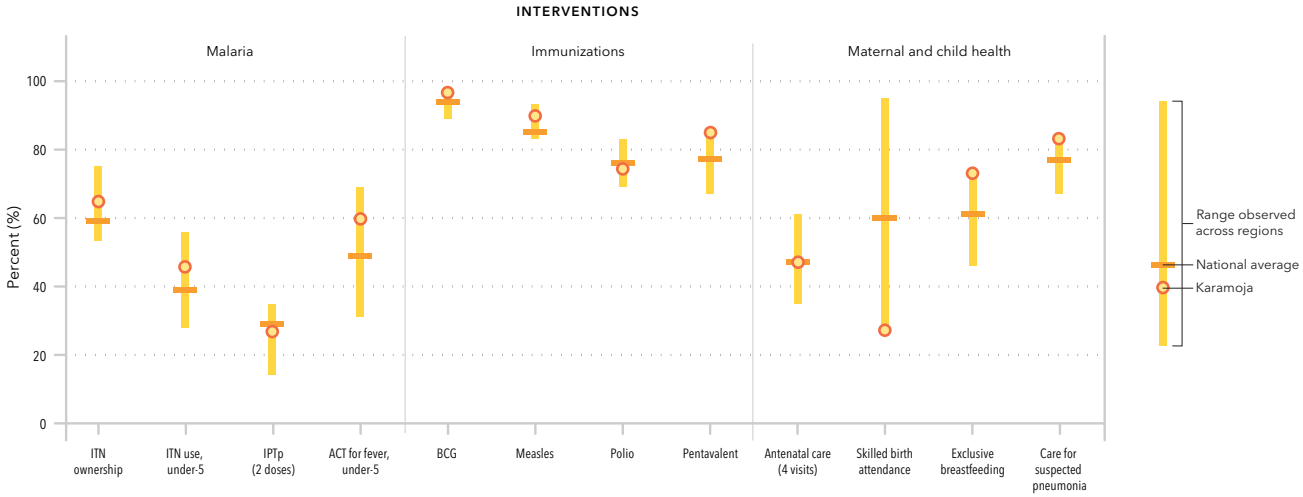
Karamoja



Note: Estimates of intervention coverage are for 2011, with better performance reflected by higher levels of coverage.

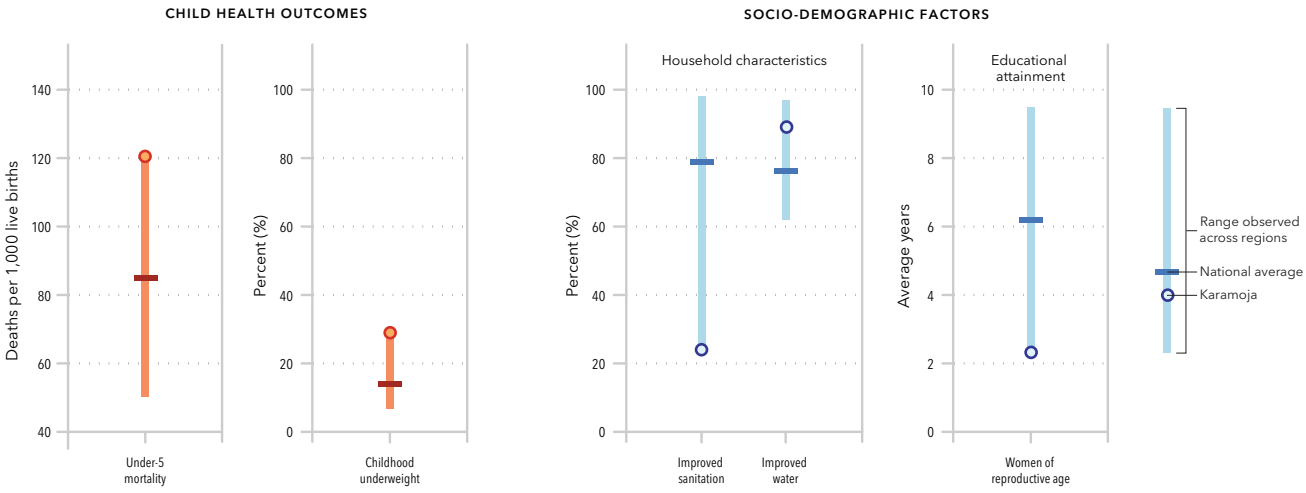
SUMMARY

All-cause under-5 mortality in Karamoja substantially declined between 1990 and 2005, but progress stagnated from 2005 to 2011. The proportion of children who were underweight was consistently well above the national trend over time. In 2011, Karamoja's under-5 mortality and prevalence of underweight were among the highest in Uganda, emphasizing the region's need to further prioritize improving child health outcomes.

The scale-up of ITNs and receipt of ACTs occurred quickly in Karamoja, slightly exceeding the national averages for these malaria interventions in 2011. Except for polio immunization coverage, the region recorded higher levels of immunization coverage than the national average across childhood vaccines; in fact, Karamoja had one of the highest levels of pentavalent vaccine coverage in the country for 2011. Exclusive breastfeeding steadily increased over time, rising to among the highest levels in the country by 2011, whereas the region persistently showed low coverage of skilled birth attendance.

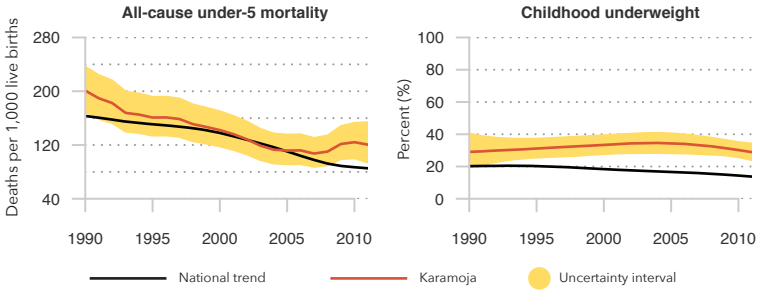
The region documented gains in the proportion of households with improved water sources, which were largely driven by heightened availability of public boreholes. Nonetheless, Karamoja continually had some of the lowest levels of households with access to improved sanitation, as well as educational attainment among women of reproductive age in Uganda.

In 2011, Karamoja generally equaled or exceeded the national average across interventions, with skilled birth attendance as the primary exception. For socio-demographic factors, the region largely fell well below the national average; the region's proportion of households with access to improved water sources was the main exception. In comparison with the national average, Karamoja showed much higher levels of under-5 mortality and childhood underweight.



Note: Estimates of child health outcomes and socio-demographic factors are for 2011. Better performance is shown by lower levels of child health outcomes and higher levels for socio-demographic factors.

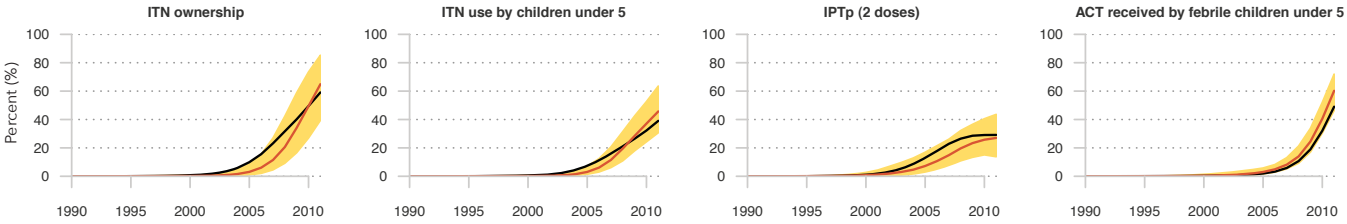
CHILD HEALTH OUTCOMES



From 1990 to 2011, the region of Karamoja recorded a significant reduction in all-cause under-5 mortality, dropping 40% from 201 deaths per 1,000 live births in 1990 (95% CI: 169, 236) to 121 in 2011 (95% CI: 94, 154). Despite this progress, it is important to note that the region's annual reductions in under-5 mortality stalled between 2005 and 2011, plateauing in contrast with the national trend's downward trajectory. In 2011, Karamoja's under-5 mortality remained well above the national average of 85 deaths per 1,000 live births (95% CI: 79, 93), and was among the highest levels of under-5 mortality in Uganda.

The proportion of children who were underweight in Karamoja steadily increased from 29% in the early 1990s to 35% in 2003 (95% CI: 28%, 41%). Childhood underweight remained at 35% through 2004, after which prevalence gradually decreased to 29% in 2011 (95% CI: 24%, 34%). This level of childhood underweight far exceeded the national average of 14% (95% CI: 12%, 15%), and was among the highest in Uganda for 2011.

MALARIA INTERVENTIONS



ITN ownership remained below 10% until 2007, after which coverage rapidly rose to 65% in 2011 (95% CI: 39%, 85%). This level of ITN ownership was higher than the national average of 59% in 2011 (95% CI: 36%, 79%).

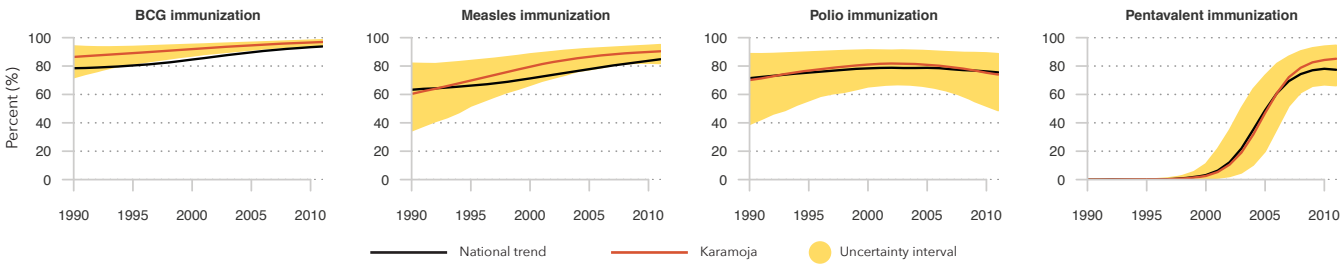
The use of ITNs by children under 5 years old increased from 11% in 2007 (95% CI: 6%, 21%) to 46% in 2011 (95% CI: 31%, 64%). This level of ITN use exceeded the national average of 39% in 2011 (95% CI: 27%, 53%). In this region, the difference between ITN ownership and ITN use by children under 5 (19 percentage points) was comparable to what was observed at the national level (20 percentage points).

No districts in the region of Karamoja had formally implemented IRS as of 2011.

ACTs formally became Uganda's first-line treatment for uncomplicated malaria in 2006, and the proportion of children in Karamoja who received ACTs in response to experiencing a fever rapidly increased thereafter. Receipt of ACTs among febrile children under 5 rose from 14% in 2008 (95% CI: 9%, 21%) to 60% in 2011 (95% CI: 46%, 72%), which was higher than the national average of 49% (95% CI: 34%, 65%). The region's quick uptake of ACTs, especially given its high levels of malaria transmission, is quite notable.

The proportion of pregnant women who received IPTp2 remained below 10% until 2006, after which coverage steadily rose to 27% in 2011 (95% CI: 14%, 44%). This level of IPTp2 coverage was comparable to the national average of 29% (95% CI: 15%, 50%).

IMMUNIZATIONS



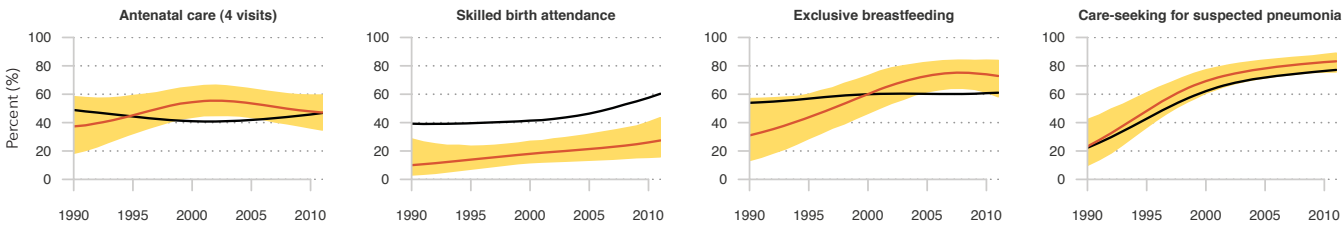
The proportion of children who received the BCG vaccine increased from 86% in 1990 (95% CI: 72%, 94%) to 97% in 2010 (95% CI: 94%, 98%). This level of BCG immunization was sustained through 2011, exceeding the national average of 94% (95% CI: 89%, 97%) and rising to among the highest in Uganda in 2011.

Measles immunization substantially escalated in Karamoja, rising from 60% in 1990 (95% CI: 34%, 82%) to 90% in 2010 (95% CI: 82%, 95%). Coverage remained at 90% through 2011, which was higher than the national average of 85% (95% CI: 75%, 91%). Karamoja's progress in elevating measles immunization coverage since 1990 is particularly laudable.

Coverage of polio immunization remained relatively consistent from 1990 to 2011, generally hovering between 70% and 80% during this time. In 2011, polio immunization coverage was 74% in Karamoja (95% CI: 49%, 89%), which was comparable to the national average of 76% (95% CI: 52%, 90%).

The pentavalent vaccine was formally introduced in Uganda in 2002, after which coverage in Karamoja rapidly increased from 32% in 2004 (95% CI: 10%, 64%) to 85% in 2011 (95% CI: 66%, 95%). This level of coverage far exceeded the national average of 77% (95% CI: 51%, 92%), and was among the highest in Uganda for 2011.

MATERNAL AND CHILD HEALTH INTERVENTIONS



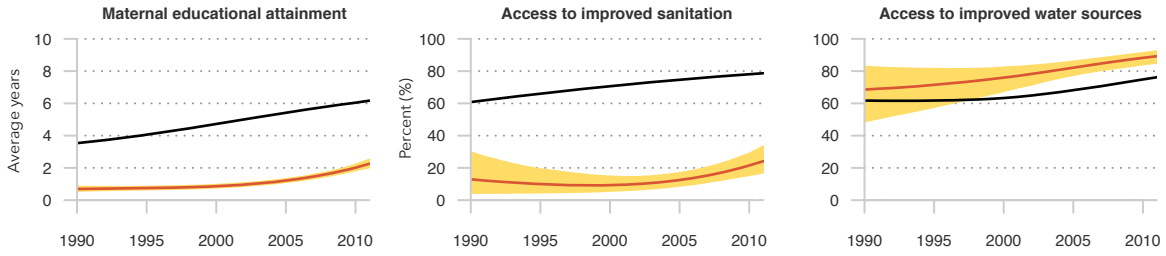
ANC4 coverage gradually increased from 37% in 1990 (95% CI: 18%, 58%) to 55% in 2001 (95% CI: 45%, 66%). Coverage remained at 55% through 2004 before slipping to 47% in 2011 (95% CI: 35%, 59%), equaling the national average for that year.

Skilled birth attendance rose from 10% in 1990 (95% CI: 3%, 28%) to 27% in 2011 (95% CI: 16%, 43%), but was well below the national average of 60% (95% CI: 47%, 73%) and was among the lowest in Uganda in 2011. The region's consistently low levels of SBA coverage from 1990 to 2011 warrant further attention.

The proportion of children who were exclusively breastfed steadily increased from 31% in 1990 (95% CI: 13%, 57%) to 75% in 2007 (95% CI: 64%, 84%). Coverage remained at 75% through 2009, after which exclusive breastfeeding dipped to 73% in 2011 (95% CI: 58%, 84%). This level of exclusive breastfeeding exceeded the national average of 61% in 2011 (95% CI: 54%, 67%), and was among the highest in Uganda for that year.

Serving as proxy for health system access, the proportion of children under 5 who sought care for suspected pneumonia escalated from 23% in 1990 (95% CI: 10%, 42%) to 83% in 2011 (95% CI: 76%, 89%). This level of health-care-seeking behavior was sustained through 2011, exceeding the national average of 77% (95% CI: 76%, 78%).

SOCIO-DEMOGRAPHIC FACTORS



Among women of reproductive age (15 to 44 years old) in Karamoja, the average years of education attained more than doubled between 1990 and 2011, rising from 0.7 years in 1990 (95% CI: 0.6, 0.8) to 2.3 years in 2011 (95% CI: 2.0, 2.5). This level of educational attainment was dramatically lower than the national average in 2011, which was 6.2 years (95% CI: 5.9, 6.4), and was among the lowest in Uganda. Given the association between gains in women's educational attainment and reductions in under-5 mortality, Karamoja would likely benefit from addressing its persistently low levels of education among women of reproductive age.

Household access to improved sanitation (a flush toilet or covered pit latrine) remained around 10% until 2004, after which improved sanitation increased to 24% in 2011 (95% CI: 17%, 33%). Nonetheless, this level of improved sanitation was far below the national average of 79% (95% CI: 76%, 81%) and was among the lowest in Uganda for 2011. The region's persistently low availability of improved sanitation warrants further attention.

Karamoja recorded gains in household access to improved water sources (e.g., piped water, protected wells, protected springs), rising from 69% in 1990 (95% CI: 49%, 83%) to 89% in 2011 (95% CI: 85%, 92%). This level of improved water access was much higher than the national average in 2011, which was 76% (95% CI: 73%, 79%). It is important to note that most of these gains were driven by increased access to public boreholes located within communities, and not necessarily at households.