

## CASE STUDY

# Improving educational performance of children in Chilore Primary school using quality improvement approaches in Mangochi District, Malawi

A team of community volunteers and government extension workers, with support from USAID, from 16 villages in Namwera, Mangochi District used quality improvement (QI) methods to mobilise four primary schools and their 16 surrounding communities to improve the performance of vulnerable children in the four primary schools. In December 2013, the community QI team assessed the wellbeing of a sample of 132 vulnerable children. The Child Status Index (CSI) assessment revealed that 70% of the poor scores were on education performance, food insecurity, and shelter conditions. As a result, Chingwenya Community QI team prioritized improving education performance in four primary schools in their catchment area. Through root cause analysis, they found numerous challenges faced by vulnerable children ranging from poor performance, frequent absenteeism of learners, limited numbers of teachers, poor infrastructure, lack of school teaching, lack of learning materials, and cultural practices and norms that affected education calendars. The QI team developed and tested a number of changes to improve school attendance and performance in the four schools. From December 2013 to August 2016, the QI team gathered primary school sex-disaggregated performance data. All four targeted schools have demonstrated improvements in termly pass rates of children. One of the schools, Chilore Primary School, has demonstrated sustained improvements across the nine academic terms. The school observed achievements from 42% in term one (December 2013) to 81% in term nine (August 2016). Not only did the team achieve improvements in the pass rate, but also managed to close the gender difference in performance of boys and girls.

## Background

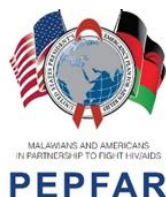
In 2013, the USAID Applying Science to Strengthen and Improve Systems (ASSIST) project began providing support to a community improvement team of 18 members. In December 2013, a total of five representatives from Chingwenya community-based organization (CBO) and government extension workers from the catchment area were trained in quality improvement (QI) methods to kick-start implementation of Malawi's newly endorsed "Minimum Service Standards for Quality Improvement for Vulnerable Children Programs." The five representatives from Chingwenya CBO were trained in QI and use of orphans and vulnerable children (OVC) minimum standards for three days. Chingwenya CBO went back and mobilized other extension workers in the surrounding villages to work together.

CSI SCORES	4	3	2	1
1. Food security	71	49	28	18
2. Nutrition and growth	71	49	11	01
3. Shelter	52	43	23	15
4. Care	61	24	23	02
5. Abuse and exploitation	103	27	02	02
6. Legal protection	96	17	05	10
7. Wellness	84	56	04	01
8. Health care services	93	14	05	02
9. Emotional health	47	66	16	03
10. Social behavior	104	26	04	01
11. Education performance	10	24	22	21
12. Education and work	52	46	17	12

PRIORITISED PROBLEMS
1. Education performance
2. Food security
3. Shelter
4. Care
5. Education and work
6. Legal protection
7. Emotional health
8. Health care services
9. Nutrition and growth
10. Wellness
11. Social behavior
12. Abuse & exploitation

Summary tables developed by teams after tallying CSI. Photo credit: Tiwonge Moyo, URC



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## Identifying gaps in service areas

After the QI training in January 2014, Chingwenya CBO organized a meeting for all relevant service providers in Group Village Head Namwera in Traditional Authority Jalasi in Mangochi District. During the first meeting, an agreement was made to establish a multi-sectoral community team to spearhead improvement in wellbeing of vulnerable children in the area. A total of 18 representatives from various stakeholders were selected to form the team that would meet regularly to facilitate improvement work in the area. Using the knowledge acquired in QI, the team embarked on collecting baseline information using the Child Status Index (CSI) tool. The team randomly selected 25% (132, 76 boys and 56 girls) of the vulnerable children registered with the CBO. The CSI assessment was done to identify priority areas that needed urgent attention among vulnerable children in sixteen villages of Chingwenya catchment area. The vulnerable children were randomly selected and assessed on six domain areas of the CSI tool:

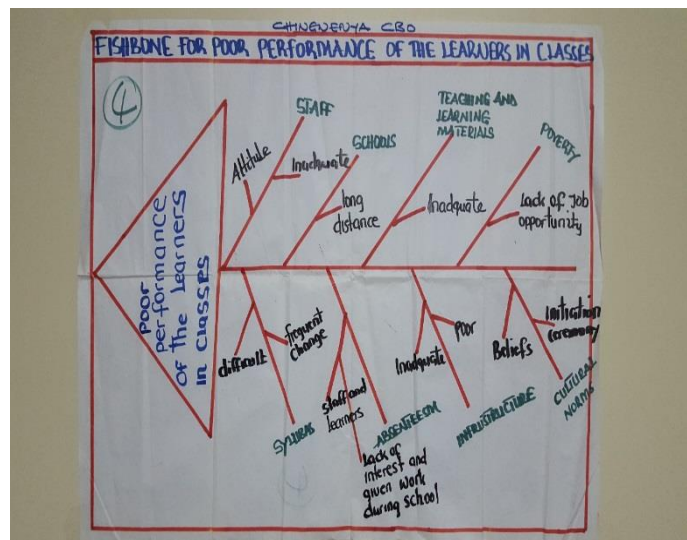
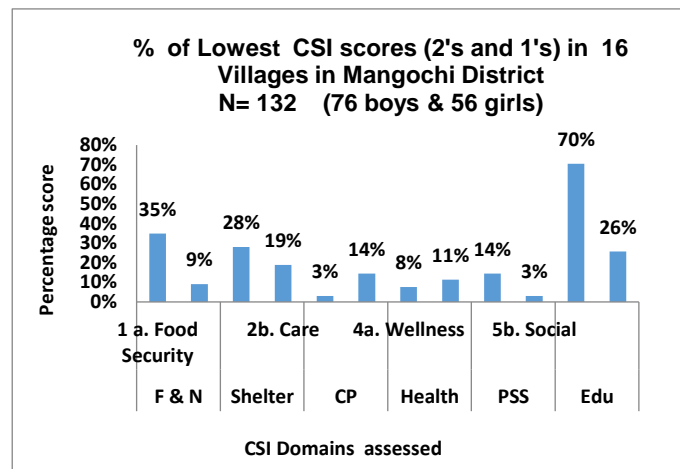
- **Nutrition:** Food security and Nutrition and growth
- **Shelter and Care:** Shelter and care by adult
- **Protection:** Abuse and exploitation and legal protection
- **Health:** Wellness and health care services
- **Psychosocial:** Emotional health and social behavior
- **Education:** Performance and attendance

ASSIST supported the QI team to analyse the CSI data in **Figure 1**. The Ministry of Gender, Children, Disability, and Social Welfare (MOGCDSW), with support from ASSIST, mentored Chingwenya QI team to conduct analysis of their CSI data using simple tally sheets. From this simple data analysis, the team identified education performance, food insecurity, and poor shelter conditions among vulnerable households as some of the areas that needed immediate attention. The team was enthusiastic to address all the identified areas. However, when they started working on the three areas, it was clear that they were overwhelmed with the amount of information they were required to work with.

## Brainstorming root causes of poor education performance in four primary schools

ASSIST helped the team to focus on improving one service area at a time. As a result, the team decided to first focus on improving education performance among children in schools in their catchment area. In their catchment area, the team identified Chilore, Chingwenya, Masongola and Msanga Primary schools to work with.

**Figure 1: Child Status Index assessments results for Chingwenya vulnerable children**



A fishbone diagram used to brainstorm underlying cases of poor education performance in four schools by the Chingwenya community improvement team Photo credit: Tiwonge Moyo, URC.

After summarising the CSI data, the team started to brainstorm the underlying root causes of poor educational performance among vulnerable children in the catchment area. The team identified teachers' attitude towards children; distance to schools; absenteeism of both children and teachers; inadequate teaching and learning materials; poverty; poor infrastructure; cultural factors; and attitudes of learners and guardians towards education as some of the contributing factors affecting academic performance of children in the four schools. The team used a fishbone diagram to analyse and understand the root causes of the problems they faced in education services in the area. The improvement team proposed some changes to test and monitor the effects on educational performance in the four primary schools over a period of time. Chingwenya QI team worked with school management committees in the four primary schools. The QI team tested several possible changes to improve the performance of children in the schools.

### **Change ideas tested at Chingwenya, Chilore, Masongola, and Nsanga Primary Schools**

The QI team started with orienting the School Management Committees, guardians, influential leaders, and teachers on the proposed improvement activities in the four schools. The QI team decided to intensify community meetings in the 16 surrounding villages where they talked directly to parents and guardians on the importance of school and helping children with their school work and scholastic materials. Parents were also told the importance of allowing girl children to have time for studies and not leaving young siblings with girls during farming season, particularly during exam periods.



*Chingwenya community QI Team. Photo credit: Tiwonge Moyo, URC*

The QI team, in collaboration with school management, proactively identified local role models to encourage children to attend classes regularly and remain in school so that they aspire to complete their education emulating the good examples of the local role models. Primary school female teachers were therefore selected to encourage girls on a monthly basis in an effort to improve their performance, daily attendance of classes and interest towards school.

The schools also emphasized the importance of monitoring daily attendance and performance of girl children in collaboration with community mother groups. The mother groups' volunteers were selected and oriented on their new role of supporting teachers to track children who were consistently absent from school in the four targeted primary schools. The volunteer mothers were also oriented by the school teachers on their role of counselling vulnerable guardians and children on the economic benefits of education, importance of providing time for children to study at home and advising them on harmful cultural norms that sometimes interfere with the good academic performance of children.

Msanga Primary School even went as far as lobbying to the Primary Education Advisor (PEA) and the District Education Manager to increase the number of teachers after realizing that one of the challenges of poor performance of the school was the number of teachers in the school. The District Education Manager identified additional teachers for Msanga Primary School due to the data which the school presented showing the number of pupils at the school versus the number of teachers. The QI team also reported that the PEA also started to publicize the improvement efforts in the four primary schools in the whole zone and cluster area for other schools to emulate what these four schools were doing to improve the wellbeing of vulnerable children.

The QI team also worked with the Parent Teachers Associations and School Management Committees to remind them on their roles in overseeing and supporting the school to have quality standards of education. During these meetings, the school-based committees were also shown the



academic performance of children in end of term examinations results to appreciate the performance of children as well as challenges the teachers faced to improve the performance of learners in the schools.

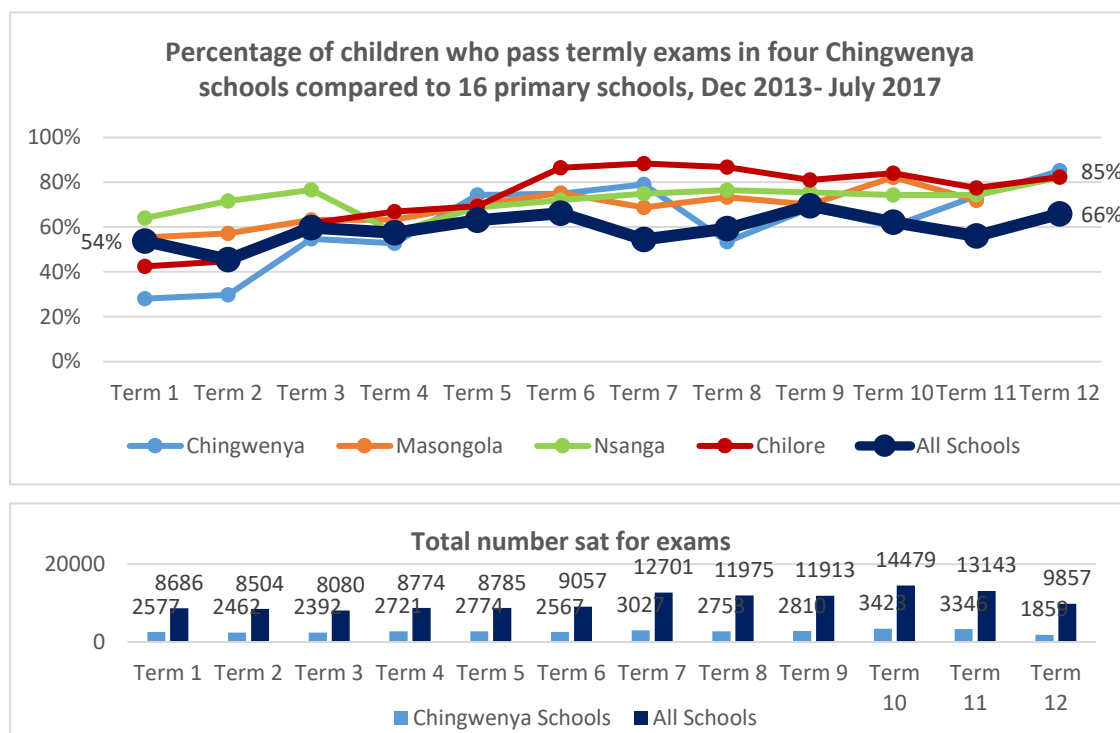
**Results**

The Chingwenya QI team’s targeted four primary schools and they observed improvements in end of term pass rates of children in the four primary schools as shown in **Figure 2** below. The four schools observed improvements from an average pass rate of 47.3% in term 1 in 2013 to 83% in Term 12 in 2017. If the schools are compared with the average of the 16 primary schools being supported by ASSIST, the four primary schools are doing well in most of the terms by being above the average of the 16 primary schools. Noticeably, Chilore Primary School is one of the four primary schools that has shown sustained improvements across the years. When ASSIST started working with Chilore Primary School, the school’s performance was below the average of the rest of the schools: 42% compared to 54%, the average of all the schools. In the July 2017 term, Chilore’s pass rate was 82% as shown in the run chart below in **Figure 2** below.



*Chingwenya community QI team visited during a field coaching visit by USAID Malawi staff & the Director of Child Development in MOGCDSW, May 2017. Photo credit: Tiwonge Moyo, URC*

**Figure 2: Percentage of children who pass termly exams in the four schools compared to the average pass rate of 16 other schools (Dec 2013-July 2017)**



**Improving education performance in Chilore Primary School**

Chilore Primary School has tested a number of changes to improve performance, but changes that the school and the team confirmed that have led to good improvements are those that focused on individual children themselves compared to generic changes focusing on the school. The school, with support from the QI team, introduced changes such as weekly assessments and one-hour revision

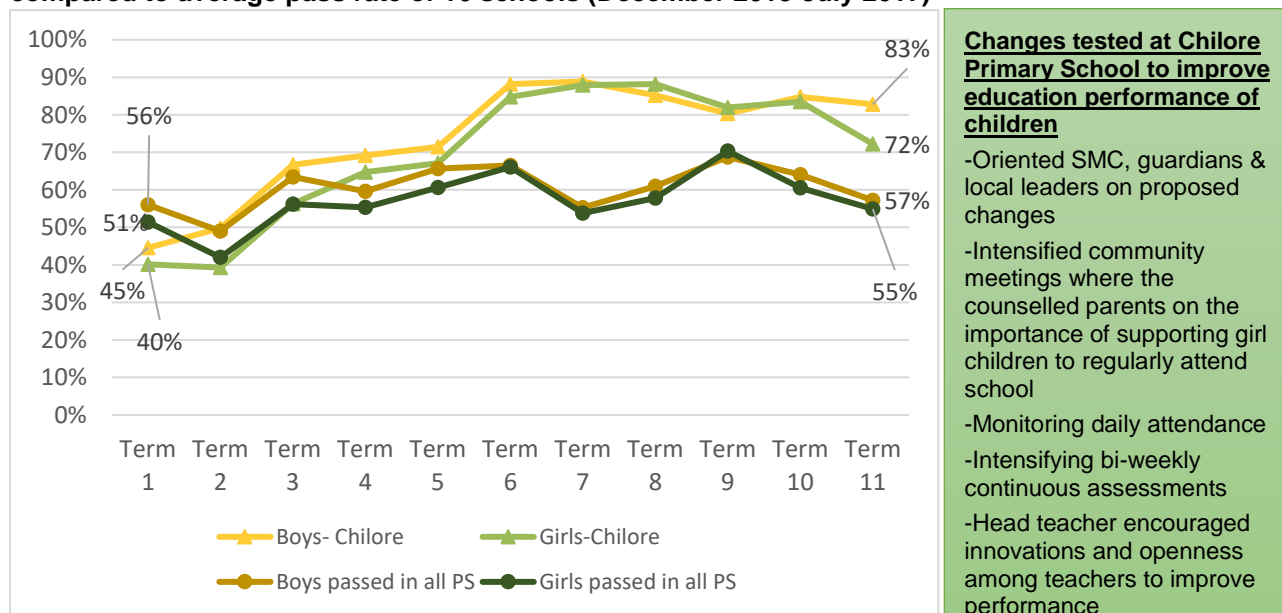
classes before resuming morning classes for standards 6 and 7. The teachers paid more attention to the girls' performance and encouraged them to improve their grades. Other changes tested included:

- Encouraging a group of volunteer mothers to follow-up children not regularly attending school and having face to face discussions with the children and their parents on the importance of education and the need to regularly attend school. They also provided space and time to adolescent girls to study and prepare for exams instead of doing household chores.
- Bi-weekly continuous assessments of children and revisions to ensure children understand the content before the exams. This change was reported by the school as being very effective for the school to improve the performance of children.
- The Primary Head Teacher also encouraged openness and teamwork among the teachers to propose solutions on how to improve the performance of children by working together as a team during the term. The Headmaster and the Deputy Head intensively supervised the work of teachers and provided feedback on weak areas for teachers to improve. This also motivated the teachers to strive to plan their lessons well and put effort in ensuring children understood the content.
- The Primary Head Teacher also introduced recognition of teachers that recorded good results in the school following continuous and end of term results.

The QI team helped the school to disaggregate the education performance data by sex, particularly starting from term two, revealing gender gaps in pass rates. The QI team was trained in gender integration in term two and they started to implement how to analyse and disaggregate data by sex and began testing the changes that would result in improvement for both boys and girls in the school. Chilore Primary School managed to narrow the gap in education performance between boys and girls to pass rates of 80% for boys and 82% for girls in term nine (December 2016) as shown in **Figure 3**.

Chilore Primary School was recognised by other schools and the PEA in the zone as a model for other schools to emulate. During the year, Chilore Primary School was visited by more than three schools that wanted to learn how they improved the performance of the school.

**Figure 3: Percentage of boys and girls who passed exams, Chilore primary school, term 1-12 compared to average pass rate of 16 schools (December 2013-July 2017)**



### Lessons learned

When the primary schools start doing improvement work, they are excited to do a lot of things at once because there are numerous challenges in the schools. This sometimes makes it challenging to

isolate the changes that were effective. Teams need to keep track of the changes tested and note the ones that bring positive or negative results in children's education performance.

Community involvement through multi-sectoral teams support the primary schools to deal directly with issues which schools alone sometimes cannot address. Since the teams involve traditional leadership and development structures it becomes easier to disseminate specific messages to the communities rather than schools on their own calling for community meetings. Through this collaboration, we have also seen that stakeholders are able to help the schools identify other support available in the communities and the district level at large. The collaborative working approach of schools, social workers, and communities helps communities appreciate the challenges that children and teachers in primary schools are facing and try to brainstorm alternative solutions to the challenges by involving all stakeholders in the catchment area.

Enthusiasm and commitment to improvement leadership is key, particularly in improving education standards of quality at all levels, starting with the QI team and the primary schools.

There are some terms where there are seasonal variations in pass rates of schools due to absenteeism in classes, participation, and focus during rainy season. In schools where class blocks are inadequate, there are disturbances in lessons because several classes either squeeze in one class or are dismissed early to avoid being caught up in torrential rains. This is done because the other classes learn under trees and it becomes chaotic for children when it starts to rain. Most parents also advise children not to attend classes during the rainy season for fear of being trapped on the other side of big rivers due to flood waters. In some villages, communities are exploring of ways of mobilising resources to establish junior primary schools (Standard 1-4/5) in villages that are cut off from accessing school due to crossing rivers for young children between the ages of 6-10 years.



*Chilore Primary school and some of the primary school teachers. Photo credit: Linley Hauya, URC.*