

Key Findings from WVP Data

The Whole Village Project collects health information using household surveys, child measurements, and focus groups conducted with men, women, village leaders and health care workers.

Insecticide-treated mosquito net coverage: Of the 48 villages surveyed to date, 28.6% of households report not owning a mosquito net. Among these households with nets, only 42% reported re-treating their nets with insecticide.

Maternal healthcare access: Many Tanzanian villages lack adequate infrastructure for safe pregnancies and births. Although 58% of villages have a local clinic or dispensary, 46% of villages surveyed are not able to offer perinatal and family planning services.

HIV/AIDS Knowledge: Knowledge of HIV/AIDS transmission and prevention is essential to protect new generations of Tanzanians. WVP data shows that among men and women surveyed, only 42% had high levels of HIV prevention knowledge.

Children under five: Among 2,313 children measured, 14.6% were underweight, 41.6% were found to be stunted and 4.5% suffered from wasting.

The Whole Village Project

The Whole Village Project (WVP) is an interdisciplinary partnership between Savannas Forever Tanzania (SFTZ) and the University of Minnesota that assesses outcome-based impacts of development projects based in rural Tanzania. The WVP collects quantitative and qualitative data on public health, nutrition, education, agriculture, wildlife and environmental conservation and food security in 55 villages – 48 to date. The comprehensive data provide a holistic picture of agricultural production, food security, nutrition, health, and wildlife conflict and help identify gaps in development assistance and national programs.

The project is designed for biannual data collection in each village. Ongoing data collection is essential to accurately evaluate the effectiveness of development interventions over time. The WVP analyzes the data communicates it back to villagers, local officials and donors using a participatory planning model. Data collection began in 2009. Additional funds to support future data collection and analysis are currently being sought. The WVP is implemented by the University of Minnesota in partnership with Savannas Forever Tanzania.

Background

The Millennium Development Goals (MDGs) clearly address the pressing challenges of maternal and child health, malaria, and HIV/AIDS. MDGs Five and Six are, respectively, to improve maternal health and to combat HIV/AIDS, malaria and other diseases. Despite global attention and an influx of international donor money, achievement of MDGs Five and Six in Tanzania by the 2015 deadline is highly unlikely. For example, the President's Emergency Plan for AIDS Relief (PEPFAR) alone granted Tanzania USD \$18.8 billion from 2003 to September 2008.ⁱ Yet, during the same period (2003-08), the HIV prevalence among adults (15-49 years) in mainland Tanzania only decreased by one percentage point from 7% to 6% and prevalence among women continued to be greater than among men. ⁱⁱ Similarly, no statistical change was

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measured in Tanzania's maternal mortality ratio between 1996 when it measured 529 maternal deaths per 100,000 live births and 2004-05 when it was 578.ⁱⁱⁱ As evidenced by U.S. President Barack Obama's Global Health Initiative, however, the global development community continues to dedicate substantial funding to achieving the targets – such as reducing the maternal mortality ratio, achieving universal access to treatment for HIV/AIDS, and reversing the incidence of malaria – associated with MDGs Five and Six, and it is increasingly clear that progress toward these targets by 2015 will only be achieved through an integrated approach.

Similarly, MDGs One and Four address child health and nutrition. MDG One aims to halve the prevalence of underweight children under-five years of age and MDG Four aims to reduce the under-five mortality rate and the infant mortality rate by two-thirds^{iv}. Child under-nutrition continues to be a major problem across the country. A combination of maternal malnutrition, inadequate infant feeding practices, poor hygiene and lack of healthcare are responsible for the problem. The government estimates that 30% to 50% of children under-five across the country are stunted^v.

In Tanzania, national policies and strategic frameworks guide actions by government agencies, bilateral partners, and non-governmental organizations (NGOs) on maternal health, malaria, and HIV/AIDS challenges.

Favorable national maternal health policies exist, but local implementation lags behind. To more closely connect on-the-ground reality to national maternal health goals, the POLICY Project suggests eight priority action areas in its Maternal and Neonatal Program Effort Index (MNPI) for Tanzania (2005). Priority action areas to consider in Tanzania's effort to strengthen maternal health programs include: increase access to reproductive health, sexual health, and family planning services, especially in rural areas; increase access to good-quality antenatal care; increase access to skilled delivery care; provide prompt postpartum care, counseling, and access to family planning.^{vi}

The Tanzania National Malaria Control Program (NMCP) has set a national goal of reducing malaria by 80% by 2013.^{vii} To achieve this goal, the NMCP is implementing a Universal Coverage Campaign that aims to distribute an average of 2.5 long-lasting insecticide-treated mosquito nets (LLINs) per Tanzanian household. This Universal Coverage Campaign will contribute to reducing Tanzania's annual malaria caseload (currently 14-18 million cases per year)^{viii}, and protect those populations most at risk of malaria infection – pregnant women, children under five, and people living with HIV/AIDS.

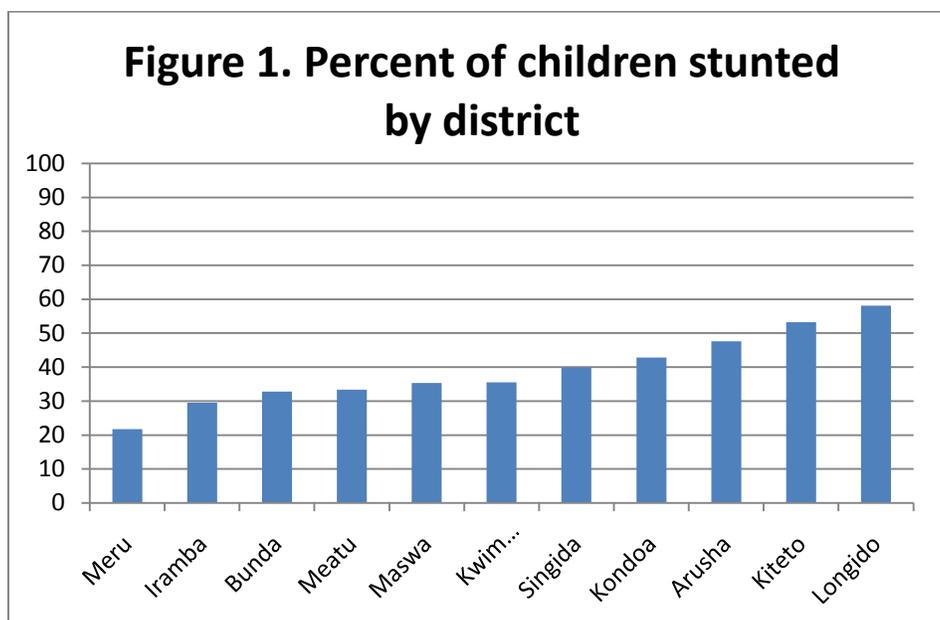
The Tanzania Commission for AIDS (TACAIDS) is tasked with coordinating the fight to turn back the HIV/AIDS epidemic in Tanzania. The main drivers of the HIV/AIDS epidemic in Tanzania include unprotected intercourse with multiple sexual partners, inter-generational sex, concurrent sexual partners, co-infection with other sexually-transmitted infection(s), and lack of knowledge of HIV transmission.^{ix} The second National Multi-Sectoral Strategic Framework on HIV and AIDS, 2008-2012 (NMSF), released by TACAIDS in 2007, is structured so as to address these very drivers.

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Key Findings

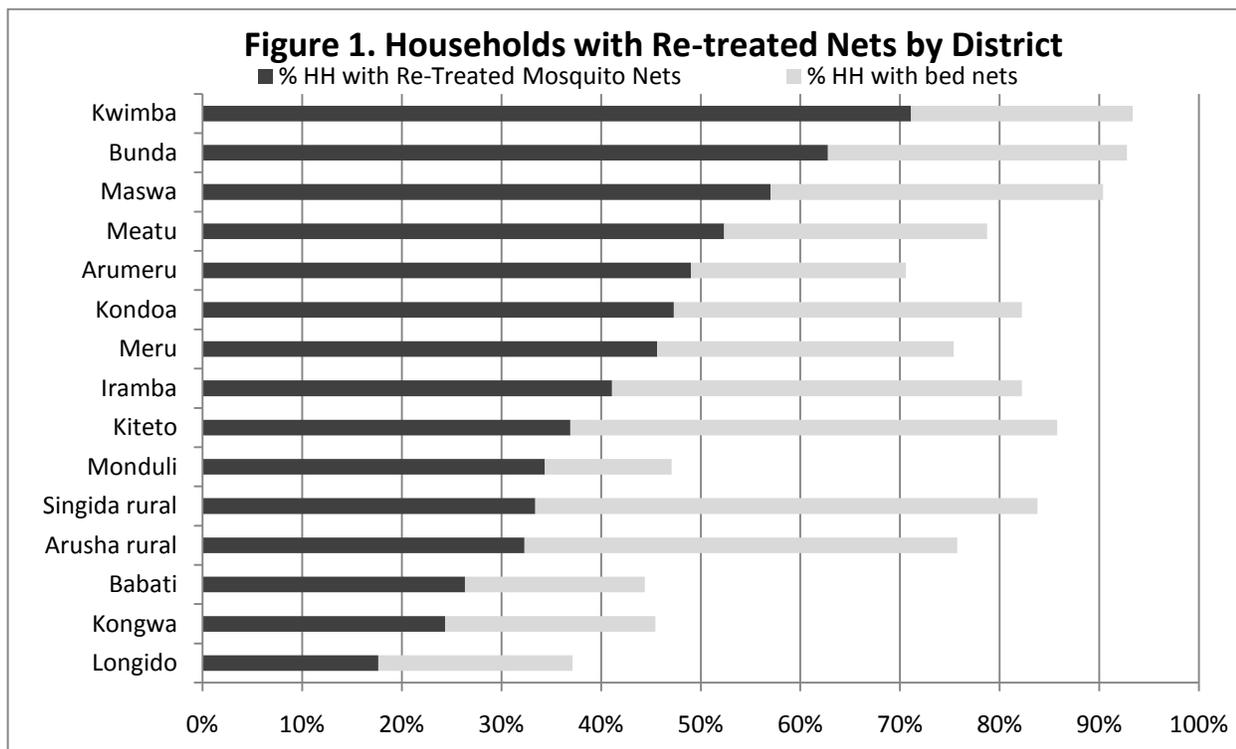
The Whole Village Project collects maternal and child health, malaria, and HIV/AIDS data using several quantitative and qualitative tools, specifically: 1) standardized household surveys, 2) HIV/AIDS knowledge, attitude and practice (KAP) surveys, 3) focus groups conducted with men, women, and village leaders, 4) key informant interviews with clinic officers, and (5) under five child measurements. The comprehensive data collected by the WVP provide a holistic picture of village-level maternal and child health, malaria, HIV/AIDS.

Increasing access to core maternal health services – family planning, antenatal care (ANC), skilled delivery, and postpartum care – is central to improving maternal health outcomes in Tanzania, especially in rural areas. As demonstrated by qualitative data collected by the WVP in rural Tanzanian villages, access to these services is universally limited for women. For example, only 28 of the 48 villages surveyed (58%) have basic health facilities, and only 22 (46%) provide reproductive and perinatal health services. Such limited service availability decreases access. Further qualitative and quantitative research is needed to determine the quality of maternal health services – such as availability of properly trained personnel and adherence to treatment guidelines – available in these villages. For example, only 30% of pregnant women nationally took two or more doses of Fansidar/SP, one of which was received at an ante-natal clinic^x, but specific trends on antimalarial use among pregnant women in the WVP villages are not known.



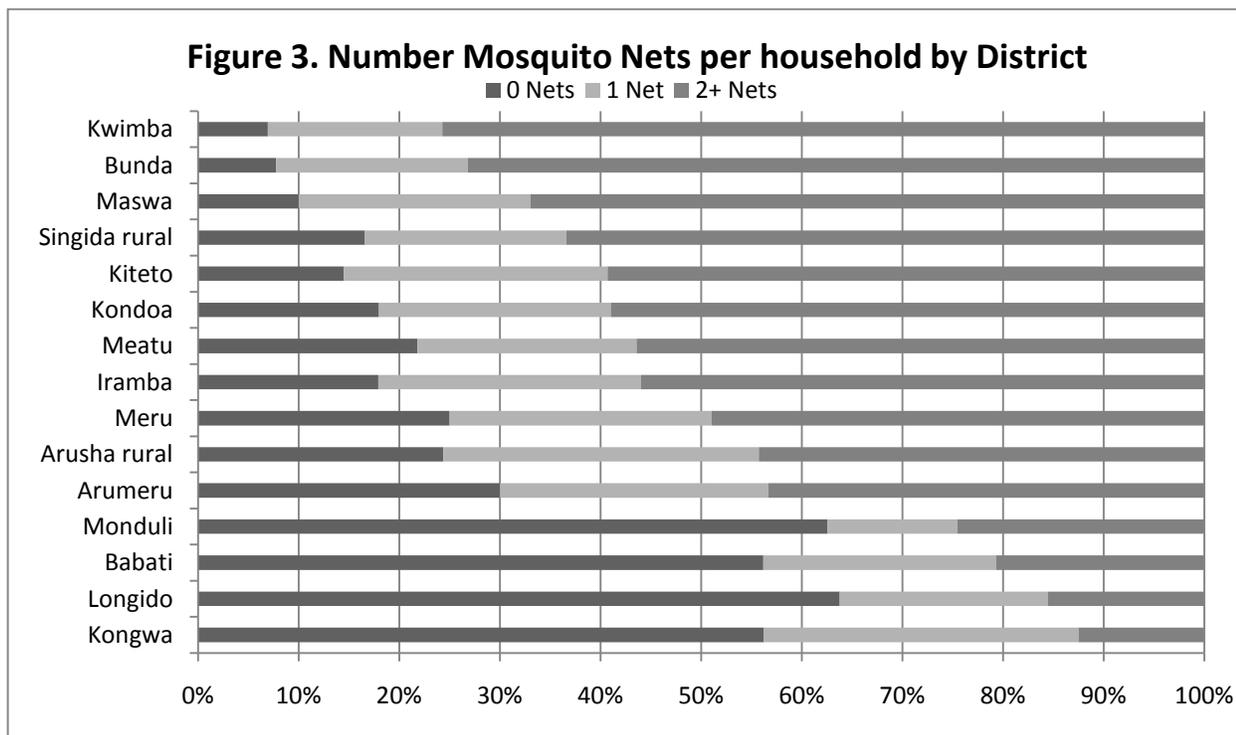
Among the 48 villages surveyed to date by the WVP, 37.3% of children under five are stunted. Further, 10.7% of children are underweight. Figure 1 shows that while in all districts, children under five are generally short for their age, in both Longido and Kiteto districts, more than 50% of children are stunted. Villages in these two districts particularly struggle with under-nutrition.

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Greater mosquito net coverage, specifically coverage with LLINs, is essential if Tanzania is going to reach its goal of cutting malaria incidence by 80% by 2013. WVP data indicate that household insecticide-treated mosquito net coverage is low in northern Tanzania (see Figure 2). Data from 48 villages show that in 73% of districts less than half of all surveyed households have insecticide-treated mosquito nets (Figure 3). In some villages in Longido district, less than 10% of all households report owning any kind of mosquito net.

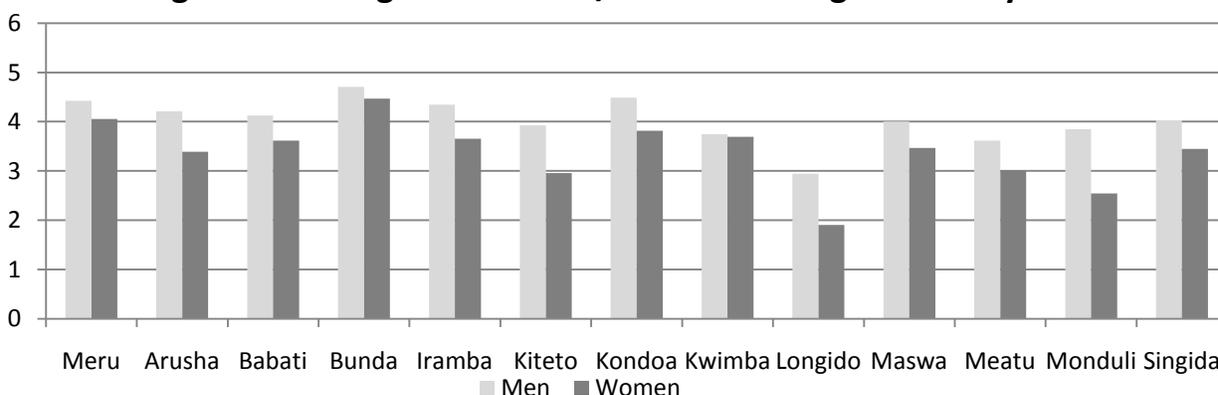
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The percentage of households using two or more mosquito nets (approximately equivalent to the universal coverage target of 2.5 mosquito nets per household) among villages surveyed by the WVP is highly variable: of the 15 districts where village surveys have been undertaken, only in 8 of the districts was household ownership of 2 or more bed nets 50% or greater.

To achieve universal coverage, Tanzania will not only need to increase the number of nets in each household to 2.5 (average), but will also need to educate household members on proper use of those nets to prevent malaria among the most vulnerable.

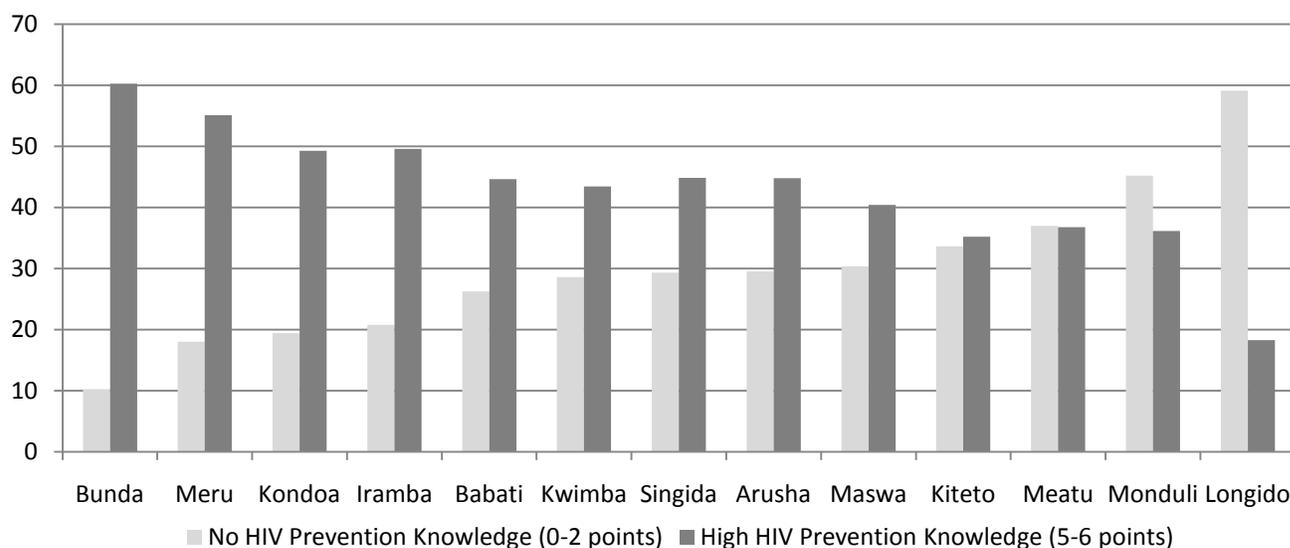
Figure 4. Average District HIV/AIDS Knowledge Scores by Sex



As cited by TACAIDS, one of the key drivers of the HIV/AIDS epidemic in Tanzania is lack of knowledge of HIV transmission. If knowledge on transmission is low then knowledge on how to prevent infection must also be low, thus confounding efforts to halt the spread of HIV. To assess an individual’s correct knowledge of HIV/AIDS, the KAP survey asks six questions. An individual earns a composite HIV/AIDS knowledge score, which can range from 0 (no correct answers) to 6 (all correct answers). District and sex differences in average HIV/AIDS knowledge scores, based on data from 48 villages in 15 districts are summarized in Figure 4. Although it appears that in all districts surveyed, the women’s average knowledge score is lower than the men’s, this difference is not statistically significant.

Additionally, only two of the forty-eight villages participating in the KAP survey have fewer than 50% of eligible adults with high HIV prevention knowledge (5-6 points), and four villages have at least 1 in 5 adults who know no correct method of HIV prevention (maximum 0-2 points) as shown in Figure 5.

Figure 5. Prevalence of Low and High HIV/AIDS Knowledge Scores by District



Despite relative gains that can be attributed to global education campaigns, (e.g. Abstinence, Be Faithful, and Consistent and Correct Condom Use), there remains only a small proportion of adults (15-49 years) in northern Tanzania villages who are aware of correct HIV prevention methods. This combined with the disparity between male and female HIV/AIDS knowledge scores requires renewed attention to be paid to development and implementation of effective community education and outreach strategies.

Conclusions

Low access to high-quality maternal health issues combined with a high malaria incidence and the ongoing HIV/AIDS epidemic creates a complex challenge for the global health community, especially local governments and partners working in rural Tanzanian villages. Progress on MDGs Five and Six by the 2015 deadline will not be made without an integrated approach evident in international funding priorities, national policies, and local implementation. In considering each of these, WVP data provide a unique, comprehensive village-level picture to inform action.

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For Prospective Data Users

The Whole Village Project has data from 48 villages, five of which have been surveyed twice. These include 3,088 households and 18,057 person observations. Household level data are available on mosquito net ownership, insecticide treatment of nets, and access to protected water source and water treatment methods. Individual level data is available on child mortality, breast-feeding, weaning and feeding patterns as well as anthropometric measurements for 2,313 children 5 years old and younger. The WVP also possesses village-level qualitative data on the perceived major health problems as well health services and facilities offered in each locality. Data may be aggregated up to the district and region levels.

ⁱ Audit of USAID/Tanzania's PEPFAR-Funded Activities and Commodities for the Prevention of Mother-to-Child Transmission of HIV. 2009. Office of Inspector General. Retrieved from <http://www.usaid.gov/oig/public/fy09rpts/4-621-09-008-p.pdf>

ⁱⁱ Tanzania HIV/AIDS Indicator Survey, 2003-04 and Tanzania HIV/AIDS and Malaria Indicator Survey, 2007-08

ⁱⁱⁱ Tanzania Demographic and Health Survey, 2004-05.

^{iv} Millennium Development Goals. Retrieved from <http://www.un.org/millenniumgoals/>

^v Nutrition Country Profile, United Republic of Tanzania, FAO. Retrieved from <ftp://ftp.fao.org/ag/agn/nutrition/ncp/tza.pdf>

^{vi} Maternal and Neonatal Program Effort – MNPI 2005. USAID.

^{vii} Malaria Operational Plan: Tanzania. 2009. President's Malaria Initiative. Retrieved from http://pmi.gov/countries/mops/fy10/tanzania_mop-fy10.pdf

^{viii} Country Profile: Tanzania. April 2010. President's Malaria Initiative. Retrieved from http://www.pmi.gov/countries/profiles/tanzania_profile.pdf

^{ix} The United Republic of Tanzania, The Prime Minister's Office, Tanzania Commission for AIDS. Retrieved from <http://www.tacaids.go.tz/hiv-and-aids-information/drivers-of-the-epidemic.html>

^x Malaria in the 2007-08 Tanzania HIV/AIDS and Malaria Indicator Survey – Fact Sheet