



EMBRACE RELIEF

"Embrace The World"

2022

EMBRACE RELIEF

HEALTH AND CATARACT



I. Executive Summary

The right of all people to seek and receive medical treatment and care is fundamental to human life and prosperity. Healthier populations live longer lives, achieve better education outcomes, are more productive, and are wealthier. But good health also requires an investment that many countries do not have the resources to make. In a world where nearly half the population lacks access to basic, affordable healthcare services, humanitarian nonprofit organizations like Embrace Relief can play an important role in promoting sustainable development by investing in both immediate medical aid and long-term improvements in infrastructure.

The West African country of Mali is primed for this sort of investment. Because more than 40 percent of the country's population is living below the poverty line, and because the supply of hospitals and doctors is sparse relative to the population size, people in Mali face significant structural barriers to healthcare and good health outcomes. Embrace Relief is working to address these barriers by providing aid to people through its funding of medical clinics that serve thousands of people in both urban and rural areas every year. Additionally, Embrace Relief promotes locally-led development by training local people to serve in key roles supporting these clinics.

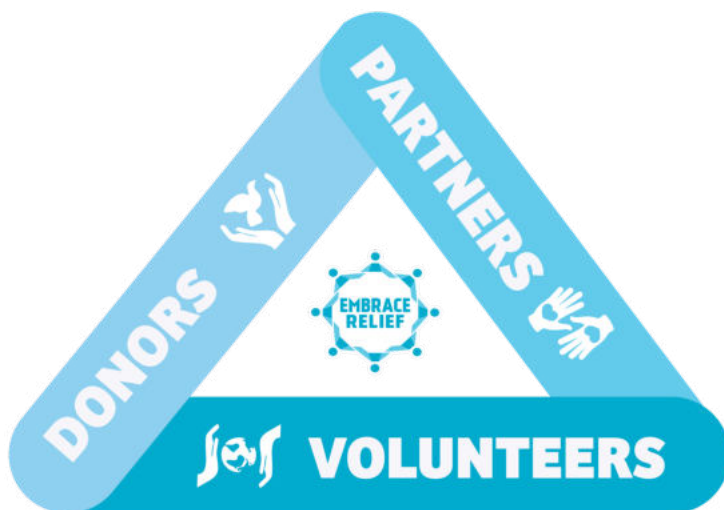
A key feature of these clinics is a focus on ophthalmology and eye surgeries, given Mali's extraordinarily high rates of vision impairment caused primarily by cataracts. **Clinics funded by Embrace Relief have been able to improve the quality of life for tens of thousands of people in Mali, which will eventually produce a healthier, more educated, and more prosperous society.**



II. An Introduction to Embrace Relief

The Embrace Relief Foundation is a registered 501(c)(3) nonprofit humanitarian aid organization focused on various programs designed to reduce suffering and promote human development around the world from its headquarters in Fairfield, New Jersey.

These programs have been developed in harmony with the United Nations' Sustainable Development Goals (SDGs), which provide a framework for "shared peace and prosperity for people and the planet."



Since 2013, Embrace Relief has operated programs in more than 40 countries, centered on eight different humanitarian causes that address the majority of SDGs: hunger relief, clean water, women's empowerment, health and wellness, relief for children, disaster relief, education support, and refugee relief.

Embrace Relief operates under a "triangle approach," joining together its extensive network of donors, partners, and volunteers to identify areas of need and direct funding and other material support to these areas.

III. Health & Development in Mali



Sustainable Development Goal #3 seeks to ensure the health and well-being of every person on the planet, and to create a world in which all people have access to preventative, life-saving and life-improving medical care no matter where they live, or what resources they can access.

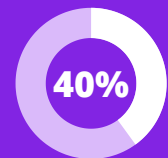
The question of resources is paramount. There is a clear correlation between a country's GDP and its average life expectancy, one of the key underlying indicators of health. The world's wealthiest and most-developed countries can provide their citizens with a nutritious and steady supply of food, universal clean water, and widespread availability and affordability of medical treatments and care.

But while it's clear that good health outcomes can be a result of high levels of economic prosperity, evidence suggests that investing in health can also spur development. Healthier adults who lose a minimal amount of work time can produce more, while childhood health "can have a direct effect on cognitive development and the ability to learn as well as school attendance." Thus, building up healthcare infrastructure in lower-income countries is an important component of achieving this SDG.

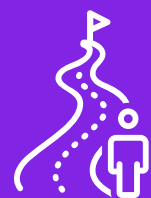
It is for this reason that Embrace Relief has identified a need for healthcare and medical services in the West African country of Mali. Known for its vibrant culture and strong, resilient people, the country faces many challenges. According to the UN, less than 10 percent of Mali's population (1.8 million out of 21 million) have accessible basic healthcare services. The country's ratio of doctors to people is 1 to 10,000, one of the world's lowest. Up to 40 percent of the population must walk at least nine miles to reach the nearest medical clinic, but even then, there is no guarantee their "local" clinic will have the capacity to address their medical issue. A lack of funding, available staff, and proper equipment hamstringing the Malian medical system.



Less than 10% of Mali's population have accessible basic healthcare services.



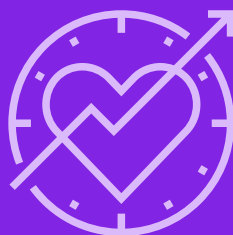
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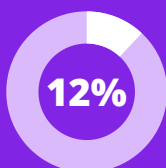
III.

The negative effects on the Malian people can be seen in various indicators. The country ranks 186th out of 191 in the 2021-22 Human Development Index, a measure of life expectancy, education and income that also factors in economic and gender-based inequalities. In 2020, **Mali had the 10th-highest infant mortality rate in the world** (59 infant deaths per 1,000 births), **with 90 percent of these deaths being classified as preventable.**

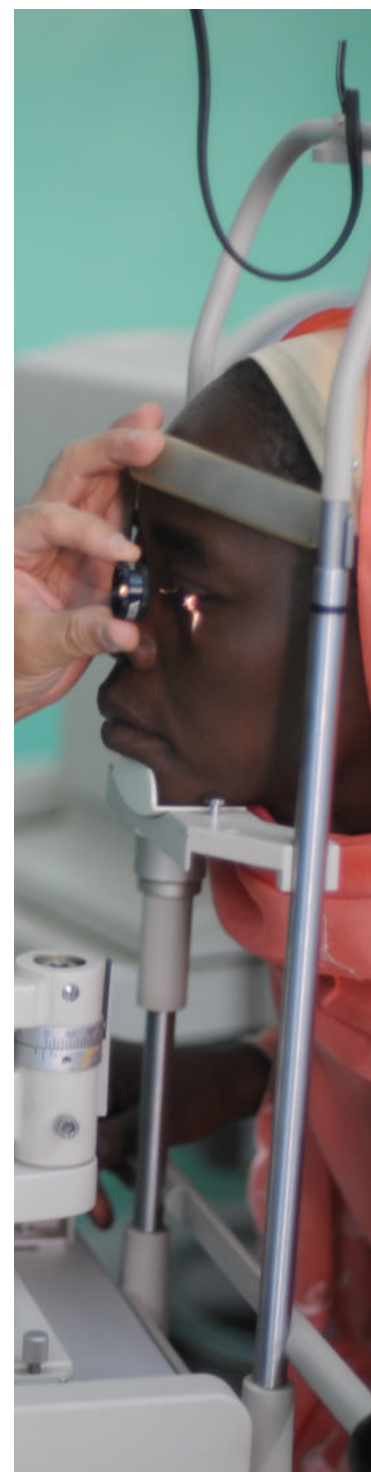
This contributes to an average life expectancy of just **60** years old, 13 years lower than the world average and the 11th-lowest on the planet.



One specific area where poverty and a lack of healthcare infrastructure have significant impacts is **vision impairment**. An estimated 2.2 million Malians (more than 12 percent of the population) live with impaired vision, often caused by cataracts, a progressive eye disease causing severe blurry or discolored vision. Cataracts can often be the result of malnutrition, which puts Mali particularly at risk: a staggering two-thirds of the country consumes an insufficient amount of food, and more than 25 percent of Malian children under the age of 5 classified as “chronically undernourished.”



of the population in Mali live with impaired vision, often caused by cataracts.



III.

Vision loss can have severe impacts on both children and adults. Young children with early-onset severe vision impairment can experience delayed motor, language, emotional, social and cognitive development, with lifelong consequences including lower levels of educational achievement. Adults with vision impairment tend to have lower workforce participation, lower productivity, and higher rates of depression and anxiety. Older adults with vision impairment are also at higher risk of falls and injury, social isolation, and total reliance on family members to complete simple daily tasks like eating and washing.

Vision Impairment:

Children

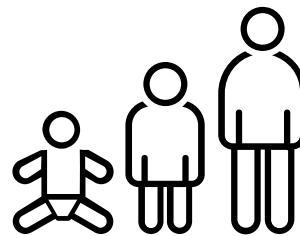
- Delayed motor, social & cognitive skills

Adults

- Lower productivity & higher rates of depression

Older Adults

- Higher risk of falls/injury & social isolation



Cataracts are the most common cause of vision loss in Mali, but fortunately they are a solvable problem. Surgery to remove and replace a clouded lens is a relatively simple, safe procedure with a long track record of success around the world.

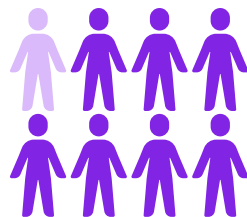
One in two Americans has undergone a cataract surgery by the time they celebrate their 80th birthday. However, because of the combination of poverty and poor medical infrastructure in Mali, hundreds of thousands of people live life with blurred vision, unaware of (or unable to afford) a cataract surgery that would restore their eyesight. This represents both a tragic reality and a powerful opportunity to improve quality of life on an individual and country-wide level.



IV: Providing immediate care, building a sustainable future: the Embrace Relief approach

Embrace Relief's approach to health in Mali is defined by its partnerships with medical clinics centered on (but not exclusive to) the highly populated capital city, Bamako. Through these clinics, Embrace Relief funds free preventative and diagnostic healthcare services for people in need, with a particular focus on cataract surgeries. Additionally, Embrace Relief aims to promote locally led development by providing training for local people whose experience will prepare them to serve their communities for years to come. Since Embrace Relief's inception of the health program in 2013, clinics we fund have provided more than 500,000 health checkups, 36,000 cataract surgeries, and have treated more than 3,000 people with glaucoma.

First, Embrace Relief provides funding to three independent health clinics in Bamako, where 2.1 million people (about 1 in 8 Malians) live. The clinics are located in different communes, the administrative divisions of the city, and situated to serve as wide a population base as possible.



Bamako:
Where 2.1 million
people (about 1
in 8 Malians) live.

Staffed by a rotating group of volunteer doctors from around the world, the clinics are equipped to provide a full suite of care, including:

Ophthalmology
Dentistry
Gynecology
Ear/nose/throat services

Pediatrics
Urology
General internal medicine
(all free at point of service)

**Since 2013,
500,000 people**

have received health
checkups



Embrace Relief has
provided more than

**36,000 cataract
surgeries**



IV:

In addition to these Bamako-based clinics, Embrace Relief's health program extends beyond the city into the more rural areas of Mali, where healthcare service is much less accessible. To serve this population, Embrace Relief supports a "Mobile Health Unit" van, which travels to villages within a three-hour radius of Bamako three times per week. The Mobile Health Unit van can conduct up to 200 preventative screenings per expedition, and is equipped with general antibiotics, anti-inflammatory medication and eye drops. Should the mobile unit doctors find a medical issue they cannot address on-site, Embrace Relief also provides transportation for patients to Bamako for further treatment.

This rural accessibility is augmented by Embrace Relief's "Mobile Health Clinic," an 18-wheel truck recently renovated to include a health screening room, dental surgery room, and cataract surgery room. The mobile clinic ventures out to rural villages less often than the mobile unit van, once every two months, but it can travel much greater distances, up to about 9 hours outside Bamako. The mobile clinic truck will spend between three and seven days in the villages, depending on how many examinations or surgeries are required.

The cataract surgeries and health screenings provided through clinics funded by Embrace Relief share one important common thread: they represent relatively small investments that save and improve lives, resulting in enormous long-term sustainable impacts on prosperity and development in a country like Mali.

Eye surgeries can be performed at all three clinics in Bamako, as well as in the mobile clinics. **Embrace Relief prices each surgery at \$100, which includes a pre-operation health checkup and consultation, complimentary food and water on the day of the operation, the surgery itself, and a post-operation checkup, and (if necessary) transportation and lodging.** After a recovery period of three days, recipients of all ages can return to normal life with restored vision, with immediate, long-lasting benefits: children performing better in school, more productive adults, and a higher quality of life for elderly adults.

Our "Mobile Health Unit" Van



Travels to villages within
a **3-hour** radius of
Bamako **3 times per**
week



IV:

Preventive health screenings are another important piece of a long-term healthcare strategy. Regular medical checkups are key to the early detection of illness or disease, and early detection dramatically increases the survival rate of most ailments by allowing doctors to begin an immediate care plan. General physical examinations – in which doctors can record and monitor a patient’s height, weight and age, vital signs, blood pressure, heart rate, body temperature, lymph nodes and thyroid, and eyes – can save countless lives (and life years) when provided universally.

Finally, Embrace Relief’s health program emphasizes locally led development by providing training for local people in Mali to fill a variety of roles in the health clinics, from caretakers to drivers to clinic management. To date, Embrace Relief has trained 36 people for these positions, including English language instruction to facilitate communication with the volunteer doctors. This aspect of our approach gives local people responsibility for taking care of their own communities, and builds the institutional knowledge that will keep these clinics in operation for years to come.

V: Conclusion

Every single medical intervention funded by Embrace Relief – every cataract surgery, every disease or condition caught early in a health screening – unlocks years, or even decades, of human potential. By providing short- and long-term healthcare in Mali, while concurrently building up healthcare infrastructure, Embrace Relief aims to spur economic development and human happiness in the country. This paper is meant to explain the rationale for Embrace Relief identifying Mali as an area of need, to demonstrate how investing in health promotes development and sustainability, and the successful steps we have taken to this end.

We hope that through our description of this framework, readers will find this program to be appealing and worthwhile. We would be grateful for any comments or suggestions as we move forward.





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