Participatory Development in Fragile and Conflict-affected Contexts: An Impact Evaluation of the *Tuungane* 2 Program in the Democratic Republic of the Congo

Final Report

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Table of Contents

List of Figures

List of Tables

1 Executive summary

Community Driven Development (CDD) is a bottom-up model of development that aims to put the people in the driver's seat. To date, a number of CDD programs have been conducted and evaluated, but the evidence as to its effects remains inconclusive. This report presents findings from an evaluation of the *Tuungane* 2 program, a major CDD program in Eastern Congo, funded by the UK government and implemented by the International Rescue Committee (IRC) between 2011 and 2014.

The *Tuungane* 2 (T2) program was carried out in 1,025 Village Development Committee areas (VDCs) in the provinces of South Kivu, North Kivu, Maniema and Katanga, representing an estimated beneficiary population of around 1.7 million individuals. Participating communities underwent a 36-month community mobilization program, including the selection of an infrastructure project, followed by the democratic election of VDC representatives, and a six-month project implementation period. A key aspect of T2 was the focus on governance processes, with an explicit theory of change that emphasized the strengthening of capacity on both the supply side (e.g., duty bearers) and the demand side (e.g., the general population), as well as creating opportunities for productive interface between the two (IRC, 2010).

This study investigates to what extent *Tuungane* 2 activities are associated with improvements across five families of outcomes: 1) constructive engagement between service users and duty bearers; 2) improvements in service provisions in the health and education sector, 3) improvements in health and education; 4) improvements in governance related outcomes such as participation, accountability, efficiency, transparency and capture; and lastly 5) improvements in women's empowerment.

The data collection, undertaken between April to November 2015, included both a quantitative and a qualitative component. A quantitative survey was conducted in 781 villages in the Congolese provinces of Haut Katanga, South Kivu and Tanganyika. We visited the village chief and a random subset of village members. Furthermore, to best capture the quality of service provision, we supplemented information from these sources with data collected directly from education and health facilities. Specifically, we visited the primary school and health facility related to each of the 781 villages. In each facility, our enumerators judged the building and presence of supplies, collected data from a user of the facility, and interviewed the facility's director. In addition, qualitative data was collected from 73 selected villages across the same provinces, in which specific attention was paid to hearing a diverse array of perspectives and voices. This data helps us to answer any "why" questions related to this study's quantitative findings.

The rollout of *Tuungane* 2 was not randomized, which limits our ability to identify causal impacts. In response, we use a non-experimental method to estimate the extent of positive associations between *Tuungane* 2 programing activities and the key outcomes of interest. Specifically, we make use of propensity score matching. We are able to undertake this strategy because pre-treatment data were collected by Humphreys et al (2012), or HSW (2012), from the same 781 communities that are used in this study. There are several major drawbacks to this strategy, however, compared to randomization. First, communities may still differ on unobservable characteristics. Second, because of the matching strategy we only leverage about forty-five percent of the data. Finally, because *Tuungane* 2 communities were selected based on certain criteria (security and accessibility), we can only generalize the results towards communities with these types of characteristics. With these strong caveats in mind, we present the following overall results:

- The *Tuungane* 2 program performed well on outcomes related to the relationship between villagers and service providers. We find evidence that service users and service providers are better informed about line ministries; there is more interaction between villagers and user committees and service providers and user committees; and villagers in *Tuungane* 2 areas are more positive about service provision and the actions of their local user committees.

- *Tuungane* 2 performed well on outcomes related to what it tangibly provided. We find improvements in the quality of building infrastructure for both the health and education facilities, and the presence of benches in schools and hospital beds. However, we find few effects on other components of service provision.
- *Tuungane* 2 areas seem to be related to higher attendance rates, although we do not find improvements in other outcome indicators related to education. Nor do we find evidence for improvements in health outcomes.
- We find some evidence that the *Tuungane* 2 program had effects on governance outside the sphere of service provision, although this result is scattered across our five different components of governance: participation, accountability, transparency, efficiency, and capture.
- We find scattered evidence that the T2 program contributed to women's empowerment.

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IRB approval for this study was obtained from Wageningen University.

Our pre-analysis plan and instruments can be found online: http://egap.org/registration/1773.

The photo on the cover-page was made by Grace Bagula in Mukwidja village in Congo's South Kivu province.

3 Introduction and study objectives

3.1 Introduction

Over the past three decades, eastern Democratic Republic of Congo (DRC) has experienced violent conflict and instability, including two major civil wars (1996-1997 and 1998-2003). The latter, with the direct involvement of eight African nations and 25 armed groups, has been the deadliest war in modern African history (e.g. IRC, 2007). The sources of the conflict and its drivers were diverse and stemmed from an array of national and local factors, including weak institutions, poor governance, poverty, land disputes, ethnic divisions, and refugee inflows, among others. Despite the formal end to the civil war in July 2003, the region continues to be embroiled in violence. The DRC ranks last in UNDP's 2015 Human Development Report, and basic infrastructure such as roads, schools, and health facilities is lacking, either due to destruction or a lack of investment.

In response to these challenges, between 2007 and 2014, the IRC carried out the *Tuungane* program. Funded by the United Kingdom's Department for International Development (DFID), the program went through two phases. The first, £30 million phase of the program "*Tuungane* 1" (T1) operated between 2007 and 2011 in the Eastern provinces of South Kivu, Maniema and Katanga (Haut-Katanga and Tanganyika districts).[1] It aimed to support local governance, social cohesion and economic recovery. The project worked in 1,250 randomly selected Village Development Committee areas (VDC) grouped into 280 Community Development Committee areas (CDCs) with a targeted beneficiary population of approximately 1,780,000 people.

The second, £60 million phase of "*Tuungane* 2" (T2) was implemented between 2011 and 2014 in 1,025 Village Development Committee areas (VDC) in the provinces of South Kivu, North Kivu, Maniema, Haut Katanga and Tanganyika. Communities participating in T2, representing an estimated beneficiary population of around 1.7 million individuals, underwent a 36-month community mobilization program, including the selection of an infrastructure project, followed by the democratic election of VDC representatives, and a six-month project implementation period. A key aspect of T2 was the focus on governance processes, with an explicit theory of change that emphasized the strengthening of capacity on both the supply side (e.g., duty bearers) and the demand side (e.g., the general population), as well as creating opportunities for productive interface between the two (IRC, 2010).

From the outset, DFID and IRC planned to accompany the implementation of both phases of the *Tuungane* program with robust impact evaluations in order to generate credible evidence about its effectiveness. The first phase has had two randomized impact evaluations carried out in partnership with Columbia University and the World Bank's Development Impact Evaluation (DIME), respectively, with the aim to ascertain both the short-term and long run impact of *Tuungane* 1.[2] This report concerns the evaluation of *Tuungane* 2. In contrast to *Tuungane* 1, whose rollout was randomized across eligible communities in order to isolate program impact causally, the rollout of *Tuungane* 2 was not randomized, which limits our ability to identify causal impact of this second phase. In response, we use a non-experimental estimation method – specifically, propensity score matching – to estimate the extent of positive associations between *Tuungane* 2 programing activities and a set of key outcomes of interest: 1) accountability relationships between service providers and users, 2) service provision in the key service sectors of education and health, 3) health and education outcomes, 4) good governance practices, and 5) women's empowerment. We combine quantitative findings with findings from our qualitative research to draw general conclusions about the extent to which *Tuungane* 2 might have influenced these outcomes in recipient communities.

[1] The first and second phases of *Tuungane* were implemented by CARE International in Maniema.

[2] The first evaluation of T1 was carried out by a team from Columbia University led by Macartan Humphreys and focused on the 2007-2011 period. T1 included a set of specific primary and secondary hypotheses. These hypotheses can be found at http://www.columbia.edu/~mh2245/DRC/DRC_DESIGN.pdf. The second evaluation of T1 was led by a team from DIME and it focused on the 2007-2015 period.

In the remainder of this section, we describe the *Tuungane* 2 program objectives and the objectives and focus of the present study. We also discuss the state of the evidence base on CDD programming, and introduce our outcome variables. In Section 4, we describe our empirical strategy, including how we collected quantitative and qualitative data. Section 5 discusses our findings on the key outcomes of interest, while Section 6 discusses the key results that stand out from our analysis, drawing on ancillary quantitative data and qualitative data. Section 7 discusses additional qualitative findings and Section 8 concludes, with some reflections on further research as well as policy and program implications.

3.2 The *Tuungane 2* program: goals, components and theory of change

Tuungane 2, with an envelope size of £60 million, was implemented between 2011 and 2014 in 1,025 so-called Village Development Committee areas (VDC) in the provinces of South Kivu, North Kivu, Maniema and Katanga (Haut Katanga and Tanganyika).[3] **Table 1** summarizes the number of *Tuungane* VDCs per province.[4] The program coverage represented an estimated beneficiary population of around 1.7 million individuals. VDCs first identified their priority sector out of five sectors: 1) health, 2) education, 3) water and sanitation (watsan), 4) roads and 5) market.

Table 1. *Tuungane* 2 units per province

	Haut Katanga	South Kivu	Maniema	Tanganyika	North Kivu	Total
T2 VDCs	243 treatment	291 treatment	204 treatment	195 treatment	92 treatment	1,025 treatment

As part of T2, communities elected five members to the VDC committee (president, vice-president, secretary, treasurer and community mobilizer) to oversee and manage project implementation. In the communities that chose to work in health or education, four members of the relevant user committee were added to the VDC committee: the "committee of health" (CODESA by its French acronym) and the "committee of parents" (COPA by its French acronym), respectively. The village chief was given the role of "advisor" to the VDC. Finally, two additional individuals – so-called "Requas" – were elected in each community to monitor the VDC to ensure that they were responsible with financial management, transparency of decision-making, and respect for roles and responsibilities (IRC, 2010). The VDC selection process and the general assemblies – in which community members articulated their needs and priorities to their VDC representatives and VDC members provided information about their decisions and actions to the community –provided convening spaces between users and the VDC.

In the VDCs that chose a project in the health or education sector, communities were required to prepare a community scorecard (CSC) to evaluate the quality of the service rendered prior to *Tuungane* based on a number of indicators. While some of these indicators were standardized and predetermined by the IRC, the community created a number of other indicators following a set of separate focus groups with women and men, as well as youth (education sector) and the elderly (health sector).

The IRC provided the VDCs with an "input-tracking matrix" outlining the legal norms and standards regulating their chosen service sector (for example, schools need to have six classrooms; there are 200 schooldays in a year; etc.). In this way, the community members learned about their rights and entitlements and were able to compare their lived experiences to these norms. Through community dialogue and participatory decision-making, all communities

[3] For an earlier *Tuungane* phase, the IRC grouped so-called "lowest level units" (LLUs) — natural settlements such as villages, sub-villages or quartiers – into VDCs based on proximity and affinity. An average VDC has approximately 1,300 inhabitants.

[4] In this evaluation, we will only focus on the provinces of Haut Katanga, South Kivu and Tanganyika, which we discuss in more detail below. In addition to what is discussed in this section, *Tuungane* 2 had two more components. First, T2 included a component that aimed to foster dialogue between users and decentralized local government units (so-called "ETDs"). This entailed developing ETD service improvement plans, ETD scorecards, and jointly mounting a series of service improvement projects with modest sub-grants. Second, and in Maniema only, T2 had a voluntary savings and loan component in a subset of communities. Neither are part of this impact evaluation.

elaborated a so-called "Joint Service Improvement Plan" (JSIP), which identified a set of actions between users (with support from the VDC) and service providers to help improve the quality of service. The JSIP was presented to local authorities for approval and support at the start and at the end of the project.

Subsequently, the VDCs received a sub-grant of $24,000 to implement their JSIP, which included the rehabilitation or construction of infrastructure in their priority sector. *Tuungane* 2 organized a series of technical trainings for the VDC committee, in which the VDC decided how to put the JSIP into practice, and learned basic principles of financial management and construction. Based on the detailed infrastructure plan, approved by the competent authorities, the VDC proceeded to launch a tender process for the construction/rehabilitation, followed by project implementation. Education and health were the most popular sectors among communities, with education being significantly more popular than health. In total, 1,148 schoolrooms were constructed and 19,929 school furnishing items like benches, tables, chairs, desks and shelves were provided to communities. Related to the health sector, 34 health centers were constructed, 66 health posts, and 18 maternity clinics. In total, 655 health furnishing items (benches, chairs, shelves, hospital beds) were purchased, and 173 sets of medical materials purchased.[5]

The *Tuungane* 2 program had an explicit theory of change, which postulated that "If the capacities for constructive engagement around service provision are strengthened among duty bearers and the general population in communities involved in *Tuungane*, and if opportunities are created for productive interface between the two, this will contribute to the program's expected outcome: communities and local levels of government are active agents of development within a governance system that effectively addresses their priorities" (IRC, 2010). This theory of change is illustrated in **Table 2**.

Table 2. Theory of Change

Supply side: duty bearers	**Spaces for interface**	**Demand side: general population**
VDC plus COPA and CODESA members	← Elections → ← General Assemblies →	Service users in *Tuungane* communities
Service providers	← JSIP → ← Scorecard (health and education only) →	
Strengthening response and answerability →		← Strengthening demand and collective action

Table 2 outlines the key local governance actors and supply and demand relationships that are targeted by the project. It begins with two sets of actors: duty bearers on the supply side and the general population on the demand side. Duty bearers consist of VDCs, and service providers (such as teachers and hospital directors). The general population consists of current and potential service users. *Tuungane* aims to strengthen 1) duty bearers' responsiveness (behavior in responding to the needs and rights of constituents) and answerability (explanation/justification of actions) to their

[5] As part of the projects related to the Watsan, road and market sectors, a large number of activities were undertaken. In total, 7 community buildings, 403 springs, 483 wells and pumps, 83 reservoirs, 638 latrines, 33 markets, and 54 sources of water were constructed. In addition, 308 sanitation and drainage activities took place, 275 kilometers of road was built, 495 meters of bridge, and a total of 31,000 meters of piping for water supply were purchased.

constituents, and 2) constituents' demand for greater responsiveness and accountability from duty bearers and their capacity for collective action to achieve this.

The theory of change conjectures that the engagement between these parties is critical for the emergence of a minimally capable and accountable local governance system, which in turn will be more responsive to the community's social and economic needs. Holding elections and general assemblies will build capacity and foster spaces of interface between the community and the duty bearers. Implementing scorecards and SIPs (Service Improvement Plans) will build capacity and foster spaces of interface with service providers. Together, these spaces of interface and improved capacity will lead to an environment where communities are active agents of development within a governance system that effectively addresses their priorities.

Finally, at this stage we would also like to highlight what *Tuungane* 2 did not do, which is important for interpreting some of the findings in subsequent sections. The program did not train service providers on technical aspects of their jobs. *Tuungane* 2 could, however, financially support some of these trainings from the 5% of grant dedicated to "soft" issues. Furthermore, the program also did not pay service providers or subsidize service fees.

3.3 Study's empirical basis and rationale

A central tenet of CDD programs such as *Tuungane* 2 is participatory development, which is a popular model through which to deliver international aid because of the presumed economic and social impacts it can produce. The World Bank alone spent $85 billion in the last decade on this broad class of interventions (Mansuri and Rao, 2013). Recently, a number of studies have examined the social and economic effects of CDD programs, but the picture they paint is mixed and inconclusive.[6] In their study of a CDD program in Liberia, Fearon et al (2009) find little evidence of economic impacts, though they do find evidence of an effect on the ability of communities to solve some types of collective action problem. Casey et al (2012) examine a CDD program in Sierra Leone and find evidence of economic effects, but no evidence of social effects. In Afghanistan, Beath et al (2013) find some evidence that imported institutions can be effective, but only when external groups require that they be employed. Avdeenko and Gilligan (2015) show that a CDD program in Sudan had no impact on social capital (measured as pro-social behavior in a lab experiment and the density of social networks), but that it did affect perceptions of the inclusiveness of community governance and reported civic participation. Most relevant for this evaluation is HSW (2012).[7] The study explores the impact of the first phase of *Tuungane*'s VDC component. The data collection for HSW (2012) took place between 2010 and 2011. The study found no evidence that the program had an effect on the stated goals of improving economic and social outcomes.

Taken together, previous impact evaluations provide little optimism about the efficacy of CDD programs to influence economic and social outcomes. However, while the interventions studied typically have common features such as the participatory approach, they often have distinctive features that might help explain some of the variation in the findings. Moreover, the contexts in which CDD interventions are carried out are as diverse as the evaluation studies themselves, which raises important questions about the generalizability of the findings and the need to generate more evaluations of CDD programs in different contexts.

Against this backdrop, this evaluation of the *Tuungane 2* program aims to contribute to the literature on participatory development projects in two ways. First, this evaluation will shed light on relational aspects of different stakeholders involved in local service provision and community development, not just service provision outcomes on the part of beneficiary communities. This is important because while CDD programs involve a variety of actors linked through a web of interactions and relationships, many impact evaluations tend to rely on household data as the main source of information for key outcomes potentially missing the relational dimension in their findings. This study relies on a variety of data sources — including surveys with service providers, in order to get a fuller picture of accountability relationships

[6] See King and Samii (2014) for an overview.

[7] The academic version of this study is Humphreys, Sanchez de la Sierra and Van der Windt (2018).

and service provision outcomes. Second, this evaluation integrates both a quantitative strategy and a qualitative strategy. Researchers have increasingly recognized the importance of combining these two approaches in order to not only estimate program impact, but also to better explain the processes and mechanisms of change (Bamberger 2000). Furthermore, the qualitative research allows us to further investigate and shed light on some of the assumptions underlying T2's proposed theory of change.

3.4 Study's outcomes of interest

The central question this evaluation study seeks to address is: To what extent were *Tuungane* 2 activities associated with improvements in "the way participants engage with communities and local government officials, good governance practices, accountability relationships, women's participation in decision making and the delivery of basic services? What are the likely mechanisms and pathways of any such change? (IRC 2011)" Together with the implementing partner, we translated this to five outcome families of interest that will be the focus of this report:

1. The first set of outcomes relates to the creation of a structure for constructive engagement between service users and duty bearers, including: 1) knowledge about service provision, 2) interaction between the service users and providers, and 3) attitudes of service users and providers related to service provision.
2. The second family of outcomes concerns improvements in service provision across seven different dimensions: infrastructure quality, capacity, material and supplies, staff quality, administration, community participation, and cost and utilization.
3. The third family of outcomes concerns the ultimate outcomes of interest themselves such as improvements in health and education outcomes.
4. The fourth set of outcomes relate to local level governance: participation, accountability, efficiency, transparency, and elite capture.
5. The final set of outcomes concern improvements in women empowerment.

In addition to the above, we will conduct three additional analyses. First, *Tuungane* 2 undertook programs in multiple sectors. Most projects took place in the education and health sectors and are thus the focus of this study. We have no strong basis to expect improvements in e.g. health service provision if the *Tuungane* 2 projects if that community focused on education. We will thus also investigate results by sector. Second, "participants" in the central question, refers to *Tuungane* 2 "boundary partners". Boundary partners were defined by our implementing partner before project onset as frontline service providers, sectoral committees, VDC members, and members of the community attending two or more *Tuungane* interface activities. The results presented in the main text are for the facility (health facility or primary school), the director of the facility, a class in progress, a patient at the health facility, and the average villager. We will thus also explore the results for those community members that attended two or more *Tuungane* interface activities, where applicable. Third, the *Tuungane* 2 program was implemented between 2011 and 2014, in both treatment and control communities of the first phase of *Tuungane*, which was implemented between 2007 and 2011. Thus, in addition to the main analysis, we will also explore differences between *Tuungane* 2 communities among those communities that received the first phase, and among those communities that did not.

3.5 What we do not study and deviations from the pre-analysis plan

We would also like to be clear about what this report does not investigate, and how this report differs from the pre-analysis plan we registered before collecting the data.[8]

First, in addition to the outcomes listed above, our pre-analysis plan listed a set of secondary outcomes related to: state legitimacy, social cohesion, and heterogeneous impacts. We will not explore these here, although we do plan to do so in a secondary report.

[8] Our pre-analysis plan and instruments can be found online: http://egap.org/registration/1773.

Second, an interesting investigation to undertake is not only whether *Tuungane* 2 improved service provision, but also the conditions under which service improvement can happen. Similarly, this question is not explored in the report.

Third, the implementing partner was interested in learning whether there is "…suggestive evidence that T2 participants are continuing to use mechanisms, tools, and/or skills developed/learned through the program (community scorecard, COPA/CODESA, VDCs, etc.) in the absence of the incentives provided by T2 community grants and the presence of IRC and program staff? (IRC 2011)" We did not collect data to answer this question.

Finally, this report does not explore to what extent "the assumptions/pathways of change underpinning T2 theory of change (are) warranted? What specific variables in these pathways of change stand out as key factors in catalyzing the change? What, if any, established social science theory underlies the T2 Theory of Change? Is that the appropriate theory? If not or if there is none, what theory should underlie the TOC, etc.? (IRC 2011)" Given that a broader discussion of why change happens and through which mechanisms runs through and requires engaging with the broader evaluation of each phase of the *Tuungane* program, we leave this for a separate qualitative report.

4 Evaluation strategy

This report builds on both quantitative and qualitative data, a combination which allows us not only to learn about the relationship between the program and outcomes of interest, but also about how these relationships came about. In this section, we will first discuss this study's limitations for learning about the impact of *Tuungane* 2, and introduce the units under study. We will then discuss the data collection strategies for the quantitative and qualitative components of this study.

4.1 Limitations to learn about the impact of *Tuungane* 2

We are interested in the impact of *Tuungane* 2. In other words, we would like to answer the question "what would have happened in the program area if there had not been a program?" To answer this question, we need to be able to make a valid comparison between areas that received the program (treatment) and areas that did not (control). The gold standard to make causal claims is the randomized controlled trial design (sometimes called a field experiment, randomized intervention or RCT). The random assignment of villages to treatment and control would mean that the only systematic difference between treated villages and control villages was the treatment status itself, which would allow researchers to make valid comparisons. *Tuungane* 2, however, was not randomized and we will make use a second-best strategy; matching, which we will discuss in more detail below. Thus, we want to be clear that the results in this study are not based on a randomized intervention, and we are thus less confident about the internal validity of our results.

4.2 The unit of analysis

While VDCs were the key units of intervention, they do not constitute our unit of analysis in this study. In practice, it is not possible to examine effects at the level of VDC areas if only for the practical reason that these units have no meaning in the control areas. More substantively, outside of the context of the *Tuungane* program, these artificially created units have no meaning in treatment areas either and so looking for effects at this level has unclear external validity. Instead, we will collect our data and measure effects primarily within so-called Lowest Level Units (LLUs) – the smallest natural unit with a clearly defined chief, which can be villages, sub-villages or neighborhoods in cities.

4.3 Quantitative strategy

We discuss our sample, the empirical strategy, data sources and information about conditions in the field to collect data.

4.3.1 Sample and data sources

Data was collected from a targeted 781 villages between June 2 and December 15 in 2015. These same villages were also visited between 2010 and 2012 for HSW (2012). In these villages, we collected information from four sources:

Chief survey

In each village, information was collected from the village chief (or his second in command if the village chief was absent). This survey collected data specific to village level characteristics, such as ethnic composition, and village level infrastructure. The same chief was also interviewed in 2010.

Household survey

We conducted a household survey with the same five individuals who were also visited in 2010. These individuals were randomly selected in each village. Via these surveys, information was collected about household and individual-level characteristics. We obtained information about health, education, welfare and other outcome indicators. We also collected data on villagers' opinions about service delivery from their nearby primary school and health facility.

Infrastructure surveys

To best capture the quality of service provision, surveyors visited the primary school and health facility (health post or health center) used by each community (provided this was located within a one hour walking distance - about five kilometers). We obtain data from three different sources. First, an audit was conducted by our enumerators to measure the quality of the building and the presence of materials and equipment. Second, surveyors also conducted interviews with users of the facility: i.e. by visiting a randomly-selected ongoing class in the primary school class and by interviewing a randomly-selected patient in each health facility. Finally, the director responsible for the facility was interviewed.

Exam with children

In each household with children of school-going age (between 6 and 11 years old), we randomly selected one child and conducted a brief exam to understand their level in: 1) mathematics, 2) French and 3) science. This data allows us to learn about educational outcomes.

4.3.2 Empirical strategy: matching

The *Tuungane 2* program was not assigned at random. *Tuungane 2* was implemented in a subset of the treatment and control villages of the previous *Tuungane* phase, and selection of communities into the program was done by the implementing partner and depended on security and accessibility concerns. As a result, this implies that we cannot estimate program impact through simple comparisons of outcomes in recipient and non-recipient communities, as communities that are more accessible and located in secure areas are likely to differ from difficult-to-access communities in insecure areas on many dimensions.[9]

In the absence of randomization, we rely on propensity score matching to construct a treatment and comparison group that are similar based on pre-program characteristics. In brief, *Tuungane* 2 communities are "matched" with control communities that are similar based upon their characteristics before program onset.[10] There are several major drawbacks to this strategy compared to randomization, chief among them is that communities may still differ on unobservable characteristics. We discuss the full set of implications in Section 10.2.

Because the villages under study were also visited in 2010 for HSW (2012), we have access to pre-treatment characteristics of *Tuungane* 2 control and treatment villages. Specifically, for our matching strategy, we take into account a number of pre-treatment characteristics that are likely to predict both treatment status and outcome, including indicators related to security and isolation. We briefly discuss these characteristics now. Given the selection strategy of our implementing partner, we match upon conflict indicators. We do so making use of the presence of UN peacekeeping forces (MONUSCO) and presence of Congolese government soldiers (FARDC) in the village the month preceding the 2010 survey, as reported by the village chief. We also match upon accessibility of the village by making use of an indicator related to the distance to public transport, again as reported by the village chief. We take into account whether the community was part of the first phase of the *Tuungane* program, and the number of times an NGO vehicle was seen in the village the year preceding the survey. In order to match treatment and control communities based on initial levels of collective action, we use the number of committees present in the village. We also take into account levels of heterogeneity in the village, based on ethnicity and religion. Another factor we match on is previously existing levels of infrastructure. Specifically, we match on the distance to health and education infrastructure, as reported to by the village chief. Finally, we match on the quality of traditional leadership, which we proxy by whether

[9] In the cost extension proposal of October 2010, the IRC/CARE committed to implement the program in 1,712 communities. In July 2012, the decision was made to drop the number of communities to 1,025. See IRC (2014) for a detailed discussion. E.g. in South Kivu, for example, all VDCs in the Uvira territory were cut for security reasons. In Katanga, the territories of Mitwaba and Kabalo were cut. Other VDCs were cut for reasons of accessibility and security.

[10] For more information, e.g. Rosenbaum and Rubin (1983).

the chief was democratically elected. We present summary information about the variables used in **Table 34** in the appendix (these data are available online).[11]

Matching on more indicators would give us communities that are similar across more characteristics. However, because of attrition in the 2010 data collection, there is a trade-off between matching on more characteristics and having fewer observations. For theoretical reasons, we decided to go for the above-mentioned set of characteristics.[12]

Column 1 in **Table 3** presents the means of these variables for the *Tuungane* 2 communities. Column 2 shows the means for all the communities that did not receive the program. Column 3 presents a test of the difference between them. The results of the test are indicated by t-values, where values higher than 2 or lower than -2 are a general indication of statistically significant differences. We highlight statistically significant differences in red. We find that *Tuungane* 2 treatment and control communities indeed differ a number of characteristics. In *Tuungane* 2 treatment communities, there is more presence of peacekeeping troops during the month preceding the 2010 survey. Furthermore, and not surprisingly because it was part of the selection criteria, we find that *Tuungane* 2 communities were also more accessible before the onset of the T2 program. Also, before the start of the T2 program, *Tuungane* communities were significantly more likely to have village committees. Finally, we find that chiefs in *Tuungane* areas report to be located more closely to educational infrastructure. Our implementing partner told us that the status of a village during the previous phase of the *Tuungane* program had not been used as a factor for selection into *Tuungane* 2. The data support this claim. Related to the remaining characteristics, we find no statistically significant differences.

Table 3. Information on Matching

		Before matching		After matching	
	Mean *Tuungane 2*	Mean Control	Difference test	Mean Control	Difference test
Presence MONUSCO	0.20	0.09	3.73	0.19	0.25
Presence FARDC	0.22	0.15	1.95	0.21	0.24
Distance public transport	2.88	6.19	-3.93	3.16	-0.63
Previous *Tuungane* phase	0.51	0.49	0.34	0.51	0.00
Exposure to other NGOs	4.42	3.76	0.99	4.28	0.18
Presence village committees	2.51	1.62	6.45	2.51	0.00
Ethnic heterogeneity	0.32	0.34	-0.77	0.32	0.01
Religious heterogeneity	0.54	0.55	-0.40	0.58	-2.15
Health infrastructure	0.58	0.84	-1.90	0.53	0.70
Education infrastructure	1.50	2.26	-2.24	1.49	0.05
Chief democratically elected	0.22	0.25	-0.88	0.20	0.60
	N=212	N=390		N=138	

Notes: Based on variables CQ92, CQ94, QE13, CQ28, CQ13, CQ14, QE13, and CQ54 in HSW (2012).

Given the differences between treatment and control villages at the onset of the *Tuungane* 2 program, we cannot simply compare those villages that received *Tuungane* 2 with control villages. Any outcome difference we might observe might be because of *Tuungane* 2, or any of the other many differences between treatment and control areas. As a result, we use simple propensity score matching (with replacement) to obtain similar treatment and control groups. The latter two columns in **Table 3** present the mean in control communities after matching, and their difference with the means in the *Tuungane* 2 communities. We find that the matching exercise is successful in creating a control and

[11] Website: https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/BSASJR
[12] Note that we chose these set of indicators before having observed the results.

treatment group that are very similar. As a result, in this report we will calculate treatment effects by comparing the mean outcomes across these matched groups.

4.3.3 Preparation and data collection

The data collection was a significant undertaking. We provide a short account of the logistics below.

Training and pilots

The survey instruments were carefully designed, building on input from both international and local experts. In addition, before the training, each survey was carefully piloted. Infrastructure surveys were piloted at two schools and two hospitals. Household and chief surveys were piloted in two villages before training onset. Training for the South Kivu area took place between March 27, 2015 and April 9, 2015. For the Katanga area (Haut Katanga and Tanganyika), the training took place between April 27, 2015 and May 11, 2015. The training consisted of a number of components, including: survey content, human subjects training, behavior in the field, field conditions, sampling methodology, and the use of technology (tablets, GPS, etc.). A mix of classroom lectures and simulations was used. Two extensive pilots took place in villages to test surveyors' skills before deployment.

Research teams

In total, 21 teams of four enumerators were deployed to collect data.[13] We also hired two field coordinators – one for Katanga area and one for South Kivu area – who were responsible for the daily tracking of the teams' location, the verification of data quality and for troubleshooting technical issues in the field. In addition, two teams of "backcheckers" were trained in each survey area (South Kivu and Katanga). These teams revisited around 10% of the villages visited by the original teams and conducted a subset of the survey to verify data quality, and learn about the respondents' experiences with our surveyors.

Figure 1: Piloting Instruments

Photo credit for both: Jean Paul Zibika. School (left) and health center (right) in Cinjoma village.

Conditions

In general, accessibility is a big challenge for data collection projects in the DRC due to a lack of roads and transportation means. In many cases, teams had to walk for more than a day to reach villages. Each team member had a tablet for data collection, with backup tablets kept by the provincial team leader, and a power bank and solar chargers for power. The conditions in the field were tough. Many enumerators fell sick to malaria, diarrhea, and typhoid.

[13] More than half of them also collected data for HSW (2012).

Several teams were involved in motorbike accidents causing tablet damage and many enumerators ended the fieldwork with scars.

Security

Eastern Congo is also marked by high levels of insecurity, especially in the South Kivu province. Enumerator teams therefore operated under strict security protocols. Teams were not allowed to visit a village before receiving security clearance from the IRC's security team. The latter had contact with the major actors such as the United Nations peacekeeping forces, the DRC government and others. Despite the precautions undertaken we did encounter some security issues. One team was ambushed and had to pay money to be freed, and three enumerators were jailed by the FARDC army on suspicion of being associated with armed groups. In total, seven villages were not visited due to elevated security risks (see Section 10.2 for a discussion on attrition).

4.4 Qualitative strategy

By design, the data collection for the qualitative component was undertaken independently from the data collection of the quantitative component.

4.4.1 Sample

Prior to data collection, between May and July 2015, the lead qualitative researchers conducted interviews with former and current *Tuungane* field staff in each of the provinces in order to help identify the villages that would be visited by the qualitative investigative team. Program staff were asked to identify examples of both successful and unsuccessful projects based on their own criteria. Examples of successful projects included those reported to have widespread and active participation across the community (both in terms of general assembly meetings and building project contributions); those that had secured additional funding or spent existing funds efficiently, leaving money for add-ons such as additional classrooms; and/or those with the engagement of either a particularly involved chief or a woman leader in project implementation. Examples of unsuccessful projects included those that were drawn into intra-community conflicts; that resulted in unfinished, poorly constructed, or unused facilities; projects accused of embezzling money or building material; or with which communities showed a lack of engagement. These villages were compiled and then grouped according to sector, project phase, and territorial location. Villages were selected to represent a range of both successful and unsuccessful projects and diversity across sector, phase, and geographic location, with logistical issues of safety and security an additional consideration. In total, 73 villages were visited by the qualitative research team.[14] The full list of villages visited by the qualitative team is provided in **Table 53** to **Table 55** in the appendix.

4.4.2 Strategy and data sources

To gather evidence for the qualitative component of the evaluation, an ethnographic approach was adopted. Data collection consisted of focus group interviews and semi-structured interviews with key stakeholders: i.e. village heads, service providers, committee members, community leaders, former and current *Tuungane* staff members, and a range of community members. Particular emphasis was placed on gaining access to a diverse range of opinions and voices from within the community, taking account of gender, ethnic divisions, marginalized groups such as the pygmies, community power hierarchies, and engagement with the *Tuungane* project. For example, our research teams were instructed to conduct focus groups with women and men separately; to interview a female leader in each village and to speak with marginalized groups in the community and those opposed to the *Tuungane* project as well as the key stakeholders noted above.

[14] By province: 27 in Haut-Katanga (i.e., 8 in Kasenga, 7 in Kipushi, 5 in Mitwaba and 7 in Kambove), 28 in South-Kivu (i.e., 6 in Mwenga, 8 in Walungu, 9 in Kalehe and 5 in Uvira), 14 in Tanganyika (i.e., 4 in Kabalo, 5 in Kongolo and 5 in Kalemie), and 4 in North Kivu (2 in Masisi and 2 in Rutshuru).

Close to 400 individual interviews and more than 150 focus groups were conducted across the 73 villages visited. These numbers are imprecise because of the existing social and power dynamics in the region, since one-on-one interviews often morphed into conversations with multiple participants, and influential members of society, including village leaders, often held multiple stakeholder roles related to the *Tuungane* program. For example, despite requests for individual interviews with the chief, family members and close associates or advisors often accompanied these discussions. It was similarly not uncommon for focus groups which began with 6 to 8 participants to have doubled or tripled in size by the end of the meeting. For example, one focus group with women in Kiba village ended with a final participant count of 21 women.

In addition, village dynamics also make it difficult to categorize specific individuals into specific roles. In multiple instances, the chief, a member of his/her family, or leaders in the village also held key positions within IRC projects. Women who were identified as leaders in the village, for example, often held multiple positions of relative power which included membership within an IRC and/or other NGO related village development committee, leadership of women's associations and church groups, and being the wife or a close relation of the chief/pastor etc. Furthermore, these realities vary from village to village. In Kagunga village for example, there are multiple chiefs each representing a 'street' in the village. In Nambo Kabusike village, there exists a current conflict over authority between two different actors (one a 3-person collage formed of two men and one woman newly appointed by the groupement chief and the other the traditional chief upheld by the Mwami). Both cases thus resulted in multiple interviews being conducted with 'the chief'. In other instances, chiefs, school directors and other notables were simply unavailable and substitutes were sought, such as the father of the chief in Kwiyongo I.

The desire to capture diverse experiences and voices required research teams to stay in each village for an extended period (upwards of four days) and in several cases a return visit was necessary. The strategy of longer village stays and secondary visits also allowed purposeful collection of observational data with which to verify stated 'truths' as expressed by informants and to gather evidence of the wider social and political milieu within which *Tuungane* projects were implemented.

4.4.3 Preparation and data collection

Data collection for the qualitative component took place between May and October 2015. We provide a short account of the logistics below.

Research teams

The qualitative research team was made up of one of the authors and a second researcher. They headed and managed a team of 12 local Congolese research assistants divided across six two-person teams: two teams per province.[15] Teams were gender balanced, had previous research experience (many had worked for humanitarian organizations), and were fluent in several local dialects common in the region they would be working.[16] Teams were equipped with a camera, a laptop computer, writing implements and journals.

Training

The training was a considerable effort and took several months. As a first step, each team underwent two days of training in order to prepare them for the field.[17] Along with the researchers, each team traveled to different *Tuungane*

[15] During a preliminary trip to the region between April 28 through May 18, interviews were conducted in Bukavu, Lubumbashi, and Kalemie to select individuals for the teams.

[16] Only one team was not gender balanced because of a replacement of an initial female assistant for which another female of qualified skills could not be found in the timeframe sought.

[17] The training consisted of providing foundational instruction in qualitative methods and research ethics, and utilized various instructional techniques including, lectures, case studies, mock practicals, and discussion, followed with field practice in a limited number of *Tuungane* villages.

villages to conduct two-day pilot investigations (these villages were selected by the researchers following consultation with *Tuungane* staff).[18] Between May 3rd and May 10th, along with the researchers, the Bukavu-based teams visited nine villages in Mwenga, Walungu and Kalehe territories in South-Kivu province. Between, May 13th and May 18th, along with the researchers, the Lubumbashi-based teams visited nine villages in Kasenga, Kambove, and Kipushi in Haut-Katanga. And between July 15th and July 22nd, the Kalemie-based team visited five villages in Tanganyika. Following these initial pilot visits to the field, the researchers revised the data collection instruments. Follow-up trainings were then organized with each of the research teams in order to introduce the revised data collection instruments and to address performance issues as observed during the period of the pilot visits.

Data collection

From July 27th onwards, each of the research teams was provided with the final list of selected villages. They were also instructed to interview the *Tuungane* field staff currently working in each of the territories visited. Research teams continued to collect data until October.

Conditions

Travel to field sites was done largely by motorcycle (the most effective means of transport to rural areas) and occasionally by public transport (buses) or private taxi (in the case of lengthier distances travelled and adequate road access). Teams were asked to continually upload their field notes to a password protected computer when possible. Because teams were required to stay for extended periods in each village, many team members became ill.

Security

As for the quantitative teams, security was an important factor influencing qualitative data collection. During June and July, for example, large parts of Uvira became inaccessible due to rebel activity and we were forced to select alternative villages. More often, however, the insecurity experienced took on the character of Congo's more pervasive "*se débrouiller*", manifesting as harassment and inconveniences illegally perpetrated for the benefit of an armed and/or powerful actor. Several team members remarked on their experiences having to pay road barriers or being stopped and questioned at length before being let go.

Figure 2: Teams on the Road


Photo credit: From left to right: Eustache Kuliumbwa in Ciramba village, and Patient Mumbere in Sugulu village.

[18] This served two purposes. First, the pilot provided an opportunity to trial the qualitative data collection instruments (notably the interview and focus questions) and second, to monitor and evaluate the effectiveness and abilities of the research team. As a result of the training, two assistants (one Bukavu-based assistant and one Lubumbashi-based assistant) were replaced due to poor performance in the field while an initial third team of two persons in Tanganyika was let go as they were found to be redundant.

4.4.4 Data analysis

Following data collection, written transcriptions of informant interviews and focus group notes from the six research teams were first translated from Swahili and French into English. These transcriptions were then compiled into a master document and coded such that similar passages of text were identified using keywords. These keywords or codes were constructed in two ways. First, a set of predefined codes relating to key outcomes of the project were used to identify findings that directly linked to the quantitative study. Second, a set of additional codes was used in subsequent readings of the text in order to draw out emerging data. Focused coding was then used to combine similar ideas/keywords into larger themes in order to make comparisons across cases, to find patterns, differences, and similarities and to discern relationships. For example, keywords used to identify instances of women's participation, leadership roles and women's empowerment in informant interviews were collated with actual behavioral observations to understand the position of women.

Major themes were identified through analyses conducted separately by the lead qualitative researchers in order to strengthen our individual reading of the data whilst also allowing space for different perspectives and insight into the data. In some cases, information was triangulated via follow up interviews with program staff. These were completed by a lead member of the qualitative research team in Bukavu in September. In other instances, clarifying information (such as the health card) was sought through third party informants or secondary literature was consulted. Major themes as well as broader consistencies identified within and across themes were grouped again into a smaller set of generalizations that serve as the major findings for the qualitative investigation.

4.5 Interpretation of results and threats to validity

4.5.1 Presentation and interpretation of results

Qualitative results will be introduced in Sections 6 and 7, and are also presented in a separate qualitative report that assesses all phases of *Tuungane* together. The next section presents the main results, which we summarize in tables. Throughout this document, these tables have a common structure. **Table 4** provides a summary of how to read the typical table.[19] Note that individual tables may differ from this canonical table, for example by showing effects broken down by subgroup. For all tables the source of data is indicated so that interested readers can consult the instruments employed.

The results presented in this report provide estimates of the effects of the *Tuungane* 2 program across a range of measures. We describe the estimated level of each measure across control communities (first row **Table 4**). Control communities here are those communities that did not receive the *Tuungane* 2 program, but are similar to program communities (following our matching strategy). The unit that is reported can be in dollars, percentages, or other units, depending on the measure.

We then provide the estimated effect of *Tuungane* 2, which is given by the difference in average outcomes in *Tuungane* 2 areas compared to those in control areas (second row **Table 4).** The number gives the direction and the size of the estimated effect.

For all estimates, we also provide estimated standard errors, which capture the degree of uncertainty about the estimates of treatment effects (third row **Table 4**). The smaller the standard errors are relative to estimated treatment effects, the more confident we can be in our results. We cluster the error at the village level for individual level measures, and the chiefdom for village level measures. In total, we have 33 chiefdoms.

[19] This setup is similar to HSW (2012).

Table 4. Example results table

	Source 1		Source 2
	Outcome measure 1	**Outcome measure 2**	**Outcome measure 3**
Control	0.78	0.23	0.22
Tuungane	0.014**	0.04	0.32
(se)	(0.05)	(0.08)	(0.21)
N	230	230	620

Notes: Based on measures XX12, XX102. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Given the size of the standard errors relative to coefficients we record the "level" at which a finding is significant. When we say that the results are "significant at the 95% level" this means that there is only about a 5% chance that we would observe such positive effects if in truth the program had no effects or had negative effects (false positives). These cases are indicated with "**" markers in the tables; 90% confidence is marked "*" and 99% confidence in marked "***". Note that, given the expectations about the program, these core tests are conducted as "one sided tests" – we are interested in testing whether there is sufficient evidence to reject the hypothesis that the program did not have any positive effect. A null result is interpreted as an inability to reject the null hypothesis of a null or negative effect, at conventional significance levels. When a result is described as "insignificant" this means that the estimated effect size is too small for us to be confident that it did not arise by chance.

As an additional visual aid, we present results where *Tuungane* 2 had a positive and statistically significant impact (one, two or three asterisks) in green. In cases where there are large negative effects we mark these with red. We highlight negative results when these would be considered significant under a two-tailed test at the 95% level (thus those with three asterisks ("***") in our tables).

4.5.2 Interpretation of infrastructure survey data

To conduct the infrastructure surveys, we visited the primary school and health facility within a five-kilometer radius for each village. Specifically, upon arrival in the village, the survey teams were tasked to visit the village chief to explain the data collection exercise and obtain approval. During this meeting, surveyors also asked the village chiefs about the name and location of the primary school that is used by the community, and the health infrastructure that is used by the community. After obtaining this information, both facilities were to be visited for the infrastructure surveys. We instructed our surveyors not to visit the school or health facility if the facility was located more than five kilometers (about one hours walking distance) away.

We thus do not measure the difference in quality between a *Tuungane* 2 facility and a control facility. The interpretation is the quality of nearby service provision for a villager. We did this for four reasons. The first is logistical; in order not to excessively delay the data collection exercise. Second, we had good reason to believe that taking a five kilometer radius would capture many of the *Tuungane* projects. Data from 2010 indicate that 99.54% of all VDC projects can we found within an hour walking distance from the respondent. And 2015 data from the village chief in *Tuungane* villages indicates that for 99.32% of them have the nearest *Tuungane* project within a one hour walking distance. The third reason to collect data from a restrictive radius around our respondents was to alleviate concerns related to spillovers. Multiple villages might make use of the same primary school or health facility. Finally, we match on distance from a primary school and a health facility (**Table 3**).We thus compare facilities located at similar distance away.

4.5.3 Threats to validity

Before moving to the results in the next section, we highlight three threats to the internal validity related to the results presented in this study. These threats are the result of the propensity score matching strategy that we employ.

First, propensity score matching creates comparison groups that are similar only on observed covariates (specifically those indicated in **Table 3**). The treatment and control group may thus differ on other observable covariates and unobservable covariates.

Second, although we collected data from 781 communities, we present results based on only 350 communities; which is only 45% of the total number of villages. There are three reasons for this. First, we revisit the 781 villages also visited in 2010. While these villages have balance on the first phase of *Tuungane*, they include only 263 *Tuungane* 2 treatment communities. Second, we only have data on all our matching variables for 602 of the 781 villages (of which only 212 are *Tuungane* 2 treatment communities), because this data is missing in HSW (2012). Third, our propensity score matching strategy matches these treatment communities to very similar control communities (matching with replacement). One control community can thus be matched to multiple treatment communities. As a result, although all 212 *Tuungane* 2 treatment communities are used once, we only make use of 138 control communities. Together, this adds up to 350 villages.

Finally, we would also highlight a threat to the external validity of our study. The population to which we can generalize our findings is limited. First, due to matching we build upon fewer than the targeted 781 villages. Second, our implementing partner chose *Tuungane* 2 communities based on their accessibility and level of security. As we saw in **Table 3**, these communities are very different from "the average community" in Eastern Congo. As a result, the results in this study really only pertain to accessible and less conflict-affected villages.

A complete discussion of threats to this study is presented in the appendix.

5 Results

We now present the study's results for our main outcomes of interest: the relationship between service users and providers, improvements in service provision, health and education outcomes, improvements in governance, and women's empowerment.

5.1 Relationship service users and providers

The first family of outcomes that we explore is the relationship between service users and providers. Insofar that *Tuungane* activities – and in particular those related to the scorecards – have strengthened the relationship between service users and providers, we expect effects on 1) knowledge about service provision, 2) interaction between both actors, and 3) improved attitudes from service users to providers. We will explore each in turn.

5.1.1 Knowledge about service provision

We explore knowledge about service provision among service users and service providers. First, we ask the five randomly selected villagers what the abbreviations "CODESA", "COPA", "MCZ" and "Sous-Proved" stand for. CODESA ("Committee de Development et Santé") and COPA ("Committee de Parents") are the village committees responsible for school and education activities, respectively. The MCZ ("Medecin Chef de Zone") is the representative of the health division head (province) at the territory or health zone level and the Sous-Proved ("chef de sous-division educationnelle") is the representative of the educational division head (province) at the territory level. Our enumerators record whether the villagers respond correctly. **Table 5** shows that in control areas only 20% (34%) of respondents know the correct meaning of the abbreviation CODESA (COPA). We find that this is even lower for MCZ (12%) and Sous-Proved (16%), which may not be surprising, as most villagers do not directly interact with the MCZ and the Sous-Proved. Villagers generally interact with the user committees (CODESA and COPA). User committee generally interact with villagers and service providers. And service providers interact with user committees and line ministries. Across these four measures, we find no differences between responses by those in *Tuungane* 2 treatment and control areas.

Table 5. Knowledge Service Provision

	Villagers								Head health facility		Head school	
	Meaning CODESA	Meaning COPA	Meaning MCZ	Meaning Sous-Proved	Role CODESA	Role COPA	Role MCZ	Role Sous-Proved	Role CODESA	Role MCZ	Role COPA	Role Sous-Proved
Control	0.20	0.34	0.12	0.16	0.41	0.95	0.39	0.34	1.96	1.65	2.46	1.40
Tuungane	0.02	0.04	0.03	0.02	0.04	0.09	0.04	0.10**	-0.39***	0.43**	-0.58**	0.18
(se)	(0.02)	(0.03)	(0.02)	(0.02)	(0.06)	(0.08)	(0.07)	(0.06)	(0.16)	(0.28)	(0.34)	(0.21)
N	1,540	1,540	1,540	1,540	1,540	1,540	1,540	1,540	241	272	234	272

Notes: Based on measures Q148, Q155, Q154, Q156, EE73, EE92, EE78, EE97. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

As a second indicator of knowledge, we ask villagers to list as many of the roles and responsibilities of the COPA, CODESA, MCZ and Sous-Proved. Our enumerators have a list of 15 tasks these institutions can play, and record those mentioned. From this information, we create an indicator with the number of correctly mentioned roles and responsibilities.[20] We find that villagers, on average, are able to mention only between 0.34 and 0.95 tasks for these

[20] The fifteen categories are: 1) Finance, 2) community contribution, 3) planning, 4) (help with) maintenance, 5) (help with) material, 6) (help with) equipment, 7) contact authorities, 8) verification of quality of service, 9) preparation general assemblies, 10)

institutions. Although all effects of the *Tuungane* program point in the 'right' direction, we find that *Tuungane* 2 areas are only better in listing the roles and responsibilities of the Sous-Proved.

Table 6. Knowledge about tasks

	CODESA			COPA			MCZ			Sous-Proved		
Task	Control	*Tuungane*	(se)	Control	*Tuungane*	(se)	Control	*Tuungane*	(se)	Control	*Tuungane*	(se)
Don't know	0.52	0	(0.03)	0.28	0.02	(0.03)	0.61	0.01	(0.03)	0.60	0.01	(0.03)
Finance	0.03	0.01	(0.01)	0.14	0.03*	(0.02)	0.05	-0.01	(0.01)	0.05	-0.01	(0.01)
Community contribution	0.06	-0.02	(0.01)	0.09	0	(0.02)	0.01	0.01	(0.01)	0.03	-0.01	(0.01)
Planning	0.04	0	(0.01)	0.05	0	(0.01)	0.05	0.03**	(0.02)	0.03	0.04***	(0.01)
(Help with) maintenance	0.03	0	(0.01)	0.03	0.02*	(0.01)	0.03	0	(0.01)	0.02	0	(0.01)
(Help with) material	0.02	0	(0.01)	0.03	0	(0.01)	0.02	0.01	(0.01)	0.02	0.01*	(0.01)
(Help with) equipment	0.02	-0.01	(0.01)	0.01	0.01	(0.01)	0.04	0.01	(0.01)	0.02	0.03***	(0.01)
Contact authorities	0.01	0.01*	(0.01)	0.03	-0.01	(0.01)	0.04	-0.01	(0.01)	0.04	0.01	(0.01)
Verification service quality	0.06	0	(0.02)	0.09	-0.02	(0.02)	0.10	0	(0.02)	0.11	0.01	(0.02)
Preparation assemblies	0.01	0	(0.00)	0.01	0	(0.01)	0.01	0	(0.00)	0.01	0.01*	(0.01)
Sanctions	0.00	0.01*	(0.00)	0.01	0	(0.00)	0.03	0	(0.01)	0.03	0.01	(0.01)
Bridge parents-providers	0.09	0.06***	(0.02)	0.42	0.07**	(0.03)	0.01	0	(0.01)	0.02	0.01	(0.01)
Advice	0.14	0.05**	(0.02)	0.16	0.03*	(0.03)	0.08	0.04**	(0.02)	0.06	0.04***	(0.02)
Management	0.03	0.02**	(0.01)	0.05	0.02	(0.01)	0.09	0.06***	(0.02)	0.09	0.05***	(0.02)
Training	0.03	0.02**	(0.01)	0.02	0	(0.01)	0.04	0.01	(0.01)	0.03	0.02*	(0.01)
Other	0.04	0.01	(0.01)	0.04	-0.01	(0.01)	0.02	0.01*	(0.01)	0.03	-0.01	(0.01)

Notes: Based on measures Q154, Q156. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures). Based on all respondents; i.e. not conditioned on only those individuals that know what the institution is.

In **Table 6**, we show the same information separated out by task. We see that many villagers think the role of the CODESA and COPA is to act as a bridge between parents and service providers, and provide advice. Surprisingly, there are large differences between both institutions. For example, although 42% of individuals mention bridge parents-providers as a task of COPA, only 9% say so for CODESA. These differences may reflect less knowledge about CODESA compared to COPA, which is reflected in the number of villagers who are not able to mention any role or responsibility. That is, about half (52%) of all respondents are unable to mention any task of the CODESA, while this is less common for the COPA (28%). Related to the MCZ and the Sous-Proved, most villagers respond that their task is the verification of quality at 10% and 11%, respectively. We find that villagers are more informed about the tasks of the COPA than the CODESA. More than half of all respondents (61% and 60% respectively) do not know any task of the MCZ or Sous-Proved.

Finally, we also investigate knowledge levels of service providers. To do so we ask the head of the hospital to list the roles and responsibilities of their user committee and line ministry counterparts; the CODESA and the MCZ. We ask the same about COPA and the Sous-Proved to the head of the school. The last four columns in **Table 5** present the results. As expected, we find that service providers are overall better informed than ordinary villagers. In control areas, hospital heads are able to list 1.96 tasks of the CODESA and 1.65 tasks of the MCZ; while school heads are able to list 2.46 tasks of the COPA and 1.4 tasks of the Sous-proved. We find evidence that in *Tuungane* treatment communities, heads of health facilities are significantly better informed about the tasks of their related line ministry, the MCZ. We do not find this result in the education sector. Surprisingly, we also find that the heads of both the health and

sanctions, 11) bridge between parents and service providers, 12) advice, 13) management, 14) training, 15) other. COPA and CODESA are responsible for tasks 1-9 and 11. MCZ and Sous-Proved are responsible for tasks 1, 3-8, and 10.

education facilities are worse informed about the role of their user committees. The first result is significant at the 5% level when conducting a two-tailed test.

5.1.2 Interaction service users and duty bearers

Next, we explore whether *Tuungane* 2 increased interaction between service users and providers. That is, we are interested in whether the spaces for interface stimulated by the *Tuungane* 2 program continue to be used. To do so we ask both villagers and service providers about their interaction with each other, and with the user committees. **Table 7** shows that randomly selected villagers in control communities report that, on average, 0.41 meetings took place between the community and CODESA during the year preceding the survey.[21] The average respondent reports that community meetings with COPA happen more regularly, around 1.44 times per year. We also ask villagers whether they attend these meetings, conditional on a meeting being organized. An average villager in control areas visits around 2.01 CODESA meetings and 2.17 COPA meetings, respectively. We find that there are significantly more CODESA and COPA meetings in *Tuungane* areas. In treatment areas there are twice as many community-CODESA meetings organized and about a third as many community-COPA meetings organized, compared to control areas. Furthermore, we do not find that conditional on these meetings being organized in the village, an average villager will attend more CODESA or COPA meetings.

Table 7. Interaction Service Provision

	By villagers				By head of school facility			By head of health facility		
	# Meetings CODESA	# Meetings COPA	Attended CODESA	Attended COPA	Meeting COPA	Attended COPA	Meeting Community	Meeting CODESA	Attended CODESA	Meeting Community
Control	0.41	1.44	2.01	2.17	3.51	3.03	2.11	8.24	6.67	3.00
Tuungane	0.47***	0.36**	0.49	0.08	0.92***	0.94***	0.81**	0.85	0.39	0.39
(se)	(0.08)	(0.16)	(0.50)	(0.12)	(0.36)	(0.33)	(0.36)	(1.49)	(1.33)	(0.73)
N	1,540	1,540	218	649	272	272	272	241	241	241

Notes: Based on measures Q150, Q151, EE68, EE69, EE72, ES87, ES88, ES91. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

We also ask the heads of the health and education facilities about interaction with their user committees and communities. The last six columns in **Table 7** report the results. In control communities, the school head reports 3.51 meetings with COPA in the year preceding the survey, of which the school head attended on average three meetings. In control areas, an average of 2.11 meetings took place between the service provider and the community in the preceding year. Moving to the health sector, we find that, on average, meetings related to health happen more frequently compared to those related to education. Hospital heads report 8.24 meetings with CODESA in the preceding year, of which the head of the hospital attends around 81%. Around three meetings take place between the community and the hospital. While we find no differences between *Tuungane* and control communities when it comes to the health sector, we do find a difference related to the education sector. We find that, compared to control communities, school heads in *Tuungane* communities report significantly more meetings between them and COPA; the school head is likely to attend more meetings; and there are significantly more meetings between the service providers and the community.

5.1.3 Attitudes service users and duty bearers

Finally, we examine the attitudes that service users have towards service provision, their user committees and their service providers. First, we ask the respondent to rate the quality of service provision across seven dimensions: 1) building conditions, 2) capacity, 3) presence of material and supplies, 4) staff quality, 5) administration, 6) community

[21] In this subsection, we code all "I don't know", "Not applicable" and "I refuse to respond" answers as zero.

participation, and 7) service cost and utilization. We ask them to do so separately for the health and education sector. Respondents have the option of replying "Bad" (0), "Average" (1) or "Good" (2). We combine the seven responses by calculating a simple average. The results are reported in the first two columns of **Table 8**. We find that in control communities, the average villager largely rates the quality of service provision in health and education similarly, and positively (higher than one). We find that compared to control communities, villagers rate service provision significantly more positively in *Tuungane* communities. Service quality in health increases by 0.14 (11%). This increase is even stronger for the education sector where opinion improved by 0.21, a full 17%.

Table 8. Attitudes by Villagers towards Service Provision

	Service Quality Health	Service Quality Education	Inform Actions	Inform Management	Inform Services	Permit Participation	Advice	Public Use	Trust COPA	Trust CODESA
Control	1.29	1.24	0.95	0.97	0.99	0.92	1.12	0.96	430.30	372.66
Tuungane	0.14***	0.21***	0.12**	0.12**	0.10**	0.12**	0.10*	0.10**	-113.94***	-37.30*
(se)	(0.04)	(0.04)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)	(37.02)	(24.54)
N	1,486	1,463	1,445	1,439	1,441	1,441	1,453	1,449	601	609

Notes: Based on measures Q101, Q130, Q200A-F, Q277. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

To get a better understanding of villagers' opinions about service provision, we present the same information as the first columns in **Table 8** but spread out by quality component in **Table 9**. Comparing the health and education sector in control communities, we find that except for their opinion related to service cost, respondents have a more positive opinion about service delivery in the health sector than in the education sector. The *Tuungane* 2 program has a positive impact on individuals' opinion about service provision across all components. A major component of the *Tuungane* 2 program was the construction and rehabilitation of health centers and schools. It is not surprising that we find the strongest program results for the service quality component related to building condition. This result will echo the results in the next section, where we explore service provision in more detail.

Table 9. Service Quality by Component

	Health			Education		
Component	Control	*Tuungane*	(se)	Control	*Tuungane*	(se)
Building condition	1.31	0.23***	(0.07)	1.12	0.30***	(0.06)
Capacity	1.25	0.13**	(0.06)	1.20	0.23***	(0.06)
Presence of material and supplies	1.19	0.15***	(0.05)	1.03	0.30***	(0.06)
Staff quality	1.55	0.08**	(0.04)	1.49	0.14***	(0.05)
Administration	1.43	0.15***	(0.06)	1.40	0.16***	(0.06)
Community participation	1.49	0.12**	(0.05)	1.46	0.16***	(0.05)
Service cost	0.84	0.16***	(0.05)	1.01	0.15***	(0.05)

Notes: Based on measures Q101 and Q130. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

We also ask the randomly-selected respondents to judge the activities that are undertaken by their local user committee.[22] Specifically, we ask our respondents to judge their village committee across six types of activities: 1) informing the population about actions it undertakes, 2) informing the population about the management of resources, 3) informing the community about the quality of service provision, 4) permitting community members to participate, 5) consulting the population before making decisions, and 6) guaranteeing that local resources are used for the public good and not private gain. Respondents could reply "Negative" (0), "Indifferent" (1) or "Positive" (2). Columns 3 to 8 report the results. We find that in control communities, respondents rate the activities undertaken by their service providers on average as neither good nor bad (i.e. close to one). Compared to control areas, however, we find that individuals in *Tuungane* areas rate their user committee significantly more favorably. *Tuungane* 2 improves villagers' opinions by between 0.1 and 0.12 (on a scale from 0 to 2).

Finally, we explore villagers' opinions about their service providers directly. Because survey questions are prone to social desirability biases, we conduct a set of experimental games with our respondents to obtain behavioral measures related to attitudes towards the user committee. Specifically, we have two randomly selected villagers in each community play a so-called "trust game." In the trust game, the villager is paired with another individual. We gave one villager in each pair 1,000 Congolese Francs, and told them to send any amount of this to the other individual (the amount sent could be zero). We also told the villager that whatever was sent would be tripled by us. Thus, a villager that decides to give 400 Francs will actually send 1,200 Francs to the other individual. The other player is then visited, the rules of the game are explained, the money sent by the villager is given, and we ask how much the participant wants to return to the other (anonymous) villager. The amount of money contributed by the villager is often used a measure of "trust".[23] We made respondent play the game twice, first pairing them with the president of COPA and then with the president of CODESA.[24] The latter two columns of **Table 8** show that villagers donate around 43% and 37% of their endowment to the presidents of the COPA and CODESA, respectively. We find that in *Tuungane* communities, individuals contribute much less to the president of COPA: the difference in contribution by treatment condition is considerable: 316 instead of 430 Congolese Francs. We also find a negative effect of the *Tuungane* program on contributions to the president of the CODESA, although these differences are small. This result contradicts the positive findings found thus far.

[22] The number of observations is lower here, because many respondents have no opinion. Incorporating these as indifferent (thus not positive) does not change the results.

[23] The amount of money returned to the villagers is often taken as a measure of "trustworthiness". We did not collect information on trustworthiness.

[24] We randomized which version the respondent received first in order to avoid potential ordering effects.

5.2 Improvements in service provision

We now move to our next family of outcomes, those related to service provision in the health and education sectors. We explore the relationship of *Tuungane* 2 and service provision in these sectors across seven dimensions: 1) building condition, 2) capacity, 3) presence of material and supplies, 4) staff quality, 5) administration, 6) community participation, and 7) service cost and utilization. We again combine data from multiple sources to learn about service provision improvements. Chief among them, however, is the infrastructure survey, which we conducted at the primary schools and health facilities used by each community (provided this was located within a one-hour walking distance - about five kilometers).

5.2.1 Dimension 1: Building condition

We first explore the condition of the infrastructure. First, we explore that for the health sector; the health post or health center. **Table 10** presents the results. As a first source of information we visited the health center used by the village and judged the quality of the physical infrastructure. We find that the majority of health facilities in control areas have high quality floors (79%) and walls (67%).[25] *Tuungane* 2 communities score significantly better on these indicators with 96% of health facilities and 95% of health facilities having a high quality floor and wall. The "Facilities" variable simply sums the presence of the following facility components: 1) consultation room, 2) treatment room, 3) laboratory, 4) observation room, 5) pharmacy, 6) maternity or delivery room, 7) waiting room, 8) nurses office, 9) trash can in all rooms, 10) incinerator, 11) garbage hole, 12) placenta hole, 13) working latrines, 14) showers and 15) running water. In *Tuungane* control areas, health infrastructure has around 10 of these 15 components. In treatment areas this number increases to almost eleven. **Table 11** presents the information by individual component. Next, our enumerators judged whether the floors and walls in the health facility were clean. We find that in control areas the majority of floors (66%) and walls (61%) are considered clean, and floors are, on average, significantly cleaner in *Tuungane* 2 treatment areas.

Table 10. Dimension 1: Building condition. Health

	Health facility audit					Villagers
	Floor Quality	Wall Quality	Facilities	Clean Floor	Clean Wall	Toilets
Control	0.79	0.67	9.76	0.66	0.61	0.74
Tuungane	0.17**	0.28***	0.96*	0.15**	0.09	0.15***
(se)	(0.08)	(0.06)	(0.71)	(0.07)	(0.08)	(0.03)
N	238	222	237	236	236	1,464

Notes: Based on measures ES42, ES41, ES19-ES33, ES35, ES36, Q106. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

As a second source of information, we asked the randomly selected respondents about the presence of a working toilet at the health facility. In control areas, 74% of respondents mention the presence of a working toilet. In *Tuungane* 2 areas, however, this number is significantly higher at 89%.

[25] We made use of the following list: mud, straw, wood/ bamboo, metal plates, concrete/ cement, tiles, plastic, stone, backed bricks, cardboard, other. Across all communities, we find that floors of health infrastructure are made off: mud (13%), straw (1%), metal plates (3%), cement (81%), baked bricks (1%), other (1%). Floors made of mud we consider 'low quality', the rest we consider 'high quality'. We have more variation in the material used for the walls: mud (8%), wood/ bamboo (2%), cement (16%), baked bricks (65%), other (9%). We consider walls made of cement and baked bricks as 'high quality', the rest we consider 'low quality'.

Table 11. Facility components

Facility	Control	*Tuungane*	(se)
Consultation room	0.94	0.05**	(0.03)
Treatment room	0.81	0.11**	(0.05)
Laboratory	0.56	0.09*	(0.07)
Observation room	0.83	0.08*	(0.05)
Pharmacy	0.77	0.03	(0.06)
Maternity or delivery room	0.78	-0.03	(0.06)
Waiting room	0.63	0.22***	(0.07)
Nurse office	0.49	0.06	(0.07)
Trash can in all rooms	0.45	0.09	(0.07)
Incinerator	0.52	-0.04	(0.07)
Garbage hole	0.72	0.09*	(0.06)
Placenta hole	0.64	0.04	(0.07)
Working latrines	0.76	0.11**	(0.06)
Showers	0.65	0.05	(0.07)
Running water	0.23	0.13**	(0.07)

Notes: Based on measures ES19-ES33. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

We also visited the primary schools of the study villages to learn about the quality of education infrastructure. When visiting the school, enumerators judged the quality of the school floors, walls and roof. Results are presented in the first five columns of **Table 12**. We find that floor and wall quality is lower compared to health facilities. In control areas, about 40% of schools have a high quality floor.[26] About 73% of schools have a high quality wall.[27] Roof quality is high overall at 77%.[28] We find that *Tuungane* 2 areas score significantly better across all three measures. Enumerators also recorded the presence of glass windows and toilets. In our research area, a high quality school is one that has glass windows. In control areas, about one in four schools have windows (26%), and the majority of schools have at least one working toilet (62%). Again, we find that *Tuungane* areas score much better on this indicator. Schools in treatment areas are 80% and 12% more likely to have windows and a working toilet, respectively.

Table 12: Dimension 1: Building condition. Education

	School audit					Villagers
	Floor Quality	Wall Quality	Roof Quality	Windows	Toilets	Toilets
Control	0.40	0.73	0.77	0.26	0.62	0.57
Tuungane	0.36***	0.15**	0.18***	0.20***	0.20***	0.18***
(se)	(0.06)	(0.06)	(0.07)	(0.08)	(0.08)	(0.03)
N	271	251	271	271	271	1,445

[26] Floors: mud (45%), metal plates (1%), cement (50%), baked bricks (4%). Walls: mud (12%), wood/ bamboo (7%), cement (10%), baked bricks (58%), other (13%).

[27] Walls: mud (12%), wood/ bamboo (7%), concrete/ cement (10%), backed bricks (58%), other (13%).

[28] Roofs: straw (17%), metal plates (79%), concrete/ cement (1%), backed bricks (3%). We take roofs to be made from straw as 'low quality', and the rest as 'high quality'.

Notes: Based on measures EE35, EE37, EE34, EE32, EE36, Q135. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Our other indicator of the building quality of the primary school comes from service users. We ask villagers about the school. Specifically, we ask them about the presence of a working toilet at school. We find that the majority (57%) mention the presence of toilets, which corresponds to observations made by our enumerators. We find again that *Tuungane* areas score much better at 75%.

5.2.2 Dimension 2: Capacity

The second dimension of service provision we explore is capacity. We first investigate the impact of *Tuungane* 2 on the capacity of the health facilities. **Table 13** presents the results, which are based on four different sources. First, our enumerators counted the number of health providers present and the number of beds at the health post or health center. We find that in control areas, on average, a health facility has almost three health providers present and counts around seven beds. We find that health facilities in *Tuungane* areas have significantly more beds: 9.24 beds compared to 6.86 in control areas, a difference that is large and statistically significant. This result might not be surprising given that a major component of the *Tuungane* program was not only to construct and renovate health infrastructure, but also to equip them, with hospital beds among other things.

As another source of information about capacity, our enumerators interviewed a randomly selected facility user (a patient present at the health post) and asked this patient about the wait time. In control areas, patients report to have to wait for almost five hours before being attended by a qualified health provider, and around four hours for treatment. We find that patients in *Tuungane* 2 areas have to wait a full three hours more for both; a result that is statistically significant.

During their audit, enumerators also interviewed the director of the health facility. Among others, they asked the director about the number of nurses and doctors that work for the facility. In addition, enumerators asked which possible diseases, from a list of six possible diseases, could be treated in the health facilities on the spot.[29] We find that in control areas, around three nurses work for the health center, and one in nine health facilities have a doctor. Furthermore, health facilities are able to treat on average five out of six diseases on the spot. We find that compared to control areas, directors in *Tuungane* areas report to have three times as many doctors on the payroll. Note though that this observation does not translate to the number of health care providers present in the health facility as reported by our enumerators.

Table 13. Dimension 2: Capacity. Health

	Health facility audit		Patient		Head of health facility			Villagers
	# Providers Present	# Beds	Wait Personnel	Wait Treatment	# Nurses	# Doctors	Treatments	Wait Time
Control	2.80	6.86	4.64	4.19	3.16	0.11	5.34	10.23
Tuungane	-0.29	2.38**	3.28***	3.04**	-0.28	0.23*	-0.42*	-0.48
(se)	(0.30)	(1.05)	(1.19)	(0.52)	(0.33)	(0.16)	(0.25)	(1.49)
N	234	234	208	208	233	225	233	1,333

Notes: Based on measures ES37, ES18, ES45, ES47, ES66, ES67, ES64, Q114. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

[29] These are the following six: 1) diarrhea, 2) wound, 3) infection of respiratory tract, 4) delivery, 5) dermatosis, and 6) high blood pressure.

As our final source of information, we ask villagers about the expected waiting time to receive care. The last column in **Table 13** presents the results. In control areas, villagers expect to wait almost ten hours before receiving care, which is more than what patients themselves report. The large discrepancy can be caused by the observation that the average villager is likely to be poorly informed. We do not find any differences between *Tuungane* treatment and control areas.

Table 14 presents similar results from similar measures for the school. We build on three separate sources of data. First, our enumerators visited a class that was in progress to collect information about the number of benches in the room and to calculate the size of the classroom. The first two columns in **Table 14** present the results. In control areas, an average classroom in use has around five benches and is 31 square meters in size. We find that classrooms in *Tuungane* areas have almost nine benches more in the classrooms. This result might not be surprising given that a major component of the *Tuungane* program was not only to construct and renovate schools, but also to equip them, with benches among other things.

Enumerators also interviewed the school director, and asked about the number of teachers on the payroll, the number of classrooms, whether they offer terminal degrees and the number of students registered. In control areas, a school has, on average, around nine teachers and 6.5 classrooms. About 89% of schools in control areas offer terminal degrees, and they have on average 241 students registered. We also calculate the teacher/student ratio, and we find that each teacher covers around 20 students. We find that school heads in *Tuungane* 2 respond largely similarly.

Finally, we ask villagers whether they are of the opinion that the classrooms are large enough. The last column in **Table 14** shows that in control areas about 72% of respondents agree with the statement. We find that respondents, at 81%, are significantly more likely to agree in *Tuungane* treatment areas.

Table 14. Dimension 2: Capacity. Education

	School audit		Head of school					Villagers
	# Benches	Room Size	# Teachers	# Rooms	Highest Degree	# Students Reg.	Teacher/ Student Ratio	Room Size OK
Control	5.29	30.61	8.81	6.54	0.89	241.49	0.05	0.72
Tuungane	8.71***	-1.53	-0.90	0.27	-0.01	24.43	-0.01	0.09***
(se)	(1.74)	(8.75)	(0.87)	(0.61)	(0.07)	(19.82)	(0.01)	(0.03)
N	80	82	254	264	250	250	240	1,325

Notes: Based on measures EE25, EE26, EE54, EE31, EE53, EE55, Q133. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

5.2.3 Dimension 3: Presence material and supplies

We next explore whether sufficient material and supplies are present to provide quality service. Our indicators for this dimension are fully based on the observations made by our enumerators at the health and education facilities. We first investigate the presence of supplies. Specifically, upon visiting the health facilities, our enumerators visited the stockrooms and counted the number of antibiotics, anti-malarials and anti-inflammatory tablets present. In the Congolese context, these are primary types of medicines. The numbers presented in **Table 15** are averages, and we should highlight that a considerable number of health facilities do not have these medicines in stock: 21% of facilities do not have any antibiotics, 6% do not have anti-malaria tablets, and 22% do not have anti-inflammatory tablets. Although we find that health facilities in *Tuungane* areas are better stocked with antibiotics, they are less well stocked with malaria tablets and anti-inflammatory tablets. We find that these differences are not statistically significant.

Table 15. Dimension 3: Presence material and supplies. Health

	Health facility audit		
	# Antibiotics	# Malaria Tables	# Anti-inflammatory Tablets
Control	1412.49	1103.03	1018.10
Tuungane	30.27	-382.43	-151.27
(se)	(398.71)	(348.37)	(303.82)
N	215	218	215

Notes: Based on measures ES38, ES39, ES40. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level.

Table 16 presents results relating to schools. Specifically, our enumerators recorded the presence of material during a randomly selected ongoing class. In control areas, we find that almost 98% of ongoing classes have a blackboard. While 75% of students have a notebook to write in, only 24% of students have a textbook. Among teachers, 84% have a textbook with them, 93% of them have notes prepared (an official Congolese requirement) and 84% of all teachers keep an attendance list. Across the board, we do not find a strong difference between *Tuungane* 2 treatment and control communities. Note that we have few observations because part of the data was collected during the school summer holiday period and classes were not in session.

Table 16. Dimension 3: Presence material and supplies. Education

	Class visit					
	Blackboard	Prop. Books	Prop. Notebooks	Teacher Book	Teacher Prep.	Teacher List
Control	0.98	0.24	0.75	0.84	0.93	0.84
Tuungane	0.01	0.01	-0.06	-0.05	-0.05	0.06
(se)	(0.02)	(0.11)	(0.09)	(0.11)	(0.07)	(0.08)
N	82	77	75	76	77	77

Notes: Based on measures EE24, EE22, EE23, EE27, EE28, EE29. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

5.2.4 Dimension 4: Staff quality

Next, we explore the relationship between *Tuungane* 2 and staff quality. **Table 17** presents results related to the health facility, where we build on two different sources. First, our enumerators interviewed the director of the health facility, and asked about the number of doctors and nurses and the qualifications of the director. In control areas, there are around 25 nurses for each doctor, the director has around 13 years of education and 9.4 out of 10 directors have a medical studies background. In *Tuungane* areas, the doctor to nurse ratio is higher: the ratio is almost three times that of control areas, although this result is not statistically significant. We also find that the directors of health facilities had received about half a year more education than those in control areas; although also this result is not statistically significant.

We also ask our respondents about health facility staff. Specifically, we ask them whether the doctor or nurse is always present on time. In control areas, 97% of respondents indicate that this is the case. We find that this is the same in treatment areas.

Table 17. Dimension 4: Staff quality. Health

	Head of the health facility			Villagers
	Doctor/ Nurse Ratio	Director Education	Director Medical	Presence Health Provider
Control	0.04	13.10	0.94	0.97
Tuungane	0.08	0.56	-0.04	-0.02*
(se)	(0.07)	(0.44)	(0.03)	(0.01)
N	224	241	236	1,464

Notes: Based on measures ES66, ES67, ES56, ES57, Q98. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

We also explore the impact of *Tuungane* 2 on staff quality at primary schools. **Table 18** presents the results. We build on three different sources of information. First, in control areas, upon their visit to a classroom, our enumerators found the teacher present in all cases (100%). Furthermore, all of these teachers have studied pedagogy (an official requirement). We do not find any evidence for a positive impact of the *Tuungane* 2 program. In fact, we find some evidence that fewer teachers are present in *Tuungane* 2 areas, compared to control areas, although this result is only significant at the 10% when conducting a two-tailed test.

Second, our enumerators also investigated the qualifications of the school director. Specifically, our enumerators asked about the director's years of education and whether he or she had studied pedagogy. We find that in control areas, on average, the director had ten years of schooling and 94% had studied pedagogy. We find no statistically significant differences between *Tuungane* 2 treatment and control areas.

Table 18. Dimension 4: Staff quality. Education

	Class visit		Head of school		Villagers			
	Teacher Present	Studied Pedagogy	Director Education	Director Pedagogy	Teacher Absence	Teacher Punctual	Teacher Qualified	Teacher Rigorous
Control	1.00	1.0	10.08	0.94	0.18	0.95	0.92	0.88
Tuungane	-0.06*	0.00	0.49	0.00	0.12***	-0.01	0.02	0.03
(se)	(0.04)	(.)	(1.26)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)
N	79	77	270	243	1,145	1,150	1,126	1,081

Notes: Based on measures EE19, EE30, EE45, EE46, Q128, Q129, Q131, Q132. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Finally, we ask villagers about the school staff. Specifically, we ask them whether the teachers are often absent, whether teachers are on time, whether they find the teachers qualified and competent, and whether their teaching is appropriate and rigorous. The last four columns in **Table 18** present the results. We find that in control areas, 18% of respondents stated that teachers are often absent, and a majority are of the opinion that the teachers are mostly

punctual (95%), qualified (92%) and that the teaching material is rigorous (88%). Teachers in *Tuungane* 2 areas, however, seem to be more absent than those in control areas.

5.2.5 Dimension 5: Administration

We now investigate the quality of administration of the health facilities and schools. **Table 19** shows results related to the health facility, where the results are solely based on the audit conducted by our enumerators. Specifically, our enumerators first recorded whether the director is present at the facility at the time of the visit. Next, enumerators recorded the presence of a patient register, a staff register, a stock register and a cashbook. They did so only verification of the presence of the physical document.[30] We find that in control areas, in 82% of cases the enumerators find the director present at the health facility. Enumerators also found that in the majority of cases, the patient register (92%), staff register (75%), stock register (79%) and cashbook (76%) were present. We find evidence that more patient registers, staff registers and stock registers are present in health facilities that serve *Tuungane* 2 areas.

Table 19. Dimension 5: Administration. Health

	Audit				
	Director Present	Patient Register	Staff Register	Stock Register	Cash Book
Control	0.82	0.92	0.75	0.79	0.76
Tuungane	0.01	0.08**	0.12**	0.08	0.04
(se)	(0.06)	(0.03)	(0.06)	(0.07)	(0.06)
N	239	235	235	229	230

Notes: Based on measures ES50, ES81, ES82, ES83, ES84. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Table 20 provides results about the quality of school administration. Similar to the health facility, we base these results on the audit. Specifically, we also record whether the director is present at the time of visit, and whether the personnel registry and the national program are present. In control areas, in 63% of the cases our enumerator found the school director present. Among those cases where the director is present, enumerators found in 86% of cases a personal registry and in 68% of cases a copy of the national program. We find little difference between *Tuungane* treatment and control areas.

Table 20. Dimension 5: Administration. Education

	Audit		
	Director Present	Personnel Registry	National Program
Control	0.63	0.86	0.68
Tuungane	0.05	0.06	0.02
(se)	(0.12)	(0.05)	(0.08)
N	267	222	183

Notes: Based on measures EE39, EE61, EE60. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

[30] We did not record whether these registers and cashbook were actually kept up to date.

5.2.6 Dimension 6: Community participation

The interaction between service provider and the community (service users) is another important dimension of service provision. In Congo, for example, service providers are often dependent upon the aid of the community to operate. We obtain data from two sources: an interview with the health facility's director, and interviews with villagers. We asked the head of the health facility about community contributions to the health facility in the preceding year.

Table 21 shows that, in control areas, only 6% of heads of health facilities report that the community contributed in kind to the health facility in the preceding year at least once, and 4% that this happened with money. We find that in *Tuungane* 2 areas, however, contributions in kind were almost three times more likely compared to control areas. This result is statistically significant.

We ask the same question to villagers. That is, we ask whether the respondent has contributed in kind or with money to the health center. We find that in control areas around 2% (3%) of respondents mention that they have contributed to the health facility in kind (in cash) during the preceding year. The health facility often serves more than one school, which may explain the difference in reporting between the director and the villagers. Importantly, we again find that in *Tuungane* 2 area contributions in kind are significantly more frequent than in control areas, a result which supports the claims made by the director of the health facility.

Table 21. Dimension 6: Community participation. Health

	Head of the health facility		Villagers	
	Contrib. in Kind	Contrib. in $	Contrib. in Kind	Contrib. in $
Control	0.06	0.04	0.02	0.03
Tuungane	0.10***	0.00	0.02***	0.01
(se)	(0.03)	(0.02)	(0.01)	(0.01)
N	219	218	1,377	1,324

Notes: Based on measures ES70, ES71, Q112, Q113. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

In **Table 22**, we present similar indicators related to the school. We find that community contributions towards the school occur more often than towards the health facility, with 30% (23%) of school directors mentioning that the community has contributed to the school in kind (in cash) at least once in the preceding school year. We do not find that these contributions differ between *Tuungane* 2 treatment and control communities.

Table 22. Dimension 6: Community participation. Education

	Head of school		Villagers	
	Contrib. in Kind	Contrib. in $	Contrib. in Kind	Contrib. in $
Control	0.30	0.23	0.08	0.06
Tuungane	-0.03	-0.04	0.02	0.02
(se)	(0.07)	(0.07)	(0.02)	(0.04)
N	237	231	1,328	1,293

Notes: Based on measures EE58, EE59, EE67, Q140, Q141. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Around 8% (6%) of villagers mention that they have contributed to the school in kind (in cash) during the preceding year. Again, we find no difference between those areas that received the *Tuungane* program and those that did not.

5.2.7 Dimension 7: Service cost and utilization

The final dimension of service provision we explore relates to costs and utilization. **Table 23** gives results for the health facility. First, our enumerators recorded whether the health facility was open upon their visit. In control areas, enumerators found 97% of health facilities to be open. This increases to 99% in *Tuungane* 2 treatment areas, although this difference is not statistically significant.

Second, we interviewed a randomly selected patient present in the health facility. Specifically, we asked the patient how much they paid for their service. In control areas, the average response is $5.60. The average response in treatment areas is more than twice as large at $11.21. This difference is statistically significant only at the 10% when conducting a two-tailed test, so we will not elaborate upon this further.

Third, we ask the heads of the health facilities about service cost and utilization. We find that around four patients are present at the time the enumerator visited the facility, and an average of 184 patients visited the facility the preceding month. The average prices of a consultation, a health card and an overnight stay are $1.40, $0.49 and $3.91 respectively. We find no strong difference between T2 treatment and control areas.

Finally, we ask villagers about costs and utilization. Villagers report the price of a consultation to be $2.15, the price of a health card to be $0.95 and the price of an overnight stay to be $4.01. Note that heads of the health facility and average villagers report somewhat different prices, which could be the result of villagers being less well informed about the costs or biases in reporting. This observation is reflected in the large number of individuals that answered "I don't know" to these price questions (**Table 23**). Finally, we find that, in control areas, members of the household visit the health facility on average about 3.6 times a year. Across these indicators, we do not find a difference between *Tuungane* 2 treatment and control areas.

Table 23. Dimension 7: Service cost and utilization. Health

	Audit	Patient	Head of the health facility					Villagers			
	Open	$ Paid	Patients Now	Patients Last Month	$ Price Consultation	$ Price Card	$ Price Night	$ Price Consultation	$ Price Card	$ Price Night	# Visits
Control	0.97	5.60	4.30	183.93	1.40	0.49	3.91	2.15	0.98	4.01	3.57
Tuungane	0.02	5.61**	0.33	-16.69	-0.28	0.29	0.96	0.40*	0.21**	0.44	0.24
(se)	(0.02)	(2.84)	(1.25)	(26.13)	(0.33)	(0.31)	(1.39)	(0.27)	(0.12)	(0.79)	(0.41)
N	239	192	230	223	203	202	210	1,131	1,132	778	1,463

Notes: Based on measures ES14, ES49, ES69, ES68, ES58-ES61, Q108-Q111, Q92. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Table *24* presents the results related to costs and utilization for schools. We also base these results on four different sources of information. First, our enumerators recorded whether the school was open at the time of their visit. In control areas, enumerators found 26% of schools to be open, which increased to 37% in *Tuungane* 2 treatment areas; this difference is significant at the 10% level only. Part of the data was collected during the school summer holiday period. As a result, schools were not open. In these cases, the director of the school would be tracked down in the village for the interview.

Second, in those schools that were open in control areas, our enumerators found that the average class consisted of around 21 boys and 19 girls. We find similar numbers in *Tuungane* treatment areas.

Third, we also ask the school director about service costs and utilization. Specifically, we ask about the number of students present at the school, the monthly school fee that households have to pay per child, and the "functioning fee", a fee to be paid once per trimester to the school. In control areas, the school director reports that there are, on average, 203 students present, the monthly school fee per child is $2.11 and the "functioning fee" is $1.16 per child. We find that in *Tuungane* 2 areas there are more students present in the school, and the functioning fee is significantly lower.

Finally, we ask average villagers about the costs of education. Results are reported in the last three columns of

Table *24* where the low number of observations reflects the fact that many respondents reply with "I don't know". Those villagers that do respond report that the average costs of having a child of school age (6-12) go to school costs on average $72.53 per child per school year, which includes school fees, books, uniform, transport, etc. The school fee and the function fee are, on average, $2.10 and $1.99, respectively. We again find that in *Tuungane* 2 areas the functioning fee is significantly lower, which corroborates the results we obtained from the head of the school. We also find, however, that the school fee is higher in *Tuungane* 2 areas, which increases from $2.10 to $2.57.

Table 24. Dimension 7: Service cost and utilization. Education

	Audit	Class visit		Head of the school			Villagers		
	Open	Boys	Girls	Students Pres.	School Fee ($)	Functioning Fee ($)	Cost School ($)	School Fee ($)	Functioning Fee ($)
Control	0.26	20.59	18.52	203.32	2.11	1.16	72.53	2.10	1.99
Tuungane	0.11	-0.74	-1.20	29.04*	0.15	-0.65***	16.24**	0.47***	-0.41**
(se)	(0.04)	(3.28)	(4.30)	(22.04)	(0.47)	(0.30)	(7.34)	(0.13)	(0.19)
N	255	77	77	248	253	201	1016	1198	731

Notes: Based on measures EE13, EE20, EE56, EE47, EE48, Q121, Q137, Q138. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

5.3 Health and education outcomes

We explore results related to health and education outcomes; our third set of outcomes.

5.3.1 Health outcomes

We first investigate differences between *Tuungane* 2 treatment and control communities related to health outcomes. **Table 25** presents results that are based on indicators collected from the respondents and their households.[31] Health conditions in Eastern Congo are bad. We asked each respondent whether during the previous 12 months anybody from the household had fallen ill to the point that he/she needed medical care. In control communities, we find that this was the case for a full 76% of respondents. We also asked each respondent whether any child younger than five years old had passed away during the previous year. A full 11% answered in the affirmative; a result that echoes findings by other surveys conducted in Congo. For example, the 2013 national DHS survey found that the overall under-five mortality has decreased since 2007, from 148 deaths per 1,000 live births in 2007 to 104 in 2013. In control areas, in one percent of cases the household's head had passed away during the preceding year. In total, 13% of respondents told us that in the preceding year at least one member of the household had passed away.[32] For a full 27% of households, in control areas, the head of the household was seriously ill at least once in the preceding year, a number that increases to 58% when asked about any member of the household. We find evidence that in *Tuungane* 2 areas the incidence of the head of household passing away is higher than in control areas, but we find no differences in health outcomes for the other indicators.

Table 25. Health outcomes

	Medical Care	U5 Mortality	Death Head	Death Household	Sick Head	Sick Household
Control	0.76	0.11	0.01	0.13	0.27	0.58
Tuungane	0.01	-0.01	0.02***	0.02	0.04*	-0.01
(se)	(0.03)	(0.02)	(0.01)	(0.02)	(0.03)	(0.04)
N	1,537	1,516	1,538	1,539	1,536	1,535

Notes: Based on measures Q88, Q89, Q60. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

5.3.2 Education outcomes

Next, we explore whether T2 had an impact on educational outcomes. As a first set of indicators, we ask each respondent about the schooling situation of the children in the household, separating out boys and girls, since their sixth year of age.

As a second set of indicators of education outcomes, we administer an exam to children of school-going age in each applicable household. That is, in each household with children that are between the age of 6 and 11, we randomly select a child and conduct a brief exam to understand their level of: 1) mathematics, 2) French and 3) science.[33] See **Figure 3** for a related illustration. The questions the child received depended on their age. Our enumerators first asked the question in French (the official language of education). If the answer was incorrect, the question would be repeated in the local language.

[31] Based on discussions with the implementing partner we do not focus on rates and types of illness, but on more severe disease and mortality.

[32] We do not ask the cause for passing away, but we assume that the vast majority is for health reasons.

[33] These questions were informed by the national curricula for primary school, developed the Congolese Ministry of Education. They were collected from books regularly used in schools as well as the textbooks from teachers. The exams were administered only after the approval of the children's parents.

Table 26 shows that, in control areas, on average one daughter and 1.17 sons have been in school uninterrupted since their sixth year of age. We also ask each respondent how many of the household's children have never attended school. We find that in control areas around every third household has one child that has never been to school. *Tuungane* 2 areas seem to be related to higher attendance rates: 10% more daughters and 18% more sons have been in school uninterrupted since their sixth year of age.

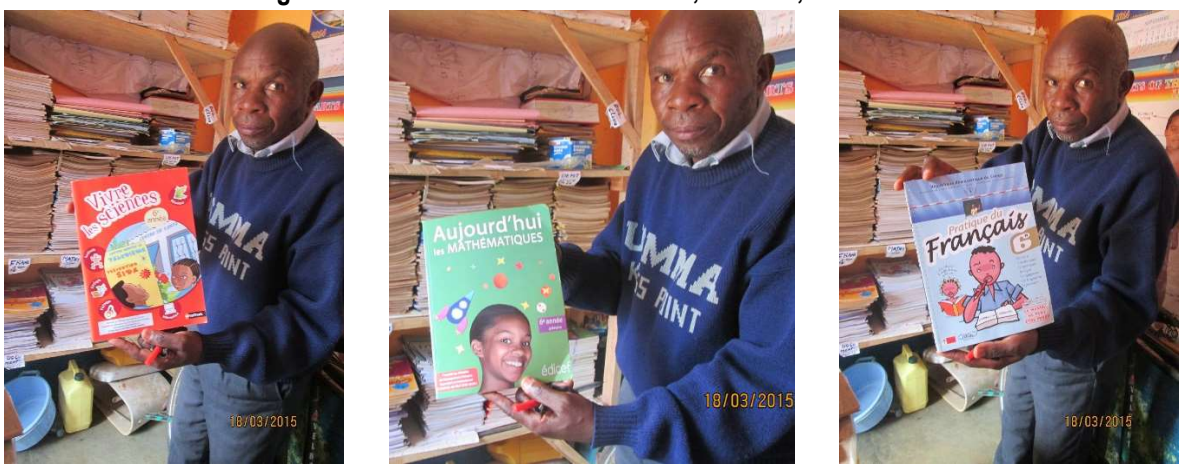
Table 26. Education outcomes

	Attendance (daughters)	Attendance (sons)	Never (daughters)	Never (sons)	Exam Grade (French)	Exam Grade (Local)
Control	1.01	1.17	0.37	0.30	2.54	3.02
Tuungane	0.10*	0.21**	-0.02	0.04	0.01	0.07
(se)	(0.07)	(0.09)	(0.05)	(0.05)	(0.19)	(0.19)
N	1,312	1,318	1,263	1,256	611	611

Notes: Based on measures Q115, Q118, EX11. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

In the exam component of data collection, children answered an average of 2.54 out of six questions correctly. Not surprisingly, the average grade increases to 3.02 when it was also asked in the local language. We do not find strong evidence that *Tuungane* 2 improved performance on the exam.

Figure 3. Exam related to Mathematics, Science, and French



Science *Mathematics* *French*

Notes: Pictures taken at the primary school Imani 2 in Cinjoma village in the groupement of Mudaka. Thanks goes to the school director Mitima Barhalengehya Lweru (in picture).

5.4 Improvements in governance-related outcomes

We now move to community governance. That is, we will now explore governance not specifically related to service provision. Although *Tuungane* 2 did not directly target governance outside of the sphere of service provision, exposure to good governance practices over the course of several years in the service sectors may alter behavior in other sectors as well. We explore this here. We examine governance across five dimensions: participation, accountability, efficiency, transparency, and capture.[34] We will discuss each dimension in turn.

5.4.1 Participation

We define participation as the extent to which villagers are willing and able to partake in public decision-making. We present results in **Table 27**, where the indicators make use of two sources of data: the household survey and the chief survey.

First, we ask respondents how often they participated in a village meeting during the preceding six months. In control areas, 42% of respondents did so, and among those 39% gave their point of view during these meetings.

We also ask each respondent whether their household contributed (either time, money or labor) to voluntary projects during the last six months. For this question, we referred to a list of six public works that are popular for communities to undertake.[35] We find that respondents in control areas answer in the affirmative for 1.25 projects. Next, we explore individuals' participation in public decision making outside of the community. We find that in control areas, a full 93% of individuals voted in the 2011 presidential elections, and that 32% of respondents participated during an election meeting or campaign. Finally, we ask respondents their opinion about the following statement: "Everybody has the right to participate in political and economic decisions even if he/she does not understand all aspects of the problem in question." Responses can be yes or no. In control areas, around 66% of respondents agree with this statement. Across the indicators, we find that individuals in *Tuungane* 2 areas are more likely to contribute to a voluntary project and participate in elections activities; both results are statistically significant.

Table 27. Governance: Participation

	Villagers						Chief
	Present Meeting	Participated Meeting	Voluntary Contribution	Voted 2011	Participated Election	Right Participate	Interaction
Control	0.42	0.39	1.25	0.93	0.32	0.66	2.58
Tuungane	0.03	-0.02	0.16**	0.00	0.09***	-0.01	-0.2
(se)	(0.03)	(0.05)	(0.09)	(0.02)	(0.03)	(0.03)	(0.49)
N	1,522	668	671	1,536	1,528	1,525	320

Notes: Based on measures Q199a-b, Q194, Q218, Q219, Q232, EC205. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Finally, we also ask the village chief about community participation. Specifically, we ask which activities– of a list of eleven main activities related to his interaction with the community and other actors - the chief has undertaken in the

[34] We follow HSW (2012) in doing so. Note that HSW (2012) implemented a $1,000 unconditional cash transfer program to obtain behavioral measures of governance. We did not implement such a program and build on survey information only.

[35] These include: 1) construction and maintenance of primary schools or health infrastructure, 2) construction or maintenance of roads, 3) construction or maintenance of wells, 4) organization of security patrols, 5) maintenance of a church or mosque, 6) construction of a market.

preceding six months.[36] We find that of the eleven activities, village chiefs in control communities have undertaken on average 2.58 of them. This number is very similar in *Tuungane* 2 areas.

5.4.2 Accountability

Next, we explore accountability. We define accountability as the willingness and ability of community members to sanction leaders for poor performance and the willingness of leaders to respond to citizens' requests. Again, we build on indicators from the household and chief surveys to explore whether *Tuungane* 2 had an impact on accountability. Results are presented in **Table 28**. As a first measure, we ask respondents how many accountability-related activities they have undertaken during the preceding six months from a list of seven activities.[37] In control areas, the average household undertakes 0.74 of these activities. Next, we also ask villagers a set of additional questions about accountability related to the chief specifically. Next, we ask villagers whether the village chief informs the population of the reasons behind important decisions. We find that in control communities this is the case of 70% of responses. Furthermore, 43% of all respondents mention that when one is not satisfied with village decisions there are other bodies that may be contacted which can affect these. We also ask individuals whether they feel capable of influencing their leaders to meet their expectations. For 16% of respondents in control areas this is the case. Finally, we ask respondents about their opinion of the following two statements: 1) "As citizens we have a responsibility to regularly check and question the actions of our provincial and national political leaders" and 2) "As inhabitants of the village, we have a duty to regularly check and question the actions of our village chief." Responses are again yes or no. We find that 26% agree with the first statement, and 74% with the second statement. We find that *Tuungane* 2 areas score better when it comes to accountability. Specifically, we find that compared to control areas, individuals are of the opinion that their chief informs them better, they can contact other bodies to voice their dissatisfaction with village decisions better, more people are of the opinion that they can influence their leaders' decision, and people are also more likely to agree with the statement that individuals have a duty to check and question the actions of the village chief. Do note that we find that in treatment areas, compared to control areas, people are less likely to agree with the statement that individuals have a duty to check and question provincial and national political leaders; although this result is only significant at the 10% level when using two-tailed tests.

Table 28. Governance: Accountability

	Villagers						Chief
	Interaction	Chief Informs	Other Governing Bodies	Influence Leaders	Verify Leaders	Verify Chief	Local Committee
Control	0.74	0.70	0.49	0.16	0.26	0.74	3.18
Tuungane	0.02	0.04*	0.06**	0.04**	-0.05**	0.06**	-0.41
(se)	(0.07)	(0.03)	(0.03)	(0.02)	(0.03)	(0.02)	(0.33)
N	1,536	1,473	1,331	1,363	1,522	1,526	279

[36] These are the following activities: 1) contact the police or judiciary for problems related to the village, 2) contact the military for problems related to the village, 3) contact the provincial government for problems related to the village, 4) contact the national government for problems related to the village, 5) contact local, decentralized government entities (ETDs) for problems related to the village, 6) contact the chief of the grouping or chiefdom for problems related to the village , 7) contact MONUSCO to ask to initiate a village project, 8) contact an international NGO to ask to initiate a village project, 9) contact the national assembly member that represents the village, 10) contact armed groups, 11) contact CODESA/COPA to discuss a development project related to the village.

[37] The activities are the following: 1) meet the village chief to raise an issue 2) meet a member of a village management committee to raise an issue 3) contact the police or the judiciary about some problems you had, 4) meet or contact other state officials about some problems you had, 5) meet representatives of MONUSCO or NGOs to raise an issue, 6) participate in a demonstration or a peaceful protest march, 7) meet with influential individuals, but without authority recognized by the state (e.g. armed groups).

Notes: Based on measures Q199c-i, Q211, Q212, Q228, Q233, Q235, EC206a-d,g. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Finally, we also ask the village chief about how well the local committees in general (these include COPA and CODESA) undertake activities from a list of five accountability-related activities. These activities are the following: a) informing the population about actions it undertakes, b) informing the population about the management of resources, c) informing the community about the quality of service provision, d) permitting community members to participate and e) informing state agents about the quality of service provision. In control areas, chiefs report that 3.18 out of the five activities are undertaken. We do not find a difference with *Tuungane* 2 areas.

5.4.3 Transparency

We define transparency as the accessibility of information related to public decision-making. We present results in **Table 29**. Our first measure of transparency is based on an experiment to collect behavioral data. If taking part in the *Tuungane* intervention has made communities more transparent, then it is likely that valuable information about public resources has become more accessible. We measure this by the willingness of selected villagers to obtain relevant information about the management of public resources for which they are beneficiaries. Specifically, each fifth (randomly selected) villager is presented with the opportunity to seek information about the revenues of the last period for either (randomly selected) the school or the main health facility. These are the same schools and health facilities visited by our enumerators. They are offered $1 as compensation for attempting to retrieve the information and an additional dollar upon success. Our enumerators check the veracity of the information and condition the second payment on accuracy.[38] Our first interest is in the willingness of the villagers to participate in this exercise. The first two columns in **Table 29** show that, in control areas, 84% of people are willing to collect information from schools, and 61% from the health centers. In *Tuungane* 2 areas, at 78%, respondents are significantly more likely to collect data from the health facility; although this result is statistically significant only at the margin.

Table 29. Governance: Transparency

	Accept School	Accept Health	Knowledge
Control	0.84	0.61	2.27
Tuungane	-0.03	0.17*	0.34***
(se)	(0.06)	(0.11)	(0.10)
N	143	101	1,455

Notes: Based on measures Q269, Q271, Q242. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

We collect one final indicator to measure transparency. We measure the extent to which individuals are informed about key decision makers. We ask respondents the name of: 1) the Prime Minister of the DRC, 2) the member of the National Assembly who represents the community, 3) the largest party in the National Assembly, 4) the Governor of the province, 5) the head of their territory, 6) the leader of their grouping ("groupement"). We then measure how many they know correctly. We find that an average respondent knows 2.27, fewer than half. We find that in *Tuungane* areas, at 2.61, individuals are better informed; a result that is statically significant

[38] This is the same survey experiment as conducted in HSW (2012).

5.4.4 Efficiency

We define efficiency as the ability to organize in order to achieve ends.[39] To measure this concept, we ask respondents whether during the preceding six months the members of the village have approached the state or an international NGO to ask them to initiate a development project to benefit the village. If a respondent replied in the affirmative, we subsequently asked whether the request was successful. **Table 30** shows that in control areas 6% of communities approached the state for a project in the preceding six months, and about 3% of communities approached an NGO. When they did, villages were successful in 31% and 38% of the cases, respectively. We find evidence that in *Tuungane* 2 areas, villages are more likely to approach an NGO.

Table 30. Governance: Efficiency

	Approached State	Successful State	Approached NGO	Successful NGO
Control	0.06	0.31	0.03	0.38
Tuungane	0.02	0.00	0.02*	0.05
(se)	(0.01)	(0.11)	(0.01)	(0.14)
N	1,352	92	1,413	62

Notes: Based on measures Q196, Q197. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

5.4.5 Capture

Our last dimension of community governance is capture, which we define as the extent to which benefits of public projects are broadly distributed. We build on information collected in the household survey.

First, we ask our respondents about the existence of development committees in the community that manage community resources.[40] We then ask the respondent to tell us, for each existing committee, whether the leaders are democratically elected by the community or not. Results are presented in the first two columns of **Table 31**, where we find that the average citizen reports that in control areas there are on average 1.96 committees, of which the vast majority (88%) have leaders that are democratically elected. We find that at 2.68, individuals in *Tuungane* 2 areas citizens report significantly more committees. As a second indicator of capture, we ask respondents the same questions about associations that may exist in the village.[41] We find that there are, on average, 1.51 associations per village in control areas, of which again the vast majority (78%) elect their leaders. We find that villages in *Tuungane* 2 areas are significantly more likely to have associations, and are also more likely to appoint association members through elections.

[39] Note that HSW (2012) define efficiency as the extent to which implementation makes good use of resources available. Without the unconditional cash transfer program we found that we would not be able to measure this.

[40] We prompt the following committees: 1) Water/ Sanitation, 2) Roads and erosions, 3) Health (CODESA), 4) Education/ School (COPA), 5) Farming/ Agriculture, 6) protection/ security, 7) Conflict Resolution, 8) Development General, and 9) Other.

[41] We prompt the following associations: 1) an association affiliated to the church/ mosque, 2) a peasant association, 3) an association of elderly, 4) an association of women , 5) a youth organization , 6) an association of former combatants / militia 7) an association for savings and credit, 8) an association to support a certain politicians or political party, 9) a human rights association, 10) a cultural association / ethnic, and 11) Other.

Table 31. Governance: Capture

	Committee Exist	Committee Elected	Association Exist	Association Elected	Village Chief	Dev. Committee	NGO	Gov.	Other Actor
Control	1.96	0.88	1.51	0.78	0.43	0.28	0.07	0.01	0.21
Tuungane	0.72***	0.02	0.31**	0.08***	-0.04	0	0	0	0.03
(se)	(0.12)	(0.02)	(0.17)	(0.03)	(0.04)	(0.03)	(0.02)	(0.01)	(0.03)
N	1,525	1,215	1,519	843	1,441	1,441	1,441	1,441	1,441

Notes: Based on measures Q176, Q180, Q183, Q185, Q207, Q198. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

Finally, we investigate whether the *Tuungane* 2 program influenced individual opinions about who should lead development activities. Specifically, we asked respondents' opinions about which actor would be best suited to manage a development project if the village were to receive $1,000 for development. Options were the village chief, the local development committee, an NGO, the government (national or local) or another actor. The last five columns of **Table 31** show that in control areas, 43% people prefer the village chief to lead a development project. Few people want an NGO (7%) or the government (1%) to undertake such an activity. We find that these dynamics are similar in *Tuungane* 2 areas.

5.5 Women's empowerment

Our final outcome of interest is women's empowerment. As described in the initial project document (IRC, 2006), women are thought to be particularly disenfranchised by conflict and there was a hope that socioeconomic projects with a village level focus would lead to their greater involvement. Many other elements of the program emphasized this theme, such as trainings focused on the needs of women and the requirement that village development committees were gender balanced. In this section, we will explore the impact of *Tuungane* 2 on outcomes related to women's empowerment.

We build on a number of different indicators collected from our randomly selected villagers and the village chief. As our first indicator, we ask our respondents' opinion about the following statement: "In this village, women should have the same rights and obligations as men." From **Table 32** we see that in control areas 57% of respondents agree with this statement; a share that is similar to in treatment areas. We also ask our respondents about the existence of a women's association in the community. We find that 21% of respondents report there to be a women's association, and among them 35% are a member. We find that in *Tuungane* 2 areas there are more women's associations. We also calculate the proportion of boys to girls who have received uninterrupted education since the age of 6, and the relative proportion never to have been to school. **Table 32** shows that, in fact, more girls have been in school since the age of 6 than boys. However, we also find that, compared to boys, girls are more likely never to have been to school. We find some evidence that the share of girls who have received uninterrupted education since the age of 6 is higher in *Tuungane* 2 areas.

Finally, we ask the village chief about the membership of the local development committee. We ask for the total number of members and for the number of members who are women in order to calculate the proportion of female members in the local development committee. We find that in control areas around one quarter (26%) of the committee is made up of women. This share is significantly higher in *Tuungane* 2 areas, where 40% of the committee is made up of women.

Table 32. Women's empowerment

	Women Rights	Women Association	Member Association	School Attendance (Prop.)	School Never (Prop.)	Committee (Prop.)
Control	0.57	0.21	0.35	0.75	0.86	0.26
Tuungane	0.02	0.07**	-0.04	0.09*	-0.11	0.14***
(se)	(0.03)	(0.03)	(0.13)	(0.06)	(0.11)	(0.05)
N	1,529	1,454	367	843	264	120

Notes: Based on measures Q237, Q183d, Q184, Q115, Q118, EC105d, EC105e. *** (**) [*] indicates significance at the 99% (95%) [90%] level. Based on one-tailed tests. Standard errors clustered at the village level (for individual level measures) or chiefdom level (for village level measures).

5.6 Results by sector, for boundary partners and the role of *Tuungane*'s first phase

Finally, this section explores results by sector, boundary partner and the role of the first phase of the *Tuungane* program. It is important to note that because of the lower number of observations for each of these analyses (and thus higher standard errors) it is more difficult to obtain statistically significant results. The results are summarized below and presented fully in Sections 10.3 to 10.5 of the appendix.

5.6.1 Results by sector

Tuungane 2 implemented projects in different sectors of which education and health were the most popular among communities, with education being significantly the most popular (see Section 3.2). There is no strong basis to believe that that *Tuungane* 2 affects outcomes in sectors in which the program did not intervene. It is for example unlikely to expect improvements in the capacity health facilities in areas that received education-related projects. In total, of the 212 communities that participated in the *Tuungane* 2 program and for which we also have all the baseline data necessary for matching (Section 4.5), 110 communities received projects in the education sector and 27 communities received projects in the health sector.[42] **Table 35** to **Table 40** present results where we compare communities that received projects in the education sector with similar communities that did not receive the T2 program. We do not do the same exercise for the other sectors because of the low number of observations.

Overall, **Table 35** to **Table 40** report quite similar results to the study's main findings. This may not be surprising given that most communities chose projects in the education sector. Unsurprisingly, we find that results in the health sector are somewhat weaker when only focusing on the *Tuungane* education projects (**Table 42**). Furthermore, when it comes to service provision in the education sector, we find that that the impact of *Tuungane* 2 on the quality of administration and community participation is stronger when only focusing on *Tuungane* communities that received project in the education sector (**Table 43**).

5.6.2 Results for boundary partners

Did the program have a larger impact on those that had more exposure to the *Tuungane* 2 program? On the one hand, we may expect stronger results due to greater exposure. On the other hand, we may expect weaker results given that these are a particular type of individuals and may already have scored highly on our outcomes of interest. To explore this question, we investigate results for those villagers that our implementing partner calls "boundary partners": those individuals that attended two or more *Tuungane* interface activities.[43] Specifically, we asked all respondents how many *Tuungane* 2 meetings they had attended. We find that 400 individuals attended two or more meetings.

Table 41 to **Table 46** show the results when we compare results for (only) these villagers in *Tuungane* 2 areas to the five average villagers in the control group. We find that *Tuungane* 2 had a stronger impact on community members that attended two or more meetings. These specific villagers score much better on our measures across the outcomes related to the relationship between service users and service providers (**Table 41**), governance (**Table 45**), and women empowerment (**Table 46**).

5.6.3 The role of *Tuungane*'s first phase

The *Tuungane* 2 program was implemented between 2012 and 2014, in both treatment and control communities of the first phase of *Tuungane*, which was implemented between 2007 and 2011 by the International Rescue Committee (IRC) and CARE International. The first phase was carried out in Haut Katanga, Tanganyika, South Kivu, and Maniema. The program worked in 1,250 randomly selected Village Development Committee areas (VDC), which were grouped into 280 Community Development Committee areas (CDCs) with a targeted beneficiary population of approximately 1,780,000 people. The program consisted of two components: 1) an intervention at the VDC level that involved $3,000

[42] In total, 5 communities received projects in the market sector, 22 in the transportation sector, and 29 in the water sector. We have sector information about 193 out of the 212 *Tuungane* 2 for which we also have matching data.
[43] The definition was chosen before data collection.

grants, and subsequently 2) an intervention at the CDC level that involved $50,000 to $70,000 sub-grants to undertake infrastructure projects such as the construction of schools and hospitals.[44]

Table 33 shows the overlap of the two phases for our survey villages. We find that of the 263 *Tuungane* 2 communities in our study, about half (129) have previously received the first phase of *Tuungane*.

An important question to answer is in how far this first phase interacts with the *Tuungane* 2 program. For example, positive benefits from T2 might be particularly strong in those communities that have had previous experience with the *Tuungane* project. On the other hand, we may expect *Tuungane* 2 effects to be particularly strong in areas that have not yet received any *Tuungane* attention. We will explore this now. Specifically, we match *Tuungane* 2 treatment villages and control villages among those that have received the first phase of *Tuungane*, and we do the same for those that have not received the first phase of *Tuungane*. One thing to keep in mind is that this exercise cuts the number of observations roughly in half for each analysis, and thus decreases statistical power. Specifically, among those communities that received the first phase of *Tuungane*, we make use of a total of 108 T2 treatment and 68 T2 control villages. Among those communities that did not receive the first phase, we have 104 and 62 *Tuungane* 2 treatment and control communities, respectively.

Table 33. Two *Tuungane* phases

		Tuungane 2		
		No	Yes	Total
Tuungane 1	No	257	134	391
	Yes	261	129	390
	Total	518	263	781

Results are presented in **Table 47** to **Table 52**. Comparing the impact of *Tuungane* 2 in areas that had received *Tuungane* 1 with those areas that did not, we find that the T2 impact on the condition of the building infrastructure is particularly strong in communities that have had no previous experience with the *Tuungane* program (**Table 48**). We also find that T2 scores better in communities that had not received *Tuungane* 1 when it comes to educational outcomes (**Table 50**). We find no evidence that extended exposure to *Tuungane* led to more women empowerment (**Table 52**), or differences in the relationship between service providers and users (**Table 47**), health outcomes (**Table 50**) or community governance (**Table 51**).

[44] *Tuungane* 2 was also different in a number of important ways: in its focus on VDCs - there were no CDCs in *Tuungane* 2; *Tuungane* 2 had larger sub-grants at an amount of $24,000; *Tuungane* 2 had an explicit theory of change; *Tuungane* 2 worked with existing user committees (COPA, CODESA); structured interface (community scorecard process, including sharing national norms and standards); structured action planning (service improvement plans); more focus on women and vulnerable groups in *Tuungane* 2; 5% of grant supports "soft" service improvement activities (advocacy, training, etc.); the village chief has an advisory role in VDCs for *Tuungane* 2, while they had no role during the first phase; the sector menu was reduced to only health, education, WATSAN, and markets or roads; before *Tuungane* 2 a regrouping exercise took place to decrease the artificial nature of treatment communities.

6 Discussion

This report has presented a large set of results related to the relationship between service users and providers, service provision, health and education outcomes, governance and women's empowerment. In this section, we provide some more information on a subset of the previous results using information from the qualitative data collection.

6.1 Improvements in the relationship between villagers and service providers

Our data suggests a connection between *Tuungane* 2 and an improved relationship between villagers and service providers. In terms of knowledge (**Table 5**), villagers in *Tuungane* 2 areas know more about the role of the Sous-Proved than those in control areas. Similarly, the head of the health facility is better informed about the role of the MCZ. Villagers also interact more with service providers in *Tuungane* 2 villages (**Table 7**), reporting more meetings with CODESA and COPA and a greater probability of meeting attendance with CODESA. Similarly, school heads in *Tuungane* 2 areas are more likely to have had meetings with their user committee, attend these more often and to have had a meeting with the community. Finally, the average villager in *Tuungane* communities is more positive about service providers in both the health and education sectors than those in control communities across a number of actions (**Table 8**). Strangely, we do not find improvements in villagers' trust in their user committees. In fact, using behavioral games, we find that the average villager is less trusting of their user committees in *Tuungane* 2 areas.

We look to the qualitative findings to understand the overall positive assessment of COPA and CODESA by villagers in more depth. In order to interpret these effectively, we first consider what communities consider the key roles of their committee members to be. In this respect, the qualitative data mirrors the major findings from the quantitative survey. COPA and CODESA are frequently cited as being a bridge between higher administrators and village members by both village respondents and committee members. For COPA members, this role has two major elements: 1) lobbying on behalf of parents about the payment of school fees, and 2) arbitrating against negative teacher behavior. As noted by a women's focus group in [Village 42], "COPA's work is to bring children to school and motivate parents to pay the school fees for their children and follow the teachers' behavior." In many cases, villagers claimed that motivating parents to pay school fees often manifested in physical forms of follow up. Sometimes this meant household visits but other times it meant confronting the student at school. In one focus group with women from [Village 49], COPA member were described as "chase(ing) pupils during the examinations period". Although chasing students was understood pejoratively, it is important to note that physical follow up did not necessarily imply an overall negative relationship. Rather, what seemed to influence community perceptions more was the committees' flexibility in handling school payments. In the case of [Village 49], for example, the high ratings accorded to COPA members was directly linked to their willingness to offer a modified payment schedule. "They [COPA] work well and when they chase a pupil...the parent is free to negotiate for an extension going up to the end of the month."

The effectiveness and positive assessment of COPA members was often attributed to their efforts to advocate on behalf of parents regarding the payment of school fees. Indeed, these efforts were often identified as one of the committee's central roles. As the head of [Village 50] stated: "[COPA members] plead in favor of the parents concerning the payment of the school fees, lowering the rate sometimes or adapting fixed payment modalities, and preventing manual works imposed to the pupils." Given that *Tuungane* field staff directly suggested reducing school fees or allowing alternative payment schedules to service staff and committee members, and that payment for services remains a key issue for users, it is not surprising that these efforts are seen positively by village respondents in *Tuungane* areas. However, the extent to which these efforts can be attributed solely to the *Tuungane* program is unclear, since multiple actors are working toward the same objective.

6.2 Building and equipping primary schools and health facilities

The *Tuungane* 2 program had a positive impact on the quality of building infrastructure of both health (**Table 10**) and education facilities (**Table 12**). Furthermore, when it comes to the capacity of the health center (**Table 13**), results are

positively related to the number of beds; and in the education sector to the number of benches (**Table 14**).[45] We thus find evidence that *Tuungane* 2 improved the dimensions of service provision related to what it tangibly provided.

In discussions with informants during the qualitative component of the research, it became evident that the majority of respondents corroborated the results from the quantitative data. Individuals were generally positive and appreciative about the built facility, considering it an improvement to what existed previously. This finding was not surprising given that communities voted for an improved structure precisely because of the state of the facility that existed (or did not exist) prior to the arrival of *Tuungane 2*. In this subsection, we use the qualitative evidence to explain the higher quality of school facilities recorded in *Tuungane 2* villages.

First, we note the different types of actors involved in assisting in the construction of school facilities in the absence of the *Tuungane* program. Different organizations and networks have contributed to the construction of school buildings across eastern DRC. Schools are built by a range of national and international actors including OIM (Organisation Internationale des Migrations), CUD (Commission Universitaire pour le Développement), SEC, World Vision, NRC (Norweigan Refugee Committee), catholic missions including CRS (Catholic Relief Services); and the government. In some cases, school facilities were constructed and paid for through the efforts of local village members themselves. The impact of having such a broad range of actors involved in school projects is that it is has led to projects of varying degrees of skill and financial input. This has resulted in a landscape of educational facilities with unevenly matched levels of quality. Thus, not surprisingly, we found educational facilities to be in varying states of disarray, stages of development, or completion. Such variation is more relevant for the quality of educational facilities than for health facilities, since the group of stakeholders contributing to education projects is far more varied. The wider variance in construction quality found in non-*Tuungane* areas helps explain why schools funded through *Tuungane* 2 were found to be of better quality. The example of glass windows helps illustrate this point, since school buildings financed by smaller NGOs are less likely to possess glass windows than buildings financed by NGOs with larger budgets, such as the IRC. The variance in funding also helps explain why the difference in roof quality between *Tuungane* 2 villages and control villages was far smaller than differences in wall and floor quality. The provision of metal sheets consistently featured as a priority for school buildings during discussions with village members. For this reason, money would have been made available to improve roofing quality regardless of the funding agent, ahead of items considered less critical, such as glass windows.

Second, we note the deterioration of infrastructure over time. *Tuungane 2* program only completed their educational projects fairly recently, *Tuungane* 2 facilities thus tend to be newer than those in control areas. Older schools showed visible signs of deterioration and vandalism, contributing to the overall assessment that *Tuungane 2* projects were of higher quality. Considering the prevalence of windows again helps illustrate this point. Windows in buildings built some time ago, particularly in areas where there was significant insecurity, were often smashed and broken. This presented a stark contrast to newer schools with windows still intact.

In line with the quantitative findings, the provision of equipment and materials was, in addition to the use of more durable materials in the construction of *Tuungane 2* facilities, positively noted by almost all villages equipped with such items. In the case of educational facilities, the IRC states that 19,929 school furnishings such as benches, tables, chairs, desks, shelves were bought for communities. The provision of these items was not only seen as improving the learning environment but the overall well-being of students. The head of COPA in [Village 34] notes, for example, how prior to the introduction of desks and chairs, "pupils were seated on the ground with harming insects penetrating their feet". Proper student seating was identified as holding an additional benefit for parents. Women from [Village 37] cite a benefit of the improved classroom equipment. "The children's clothes used to get worn because of the bad sitting

[45] We know of few cases where *Tuungane* 2 provided medicines or materials and supplies in schools, which explains the results in **Table 15** and **Table 16**.

conditions in the classrooms [and] if the child's clothes are worn out, the parent has to buy others for the child. This situation results in money being wasted and contributes to the poverty of the household."

It is important to note that discussions about the equipping of infrastructure occurred more frequently with villagers in areas that did not receive these materials than they did in communities where they were provided. any villages expected that schools build by Tuungane 2 would be equipped as well. Villagers were thus disappointed when this was not the case.

While not all schools built with *Tuungane 2* funds were equipped with benches and desks —a lack of these items was not as significant for community utility as insufficient beds and lack of a maternity ward for health facilities. Interviews suggest that positive results from the survey must also consider the extent to which the equipment fulfilled village needs and aligned with socio-cultural parameters. For example, the lack of beds, which both male and female respondents in [Village 14] claimed resulted in 'sick persons sleeping on the pavement', not only impacted health facility use by individual village members, but also raised concerns around the long-term sustainability of such a project. As the president of CODESA in [Village 4] explains: "We have a large village here but do not live in good conditions. As an instance, there are insufficient beds here in the health center. We are bound to mix up men, children, and women and ask them to share the same beds as we have 8 beds only. Another health center is being built here because the premises here proved to be too small."

The insufficient equipment in health facilities was emphasized in women's focus groups and by female leaders in areas where health posts did not include a maternity ward. Discussions with villagers at [Village 42] revealed that even where a maternity ward was built, the construction of a single room proved inadequate for women giving birth. Such conditions were seen as "giving birth in a shameful way, because all one's movements are heard by other patients."

6.3 Suggestive evidence for improvements in community governance

Tuungane 2 did not specifically target governance outside of the sphere of service provision. However, we consider how exposure to good governance practices related to service provision over a number of years could alter behavior in other sectors. In fact, the previous phase of *Tuungane* (2007-2010) included community governance as a major outcome.[46] Overall, we find some evidence for a positive and statistically significant effect of the *Tuungane* 2 program, although these effects are scattered across our five different components of governance: participation (**Table 27**), accountability (**Table 28**), transparency (**Table 29**), efficiency (**Table 30**), and capture (**Table 31**).

One of the hallmarks of the *Tuungane* project as expressed by *Tuungane* staff and evident in the project's overall design, is its focus towards cultivating broader community participation. To this end, qualitative interviews and focus group discussions highlighted two notable successes: 1) the inclusion and involvement of the community in selecting their T2 project, and 2) the particular emphasis on bringing women into the public sphere. Among participating communities, the *Tuungane* process, which directly involved the wider community in choosing the initial project, was found to be unique amongst the humanitarian organizations reaching these villages. It was this participatory process that was frequently upheld as one of the most appreciated elements of the project. A women's focus group in [Village 6] center explains, "The other NGOs never asked the local population what they needed. Only *Tuungane* allowed the local population assembled in a meeting to express their needs after being asked about it." This sentiment was expressed in multiple villages visited, including by participants in a women's focus groups in [Village 14] who ranked *Tuungane's* work first among other NGOs similarly working in the area. "*Tuungane* achieves the first positions among the [other] NGOs which intervened here because it behaved contrary to the other NGOs which just were busy distributing what they had brought about."

Related to creating opportunities to involve women in decision-making, a female leader at [Village 18] explains how, "*Tuungane* did well [for women] as it created a space for a woman to be involved; *Tuungane* is democratic, it doesn't

[46] Note that the impact evaluation of the 2007-2010 *Tuungane* program found no impact on governance. See HSW (2012).

discriminate and it called for men to understand that women are equally able to make positive change in society." Similarly, when asked about changes that have occurred in the village, women in [Village 42] responded that, "we women, we had nothing to say, but today we stand up and begin to shout. We even have the women's development group where we can meet whenever we want." While the latter remark was not attributed directly to *Tuungane,* it demonstrates an increase in women's participation across the landscape and it is at least suggestive that *Tuungane's* involvement of women in the project's process had some impact. The broader changes brought to women were also noted by *Tuungane* field staff. "In the former time, women in Walungu had no right to show up in meetings, but currently, through the different trainings, they take part in different meetings held there."

6.4 Barriers to women's empowerment

While the previous section noted how *Tuungane 2* opened spaces for women (at least a subset of women) to assume leadership roles, their entry into the actual decision-making process was accepted (and possible) on limited terms. Though women are increasingly being allowed a seat at the table within NGO-created committee spaces, the extent to which their voices are considered a legitimate force for political and or social change remains very limited. A woman leader in [Village 48] lamented, "People laugh at me when I am speaking [in open forums]. The head often calls for meetings and the local population come. He sometimes calls for us [women leaders] for advice and we provide it and he understands our opinion...[but] women first, men following? This does not exist."

Trainings do not remove long standing inequities that persist at the village level. In several focus groups with both men and women, for example, in which we divided the larger group into smaller sub-groups, we asked about changes to women's empowerment. Oftentimes women deferred to men to provide them the answers, even in smaller groups dominated by women. Taking on leadership roles are, in addition, often difficult for women as their entry into a new or high position only increases demands on their time and work burden rather than shifts those demands. That user committee presidents are most often men can be partly explained by women's lower capabilities (less education etc.) as well as justified by the increased capacity (time, workload) this would impose on women. Women's engagement in the leadership roles that *Tuungane* created thus has little impact on broader program goals such as women's empowerment, as the fundamental realities of women's positions in society remain unchanged.[47]

7 Additional qualitative findings

Drawing upon the qualitative data collected, we present four additional findings that are relevant for better understanding the impact of the *Tuungane* program. An expanded explanation of the points, presented only briefly here, and a comprehensive picture of the qualitative results can be found in a standalone qualitative paper that analyzes findings from each phase of the *Tuungane* project.

7.1 Expectations and deliverables

One of our first qualitative inquiries was how community members and IRC field staff interpreted the overall program goals of the *Tuungane* project. We also sought to understand why individual projects might be considered to be either a failure or success by program beneficiaries and staff. In order to do so, we gathered data following three lines of inquiry. First, we asked community members about their overall expectations of the project and the extent to which the project had succeeded in meeting these expectations. Second, we asked community members to state their perceptions of the program expectations as presented by *Tuungane* staff during program meetings. Third, we gathered information on staff expectations of program goals as well as their definitions and examples of successful projects through interviews with IRC field staff themselves. From this data, we draw three conclusions. First, we find that

[47] See Van der Windt, Humphreys and Sanchez de la Sierra (2018) and Van der Windt (2018) for the absence of impact of the first phase of *Tuungane* on women's empowerment.

expectations of the project outcomes by both *Tuungane* staff and project beneficiaries were high. Second, community expectations of the project did not match project staff expectations. Third, we found differences not only between project staff and community members but differences in stated expectations between community members, even within the same community.

Participating individuals tended to have high expectations of program outcomes. For example, in communities where schools were built, numerous members expected that the outcome of having a school built in their village would lead not only to the increased intellectual capacity of the village, but would instigate the wider development of the village; often seen as a direct result from bringing pupils (and thus visibility as well as money) from further away. The completion of these projects, then, was frequently cited as being a harbinger of development more broadly. Staff of the implementing agency had different expectations but also expected impact beyond the simple construction of infrastructure. When asked to describe the program goals, all the field staff interviewed mentioned some aspect of the five principles associated with good governance. Keywords that staff used when describing the overall aims of *Tuungane* were: "inclusion", "cohesion", "harmony", "participation", "transparency ", "reliability", "improved social conditions/ welfare", "enhanced service provision", and "women's empowerment".

When community members were asked their perceptions of the project's success, statements illustrated a different evaluative focus from that of *Tuungane* field staff. Some community members referred to the actual infrastructure. As a resident from one village noted, "they promised us a school and we have it." In a number of cases, however, villagers described necessary inputs beyond the actual building infrastructure as having been promised or initially provided by IRC, such as the payment of school fees and medicine (respectively) or equipment such as benches and desks. What were notably not raised in community discussions of the project's success or their wider expectations, were any of the broader social goals expressed by *Tuungane* staff. While community members rarely mentioned the wider goals expressed in *Tuungane* documents and by *Tuungane* staff as outcomes, they did reference some of the necessary steps in the process towards these goals (i.e. women on committees, active participation).

It should be noted that differences in expectations were also found within villages. In [Village 17] where a school was built, for example, an interview with an indigent informant revealed an expectation that *Tuungane* would distribute food to the community. A female community leader similarly expected that the program would support the population, specifically with food support. A men's focus group presented a contrasting range of expectations from electricity to fishing material in addition to the actual school building. Even the chief of the village expected multiple outcomes including the distribution of money. While not always displaying such a range of differing expectations, visits to other treatment villages often revealed a similar dynamic. This finding is likely the results of individuals being well or badly informed. Indeed, often those most closely aligned to the project would have expectations more closely matched with those of the actual stated program material, whilst the infirm, widowed, and those of lower social standing tended to express having expectations that were least aligned with the program's planned activities.

In sum, it is important to take account of the multiple expectations communities express, as their fulfillment (or not) can leave lasting impressions of the overall project, program staff and the wider IRC institution.

7.2 Basic understanding of major project concepts

Qualitative data suggests that there was a mismatch between how project goals and concepts are defined and interpreted by program staff and project beneficiaries. The lack of a direct translation or even widely understood terms for many of the concepts interwoven into *Tuungane* projects such as "women's empowerment", "governance", and "accountability", was apparent when speaking with different community members and comparing definitions between project staff and project beneficiaries. These discrepancies were highlighted when *Tuungane* field staff were asked to translate these terms. As one *Tuungane* staff member working in Walungu territory noted when asked to comment on the first evaluation results, "I think [communities] might have not well grasped the concepts and the philosophy of the program." A field staff member stationed in Mwenga further explains, "A point of consideration is the translation [of

project goals] because each one interprets in the manner they understand Swahili. All the staff should have the same nomenclature and meaning."

For example, the term "accountability" was understood differently in two important respects by project beneficiaries and staff. First, accountability was often understood by project beneficiaries as the production of reports in response to formal meetings and committees held at the village level. The term as defined by project staff, on the other hand, emphasized the process of reporting as an action, and not the processing of a report as an outcome. Second, local actors in fact hold those in positions of power accountable differently both from how they define the term and from how the IRC promotes accountability. Accountability as practiced by community members is most often done through informal mechanisms rather than through formal processes such as meetings and committees designed and implemented by external agents like the IRC. These processes are understood by community members to be a mere formality for IRC project committees, whilst they practice accountability informally outside of *Tuungane* program structures.

7.3 Local dynamics and fundamentals

Tuungane projects are embedded in the social-political realities in which they are implemented. As such, wider structural issues inevitably impinge on the program's desired goals. Existing social hierarchies and power dynamics, continuing preference for traditional medicine, intra-ethnic rivalries as well as wider regional contexts of insecurity and problems linked to national health and educational policies significantly shape both community reception of project ideals and actual project outcomes. In some cases, projects became embroiled in existing intra-village conflicts, while in other cases, project benefits were captured by elites, thereby maintaining rather than breaking down existing social inequities. More frequently, however, project impacts were heavily influenced by wider country realities. For example, cost featured as one of the most significant barriers cited by respondents for using the services provided by the relevant project, be this schools, water supply projects, or health posts. The lack of salary paid by the government was often cited as a major disincentive to provide services, along with the frequent lack of material resources and equipment. In brief, *Tuungane* did not have a hand in influencing some important factors cited for affecting service quality including the payment of staff salaries, the provision of facility supplies, as well as the training or placement of qualified staff, and the management and administration of the national educational and health systems.

7.4 Assessing the assumptions underlying the program's theory of change

Building upon previous work by Seay et al (2012), a list of 69 assumptions was drawn up with assumptions that underlie the theory of change of the *Tuungane* 2 program. In this subsection, we present ten of those assumptions that build from our previous discussions and findings and provide a snap shot of some key arguments made in the longer qualitative document. The full list, along with a ranking of the claim's accuracy and a brief explanation of its ranking, is presented in **Table 57** to **Table 61**; the numbers below refer to the assumption's location in these tables.

- 9. The concept of "accountability" in governing relationships is meaningful and valued by Congolese constituents and duty bearers.

The first assumption that we want to draw attention to points to our previous discussion in which we found a disconnect between how concepts are understood and valued amongst different community members as well as between project staff and project beneficiaries. Accountability was one of ten specific concepts that we asked both IRC field staff and community members to define and one of the clearest examples where staff and beneficiary understandings of how to ensure accountability did not align. The process of accountability is often managed at the village level through informal mechanisms, rather than formal processes commonly promoted by international interventions and foreign organizations. Informants from across the study villages highlighted how processes of accountability are often worked out in private between individuals and/or families, which is particularly the case when conversations involve the topic of money. This is not to suggest that international conceptions of accountability that privilege public (as well as written)

forums hold no value to community members but rather to highlight that the degree to which such formal workings of accountability were seen by community members as meaningful is limited.

- 24. Other powerful local actors did not capture or otherwise interfere with the *Tuungane* process.
- 41. VDC elections were a free and fair process through which Congolese constituents were allowed to freely select their VDC members.
- 42. What IRC and CARE staff observed at VDC elections and general assemblies were the processes through which decisions about VDC membership were actually made.
- 43. No other actors, community leaders, or constituents (including those living outside of the VDCs) interfered with the VDC election or general assembly processes.

Second, the applicability of several of the assumptions listed is limited due to the great extent to which project benefits and processes were influenced by elite members of the community. Our data suggest that elections of both user committee members and village development committees are often influenced by the village hierarchy. The social dynamics, in which elite village members have a hand in directing wider community decisions, are at work in multiple ways, from heavily guiding the implementation process (including committee elections), to subtler forms of pressure that may not be visible to IRC staff (as assumed in number 42). Some village chiefs, for example, recounted directly installing either themselves or a family member as a committee member. In other villages, votes were secured through informal door to door messages to encourage particular decisions by members of the ruling family. The influence of village elites over program processes and benefits was not limited to committee positions but extended to selection of the project itself. This was most evident in reference to market projects as chiefs gain a direct benefit through taxation of market sellers.

- 46. Holding elections and general assemblies caused constituents to act on the realization that they have the right to demand services and accountability from VDC members.
- 11. Learning about and practicing *Tuungane* processes and mechanisms (such as the community scorecard or the VDC elections) changed constituents' and duty bearers' attitudes and behavior.
- 27. Users and ETD constituents want service delivery to be responsive to their needs and are willing to engage with service delivery actors to this end.

Third, a number of assumptions draw on the changed behavior of individual community members and their ability to self-advocate. Qualitative data suggest, however, that in many ways, the same forces that enable village elites to capture project benefits shape capabilities and willingness to engage in self-promotion and advocate for change. Assumptions 46, 11, and 27 for example, rely on individuals to be unencumbered from existing social norms and social hierarchical positions in order to advocate for change. As our data finds, wider forces continue to significantly influence individual decisions to act, to participate, to resist, to request, and/or to challenge existing inequities or poor performance whether referring to governance or service delivery. Findings also highlight that such capabilities as well as wider program benefits are particularly limited for certain groups of the population beyond *Tuungane* targeted groups. In addition to women and the vulnerable (infirm, widows, and marginalized groups) segments of the population, social stratification occurs among non-native residents, as well as among lower standing ethnic or social groups. Thus, assumptions of equality between and among constituents do not take into account the much broader diversity of the wider population whose voices and influence are limited. Some members of the community, notably those already in leadership positions or higher placed within the village social hierarchy, acknowledged a right for self-advocacy and, to a lesser extent, having the subsequent capability to act on those rights. For the majority of informants we talked to, however, challenging dominant opinions or decisions was seen as 'creating unwanted disruption'. Such disruptions often referred to voicing a contrary opinion rather than creating an actual physical threat of dissent. Most informants thus spoke more frequently about the necessity for 'keeping quiet' than advocating for 'gaining voice'.

- 11. Learning about and practicing *Tuungane* processes and mechanisms (such as the community scorecard or the VDC elections) changed constituents' and duty bearers' attitudes and behavior.
- 58. Service providers are properly incentivized through the *Tuungane* program such that other incentives do not outweigh those provided by the program.

Fourth, qualitative data also show that individuals' actions and decisions are shaped and motivated by multiple incentives or (as noted above) disincentives. While factors such as social norms and the need to tend to other occupational and household duties were cited as influencing individual decisions, the presence (or lack thereof) of a salary, recompense, or other material gains were most often cited as influencing community member participation at meetings as well as shaping the ability of service providers to perform their duties fully and consistently. This will likely also impact the project's sustainability as financial resources, given as compensation for time spent away from income generating activities, were considered by many to be a necessary component for long term performance and participation. The *Tuungane* program did not provide the financial support that individuals cited as necessary to improve their job performance beyond the provision of project infrastructure.

Some informants claimed that their participation in project meetings was strategically performed in order to match the required quota necessary for project meetings (which the distribution of funds relied on). We also encountered a number of villages which formed temporary collaborations with neighboring communities in order to gain access to larger project funds. In many cases, this intra or inter village cooperation did not seem to extend to other aspects of village life or for dealing with other international organizations, which presents a challenge to assumption 11. This was particularly true for any sustained commitment of committee members, who often cited a decrease of activity, commitment, or membership, if not a complete disintegration of the committee barring any further, often financial, support or oversight from the project.

- 30. Key actors and interface spaces targeted by the program are appropriate for the changes targeted by the program and valued by users and other service delivery stakeholders.

Finally, the findings presented thus far collectively challenge assumption 30. Existing village realities demonstrate that broader social change and development follow the same hierarchical structure embedded in the everyday workings of Congolese society. Many informants spoke of development changes as having to come from the initiative of the chief, another influential actor in the village (often from the chief's own family lineage) or external NGOs. Equally, in villages self-identified as having seen little change, such inaction was also attributed to the chief (or again the lack of visits by outside NGOs). Some IRC field staff interviewed suggested that the church is particularly influential. "For example, COPA members," one field staff noted, "are in reality, members of a particular church and within that church they hold an inferior position making it difficult for them to push for change on users' behalf". Furthermore, broader social goals such as women's empowerment, as expressed by women leaders themselves, were seen to necessitate change at higher administrative levels. Women leaders in particular, only considered women in parliamentary or ministry positions to be at an appropriate level to spark change.

It seems that change needs to have support and commitment from higher elites, administration and local village elites. Empowerment relies on people's ability to draw from existing capacity and capabilities, and it cannot be expected to occur in the absence of power. Thus, opportunities and limitations for change can be understood in relation to where and how power already resides in the region. For most *Tuungane* beneficiaries, that entry way is first through the village chief's door.

8 Conclusion and implications

8.1 Summary

This report describes the results from an assessment of the impacts of *Tuungane* 2, a major community-driven reconstruction program in Eastern Congo, funded by the UK government and implemented by the International Rescue Committee (IRC) between 2012 and 2014. One of the priorities of the *Tuungane* 2 program was governance processes with a goal to strengthening capacity on both the supply side (e.g., duty bearers) and the demand side (e.g., the general population), as well as creating opportunities for productive interface between the two (IRC, 2010). This impact evaluation sought to provide evidence on not only service provision outcomes but also the relational aspects of different stakeholders involved in local service provision and community development. It should be noted that the *Tuungane* 2 program built upon the first phase (*Tuungane* 1), which was implemented between 2007 and 2011 and evaluated in 2012 to capture short-term program impacts and in 2015 to capture long-run impacts. In contrast to *Tuungane* 1, the *Tuungane* 2 program was not randomly assigned to communities, which limits this study's ability to ascertain "causal" impacts. In response, we used a second-best strategy of matching to create control and treatment communities that are similar. This study therefore has a number of limitations that have to be kept in mind. First, the matching approach creates comparison groups that are similar only in relation to the matching covariates. The treatment and control group may thus differ on other observable covariates and unobservable covariates. Second, because of our matching strategy we make use of only about 45% of the data. Third, *Tuungane* 2 communities were chosen because they were safe and easily accessible. Keeping these limitations in mind, our findings point to a number of conclusions, which we recap here, providing some thoughts on potential implications for CDD policies and programing.

In sum, while recognizing the need for continued research, we consider that the findings in this report, in relation to the current state of our knowledge, provide some positive justification for using CDDs to improve relationships between service providers and receivers as well as broader governance measures in the context of significant investments in social facilitation. However, some areas of concern that need to be addressed and investigated include the role of CDD in improving service delivery outcomes and women's empowerment in the community. These findings also warrant further impact evaluation research in order to generate more nuanced and actionable empirical findings to guide further policy and program designs.

8.2 The relationships villagers and service providers

- **The *Tuungane 2* program performed well on outcomes related to the relationship between villagers and frontline service providers, suggesting CDD programs of the *Tuungane* 2 type may be an effective mechanism to improve collaboration and efficiency and in local service provision.** Multiple actors play a role in local service provision in Congo: user committees, frontline service providers, service users, and the related line ministries. We find evidence that service users and frontline service providers are better informed about line ministries; there is more interaction between villagers and user committees and frontline service providers and user committees; and villagers in *Tuungane* 2 areas are more positive about service provision and the action of their service providers and user committees. As part of *Tuungane* 2, communities took part in elections, general assemblies and scorecard-related activities. These activities aimed to build spaces for interface between the duty bearers (the VDCs members, and frontline service providers) and service users. In addition, the user committees were directly involved in the program, as four members of the relevant user committee were added to the VDC committees. These results are in line with CDD studies conducted in Liberia (Fearon et al. 2009) and Afghanistan (Beath et al. 2013), which also found some positive effects on democracy and governance outcomes. In Liberia, the CDD program had increased social cohesion, and showed some evidence that it reinforced democratic political attitudes and increased confidence in local decision-making procedures. In Afghanistan, the CDD program (NSP) impacted participation in national electoral processes

and some measures of acceptance of democratic practices. However, the impact on perceptions of government weakened considerably following project completion.

- **These positive outcomes are possibly conditional on having program components that directly target all actors of local service provision and works towards improving the collaboration between them, such as was the case in *Tuungane* 2.** The positive results in this study run contrary to several other CDD studies. The first is HSW (2012), who found no effect on governance (the *Tuungane* 1 type CDD had limited impact on socio-political attitudes and behaviors except for some weak impact on trust and willingness to complain about poor project implementation) in their impact evaluation of the previous phase of *Tuungane 1* in the Congo. The second is the CDD study in Sierra Leone (Casey et al. 2012), which found that the CDD did not impact measures of participation in local governance, conflict, political and social attitudes, and social capital (trust, collective action, group membership and information).

- **Policymakers should consider including activities that aim to build interface between duty bearers and service users in CDD programs; these could take the form of local elections, general assemblies and scorecard-related activities.** Incorporating user committees bottom-up approaches in CDD programs are a way to strengthen and create positive relationships between service providers and receivers in fragile contexts such as Eastern DRC, typically characterized by inadequate public services, if they exist at all, and very little collective action. The positive findings on governance in service provision in our report which are supported with similar findings in Liberia and Afghanistan show that *Tuungane 2* program was indeed successful in improving the environment of local service provision. This is a key finding as it highlights the value and ability of CDD interventions to influence soft elements, such as changing mindsets and perceptions about service provision and faith in the actions of their local leaders, given the complex nature and time needed to influence these outcomes. Additionally, the findings show the key role that user committees can play in communities, in addressing urgent needs of the villagers such as the allowance of flexible payment schedules or even lowering of school fees, hence acting as advocates on behalf of parents.

8.3 Quality of service provision and health and education outcomes

The *Tuungane 2* program performed well on outcomes related to activities that were directly under its control – namely improvements in the quality of infrastructure and to some extent on the presence of material and supplies – but appears to have had few effects on other components on service provision and downstream effects related to health and education.

We would like to make two points here in relation to our findings. First, our data suggest that improvements in physical infrastructure alone are not sufficient to improve downstream outcomes. Second, this also begs the question: which additional program activities could have complemented the infrastructure provision to produce the desired downstream effects? Providing such answers is beyond the scope of this study, partly because any such additional activities would have to be evaluated.

- **The *Tuungane* 2 program shows strong positive impact on the quality of building infrastructure for both the health and education facilities**. We also found improvements in the presence of benches in schools and hospital beds. These findings are supported by other CDD studies. Casey et al. (2012) find that treatment communities in Sierra Leone have more public goods, like latrines, community centers, traditional birth attendant houses and seed banks, and that these goods are of better construction quality, than in control communities. Fearon et al. (2009) also finds that individuals in treatment communities in Liberia report higher numbers of local community facilities. In Afghanistan, Beath et al. (2013) find that the CDD program (NSP)

improved the access of villagers to basic utilities; drinking water projects increased usage of protected water sources, reduce time spent collecting water, and reduced the incidence of water shortages.

- **CDD programs must include soft components to target quality of service provision (e.g. trainings, market interventions etc.)** Aside from quality and presence of infrastructure, we did not find an impact on other dimensions of service provision. While we find that *Tuungane* 2 areas have higher attendance rates, we do not find improvements in other education-related indicators. Nor do we find evidence for improvements in health outcomes. These results may not seem surprising, given that the *Tuungane* 2 program did not target these other dimensions of service provision directly. Training service providers was not part of the *Tuungane* 2 program. Likewise, activities to decrease the cost of medicines and education did not feature in the program. The finding that the *Tuungane* 2 program showed impacts on attendance but not on other education outcomes is shared by other CDD programs. In Liberia (Fearon et al. 2009), there is evidence that the CDD program improved access to education (probability that child is in school) significantly but had no impact on health status (probability that child is sick). In Indonesia, Voss (2008) finds evidence of improvements in access to outpatient health care for the sick, but no impact on school enrolment of a CDD program (Kecamatan Development Program (KDP)). In Afghanistan (Beath et al. 2013), the CDD program (NSP) had positive gender impacts including increases in girls' school attendance and in women's access to medical services but no impacts are found for boys.

- **One policy implication from these results is that, while CDD programs such as *Tuungane* 2 may be effective in achieving their primary goal of local public good delivery, further improvements in the decentralized decision-making process may be necessary to deliver on the downstream effects related to service provision on health and education.** A key strength of the *Tuungane 2* program is that beneficiaries have a say on how the funding is to be allocated; such decentralization processes have found wide support within other examples of humanitarian aid (money versus items) and development projects. Since the goal of these CDD programs is to promote local ownership of community building activities, more efforts can be made to increase the ability of communities to exercise voice and choice. For instance, currently, many CDD implementing agencies such as in *Tuungane* 2, whether NGOs or government, determine the sectors, the target locations and the types of sub-projects per location that communities can choose. Hence, these decisions tend to become supply driven whereas the goal of CDD programs is to prioritize the needs of the community in a demand-driven approach. Considering this, policies may want to integrate beneficiaries into the decision-making process with choices that go beyond money spending power and into upstream components of a program such as project selection.

8.4 Community governance

There is some evidence that the *Tuungane 2* program had effects on outcomes related to governance beyond local service provision, suggesting CDD programs can potentially be leveraged to promote greater engagement and participation in social and civic life.

- **Exposure to good governance practices related to service provision over many years could alter behavior in other sectors as well.** The findings highlight that through participation in community activities, the villagers were encouraged to become involved not only in retrieving different information about how the public services function but they also became empowered to increase their expectations from their service providers about taking action and holding them accountable to fulfill their duties according to their stated

service rules. The positive results on voluntary contributions in terms of time, money and labor highlight the investment of these beneficiaries into the community and the desire to take ownership. The positive results on accountability (individuals are of the opinion that their chief informs them better, they can contact other bodies to voice their dissatisfaction with village decisions better, they can influence their leaders' decision, and people are also more likely to agree with the statement that individuals have a duty to check and question the actions of the village chief) highlights the beneficiaries' trust in their community and political leaders to inform them about service provision related news and take note of their concerns. The positive findings on transparency relating to knowledge about the names of national and local leaders highlight that villagers are now able to understand more fully who they can reach out to or discuss regarding their entitlements by right, law or regulation.

- **The overall positive findings on governance measures, which are beyond the scope of service provision, highlight the potential of such community programs to impact the broader social and political participation and civic engagement of villagers.** The fact that in the *Tuungane* 2 area, villagers have more information about the relevant community actors and their own roles in service provision can be applicable to any sector, because they now have the knowledge and tools to demand the services that they are entitled to. Additionally, the fact that in the *Tuungane* 2 villages, the villagers have higher participation in election meetings and campaigns speak to the overall higher civic engagement of these individuals in community issues.

- Do note that HSW (2012) found no evidence that involvement in good governance practices related to the first phase of the *Tuungane* program led to improvements in community governance.

8.5 Women's empowerment

Changing gender-related social norms and community dynamics may require targeted interventions addressing a gender constraint or may involve mainstreaming gender aspects within main interventions. Prior to targeting political gender parity, we recommend further research into programs that aim to change more fundamental parameters such as education, property rights and financial independence.

- ***Tuungane 2* opened up spaces for women to be part of committees and at least a subset of women to assume leadership roles.** We found widespread evidence that women were successfully provided space for interaction within the *Tuungane* program and related committees. The findings on both the quantitative and qualitative sides show that women's presence in these committees have increased and this inclusion of women in the public sphere, even if physically, is a positive change in the communities, since before women were hardly present in meetings and trainings. While psychological outcomes are beyond the scope of this program, this acceptance of women in local community matters has the potential to have a number of heterogeneous positive external effects on outcomes such as confidence, self-image and perception etc. of women. Further studies that incorporate measurement of psychological welfare outcomes could be a useful area for research on effectiveness of CDD programs in improving welfare of women.

- **One policy implication of these findings is that governance interventions should be complemented with gender transformative components like VSLA cum gender norms to promote female empowerment.** One of the goals of the Tuungane programs was to harness women's empowerment and gender equality through quota requirements. The analysis looks at a number of measures, which includes women's rights, women's associations and women's participation in local committees but finds mixed and

scattered results. The findings show that the nominal increase in women's representation in committees does not translate into meaningful and effective participation or change in attitudes or gender norms, i.e. there is no evidence that CDD programs with gender parity conditions can improve women's empowerment. This is also consistent with two recent studies that build on the first phase of the *Tuungane* program (Van der Windt et al (2018) and Van der Windt (2018). These findings are also shared by Casey et al. (2012) who found that women in CDD (GoBifo) areas in Sierra Leone are no more likely to speak up in a general community meeting despite the fact that CDD facilitators encouraged women's participation in meetings, required them to serve on VDCs and as co-signatories to bank accounts and provided resources to manage their own project. These contrast with RCT results from India which found that mandating quotas for women leaders and reducing caste (ethnicity) based voting in elections brought about institutional changes in gender-based discrimination in the economic and political spheres.

8.6 The future of CDD programs

Another policy implication from our findings is the rethinking of future CDD programs—both in terms of scale/intensity of programing and demand-side/supply-side factors.

- **There is an opportunity for policies to implement CDD programs by starting from the needs, taking a more holistic approach and developing a plan to assess service provision constraints at both a macro and micro level.** On the former, this could imply an analysis of necessary circumstances that local populations require for use of any project (i.e. money to pay for services; awareness of the availability of services). On the latter this could mean considering socio-political dynamics (i.e. local power struggles and conflicts; marginalization of different ethnic groups).

- **Introducing further supply side factors may help address community needs better.** As already noted, the results of *Tuungane 2* study finds little to no positive impacts on service provision and general health, education outcomes. Our results show that, although grants can help improve building infrastructure for schools and health centers, service provision relies on a wide variety of complementary factors. These include availability of staff to fill positions opened up by built infrastructure or the quality of the services provided, which in turn is dependent on the quality of human capital such as administration capacity, or teacher/health worker capacity.

- **CDD Program vary across scale and intensity, which policy makers need to think about prior to program design.** Some arguments can be made for the lack of effects found in the *Tuungane* 2 study, which relate to scale and intensity of program. The size of the investments, i.e. the block grants, was perhaps small relative to other community driven rehabilitation programs. The length of the program may have been too short to have an impact on these rigid social welfare outcome measures. Future CDD programs need to incorporate time and scale thinking into their designs and implementation.

- **Disentangling social and infrastructure effects is a big question for CDD programs**. A common trend in CDD programs is to invest equally in the infrastructure component and the social / community aspect of the program, delivering both types of interventions as a packaged deal. This suggests that we consider returns to be equal on both sets of outcomes. *Tuungane* 2 findings, as well as the other existing evidence, show that impacts are stronger in terms of infrastructure and public good delivery than in softer social outcomes (e.g. governance, social cohesion etc.). However, we cannot confirm this as neither the existing literature or the *Tuungane* program aim to isolate the individual effects of the social and infrastructure components. This paves the way to potential future research which aims at detangling the two effects, perhaps opposing more tangible to softer program, to identify and measure the mechanisms at play behind social outcomes. Some questions

that remain to be answered are if targeted populations need an infrastructure/economic incentive before engaging in social aspects, what are good social programs and how should these vary depending on who we are aiming to bring together: different ethnicities, refugees/IDPs and hosts, etc.

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10 Appendix

10.1 Descriptive statistics variables used for matching

In **Table 34**, we present summary information about the variables used for matching.

Table 34. Summary information about matching variables

Variable	Mean	St. Dev.	Min	Max	N
Tuungane 2	0.34	0.47	0	1	781
Presence MONUSCO	0.13	0.33	0	1	688
Presence FARDC	0.19	0.39	0	1	685
Distance public transport	4.95	10.01	0	98	680
Previous *Tuungane* phase	0.50	0.50	0	1	781
Exposure to other NGOs	4.22	8.13	0	50	684
Presence village committees	1.89	1.70	0	9	699
Ethnic heterogeneity	0.32	0.28	0	0.82	699
Religious heterogeneity	0.54	0.21	0	1	690
Health infrastructure	0.75	1.57	0	26	680
Education infrastructure	1.99	3.85	0	60	678
Chief democratically elected	0.24	0.43	0	1	674

Notes: Based on variables CQ92, CQ94, QE13, CQ28, CQ13, CQ14, QE13, and CQ54 in HSW (2012).

10.2 Threats to validity

In the main text, we highlighted a number of limitations to this study. We would like discuss all threats to this study's results here.

Causal interpretation of results

This study does not build on randomization but uses propensity score matching in order to create treatment and control groups that are similar at the onset of the program. One major disadvantage of the matching technique is that it only accounts for observed (and observable) covariates we use for matching. In our case, we have balance on the variables as listed in **Table 3** but the two groups can still differ on 1) other observable characteristics, and 2) those characteristics that we cannot observe or measure. As a result, any hidden bias due to latent variables (that that we cannot measure or can measure but do not take into account) may remain after matching. We choose the characteristics in **Table 3** because these are related to the treatment variable and our outcomes of interest. These characteristics were chosen before looking at the results.

Population to which we can generalize our findings is limited

Communities in Eastern Congo were not randomly assigned to the *Tuungane* 2 program. Our implementing partner chose the communities to work in based on accessibility and security. As we saw in **Table *3***, these communities were very different from other communities in Eastern Congo. As a result, the results in this study really only pertain to accessible and less conflict-affected areas.

Attrition

Our target was to gather data on 781 villages. The household survey was to be gathered for five households per village. In addition, in each village one survey would be conducted with the village chief. In fact, the survey teams successfully visited only 734 out of the 781 villages (94%). In total, 3,402 out of the 3,905 targeted household surveys were collected (87%), and survey teams conducted interviews with 713 out of the targeted 781 village chiefs (91%). In total, 501 primary schools and 507 heath facilities were visited. Given that we visited 734 villages, this amounts to 68% and 69%, respectively. The targeted data was not gathered for a number of reasons, which include inaccessibility of some regions for safety and security reasons. Another important loss of data was due to various failures in the field, which can range from loss, damage, or theft of tablets, and water damage to paper surveys. Specifically related to the infrastructure survey, also the absence of the primary school or health facility can be a reason for visiting fewer than the targeted facilities. There are two points we would like to make related to missing data. First, the number of missing villages and surveys do not correlate to *Tuungane* 2 treatment status. Second, compared to other studies conducted in the region, the share of targeted villages visited and targeted surveys conducted is high. HSW (2012), for example, successfully collected data in 72% of their targeted villages and with 62% of their targeted individuals.

Spillovers

Another concern we note is that *Tuungane* 2 may produce spillover effects across communities. If part of the effect of *Tuungane* 2 was to improve outcomes in control areas, then this added contribution of the project would lead to estimates of smaller, rather than larger, program effects. We do not think this is likely, however. Participating "communities" in the *Tuungane* 2 program are comprised of multiple natural units villages (the unit at which we collect data), meaning that most treated villages are surrounded by treated villages and control villages by control villages.

***Tuungane* program activities between 2007 and 2011**

The *Tuungane* 2 program was implemented between 2012 and 2014, in both treatment and control communities of the first phase of *Tuungane*, which was implemented between 2007 and 2011 by the International Rescue Committee (IRC) and CARE International. The worry might exist that what drives the result in this study are not differences between

Tuungane 2 treatment and control areas, but the exposure to the previous *Tuungane* phase. For example, a village's status during the first phase may have been a factor for selection into treatment for *Tuungane* 2. Our implementing partner informed us that this was not the case. This statement is confirmed by the results in **Table 3**. Although we do not have to worry that the first phase of the program drives the results presented in this study, this phase does have implications for the interpretation of results. The results presented in this study should be interpreted as the results of *Tuungane 2*, in which about half of all the villages already have a previous experience with the *Tuungane* program.

10.3 Results by sector type

Table 35 to **Table 40** present results for those communities that only received the *Tuungane* 2 program in the education sector compared to T2 control communities. For reference, we also provide a summary of the study's main result. A hypothesis receives one star if the overall estimated effect goes in the expected direction but the effect is not statistically significant, and two, three, or four stars if these effects are also significant at the 90%, 95% or 99% level (one-tailed test). Flags for adverse effects are provided in cases where a negative result would be considered significant in a two-tailed test at the 95% level.

Table 35. Results by sector: Knowledge, interaction, attitudes

	In report		T2 education sector only, compared to control	
Outcome	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Meaning CODESA	☆	★☆☆☆	☆	★☆☆☆
Meaning COPA	☆	★☆☆☆	☆	★☆☆☆
Meaning MCZ	☆	★☆☆☆	☆	★☆☆☆
Meaning Sous-Proved	☆	★☆☆☆	☆	★★★☆
Role CODESA	☆	★☆☆☆	☆	☆☆☆☆
Role COPA	☆	★☆☆☆	☆	☆☆☆☆
Role MCZ	☆	★☆☆☆	☆	★☆☆☆
Role Sous-Proved	☆	★★★☆	☆	★★★☆
Role CODESA	★	☆☆☆☆	☆	☆☆☆☆
Role MCZ	☆	★★★☆	☆	★★★★
Role COPA	☆	☆☆☆☆	☆	☆☆☆☆
Role Sous-Proved	☆	★☆☆☆	☆	★☆☆☆
Meeting CODESA	☆	★★★★	☆	★★☆☆
Meeting COPA	☆	★★★☆	☆	★★☆☆
Attended CODESA	☆	★☆☆☆	☆	★☆☆☆
Attended COPA	☆	★☆☆☆	☆	★☆☆☆
Meeting COPA	☆	★★★★	☆	★★★★
Attended COPA	☆	★★★★	☆	★★★★
Meeting Community	☆	★★★☆	☆	★☆☆☆
Meeting CODESA	☆	★☆☆☆	☆	★☆☆☆
Attended CODESA	☆	★☆☆☆	☆	☆☆☆☆
Meeting Community	☆	★☆☆☆	☆	☆☆☆☆
Service Quality (Health)	☆	★★★★	☆	★★☆☆
Service Quality (Education)	☆	★★★★	☆	★★★★
Inform Actions	☆	★★★☆	☆	★★★★
Inform Management	☆	★★★☆	☆	★★★★
Inform Services	☆	★★★☆	☆	★★★☆
Permit Participation	☆	★★★☆	☆	★★★★
Advice	☆	★★☆☆	☆	★★★★
Public Use	☆	★★★☆	☆	★★★☆
Trust COPA	★	☆☆☆☆	☆	☆☆☆☆
Trust CODESA	☆	☆☆☆☆	☆	☆☆☆☆

Table 36. Results by sector: Service provision in health sector

Dimension	Measure	In report		T2 education sector only, compared to control	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Building condition	Floor Quality	☆	★★★☆	☆	☆☆☆☆
	Wall Quality	☆	★★★★	☆	★★★☆
	Infra	☆	★★☆☆	☆	★☆☆☆
	Clean Floor	☆	★★★☆	☆	★☆☆☆
	Clean Wall	☆	★☆☆☆	☆	☆☆☆☆
	Toilets	☆	★★★★	☆	★★★★
Capacity	# Health Providers Present	☆	☆☆☆☆	☆	☆☆☆☆
	# Beds	☆	★★★☆	☆	★★☆☆
	Wait Personnel	★	☆☆☆☆	☆	☆☆☆☆
	Wait Treatment	☆	☆☆☆☆	☆	☆☆☆☆
	# Nurses	☆	☆☆☆☆	☆	☆☆☆☆
	# Doctors	☆	★★☆☆	☆	★☆☆☆
	Treatments	☆	☆☆☆☆	☆	☆☆☆☆
	Wait Time	☆	★☆☆☆	☆	★☆☆☆
Material and supplies	# Antibiotics	☆	★☆☆☆	☆	☆☆☆☆
	# Malaria Tables	☆	☆☆☆☆	☆	☆☆☆☆
	# Anti-inflammatory Tablets	☆	☆☆☆☆	☆	☆☆☆☆
Staff quality	Doctor/ Nurse Ratio	☆	★☆☆☆	☆	☆☆☆☆
	Director Education	☆	★☆☆☆	☆	★☆☆☆
	Director Medical	☆	☆☆☆☆	☆	☆☆☆☆
	Presence Health Provider	☆	☆☆☆☆	☆	☆☆☆☆
Administration	Director Present	☆	★☆☆☆	☆	☆☆☆☆
	Patient Register	☆	★★★★	☆	☆☆☆☆
	Staff Register	☆	★★★☆	☆	★☆☆☆
	Stock Register	☆	★★☆☆	☆	☆☆☆☆
	Cash Book	☆	★☆☆☆	☆	★☆☆☆
Community participation	Contrib. in Kind	☆	★★★★	☆	★★☆☆
	Contrib. in $	☆	☆☆☆☆	☆	☆☆☆☆
	Contrib. in Kind	☆	★★★★	☆	☆☆☆☆
	Contrib. in $	☆	★☆☆☆	☆	★☆☆☆
Service cost and utilization	Open	☆	★☆☆☆	☆	★★☆☆
	$ Paid	☆	☆☆☆☆	☆	☆☆☆☆
	# Patients Now	☆	★☆☆☆	☆	★☆☆☆
	# Patients Last Month	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Consultation	☆	★☆☆☆	☆	★☆☆☆
	$ Price Card	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Night	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Consultation	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Card	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Night	☆	☆☆☆☆	☆	★☆☆☆
	# Visits	☆	★☆☆☆	☆	☆☆☆☆

Table 37. Results by sector: Service provision in education sector

Dimension	Measure	In report		T2 education sector only, compared to control	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Building condition	Floor Quality	☆	★★★★	☆	★★★★
	Wall Quality	☆	★★★☆	☆	★★☆☆
	Roof Quality	☆	★★★★	☆	★★☆☆
	Windows	☆	★★★★	☆	★★★★
	Toilets	☆	★★★★	☆	★★★★
	Toilets	☆	★★★★	☆	★★★★
Capacity	# Benches	☆	★★★★	☆	★★★★
	Room size	☆	☆☆☆☆	☆	★☆☆☆
	# Teachers	☆	☆☆☆☆	☆	☆☆☆☆
	# Rooms	☆	★☆☆☆	☆	☆☆☆☆
	Highest Degree	☆	☆☆☆☆	☆	☆☆☆☆
	# Students Reg.	☆	★☆☆☆	☆	★☆☆☆
	Teacher/ Student Ratio	☆	☆☆☆☆	☆	☆☆☆☆
	Room Size OK	☆	★★★★	☆	☆☆☆☆
Material and supplies	Blackboard	☆	★☆☆☆	☆	★☆☆☆
	Prop. Books	☆	★☆☆☆	☆	★★★☆
	Prop. Notebooks	☆	☆☆☆☆	☆	☆☆☆☆
	Teacher Book	☆	☆☆☆☆	☆	★☆☆☆
	Teacher Prep.	☆	☆☆☆☆	☆	☆☆☆☆
	Teacher List	☆	★☆☆☆	☆	★☆☆☆
Staff quality	Teacher Present	☆	☆☆☆☆	☆	☆☆☆☆
	Studied Pedagogy	☆	☆☆☆☆	☆	☆☆☆☆
	Director Education	☆	★☆☆☆	☆	☆☆☆☆
	Director Pedagogy	☆	☆☆☆☆	☆	☆☆☆☆
	Teacher Absence	★	☆☆☆☆	☆	☆☆☆☆
	Teacher Punctual	☆	☆☆☆☆	☆	☆☆☆☆
	Teacher Qualified	☆	★☆☆☆	☆	★☆☆☆
	Teacher Rigorous	☆	★☆☆☆	☆	★☆☆☆
Administration	Director Present	☆	★☆☆☆	☆	★☆☆☆
	Personnel Register	☆	★☆☆☆	☆	★★☆☆
	National Program	☆	★☆☆☆	☆	★★★☆
Community participation	Contrib. in Kind	☆	☆☆☆☆	☆	★☆☆☆
	Contrib. in $	☆	☆☆☆☆	☆	★☆☆☆
	Contrib. in Kind	☆	★☆☆☆	☆	★★☆☆
	Contrib. in $	☆	★☆☆☆	☆	★☆☆☆
Service cost and utilization	Open	☆	★☆☆☆	☆	★☆☆☆
	Boys	☆	☆☆☆☆	☆	☆☆☆☆
	Girls	☆	☆☆☆☆	☆	☆☆☆☆
	Students Pres.	☆	★★☆☆	☆	★☆☆☆
	School Fee ($)	☆	★☆☆☆	☆	★☆☆☆
	Functioning Fee ($)	☆	★★★★	☆	★☆☆☆
	Cost School ($)	☆	☆☆☆☆	☆	☆☆☆☆
	School Fee ($)	★	☆☆☆☆	★	☆☆☆☆
	Functioning Fee ($)	☆	★★★☆	☆	★☆☆☆

Table 38. Results by sector: Health and education outcomes

Outcome	Measure	In report		T2 education sector only, compared to control	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Health outcomes	Medical care	☆	☆☆☆☆	☆	★☆☆☆
	U5 mortality	☆	★☆☆☆	☆	★☆☆☆
	Death head of household	★	☆☆☆☆	☆	☆☆☆☆
	Death other household members	☆	☆☆☆☆	☆	☆☆☆☆
	Sick head of household	☆	☆☆☆☆	☆	☆☆☆☆
	Sick other household members	☆	★☆☆☆	☆	☆☆☆☆
Education outcomes	Attendance (daughters)	☆	★★☆☆	☆	★☆☆☆
	Attendance (sons)	☆	★★★☆	☆	★★★☆
	Never attended (daughters)	☆	★☆☆☆	☆	☆☆☆☆
	Never attended (sons)	☆	☆☆☆☆	☆	☆☆☆☆
	Exam grade (French)	☆	★☆☆☆	☆	☆☆☆☆
	Exam grade (Local language)	☆	★☆☆☆	☆	☆☆☆☆

Table 39. Results by sector: Governance

Dimension	Measure	In report		T2 education sector only, compared to control	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Participation	Present Meeting	★	★	★	★
	Participated Meeting	★	★	★	★
	Voluntary Contribution	★	★★★	★	★★
	Voted 2011	★	★	★	★
	Participated Election	★	★★★★	★	★★★★
	Right Participate	★	★	★	★
	Interaction	★	★	★	★
Accountability	Interaction	★	★	★	★
	Chief Informs	★	★★	★	★
	Other Organs	★	★★★	★	★★
	Influence Leaders	★	★★★	★	★★
	Verify Leaders	★	★	★	★
	Verify Chief	★	★★★	★	★
	Local Committee	★	★	★	★
Transparency	Accept School	★	★	★	★
	Accept Health	★	★★	★	★
	Knowledge	★	★★★★	★	★★
Efficiency	Approached State	★	★	★	★
	Successful State	★	★	★	★
	Approached NGO	★	★★	★	★★★★
	Successful NGO	★	★	★	★
Capture	Committee Exist	★	★★★★	★	★★★★
	Committee Elected	★	★	★	★
	Association Exist	★	★★★	★	★★★
	Association Elected	★	★★★★	★	★★

Table 40. Results by sector: Women's empowerment

		In report		T2 education sector only, compared to control	
Outcome	Measure	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Women empowerment	Women Rights	★	★☆☆☆	★	★☆☆☆
	Women Association	★	★★★☆	★	★★☆☆
	Member Association	★	☆☆☆☆	★	☆☆☆☆
	School Attendance (Prop.)	★	★★☆☆	★	★☆☆☆
	School Never (Prop.)	★	★☆☆☆	★	★☆☆☆
	Committee (Prop.)	★	★★★★	★	★☆☆☆

10.4 Results for boundary partners

This section presents results for those villagers our implementing partner calls boundary partners: people that attended two or more *Tuungane* interface activities. Specifically, we asked all respondents how many *Tuungane* 2 meetings that they had attended. We find that 400 individuals attended two or more meetings. Results in **Table 41** to **Table 46** show the results when we compare these villagers in *Tuungane* 2 areas to the five average villagers in the control group. For reference, we also provide a summary of the study's main result. A hypothesis receives one star if the overall estimated effect goes in the expected direction but the effect is not statistically significant, and two, three, or four stars if these effects are also significant at the 90%, 95% or 99% level (one-tailed test). Flags for adverse effects are provided in cases where a negative result would be considered significant in a two-tailed test at the 95% level.

Results are only presented for relevant measures. We thus exclude information from heads of schools, school directors, patients, etc. as it expected that by nature these actors (i.e. service provider or user committee focal points) would participate in the majority of *Tuungane* activities and know of actions and information in their relevant structures of work.

Table 41. Results boundary partners: Knowledge, interaction, and attitudes

Dimension	Measure	In report		Boundary partners	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Knowledge	Meaning CODESA	☆	★☆☆☆	☆	★★★★
	Meaning COPA	☆	★☆☆☆	☆	★★★★
	Meaning MCZ	☆	★☆☆☆	☆	★★★★
	Meaning Sous-Proved	☆	★☆☆☆	☆	★★★★
	Role CODESA	☆	★☆☆☆	☆	★★★★
	Role COPA	☆	★☆☆☆	☆	★★★★
	Role MCZ	☆	★☆☆☆	☆	★★★★
	Role Sous-Proved	☆	★★★☆	☆	★★★★
Interaction	Meeting CODESA	☆	★★★★	☆	★★★★
	Meeting COPA	☆	★★★☆	☆	★★★★
	Attended CODESA	☆	★☆☆☆	☆	★★★☆
	Attended COPA	☆	★☆☆☆	☆	★★★☆
Attitudes	Service Quality (Health)	☆	★★★★	☆	★★★★
	Service Quality (Education)	☆	★★★★	☆	★★★★
	Inform Actions	☆	★★★☆	☆	★★★★
	Inform Management	☆	★★★☆	☆	★★★★
	Inform Services	☆	★★★☆	☆	★★★★
	Permit Participation	☆	★★★☆	☆	★★★★
	Advice	☆	★★☆☆	☆	★★★★
	Public Use	☆	★★★☆	☆	★★★★
	Trust COPA	★	☆☆☆☆	★	☆☆☆☆
	Trust CODESA	☆	☆☆☆☆	☆	☆☆☆☆

Table 42. Results boundary partners: Service provision in health sector

Dimension	Measure	In report		Boundary partners	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Building condition	Floor Quality	☆	★★★☆		
	Wall Quality	☆	★★★★		
	Infra	☆	★★☆☆		
	Clean Floor	☆	★★★☆		
	Clean Wall	☆	★☆☆☆		
	Toilets	☆	★★★★	☆	★★★★
Capacity	# Health Providers Present	☆	☆☆☆☆		
	# Beds	☆	★★★☆		
	Wait Personnel	★	☆☆☆☆		
	Wait Treatment	☆	☆☆☆☆		
	# Nurses	☆	☆☆☆☆		
	# Doctors	☆	★★☆☆		
	Treatments	☆	☆☆☆☆		
	Wait Time	☆	★☆☆☆	☆	★☆☆☆
Material and supplies	# Antibiotics	☆	★☆☆☆		
	# Malaria Tables	☆	☆☆☆☆		
	# Anti-inflammatory Tablets	☆	☆☆☆☆		
Staff quality	Doctor/ Nurse Ratio	☆	★☆☆☆		
	Director Education	☆	★☆☆☆		
	Director Medical	☆	☆☆☆☆		
	Presence Health Provider	☆	☆☆☆☆	☆	☆☆☆☆
Administration	Director Present	☆	★☆☆☆		
	Patient Register	☆	★★★★		
	Staff Register	☆	★★★☆		
	Stock Register	☆	★★☆☆		
	Cash Book	☆	★☆☆☆		
Community participation	Contrib. in Kind	☆	★★★★		
	Contrib. in $	☆	☆☆☆☆		
	Contrib. in Kind	☆	★★★★	☆	★★★★
	Contrib. in $	☆	★☆☆☆	☆	★★☆☆
Service cost and utilization	Open	☆	★☆☆☆		
	$ Paid	☆	☆☆☆☆		
	# Patients Now	☆	★☆☆☆		
	# Patients Last Month	☆	☆☆☆☆		
	$ Price Consultation	☆	★☆☆☆		
	$ Price Card	☆	☆☆☆☆		
	$ Price Night	☆	☆☆☆☆		
	$ Price Consultation	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Card	☆	☆☆☆☆	☆	★☆☆☆
	$ Price Night	☆	☆☆☆☆	☆	☆☆☆☆
	# Visits	☆	★☆☆☆	☆	☆☆☆☆

Table 43. Results boundary partners: Service provision in education sector

Dimension	Measure	In report		Boundary partners	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Building condition	Floor Quality	☆	★★★★		
	Wall Quality	☆	★★★☆		
	Roof Quality	☆	★★★★		
	Windows	☆	★★★★		
	Toilets	☆	★★★★		
	Toilets	☆	★★★★	☆	★★★★
Capacity	# Benches	☆	★★★★		
	Room size	☆	☆☆☆☆		
	# Teachers	☆	☆☆☆☆		
	# Rooms	☆	★☆☆☆		
	Highest Degree	☆	☆☆☆☆		
	# Students Reg.	☆	★☆☆☆		
	Teacher/ Student Ratio	☆	☆☆☆☆		
	Room Size OK	☆	★★★★	☆	★★★☆
Material and supplies	Blackboard	☆	★☆☆☆		
	Prop. Books	☆	★☆☆☆		
	Prop. Notebooks	☆	☆☆☆☆		
	Teacher Book	☆	☆☆☆☆		
	Teacher Prep.	☆	☆☆☆☆		
	Teacher List	☆	★☆☆☆		
Staff quality	Teacher Present	☆	☆☆☆☆		
	Studied Pedagogy	☆	☆☆☆☆		
	Director Education	☆	★☆☆☆		
	Director Pedagogy	☆	☆☆☆☆		
	Teacher Absence	★	☆☆☆☆	★	☆☆☆☆
	Teacher Punctual	☆	☆☆☆☆	☆	☆☆☆☆
	Teacher Qualified	☆	★☆☆☆	☆	★★☆☆
	Teacher Rigorous	☆	★☆☆☆	☆	★☆☆☆
Administration	Director Present	☆	★☆☆☆		
	Personnel Register	☆	★☆☆☆		
	National Program	☆	★☆☆☆		
Community participation	Contrib. in Kind	☆	☆☆☆☆		
	Contrib. in $	☆	☆☆☆☆		
	Contrib. in Kind	☆	★☆☆☆	☆	★★★★
	Contrib. in $	☆	★☆☆☆	☆	★★☆☆
Service cost and utilization	Open	☆	★☆☆☆		
	Boys	☆	☆☆☆☆		
	Girls	☆	☆☆☆☆		
	Students Pres.	☆	★★☆☆		
	School Fee ($)	☆	★☆☆☆		
	Functioning Fee ($)	☆	★★★★		
	Cost School ($)	☆	☆☆☆☆	☆	☆☆☆☆
	School Fee ($)	★	☆☆☆☆	☆	☆☆☆☆
	Functioning Fee ($)	☆	★★★☆	☆	★★★☆

Table 44. Results boundary partners: Health and education outcomes

		In report		Boundary partners	
Outcome	Measure	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Health outcomes	Medical care	☆	☆☆☆☆	☆	☆☆☆☆
	U5 mortality	☆	★☆☆☆	☆	★☆☆☆
	Death head of household	★	☆☆☆☆	☆	☆☆☆☆
	Death other household members	☆	☆☆☆☆	☆	☆☆☆☆
	Sick head of household	☆	☆☆☆☆	☆	☆☆☆☆
	Sick other household members	☆	★☆☆☆	☆	☆☆☆☆
Education outcomes	Attendance (daughters)	☆	★★☆☆	☆	★★★★
	Attendance (sons)	☆	★★★☆	☆	★★★★
	Never attended (daughters)	☆	★☆☆☆	☆	★☆☆☆
	Never attended (sons)	☆	☆☆☆☆	☆	★☆☆☆
	Exam grade (French)	☆	★☆☆☆	☆	★☆☆☆
	Exam grade (Local language)	☆	★☆☆☆	☆	★☆☆☆

Table 45. Results boundary partners: Governance

		In report		Boundary partners	
Dimension	Measure	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Participation	Present Meeting	☆	★☆☆☆	☆	★★★★
	Participated Meeting	☆	☆☆☆☆	☆	★☆☆☆
	Voluntary Contribution	☆	★★★☆	☆	★★★★
	Voted 2011	☆	☆☆☆☆	☆	★★★☆
	Participated Election	☆	★★★★	☆	★★★★
	Right Participate	☆	☆☆☆☆	☆	★☆☆☆
	Interaction	☆	☆☆☆☆	☆	☆☆☆☆
Accountability	Interaction	☆	★☆☆☆	☆	★★★★
	Chief Informs	☆	★★☆☆	☆	★★★★
	Other Organs	☆	★★★☆	☆	★★★☆
	Influence Leaders	☆	★★★☆	☆	★★★★
	Verify Leaders	☆	☆☆☆☆	★	☆☆☆☆
	Verify Chief	☆	★★★☆	☆	★★★★
Transparency	Accept School	☆	☆☆☆☆	☆	★☆☆☆
	Accept Health	☆	★★☆☆	☆	★★★★
	Knowledge	☆	★★★★	☆	★★★★
Efficiency	Approached State	☆	★☆☆☆	☆	★★★★
	Successful State	☆	☆☆☆☆	☆	★☆☆☆
	Approached NGO	☆	★★☆☆	☆	★★★★
	Successful NGO	☆	☆☆☆☆	☆	☆☆☆☆
Capture	Committee Exist	☆	★★★★	☆	★★★★
	Committee Elected	☆	★☆☆☆	☆	★★★☆
	Association Exist	☆	★★★☆	☆	★★★★
	Association Elected	☆	★★★★	☆	★★★★

Table 46. Results boundary partners: Women empowerment

		In report		Boundary partners	
Outcome	Measure	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Women empowerment	Women Rights	★	★☆☆☆	★	★★★☆
	Women Association	★	★★★☆	★	★★★★
	Member Association	★	☆☆☆☆	★	☆☆☆☆
	School Attendance (Prop.)	★	★★☆☆	★	★★☆☆
	School Never (Prop.)	★	★☆☆☆	★	★☆☆☆
	Committee (Prop.)	★	★★★★		

10.5 Results by *Tuungane*'s first phase

Table 47 to **Table 52** present results for *Tuungane* 1 treatment and control areas separated out. For reference, we also provide a summary of the study's main result. Again, a hypothesis receives one star if the overall estimated effect goes in the expected direction but the effect is not statistically significant, and two, three, or four stars if these effects are also significant at the 90%, 95% or 99% level (one-tailed test). Flags for adverse effects are provided in cases where a negative result would be considered significant in a two-tailed test at the 95% level.

Table 47. Results by *Tuungane* first phase: Knowledge, interaction, attitudes

Outcome	In report		No *Tuungane* 1		*Tuungane* 1	
	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Meaning CODESA	☆	★☆☆☆	☆	★★★☆	☆	★★☆☆
Meaning COPA	☆	★☆☆☆	☆	★★★☆	☆	★☆☆☆
Meaning MCZ	☆	★☆☆☆	☆	★★☆☆	☆	★★★☆
Meaning Sous-Proved	☆	★☆☆☆	☆	★★★★	☆	☆☆☆☆
Role CODESA	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
Role COPA	☆	★☆☆☆	☆	★★☆☆	☆	★☆☆☆
Role MCZ	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
Role Sous-Proved	☆	★★★☆	☆	★★★☆	☆	★★☆☆
Role CODESA	★	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
Role MCZ	☆	★★★☆	☆	★★★☆	☆	★★☆☆
Role COPA	☆	☆☆☆☆	☆	☆☆☆☆	☆	★★☆☆
Role Sous-Proved	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
Meeting CODESA	☆	★★★★	☆	★★★☆	☆	★☆☆☆
Meeting COPA	☆	★★★☆	☆	★★★★	☆	★☆☆☆
Attended CODESA	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
Attended COPA	☆	★☆☆☆	☆	★★★☆	☆	☆☆☆☆
Meeting COPA	☆	★★★★	☆	★☆☆☆	☆	☆☆☆☆
Attended COPA	☆	★★★★	☆	★☆☆☆	☆	★☆☆☆
Meeting Community	☆	★★★☆	☆	★☆☆☆	☆	★☆☆☆
Meeting CODESA	☆	★☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
Attended CODESA	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
Meeting Community	☆	★☆☆☆	☆	☆☆☆☆	☆	★★☆☆
Service Quality (Health)	☆	★★★★	☆	★★★☆	☆	★☆☆☆
Service Quality (Education)	☆	★★★★	☆	★★★☆	☆	★★★★
Inform Actions	☆	★★★☆	☆	★★★★	☆	★★★☆
Inform Management	☆	★★★☆	☆	★★☆☆	☆	★★★☆
Inform Services	☆	★★★☆	☆	★★★☆	☆	★☆☆☆
Permit Participation	☆	★★★☆	☆	★★☆☆	☆	★★★☆
Advice	☆	★★☆☆	☆	★★★★	☆	★★★☆
Public Use	☆	★★★☆	☆	★★☆☆	☆	★★★☆
Trust COPA	★	☆☆☆☆	☆	☆☆☆☆	★	☆☆☆☆
Trust CODESA	☆	☆☆☆☆	☆	★☆☆☆	☆	☆☆☆☆

Table 48. Results by *Tuungane* first phase: Service provision in health sector

Dimension	Measure	In report		No *Tuungane* 1		*Tuungane* 1	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Building condition	Floor Quality	☆	★★★☆	☆	★★★☆	☆	★☆☆☆
	Wall Quality	☆	★★★★	☆	★★★☆	☆	★☆☆☆
	Infra	☆	★★☆☆	☆	★★☆☆	☆	★☆☆☆
	Clean Floor	☆	★★★☆	☆	★☆☆☆	☆	☆☆☆☆
	Clean Wall	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	Toilets	☆	★★★★	☆	★★★★	☆	★☆☆☆
Capacity	# Health Providers Present	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	# Beds	☆	★★★☆	☆	★★☆☆	☆	★☆☆☆
	Wait Personnel	★	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Wait Treatment	☆	☆☆☆☆	☆	☆☆☆☆	★	☆☆☆☆
	# Nurses	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	# Doctors	☆	★★☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Treatments	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Wait Time	☆	★☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
Material and supplies	# Antibiotics	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	# Malaria Tables	☆	☆☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	# Anti-inflammatory Tablets	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
Staff quality	Doctor/ Nurse Ratio	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
	Director Education	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	Director Medical	☆	☆☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	Presence Health Provider	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
Administration	Director Present	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
	Patient Register	☆	★★★★	☆	★★☆☆	☆	★☆☆☆
	Staff Register	☆	★★★☆	☆	★☆☆☆	☆	★☆☆☆
	Stock Register	☆	★★☆☆	☆	★☆☆☆	☆	★☆☆☆
	Cash Book	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
Community participation	Contrib. in Kind	☆	★★★★	☆	★★☆☆	☆	★★★☆
	Contrib. in $	☆	☆☆☆☆	☆	☆☆☆☆	☆	★★☆☆
	Contrib. in Kind	☆	★★★★	☆	☆☆☆☆	☆	★☆☆☆
	Contrib. in $	☆	★☆☆☆	☆	★★☆☆	☆	★☆☆☆
Service cost and utilization	Open	☆	★☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	$ Paid	☆	☆☆☆☆	☆	☆☆☆☆	★	☆☆☆☆
	# Patients Now	☆	★☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	# Patients Last Month	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Consultation	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	$ Price Card	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Night	☆	☆☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	$ Price Consultation	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Card	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	$ Price Night	☆	☆☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	# Visits	☆	★☆☆☆	☆	★★★☆	☆	★☆☆☆

Table 49. Results by *Tuungane* first phase: Service provision in education sector

Dimension	Measure	In report		No *Tuungane* 1		*Tuungane* 1	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Building condition	Floor Quality	☆	★★★★	☆	★★★★	☆	★★★★
	Wall Quality	☆	★★★☆	☆	★★★★	☆	★★★★
	Roof Quality	☆	★★★★	☆	★★★★	☆	★★☆☆
	Windows	☆	★★★★	☆	★★★☆	☆	★★★★
	Toilets	☆	★★★★	☆	★★★☆	☆	★★★★
	Toilets	☆	★★★★	☆	★★★★	☆	★★★★
Capacity	# Benches	☆	★★★★	☆	★★★★	☆	★★★★
	Room size	☆	☆☆☆☆	☆	★★☆☆	☆	★☆☆☆
	# Teachers	☆	☆☆☆☆	☆	★★★☆	☆	☆☆☆☆
	# Rooms	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
	Highest Degree	☆	☆☆☆☆	☆	★★☆☆	☆	☆☆☆☆
	# Students Reg.	☆	★☆☆☆	☆	★★☆☆	☆	★☆☆☆
	Teacher/ Student Ratio	☆	☆☆☆☆	☆	★★☆☆	☆	☆☆☆☆
	Room Size OK	☆	★★★★	☆	★☆☆☆	☆	★★☆☆
Material and supplies	Blackboard	☆	★☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Prop. Books	☆	★☆☆☆	☆	★★★★	☆	★★★★
	Prop. Notebooks	☆	☆☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Teacher Book	☆	☆☆☆☆	☆	★☆☆☆	★	☆☆☆☆
	Teacher Prep.	☆	☆☆☆☆	☆	☆☆☆☆	☆	★★☆☆
	Teacher List	☆	★☆☆☆	☆	★☆☆☆	☆	★★★☆
Staff quality	Teacher Present	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Studied Pedagogy	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Director Education	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	Director Pedagogy	☆	☆☆☆☆	☆	★☆☆☆	☆	★★☆☆
	Teacher Absence	★	☆☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	Teacher Punctual	☆	☆☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
	Teacher Qualified	☆	★☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Teacher Rigorous	☆	★☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
Administration	Director Present	☆	★☆☆☆	☆	★★☆☆	☆	☆☆☆☆
	Personnel Register	☆	★☆☆☆	☆	★★☆☆	☆	★★☆☆
	National Program	☆	★☆☆☆	☆	★☆☆☆	☆	☆☆☆☆
Community participation	Contrib. in Kind	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Contrib. in $	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Contrib. in Kind	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
	Contrib. in $	☆	★☆☆☆	☆	★★☆☆	☆	★☆☆☆
Service cost and utilization	Open	☆	★☆☆☆	☆	★☆☆☆	☆	★★☆☆
	Boys	☆	☆☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Girls	☆	☆☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Students Pres.	☆	★★☆☆	☆	★☆☆☆	☆	★☆☆☆
	School Fee ($)	☆	★☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Functioning Fee ($)	☆	★★★★	☆	★★☆☆	☆	★☆☆☆
	Cost School ($)	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	School Fee ($)	★	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Functioning Fee ($)	☆	★★★☆	☆	★★★☆	☆	★☆☆☆

Table 50. Results by *Tuungane* first phase: Health and education outcomes

Outcome	Measure	In report		No *Tuungane* 1		*Tuungane* 1	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Health outcomes	Medical care	☆	☆☆☆☆	★	☆☆☆☆	☆	☆☆☆☆
	U5 mortality	☆	★☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Death head of household	★	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Death other household members	☆	☆☆☆☆	☆	☆☆☆☆	☆	★☆☆☆
	Sick head of household	☆	☆☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
	Sick other household members	☆	★☆☆☆	☆	☆☆☆☆	☆	☆☆☆☆
Education outcomes	Attendance (daughters)	☆	★★☆☆	☆	★★★★	☆	☆☆☆☆
	Attendance (sons)	☆	★★★☆	☆	★★★★	☆	☆☆☆☆
	Never attended (daughters)	☆	★☆☆☆	☆	★☆☆☆	☆	★☆☆☆
	Never attended (sons)	☆	☆☆☆☆	☆	★★☆☆	☆	★☆☆☆
	Exam grade (French)	☆	★☆☆☆	☆	★★☆☆	☆	☆☆☆☆
	Exam grade (Local language)	☆	★☆☆☆	☆	★★★☆	☆	☆☆☆☆

Table 51. Results by *Tuungane* first phase: Governance

Dimension	Measure	In report		No *Tuungane* 1		*Tuungane* 1	
		Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Participation	Present Meeting	★	★	★	★	★	★
	Participated Meeting	★		★		★	★
	Voluntary Contribution	★	★★★	★	★	★	★★★★
	Voted 2011	★		★		★	★★
	Participated Election	★	★★★★	★	★★★★	★	★★
	Right Participate	★		★	★★★	★	★
	Interaction	★		★		★	★
Accountability	Interaction	★	★	★	★	★	★★
	Chief Informs	★	★★	★	★★★	★	★
	Other Organs	★	★★★	★	★★★	★	★★
	Influence Leaders	★	★★★	★	★	★	★★
	Verify Leaders	★		★		★	
	Verify Chief	★	★★★	★	★★★	★	★★
	Local Committee	★		★	★	★	★
Transparency	Accept School	★		★		★	
	Accept Health	★	★★	★	★	★	★
	Knowledge	★	★★★★	★	★★★★	★	★★★
Efficiency	Approached State	★	★	★	★	★	
	Successful State	★		★	★	★	★
	Approached NGO	★	★★	★	★★★★	★	★
	Successful NGO	★		★		★	★
Capture	Committee Exist	★	★★★★	★	★★★★	★	★★★★
	Committee Elected	★	★	★	★★★	★	★
	Association Exist	★	★★★	★	★★★	★	★★
	Association Elected	★	★★★★	★		★	★★

Table 52. Results by *Tuungane* first phase: Women's empowerment

		In report		No *Tuungane* 1		*Tuungane* 1	
Outcome	Measure	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?	Adverse effect?	Support for hypothesis?
Women empowerment	Women Rights	★	★★★★	★	★★★★	★	★★★★
	Women Association	★	★★★★	★	★★★★	★	★★★★
	Member Association	★	★★★★	★	★★★★	★	★★★★
	School Attendance (Prop.)	★	★★★★	★	★★★★	★	★★★★
	School Never (Prop.)	★	★★★★	★	★★★★	★	★★★★
	Committee (Prop.)	★	★★★★	★	★★★★	★	★★★★

10.6 List of qualitative villages visited

Table 53 shows the list of villages visited by the qualitative team denoted by location, sector and project type along with, when provided, IRC field staff's overall assessment of the project's success. It denotes only those sectors for which the projects were constructed in the immediate vicinity of the listed village and that villagers identified during our field visit to the area. For example, in Nyacibingu three primary level classrooms plus four toilets were built with *Tuungane 1* funds at the VDC level while an additional six secondary level classrooms along with five toilets were built at the CDC level. This village also benefited from T2 funding with a health center at the CDC level in neighboring Mushenyi. The village also received RAPID funding which it used to help construct a road while it also received T2+ funding. The table does not include projects that were constructed in other villages. In the case of Nyacibingu, we thus list education as the only project sector for the village, since the health center was built in another area and was mentioned only briefly by the chief and never by villagers, despite open ended inquiries about changes brought to the village and projects implemented in the area. Likewise, we do not list projects for which funds never arrived. In Mubidi village for example, communities had begun digging a foundation for a *Tuungane 2* promised health center that was never completed due to the arrival of Mai-Mai in the area and the subsequent insecurity and displacement of the population.

Table 53: Selected qualitative villages: South Kivu

#	Territory	Village	Sector	T1	T2	Score[48]
1	Mwenga	Kakule	Health	No	Yes	Positive
2	Mwenga	Musika	Watsan	Yes	No	Negative
3	Mwenga	Ngingu I	Education	Yes	Yes	Positive
4	Mwenga	[Village 4]	Health	Yes	Yes	Negative
5	Mwenga	Ilemba- Nord	Education	No	Yes	Positive
6	Mwenga	[Village 6]	Education	No	Yes	Positive
7	Walungu	Mubone	Education	Yes	Yes	Negative
8	Walungu	Kalambo	Education	No	Yes	Positive
9	Walungu	Buhesi	Education	Yes	Yes	Negative
10	Walungu	Mukama	Health	No	Yes	Positive
11	Walungu	Lunyenya	Health	Yes	Yes	Positive
12	Walungu	Nambo Kabusike	Transport	Yes	No	Negative
13	Walungu	Kalirhi	Education	Yes	No	Negative
14	Walungu	[Village 14]	Education & Health	Yes	Yes	Positive
15	Kalehe	Karhongo	Watsan & Transport	Yes	Yes	Positive
16	Kalehe	Kasheke-Irambo	Education	No	Yes	Positive

[48] The binary score of positive/negative was added at the request of the implementing partner. These scores reflect the general assessment presented by the IRC staff who provided the initial information about these villages. Note however that staff were asked to present examples of 'interesting villages' as understood both negatively and positively. In some cases then, 'interesting cases' were marked not by the success or failure of the project but of the circumstances surrounding it, such as a village where the FARDC were present, and these are marked by a N/A as the village's inclusion was not based or described on the program's outcome. Finally, it must also be noted that these scores are based on the initial assessment of the IRC staff with whom we talked. Upon visiting these villages, sometimes the stories and assessments provided by IRC staff were not what we found to be true while in other cases villages in reality showed varying degrees of program success and failure. The binary included here is thus to be used as a general guide but should not be used for drawing any direct analysis or comparisons.

17	Kalehe	Dutu	Education	No	Yes	Negative
18	Kalehe	Mukwiija/Tchilima	Market & Health	Yes	Yes	Positive
19	Kalehe	Kagarama	Market	No	Yes	Negative
20	Kalehe	Nyacibingu	Education	Yes	Yes	Negative
21	Kalehe	Bujuki/Babulo II	Non *Tuungane*	No	No	NA
22	Kalehe	Lushebere	Health	No	Yes	Positive
23	Kalehe	Maliba	Market	Yes	Yes	Negative
24	Uvira	Muhungu	Education	Yes	No	Positive
25	Uvira	Walungu	Transport	Yes	No	Positive
26	Uvira	Kagunga	Health	Yes	No	Negative
27	Uvira	Rokobera	Education	Yes	No	NA
28	Uvira	Butole	Education	Yes	No	Negative

Table 54: Selected qualitative villages: Tanganyika

#	Territory	Village	Sector	T1	T2	Score
29	Kalemie	Tundwa	Health & Market	Yes	Yes	Negative
30	Kalemie	Kateba	Health	Yes	Yes	Positive
31	Kalemie	Kaite II	Water	Yes	Yes	Positive
32	Kalemie	Lukwangulo	Health	No	Yes	Positive
33	Kalemie	Kichanga Muzaniwa	Education	No	Yes	Negative
34	Kongolo	Benahamba	Education	No	Yes	Negative
35	Kongolo	Mbulula	Education & Health	Yes	Yes	Negative
36	Kongolo	Tambwe	Education	No	Yes	Positive
37	Kongolo	Bishile	Education	Yes	Yes	Positive
38	Kongolo	Masembe	Education	Yes	Yes	Positive
39	Kabalo	Kasinge	Education	No	Yes	Positive
40	Kabalo	Kyalo-Kadima	Education	Yes	No	Negative
41	Kabalo	Leangululu	Health & Education	Yes	No	NA
42	Kabalo	[Village 42]	Health & Education	Yes	Yes	Positive

Table 55: Selected qualitative villages: Haut Katanga

#	Territory	Village	Sector	T1	T2	Score
43	Kasenga	Kawama	Watsan	No	Yes	Positive
44	Kasenga	Kiba	Education	Yes	Yes	NA
45	Kasenga	Kasongo	Education	Yes	Yes	Positive
46	Kasenga	Kabutula	Education	No	Yes	Negative
47	Kasenga	Katete	Education	No	Yes	Negative

48	Kasenga	Kabyasha	Education	No	Yes	Positive
49	Kasenga	[Village 49]	Education	No	Yes	Positive
50	Kasenga	[Village 49]I	Education	No	Yes	Positive
51	Kipushi	Mukoma	Watsan	No	Yes	Positive
52	Kipushi	Mimbulu	Watsan & Market	Yes	Yes	Positive
53	Kipushi	Mukulubwe	Mill & Watsan	Yes	Yes	Negative
54	Kipushi	Sumbilili	Watsan	No	Yes	Positive
55	Kipushi	Ntondo	Mill & Watsan	Yes	Yes	Positive
56	Kipushi	Kakoke	Mill & Watsan & Education	Yes	Yes	Positive
57	Kipushi	Kiwele	Education	Yes	Yes	Positive
58	Mitwaba	Mubidi	Education	Yes	No	Positive
59	Mitwaba	Kwiyongo I	Education	Yes	No	Negative
60	Mitwaba	Kintya	Education	Yes	No	Negative
61	Mitwaba	Kasungeshi	Education & Market & Watsan	Yes	Yes	Negative
62	Mitwaba	Ntambo	Health	Yes	No	Negative
63	Kambove	Kasungwe	Watsan & Health	Yes	No	Negative
64	Kambove	Kangambwa	Watsan	Yes	Yes	Positive
65	Kambove	Shilantembo	Health & Watsan	Yes	Yes	Negative
66	Kambove	Kidila Mabombwe	Non *Tuungane*	No	No	NA
67	Kambove	Katanga	Education	Yes	Yes	Negative
68	Kambove	Ndakata II	Health & Education	Yes	No	Positive
69	Kambove	Kampotela	Education	No	Yes	NA

10.7 Assumptions related to *Tuungane*'s theory of change

In **Table 57** we show the full list of 69 assumptions found in relation to *Tuungane*'s Theory of Change as generated through the early efforts of Seay et al. (2012). The table below lists the assumption and then ranks the extent to which we found it to be true or false according to the qualitative and quantitative findings..

Table 56. Interpretation of results

★★	Strong evidence in favor of the assumption
★	Some evidence in favor of the assumption
★★	Strong evidence against the assumption
★	Some evidence against the assumption
★	No significant evidence in favor or against
--	No information

Table 57. Assumptions related to the theory of change: general assumptions

#	Assumption	Claim	Explanation
1	There are existing spaces for interface between Congolese constituents and duty bearers.	★★	There are already formal as well as informal spaces of interface that exist in the villages.
2	There are few or no existing spaces for productive interface between Congolese constituents and duty bearers.	★★	Most people expressed a general ability and an identified recourse for confronting duty bearers for productive change through existing informal spaces of interface. Many also expressed that a satisfactory outcome resulted from these interactions.
3	Constituents are dissatisfied with/want changes to existing service delivery processes.	★	People express that at the same time as being thankful for existing service provision, there are still concerns notably of fee payment but also in some cases of poor service quality. These concerns however differ between villages and amongst village residents. There were also vast differences between individuals regarding the processes of service delivery.
4	Constituents are dissatisfied with/want changes to existing accountability relationships with duty bearers.	★	We did not find widespread evidence to support (or even to refute) this general claim.
5	Constituents are not active agents of development within their communities.	★	We found influential community members within every community. Most often these tended to be the elites and most powerful members of the village such as the village head or church leaders. Some leaders were held up as examples of bringing development into their communities or leading a local initiative. In no cases were these people from lower social strata. Depending on how 'development' is being defined by different project stakeholders, even villagers with influence and

			a desire to implement change were often limited by the wider Congolese context as well as access to financial capital.
6	Duty bearers are not active agents of development within their communities.	★	We did not find a general pattern in support or to refute this broad claim. We found instances when duty bearers much like individual community members were able to promote some change in the village, while we also found instances where duty bearers, particularly those service providers who were from outside the community or village social hierarchy felt unable to promote change.
7	Constituent priorities are not effectively addressed by existing governance systems.	★★	Security, followed by poverty, are the greatest priorities most often expressed by village members which are not being effectively and sustainably addressed by existing governance systems.
8	The priorities of actors in local levels of government are not effectively addressed by existing governance systems.	--	Village heads often (but not always) reflected the same priorities cited by the local community however we did not measure local government officials' priorities beyond the level of the chief.
9	The concept of "accountability" in governing relationships is meaningful and valued by Congolese constituents and duty bearers.	★	See explanation above in section 7.4.
10	Constituent demand for service delivery and duty bearer responses to those demands were weak or inadequate prior to *Tuungane.*	--	We did not measure this.
11	Learning about and practicing *Tuungane* processes and mechanisms (such as the community scorecard or the VDC elections) changed constituents' and duty bearers' attitudes and behavior.	★	While the quantitative evidence suggests a general improvement in governance outcomes, the evidence and extent of these changed behaviors and attitudes remains limited. See explanation above in section 7.4.
12	Constituents and duty bearers will behave in the same way after *Tuungane* that they did while participating in *Tuungane.*	★	We found little evidence that the mechanisms that *Tuungane* asked people to participate in were extended to other projects. At the same point, we did not find substantial evidence of any changed behaviors that reverted to a former pattern.
13	The absence of a large block grant has no effect constituents' or duty bearers' attitudes or behaviors after *Tuungane.*	--	We did not measure this

14	Constituents and duty bearers will not revert to the use of preexisting mechanisms and processes of service provision and accountability after learning new ones through *Tuungane.*	★	This assumes that duty bearers changed in the first place and while there are cases of individual change, there is little evidence of any widespread change.
15	*Tuungane* staff correctly identified COPA/CODESA and the line ministries as the appropriate authorities.	★	Individuals cited as having the greatest influence in the village were family members of the village head as well as local church leaders. Teachers and other village members of some stature were noted secondarily. In some cases, administrative heads further along the political hierarchy were also mentioned. Regardless, little could be done (and was done) without the chief's authority and knowledge. The inclusion of the chief within the *Tuungane* 2 project reflects this reality.
16	A COPA/CODESA committee exists for each *Tuungane* project.	★	While this is largely true, there are examples of villages that received *Tuungane* funding and are not served by a functioning COPA/CODESA. In a few villages, for example a COPA committee did not exist, while in other villages, COPA and/or CODEA were considered inactive and recognized only by name by the local population.
17	A COPA/CODESA committee know the roles they should be fulfilling.	★	As demonstrated through the quantitative results, committee members know some of their respective roles but not all.
18	COPA/CODESA committees have the capacity to fill their roles.	★	Many committee members lamented the challenges of fulfilling their role. Finances and time were those most frequently cited as demotivating factors for fulfilling their roles. Having said this, committee members did not directly cite any challenges to their actual capacity to fulfill their roles. Given, however, that most committee members do not know the full extent of their roles, this assumption will remain an open ended one.
19	A line ministry exists for each *Tuungane* project.	--	We did not measure this.
20	Line ministries know the roles they should be fulfilling.	--	We did not measure this.
21	Line ministries have the capacity to fill their roles.	--	We did not measure this.
22	COPA and CODESA are willing to interact with IRC and are responsive to the user communities.	★	The extent to which committee members were willing to interact with IRC often mirrored the willingness of villagers in the same area. There are cases, for example, where IRC was reported as having been asked to leave or never return. There are also cases where committees were unresponsive to user communities and these often occurred in situations of fraud or program embezzlement on the part of committee members.

23	The service providers identified by *Tuungane* are actually the service providers in all participating communities.	★	This was generally true for teachers at educational facilities, yet even within different villages we found that individual community members do not necessary send their children to a single school. In many cases, the difference was due to religious affiliation with a particular school. Overall, however, teachers were responsible for the education of Congolese youths. On the other hand, villagers seeking healthcare were more likely to seek services from different providers, including local Red Cross staff stationed in the area as well as those practicing traditional medicine.
24	Other powerful local actors did not capture or otherwise interfere with the *Tuungane* process.	★★	See explanation above in section 7.4.
25	*Tuungane* staff correctly identified the chefferies or other local authorities as the appropriate authority through which to introduce and conduct *Tuungane* activities.	★	Engagement of the chief was often key to achieving program aims.
26	There was little variation in patterns of service delivery and decentralized local government capacity across the *Tuungane* project sites.	--	We did not measure this.

Table 58. Assumptions related to the theory of change: IRC states program assumptions

#	Assumption	Claim	Explanation
27	Users and ETD constituents want service delivery to be responsive to their needs and are willing to engage with service delivery actors to this end.	★	We did not measure constituent desire for responsive service delivery nor directly measure individual willingness to engage with service delivery actors towards that end. However, the extent to which individual community members expressed any willingness to engage with service delivery actors often varied significantly depending on their own social standing in the local community. For some individuals, meeting directly with service providers and communicating their concerns was an available route to resolution. Others chose to approach the chief for resolution of any conflicts. Still others, notably minorities, the infirm, widowed, and extremely poor households and individuals did not feel that such confrontation was possible or desirable.
28	User and constituent engagement in local service delivery, either directly or through their representatives is critical in achieving service delivery that is responsive to their needs.	--	We did not measure this.
29	The local service delivery space, as defined by the program, is relevant to the DRC context.	★	As noted previously, education is the responsibility of the relevant school. Heath services, however, are provided by a much more varied array of actors. This extends to the actual service delivery space whereby many community members, particularly women, prefer to be treated in their own homes or in private.
30	Key actors and interface spaces targeted by the program are appropriate for the changes targeted by the program and valued by users and other service delivery stakeholders.	★	See explanation above in section 7.4.
31	The interface spaces targeted by the program are accessible to user/constituent voice and influence.	★	Similar to assumption number 27, the extent to which individual community members felt enabled to access the interface spaces targeted by the program often varied significantly depending on their own social standing in the local community. At the same time, most community members favored the use of informal mechanisms such as meeting directly with service providers or approaching the chief for assistance, even after the implementation of the more formal mechanisms by the *Tuungane* program. Still

			others, notably minorities, the infirm, widowed, and extremely poor households and individuals did not feel that engagement was possible at any type of interface space, least of all in formal spaces where their contributions would be visible.
32	Engagement of stakeholders outside the local service delivery space is essential to achieving program aims.	--	We did not measure this.
33	Effective engagement of stakeholders outside the local service delivery space can only be achieved through a combination of bottom-up and top- down advocacy efforts.	--	We did not measure this.
34	Mobilization and utilization of user/constituent voice in decision-making, constructive interface among service delivery actors and engagement of stakeholders outside the local service delivery space will produce results that exceed program investments (net benefits).	★	While we found evidence for this assumption to be limited, we did find cases in which participation in meetings and elections had lasting effects beyond the intention of the project. One example of note is the extent to which some women who gained positions of leadership within user committees cited these as influencing other aspects of their life. It is difficult, however, to present a clear causal relationship for these noted changes in people's lives. As was also illuminated by women in other villages, many organizations offered similar spaces and training for women's empowerment in particular.
35	The current user committee-service provider interface (monthly meetings) is not effective in addressing service delivery challenges.	★	The greatest challenge to service delivery is the payment of the required fees for service delivery by parents and patients and the payment by the government of health and teacher staff salaries. The current user-committee service provider interface does not have the capacity to rectify these issues in full but they do have the capacity to present modified solutions. It is unclear, however, whether such changes are supported or limited by the current user committee-service interface.
36	User committees are not empowered to represent user interests to service providers.	★	We did not find a general pattern in support or to refute this broad claim, as user committees did not speak to this as being an unmet issue.
37	Service providers are not empowered to represent user interests/local needs to line ministries.	★	We did not find a general pattern in support of or to refute this broad claim as service providers did not speak to this as being an unmet issue.

38	Constituents/individuals/users are not empowered to hold user committees accountable.	★	Similar to assumption number 27, the extent to which individual community members felt empowered to engage with service delivery actors often varied significantly depending on their own social standing in the local community. For some individuals, meeting directly with service providers and communicating their concerns was an available route to resolution. Others chose to approach the chief for resolution of any conflicts. Still others, notably minorities, the infirm, widowed, and extremely poor households and individuals did not feel that such confrontation was possible or desirable.
39	User committees are not empowered to hold service providers accountable.	★	We found varying degrees to which user committees felt empowered to confront service providers and few instances in which serivce providers in fact responded to user committee complaints. Resolution of serious issues often were accomplished with assistance from higher ranked individuals within the administrative hierarchy.
40	Current line ministry oversight of service providers is not effective.	--	We did not measure this.

Table 59. Assumptions related to the theory of change: assumptions about the VDCs

#	Assumption	Claim	Explanation
41	VDC elections were a free and fair process through which Congolese constituents were allowed to freely select their VDC members.	★	See explanation above in section 7.4. Similar, to elections of user committee members, VDC members were in some cases selected to serve by the chief or another village notable.
42	Congolese constituents will expect their VDC members chosen through *Tuungane* elections to continue to serve as duty bearers after *Tuungane*.	--	We did not measure this
43	What IRC and CARE staff observed at VDC elections and general assemblies were the processes through which decisions about VDC membership were made.	★	See explanation above in section 7.4. Similar, to elections of user committee members, VDC members were in some cases selected to serve by the chief or another village notable.
44	No other actors, community leaders, or constituents (including those living outside of the VDCs) interfered with the VDC election or general assembly processes.	★	See explanation above in section 7.4. Similar, to elections of user committee members, VDC members were in some cases selected to serve by the chief or another village notable.
45	Holding elections and general assemblies caused constituents to realize that they have the right to demand services and accountability from VDC members.	--	This assumes that constituent realization of their rights did not exist prior to the holding of elections. We did not measure previous or changed perceptions.
46	Holding elections and general assemblies caused constituents to act on the realization that they have the right to demand services and accountability from VDC members.	--	This assumes first that constituent realization of their rights did not exist prior to the holding of elections. We did not measure previous or changed perceptions.
47	Being elected to VDC membership and participating in general assemblies caused VDC members to realize that they have a responsibility to respond to constituent demands for services and accountability.	--	We did not find a general pattern in support of or to refute this broad claim as neither committee members nor user groups spoke to this
48	Being elected to VDC membership and participating in general assemblies caused VDC members	--	We did not find a general pattern in support of or to refute this broad claim as neither committee members nor user groups spoke to this

	to act on the realization that they have a responsibility to respond to constituent demands for services and accountability.		
49	VDC members respond to constituent demands equally among the local community (notably women and vulnerable groups).	--	We did not find a general pattern in support of or to refute this broad claim as neither committee members nor user groups spoke to this
50	VDC members are not subject to additional external incentives that outweigh and overpower those provided through the *Tuungane* program.	★★	VDC members, as community members, are subject to the same social forces and norms that shape their actions and behaviors as individuals in a hierarchical society. For women, their duty to their household for example was cited as a reason for not being able to perform certain tasks such as attending multiple meetings. Some individuals used their VDC positions to advance their own individual gains at the expense of attending to the stated duties of the VDC.

Table 60. Assumptions theory of change: assumptions about service providers

#	Assumption	Claim	Explanation
51	Service providers did not have a strong sense of accountability to Congolese constituents in the communities they served/were supposed to serve.	★	While some service providers cited the local community as a group to whom they were accountable, there were a number of service providers who did not mention a need to be accountable to local users. Regardless, our questions of accountability were not presented along a timeline so it is difficult to suggest to which timeframe service providers have/had a sense of accountability.
52	Congolese constituents did not have adequate informal or formal means of holding service providers accountable in their communities.	★	As previously mentioned in assumptions 1 and 2, there are already informal spaces of interface that exist in the villages. Most people expressed a general ability and an identified recourse for confronting duty bearers for productive change through existing informal spaces of interface. Many also expressed that a satisfactory outcome resulted from these interactions.
53	Learning to use the community scorecard caused constituents to realize that they have the right to demand services and accountability from service providers.	--	We did not measure this.
54	Learning to use the community scorecard caused constituents to act on the realization that they have the right to demand services and accountability from service providers.	--	We did not measure this.
55	Being evaluated with the community scorecard caused service providers to realize they have the responsibility to respond to constituent demands for services and accountability.	--	We did not measure this.
56	Being evaluated with the community scorecard caused service providers to act on the realization that they have the responsibility to respond to constituent demands for services and accountability.	--	We did not measure this.

57	Service providers respond to constituent demands equally among the local community (notably women and vulnerable groups).	★	We did not find a general pattern in support of or to refute this broad claim as neither service providers nor user groups spoke to this
58	Service providers are properly incentivized to perform their roles through the *Tuungane* program such that other incentives do not outweigh those provided by the program.	★★	When service providers were asked what motivated and demotivated them in their work, they gave a variety of answers. Many mentioned their personal motivation to do a good job. Others claimed that they were working in service to their own community. Most also noted the importance of financial recompense and the lack of such as negatively impacting their ability to do a good job. *Tuungane*'s influence was never directly mentioned as a motivating factor. Most importantly here, however is that these few factors point to the influence of significant other factors at play.

Table 61. Assumptions theory of change: assumptions about decentralized local governments

#	Assumption	Claim	Explanation
59	The 2005/06 constitutional provisions for the decentralization of the Congolese state, the creation of new provinces, and the devolution of 40% of the national budget would happen as specified.	--	We did not measure this.
60	Decentralized local governments in Congo have the capacity to deliver services in the absence of donor support.	--	We did not measure this.
61	Decentralized local governments in Congo have the capacity to regulate and manage the delivery of services by other actors in the absence of donor support.	--	We did not measure this.
62	Actors who are not decentralized local government officials do not exercise more power, have more authority, or have greater capacity to deliver services than do decentralized local government officials.	★	While we found this to be largely true, there are cases of villages where the presence of the army and notably the ANR wield considerable power and influence in the villages in which they are stationed.
63	Actors who are not decentralized local government officials do not have greater regulatory power or oversight authority than do decentralized local government officials.	★	While we found this to be largely true, there are cases of villages where the presence of the army and notably the ANR wield considerable power and influence in the villages in which they are stationed.
64	Constituents are likely to trust decentralized local government officials in the long term after seeing those officials respond to their demands through *Tuungane.*	--	We did not measure this.
65	Constituents are likely to trust decentralized local government officials in the long term more than they have reason to trust actors who are not decentralized local government officials after seeing	--	We did not measure this.

	those officials respond to their demands through *Tuungane.*		
66	Learning to use the EDT scorecard caused constituents to realize that they have the right to demand services and accountability from decentralized local government actors.	--	We did not measure this.
67	Learning to use the EDT scorecard caused constituents to act on the realization that they have the right to demand services and accountability from decentralized local government actors.	--	We did not measure this.
68	Decentralized local government officials respond to constituent demands equally among the local community (notably women and vulnerable groups).	--	We did not measure this.
69	Local government officials are not subject to additional external incentives that outweigh and overpower those provided through the *Tuungane* program.	★	As noted in our discussion of assumption 58 with incentives for service providers, local government officials are likely also influenced by a variety of different factors. In some cases, for example, existing power struggles in the village involving the village head contributed to project failure.