Social Network Analysis Handbook

Connecting the dots in humanitarian programs

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Introduction

Social networks exist wherever people are connected: within organizations, communities, between clients and service providers, within markets, and even within and between conflicting parties. Put simply, a social network is made up of a number of actors[1] who are connected by some type of relationship.[2] Social network analysis (SNA) is the process of mapping these relationships, and analyzing the structure of the network and the influence of different actors. The following handbook is designed to provide a step by step guide to the application of SNA for the IRC. It has been developed by the Context Adaptability initiative in close collaboration with the IRC teams in Sierra Leone and Myanmar and with valuable contributions from the IRC's Technical Units. The approach draws on Social Network theory, discussion-based tools, such as Net-Map,[3] and graphical software applications, such as Kumu. For support in undertaking social network analysis please contact: **jonathan.beloe@rescue.org**; t**obias.metzner@rescue.org**; or **wale.osofisan@rescue.org**

Why and when should I conduct a SNA?

SNA is valuable for better understanding:

i) which actors are involved in a network;

ii) how they are linked;

iii) how influential each actor is;

iv) what their motivations are; and

v) how the network is structured.

This information can enable:

i) better informed project design;

ii) client / partner input in project design and/or evaluation;

iii) partner / stakeholder mapping;

iv) the development of advocacy strategies;

v) informed program transitions; and

vi) programming in a conflict sensitive manner.

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[1] Actors may be individuals, organizations, or groups of people.

[2] Relationship types may include: financial flows, information flows, lines of authority, friendships, conflict, kinship ties, among others.

[3] See https://netmap.wordpress.com

The SNA Process

The SNA process can be broke down into three discrete steps: **1) preparation**, **2) network mapping & analysis**, and **3) action planning**.

Step 1: Preparation

1.1 Define the challenge or opportunity to be investigated

SNA is most useful when a clear and focused question guides the analysis. The following formula may help to guide the development of an appropriate question:

Who can influence (subject) + (geographic boundary) + (time horizon)?

> **Specific questions are the key to focused analysis:** In the Myanmar pilot the team devised the following question: 'Who can influence access to quality health services for pregnant women and children under 5 in Loikaw township in the next twelve months?'

1.2 Identify the participants and modalities of the workshop

The quality of the social network map and analysis will only be as good as the knowledge of the participants involved, their willingness to engage, and their capacity to analyze the situation. It is suggested that a range of stakeholders with different perspectives be involved in the analysis. Engagement with clients, partners, and local authorities is encouraged. Depending on the sensitivities and/or logistical arrangements, it may be advisable to split the workshop into two or more parts potentially in different locations. Analysis of influence and power can be sensitive and therefore attention should be given to enabling all participants to contribute freely. Workshop group size should ideally be between 6 and 12 people to ensure a range of perspectives and enable all participants to contribute.

1.3 Consider how much time you want to invest in Social Network Analysis

In order to undertake to develop a social network map, analyze it and develop an action plan it is recommended that a full day is set aside for a workshop. Once participants understand the approach, SNA can be undertaken in half a day or less.

> **SNA doesn't have to be time consuming:** After being trained, the Myanmar team developed a social network map in 1 hour and 45 minutes. It then took them a further 15 minutes to develop a digital map analysis.

1.4 Identify a facilitator and, if needed, an interpreter

The SNA is not complicated. However, it is important to have one person facilitating the process. A half day training package has been developed for those interested in facilitating SNA. Please contact jonathan.beloe@rescue.org for more details.

The chosen facilitator will guide participants through the process steps, ask probing questions, keep the group to time, and ensure everyone is able to participate. Ideally this individual would be detached from the specific project / research question, but someone who has been briefed on the issues at hand. Where the issue is sensitive, then someone trusted by participants would be more appropriate. Within any group there will be power dynamics, be they based on gender, age, status, ethnicity, or something else, for the facilitator to be aware of. In so far as is possible the facilitator should seek to empower those who are marginalized within the discussion.

> **You don't have to be an expert to be an excellent facilitator:** After receiving a half day training two IRC managers in Sierra Leone brilliantly facilitated social network analysis with two community groups. They have gone on to use this tool on a number of occasions.

1.5 Identify a note-taker to capture key issues, actions, and create a digital map
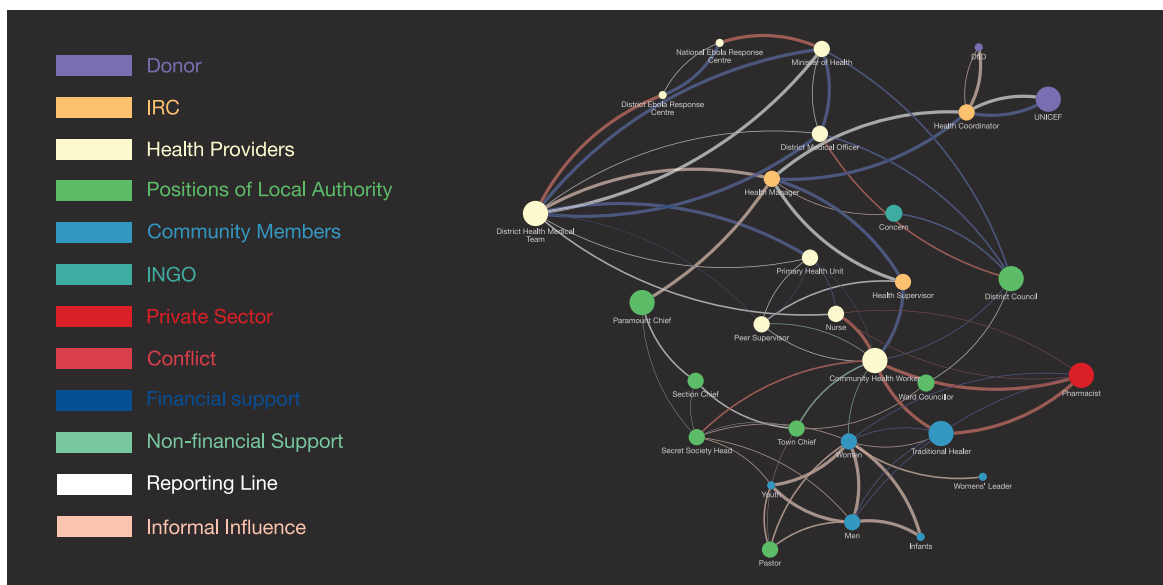
The importance of having a designated note-taker cannot be over stated. This person's role will be to ensure that important findings and action points are captured. The note-taker will also be responsible for recording all of the actors and connections in the separate excel SNA data sheet. By doing this the team will be able to take their paper-based map developed during the workshop and easily transform it into a digital map or presentation. The key actions required of the note-taker are detailed in this guidance note.

1.6 Secure Resources

The following resources will be needed:
> a venue with enough space for participants to move around;
> large flip chart sheets (two sheets per map and plenty of sheets for action planning);
> a set of 5 differently coloured marker pens for drawing links;
> Tipex (correction fluid), just in case you make a mistake;
> post it notes (ideally the mini versions) in as many different colours as you can access;
> flat round stackable discs for building influence-towers (checker pieces are ideal); and
> a camera (or phone) to take photos of the map as it is developed and any action plans.

Step 2: Network Mapping and Analysis

The development and analysis of the network map are concurrent processes. Much of the analysis will happen while the network map is being developed and will likely inform iterative changes to the map. Examples from the Sierra Leone pilot will be used to illustrate the steps. However each SNA will necessarily look quite different.

Under step one the Sierra Leone team chose to investigate: *'Who can influence the effectiveness and sustainability of community health workers in Tonkolili district over the next 12 months?'*

2.1 List, categorize, then position the actors (30-60 mins)

The first task is for participants to list all of the actors (individuals, groups, or organizations) that participants consider could have, or already have, some level of influence over the issue identified. Participants should answer the question: **Who can influence…(the issue identified)?** Once the list is exhausted, group the actors into different categories and assign each category a colour of post-it note. Participants should determine and define the most appropriate categories based on the actors they have identified. These could be by function, organization type, ethnic group, etc.
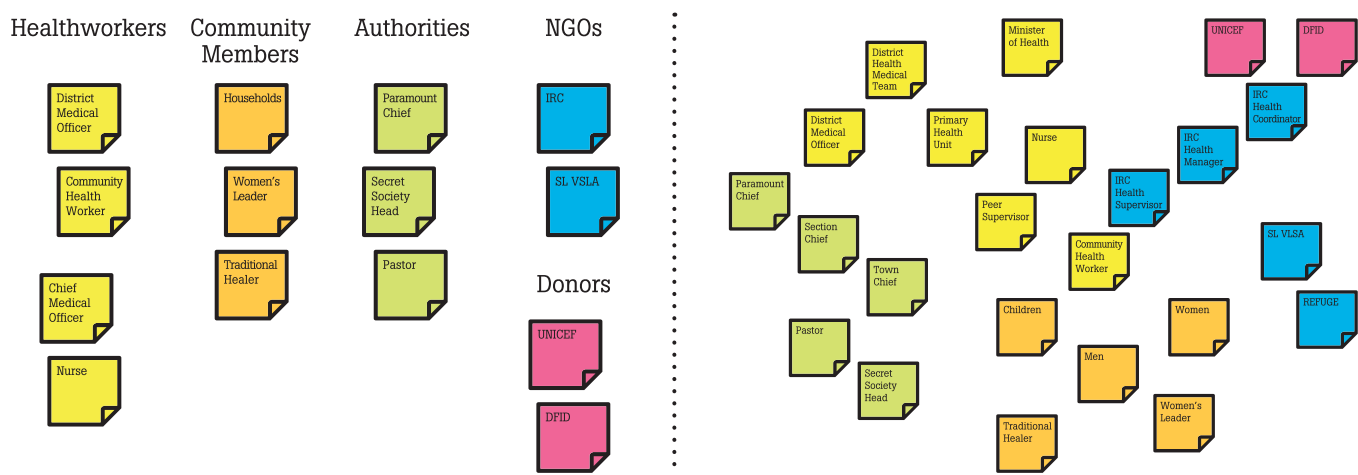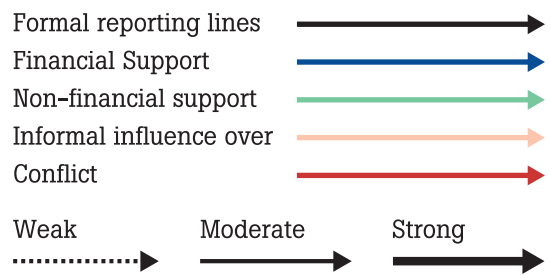

> **Note-taker:** Record the actors ('elements' in data import sheet) and their category (type) in the SNA data sheet along with any important issues that the participants identify.

The next step is to place each of the actors (post-it notes) on a horizontally positioned flip chart sheet. You may wish to use two flip chart sheets joined together to give you more space. The actor or actors who are the focus of the question (community health workers in the example) should be placed at the centre, with other actors positioned closest to those with whom they have most connections. It is important to give sufficient space between the actors to allow for connecting lines to be drawn between them. As actors are positioned, it is likely that certain actors will be grouped together or divided into more specifics component parts: e.g. 'households may be divided into 'women', 'men' and 'children,' or 'IRC Sierra Leone' may be divided into key actors within the organization.

2.2 Relationship Mapping (60-90 mins)

There are many different types of relationship or connections that can be mapped on a social network. Connections can be formal (e.g. reporting lines), informal (e.g. friendship or conflict), resource flows (e.g. financial, in kind support, drug provision or corruption) or informational (e.g. giving/ receiving advice or the flow of data).

Sierra Leone Legend

Formal reporting lines →
Financial Support →
Non–financial support →
Informal influence over →
Conflict →

Weak ·····> Moderate → Strong →

It is suggested that a maximum of five types of connection are identified, preferably fewer, so that the map doesn't become too complicated. It is important to be specific regarding the type of connection that you are mapping. If the definition of the connection is vague, or differently understood, then the network map could become confused. It is therefore important to check what participants understand by the term defining the type of relationship. Each connection type should be allocated a line colour and this made clear in a legend on the flip chart. Connections can be weak (dotted line), moderate (single line), or strong (thick line).

Once the types of connection to investigate have been agreed, participants can start to identify the connections that exist between actors by asking the question: **How are these actors linked?** As connections are identified participants draw lines between actors. Connections can be one way (e.g. reporting line) with an arrow to show the direction of the relationship or twoway with arrows at either end (e.g. conflict).

> **Note-taker:** The different types and strengths of connection should be recorded in the SNA data sheet along with any important issues that the participants identify, for example the reasons for particularly strong or weak connections.

Sierra Leone Network Map
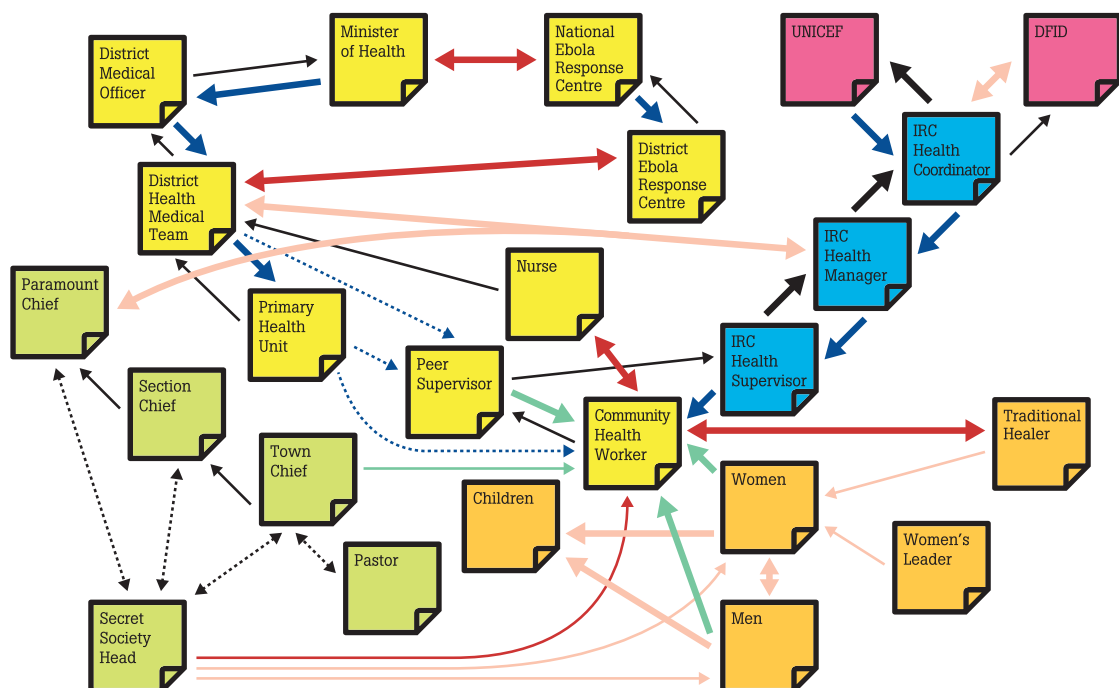
2.3 Examine Influence

The influence each actor has over the specific question is assessed by asking the question: **How influential is…(actor) in relation to…(issue)?** Their influence is ranked by the number of counters that they are assigned; the higher the tower the more influential. The following scale is recommended:

0 – 1 = no/low influence,

2 – 3 = moderate influence,

4 – 5 = high influence.
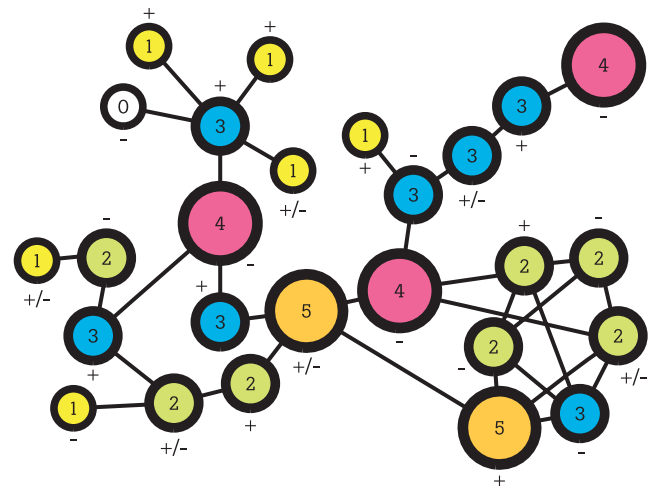
It is important that the assessment is based on how / whether they influence the specific issue, rather than an assessment of their general power. The level of influence an actor has maybe affected by a number of factors, for example whether they have influence over a large number of actors, or perhaps a few key actors, whether they control resources, or have decision making power that affects the situation.

After the influence levels of all actors have been identified, participants ask why specific actors are deemed influential and others not. This will generate important discussions and also help to review whether the levels assigned are correct or if the group feels that these need to be adjusted. Participants then decide whether the influence of each actor has a positive, negative, indifferent, or mixed effect upon the specific issue. They label their post-it note with: + (for positive), - (for negative), or +/- (for mixed/indifferent) accordingly.

> **Note-taker:** As the actors influence level and motivation towards the issue are discussed these should be recorded in the SNA data sheet.

Once all actors' influence and motivations have been assigned participants can choose to develop an **influence and positivity grid**. This is not required, but may help the group to assess who the champions are to work with are (those who are positive and influential), where the risks lie (those who are both negative and influential), and how you can start to build coalitions of support or strategies to mitigate the negative influence of specific actors. Once the grid is developed, it is encouraged that you develop strategies for engagement with each.
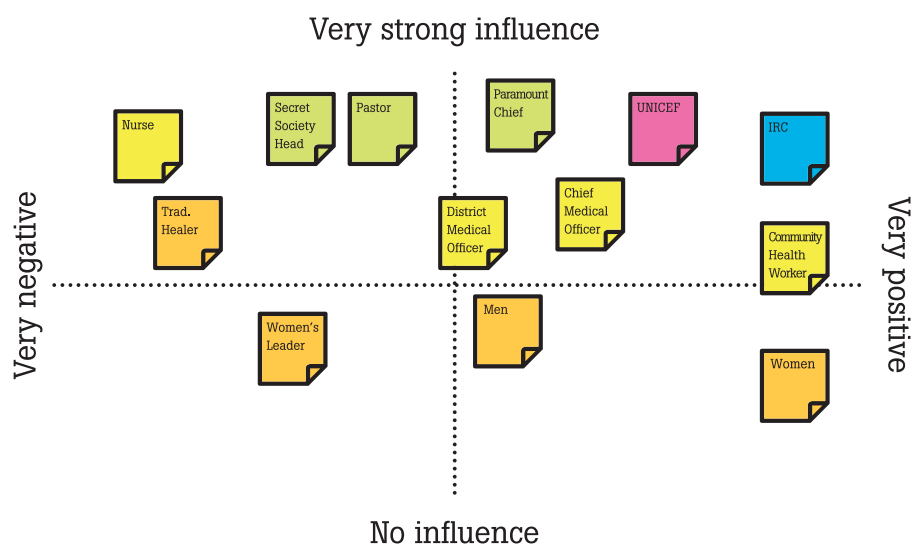
2.4 Analyze the network

To understand social networks it is not only important to analyze the relationships between actors, but to also consider their location within the network and the overall structure of the network. The following questions may help to analyze the structure of the network:

A) Are there any actors with a high number of connections?

B) Are there any actors that appear peripheral to the network?

C) How centralized or interconnected is the network?

D) Are there any fault lines between or separate parts of the network?

E) Are there any actors that link significant parts of the network together?
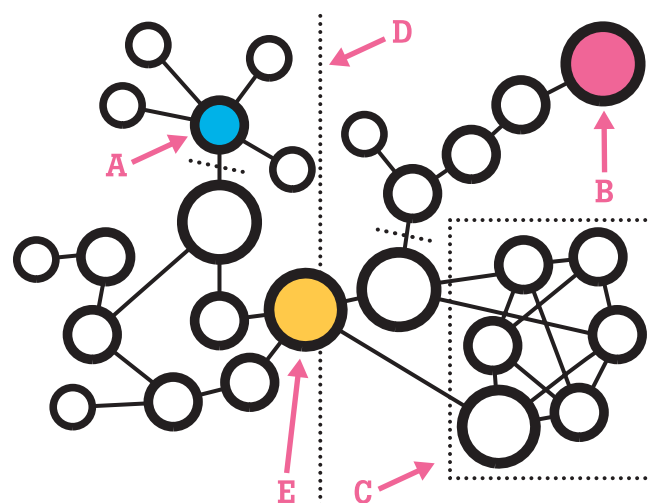
In trying to **manage and mitigate risks** the following are common issues to look out for in your network:

Dependency: The network maybe highly dependent on a single actor or a funding source, which can create bottlenecks and sustainability concerns.

Dysfunctional / conflicting relationships: There may be certain key broken relationships which impede the entire network. New actors or interventions can also introduce conflict for resources or control.

Marginalization: Certain actors or groups of people may be excluded or marginalized within the network, perhaps owing to gender, ethnicity, status, income or other factors. Analysis of the reasons behind the structure of the network may help to uncover the reasons for marginalization and how best to overcome it.

Disincentives for change: Certain actors may have disincentives to support the proposed change and may try to actively oppose it. Pay particular attention here to how the intervention would change resource flows or change the levels of influence of each actor.

Like-me relationships: You may notice that actors (people / groups) who share certain attributes, such as gender, age, education, ethnicity, religion, status, tend to have many 'like-me' relationships and fewer relationships with people different from themselves. This is a common pattern in many networks. It may be worth considering how this affects the specific issue and how to overcome it.

Structural challenges: Structural risks may include an overly centralized network or a structural split within the network.

The Sierra Leone team identified risks at the community level related to the disincentive of pharmacists, traditional healers and secret society heads to support community health workers, who represented a threat to their livelihoods and status.

In trying to **capitalize on opportunities** the following are common issues to look out for in your network:

Critical relationship building: There may be some very simple wins that you identify during development of the network map. For example, you might identify two actors who are positive and have influence, but these champions may not be connected. Facilitating relationship building between key actors may prove beneficial.

Tap into under-utilized support: You may identify actors within the network who are very positive about the change you seek to bring about, but who have not been given a role or sufficient voice within the proposed intervention. Give voice to these 'champions' and empower them to play a more central role.

Building networks within the network: There may be the potential for coalition building to raise the voice and influence of those who are positive about the proposed change. This can be done through more formal partnership arrangements or could be through organizing events to give a platform to those who share your ambitions.

The Sierra Leone team identified opportunities to build important relations between traditional and administrative leaders and health services providers to better coordinate support for community health workers.

2.5 Network scenarios

SNA is useful for analyzing what the network looks like now. It can also be helpful for considering how it might change in the future. Participants may wish to consider how different scenarios would affect the network, for example:

> What would the ideal network look like and how could this be brought about?

> What would happen to the network if conflict were to resume?

> What would happen to the network if funding ended or the IRC transitioned out?

If a funding source ends or key actor leaves, a functional network (A) can quickly break up (B). It is therefore a helpful to consider which relationships to invest in (C).

Legend: ● Donor   ● IRC   ● Local NGO   ● Health Care providers   ● Community authorities

A   B   C
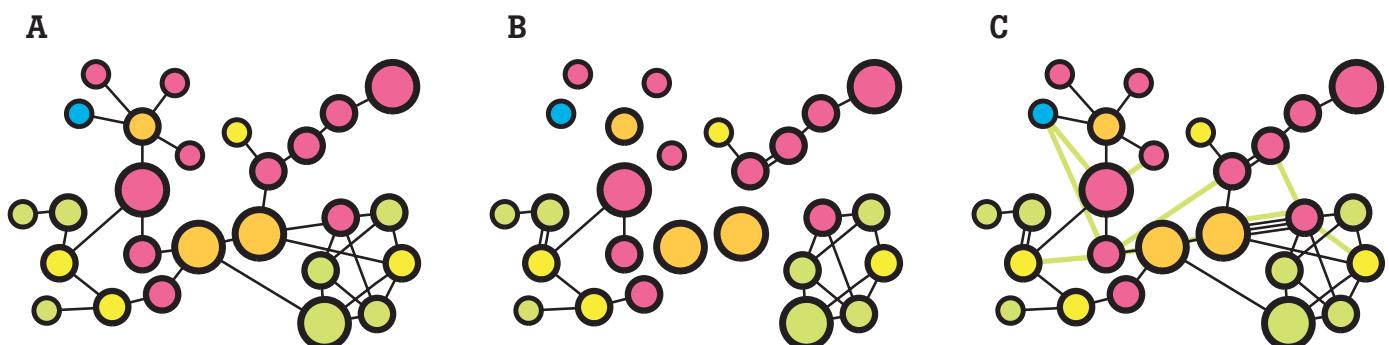
Step 3: Action Planning

There is no one size fits all approach to action planning. The plans developed will need to be tailored to the specific issues identified during the SNA. However, participants may wish to conduct a basic SWOT analysis of the network in order to help inform and prioritize actions. For example:

Strengths: There are a number of influential actors who are positive about the issue.

Weaknesses: There are a number of negative actors who block the action of those who support the issue. There is limited interconnectedness between parts of the network. The issue is dependent on funding from one source and sustainability is questionable.

Opportunities: There is significant untapped positive support with the potential for forming coalitions or formal partnerships.

Threats: The network is highly dependent on a few key actors. If their influence was to wane, or relationships break, the network would be severely disrupted.

Strategies

Once the specific opportunities and risks related to the network have been identified, participants should seek to develop strategies and practical action plans. For example:

> You may see an opportunity to change or extend program activities to capitalize on an opportunity or help realize existing objectives.

> Consider what incentives could be introduced to manage the negative impact certain actors may have on an intervention. You may want to assign specific responsibility to a staff member or partner to manage a problematic relationship.

> Act as a facilitator to improve dysfunctional relationships or to raise the profile / influence of those positive about the intervention.

> Consider changes to partnership arrangements or to the focus of those who IRC engages with, consider how best to challenge inequality and marginalization.

> Consider exit strategies that build the network relationships prior to IRC withdrawing.

The Sierra Leone team identified the need to include activities to mitigate the negative impacts of traditional healers, secret society heads and pharmacists and increase health seeking behavior.

Concluding remarks

Social networks exist wherever there are people. They are inescapable, powerful, and often invisible structures, which change over time and can both block or enable change. SNA is an intuitive and highly flexible process and, as such, can be readily adapted to the particular contextual circumstances and analysis requirements. SNA can increase the effectiveness and appropriateness of our work through a deeper understanding the contextual dynamics in which we work.

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