

Viral spillovers have been at the center of recent pandemics including SARS, COVID, H1N1, and Mpox as viruses jump species and gain function through multiple species interactions. This paper describes the use of group model building to facilitate a meeting of a *Lancet* commission in June 2025 in Pretoria, South Africa focused on transdisciplinary action to limit future spillovers and mitigate the frequency of future global pandemics.

The group model building activities following a CBSD approach were embedded within a four-day *Lancet* commission meeting in Pretoria, South Africa, initially as a set of 4 two-hour facilitated exercises based on existing group model building scripts (Hovmand *et al.*, 2012). The selection of scripts was based on the preliminary systems mapping work from the nine case studies and integrated into the meeting through a series of planning meetings with the co-chairs of the *Lancet* commission.

Results highlight the role of shifts in the boundary objects to collaboratively develop system insights and identify policy framing of interventions categorized by potential leverage points using Meadow's framework.

This paper highlights some of the factors we may have been missing and brings insights into how one might go about systematically studying and finding generic structures as part of a larger program of research. Prior effort to map these cases and additional efforts to synthesize results were arguably critical to establishing the preconditions or readiness for the commission to maximize the potential transdisciplinary benefits of group model building activities.