

## ShowCase

### Riders for Health

**Topic:**

Transport; public health delivery

**Organisation:**

Riders for Health

**Location:**

Across Africa

**Dates:**

1989 to ongoing

**Budget:**

£3,814,124

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### Overview

Riders for Health (Riders) is an international non-governmental organisation (NGO) that works to ensure all health workers in Africa have access to reliable transportation so they can reach the most isolated people with regular and reliable healthcare.

By managing and maintaining the vehicles used in the delivery of healthcare and other vital services to rural communities in Africa, Riders allows a number of partners (including ministries of health and local and international NGOs) to deliver their services predictably and cost-effectively. In addition, Riders trains public health workers in how to ride or drive vehicles safely and carry out basic checks and maintenance.

Since Riders launched its first national programme in 1991 in Lesotho, it has successfully replicated its work in Zimbabwe, the Gambia, Nigeria, Kenya, Tanzania and Zambia. In 2010, Riders employed 275 people in Africa, maintained more than 1,400 vehicles and enabled health workers to reach 10.8 million people. In the Gambia, Riders has helped increase the proportion of fully-immunised infants from 62 per cent to 73 per cent. In Zimbabwe, there has been a 21 per cent decline in malaria in the Binga district, where all health workers are now mobile, compared with a 44 per cent increase in a neighbouring district.



“All the donated drugs in the world won’t do any good without an infrastructure for their delivery.” Dr Margaret Chan (Director-General, World Health Organization)

Currently 30,000 children under the age of five die every day across the developing world from preventable or treatable diseases including measles, diarrhoea and malaria. Immunisation programmes still do not reach 22 million children each year. Birth-related injuries contribute to nearly one-third of all newborn deaths. Access to skilled attendants could reduce these deaths, but more than half of the women in sub-Saharan Africa give birth alone or with untrained assistance.



Developing new vaccines, donating mosquito nets, distributing condoms or providing food supplies, as well as the billions of dollars spent on their provision, will have no effect unless they reach their destination. Millions of people across Africa remain deprived and isolated from healthcare resources due to distance, terrain, poverty and lack of transport. One African health worker can be responsible for up to 20,000 people scattered across miles of treacherous terrain. There is little or no public transportation and even the best roads are little better than dirt tracks. Delivering healthcare on

foot or by bicycle is exhausting and near impossible. Even when vehicles are available they quickly break down if there is no expertise or resources to maintain them. Despite this, none of the Millennium Development Goals mentions transport, yet, it can be argued that their achievement depends on reliable access to rural communities.

When development organisations plan programmes in Africa, they often completely underestimate the costs of running vehicles in an infrastructure-poor environment. Without a management system, vehicles fail well before their intended mechanical lifespan and without proper budgeting, it is unlikely there will be money available to replace broken parts. This means that vehicles can be unavailable to health workers within a matter of months, threatening delivery of the healthcare programme and leaving those targeted isolated.

From 1986, motorcycle enthusiasts Barry and Andrea Coleman and grand prix racer Randy Mamola were raising money in motorcycle sport for Save the Children (STC). During a trip to Somalia in the 1988 to see the fruits of their fundraising, Barry and Randy noticed that vehicles intended for use by the ministry of health (MoH) were terminally damaged after very short operational lives, because no one knew how to maintain them. For people who had worked around engines all their lives, this made no sense. They knew that for a vehicle to run properly and for the lifespan the manufacturer intended, it must be serviced correctly, especially when used in hostile environments like rural Africa. They also knew that transport affects everything and without effective transportation development in Africa would be impossible.



From 1989, after returning from his trip to Somalia, Barry began examining motorcycle use and maintenance arrangements in the Gambia in his role as consultant to SCF and the World Health Organization (WHO). This involved speaking to public health workers, gauging what sort of basic maintenance was needed for the bikes to run in an African context, and examining various motorcycle models and how they responded to the terrain. In exploring the infrastructure for maintenance, such as on-demand servicing and the availability of parts and oil, Barry found there was little help on-hand for when the motorcycles broke down, even if a basic part or adjustment was all that was required.

Barry began providing training in basic preventive maintenance and conducted his first large-scale training in Uganda in 1990. Through a system of trial and error and consistent engagement with public health workers, Barry developed and refined methods of training and monitored the frequency with which parts needed to be replaced.



At the same time, Riders' CEO Andrea Coleman carried out in-depth examinations of the surrounding funding and policy environments of international development and

African health funding. She found that although funding for health supplies would be available, provision was never made for transportation, an equally essential need to ensure that the health supplies and personnel actually reached the rural communities of Africa.

While Barry scoped and developed his motorcycle training and preventive maintenance knowledge with the public health workers of Africa, Andrea contacted potential supporters of transport for development assistance. She mapped and contacted all potential interested parties, including large motorcycle manufacturers, tyre manufacturers and oil companies. In 1989, the initiative became known as 'Riders for Health'. Riders were an unknown entity at this point and interest was mixed, but through persistent engagement and a shared enthusiasm for motorcycles, these companies became very supportive and generous, donating bikes and helping to raise funds.

### Key insights

- **Basic preventive maintenance made a big impact**  
During the investigation of WHO's motorcycle fleet in the Gambia in 1989, only 12 out of 80 donated bikes were operational. However, what ensured these remaining bikes still worked was weekly maintenance checks carried out by one man at the health workers' meeting. Basic preventive maintenance such as tightening nuts and bolts and checking oil and water levels contributed greatly to the operational lives of these bikes. This insight greatly contributed to the research into and development of the maintenance training.
- **Failure to prioritise transport**  
Transportation was very much seen as an add-on, not as a priority. Transport was never factored into the costings of healthcare, which focused on the costs of drugs and healthcare staff. Due to the

inefficient transport system, money spent on drugs and treatments was often wasted because they never made it to the intended beneficiaries on time.

- **Lack of mechanical expertise**

When transport was provided for the delivery of healthcare, there was no system of maintenance to support it. Donor organisations often provided motorbikes and cars, but not the knowledge to run and maintain them. Without proper maintenance and the replacement of parts, vehicles would break down. As there was no budget for ongoing maintenance, these vehicles would be left abandoned and people would remain unreached or money would have to be directed from elsewhere in the project to provide a new vehicle.

- **Lack of training**

Vehicles were often supplied to health workers without any training on how to use them. People who had never even ridden bicycles were given motorcycles. This often resulted in accident and injury, putting a health worker out of action and depriving a community of a health worker.

- **Purchase of inappropriate vehicles**

Donor organisations often provided unsuitable vehicles that were too expensive, had too many features, were problematic in the difficult African rural terrain, or were not necessary to the delivery of healthcare. This meant they were more costly to run and required more maintenance for no operational advantage.

### **Aims of Riders for Health:**

1. Enable public health workers in Africa to reach and treat those people living in rural communities currently dying or suffering due to lack of access to vital preventive healthcare

2. Establish a working and sustainable transportation infrastructure
3. Develop and support vehicle maintenance and training systems to ensure that African health workers are empowered to change their pattern of behaviour and become self-mobilised
4. Develop a self-sustaining culture of maintenance by helping the public health workers understand that their bike is part of their healthcare kit and that by maintaining their motorcycles and driving them safely they can reach the end beneficiaries of Riders' work - the rural communities of Africa



### **Target audiences:**

1. **African governments and local community-based groups**

For Africa to have a chance of effective and sustainable development, its governments must have the support they need to create effective transportation systems. Riders targets African MoHs in particular as they believe this is the best and most effective way to achieve long-term sustainable development.

However Riders will work with any organisation where mobility will add value to the provision of healthcare or any other vital care (including social care), regardless of scale or reach.

## 2. Health workers and outreach staff

Only by ensuring that a maintenance culture is embedded down to community level can developing countries build the capacity needed to meet their development goals. In order to build this maintenance culture across Africa, health workers and outreach staff from local and international NGOs need to know how to carry out basic preventive maintenance on their vehicles and ride/drive them safely.

### Behavioural goals:

- For governments and organisations across Africa to use the Riders service to manage their vehicle fleets effectively
- For health workers and outreach staff to maintain two- and four-wheeled vehicles and ride/drive them safely

### Barriers:

- **Financial**  
African MoHs do not have much money or resources, which causes them to be risk averse. Thus Riders must persuade those in power to invest in programmes such as theirs, which may cost more in the short-term but will promise long-term financial, as well as non-financial, gain. However, even when the short- and long-term health benefits are clear, the financial constraints hold much sway in the decision-making process. Working directly with any government is usually bureaucratic, time consuming and slow moving. To overcome this, Riders budgets and plans for bureaucratic procedures and when making its case to prospective governments, it highlights other programmes that are working cost-effectively.
- **Physical**  
Poor electricity and telecommunications infrastructure and rugged, sometimes

treacherous terrain prove to be a challenging environment to work in.



### Benefits offered:

- **Health**  
Increase mobility enables health workers to reach even the most isolated communities with healthcare and diagnose and treat more patients. When health workers are mobilised and no longer have to walk huge distances to reach villages, they are able to spend longer with patients, visit them more regularly and build the trust and relationships needed to tackle sensitive issues like HIV/AIDS.
- **Social**  
Health workers can develop the skills and knowledge needed to keep vehicles on the road and reaching people, which they can then pass on to others. In this way, Riders helps to build a sustainable solution locally.
- **Economic**  
Managing their fleet properly allows organisations to dramatically reduce the fleet maintenance costs associated with health worker outreach.



The insights gained from Barry's scoping of the motorcycle maintenance arrangements in Africa strongly informed the development of Riders' programmes, to meet its target audience's specific needs and circumstances. His experience working for STC and WHO led to Riders' first national programme in Lesotho in 1991. Working with STC and the MoH, this early model involved:

- Motorcycle rider training for public health workers
- Training in basic maintenance checks and procedures for the workers
- Regular servicing by highly trained technicians
- Strong procurement systems in place so that when a part needed replacing it was readily available

Stemming from the insight into African health policy, Riders' advocacy work continued to raise awareness across Africa about the importance of transport in a healthcare context and of budgeting for transport. Riders was able to build an accurate knowledge of the real costs of running a motorcycle, which included not just the purchasing costs, but also the training of the rider, parts and insurance. Development of these clear cost mechanisms made budgeting a lot easier when working with new partners and developing new programmes. .

These basic elements of the Riders' programme became refined and officially known as the Transport Resource Management (TRM) model when it was launched in Zimbabwe in 1997. Most notably, this advanced model now included outreach servicing, whereby a technician would travel

out to the community to service the motorcycles rather than requiring workers to travel to the technician, thereby saving precious time and money.

## Product

Through its work with customers and partners in Africa, Riders developed a total of four transport management systems suitable for different kinds of scale and partnership:

### 1. Transport Resource Management (TRM) model

TRM has been Riders' foundation transport management system for the last 10 years. TRM is used when the partner owns its own fleet but is prepared to outsource all elements of the management of that fleet to Riders, including rider and driver training and behavioural instructions.

### 2. Active Community Transport (ACT) model

Riders realised that it was not just MoHs and large NGOs that needed to be mobilised through reliable transport. Many of Africa's communities are very rural and sparsely spread and their healthcare is provided by much smaller organisations whose work is equally important. In 2004 in Kenya, Riders was approached by a grassroots organisation called Africa Infectious Disease Village Clinics. Given the size of the operation, this partner did not require service on the same sort of scale that Riders had provided in the past, but simply needed help procuring appropriate vehicles and training for a mechanic to service them on a regular basis. This proved successful and in 2007 Riders launched this model officially with a further smaller community group in Kenya.

### 3. Transport Asset Management (TAM) model

TAM was launched in 2009 in the Gambia. This combines all elements of the TRM model but in this model, Riders owns and

manages the vehicles and leases them out to the partner organisation. This arose from a specific insight with a partner whose fleet consisted of mixed models, many of which were too old to operate. Riders felt it would be more cost-effective to be sold on, but this was not within its remit. The TAM model was developed to give Riders control over the retirement age of its partners' current motorcycles and the procurement of new ones.

#### 4. Professional Sample Courier (PSC)

Riders and its partners identified the need for a specialist service for transporting medical samples and results, which led to the creation of PSC in Lesotho in 2008. This service involves Riders running the vehicles on a TAM or TRM basis, as well as directly employing specialist, highly-trained motorcycle couriers to collect medical specimens from health centres, deliver them to relevant laboratories and return results to health centres on a timely basis.



Riders understands that no development in Africa can be sustainable in the long-term unless it is managed by local people. So in 2002 Riders established the International Academy of Vehicle Management (IAVM) in Harare, Zimbabwe to train health workers and fleet managers in:

- Safe motorcycle riding and driving
- Basic maintenance
- Comprehensive fleet management

Through these courses the IAVM is helping to pass on skills in vehicle management and build a culture of preventive maintenance across Africa. Every delegate who goes through the academy provides feedback on the content and structure of the courses, which is used to refine the training.



#### Price

Financial cost is a major factor for MoHs, NGOs and healthcare agencies that employ health workers in Africa. The services provided by Riders are charged on a not-for-profit basis and available as different models to suit clients of different size, capacity and budget.

Riders' pricing mechanism is based on its unique Cost-Per-Kilometre (CPK) calculator, which enables vehicle management to be based on a precise understanding of how much money vehicles are using in terms of management, fuel and part. CPK calculates charges on distance travelled, rather than for specific labour and parts. The direct link between distance travelled and cost regulates the normally unpredictable costs of vehicle maintenance and allows organisations to budget expenditures.

#### Place

Riders' maintenance programmes are performed on an outreach basis. Vehicles and motorcycles are regularly serviced where they are based instead of being taken to a central location, meaning minimal off-road time. This reduces the costs for outreach programmes

and means staff do not have to spend valuable hours travelling to regional centres and are not without vehicles for longer than necessary.

### Promotion

Riders promotes and builds support for its work primarily through networking and word-of-mouth, fundraising events, its website and social networking sites, and other media, such as features on television, newspapers and magazines.



### Riders' programmes

Since the early 1990s, Riders has delivered programmes in 10 countries in Africa.



Each programme is managed by a Programme Director who is a national to the country and recruited by the Operations Director at the UK office. The Programme Director is mainly on location and recruits and develops staff from the locality. Management is very much conducted in-country with advice from the UK staff when necessary.

The UK office is seen as the nerve centre of Riders, providing support to all the programmes and being a central holdall of information. There is strong communication between the UK office and the various programmes and depending on their scale, different objectives are set. Regular monthly updates are held to ensure these are being met and to report any problems or issues.

Although Riders has extensive experience operating in Africa, no two countries are the same and there are often unforeseen circumstances that cannot be accounted for until implementation in the field. Riders strives to learn from these lessons and logs them to make sure they can be avoided in future. For example, in Kenya the team knew it would take a while to get a duty-free status, which is a fairly lengthy process. Although they accounted for this in their budgeting of the management of the fleet, the process took even longer than anticipated. Furthermore, import duty was significantly higher than any of the other African countries Riders had previously worked in. From this, Riders has learned to investigate the import duty for each new country it works in and apply for duty-free status as soon as possible or opt for any fast routes available.

Riders continues to seek new partners to mobilise even more public health workers across Africa. The team increasingly landscapes prospective partners, getting a sense beforehand of their priorities and budgets and how they manage their vehicles, so they are able to assess just how much these programmes could benefit from Riders' services.

Furthermore, Riders always listens and responds to its partners' requests and needs and looks to develop new models or services if necessary.

### Fundraising

Riders has continued its fundraising work to raise its profile and generate a revenue stream



so that it can scale up and increase capacity. The costing model it uses allows a programme to run as efficiently and cost-effectively as possible, as resources and money are scarce and precious. However, realistically there will always be additional unforeseen costs, particularly if something goes wrong. Therefore, the revenue from fundraising provides a strategic investment to safeguard Riders' impact in countries where unpredictability is a daily reality and resources are scarce.



### Stakeholder engagement

Riders' work is based on effective partnership with a number of key stakeholders. The health workers who use its service on a day-to-day basis are not employed by Riders, which is why it works very closely with key partners in government. Although Riders' programmes are designed to be self-sustaining in the long-term, initially they do require the support of funders. This funding comes from both those who fund Riders directly and those who would fund MoHs to cover the running of a fleet of vehicles, but instead outsource to Riders. This means that Riders must constantly engage and report to these stakeholders.

Stakeholder engagement methods include:

- Carrying out formal reporting commitments
- Providing tailored updates and information using impact information
- News and information through a newsletter, including use of video material

- Production of a detailed organisational annual report
- Regular telephone calls or personal meetings, both with in-country programme teams and the UK office
- Direct contact with co-founders where appropriate
- Invitations to visit the programmes

Riders receives support from a wide range of organisations and individuals in the UK, Europe and the US. Key supporting partners range from Dorna (who own MotoGP), the FIM (Federacion Internationale de Motorcyclisme) and motorcycle manufacturers like Ducati, to a number of grant-giving trusts and foundations, such as the Bill & Melinda Gates Foundation, the Venture Partnership Foundation, the Skoll Foundation and UN agencies like UNICEF.



In 2005 the international business consultancy OC&C carried out a pro-bono due diligence report on Riders' activities in Africa and found that Riders 'provides sustainable development benefits by creating self-sustaining, indigenised organisations to maintain health workers' vehicles'.

The benefits of Riders' work are far reaching:

- **Economic gains**  
Comparisons of the cumulative cost per vehicle for managed and unmanaged systems for delivering health interventions in Africa indicate that costs for unmanaged fleets significantly increase month to month, demonstrating the cost savings of working with Riders.

Riders has dramatically reduced the fleet maintenance costs associated with health worker outreach in Zimbabwe and the Gambia. There was a 62 per cent reduction in annual motorcycle fleet maintenance cost per thousand people reached by health workers in Zimbabwe. In Gambia, there was a 24 per cent reduction in annual vehicle maintenance cost per person treated per month by nurses at outreach clinics.

- **Increased health worker outreach**

Riders dramatically increases the number of health workers that can be kept mobile on a given budget. For example, OC&C found that in a Riders supported area in Zimbabwe there are around 90 per cent more health workers using vehicles than in areas where Riders is not working.

Furthermore, Riders increases the frequency of visits to these areas: OC&C found a 100 per cent increase in visit frequency in a region supported by Riders as compared to an 8 per cent increase in a neighbouring region without motorcycles.

“Before I had the motorcycle, I had to walk or hire a donkey cart to visit my villages. Many of the communities would not see me for a month or more. But now I can visit them at any time of the day or night, and they see me at least once a week.” Manyo Gibba (health worker in the Gambia)

- **Health benefits**

In the Binga district of Zimbabwe, Riders has helped mobilise 16 outreach health workers. Because health workers can reach rural communities with healthcare and provide people with the education they need to prevent disease, malaria deaths have decreased 21 per cent, compared with a 44 per cent increase in a neighbouring region where Riders was not operating.

- **Social benefits**

By providing training for health workers, technicians and fleet managers, the team at Riders’ IAVM training school in Zimbabwe is helping to improve the knowledge and skills needed to keep vehicles on the road and reaching people.



Furthermore, Riders has been able to share other skills aside from motorcycle maintenance. In the Gambia, local partners have replicated administrative procedures like reporting and financial processes in their own businesses.

Riders only employs nationals of the countries in which it works and the health workers it supports are employed by the MoHs in those countries. This means that Riders is helping to build a sustainable solution. Riders does not use volunteers, people on ‘gap years’ or western expatriates in its programmes. This means that the skills and knowledge that Riders brings stays in the country. Even if people that work for Riders leave the organisation the knowledge they have gained from Riders stays in the country and is passed on.

Yet it is the increased time with patients that has been the most beneficial and valued outcome. Public health workers who have been mobilised by Riders report that those in their communities respect them more as a result of the increase skills and contact they have gained through Riders.



Riders is aware that in order for it to achieve the sort of systemic change it seeks, global health policymakers, donors, health providers and African country governments must be empowered to make sound decisions about where funds most need to be allocated in health systems. To do this, they must have a solid base of evidence and analytically rigorous information about global health needs and the interventions that are most likely to be effective. These stakeholders need evidence to show the impact of improved vehicle management systems on health sector performance. Therefore Riders will prioritise the gathering of robust evidence to measure and validate the effectiveness and impact of the programme and of Riders' models in general.

In 2009 Riders developed a five-year strategic plan that focuses on up-scaling operational growth in both existing and new country programmes, to enable its partners to improve access to healthcare for a further 10 million people in Africa by 2013. The objectives are to:

1. Enable local healthcare providers to reach 20 million people living in the poorest rural African communities

2. Operate in at least eight countries in sub-Saharan Africa
3. Manage 4,000 vehicles for health-focused partners
4. Have carried out in-depth research with Stanford University to prove conclusively the impact of reliable, outsourced transportation on the delivery of healthcare

Where previously Riders did not have funding for evaluative work, during 2009 encouraging headway was made in the development of the monitoring and evaluating (M&E) function. Riders established an M&E department from scratch in the UK support centre and has begun to recruit and train local M&E officers in its programmes. It has established health-related baseline and ongoing data collection in three country programmes – Lesotho, the Gambia and Zambia – with some health-related monitoring also being carried out in Kenya and Zimbabwe.

So far the evaluation work has had a huge positive impact and been extremely beneficial both externally and internally. It has allowed learning from ongoing work to be shared among all programmes, bringing benefits to everyone involved with Riders' programmes. This is done via weekly email bulletins and other stakeholders are notified when relevant. It has also proved to be an effective method of showing to prospective partners the significant impact Riders has on the management of a fleet and all the associated benefits.

### Lessons learned

The biggest obstacle Riders has faced historically, and which it continues to attempt to overcome, is getting funders to understand the value of transport. Although it is obvious to those working in the field, it is not as obvious to funders and donors, particularly as fundraising for transport does not have the same appeal as for health supplies or workers. To overcome this, Riders issues persistent communications

and makes a strong case on a global scale for the importance of reliable transport. The motorcycle community, through a shared love of motorcycles, has been invaluable in getting transport on the healthcare agenda.



The very nature of Riders' work and the unpredictable conditions in which it operates means that all its programmes require an element of strategic investment – initially to prove the concept and then to scale-up.

As part of its long-term financial sustainability strategy, Riders' aim is to earn the majority of its income, with a minimum long-term target of 75 per cent. In 2008, earned income decreased to around 40 per cent due to the economic and political challenges in Zimbabwe, which had been its most mature and successful programme. The impact of such events, which are outside of Riders' control, has shown how vulnerable its earned income can be to instability in Africa. It was therefore imperative for Riders to spread this risk across a wider programme base, to ensure that in the future no one country has the potential to have such a significant impact on its income.

Zimbabwe taught Riders another lesson. Once Riders has highly-trained and loyal staff in a programme that is compromised by a national crisis, a holding pattern has to be established so that when national recovery comes Riders is well-positioned to resume and help rebuild the country. The Zimbabwe staff have taken a leading role in upgrading skills and training for

the Gambia leasing programme and in setting up the new Lesotho programme, creating true pan-African development. The threat that the crisis in Zimbabwe posed has had some positive outcomes for the organisation as a whole.

As the M&E function at Riders' has developed in recent years, the team have learned that there is very limited government health data available. This means it can be challenging to collect health impact information – even as a secondary source – because if it is not required by the MoH, there is little incentive for many health workers to supply this data to Riders. This has meant that Riders has had to conduct its M&E in different ways and formats to strengthen what information it has. It has ultimately meant that Riders' M&E is more time-consuming and labour-intensive. Riders also has to closely monitor and track any reporting to ensure it is delivering the information it needs.

### Acknowledgements

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