Modelling the impact of early HIV treatment on the HIV and TB epidemic in South Africa

This study deals with HIV antiretroviral treatment (ART) in South Africa. The study starts by proposing a novel mathematical model, which was analysed and fitted to HIV historical data in South Africa. The model was then used to project the impacts and costs of various levels of ART scale-up. To assess some of the challenges that ART scale-up faces, the proposed model was further extended to account for access to treatment, dropout from treatment and treatment failure. The model was used to assess the impact of these three factors on the effectiveness and cost-effectiveness of ART scale-up in South Africa.

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