Two-year old Kamaragi was saved in Uganda, thanks to effective treatment with injectable artesunate. (Image: Pierre Hugo/MMV)

**The problem**

Malaria kills one child every two minutes. Severe malaria causes death in nearly all cases without treatment, especially in children under five years of age.

Though injectable artesunate is far more effective than quinine for treating severe malaria, Unitaid identified that it was not being adopted on a large scale by national health programmes despite a strong recommendation from the World Health Organization (WHO).

**The solution**

**What did Unitaid do?**

Through Medicines for Malaria Venture (MMV), Unitaid invested US $20 million over 2013-2016 to accelerate demand and adoption of quality-approved injectable artesunate in six countries (Cameroon, Ethiopia, Kenya, Malawi, Nigeria and Uganda). MMV partnered with the Clinton Health Access Initiative (CHAI) and the Malaria Consortium (MC) to update treatment guidelines; to quantify, procure and distribute injectable artesunate at affordable prices; and to train healthcare workers to use injectable artesunate in the project countries.

**What did the project deliver?**

Demand for injectable artesunate increased substantially. Annual procurement increased from very low levels to 10 million vials in 2015, through funding from Unitaid, the Global Fund and the US President’s Malaria Initiative (PMI). Donor commitments are expected to exceed 20 million vials per annum in the future. And demand continues to increase. In 2011, only 9 countries in Africa had changed their severe-malaria policy in favour of injectable artesunate. By 2016 this had increased to 30 countries.

**What impact will the project have over the long-term?**

Based on current projections of demand, injectable artesunate could save an additional 66,000 children’s lives each year by 2021 - it is more effective than quinine and potentially cheaper for health systems. Overall, the ISMO project has delivered an excellent return on investment (>$100 for every dollar invested).

**Additional impact of the ISMO project - rectal artesunate**

Where prompt treatment with injectable artesunate isn’t available, the WHO recommends the use of rectal artesunate before a child is referred to a healthcare facility for treatment.

Access to rectal artesunate is low due to limited operational guidance, a lack of evidence of its use in real-world settings, and a lack of quality-assured products. The ISMO project supported the acceleration of two rectal artesunate products through WHO prequalification. A complementary investment by Unitaid (through CHAI) is now exploring whether rectal artesunate can be delivered and used safely and effectively in community settings.
For no extra cost, injectable artesunate can save an additional 2 lives for every 100 children treated.

**Previous**

Quinine
- Saves around 90 lives out of every 100 children treated.
- Painful, toxic, and difficult to administer, lasting many hours.
- Slower-acting, patients discharged after several days.

**Now**

Injectable artesunate
- Saves around 92 lives out of every 100 children treated.
- Treatment can be delivered in only a few minutes, with fewer life-threatening side-effects.
- Faster-acting, patients can be discharged after 1-2 days.

Whilst the cost of a treatment course of quinine is lower than injectable artesunate, when factoring in additional costs related to severe malaria case management,* injectable artesunate is the same or potentially lower cost than quinine.

*A: The total cost including commodity costs, in-patient costs and the cost of health care worker time.

A further 66,000 children’s lives saved annually by 2021*

**Additional 4,500 children’s lives saved**

**Additional 28,000 children’s lives saved**

**Additional 66,000 children’s lives saved**

A 14-fold increase catalyzed by Unitaid

2013
- 1.6 m vials

2015
- 10.5 m vials

2021
- 24.5 m vials

*Demand projections developed for the final evaluation of the ISMO project, based on demand across Africa. Selection of references:

May 2017

Unitaid is a hosted partnership of the World Health Organization.