**Background and Aims:** Hepatitis B is the leading cause of cirrhosis and hepatocellular carcinoma in sub-Saharan Africa. To achieve WHO targets of reducing mortality by 65% by 2030, antiviral treatment programmes are needed. Epidemiological data are required to inform an effective public health response and anticipate treatment needs.

**Method:** Infant HBV vaccination began in Malawi in 2002. We conducted a census and serological survey in Blantyre in 2016-18. We selected individuals from the census for serosurvey participation by probability sampling. We estimated HBV prevalence using post-stratification proportional fitting to census age-sex distribution. HBsAg-positive participants were evaluated for treatment eligibility. We estimated vaccine impact by comparing HBsAg prevalence of individuals born 5 years before and after vaccine implementation.

**Results:** Of 97,386 censused individuals, 6,073 were sampled in the serosurvey and tested for HBsAg. HBV prevalence was 5.1% (95% CI 4.3–6.1) among adults and 0.3% (0.1–0.6) among children born after vaccine introduction. Three-dose vaccination coverage was 97.4% (1141/1172) in children ≤10 years. Vaccine impact was 95.8% (70.3- 99.4). Treatment eligibility was assessed in 94/150 HBsAg positive adults, among whom 24 (26%) were HIV positive and 16/24 (67%) were receiving tenofovir-containing antiretroviral therapy. Among 69 HIV negative individuals, 2%, 6% and 9% were eligible for treatment by WHO, EASL and AASLD criteria respectively. Projected to the national population, 25586 (95% CI 7172- 65519) people will require HBV treatment by EASL criteria.

**Conclusion:** In an urban township in Malawi, HBV prevalence was 5.1% among unvaccinated adults and infant HBV vaccination was associated with a vaccine impact of 96%. Among HBsAg-positive adults, one quarter were HIV-positive and 3-9% of HIV-negative adults required antiviral therapy.