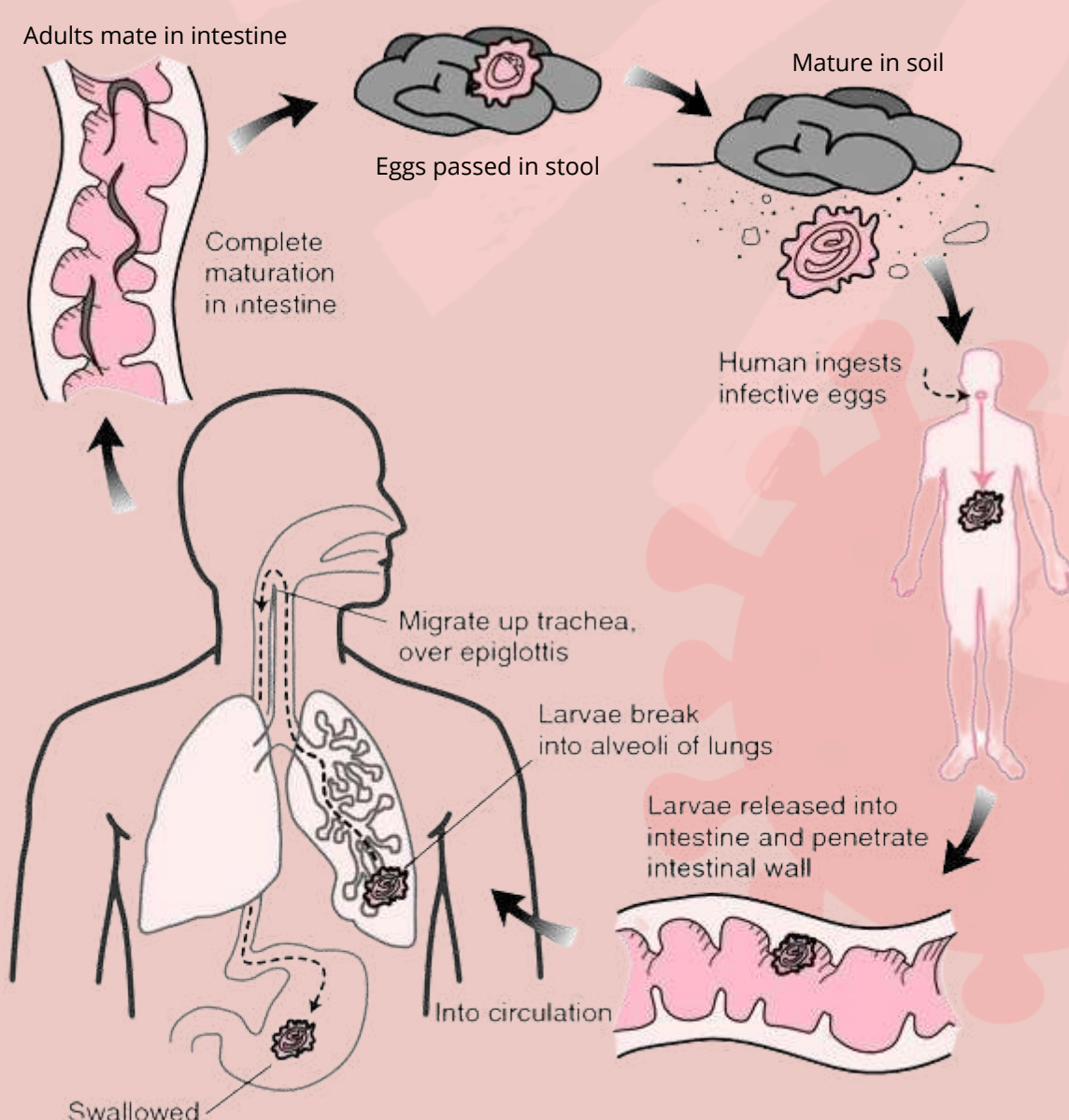
According to Global Burden of Disease Study, Ascariasis has 222.2 million cases in India & 799.7 million cases worldwide in 2016

Ascaris is an intestinal parasite of humans. The larvae and adult worms live in the small intestine and can cause intestinal disease.

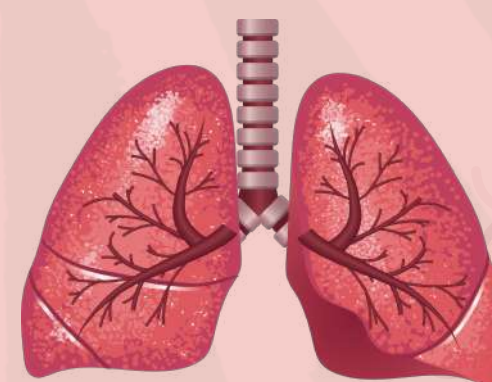
PREVENTION IS BETTER THAN CURE

- Avoid ingesting soil that may be contaminated with human or pig feces, including where human fecal matter, wastewater, or pig manure is used to fertilize crops.
- Wash your hands with soap and water before handling food.
- Wash your hands with soap and water after touching or handling pigs, cleaning pig pens, or handling pig manure.
- Teach children the importance of washing hands to prevent infection.
- Supervise children around pigs, ensuring that they do not put unwashed hands in their mouths.
- Wash, peel, or cook all raw vegetables and fruits before eating, particularly those that have been grown in soil that has been fertilized with manure.

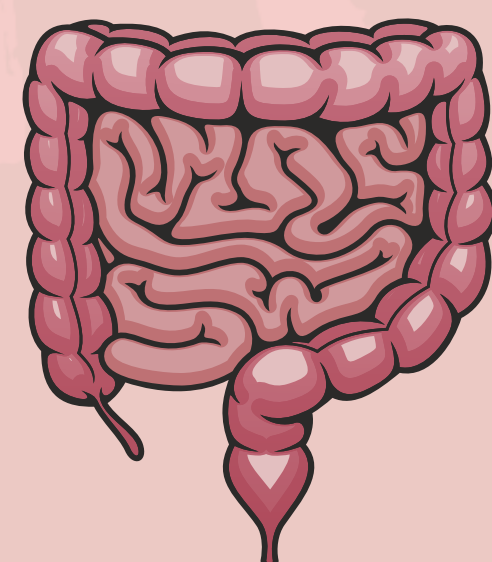
HOW DOES THE DISEASE SPREAD?



SYMPTOMS



- Persistent cough
- Shortness of breath
- Wheezing



- Abdominal pain
- Nausea and vomiting
- Diarrhea or bloody stools
- Weight loss or malnutrition
- A worm in vomit or stool

BEAT NTDs

FOR GOOD

FOR ALL

END THE NEGLECT

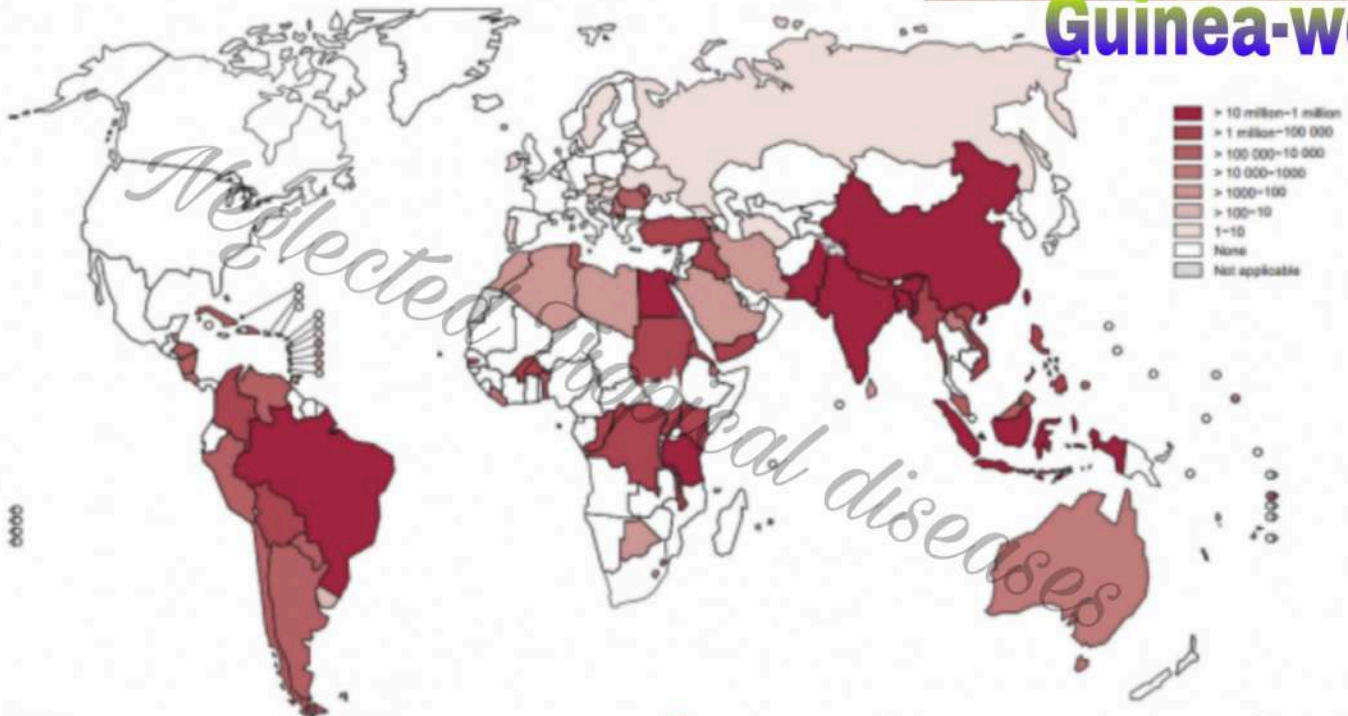
WORLD NTD DAY

Symptoms

1. Shortness of breath
2. Burning, itching, pain, and swelling where the worm is in your body (often the legs and feet)
3. Blister where the worm breaks through the skin



Guinea-worm



Chagas disease Symptoms

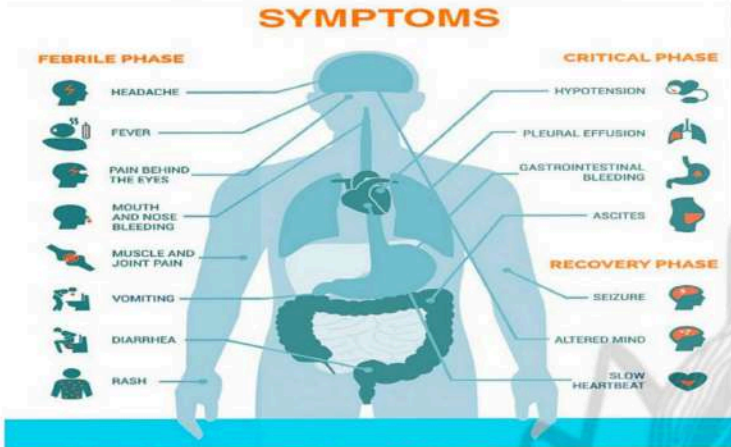
-Rajat Paul
Bsc 3rd sem



1. Fever
2. swelling at infection site
3. eyelid swelling

WORLD NTD DAY

SYMPTOMS



TIPS FOR PROTECTION



Use mosquito repellent throughout the day



Sleep under the mosquito net, even during the day



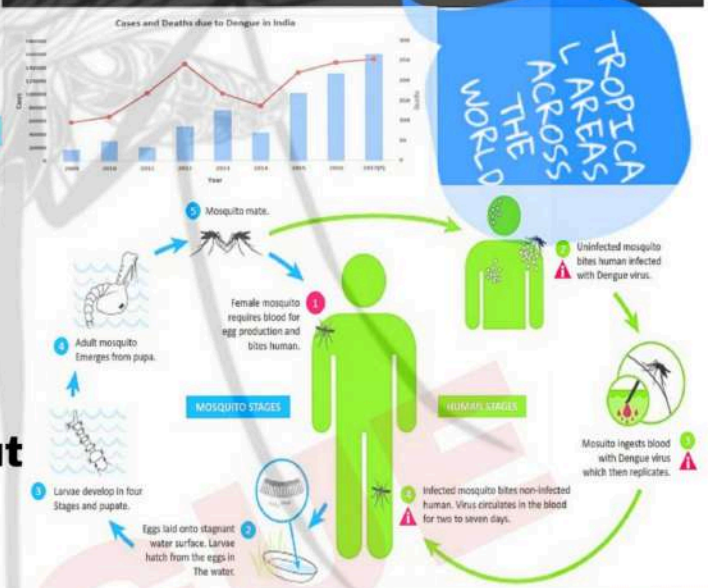
Prevent the mosquito breeding

If anyone is effected by the dengue, immediately consult with doctor



Dengue is One of the dangerous NTD....

Rajat Paul(Bsc 3rd sem)



“TO CLOSE THE GAP FOR VISION – ABOLISH TRACHOMA.”

Rimi Mondal* and Bapi Ghosh#

Affiliation: * = PG student, 1st Semester, Department of Zoology, Barasat Government College.
= PG student, 1st Semester, Department of Zoology, Barasat Government College.

Abstract:

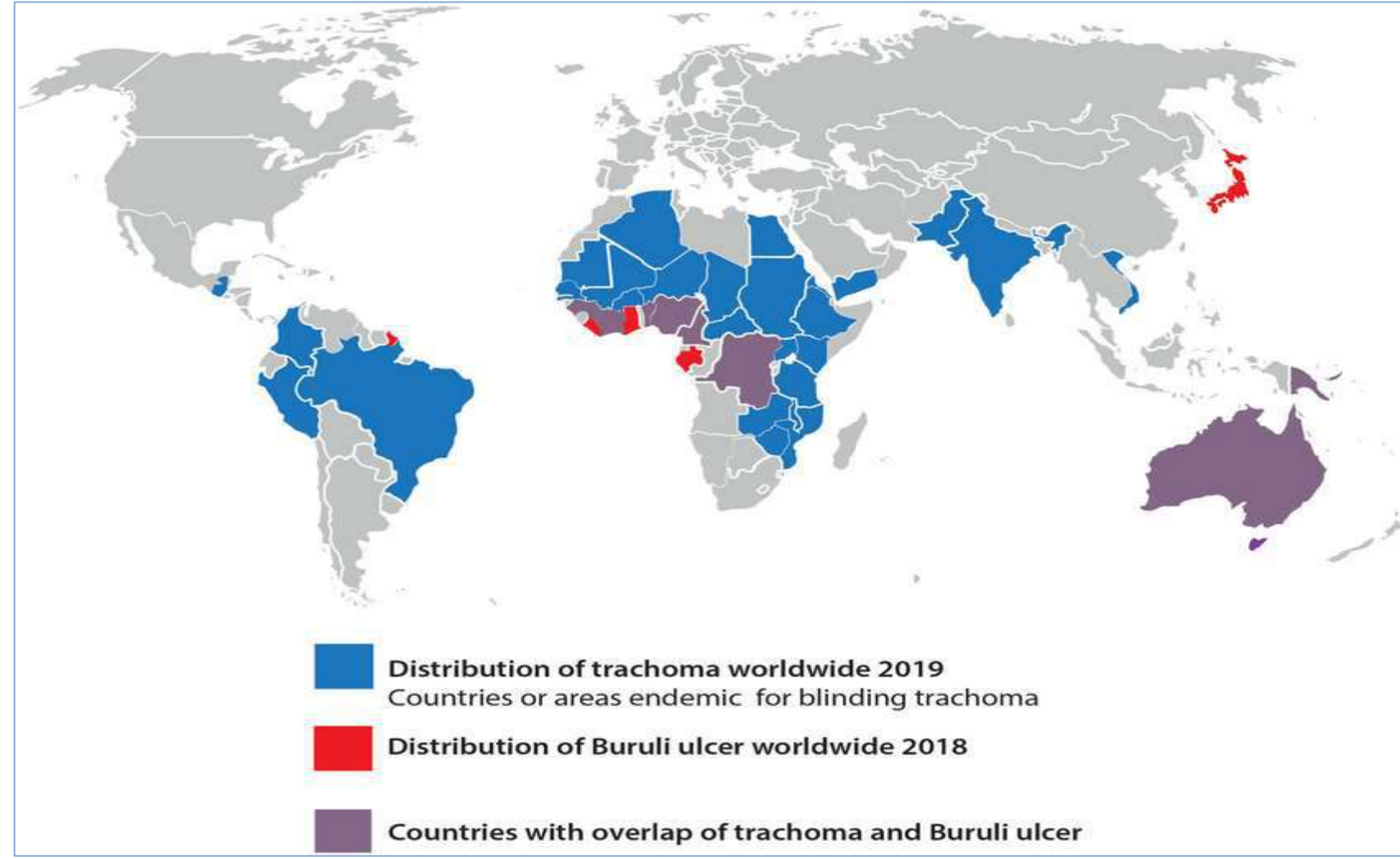
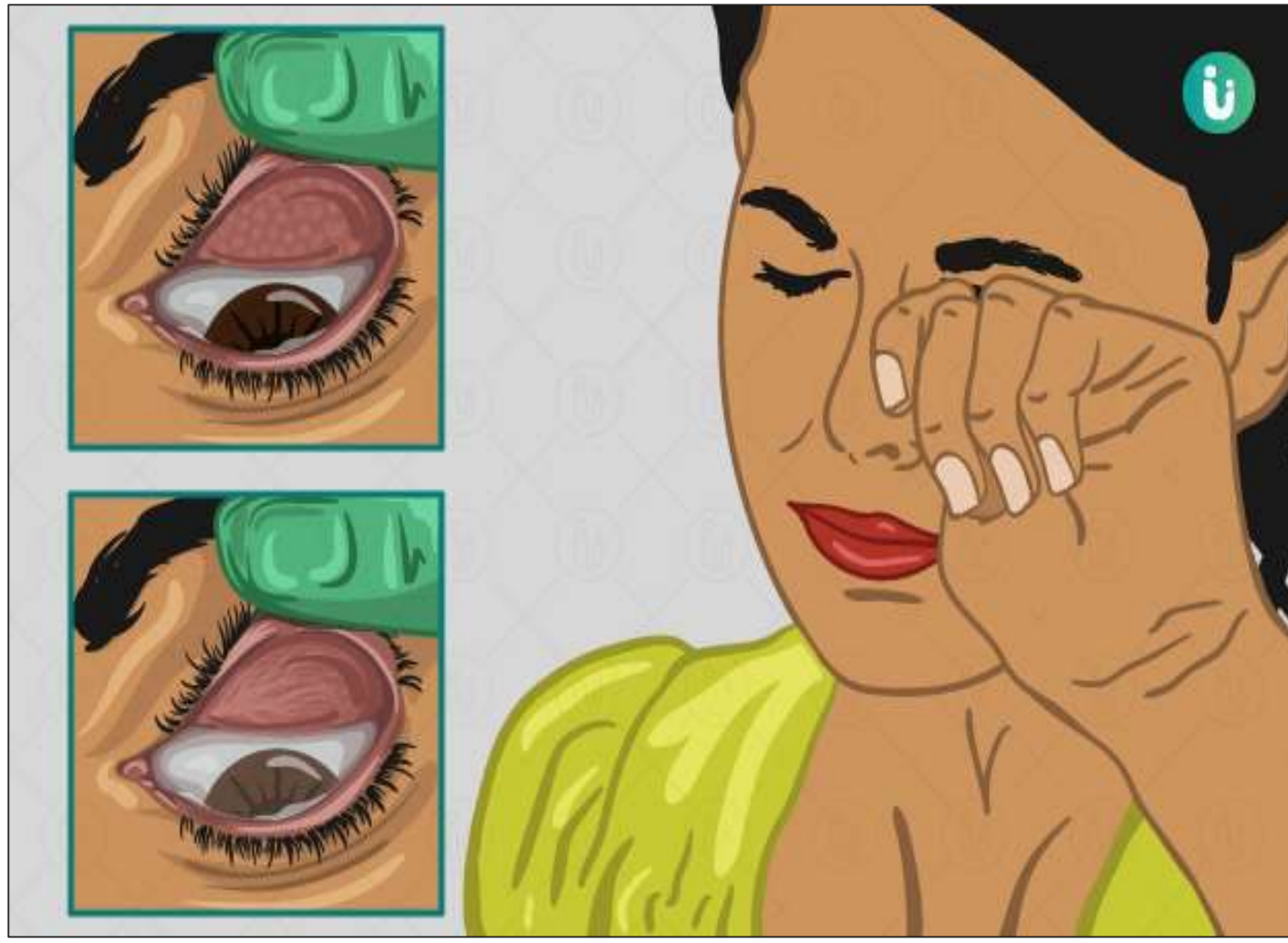
Trachoma is the most common infective acute cause of blindness and is a global epidemic. This poster examined trachoma and identified the causes of its transmission, including the links with poverty and gender. It also discussed how the evidence-based “SAFE” strategy (Surgery, Antibiotic treatment, clean Faces, and Environmental changes) plays an important role in the World Health Organization (WHO) Global Alliance to Eliminate Trachoma (GET) worldwide by the year 2020. Finally, the poster synthesized visual and written journal evidence available on trachoma and the WHO including reports from the meetings on the WHO GET 2020 and the International Training Workshops on the Assessment and Management of Trachoma Control.

Key Words : Trachoma , NTDs, GET 2020, Gender and Trachoma, SAFE strategy, India and Trachoma, WHO.

Introduction:

• **Trachoma** is one of many **NTDs** (**Neglected tropical diseases**) that are rooted in poverty. Trachoma is hyperendemic in many of the poorest and most rural areas of **Africa, Central and South America, Asia, Australia and the Middle East** as there is lack of basic health guidelines and good personal hygiene practices and poor living conditions.

• **Blindness from Trachoma is irreversible.** It is a public health problem in 44 countries and is responsible for the blindness or visual impairment of about 1.9 million people. Based on March 2020 data, 137 million people live in Trachoma endemic areas and are at risk of Trachoma blindness.

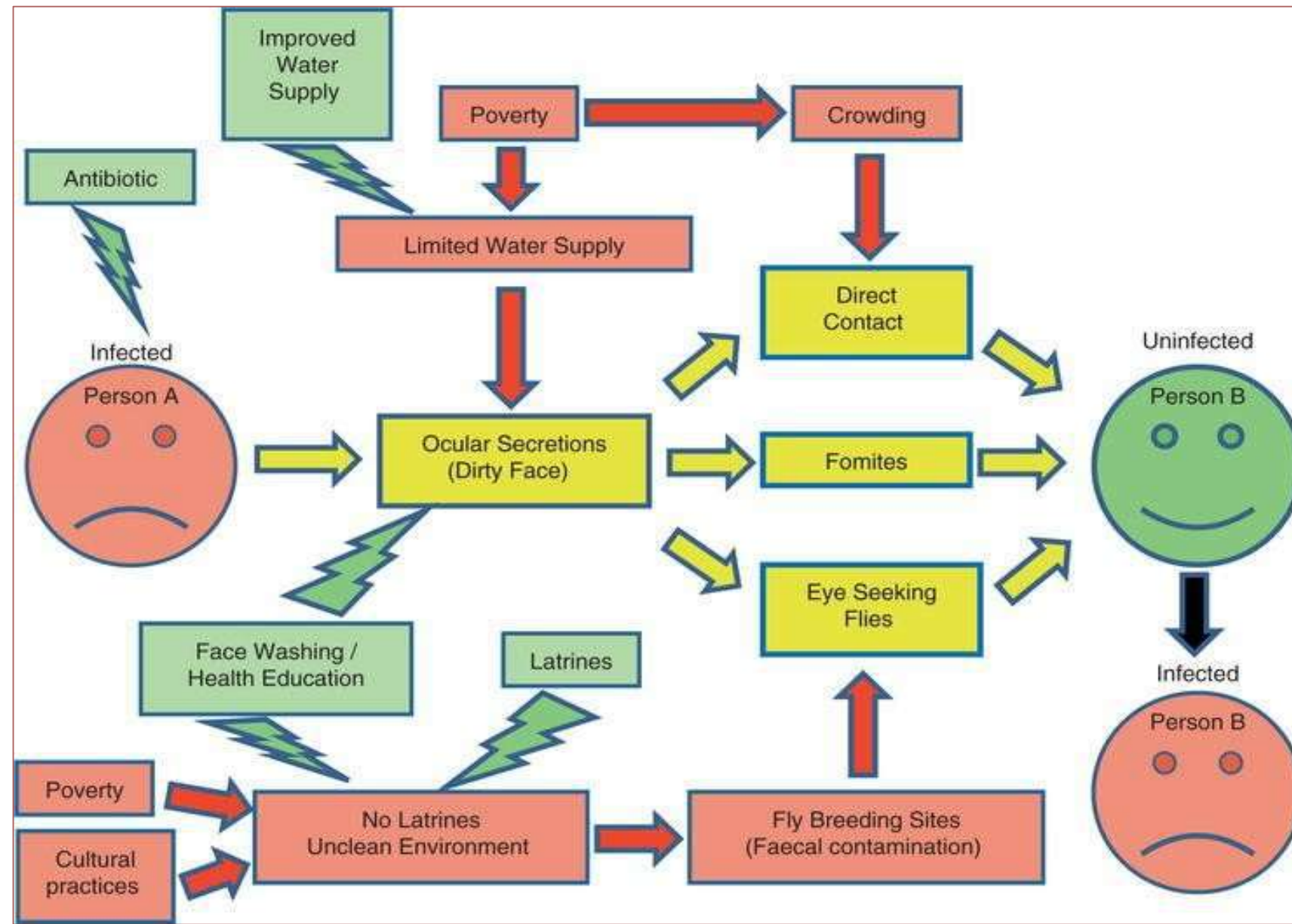
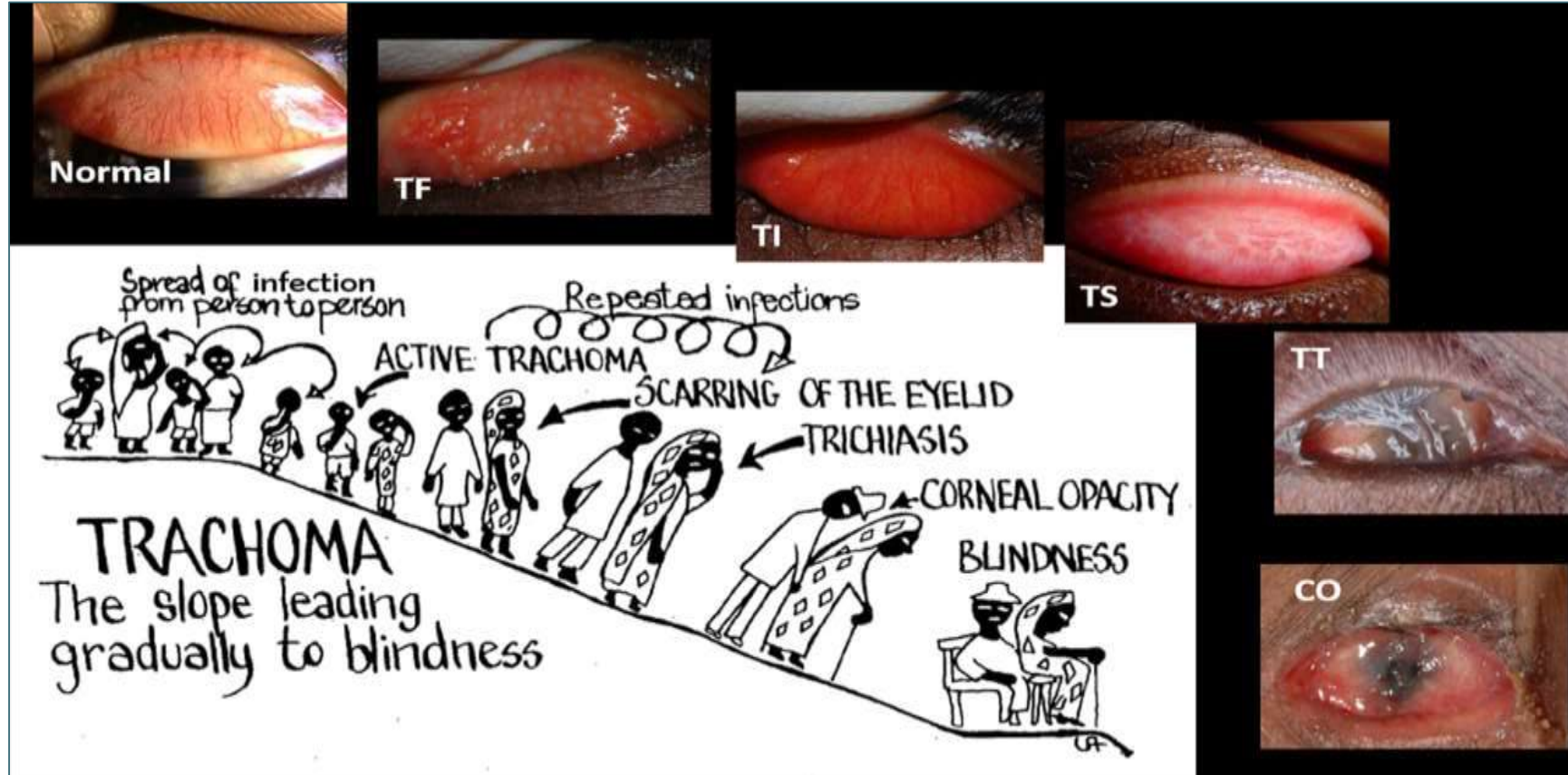


Transmission of Trachoma:

1. Infection spreads through personal contact via hands, clothes or bedding.
2. It is also spread by flies that have been in contact with discharge from the eyes or nose of an infected person.

What is Trachoma?

An acute infection that cause of blindness worldwide by an obligate intracellular bacterium called **Chlamydia trachomatis**. It is usually beginning in childhood.



Risk Factors of Getting Trachoma



Aims:

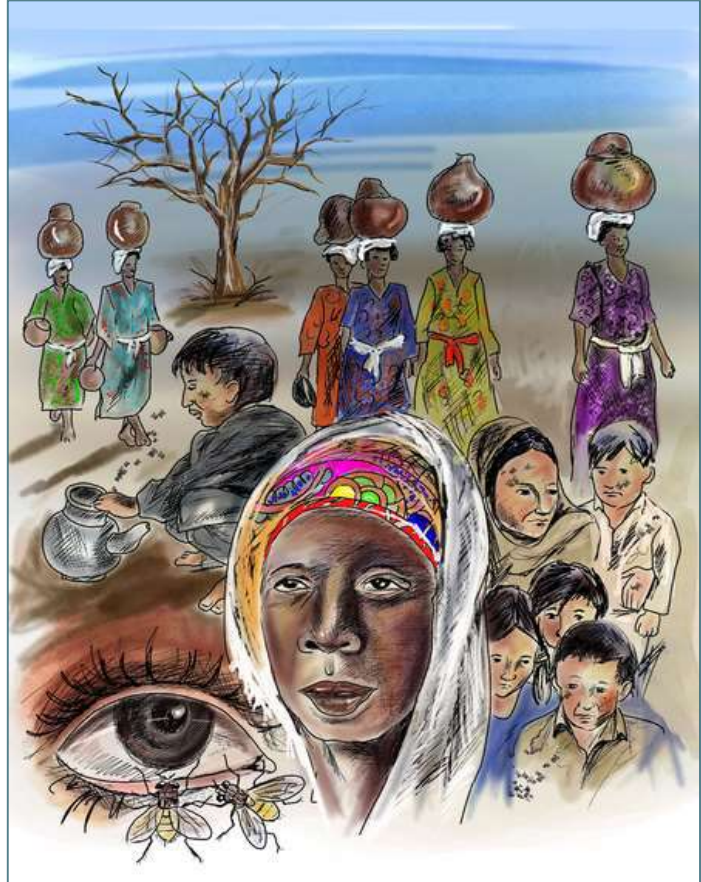
- To examine trachoma and identify the roots of its transmission and how it links with social life like poverty and gender.
- To discuss the proof-based “SAFE” strategy and the **WORLD HEALTH ORGANIZATION (WHO) Global Alliance to Eliminate Trachoma (GET) worldwide by the year 2020.**
- To recommend some future ideas to support improved trachoma control.

Methodology:

A qualitative primary and secondary origin research review that synchronizes visual and written journal evidence available on the trachoma and the WHO.

Poverty and Trachoma:

Trachoma is closely linked to poverty as it is endemic in communities with poor social and living conditions, such as inadequate water and sanitation, and few educational opportunities.



Gender and Trachoma:

- Trachoma is **primarily a mother and child disease.**
- Trachoma is most common in adult women and frequently causes blindness to women over the **age of 40** rate of trachoma and **risk of blindness is 3-4 times higher in women than in men.**

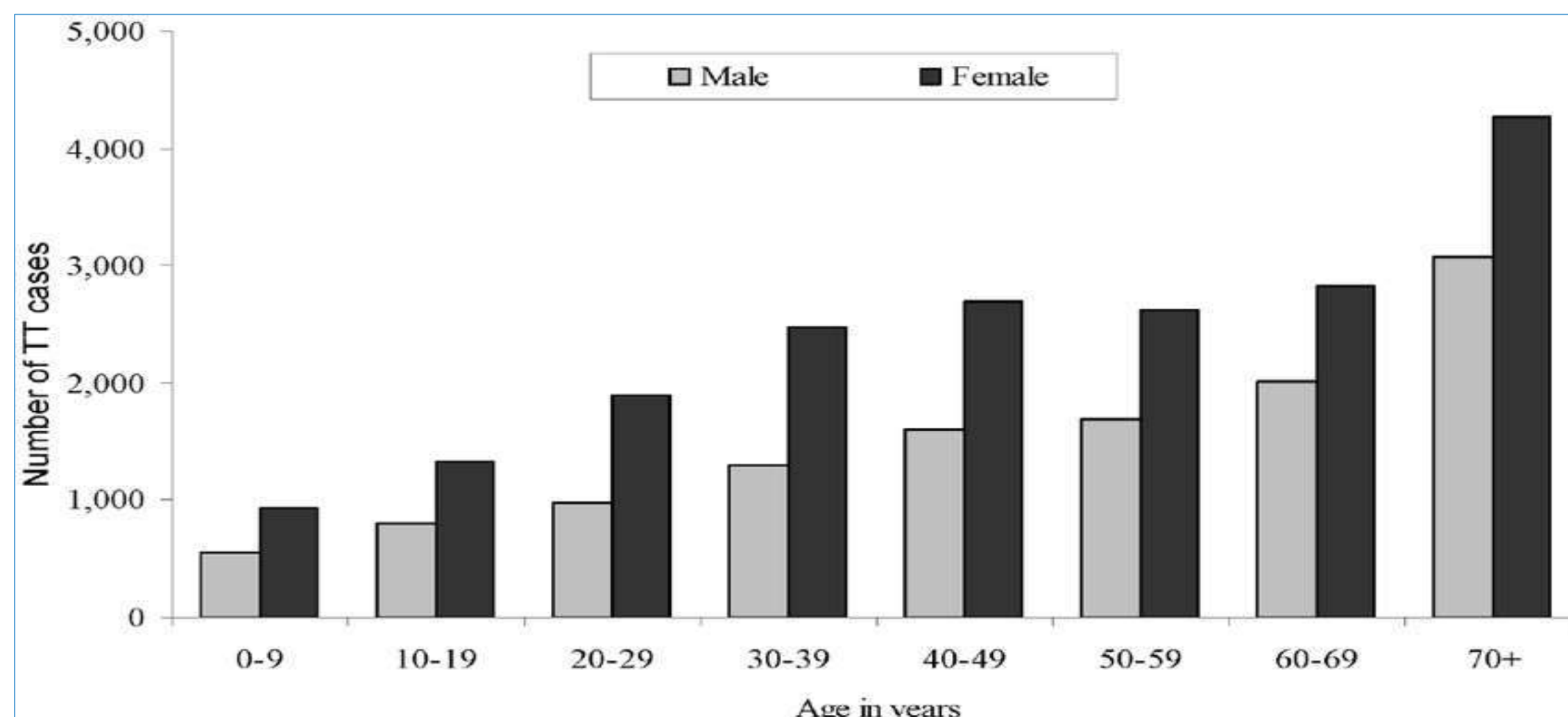
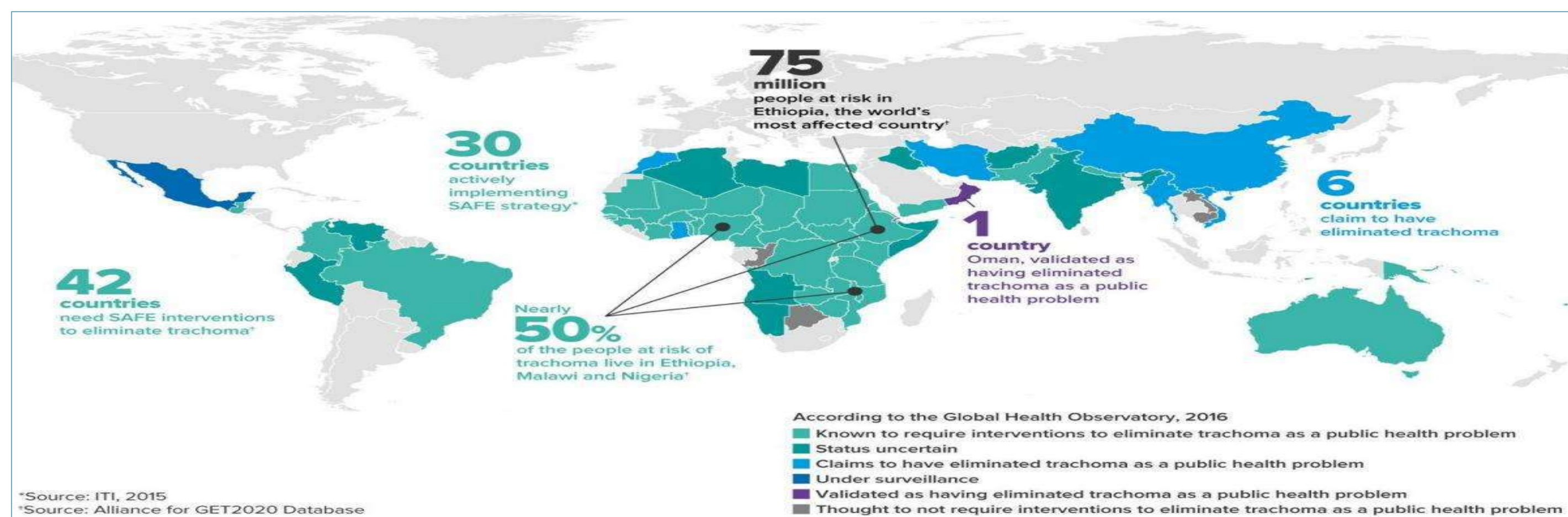
WHO Global Alliance for the Elimination of Trachoma by the year 2020 (GET 2020)

One strategy to eliminate trachoma as a blinding disease worldwide was the creation of the Global Alliance for the Elimination of Trachoma by the year 2020 (**GET 2020**).

This initiative was launched in 1996/97 by the **WHO** and falls under the umbrella of the Vision 2020 Global Initiative. It is an alliance that supports and collaborates with the WHO in carrying out essential activities such as;

- epidemiological assessment, including rapid assessment and mapping,
- project implementation, coordination, and monitoring,
- disease surveillance,
- project evaluation
- and resource mobilization

GET 2020 control activities are based on primary health care approaches that follow the evidence-based “SAFE” strategy.



SAFE strategy for the control of trachoma

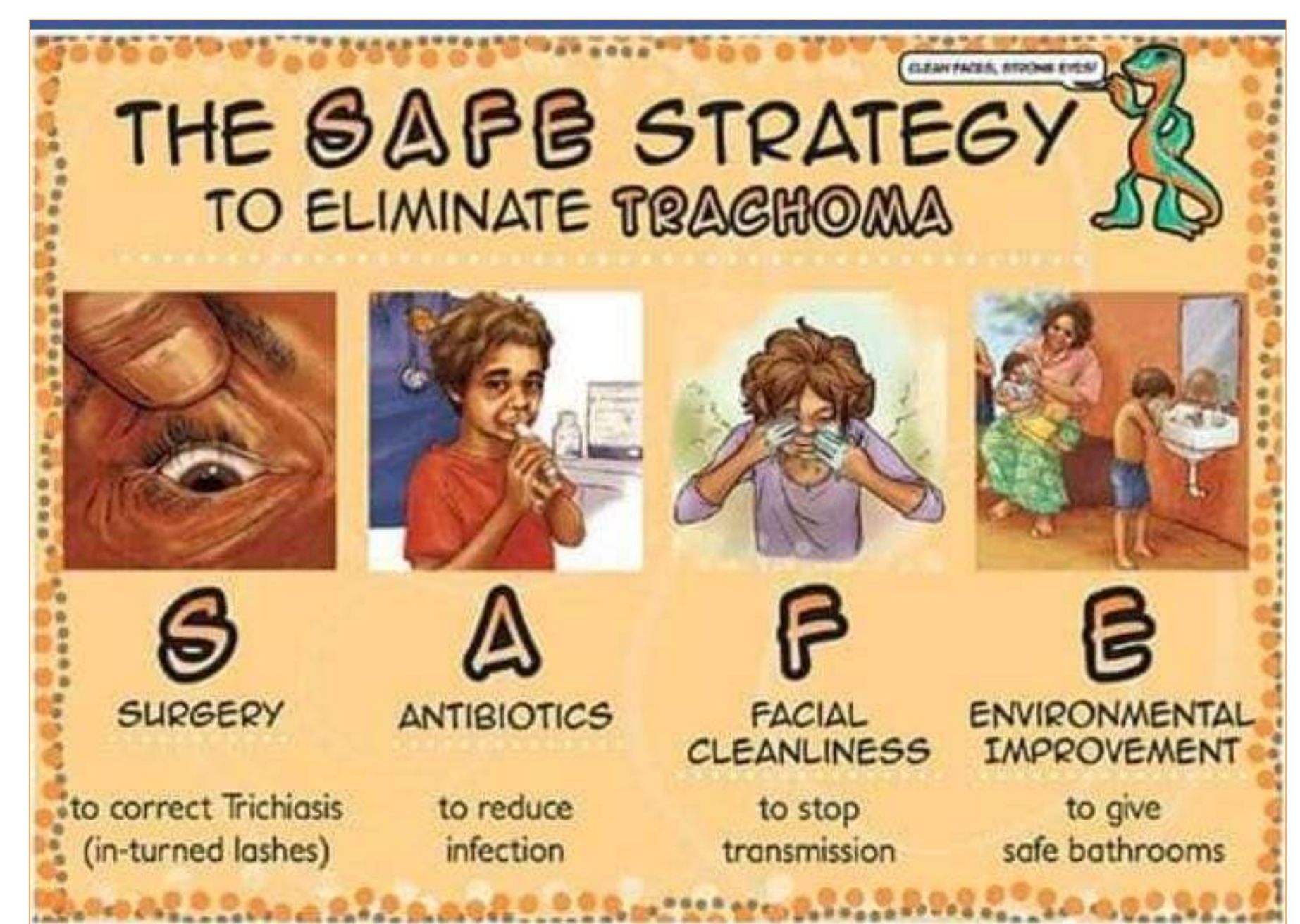
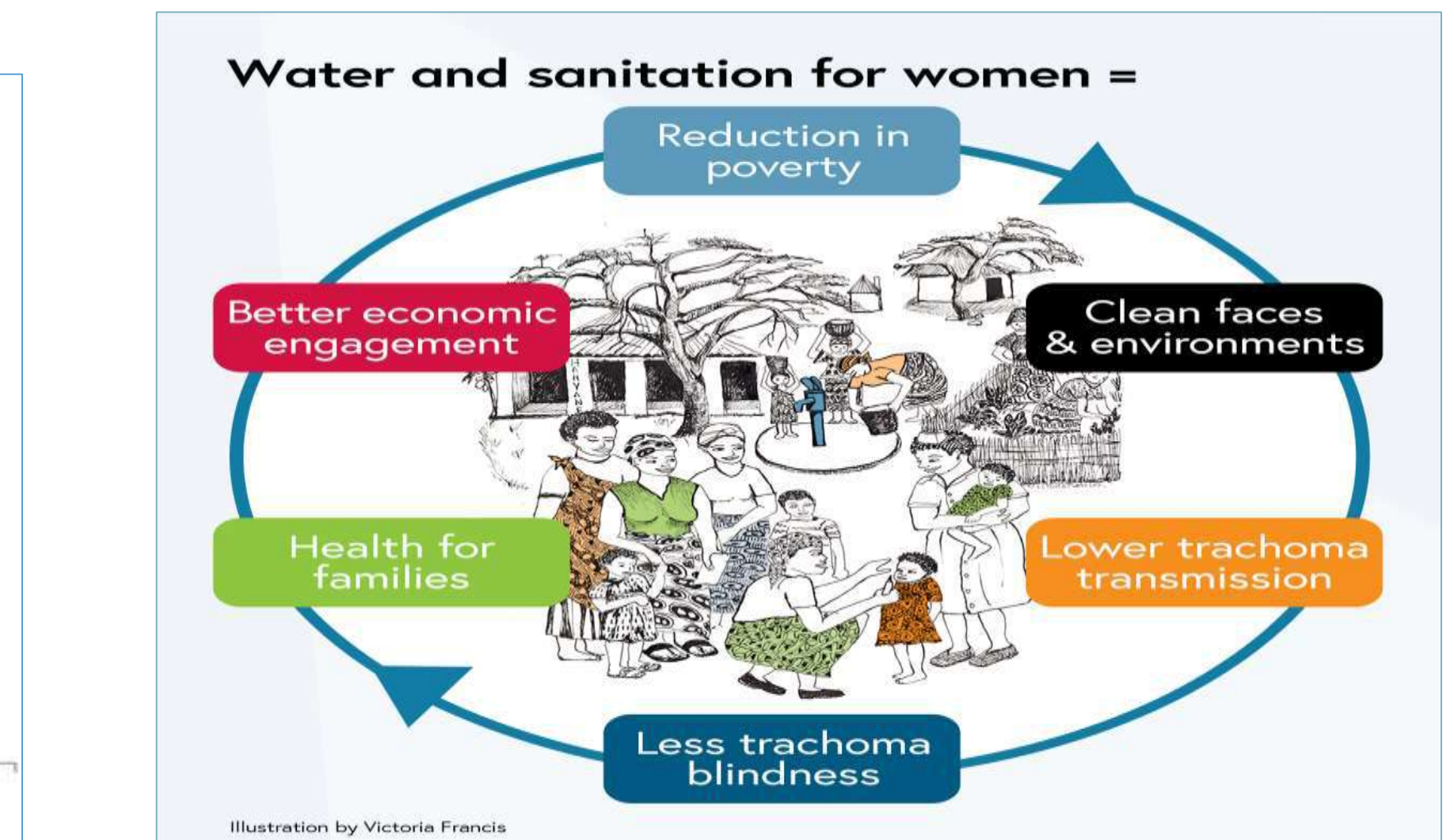
“The SAFE strategy emphasises to the health worker key points in the control of trachoma and the prevention of blindness. It emphasizes to the health worker key points in the control of trachoma and the prevention of blindness.

S: surgical correction of trichiasis.

A: antibiotic treatment of trachoma .

F: Faces which are clean prevent the spread of diseases from child to child .

E: Environmental changes (water and sanitation) to improve personal and community hygiene.



India And Trachoma:

Trachoma prevalence was found to be **only 0.7%** in India, much below the elimination criteria infective trachoma defined by WHO. So, according to **National Trachoma Survey Report (2014-2017)**, India has made the goal of trachoma as specified by the WHO under its **GET2020 programme.**

How to Wash Out Trachoma:

“Eliminating trachoma contributes to the ocular health and quality of life of the poorest, most disadvantaged people worldwide and thereby moves us a step closer to achieving universal health coverage,” said **Dr Mwelecele Ntuli Malecela, Director, WHO Department of Control of Neglected Tropical Diseases.**

1. Develop a national public health framework based on the “SAFE” strategy.
2. Support **research in blindness prevention technologies and train health workers on SAFE to identify** to control trachoma.
3. Strengthen the capacities of health authorities to promote **simple, affordable water supply and sanitation technologies** at the community level.
4. **Improve the quality and availability of the water supply** to reduce the incidence and severity of trachoma.
5. **Increase financial resources for antibiotic and surgical treatment** to prevent permanent blindness arising from trachoma infection.
6. **Conduct rapid assessment** to monitor trachoma prevalence by age, income and gender.
7. Increase public awareness, community involvement and eye health hygiene promotion and health education.

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