High rates of school attendance in parts of Nigeria provide an unparalleled opportunity to reach households with long-lasting insecticidal nets (LLINs). In 2012, the first school distribution pilot took place in Obubra LGA in Cross Rivers State with funding from USAID/PMI. The program reached targeted school children with minimal logistical burden. Keys to success included a carefully designed supply chain, strong commitment from the education sector, and close collaboration between health and education partners.

In 2011, with funding from USAID/Nigeria and the support of IFRC, Cross Rivers State conducted a mass LLIN distribution campaign. The proportion of households with at least one net increased to 87% as a result of the campaign. However, planners saw that household ownership was decreasing as campaign nets became torn and unusable. While distribution through ANC provided new nets for pregnant women and children less than one year of age, planners noted that ANC alone would not be able to sustain coverage. Projections using the NetCALC tool showed that distributing nets through ANC and to four classes of students per year should result in a sustained household ownership coverage rate of 75%.

The school LLIN distribution pilot in Cross Rivers State was innovative in its simplicity. Much of the necessary logistics were already in place and the education sector was a highly motivated partner. In the first round of the pilot, eighty-eight public schools distributed 8,444 nets to students and teachers in Obubra LGA (population 185,000).

Both health and education partners felt the pilot was feasible and effective. They were eager to support the next phase of the pilot, which will expand to include Oguja LGA as well as Obubra in 2013.

**WHY SCHOOL DISTRIBUTION?**

- There was no need to register beneficiaries since schools have registers that are relatively up-to-date.
- Many schools had storage rooms that could temporarily accommodate the nets.
- Educators were skilled personnel located on site.
- Children can be engaged as change agents for their home and community. The pilot helped introduce children to net culture and malaria prevention.
- Educators were interested in reducing malaria, either for improved community health or in hopes of improved school attendance and performance. This program provided opportunities to make schools strong advocates for malaria prevention.
- Net distribution through schools raised the visibility of both the education and health systems.

**HOW IT WORKS**

**Selection of beneficiaries**

Planners chose grade levels that were one to three years apart to ensure most households with children could receive at least one LLIN every two to three years. Four grade levels were chosen: primary year 1, primary year 4, junior secondary school year 1, and senior secondary school year 1. Heads of schools and teachers of the selected grades also received nets to increase their support for and understanding of the program. Many of the educators had no nets since they had not been eligible for ANC or campaign nets.
**Quantification**

Planners used second term attendance numbers from school records to calculate the number of nets required. The second term was chosen because attendance usually stabilizes by this time in the school year. The exact number of nets was allocated by the state using leftover nets from the recently completed mass campaign. A buffer stock was considered unnecessary. If any beneficiaries claimed that they should have received a net but did not, the school reviewed their attendance records to ensure that the students were indeed eligible (and did not return to school simply to obtain a net). Missed beneficiaries were scheduled to receive nets in the following year even if they had moved on to the next grade.

**Coordination**

State and Local Government Area (LGA) health and education officials and NGO representatives met several times to solicit stakeholder buy-in and plan the pilot. First, the lead NGO conducted a desk review and identified potential LGAs. Next, they met with LGA health representatives, state health representatives, and then state education representatives to confirm their interest. The entire team of NGO, state and LGA health and education partners, and religious leaders then met to develop the design which was presented to the donor, USAID/PMI, and then to other NGO partners. Lastly, team members developed a micro-plan that clearly delineated roles and responsibilities and provided the data collection forms and supervision checklist.

Key stakeholders included religious leaders and educational leaders including the state’s Honorable Commissioner for Education, the Education Zonal Coordinator; the Obubra LGA Executive Secretary for Education; School-based Management Committees (community level), and Heads of Schools.

Health partners included: the state’s Special Advisor to the Governor on Community Health, the Roll Back Malaria Manager; the Advocacy, Communication, and Social Mobilization Officer; the Monitoring and Evaluation Officer; the LGA’s Malaria Focal Person; and several NGO partners: the Networks project (JHU-CCP), which provided overall financial and technical support, DELIVER (JSI), which supervised the delivery of nets to the state and LGA level, and MAPS (FHI 360), which was responsible for behavior change communication.

March was selected for the distribution for several reasons:

- Coincides with the rainy season
- Timed to follow a few months after a mass campaign distribution
- Time when school enrollment is stabilized
- Time that does not conflict with school exam season

**Training**

Obubra LGA used a cascade model to train personnel. Heads of schools came to the central LGA office for a one-day training on the distribution, completion of forms, and BCC messages. The training took place on the same day as a regular monthly meeting. Heads of schools then trained the teachers in their own schools upon their return.

**Logistics**

The lead NGO hired a private firm to deliver nets from the state warehouse to the LGA warehouse. The same firm used a variety of vehicles—boats, motorcycles, and vans—to transport nets from the LGA warehouse to schools.

Nets were in storage for a very short amount of time to reduce the potential for leakage. Nets arrived at the LGA warehouse three days before distribution and at the school one to two days before distribution. At schools, nets were kept in store rooms. If store rooms were not available, nets were kept in the head of school’s office.
Social Mobilization

Stakeholder meetings were held with ward (sub-unit of an LGA) and LGA opinion leaders. The net distribution was also described to parents at two regular monthly school Parent Teacher Association (PTA) meetings and in class by teachers. While some parents were concerned that only certain grades were going to receive nets, they accepted the program after understanding that if their child did not get a net in the first round of distribution, he or she will likely receive a net in the second or third round. After the distribution, most household representatives said they learned about the program from their children and/or from the traditional or religious leader. Planners also stated that it would have helped to have fact sheets for teachers to keep messaging consistent. Channels other than the stakeholder meetings, PTA meetings, and classrooms sessions were not used.
**Distribution**

The distribution took place during a one-to-two hour period in all 88 schools on the same day. Educators selected this duration in order not to deviate greatly from the daily school schedule. Nets were brought from the store room to the classroom in the morning prior to the start of classes. Teachers in target grades first held an educational session on the benefits of LLIN use and net maintenance. Then each student was called forward to receive a net and sign the register. The net packaging was cut open before handing over the LLIN to prevent resale. Since primary school 1 students were considered vulnerable, schools asked their parents to come and pick up the children on that day. Alternatively, parents could send a representative in their stead. Parents or their representatives received the net and signed the register.

**Supervision**

On the day of distribution, heads of schools supervised teachers as nets were distributed. In addition, external monitors, comprised of four state and local health and education officials, five NGO representatives, and four independent community-based monitors were positioned at various schools. Supervisors – heads of schools and observers – used a checklist to ensure that nets were distributed to the right classes, and that registered students were in the classroom, received an educational session and their nets, and signed the register.

**Monitoring**

Five forms were used to collect monitoring data. Waybills and stock cards were used to track the flow of nets from the state to the school level. Each school had a “net allocation sheet” listing how many nets were assigned to each teacher and distributed by each teacher. Each teacher received a “distribution register” with fields for the names of eligible students and their receipt of nets. Finally, an “end-process data form” was developed to assess beneficiary households’ net retention, utilization, and source of information about the distribution.

One head of school was selected to represent each ward. He or she collected the paper forms from the schools in his or her ward on the day after the distribution. The LGA malaria focal person and the executive secretary for education then collected the forms from each ward and gave photocopies back to the schools. Also on the day following the distribution, four independent community-based monitors conducted end process monitoring using the same methodology from the mass campaign to track household ownership, hanging and use among school net recipients. The lead NGO summarized the net allocation sheets by school and ward and entered and analyzed end process data. Results were shared with each school, the school management committees, and state and LGA officials.

**KEYS TO SUCCESS**

- Early and continuous engagement and planning with government partners at the state and LGA level
- Sustained commitment from education partners
- Strong partnership between education and health partners
- Reduced logistical hurdles by using existing school registers, routine meetings, store rooms, and teachers.
- Quantification using attendance rates after enrollment has stabilized
- Minimal storage time to reduce leakage

School distribution could provide an opportunity to sustain coverage as part of a continuous distribution system or as a channel for distribution in a “top-up” campaign. The first round of the pilot school distribution in Cross Rivers State proved to be feasible. To measure its effectiveness, the pilot will be evaluated using a population-based household survey to measure household ownership, net use, equity, and cost-per-net distributed; these results will be available in 2014.

**Resources:**

Continuous distribution strategy for LLIN through schools in Cross River State: Design document

This ‘Lessons in Brief’ was developed with support from the Continuous Distribution Systems Work Stream of Roll Back Malaria’s Vector Control Working Group, in collaboration with the Nigeria National Malaria Control Program. Those interested in learning more about the information presented in this document should contact Konstantina Boutsika, RBM Working Group Secretariat (konstantina.boutsika@unibas.ch) or Dr. Iyam Ugot, Special Advisor to the Governor of Cross Rivers State (Community Health) (iyamugot@gmail.com)