

Rethinking Equity In Global Health: An Axmed White Paper Series

# When Will We See The Full Potential of Vaccines?

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8 MIN READ

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Vaccines have reshaped the trajectory of public health. Yet their full potential remains out of reach for too many, not due to a lack of scientific innovation, but because of enduring inequities that determine who gets access, when, and at what cost.

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There is no single solution to the complex and persistent barriers that prevent equitable access to vaccines. We must work together to make vaccines more available, accessible, and affordable, and removing the barriers that hold systems back.

# Introduction

Gavi's recent success in completing its replenishment, despite significant headwinds in the global health financing landscape, marks a pivotal moment of global resolve. It sends a clear signal that the world still believes in the transformative promise of vaccines. Over the past five decades, vaccines have reshaped the trajectory of public health. Yet their full potential remains out of reach for too many, not due to a lack of scientific innovation, but because of enduring inequities that determine who gets access, when, and at what cost.

**This first paper in our white paper series explores not only what vaccines have achieved, but what they could achieve if access were no longer constrained by geography, income, or systemic fragmentation.**

As the next chapter of immunization unfolds, the challenge ahead is not discovery but delivery. Meeting it will require bold, purpose-driven collaboration, innovative financing, and delivery models intentionally designed to make equity the starting point rather than the afterthought.



# Exploring the Full Potential of Vaccines

Over the past five decades, vaccines have saved an estimated 154 million lives<sup>1</sup>. To put that in perspective, that's roughly everybody under the age of 30 currently living in Europe, approximately 20 times the population of Switzerland, or almost equivalent to the entire population of Bangladesh; the world's eighth most populous country. Let that sink in.

Most of those lives were young children under five; millions who might never have seen their first birthdays. In fact, vaccines alone accounted for nearly half of the global decline in infant mortality over this period. This unparalleled impact shows what is possible when lifesaving innovation reach those who need them most.

And even at 154 million lives saved, a critical question remains: **How many more lives could have been saved if we made sure that vaccines reach all corners of the globe?**

This question sits at the core of our mission at Axmed. The fact that millions of people still miss out on vaccines due to where they live or what their families can afford is an avoidable tragedy.

The World Health Organization estimates **an additional 1.5 million deaths every year could be prevented if we improve global vaccine coverage<sup>2</sup>**. Extrapolated across a 50-year timeframe, this equates to up to 75 million preventable deaths.

Building on this foundation, preliminary modelling by the Axmed Global Health Advisory Unit, adjusting for historical coverage levels, vaccine introductions, and regional disease burden; suggests that between 50 and 100 million additional lives could have been saved if vaccines were more equitably accessible, available, and affordable to all populations<sup>3</sup>.

This figure reflects not only missed immunization opportunities in low- and middle-income countries, but also the compounded impact of delayed introductions, fragmented financing, stockouts, and weak delivery infrastructure. While the precise figure is subject to final modelling and underlying assumptions, the scale of the gap between lives saved and lives that could have been saved underscores the urgency of addressing systemic barriers to vaccine access.

Vaccines have saved **154Mn lives** over the past 50 years.

This is approximately **20 times** the population of **Switzerland**.

1975 2025



Another **75Mn deaths** could have been prevented with equitable access to vaccines.



## Fighting AMR with Vaccines



Current and future vaccines could reduce global antibiotic use by

**2.5Bn**

doses annually



Prevent up to

**515,000**

AMR-related deaths



Save

**\$30Bn**

in hospital costs every year<sup>4</sup>.

Simply put, the difference between what was achieved and what could have been achieved is staggering and we must close that gap with urgency.

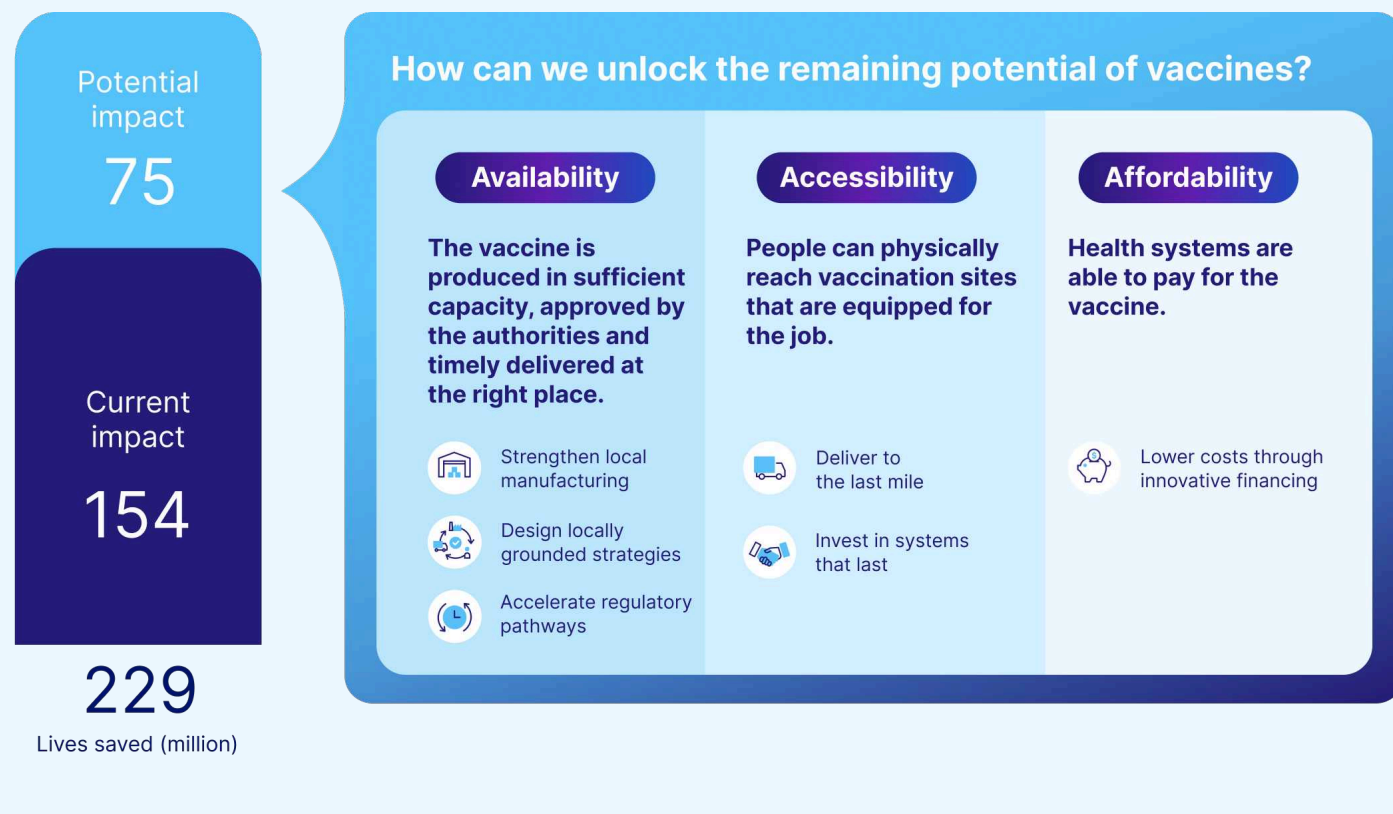
Vaccines are not only lifesaving; they are also one of the most powerful tools in the fight against antimicrobial resistance (AMR). According to the World Health Organization, current and future vaccines could reduce global antibiotic use by 2.5 billion doses annually, prevent up to 515,000 AMR-related deaths, and save \$30 billion in hospital costs every year<sup>4</sup>. By preventing bacterial infections in the first place, vaccines reduce the need for antibiotics and help slow the emergence of resistant strains.

**It is one of the simplest and most scalable interventions available to address the growing AMR threat.**

Importantly, our modelling does not assume universal uptake. We accounted for the reality that approximately 5 percent of the global population may choose not to be vaccinated due to medical exemptions, religious beliefs, or personal preference.

But among the remaining 95 percent, a staggering number remain without access. Not by choice, but because they are held back by where they live, what they can afford, or the systems that overlook them. This is the gap we must now close with urgency.

# Closing the Vaccine Equity Gap



The challenge we face today is not a lack of medical innovation. It's inequity. We know vaccines work; the question is how we ensure they work for everyone, everywhere.

That requires tackling the persistent barriers that keep vaccines out of reach – long delays, high costs, and fragile delivery systems. These obstacles are not inevitable.

They are systemic, and therefore solvable. Rather than dwell on the problem, our approach at Axmed is action-oriented: identifying where we can make the greatest impact in making vaccines more: **available**, **accessible**, and **affordable** and removing the barriers that hold systems back.

## Let's start with **availability**.

A vaccine can't save lives if it doesn't exist where it's needed. To make vaccines truly available, it must be produced in sufficient capacity, implemented in the healthcare system through locally grounded strategies, and approved by the regulatory authority.



### **Strengthen local manufacturing:**

Local production reduces delivery times, cuts costs, and builds economic resilience. It's not just about supply, it's about sovereignty.



### **Designing locally grounded strategies:**

Every health system is different. We have to replace global templates with in-country solutions co-created with national stakeholders.



### **Accelerating regulatory pathways:**

When one country approves a vaccine, others shouldn't have to start from scratch. We need more joint reviews, mutual recognition, and fit-for-purpose regional mechanisms.

Besides availability challenges, we also have **accessibility** challenges.

This relates to whether people can physically reach vaccination sites and whether those sites are equipped for the job.



#### **Deliver to the last mile:**

From drones to mobile clinics to community health workers, we must build networks that get vaccines all the way to remote communities in a reliable and safe way.



#### **Invest in systems that last:**

Strong health systems are the delivery mechanism for every vaccine. That means supporting infrastructure, training and data tools. Not just doses.

The last pillar refers to **affordability**.

It evaluates whether health systems or individuals have the means to pay for it. Even the most effective vaccine is meaningless if countries or communities can't afford it.



#### **Lower costs through innovative financing mechanisms:**

Pooled purchasing, advance market commitments and a combination of bonds, funds and pledges can bring down costs while ensuring supply security.

When financing is coordinated, frontloaded, and predictable it directly translates into more timely, equitable access on the ground.

## **We know what needs to be done.**

The challenge is no longer about knowing, but about doing, and doing it together.

At Axmed, we're proud to already be working across these pillars: supporting local manufacturing, designing local market strategies, and enabling smarter procurement. But we cannot do it alone.

We need partners who share our urgency. Governments, funders, manufacturers, NGOs: your action matters. Let's bring our capabilities together to ensure every child, everywhere, has access to the vaccines they need to thrive.

## **Because whether a disease is preventable, shouldn't depend on where you're born.**

# We're ready to help you act on vaccine equity. **Let's talk.**

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