



## **FACT SHEET**

## **USAID HEALTH RESEARCH 2015**

The U.S. Agency for International Development (USAID) is committed to addressing some of the world's most challenging health and development issues through research, introduction, and scale-up of evidence-based solutions. The Bureau for Global Health's investments in research and development have led to critical breakthroughs in prevention, diagnosis, and treatment of deadly global diseases. Through partnerships with our field missions and stakeholder countries, the Bureau for Global Health's research agenda includes implementing high-impact solutions to address Ending Preventable Child and Maternal Deaths, Achieving an AIDS-Free Generation, and Protecting Communities from Infectious Diseases.

Below are some highlights from USAID's work:

Ending Abuse and Disrespect in Health Services: Abuse and disrespect during maternity care has been documented and observed globally. Women who choose to give birth at home without a skilled health care provider as a result of having experienced or heard about abuse and disrespect are more likely to suffer complications as are their newborns. A research study in Kenya drawing on host-country leadership and parallel advocacy led to a 35 percent reduction in disrespectful maternity care and the development of a World Health Organization statement on the prevention and elimination of abuse and disrespect during facility-based childbirth. Evidence gathered from these studies is also driving scale-up efforts in Tanzania and Kenya, with active engagement and interest from several other countries.

Treating Newborn Sepsis: Infections are among the leading causes of newborn deaths in developing countries and can be effectively managed with timely antibiotic treatment. Studies in South Asia and Africa document that 68 percent to 98 percent of families do not go or cannot access hospital-based inpatient care. USAID and partners supported research that showed a combination of injectable and oral antibiotics can be safely delivered by trained health workers in lower level health facilities. Drawing on this research, a newly released WHO policy recommends hospitalization as best but also advises governments that newborns can be safely treated with antibiotics as outpatients. Ongoing implementation research and evaluation are guiding safe introduction and adaptation in countries such as Bangladesh.

Developing Effective and Affordable Medicines for the Treatment of Malaria: USAID contributes to the drug development pipeline through its support for the Medicines for Malaria Venture. Two novel classes of malaria drugs (OZ439 and KAE609) that have been shown to be efficacious as single drug treatments have entered late-stage clinical trials in combination with partner drugs. These new treatments offer the greatest hope for an alternative to artemisinin-based combination therapies. MMV048, another novel antimalarial compound and the first antimalarial molecule discovered by an African-led team, entered early-stage clinical trials.

Addressing Behaviors that Affect Family Planning: To address norms affecting family planning including child marriage and gender-based violence, community-based interventions showed that girls who were offered conditional livestock transfers were 50 percent and 66 percent less likely to marry before the age of 18 in Ethiopia and Tanzania, respectively. In northern Uganda, community-based interventions tailored to life stages reduced gender-based violence by 16 percent and increased use of voluntary family planning by 10 percent. USAID is working with policymakers and program managers to tailor these community-based behavioral interventions to target adolescents.

Advancing Understanding around Malnutrition, Birth, and Growth Outcomes: Preventing stunting requires a deep understanding of how nutritional supplementation affects the "I,000 days" between pregnancy and a child's second year. USAID-supported studies in Malawi and Bangladesh are examining the effects of lipid-based nutrient supplements and micronutrient powders alongside other health interventions for pregnant women and children under 2. Initial findings from Malawi have resulted in five high-impact journal publications this year, with several more anticipated. These studies are contributing to the global evidence base on the impact of nutrition-specific interventions on birth outcomes and child growth and will shape the direction of programming and investments by USAID and the global community.

Developing New Tools for Women-initiated HIV Prevention: Given that women and girls account for more than half of the 34 million people living with HIV worldwide, USAID continues to prioritize research toward the long-term goal of developing a range of options for women to protect themselves from HIV. A pivotal USAID-supported study indicated that the dapivirine vaginal ring has strong potential as one such tool, while USAID also continues to advance ideas for other prevention products for women, including lower-cost tablets, injectable agents, and biodegradable implants.

Advancing the Foundation for an HIV Vaccine: USAID continues to support the exploration of genetic, viral, and immunological correlates that may be capable of blocking the virus. Efforts are ongoing to further characterize antibodies isolated from an ongoing research study, which is the largest longitudinal study of HIV infection among Africans. It has enabled the landmark discoveries of new broadly neutralizing antibodies. This body of work will lead to an improved understanding of envelope immunogens, which are thought to be critical for an HIV vaccine.

Advancing Rapid Diagnosis of Tuberculosis: USAID-supported modeling studies provide policymakers with information vital to selecting cost-effective diagnostic tools to improve patient outcomes and limit transmission of TB. Using a novel approach called "virtual implementation," these studies link transmission modelling with operational modelling. Working in close collaboration with the National TB program in Tanzania, the modeling study evaluated the impact of alternative diagnostics on patients, health systems, and the population. The study identified three strategies as cost-effective in Tanzania, including I) the full scale-up of GeneXpert; 2) same-day use of LED fluorescence microscopy; and 3) targeted use of GeneXpert for diagnosis of presumptive TB cases with HIV infection.



**Strengthening Health Systems:** Health system failures, especially in low- and middle-income countries with weak economies, contribute to preventable morbidity and mortality. USAID is working with UNICEF to address this issue by **developing a tool that estimates the impact of health system strengthening on lives saved** at the country level. These estimates will allow donors and countries to make more evidence-based investments.

Innovation to Respond to the Ebola Crisis: While personal protective equipment (PPE) offers critical protection, it can also be a great source of discomfort and stress for healthcare workers. In hot climates like the areas stricken by Ebola in West Africa, PPE cannot be worn for more than 40 minutes – severely limiting the amount of time healthcare workers can care for patients. USAID and partners developed the Fighting Ebola Grand Challenge for Development – a program that enabled innovators from the global community to quickly identify and deliver practical and cost-effective solutions, while forging the public-private partnerships necessary to test and scale up these solutions.