

## **Appendix 1**

To inform discussions about ways to drive efficiency in HIV prevention and treatment, we conducted a narrative literature review of the formal peer-reviewed and grey literature with a specific focus on recent literature published between 2015-2020. The literature search strategy was developed by the research team in consultation with a Duke University librarian (shown in Table 1 below). We applied the search strategy using Boolean search terms across three databases: PubMed, EMBASE and Web of Science, to identify relevant articles from peer-reviewed literature. A total of 9,545 articles were identified from the databases. After removal of duplicates, 3,340 abstracts were reviewed for relevance and 3,116 studies were found to be irrelevant at the title and abstract screening stage. 224 articles were fully assessed, out of which 49 articles were included in the synthesis. To identify relevant articles and reports from the grey literature, a Google search was conducted using the same search terms, and applied to the websites of major organizations such as UNAIDS, PEPFAR, Global Fund and the World Bank.

The team identified several inclusion criteria to determine eligibility of articles included in the report. First, all articles needed to be HIV-focused. Second, studies should have reported on a form of financing efficiency. Studies that only focused on clinical effectiveness of interventions without reporting financing efficiency were excluded from the review. Third, only studies that focused on low- and middle-income settings were included. Study protocols and clinical trials were excluded from the scope of the review.

*Table 1: Literature search strategy*

Key words	
<b>Terms 1</b>	"Acquired Immunodeficiency Syndrome" OR "HIV Infections" OR HIV OR "human immunodeficiency virus" OR AIDS OR "acquired immune deficiency syndrome"
<b>Terms 2</b>	"Economics" OR "Cost Savings" OR "Cost-Benefit Analysis" OR "economies of scale" OR "economies of scope" OR "integrated delivery" OR "integrated intervention" OR "financial" OR "costs" OR "value for money" OR "optimal resource allocation" OR "optimization" OR "resource analysis" OR "intervention" OR "policies" OR "service delivery" OR "operational capacity" OR "cost utility" OR "value for money" OR "model" OR "modeling" OR "budgets" OR resources
<b>Terms 3</b>	"efficiency" OR "efficient" OR "efficiently" OR "effective" AND "technical" OR "productive" OR "allocative" OR "implementation" OR "financing" OR "program" OR "programme"