



# BICYCLES THAT MAKE A DIFFERENCE IN TUBERCULOSIS CARE

Report prepared for World Bicycle Relief

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## Table of contents

<b>Executive Summary</b>	<b>1</b>
<b>1.0 BACKGROUND</b>	<b>3</b>
1.1 World Bicycle Relief	3
1.2 Objectives of the Bicycle Initiative	4
<b>2.0 ACTIVITIES IMPLEMENTED UNDER THE UNDER THE PARTNERSHIP</b>	<b>5</b>
2.1 Distribution of Bicycles	5
2.2 Training of Mechanics	7
2.3 Arranging Media coverage	8
<b>3.0 RESULTS</b>	<b>9</b>
3.1 Increasing efficiency and delivery of TB and other Health services	9
3.1.1 Reduced traveling time	9
3.1.2 Improved coverage of patients	9
3.1.3 Increase in the number of referrals	10
3.1.4 Increased time spent with patients	10
3.1.5 Saving lives: an ambulance on two-wheels	11
3.2 Enhancing Social Status	11
3.2.1 Rewarding Voluntarism	11
3.2.2 Motivation & incentives to become a CHW	12
3.3 Bicycles Economic Impact	13
3.3.1 Improving livelihoods	13
<b>4.0 CHALLENGES, LESSONS AND RECOMMENDATIONS</b>	<b>14</b>
4.1 Challenges	14
4.2 Lessons and recommendations	14

## Executive Summary

Over the past decade, Kenya has made tremendous achievements in TB diagnosis and treatment, however large numbers of TB cases continue to be reported. There is therefore an urgent need to find undiagnosed sources of infection in the community in order to eliminate the community pool of infection and accelerate progress towards attaining the MDG 6 by 2015. It is expected that all contacts be traced and screened using simple symptom-related questions and where possible referred for TB examination by microscopy and/or any other relevant diagnostic process.

It is in this regard that PATH in partnership with WBR provided 1100 bicycles to Community Health Workers to ease the burden of transport and reduce time spent walking to clients' homes. Through this partnership with the TB-ARC project, CHWs received strong, reliable bicycles that served as an effective work tool to improve the health worker's motivation and efficiency as well as improve access to TB-infected individuals.

A total of 1100 bicycles worth an estimated \$155,411 USD were distributed in 11 counties in April 2014 to 628 female and 472 male CHWs. Selected number of Community Units from various sub-counties benefited from the donation. Further support was provided by WBR for assembling and transportation of the bicycles to the identified distribution points in the various counties. The community health workers will work to own the bicycles after two years of effective service to the community.

### The bicycles have contributed to:

- **Increasing efficiency and delivery of TB and other Health services:** In many parts of rural Kenya, CHWs walk long distances to reach the spread out households to provide health care services. It takes a CHW an average of 40 minutes to an hour on foot to get to the health facility from their homes to file reports or even longer to visit clients in their homes. The long distances can be discouraging and time consuming. The bicycles have changed all this as travel time has been reduced significantly increasing efficiency and the quality of services.
- **Increase in the number of referrals:** The increase in frequency of visits has led to an increase in TB patients referred to health facilities in some regions such as Mombasa. Previously, CHWs at the coast referred about 20 patients per month which has increased by 50%.
- **Improved Defaulter tracing:** The frequency of visits has also increased resulting in better coverage of the community at large with some health facilities documenting zero TB drug defaulters. Furthermore, given that the households visited are far apart and on difficult terrain, the bicycles have made it possible to access such remote households since distance and terrain is no longer an impediment.
- **Enhancing Social Status:** Majority of the volunteering CHWs are women who are also homemakers. In the Western region of Kenya, where bicycles are the most popular mode of transport, owning a bicycle immediately raised the status of the CHWs and added on to the technical skills needed for providing support to the TB clients. The image of a CHW, especially the female ones, riding an obviously extraordinary bicycle elevated their worth in the society. The community interpreted the provision of bicycles as recognition of the importance of their function within the health care delivery system. The CHW on their part appreciated this elevation.

Many County Tuberculosis and Leprosy Coordinators, who supervise CHWs supporting TB work at community level, have been quick to note that CHWs with bicycles were more motivated than those without. This was evident during special assignments where the CHWs with no bicycles would recommend that those CHWs with bicycles were best placed to carry out such special assignments

- **Bicycles Economic Impact:** Owning the bicycles comes with an extra benefit; CHWs are able to run their personal errands. In the rural areas owning a bicycle means that time consuming chores like fetching water from the water-point, going to the local market to mill flour, going shopping is easier.

However some challenges remain of which the most notable is the few number of trained mechanics to provide maintenance to the over 1000 bicycles. In some places also the lack of spare part shops was also cited as a challenge.

## 1.0 BACKGROUND

PATH's mission is to improve the health of people around the world by advancing technologies, strengthening systems, and encouraging healthy behaviours. In serving this mission, One of PATH's newest programs in Kenya is the TB Accelerated Response and Care (TB-ARC) project, whose purpose is to extend access to quality-assured TB services through the identification and implementation of evidence-based activities that support and/or complement the activities of the Division of Lung, Tuberculosis and Leprosy Diseases (LTLD). The project, which is led by the Centre for Health Solutions with PATH as a key technical assistance partner, aims to support the DLTD to provide leadership and coordination of all TB activities in Kenya through management and technical support at both national and county levels.

One primary area of work is the training of CHWs on TB screening to minimize lost opportunities. The CHWs are required to conduct TB screening during door-to-door follow-up visits to PLHIVs. They are also tasked with the responsibility of conducting contact investigation to screen known HIV positive contacts of smear-positive TB patients and refer persons with presumptive TB for diagnosis and accurately document, store records and report findings. To be able to reach as many people as possible, the CHWS need a reliable and inexpensive mode of travel.

### 1.1 World Bicycle Relief

**World Bicycle Relief (WBR)** is an international, non-profit organization based in the United States of America. WBR specializes in large-scale, comprehensive bicycle distribution programs to aid poverty relief in developing countries around the world. By end of 2014, the organization had distributed over 200,000 bicycles and trained about 1,000 bicycle mechanics in the developing countries. WBR believes in the Power of Bicycles as a tool to mobilize individuals to transform their world and delivers quality bicycles to improve access to health care, education and economic opportunities through philanthropic and social enterprise programs, in low resource settings.

In Kenya, WBR has partnered with PATH, an International NGO working to save lives and improve health, especially among women and children. PATH is currently implementing a TB prevention, treatment and control program which seeks to increase the number of new TB cases found and treated, strengthening lab services to provide TB diagnosis, investing in technology to improve TB and HIV data management, and focusing on children and high-risk populations. Under the WBR-PATH partnership 1,100 bicycles were distributed to Community Health Workers (CHWs) in 11 counties. CHWs are the foot-soldiers of the Ministry of Health who: conduct contact tracing of those who could have been exposed to TB and direct them to health facilities; trace drug defaulters who for one reason or the other interrupt their TB treatment regimen; and are involved in gathering community level data that is used in making decisions on mitigating TB in the country. Each CHW is linked to a Health facility where they are a crucial link in the referral chain. In addition, CHWs provide home-based care and support to TB patients.

In order to support the TB ARC project meet its objectives, WBR was expected to:

- Design, source and manufacture rugged bicycles engineered specifically for rural African terrain and load requirements
- Assemble bicycles locally with proper tools and close attention to quality
- Deliver bicycles through Work-to-Own & Study-to-Own programs
- Establish maintenance infrastructure by training local field mechanics
- Evaluate our work through independent studies
- Communicate program results to donors and partners

## 1.2 Objectives of the Bicycle Initiative

PATH and WBR partnership seeks to achieve the following objectives:

- To empower community health workers with a strong, reliable bicycle to be an effective work tool to improve the health worker's motivation and efficiency as well as improve access to TB-infected individuals.
- To train community based field mechanics in proper bicycle repair and maintenance as well as connect the recipients to a supply chain of reliable bicycle spare parts in order to support the sustainability of this initiative.

In December and January 2015, PATH conducted a rapid outcomes evaluation of the Bicycle Initiative using Key Informant Interviews and Focus Group Discussions. The respondents were selected through snowballing and in some cases through random selection from the lists provided by the County Coordinators.

A total of 49 interviews were conducted with CHWs in several locations where bicycles were distributed. Out of the 49 interviews, 3 mechanics were also interviewed. These locations included Meru, Isiolo, Nyeri, Kilifi, Kwale, Siaya, Migori and Rongo.

The interviews were guided by a semi structured set of questions that sought to get information on the use of the bicycles and the impact the CHWs are making in their community in relation to their role as CHW since they received the bicycles.

The mechanics shed light on the benefits they have reaped since the training, the approximate number of bicycles that they repair in a typical month and the challenges they may be facing in handling the Buffalo bicycles.

The evaluation was conducted by three PATH staff and three interns. The notes were transcribed and a report developed.

## 2.0 ACTIVITIES IMPLEMENTED UNDER THE UNDER THE PARTNERSHIP WITH PATH

The bicycles were transported to the various distribution points and assembled. Community health workers were identified and sensitized on the basic maintenance tips by the WBR team.



Mechanics assemble and transport the bicycles for distribution

### 2.1 Distribution of Bicycles

The beneficiaries were identified by the County Health Management Teams (CHMTs) working with the County TB and Leprosy Coordinators (CTLCS) in the respective counties. Several Community Units were identified and beneficiary lists generated in advance. The teams were then given specific dates and time when they would receive their bicycles.



PATH staff orients the CHWs on the contract and terms of the bicycle.

- **Orientation on the bicycle contracts:** The beneficiaries were taken through the contract outlining issues of compliance and appropriate use of the bicycles. The contract also outlined the process towards the full ownership of the bicycles highlighting two years after the signing of the contract the ownership of the bicycles would revert to the CHWs. PATH will however have the right to withdraw the bicycle in case of misuse and redistribute to other community health workers. CHWs received the bicycles after signing the contract.



PATH representative takes through a CHEW on filling the contract.



**A CHW assists a colleague to fill in their contract.**

It is important to note that more female CHWs received bicycles compared to their male counterparts. There are more female CHWs at community level than male ones. The number of bicycles given per county was determined by need with Migori County receiving the largest number followed by Meru County.

**Table 1:** Distribution list by County and Number of bicycles

No	County	No of bicycles	Female	Male
1.	Meru	103	71	32
2.	Isiolo	74	32	42
3.	Bungoma	75	32	43
4.	Homabay	99	49	50
5.	Kilifi/Malindi	100	64	37
6.	Kwale	80	37	43
7.	Kajiado	76	53	23
8.	Migori/Rongo	194	85	109
9.	Kitui	99	85	14
10	Nyeri	100	41	59
11	Siaya	100	79	20
	<b>TOTAL</b>	<b>1100</b>	<b>628</b>	<b>472</b>



## 2.2 Training of Mechanics

To support the sustainability of this initiative, 18 community based field mechanics, drawn from the beneficiary counties, were trained in proper bicycle repair and maintenance. They were also expected to connect the recipients to a supply chain of reliable bicycle spare parts. WBR supported the training and met all related costs estimated cost of \$8,120 USD. The mechanics

were also provided with a Buffalo bicycle. The following is a list of the trained mechanics and their respective counties.

**Table 2: List of Mechanics by County and Age**

	<b>Name of Mechanic</b>	<b>Age</b>	<b>County</b>
1	Maurice Baro	36	Kilifi
2	Imu Mohamed	50	Kwale
3	Athuman Zimba	37	Kwale
4	George A Oduol	30	Siaya
5	Moses Muiruri	30	Nairobi
6	Jacob Mutua	27	Kajiado Central
7	Otieno Moses	26	Migori
8	Lucas Agiro	32	Migori
9	Moses Otieno	26	Migori
10	Maurice Okoth	35	Migori
11	Steven Mueka	35	Isiolo
12	Charles M Wamai	50	Nyeri
13	George Kiriungi	38	Meru
14	Joseph Ng'ang'a	49	Meru
15	Japhet Mainge	54	Meru
16	Derrick Wambua	19	Machakos
17	James Audi	45	Homabay
18	Nicodemus Owino	37	Homabay

The majority of those trained were from Meru and Migori which corresponded with the number of bicycles donated to the two counties.

### **2.3 Arranging Media coverage**

The media and communication team at PATH worked with the TB ARC project team to ensure that the events were well publicized both within the counties and nationally. The distribution received wide coverage in the media which highlighted the potential benefits that the bicycles could bring to the fight against TB. In Homabay County which hosted the launch of the bicycle distribution, the Standard Newspaper carried a feature on the event citing the donation and the contribution that the bicycles would make in improving TB care in the region.

In Nyeri County, the County Governor, Hon. Nderitu Gachagua officiated at the launch and lauded the support that the County received emphasizing the important of ensuring timely delivery of services to those in need.

### 3.0 RESULTS / IMPACT

#### 3.1 Increasing efficiency and delivery of TB and other Health services

##### 3.1.1 Reduced traveling time

Many CHWs in Kenya walk long distances to reach the spread out households to provide health care. The previously long distances walked by CHW was discouraging and time consuming. It took CHWs 40 minutes to an hour on foot to get to the health facility from their homes and even longer sometimes to reach clients' homes. They would walk or take motorbikes to get to health facilities where they would provide services and submit their weekly reports.



Further, the long walks on dusty roads and at times under rain were a threat to the health of the caregivers; CHWs would get colds and other illnesses which then interfered with their service delivery and affected their morale negatively.

“The life of a CHW is energy consuming one does not have time to attend to personal matters; at the end of a day after trekking many miles one is just too tired. *Kutembea si kazi rahisi nikifika nyumbani nilikuwa nalala tu bila kufanya chochote.* (Walking many kilometers is not an easy task, I would get home and sleep unable to do anything else.”

*Aloyce Abich, CHW and bicycle beneficiary*

“For the longest time, travelling to the interior part of the communities was a challenge to most of us. To reach everyone in need, I was forced to travel long distances that often took a lot of my time. This all came to an end when PATH provided me with a bicycle in mid-2014. The bicycles were provided to help us in TB defaulter tracing hence making our work easier and faster.” - Lizzy Odhiambo, CHW, Migori County.

The scarcity in numbers of CHW also meant that the ratio of CHW to clients was very high meaning that many courageous individuals would need to walk long distances to provide support and care to TB patients. The CHW are themselves volunteers who sacrifice their time to offer support to their community members.

“Am really happy and appreciated the assistance you gave us. I used to spend 2 hours walking to see my households, it only takes me half an hour now on the bicycle.”

*Mary Tatu, CHW, Kilifi County,*

##### 3.1.2 Improved coverage of patients

WBR bicycles have enabled CHWs to increase the number and frequency of visits they make to patients such that they can now visit on average about 15 - 23 patients per month compared to an average of 8-9 previously. In addition, getting to the health facilities for reporting purposes has also been made easier with the bicycles. The CHWs get to the facilities on time to deliver their monthly reports.

“A good number of my patients live far from the health facilities where I am attached. Each CHWs is supposed to reach a specific monthly quota of patients who we visit each month. Before being issued with bicycles, it was hard for me to meet my targets. The average number of patients I could visit at home was 5 - 8 patients, this resulted in delayed reporting and also

missing many patients who had defaulted from treatment. It was really hard. “I am now able to comfortably reach my targets sometimes even before the end of the month,”  
*Selphine, a Siaya County CHW.” - Siaya County CHW*

### 3.1.3 Increase in the number of referrals of TB patients to health facilities

At the Mombasa County, the increase in frequency of visits has led to an increase in TB patients referred to health facilities. Previously, CHWs at the coast referred about 20 patients per month. Now they refer about 30 patients to the health facilities per month. Furthermore, given that the households visited are far apart and on difficult terrain, the bicycles have made it possible to access such remote households since distance and terrain is no longer an impediment. The frequency in visit has resulted in better coverage of the community at large with some health facilities documenting zero TB drug defaulters.

### 3.1.4 Increased time spent with patients

Not only have CHWs increased the number of visits they make to households but also the time spent with a patient. The reasons that lead patients to default in treatment are complex: poverty leading to inability to obtain food, inability to afford transport to re-fill ones prescription, social stigma related to TB as an anti-social disease all combine leading to depression. Counselling such patients to resume treatment calls for time; they require adequate time with each patient, building rapport and assisting them to understand why it is in their own interest to adhere to treatment. This is particularly more intense with those who are living with HIV and have not disclosed their status to their families. When the CHWs were rushing from one patient to the other to reach targets their success rates were not as high.

**Improvement in the quality of services provided by CHWs:** The improved locomotion has thus increased quality of service that they can render to each individual who needs it as well as improve their achievement of targets. CHWs now spend less time on the road resulting in more time spent with patients.

Increasing time spent with patients has also meant that CHWs are able to expand their roles beyond TB care and treatment. CHWs also have the opportunity to teach household members on the importance of good cleanliness and proper hygiene. This includes building toilets, washing their hands, proper nutrition and health of women and their children. They also encourage women to go for antenatal clinic visits – an integral component improving maternal health, and take their children for vaccinations and checkups.

Nyeri County just like other parts of central Kenya, is largely affected by jigger infestation due to abject poverty. CHW while visiting TB patients provide information on how to prevent jigger infestation as well as how to treat those already infested.



‘The bicycle has enabled me to reach more clients beyond the TB and HIV positive patients. I attend to jigger infested homesteads, treat the people and visit them regularly to ensure they are free from jiggers and lead a normal life. I use the bicycle to carry the disinfectants and sprayer which I use to spray in and around the house. I am quite happy with the bicycle.’ – *James Marendu Mirichu, CHW, Nyeri County*



### 3.1.5 Saving lives: an ambulance on two-wheels

The bicycles have also been used in several cases to provide ambulatory services in some areas where it was difficult to transport very sick patients to the hospital. WBR bicycles have specially designed braking system and are several times heavier than a regular bicycle easily carrying up to 100 kilograms. This has been quite beneficial as in several cases, CHWs would visit patients and find them too indisposed and in need of visiting the health facility. In most cases patients have been unable to afford any other means of going to hospital meaning that if they were left

unassisted the patients would die. WBR bicycles have enabled CHWs to ferry patients to the closest health facility thus saving lives. This was mentioned in several discussion groups including Migori, county

“One of my most memorable moments was when my bicycle helped me save the life of one very sick woman. I met her by the roadside on my way to see another patient and she looked sickly. I stopped my bicycle and approached her to know what was wrong. She explained to me that she had just come from the hospital. She explained to me her symptoms and I knew it was TB.

Since we were far from the hospital and she didn't have money to get back home, I carried her on my bicycle and took her home. I picked her the following day with my bicycle and brought her to Migori District Hospital where I am attached. She got diagnosed and started her TB treatment. She has now tremendously improved, is consistent with her medication and she keeps calling me to update me on her progress. Such scenarios, make my work as a CHW worthwhile.” – *Lizzy Odhiambo, CHW Migori County*

## 3.2 Enhancing Social Status

### 3.2.1 Rewarding Voluntarism

Majority of the volunteering CHWs are women who are also homemakers. Both status carry with it some element of social derision. In the society, there are those who appreciate the supportive role that the CHW play and there are those who consider them as ne'er do wells who have nothing better to do. Trekking long distances under the mercy of the elements also meant that the CHWs at times did not present services in the most enviable manner. While appreciating their services many members of the community did not understand their motivation.

Many County Tuberculosis and Leprosy Coordinators (CHW supervisors) have been quick to note that CHWs with bicycles were more motivated than those without. This was evident during special assignments where the CHWs with no bicycles would recommend that those CHWs with bicycles were best placed to carry out such special assignments.

In the Western region of Kenya, where bicycles are the most popular mode of transport, owning a bicycle immediately raised the status of the CHWs and added on to the technical skills needed for providing support to the TB clients. The image of a CHW, especially the female ones, riding an obviously extraordinary bicycle elevated their worth in the society. The community interpreted the provision of bicycles as recognition of the importance of their function within the health care delivery system. The CHW on their part appreciated this elevation.

“In this locality we do not have any bicycles like the buffalo ones and the community recognises us easily as we ride through the villages and homes and they ask us for assistance on any health issues. I also love the design of the bicycles given to women, they can get onto them and ride with ease.”

*Joseph Mungathia Ekandi, CHW Meru County*



“When I am riding my bicycle in town, it feels like I have a ‘Mercedes’ among ‘Toyotas’. It feels very good and people refer to me as ‘daktari’ [Doctor],” –

*Duncan Gathii, CHW, Gem sub-county.*



“The bicycles have given us recognition, the community members now refer to me as daktari wa nyanjani (community doctor) making me feel good about my work.”

*- Mangale Mwakera, CHW Kwale County*

### 3.2.2 Motivation & incentives to become a CHW

The Buffalo bicycles have brought about a sense of privilege amongst CHWs which has greatly motivated them as well as easing their work in the area as community members assign a level of importance to their work. The bicycle has also motivated more community members into joining the team of CHWs with the hope that they too will benefit from the same.

“Some of our neighbors and friends have asked to join us in our work as a result of the bicycle. Even those that we work with and were not active now believe that hard work pays. We always encourage them to put efforts in everything they do as CHWs” –

*Dinah Kagendo, CHW, Meru County*

Mary Wandia is a 73 year old matriarch from Nyeri. She says her greatest motivation is being able to make a difference to the community and improve their health. She rarely rides her bicycle due to her age but says she is glad that her 3 years of service has payed off.



Following the death of her husband, Mary now uses the bicycle to run her own errands through family members. This allows her to commit to her community service work.

“At first I did not want to join because I thought I was too old for the work and would not be able to do much. But with the training I have received, I am confident and I have helped a lot of people. My husband even kept asking when I will graduate as I was attending too many courses.”

## 3.3 Bicycles Economic Impact

### 3.3.1 Improving livelihoods

Owning the bicycles comes with an extra benefit; CHWs are able to run their personal errands. In the rural areas owning a bicycle means that time consuming chores like fetching water from the water-point, going to the local market to mill flour, going shopping is easier. Most importantly they are able to cut on costs and save more since they no longer have to use the *bodaboda* - motorcycle taxis. Being able to drop their younger children to school is among the most treasured benefit. Before they had the bicycles the families would have to pay the motorcycle taxis to ferry their children to school. The high cost of this service forces parents to compromise the safety of their children. In Eastern region, the bicycle has greatly improved the economic status of the CHWs, most are able to transport their produce to the market and in most cases do this without interfering with the activities of their role as CHWs.

The WBR model not only provides bicycles, but also trains mechanics equipping them with high quality bicycle tools and specialized skills to service the bicycles. The training, usually conducted in groups of 5-20, is based on a curriculum that encompasses bicycle maintenance, business principles and life skills. In the roll-out of the intervention in Kenya, a total of 17 mechanics were trained in the 11 counties. The trained mechanics were orientated to establish a business to supply spare parts and accessories. The training aimed at offering the mechanics with an economic empowerment opportunity as well as equip them with skills that they can in turn pass on to other apprentices and offer job opportunities to youth facing chronic unemployment.

Ng'ang'a, from Meru County, Kenya, is a welder and a trained buffalo mechanic. The mechanic training enabled him to make an average profit of KES 10,000 per month from basic repairs and spare part sales.

“The training increased my knowledge in the area of bicycle repair which at times involves welding. I stock a few spare parts in my shop so that when my customers bring their bikes for repair they can find everything in one place. They are happy with my services.”



The World Bicycle Relief model of providing bicycles offers the community an additional layer of self-reliance by training mechanics. However the 17 trained mechanics to service the 1,100 bicycles are too few and spread out too far in some areas.

“I have been able to offer services. However, I feel that there should have been more mechanics trained to better cover this region. I was the only mechanic trained in this sub-county and this means that other Buffalo bicycle owners have to travel longer distances to come to me when they have problems” – *George Kiriungi, Mechanic, Meru County.*

Some CHWs have faced challenges accessing the mechanics when they have needed assistance with some technical problems.

“The mechanics trained were few, and spread too far apart. Some of us CHWs are not very clear on how to get these mechanics. Some of the CHW also fear taking their bicycles to the regular bicycle repairman since they do not know how to fix these bicycles. There is also the fear that the bicycle might be vandalised. Sometimes we also have problems with spare-parts when something breaks or is worn out” - *CHW in Siaya.*

## 4.0 Challenges, Lessons and Recommendations

### 4.1 Challenges

- **Few trained mechanics available to meet the needs of all the beneficiaries:** In some areas, the mechanics are very far from the beneficiaries and cannot respond in a timely manner. Currently there are only 17 trained mechanics for 1,100 bicycles giving a ratio of 1:64. Migori County for example has over 190 bicycles and only 4 trained mechanics scattered around the region, while Siaya and Meru with 100 beneficiaries each have
- **Limited access to bicycle spare parts:** Some parts of the country do not have spare part stockist for Buffalo bicycles. The concern is that beneficiaries may start using sub-standard parts or ground the bicycle if they are unable to replace a part.

### 4.2 Lessons and recommendations

- A mapping exercise identifying mechanics to train needs to be synchronized with the distribution of the bicycles so that trained mechanics are easily accessible.
- Training a CHWs as a mechanic is a better option as CHWs have a better chance of networking with fellow CHWs and offering them mechanical service during their regular meetings. Also, there is a higher level of trust among the CHWs and the fear of vandalism would be overcome
- Train the CHWs in bicycle 'first aid' to empower them to be able to handle minor mechanical challenges so that they are not grounded and lose time over issues that they could easily address. In some areas like Kitui the WBR senior mechanic gave a 101 on better maintenance of the bicycle and took them through the basic of servicing the bicycle.
- There are no shops with the WRB spare parts in certain areas where the bicycles were distributed such as the coastal region. This could affect the functioning of the bicycles as people may start to use sub-standard parts.
- Improve the bicycles with head light: To facilitate movement at night, WBR should consider including a headlight in the design. Sometimes CHWs have to leave home at dawn and return at dusk and have challenges riding the bicycles without head lights.

## Annex: 1: List of the beneficiary counties

No	County	No of bicycles	Female	Male
1.	Meru	103	71	32
2.	Isiolo	74	32	42
3.	Bungoma	75	32	43
4.	Homabay	99	49	50
5.	Kilifi/Malindi	100	64	37
6.	Kwale	80	37	43
7.	Kajiado	76	53	23
8.	Migori/Rongo	194	85	109
9.	Kitui	99	85	14
10	Nyeri	100	41	59
11	Siaya	100	79	20
	<b>TOTAL</b>	<b>1100</b>	<b>628</b>	<b>472</b>



**Primary school in Ugenya doing presentation at a**  
**organized by the school and Girls Leading Our World (iGLOW)**  
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agreements are the major hindrances to the fight against rape and defilement cases in Nyanza region.  
 Mr Kahindi says defilement cases could be curbed only if the families of the victims would allow cases that are in court to be concluded.  
 "The only way to reduce the rising cases of defilement in Nyanza is by the families allowing the cases to reach their conclusion," he said.

## n new administrators

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friction among the national government officials and the county administration, thus impeding development.

### NATIONAL FUNCTION

"This has caused discontent among most of us governors and we really want to meet the President to let him know that the Provincial Administration as it stands is unconstitutional. We are optimistic we will find the best way forward," he added.

He however sought to assure teachers that the move will not detract him from discharging his mandate of delivering effective service to the electorate.

He promised to support more education projects despite most of these falling under the national government.

### HOMA BAY COUNTY

## NGOs donate 1,000 bicycles for war on TB

By STANLEY ONGWAE

Community Health Workers in 11 counties will be provided with bicycles in a nationwide campaign aimed at bolstering the war against Tuberculosis.

The bicycles will be used to track down drug defaulters with a view to putting them back on treatment.

Two international organisations have donated 1,000 bicycles to be distributed in counties that have been identified as having a high prevalence of TB in the country.

Path International and World Bicycle Relief Programme partnered to supply the bicycles to community healthcare volunteers in the various regions.

Path's head of TB programme in Kenya Ronald Ng'icla said the bicycle programme will also help the workers in monitoring those who are on treatment and introduce suspected cases of infection to hospitals for medication.

### COMPROMISE IMMUNITY

He said through the initiative, monitoring of the progress of the programme will be rapid and convenient.

Speaking during the launch of the initiative, Kenya TB Control Programme director Jackson Kioko said the rate of defaulting on TB treatment was highest in Nyanza.

According to Dr Kioko, Nyanza region was leading in cases of TB, with the highest population of those who were defaulting on drugs being co-infected with HIV.

"We are very much concerned that cases of people co-infected with TB and HIV are still many in this region. Every seven out of 10 people infected with HIV are testing positive for TB," remarked Dr Kioko.

In Homa Bay, where the programmes were launched, HIV prevalence stands at 29 per cent with Siaya following at second place with 21 per cent.

The official said if people living with HIV were co-infected with TB and they defaulted on taking TB drugs, then their immunity would be highly compromised, leading to high deaths as a result of opportunistic infections.

Both officials said their major concern was to ensure all the people infected with HIV live a TB-free long life.