Author's response to reviews

Title: Integration opportunities for HIV and family planning services in Addis Ababa, Ethiopia: an organizational network analysis

Authors:

  James C Thomas (jim.thomas@unc.edu)
  Heidi Reynolds (heidi_reynolds@unc.edu)
  Christine Bevc (bevc@email.unc.edu)
  Ademe Tsegaye (atsegaye@msh.org)

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Author's response to reviews: see over
1. Explain the role of the dominant types of organizations.

The type of organization was based on how the respondent characterized the type of organization during the interview. We have added information in the Methods and results to make this clearer.

2. What is the role of the government hospital? Explain the large number of patients seen at the government hospital, and whether they were referred through the network. Does the hospital have a good information system capable of accurately reflecting the source of all referrals?

The government hospital in Kolfe Keranyo is a general hospital. It receives patients from the nearby government health centers and private clinics. But it also refers patients to higher (more specialized) hospitals when they get cases who need further services. In Addis Ababa, a general hospital serves a population of 1-1.5 million people; and a comprehensive specialized hospital serves a population of about 3.5-5 million. Although there are some challenges in record keeping and data management, all hospitals are expected to use the HMIS referral register to record all referral cases. There was not a general hospital in Kirkos, only the government health clinics. It is possible that some clients got referred to the general hospital in Kolfe. However, we did choose the sub-cities so that they were geographically separated.

We added this sentence to the Results “The government hospital was a general hospital; there was no government general hospital in Kirkos.”

The private health clinics have to be registered with the government but they are not within government control.

Information about referrals was obtained from what the respondent reported. The main question was whether a particular organization made a referral yes or no to another organization and whether they made referrals for a particular service (yes or no, based on a list). The number of referrals was based on a response to a question about the number of clients received and clients sent in an average month. The answer was provided in terms of “Never,” “less than once a month,” 1-3 times a month,” 4-8 times a month,” or “more than 8 times a month”.

All facilities keep data on the number of referrals. Although there are some problems in record keeping and data management, all hospitals are expected to use the HMIS referral register to record all referral cases. But the information we obtained about the number of referrals was based on the respondent’s report. We have added the following text (underlined) to clarify “Over the course of a month, organizations in Kirkos served fewer clients than the organizations in Kolfe Keranyo (medians of 219 and 1,350, respectively) (where the number of clients served is based on the respondent’s report of the number of clients served per month on average) (Table 2).”
3. What is the range of client numbers? Provide some analysis of why the numbers should be so different.

Within the communities, the distribution of the number of clients reportedly served by the organizations does vary. Organizations in Kolfe reported serving more clients, in addition to the large hospital. Again, double-checking/re-running the numbers at the organization level: In Kirkos, the mean was 726, median 220, with a range from 15 to 8,000. In Kolfe, the mean was 7,754, median 1,350, with a range from 99 to 150,000. We speculate that the presence of the hospital leads to these differences.

We have added a footnote in Table 2 with the range and mean of the client numbers.

4. Explain the roles of the private hospitals.

The two private hospitals serve those in the community who can pay for services. They were included in the network because, when diagnosed with HIV, some patients will opt to obtain free treatment from government clinics rather than pay at the private clinics. Thus, the private hospitals and clinics sometimes refer clients to the government clinics. However, the reverse virtually never happens.

5. To what degree are referrals horizontal versus vertical?

We do not have information about the reason for referrals (i.e., whether they were referred for other services not available at the referring facility or whether they needed more care for their illness).

6. How were referral estimates collected or made by the organizations?

Referral estimates were based on respondent reports. Respondents were usually senior organization representatives. They were allowed to bring into the interview anyone they needed for information. As noted above, we have added more text to make this clear.

7. The possibility that substantial numbers of patients may have been referred from Kirkos to hospitals in Kolfe Keranyo has not been considered.

We do address this in the discussion as a limitation. PLHIV sometimes get services in health facilities far from their place of residence. They do it due to avoid stigma and discrimination by people who may know their status if they find them in the nearby facilities using the HIV related services. We selected Kolfe Keranyo and Kirkos, however, because they are non-contiguous, thereby reducing this limitation.
8. Page 4, first paragraph. Reviewer says, “...little clumsy and unclear...I think this and the para that follows are concerned with how the special interests and agendas of donors tend to fragment delivery leading to vertical interventions, especially when the recipients of funds are not well organized and networked. Whether or not I’m correct in this their argument doesn’t come across clearly. Also: does ‘count-ability’ mean ‘measurability’? And what does ‘marketability’ mean in this context?”

The reviewer’s interpretation is correct. To help clarify: “count-ability” has been replaced with “...ability to measure and count the number and types...”. “marketability” has been replaced with “ability [of a particular organizational] to successfully attract funding”. We have added “international donors” to the list.

9. Page 4, second paragraph. Reviewer says “How is specialization of organizations “manifested in geographical dispersion”? Does this not refer to another form of fragmentation? Please clarify what this means.”

We have reworded the sentence to read “The specialization and fragmentation of organizations is also manifested in geographical dispersion, so that organizations reduce their competition for the same client and/or attract underserved clients.”

10. Page 4 third paragraph. Reviewer suggests “A comment: About organizations coming to see themselves as “a network”: instead of each organization concerning itself about possibly being subsumed into or even bring taken over by a network (as sometimes happens in South Africa), it might be easier to see itself as an integral part of a broader network of providers that has the potential of coordinating efforts to meet the needs of the community in a holistic way, without losing its own identity. This formulation also fits better with the way it is expressed on P 9.”

We have added a sentence “Further, they can see the potential for coordinating their care without the risk of losing their organizational identity.”

11. Page 5: reorder paragraphs to background in Background and methods in Methods.

We moved the 1st paragraph of the methods to the last paragraph of the background. We also edited sentences in the moved paragraph as suggested (“In response to the burden of HIV, the unmet contraceptive needs, and the recognition for better coordination and networking between a broad range of service providers, the Ethiopian Ministry....”)

12. Page 6: clarify the sub-cities

We revised the sentence to read “...living with HIV between the ages 18-49 living in Kirkos or Kolfe Keranyo” (change underlined here)
13. For page 6 reviewer writes “I presume the authors take it as implicit that by private providers they mean for-profit private providers as distinct from private not-for-profit providers, and that the NGOs and FBOs included here are among the latter.”

This is correct. We added the underlined phrase to help “Although considered by many to be a separate network for wealthier patients from the government/public sector network, we learned that private providers would occasionally refer a patient to a public clinic providing free HIV care”. We have also made sure to refer specifically to “private health clinics”

14. Page 7, reviewer suggests “both” instead of “each”.

Change made.

15. Page 8, per reviewer suggestion “in which” is deleted.

Change made.

16. Reviewer asks, What is the role of the communities in shaping referral patterns? Are they largely passive?

The purpose of this article was to introduce the organizational network concept. Although not mentioned in this manuscript, we do have information from a subset of clients of a subset of organizations in the community. Those data will be presented elsewhere. The perspective of the larger community, however, is not included in this study.

In the discussion section where we address limitations we have added a sentence to address this. It is, “Nor do we have information from community members about how they view the organizational network or how their behavior affects the network.”
Reviewer: Ravi Ram

1. Explain why the in-degree and out-degree referrals are identical

   This coincidence intrigued us from the start. We checked the raw data and re-ran the analysis before submitting the manuscript. It really is a case of coincidence in averages. We might also provide some additional values to help indicate variation in the degree measures. For Kirkos, the median indegree was 3, with a range of 0 to 7, and the median for outdegree was 2, with a range of 0-8. For Kolfe, the median indegree was 2.5, with a range of 0 to 23, and a median outdegree of 4, with a range of 1 to 9. For mean degree, in Kirkos, the mean was 5.52, with a median of 5 and a range from 1 to 14. In Kolfe, the mean was 7.76, with a median of 7 and a range from 2 to 32.

   We have added a footnote in Table 3.

2. Broader, more rigorous literature review

   Done.

Abstract

3. Change “private sector” to “commercial or for-profit” sector

   We have changed the terminology to “private health clinic”. This is consistent with the respondents’ descriptions of the type of clinic. We did not verify if they are for profit.

4. Interviewed representatives of the organizations, not the organizations themselves

   Change made.

5. Provide more theoretical background for the uninitiated

   See changes to the Introduction.

6. Indicate the relevance of sharing results with stakeholders.

   In the original text we say “The purposes were to reveal to participants the network they were a part of, to give them an opportunity to comment on the findings, help interpret the data, and discuss how to improve the network connections.” We also say how we provided them with some resources (referral directory) and intend to use the workshop output for future study. Is this sufficient?
Background

7. Broader range of publications cited

   The broader literature review should address this concern.

Methods

8. 1st paragraph belongs in the background.

   Change made.

9. Why were private organizations forced into the network?

   One of the challenges inherent to snowball or reputational sampling is that those who name others all neglect to name someone outside their known network, but who actually is or should be part of it. In our case, the government and NGO network that serves those with low income often exclude for-profit clinics from their thinking altogether. In our preliminary conversations leading to the research design, however, we learned that for-profit clinics and hospitals sometimes refer HIV clients to the government clinics for free treatment. Because of this possibility, we felt they should be considered in the referral network.

10. Describe the excluded organizations

   No organizations meeting our criteria were excluded that we are aware of. Essentially we included all organizations that were named by others in the sub city.


   The two terms are often used interchangeably, but they indicate two different components of data collection. “Interview” refers to the means of data collection (face-to-face or by telephone). It does indicate whether the questions are open-ended or close-ended. “Questionnaire” refers to the structure of the questions, which can be written and self-administered or asked in an interview. Neither term captures both of these elements.

12. No findings were reported from the coded and categorized open-ended questions

   Not in this manuscript, but we intend to in other publications.

13. Use consistent terminology (total degree centrality versus mean degree)

   Thank you for catching this text left over from a previous version. Both terms have been removed from the text and the table.
14. Provide ranges for the network measures (e.g., density, centrality)

   In a footnote to Table 3 we have added the ranges of the in-degree and out-degree. These numbers are an average across the organizations. Density and centralization are for the whole network (not an average) and thus do not have a range.

15. Provide more of an explanation about the applicability and relevance of the approach

   We added a paragraph to the Introduction describing the utility of organizational network analysis.

16. Explain the relevance of the results workshop

   In the text we say “The purposes were to reveal to participants the network they were a part of, to give them an opportunity to comment on the findings, help interpret the data, and discuss how to improve the network connections.” We also say how we provided them with some resources (referral directory) and intend to use the workshop output for future study.

Results

17. Distinguish between “organizations” and “facilities”.

   We use organization to mean a single entity not multiple facilities.

18. Why are the in-degree and out-degree values identical?

   Please refer to our response #1.

19. Is mean degree simply a sum of in- and out-degree?

   Following another comment (#13), we removed this term and number from the manuscript.

20. How are the in-degree, out-degree, and mean degree useful for researchers and organizations?

   As noted above, we no longer refer to the mean degree. In contrast to density and centralization which pertain to the whole network, in-degree and out-degree provide insight into individual organizations in the network and the variability of referral patterns among them.

21. Avoid using the term “likelihood” when not using it technically

   Changed to “level of referrals”.


22. Too much text is spent describing specific instances (top of p 12)

We have deleted two sentences (“one Kirkos...” and “seven of..”)

Discussion

23. Too few references to HIV/AIDS-family planning service integration

We strengthened the Introduction, but in the Discussion the main findings are about the ONA methods and its potential application not about the effect on integration.

24. Link the Discussion more closely to the data and findings

Without specific guidance from the reviewer, it is hard to respond to this comment. We believe we have already linked our Discussion to the findings. Moreover, the other reviewer did not make a similar comment.

25. Consideration of the limitations should include the methodological points and potential biases mentioned above.

We believe that our limitations section in the Discussion (under the heading Network Analysis Limits) already mentions these considerations.

26. The study focuses on facilities, not patients. Statements about women, or patients in general, must be defined more carefully

Our references to “patients” and “women” are not references to our data. Rather, they are in sentences explaining what the organizational network data might say about the experience of the organizations’ clients. We feel obligated to make such conjecture in explaining the import of our research and findings.

References

27. More needed

Some citations have been added to support the additional statements in the Introduction.

Figure 2

28. The organization of the various types of facilities may be reoriented to facilitate side-by-side comparison

The layout of a sociogram is determined by the computer program. It is typically done to make it legible overall) (e.g., minimizing the number of lines that cross each other), and to feature
certain characteristics of the network (e.g., clusters of similar organizations). To force a certain orientation that allows for comparison begs the question of what is to be compared. In our case, network density was our primary measure. We feel that the diagrams as currently oriented allows for that comparison.

29. Provide some sense of an optimal level of referrals

It is not possible to know the optimal level of referrals. It’s not possible to know when referrals reach a point of being redundant or wasteful. Another study that assessed whether clients’ needs are met will help understand the whether the level of referrals is appropriate.

30. Analyze the 51 nodes together

This paper is the baseline for pre- post- intervention comparison with follow-up. Also, it is not appropriate to combine the nodes since we assume they are functioning independently as they are based in separate sub-cities.

31. Explain why there is no statistical testing.

There is no sampling; it is a census of all organizations in a sub-city meeting our criteria.