When they become ill, children under the age of five require immediate medical attention to prevent their condition becoming more severe and ultimately life-threatening. In rural areas, their chances of survival are also reduced by the time it takes to get them to a health facility where their condition can be diagnosed and treated. This is why it is so important that diagnosis and treatment are brought directly to communities. In Uganda, this is being achieved through the training of Village Health Team members (VHTs) to provide prompt and effective treatment.

“Children who are under five years old are the most vulnerable, especially as far as the three most common childhood diseases are concerned – malaria, pneumonia and diarrhoea,” explained Malaria Consortium Monitoring and Evaluation Officer Wilson Byamukama. They need rapid diagnosis and treatment, but care-givers of the sick children also need to be told when they should go to a health facility for follow-up treatment.

“The VHTs submit monthly reports to the nearest health facilities, where they also get replenishments for their stock,” said Wilson. But it is important that these reports are timely and of good quality to improve the monitoring of the community based programmes. However, paper based reporting has issues of delays, poor quality and also the inability to produce multiple copies of reports.

As Uganda has the third highest malaria burden in Africa, new solutions must be found to tackle this pressing health issue. The use of mobile technology has provided one option by helping to minimise these delays and increase overall efficiency of medical care.

Malaria Consortium introduced a pilot in 2010 in Kiboga and Kyankwanzi Districts, in mid-western Uganda, involving the use of mobile phones for reporting patient data to health facilities. This has led to a 20% increase in the number of VHTs submitting reports weekly, with a 30% decrease in the average delay in submitting these reports.

The use of mobile technology has also improved the quality of reports, as the data is automatically checked for accuracy and completeness before being sent to the health facilities. This has led to a 50% increase in the number of health facilities that are able to track the condition of children with childhood diseases on a regular basis.

The success of this pilot has led to the introduction of similar programmes in other districts in Uganda, with the aim of improving the health outcomes of children under five years old across the country.
of mobile phones for the transfer of medical reports by VHTs to health facilities and other offices. This minimises delays and ensures efficiency and faster distribution and processing of vital information.

“This mobile system allows for unlimited access to reports as well as faster processing of medical information; the VHTs can report stock outs and other issues requiring the attention of health facility staff,” explained Wilson.

The mobile browser-based system enables VHTs to fill out an on-line questionnaire, providing data on the numbers of patients seen, the diagnoses made and medications administered. This information is later processed so that the demographics of disease and treatment can be monitored within each community.

To understand the various features incorporated in the system, VHTs are given an intensive two day training course. Once they are trained they no longer have to return so frequently to health facilities to submit reports, saving them time and money.

While the main purpose of incorporating mobile phone use is to transfer medical data quickly, the technology can also be used to monitor stock levels of medicines and supplies. This means that when VHTs go to get replacement supplies from the local health facilities, their needs have been anticipated and there are sufficient supplies both for them and for those patients they refer to the centre for treatment and care.

Above: A copy of the VHT report
Below: Wilson Byamukama shows how the reports are transferred to an online database

This technology can also be used to monitor VHTs’ stock levels of medicines and supplies.