

Our contribution to the fight against malaria is measured in the quality of our solutions. PermaNet® is designed and produced to be “Fit for Purpose” to meet our users needs and bring long-term value to our customers. With an ongoing track record of zero quality assurance incidents recorded with our customers in the last five years, we are proud to say that our long-lasting insecticidal nets (LLINs) are living up to the expectations of our partners and, more importantly, the people who can sleep safely under our nets at night.

How do we achieve this? While it may seem obvious to state the role that quality management plays, for Benoît Florin, Head of Supply Chain at Vestergaard, it always bears repeating: “There are many diverse and complex processes with a lot of parameters involved in the making of LLINs that impact the performance of the nets. Therefore, the quality of each step in the chemical textile manufacturing processes matters greatly to the end product.”

## **From process through to product**

Substandard LLINs that do not meet specifications are not effective at preventing malaria and can lead to an increase in malaria cases. The potential for defects in a product range can vary, for example, if the net is too small, there is a greater risk of tearing if the net is stretched. Another risk could be an imbalance in the chemical property of the net, which can compromise the insecticidal effect. Ultimately, the product’s performance rests on the quality management process at the company. Vestergaard is one of only a few LLIN manufacturers who have an in-house lab facility dedicated to checking the chemical content of nets - a vital process which happens at the quality control lab in Vietnam.

Our approach is to ensure we are sustaining and improving our quality management system at the manufacturing level through quality control and quality assurance. Before manufacturing, we begin with quality process checks of the raw materials. We record every detail to track and trace the production lines and raw materials from each batch, and sub-batch, of distributed nets.

“We have over 30 quality controls in place during the manufacturing, labelling, and packaging of our bed nets so that we can detect a failure at the earliest stage,” explains Benoît. “These controls allow us to identify, isolate, and correct the issue immediately. We know when and where an issue has occurred and ensure that there is no impact on the

quality and delivery of the commercial order. Every manufacturer knows that issues can arise during production but when people's lives are on the line then you have to adopt a zero tolerance policy to quality assurance."

"Having quality control laboratories at our production workshops enables us to correlate the quality of the products with the quality of the processes," he adds. "We rely on a day-to-day collaboration between the production and quality departments to support the implementation and improvement of the quality management systems."

As well as dupro (during production) checks, Vestergaard is also focused on the net's performance. The regular lab testing of a net's bioefficacy provides an important feedback loop to the quality control and assurance activities. Limited post-market surveillance activities also provide great value as it evaluates the performance of used nets in field conditions.

## **Motivated to deliver excellence**

How does the team stay focused while carrying out this intensive work? "The spirit of the team in Vietnam is truly inspiring: our staff are extremely hard-working, highly skilled, happy to collaborate and eager to improve," said Benoît. "As a manager, I find it especially beneficial to empower my team as much as possible while having the necessary routines when in place. This usually means providing a path for growth to each member of the team."

The quality control laboratory team shows high flexibility in adapting to production needs. "If on a Friday there is a need to allocate extra work on the weekend, everybody raises their hand! Also highly flexible, the Vestergaard Acceptance Testing Inspection (ATI) team, part of the Quality Assurance department, is a mobile working group, travelling between all sites to run an inspection. "No matter the weather, from soaring heat to treacherous monsoons, our ATI team never misses an inspection to ensure orders can be released and shipped to the customer on time."

## **Evolving quality in the field**

Another aspect that cannot be overlooked is external engagement with donors and regulators who keep us accountable for delivering an exceptional QMS. The regulatory authorities and donors have invested dedicated resources over the last few years to improve the [pre-shipment inspection, sampling and testing of LLINs](#) and audits of LLIN manufacturers. “A few months ago, the inspection team, representing the independent health regulator, spent a week looking at how we produced our nets with a focus on quality,” Benoît shares. “The inspector praised Vestergaard Quality Management Systems, across all aspects of production and product. This is highly commendable in the insecticidal net industry.”

“Not only does this assessment provide reassurance that we have strong quality tools and processes in place, but it opens up a channel for productive collaboration between industry officials and manufactures, to ensure our best practices contribute towards the understanding and definition of quality management systems for LLINs in the wider field.” Each and every person at Vestergaard has a tangible sense of doing good. We know that nurturing quality people, products and processes have a direct correlation with protecting millions of people’s lives.