

Network analysis to evaluate immunization partnerships: a Gavi Full Country Evaluations Methods Brief

What is the Gavi Full Country Evaluation?

Gavi FCE is a four-year, prospective evaluation in Bangladesh, Mozambique, Uganda and Zambia. FCE covers all streams of Gavi vaccine and cash grant support from decisions to apply to the routinization and impact of vaccines. The methods presented here constitute one part of our mixed-methods, prospective process evaluation approach.

What is network analysis?

Social network analysis (SNA) is a set of approaches and tools to measure social structure, or networks. Networks are composed of people or organizations (nodes) connected by social relationships (ties). A network's structure informs its performance: for example, as a network grows in size it will become difficult to coordinate; or, as a network adds more distinct and diverse members, it will open itself to new ideas and innovations.

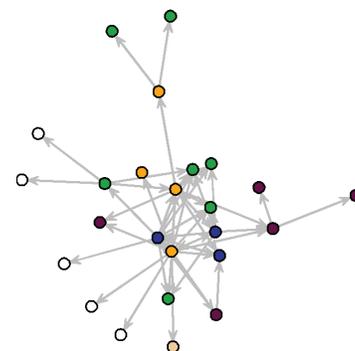


Figure 1. Zambia HSS application network, TA relationships

Network analysis contributes to the FCE's evaluation of immunization partnerships.

Examples of network analysis in the FCE

Country, year	Networks measured	Relationships measured
Uganda, 2014	HPV vaccine application network	Working together, information exchange
Uganda, 2016	HSS application network	Working together, technical assistance, information exchange
Bangladesh, 2015	HSS application network	Working together, technical assistance
Zambia, 2015	HSS application network	Working together, technical assistance
Mozambique, 2015	HSS implementation network, HPV demonstration project network, new vaccine introductions,	Working together, technical assistance

What we measured

FCE teams embed network analysis in the larger process evaluation approach, typically administering network surveys during in-person key informant interviews (KIIs). These surveys ask a respondent about their relationships (working together, information sharing, etc.) for a specific process or activity, such as a Gavi application, and each individual named is approached for a survey. The FCE teams use the resulting list of relationships to construct and analyse the networks. We leverage the qualitative data from the key informant interviews to add richness and depth to the network data.

Network surveys have been well-received by respondents in the FCE countries and results have the potential to inform how health ministries manage their health partnerships.

Example 1. In FCE countries, immunization partnerships are larger and more diverse than expected

Gavi works through its Alliance, or partnership model, to achieve its objectives. While many stakeholders assumed that in-country partnerships would consist primarily of EPI programmes working with WHO and UNICEF, the FCE’s empirical mapping of the partnerships show a more diverse network of actors, which can be used to inform the identification of Gavi technical assistance providers, for example. During Uganda’s HPV vaccine application process, the FCE team identified seven different organizations outside of the Ministry of Health and a total of 39 actors.

Example 2. Mozambique’s immunization programme manages and coordinates a high volume of relationships

One of the key findings of the 2015 FCE report is that immunization programmes, and particularly their managers, face a high burden of work related to grant applications, monitoring, reporting, and partner coordination. While partnerships could distribute this workload, in principle, we do not observe this to be the case in practice. Figure 2 shows the centrally located EPI manager in blue, who must manage relationships with many other actors.

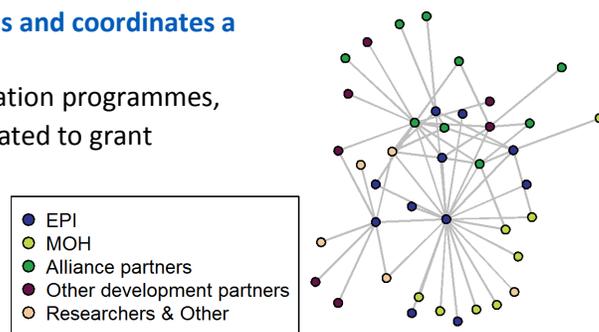
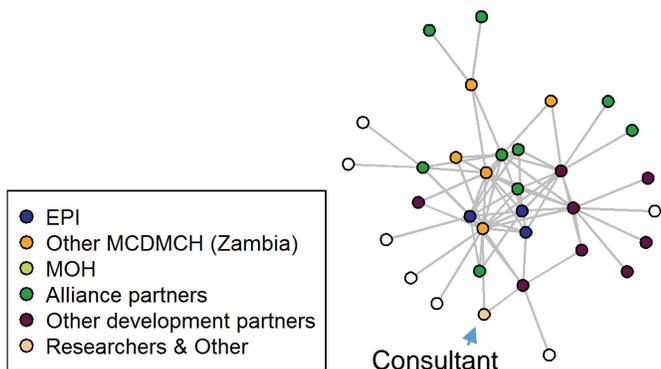


Figure 2. Mozambique new vaccine introduction network, working together relationships

Example 3. HSS application consultants are not typically located in a structural (network) position to effectively exchange information needed for a high quality application

In Zambia, the FCE team observed that the consultant for the Gavi HSS application submission was positioned at the margin of the network (Figure 3), supporting other evidence from Zambia that this individual might not have had access to the necessary information and local knowledge to support a successful submission (the first submission was unsuccessful, but the second submission was recommended for approval by the Gavi Independent Review Committee).



How does SNA fit into the larger FCE evaluative framework?

- SNA is one approach in the FCE’s process evaluation toolkit, which includes prospective process tracking, participant observation, document analysis, key informant interviews, and root cause analysis. Together, these tools aim to understand *why* we observe the immunization programme outcomes that we do
- The integration and synthesis of network approaches and findings are but one example of the strength of the FCE’s mixed methods approach

Where can I learn more?

- Read about our network findings in the 2014 and 2015 dissemination reports at www.pathfce.org
- Watch www.pathfce.org for a forthcoming peer-reviewed paper on the FCE’s use of partnership and network analysis