



OLYSET Long Lasting Insecticide-Treated Nets (LLITN)

The problem: malaria

- There are 300 million episodes of acute malaria infection worldwide every year, 90% of which occur in Africa—primarily among poor children under the age of five. This results in over 1 million fatalities annually.
- Only 1% of African children currently sleep under bednets.
- The economic and social impact of malaria infection is devastating. A Harvard University/WHO study estimated that Africa’s GDP is thought to be 32% lower than it would have been if malaria had been effectively controlled 35 years ago. Current prevention techniques have not proven to be sufficient.



Typical polyester bednet after 5 months

The investment strategy



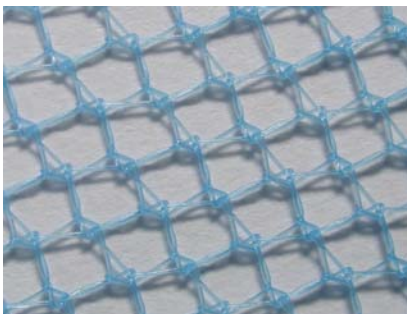
AtoZ chemical mixers

- Sumitomo Chemical Corp. of Japan has developed a highly-effective, long-lasting (3-5 years instead of 3-5 months), insecticide-treated malaria bednet. Acumen Fund has facilitated the transfer of the technology/manufacturing of this net from Sumitomo to AtoZ Corp., Africa’s largest manufacturer of bednets located in Tanzania.
- Acumen Fund has provided a loan to AtoZ for the purchase of capital equipment and other factory modifications to start a manufacturing line with the capacity to produce approximately 380,000 bednets per year.



AtoZ knitting machines

The innovation and the entrepreneur



Close-up of LLITN

- These nets are more durable and more effective than traditional bednets because they are made of plastic (blended with 2% permethrin to kill mosquitoes) rather than the weaker polyester fibers of traditional nets. In addition, washing and drying the nets does not decrease the effectiveness of the LLITNs. Indeed, this process actually reactivates the chemical release mechanism of the nets.
 - These nets are the only bednets endorsed by the World Health Organization Pesticide Evaluation Scheme (“WHOPES”) as demonstrating long-lasting effectiveness in preventing malaria. They have been deemed safe for both children and adults by the WHO.
- AtoZ employs approximately 600 workers and currently produces 5 million bednets annually for distribution in Tanzania and other African countries. A to Z is also the lowest cost manufacturer in Africa due to an intense focus on innovation and productivity.

The Acumen Fund value add

- Through a loan from Acumen Fund, LLITNs are now manufactured, produced and sold for under \$5 by AtoZ in Africa.
- Acumen Fund provides project management expertise in a complex public-private partnership that includes Sumitomo, Exxon Mobil, the WHO, and UNICEF, and AtoZ.
 - Sales to UNICEF will guarantee revenues until wider sales reduce the price of the nets and create a larger market.
 - ExxonMobil and Acumen Fund are in discussions to provide a distribution channel for these nets via ExxonMobil gas stations.
 - ExxonMobil has spent \$250,000 to develop private markets targeting poor women and children in Cameroon (with UNICEF) and in the Arusha, Tanzania-area (with Population Services International).
 - ExxonMobil has donated \$300,000 worth of resin to make nets.
- Acumen Fund has helped create a financially sustainable market for LLITNs by sourcing revenue and distribution channels while targeting the poor.



AtoZ factory in Arusha, Tanzania

The results



Women folding bednets

- AtoZ has produced and sold 55,000 LLITNs to the public and private sectors and has a current throughput of 12,000 nets per month (which will rise to 27,000 nets per month within three months).
- Over 43,000 of these nets have been sold through UNICEF in both Burundi and Tanzania.
- AtoZ has hired an additional 95 employees to keep up with growth; 95% of these employees are women, creating a social and economic benefit to the community. In addition, these employees are paid higher wages due to the complex nature of this work.

This Public-Private Partnership Includes the Following:

- Sumitomo has provided manufacturing technology and ensured that the nets could be made on AtoZ equipment
- ExxonMobil has provided polyethylene resin for the nets; has provided research in creating strong nets; has funded a new voucher system; and has pledged \$15 million towards malaria education.
- WHO has monitored quality control to ensure that the nets comply with WHOPES standards.
- UNICEF has funded the initial purchase and distribution of nets and has worked with the Rockefeller Foundation to examine the policy implications of the nets.
- AtoZ is a local Tanzanian bednet manufacturer and retailer.

The images from AtoZ's factory

