The Institute for Health Metrics and Evaluation (IHME) has conducted CAPI surveys in 20 countries assessing the operations and performance of health facilities. A multi-pronged approach to data collection is used. IHME's health facility survey modules target a variety of records and sources within establishments to collect data on infrastructure, personnel, supplies and equipment, finances, and services performed. Additional surveys are also fielded concurrently, including alternate data sources within the facilities' patient and catchment populations. Patient exit surveys are administered to assess patient perspectives and demand-side factors. Medical chart extractions and blood draws are also performed at facilities in order to collect data on patient health outcomes. Additionally, we take the unique approach of conducting complementary household surveys such that barriers to care can be identified through comprehensive models including both supply and demand-side factors. The process of data linkage and benefits of conducting complementary data collection alongside establishment surveys is presented utilizing an example of a constraints analysis in Uganda.