A WEB-BASED DECISION SUPPORT INTERFACE FOR THE ASSESSMENT OF PHYSICAL ACCESS TO HUMANITARIAN SITE LOCATIONS

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Humanitarian interventions often occur in environments with limited transport infrastructure and challenging terrain. In these contexts — where people may travel hours or days to reach services — evaluating access to services in terms of travel time is crucial. This helps identify service gaps and can aid in the identification of future site locations. Example services include health clinics, vaccination points, shelters, water and sanitation points, and distribution centres.

In this talk, we present a web-based decision support interface that MSF UK/Ireland is developing for these purposes, leveraging an advanced accessibility model. The interface automates data collection and processing, providing realistic travel time estimates that almost anyone can use. Alternative tools for such analyses require specialised expertise and data, making them inaccessible to many humanitarian decision-makers.

The platform can simulate service accessibility "shocks" from natural disasters or political events that impact travel behaviour, by assessing pre- and post-event accessibility. This also provides the opportunity to assess and plan for travel disruptions caused by potential future climate change scenarios. We discuss how gravitational factors such as site popularity and capacity can be incorporated in future for more nuanced analyses