Female community-driven development and empowerment: An RCT in Pakistan [*]

Andreas Landmann[†]ⓡ, Muhammad Karim[‡]ⓡ, Waqar Wadho[§]ⓡ
Fazal Ali Khan[¶]ⓡ

October 14, 2024

Abstract

We study the impact of a community-driven development (CDD) program targeting only women on social, political, and economic empowerment. Our intervention combines social mobilization and support packages for poor households. We randomized the treatment across 23 clusters of settlements and sampled 2290 households from 150 settlements. We find indication that the intervention might have increased information about local government for the whole sample and strong evidence for strengthened perceptions about political participation, as well as access to public goods for women who assume a leadership role. We can only identify such heterogeneous effects on self-selected female leaders because our control group also received treatment and selected leaders after the midline. We find no significant effects on intrahousehold decision-making, household's economic well-being, and social cohesion.

1 Introduction

Community-driven development (CDD) interventions aim to reshape local institutions by making them more inclusive and accountable through the mandated participation of marginalized groups (Casey, 2018). Many such interventions identify women as beneficiaries and

[†]Friedrich Alexander Universität Erlangen-Nürnberg. Email:andreas.landmann@fau.de
[‡]University of California San Diego. Email:mukarim@ucsd.edu
[§]Lahore School of Economics. Email:w.wadho@lahoreschool.edu.pk
[¶]University of Lisbon. Email:fazal@edu.ulisboa.pt

target their empowerment (Bardasi and Garcia, 2017). However, the gender-specific impacts of CDD, especially on women's empowerment, have received little attention in program evaluations and empirical studies. One of the main reasons for the lack of attention is that women are only one of the beneficiaries of these programs; thus, the programs might not have sex-specific objectives or might not be specific enough about which dimensions of women's empowerment the intervention can affect (Bardasi and Garcia, 2017).

The few evaluations that explicitly test women's empowerment have shown mixed results (Van der Windt et al., 2018; Beath et al., 2013; Casey et al., 2012). One potential reason for these mixed results is the male dominance in the mixed-sex groups (Humphreys et al., 2015). Another factor is the extent and nature of women's mandated participation, which must be strong enough to generate effects (Casey, 2018). Additionally, women may strategically submit to patriarchal forms of domination in public spaces (Shapland et al., 2024). Furthermore, women show important differences in behavior, such as contribution to public goods provision, depending on whether groups are composed entirely of women rather than being mixed (Greig and Bohnet, 2009). As a result, women's empowerment through CDD may or may not succeed in mixed-sex groups. The key question, then, is whether jump-starting women's inclusion by making them the sole beneficiaries of CDD interventions can empower them and set them on a trajectory towards a better equilibrium.

We evaluate this question using a unique women-only CDD intervention, with the explicit objective of empowering women. The Sindh Union Council and Community Economic Strengthening Support (SUCCESS) project is a multi-component program implemented by Rural Support Programs (RSPs) in the poorest districts of Sindh, Pakistan. What is unique about the SUCCESS's approach to rural development in Sindh is that it is implemented solely by and through women's groups. The women-only nature of the intervention necessitates creating women leaders that generate additional channels through which the CDD could induce women's empowerment. We evaluate whether participation in the SUCCESS program empowers women in general and women leaders in particular. Empowerment refers to women's agency and their ability to change the institutional rules that shape human behavior (Alsop et al., 2006). We measured it in the social, political, and economic dimensions.

Targeting women is important. There are substantial power disadvantages for women in household and social relations and in local politics. Especially in rural areas, where most CDD programs are implemented, women tend to be excluded and the gender gaps are wider. Patriarchal attitudes and social norms limit women's agency in household. They are often left behind in the collective decision-making process and have restricted access to decision-making power. On the economic front, women have limited access to resources, participate less in paid jobs, and share disproportionately higher domestic responsibilities. These dif-

ferences are well documented in the literature (Chang et al., 2020; Shapland et al., 2024; Dhar et al., 2019; Bardasi and Garcia, 2017; Jayachandran, 2015). By mobilizing women and devolving operational control over their decision making, CDD provides an opportunity for local decisions to closely reflect women's preferences and needs. Additionally, given the strong links between gender equality and poverty reduction (WorldBank, 2012), targeting program interventions on women could succeed in reducing poverty, providing a further rationale for women's empowerment.

Against this background, the multifaceted CDD program that we evaluate aims to empower women by mobilizing rural women, offering them leadership roles, skills training, and access to financial resources. The program recognizes the social, political, and economic exclusions women face in rural areas and directly targets these dimensions. At the heart of our intervention lies the RSPs' social mobilization approach to community-driven development. This means that rural women are organized in three-tiered local institutions with leadership roles at each level. Since the mobilization intervention provides leadership opportunities to manage and lead these organizations, the program impacts are likely to differ for the subgroup of women who become leaders. The unique settings of our intervention, in which the control group also receives treatment after midline (three years), provides an ideal counterfactual to test the treatment effects on the sub-group of leaders. Since the control group also received treatment, we know who became a leader in the control group. Hence, we compared the midline outcomes of leaders in the treatment group to the outcomes of future leaders in the control group. We explore a range of measures related to nine aspects of women's empowerment: information about local government, information about public goods, access to public goods, perceptions about civic engagement, civic engagement, intra-household decision-making, household's economic well-being, and social cohesion. We randomized the treatment across 23 clusters of settlements (forming village organizations) and sampled 2290 households from 150 settlements.

We find a sizable effect on women's access to information about the local government in the overall sample. Compared to the control group, women in the treatment group appear to be more likely to know their union councilors, chairpersons, and the location of their offices in their respective union councils. This effect, however, does not remain significant after rigorously controlling for multiple hypothesis testing, even though all outcomes within this index appear to be positively affected.[1] We also do not find significant effects on any of the other outcomes. Section 6 features a discussion about potential reasons for limited results on the overall sample. In contrast, we find a substantially stronger impact of the program on women leaders. First, they improve access to public goods and services. Preg-

---

[1] Such corrections of p-values unfortunately come at the cost of an increased type II error rate (i.e. false negatives.)

nant women in their households are 8 percentage points more likely to receive appropriate vaccination, and household members are 10 percentage points more likely to have national identity cards. The strongest treatment effects, however, emerges on all aspects of women's perceptions about their civic engagement: women leaders are 15 percentage points more likely to believe that it is appropriate for women to discuss politics, 20 percentage points more likely to believe that it is appropriate for women to vote, 25 percentage points more likely to vote for the candidate of their choice, 26 percentage points more likely to believe that it is appropriate for women to reveal their preferences for public goods, and 19 percentage points more likely to believe that it is appropriate for women to contest elections. These effects are driven mainly by the women belonging to the poorest households. While these results are sizeable and robust, we find no significant impact on women's position in intra-household decision-making, household's economic well-being, and social cohesion. The null results for intra-household bargaining are not surprising and common in the literature, though. Conservative cultural norms evolve slowly, and they require behavioral changes from all concerned parties, not just women.

This study makes three primary contributions to the literature: The first innovation of this study is that we investigate a women-only CDD intervention that, to our knowledge, has not yet been evaluated in the literature. Second, organizing only women necessarily leads to building new female leaders, which endogenously form as part of new local institutions. However, focusing on effects of leadership is methodologically challenging. In most settings, it is impossible to evaluate the effects on such self-selected subgroups because one cannot identify a plausible comparison group (because the same group formation is not observed in the control group). Observing leader selection in the control group at the midline allows for such like-to-like comparisons. Third, the literature on women's leadership often focuses on reforms to existing institutions, and often on formal electoral institutions. By contrast, our study investigates whether building new leaders in parallel to institutional innovations can improve the position of women.

The remainder of this paper is organized as follows. In the next section, we discuss previous studies on CDDs and gender quotas. Section 3 presents the context of the study, describing the position of women in Pakistan and the SUCCESS program. Section 4 presents the experimental design, intervention, data, and the estimation strategy. Section 5 presents the results for both the overall sample and sample of female leaders. In Section 6, we discuss the underlying mechanisms and the null effects. We conclude the paper in Section 7.

2 Related Literature

A series of randomized control trials (RCTs) have evaluated the transformative impact of CDD interventions in different institutional contexts. CDDs are generally found to be effective in delivering public goods but have a very limited impact on the empowerment of marginalized groups and collective action (Casey, 2018; Mansuri and Rao, 2013). The path through which CDDs can have transformational effects is the empowerment of marginalized groups. The mandatory participation requirement of marginalized groups such as women is an integral part of many CDD interventions; however, the impact evaluation of such participation quotas is very scant. Theoretically, quotas encourage citizen participation and promote transparency in community-level decision-making. The CDD initiatives combine social mobilization with community grants, enabling communities to control key decisions, such as the provision of public goods and services. Proponents argue that engaging communities in the development process can improve inclusiveness, create greater efficiency by reflecting local preferences, and improve empowerment (Mansuri and Rao, 2013). Furthermore, by providing a platform for leadership development and facilitating interpersonal linkages, participatory processes may strengthen community capacity in the long term. However, since under CDDs, NGOs create a parallel institutional setup which lacks legal cover, there is no guarantee that they will achieve gender parity and empowerment (Mansuri and Rao, 2013). In Indonesia, for example, female participation in project-related meetings increased remarkably, yet it did not translate into concrete gains for women (Voss, 2008).

Two studies that explicitly evaluated the impact of gender quotas showed mixed results on women's empowerment. Van der Windt et al. (2018) exploited gender parity requirements in the management committees responsible for overseeing development projects under a CDD program in Democratic Republic of Congo. In randomly selected half of the villages, the committees were required to contain equal numbers of male and female members. In the remaining villages, there were no restrictions on the committees' gender composition. They found no evidence that promoting women's access to leadership positions had an impact on women's empowerment or the type of public good provided. Beath et al. (2013) evaluated National Solidarity Program in Afghanistan, which according to authors introduced 'radical' changes in women inclusion given the conservative context of the country. The program required a set of provisions: (i) establishment of a gender-balanced village development council; (ii) equal participation of men and women in the elections for the council and in the selection of development projects; and (iii) prioritization of at least one project by women. They reported increased female participation in village governance, community life, and economic activity. They also found that the program led to increased support for female participation in village decision-making. However, they

reported no impact on women's intra-familial decision-making dynamics.

These mixed results could be the outcome of male dominance in mixed-group village councils. Casey et al. (2012) for example report a minimal female participation in their study of CDD in Sierra Leone, which was not significantly different from the female participation in the control communities. A similar limited inclusion was reported by Humphreys et al. (2015), who evaluated CDD in the DRC. In both case studies, women in the treatment group were not more likely to attend or make public comments during village council meetings, and decision making appeared not to be democratic (Casey, 2018). Male dominance could also result from the strategic submission of women to patriarchal norms. Shapland et al. (2024) found that women strategically submit to patriarchal forms of domination during the public decision making processes in a CDD in Mali. Finally, experimental studies suggest important differences in women's behavior between the women-only group and the mixed-sex group. Greig and Bohnet (2009), in a public good game in Nairobi, show that women were pessimists about others' contributions in the mixed sex group, which resulted in a lower contribution by women and hurt the public goods provision.

There is a large body of parallel literature focusing on formal institutional changes, such as gender-based quota provisions, under the legal framework. This literature predominantly draws on constitutional amendments in India mandating gender quotas in village council (panchayat) elections, which introduced larger changes for women in existing power relations. The verdict of these evaluations is that by providing leadership opportunities and control over substantial financial resources to women, quotas lead to women's agency and empowerment (Beaman et al., 2009; Bhavnani, 2009; Chattopadhyay and Duflo, 2004).

Our intervention is unique to the literature, as this is a women-only CDD. The program posits itself in a unique position by aspiring to work exclusively with women, the cornerstone of social mobilization, and creating community institutions of women from the neighborhood level up to the union council. These institutions are designed for, run, and led by women. With no males on the councils, women are expected to experience stronger effects than those reported in mixed-gender interventions. Furthermore, women only mobilization and institution building necessitate building new leaders who emerge naturally as part of newly established local institutions. These women leaders are trained in management and leadership skills and make important program- and community-related decisions that generate additional channels through which they are empowered. Our intervention essentially builds new leaders and is qualitatively different from interventions that promote existing women leaders, such as the case of electoral quotas that mandate female leadership.

6

3 Context

3.1 Women in Pakistan

Pakistan fares poorly on all gender-related indicators. It ranks 145th among 146 countries in the World Economic Forum's 2022 Global Gender Gap Index[2]. On the political front, there is a gender gap of around 10 million in Pakistan's electoral rolls, and out of the electoral rolls, in 2024 general elections, women voter turnout remained at 43% compared to 52% for men (Election Commission of Pakistan)[3]. Women remain significantly more underrepresented in leadership roles and are restricted from taking up positions in the political and public domains. Pakistan also ranks poorly in terms of women's economic participation and opportunities. In 2021, only 23.3% of women participated in the labor market (Labor Force Survey 2020-21).[4]

One of the main reasons behind women's low political and economic participation is the gendered norms that prevent women from participating in the electoral process and economic activities (Khan, 2007; Naqvi et al., 2002; Rouse, 2004). Low economic participation further reinforces women's lower political and civic participation by enlarging gender gaps in resources and creating imbalances in intra-household bargaining positions. Women may also have fewer and/or poorer sources of information about the significance of their political participation, partly because of lower literacy rates and limited mobility, especially in rural areas (Giné and Mansuri, 2018). Such lack of information further reinforces stereotypes and gendered norms that disengage women from public life (Giné and Mansuri, 2018). Women also face severe constraints in accessing basic government services such as obtaining national identity cards. According to a survey study by the Election Commission of Pakistan, out of the 19% of the population aged 18 years and above who do not possess national identity cards, women comprise 77 percent. There are wider gender gaps in the access to health and education. These gaps further reinforce women's limited participation in economic, political, and social spheres.

3.2 The SUCCESS Program

The Sindh Union Council and Community Economic Strengthening Support (SUCCESS) Program is a multi-intervention and an integrated approach to empowering rural women and tackling poverty. The program was funded by the European Union and implemented by

---

[2]The Global Gender Gap Index is part of the Global Gender Gap Report 2022, which can be found here: https://www.weforum.org/reports/global-gender-gap-report-2022

[3]www.ecp.gov.pk

[4]www.pbs.gov.pk

the Rural Support Programs Network (RSPN), National Rural Support Program (NRSP), Sindh Rural Support Organization (SRSO), and Thardeep Rural Development Program (TRDP) in eight poorest districts of Sindh: Kambar-Shahdadkot, Larkana, Dadu, Jamshoro, Matiari, Sujawal, Tando Allahyar, and Tando Muhammad Khan.

SUCCESS builds on the CDD approach of rural support programs (RSPs) which includes both the institutional building and support packages. It underscores the importance of organizing poor women and building their skills as well as providing access to resources through support programs. The RSPs' support packages included the Community Investment Fund (CIF), Income Generating Grants (IGG), Micro Health Insurance (MHI), Technical and Vocational Skills Training (TVST), Micro Enterprise Development, Community Physical Infrastructure (CPI), and Adult Literacy and Numeracy Skills (ALNS).

Overall, the SUCCESS program is reported to have achieved its key objectives (SUCCESS final report).[5] The program mobilized 610,260 women into 30,274 COs, 3,460 VOs, and 314 LSOs in eight program districts. The RSPs trained 71,241 women community leaders in management and leadership skills who were running these community institutions. The LSOs established a CIF worth Rs. 1.7 billion and provided microloans to 118,703 households and IGG worth Rs. 1.1 billion to 64,377 households. The program insured 137,508 poorest families for a five-year long micro-health insurance program. Overall, 43,632 beneficiaries were provided technical and vocational skills training and a total of 35,000 women successfully graduated from an eight-month-long Adult Literacy and Numeracy Skills program. To improve basic community-level infrastructure and productive assets, VOs were provided with grants for building Community Physical Infrastructures (CPIs). Members of VOs identified, oversaw, and maintained CPI projects. VOs with technical support from RSPs completed 2,680 CPI schemes. Over 229,414 households in the neighborhood benefiting from improved infrastructure.

4 Experimental Design, Data, and Empirical methods

4.1 Experiment

The randomized control trial (RCT) intervention described here was conducted as part of an impact evaluation of the SUCCESSS program. The field experiment was implemented in two out of 25 Union Councils (UCs) of Tando Allahyar, one of the largely rural target districts of the SUCCESS program. The RCT tests the impact of the multifaceted SUCCESS intervention on key dimensions of women's empowerment: (i) access to infor-

---

[5]https://www.rspn.org/success/wp-content/uploads/2022/10/Annual-KPI-Report-2022.pdf

mation: a) about local government, and b) about public goods; (ii) access to public goods; (iii) civic engagement: a) women's perceptions/aspirations about their civic engagement, and b) their civic engagement; (iv) women's role in intra-household decision-making; (v) the household's economic well-being; and (vi) trust.

4.2   Sampling and Randomization

Our sampling frame was defined as all settlements (*Goth*) in the two UCs, comprising 150 villages (*Goth*) with a population of 45,057. Based on the calculations of our implementing partners on prospective community and village organization formation, the total population was divided into 23 village organizations (VOs). These 23 VOs were then randomly assigned to treatment (12 VOs) and control (11 VOs) groups. Within each VO area, 100 households were selected for the survey at the baseline, midline, and end-line. Of the 100 households, 80 were randomly selected from within the VO area and 20 were randomly selected from the sub-sample of poor households within the VO area. Poor households were pre-specified based on a poverty score card survey conducted by the RSPs: Households with a poverty score between 0 and 23 were considered poor. In addition to these 100 households, a replacement sample was identified for use if attrition was present. Each of the samples (random/poor) had their own replacement samples from the respective target population. The households in the replacement sample were ranked randomly, and the protocol was to first select higher-ranked households if needed.

Our randomization procedure was successful in ensuring statistical balance between the control and treatment groups. Table 1 reports the control and treatment means, their differences, and p-values of the selected variables at the baseline.

Table 1: Baseline Balance in the Overall Sample

	Obs	Cont(mean)	Cont(sd)	Treat(mean)	Treat(sd)	Diff	p-val
Household composition							
Adults (age $\geq$ 16)	2298.00	3.40	1.93	3.18	1.74	-0.12	0.12
kids (age <16)	2298.00	3.12	2.10	3.17	2.10	0.03	0.74
Male head	2298.00	0.97	0.18	0.96	0.19	-0.00	0.88
Head's age	2298.00	41.31	12.49	41.04	12.53	-0.05	0.71
Head with education	2298.00	0.28	0.45	0.25	0.43	-0.03	0.49
Employement							
Paid work	7781.00	0.61	0.49	0.63	0.48	0.02	0.51
Paid work (Male)	3684.00	0.82	0.38	0.81	0.39	-0.02	0.52
Paid work (Female)	3591.00	0.34	0.47	0.39	0.49	0.05	0.27
Schooling							
Child ever attended school	5813.00	0.38	0.49	0.30	0.46	-0.08	0.06
Child ever attended school (Female)	2746.00	0.29	0.45	0.20	0.40	-0.10	0.10
Male Child ever attended school (Male)	3067.00	0.46	0.50	0.40	0.49	-0.06	0.13
Assets							
Rooms in HH	2268.00	1.41	0.88	1.33	0.68	-0.06	0.16
No toilet	2298.00	0.51	0.50	0.54	0.50	0.03	0.59
Own land	2298.00	0.05	0.22	0.04	0.20	-0.01	0.68
Own bike	2298.00	0.18	0.39	0.22	0.41	0.04	0.34
Own Mobile	2298.00	0.40	0.49	0.31	0.46	-0.09	0.08
No electricity	2298.00	0.24	0.42	0.31	0.46	0.08	0.22
Livestock							
Cows	2298.00	0.07	0.43	0.06	0.36	-0.01	0.60
Goats	2298.00	0.39	1.53	0.36	2.67	-0.01	0.79
Sheeps	2298.00	0.00	0.07	0.00	0.09	0.00	0.85
Buffalo	2298.00	0.21	0.83	0.15	0.67	-0.05	0.30
Loans and Savings							
Savings	2298.00	0.10	0.30	0.05	0.22	-0.06	0.08
Family loans	2298.00	0.11	0.32	0.09	0.29	-0.03	0.48
Shopkeeper loans	2298.00	0.12	0.32	0.09	0.29	-0.03	0.50
Bank loans	2298.00	0.02	0.15	0.02	0.12	-0.01	0.54
PSC Score	2298.00	24.39	12.28	24.11	12.01	-0.06	0.82
Intra-HH bargain	2298.00	0.15	3.63	-0.14	3.69	-0.10	0.35

Note: Summary statistic for the control and treated households at the baseline. Standard errors are clustered at the VO level. Column 5 represents the normalized difference between members and leaders. This is calculated by dividing the difference in the means of the two groups by the square root of the sum of their variances. Column 6 contains the p-values for these differences.

4.3 Treatment & Implementation

The treatment included two types of interventions: social mobilization and support packages. In the first phase, women were mobilized to form community, village, and local support organizations. The mobilized communities were then entitled to a second treatment that included support packages comprising the Community Investment Fund (CIF), Income Generating Grants (IGG), Micro Health Insurance (MHI), Technical and Vocational Skills Training (TVST), Micro Enterprise Development, Community Physical Infrastructure (CPI), and Adult Literacy and Numeracy Skills (ALNS).

Social Mobilization: .

The social mobilization strategy forges a development of partnership between the rural communities and the Rural Support Programs (RSPs). The objective of RSPs is to help communities form the community, village, and union council-level organizations represented by female members of households.

Community organizations - The basic form of these local organizations is at the neighborhood level, which are called Community Organizations (CO). All households in the treatment area living in that neighborhood were eligible for membership in the CO. A typical CO has 15-20 members. To run day-to-day affairs, each CO elected a president and manager who were then trained by the RSPs. No pre-specified duties of COs were required. Every CO was free to set its mission and objectives. Members of the CO would meet once a month. In these meetings, women community resource persons (trained by RSPs) conducted awareness sessions on a range of topics, such as education, family planning, nutrition, health, and civic rights.

The RSP social mobilization teams worked with the COs to encourage its members to prepare their micro-investment plan (MIP), which lies at the core of the approach to household poverty reduction. Every CO member identified an income-generating opportunity that she could manage with the help of her household members, through which she believed she could increase household income if facilitated with a small grant, interest-free loan, or training. She decided on the MIP in consultation with her household, other CO members, and RSP field staff.

In total, 125 COs were formed in the treatment areas, with an average CO consisting of 21 members covering a total of 2,647 households. This reflects a 72% coverage of all households in the treatment area.

Village organizations - Community organizations subsequently federated into village

organizations (VO). VOs were formed by considering the geographical proximity and access between different settlements where women could easily attend VO meetings. Each CO in the respective VO area nominated up to two members to represent the CO in the VO. These members form the VO general body. The VO general body members elected a president and manager amongst its members to run the VO's day-to-day affairs. The key function of a VO is to ensure maximum coverage of households into COs and provide supportive supervision to its member COs in identifying program beneficiaries, planning, and implementing village-level development activities. The RSPs social mobilization teams worked with each VO to prepare a Village Development Plan (VDP). Notably, the VOs were provided with a grant to implement a village-level community infrastructure project in the VO catchment area and provided funds to implement the income-generating grants component of the program. The VOs also engaged in running school enrolment campaigns and immunization campaigns at the village level.

In total, 12 VOs were formed in the treatment areas with an average VO consisting of ten COs.

Local support organizations - Village organizations subsequently federated into union council-level local support organizations (LSO). Each VO nominated atleast two of its members to represent the VO in the LSO. These members form the LSO general body. The LSO general body members elected an Executive Committee among its members to run the LSO's day-to-day affairs. The Executive Body included one chairperson/president, one General Secretary, one treasurer as office-bearers, and 12 other members. The key function of the LSO is coordination and implementation of development activities at the UC level, formation of linkages with government departments and other development organizations, and providing guidance and support to VOs and COs. The LSO was also granted a revolving fund called the Community Investment Fund (CIF). The LSO uses this capital grant to extend small loans to poor households. Loans are extended through COs, and the management of the CIF is entrusted to the members of the LSOs. The RSPs provided technical support and training to help community institutions to manage the CIF as long-term revolving fund. The CIF serves two broad objectives: (a) to ensure the sustainability of LSOs and (b) to help poor members increase their incomes by setting up and enhancing existing small businesses and creating livelihood assets (e.g., investment in livestock and agriculture inputs) through CIF loans.

In total, two LSOs were formed in the treatment areas with six VOs in each LSO.

Support packages   .

After the formation of the community institutions, every CO member prepared a Micro Investment Plan (MIP) to increase their household income. The SUCCESS program provided support to CO members to implement their MIPs from the following set of support packages:

Community Investment Fund (CIF) - The main purpose of the CIF was to support the financial and institutional sustainability of community institutions and to provide financial access to CO members. The LSOs managed the CIF as a revolving fund while offering micro-loans to women from poor households to start income-generating activities or build productive assets. To access CIF loans, a woman must be a member of the CO, must be poor (PSC 0-23), and must agree to pay back the CIF according to the terms and conditions set by the LSO. The LSOs charged Rs 1,000 per CIF loan as service charges and recovered the loan amount within one year from the date of disbursement. At the time of the survey, LSOs disbursed a total of Rs. 14.7 million loans to 893 female members of COs in the treatment area. The average loan amount was Rs. 16,424 and the maximum was Rs. 30,000. Over two-thirds (69%) of the beneficiaries opted to repay the loan in lump sum after one year, and the rest opted to repay in monthly installments. The repayment rate was 98%. Almost all beneficiaries (97%) invested their CIF loans in purchasing livestock, mainly goats.

Income Generating Grant (IGG) - The objective of IGG was to support the poorest female community members through a one-time cash grant to start income-generating activities. The IGG was managed by VOs and was provided to only the poorest CO members (PSC 0-9). The VOs granted a total of Rs. 2.2 million IGGs to 169 females. All beneficiaries invested their IGGs in purchasing livestock.

Micro Health Insurance (MHI) - RSPs contracted private insurance company to provide MHI. There was no user fee attached to the MHI, and the RSPs provided a premium of Rs. 1000 per family per year to the insurance company. Medical services were provided by private hospitals selected by the insurance company. The RSPs organized awareness sessions among community members about the benefits and use of the insurance and enrolled beneficiaries for the insurance scheme in consultation with community institutions. All poor CO members with a poverty score of 0-12 were eligible for the MHI. If the insurance holder was married, the beneficiaries would include herself, her husband, all children under 18 years, parents-in-law, and sister-in-law under the age of 18 years. If she was single, the household beneficiaries included her parents and siblings under the age of 18.

A total of 376 CO member households with 2,623 family members were insured for five-year micro-health insurance. The benefit package included only inpatient services, which consisted of hospital admission for a minimum of 24 hours, support for both normal and surgical deliveries, coverage for doctor fees, medications, laboratory tests, and surgeries up to a total of Rs. 25,000 for each eligible beneficiary. Additionally, the scheme

provided a transport allowance for hospital visits and a one-time cash payment in the event of the insurance holder's death, and complete or partial blindness.

Technical and Vocational Skills Training (TVST) - The TVST was offered to young women and men from the CO member poor households (PSC 0-23). A total of 157 women and 38 men in the treatment area got the TVST. Men opted for car driving and motorcycle repairing training while the women opted for handicraft, embroidery and livestock farming. The TVST training duration varied from two weeks to 2 months depending on the trade of the TVST. The TVST was delivered by the Institute of Rural Management (IRM).

Community Physical Infrastructure (CPI) - To improve the basic community-level infrastructure and productive assets, VOs were provided with grants for building the CPI. The VO members identified, oversaw, and maintained the CPI projects. The RSP assisted the VOs to identify infrastructure needs and prioritize them. Once a consensus is reached on a specific need, VO members pass resolution, seeking technical and financial assistance from the RSP. The community contributes to the cost of the project, typically in the form of land, labor, and local materials. Prioritized needs are included in the village development plan created by the VOs. Upon receiving a resolution from a VO, the RSP formed a team consisting of an engineer and social organizer. This team conducted a feasibility survey of the proposed scheme, covering technical (design, drawings, and environmental aspects) and social aspects (looking for access to the majority of the community, social costs and benefits, and any potential conflicts), and prepared cost estimates. Once the feasibility study is approved, the VO established three committees: a project implementation committee, project audit committee, and project maintenance committee. These committees were accountable to the member COs. Once the CPI project is completed, the relevant VO was responsible for its maintenance.

At the time of data collection for the survey, all 12 VOs received grants to implement one CPI each. The total value of these CPIs was Rs. 4.8 million with an average CPI of Rs. 400,000. Eight of the VOs have completed their CPI projects. These CPIs included six street pavements with drainage and two road culverts.

Implementation .

We and our implementing partner, the Rural Support Programs Network (RSPN), designed a randomized control trial (RCT) to evaluate the SUCCESS program. First, the RSPN conducted a poverty assessment survey in the sample Union Councils. In the poverty assessment exercise, each household in the union council was surveyed. Based on this exercise, each household was assigned a poverty score ranging from 0 to 100, with a score

14

of 0 indicating the poorest and 100 indicating the richest using the Poverty Scorecard tool developed by the World Bank and adopted by the Government of Pakistan's Social Safety Program – Benazir Income Support Program. After the census, we randomly allocated prospective VOs into the treatment and control groups. After randomization, the National Rural Support Program (NRSP), our local implementing partner, initiated the social mobilization process in the treatment area. During the social mobilization phase, NRSP's women social mobilizers went to each household in the treatment settlement and talked to them about the benefits of social mobilization. If any female household member wanted to be a member of the community organization, they recruited her. Once a sufficient number of members agreed to be members of CO, a CO was formed.

Once the CO was formed, elections were held in the CO for the position of President and Manager. After the elections, CO members set the agenda and the activities on which they wanted the CO to focus. After completing CO formation in all settlements, the next step was the formation of Village Organizations (VOs). For VO formation, each CO sent two representatives to make the VO general body. Similar to the CO in each VO, the general body members elected two members as presidents and managers to run the day-to-day activities of the VO. Local Support Organizations (LSO) in each of the UCs were formed after 40 percent of households were mobilized into COs. The remaining households were organized after the formation of the LSO. Each LSO has at least two representatives from the VO to form its general body. The general body of the LSO selected a 15-member executive committee from among its members. The executive committee elected their Chairperson and Vice Chairperson.

Once the three-tiered organizations were formed, the support programs were rolled out.
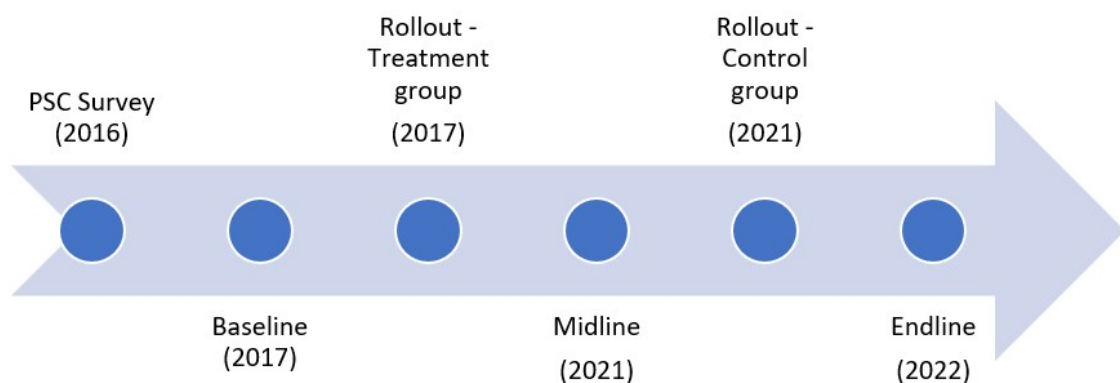

Figure 1: Timeline of intervention and data collection

4.4 Data

This study uses data collected through various activities. These data collection activities included a poverty assessment survey, baseline and midline surveys, and administrative data. The surveys were conducted from early 2016 to October 2020.

Poverty Assessment Survey - The poverty assessment survey was conducted from March to October 2016, prior to any intervention. The geographical scope of the survey was large, covering all the households in all the 307 union councils of the eight program districts. The survey covered a population of 5.69 million in approximately 850,000 households in the eight districts. A majority of the population (56 percent) was reported to be poor, with a PSC score between 0-23. The survey instrument collected information on household demographics, income, assets etc.

Based on these data, each household was assigned a poverty scorecard score (PSC). The data from this survey were used to determine the sample size of our intervention, and the treatment and control assignments.

Baseline - In September 2016, a baseline survey was conducted in the two selected UCs. A random sample of approximately 2300 households from the treatment and control VO catchment area (1199 treatment; 1099 control) was surveyed. The survey instrument comprised two versions: one to be filled by the household head and the other by a woman from the same household. The general questionnaire contained sections on household demographics, household rosters, income, consumption, expenditure, assets, education, health, and other facilities. The women-specific survey contained sections on women's decision-making, their perspectives on family and social aspects, and children's vaccination history.

Midline - Midline survey was conducted in September and October 2020. The midline survey sample contained all households surveyed at the baseline. 85 percent of the baseline sample were successfully surveyed. In total, 2295 households were surveyed at the midline: 1945 of these were the same households covered at baseline, and 341 households were added from the replacement list. In the mid-line, there was only one survey instrument comprising both household and women-related modules, which was responded to by a woman. The survey was conducted by female enumerators. The instrument included modules on household demographics, income, health and education, consumption, expenditure, assets, information and access to local government and public goods, civic engagement, women's household decision-making, and trust. This is the main data source for causal analysis.

Endline - Endline survey was conducted in August 2022. By the time we decided to conduct the endline, the program was rolled-out in the control group. Consequently, using

the endline survey, we were able to identify women leaders in the control group. However, a drawback is that we cannot use the endline data to assess the impact of the program after 6 years.

Administrative data- Apart from the surveys we conducted, we also have access to the administrative data on the support packages. These data contain information on the recipients and the delivery of these subprograms.

Data description - Table 1 uses baseline data to provide a snapshot of household characteristics in the study area in 2016. At the baseline, on average, households had six members, with three adults and three children below the age of 16 years. A total of 96% of the households have male heads who are, on average, 42 years old. A total of 26% of household heads attended school with two years of education. In terms of paid employment, on average, 61% of the people above the age 16 did any paid work. Compared to male members where 82% did any paid work, only 34% female members did any paid work. Not all school-going children attend school. Only 38% of the children aged ¡ 16 years attend school. There is a noticeable gender gap among school-going children. Only 29% of girls attend school compared to 46% of boys.

Most households were landless, with only 5% owning agricultural land. On average, household dwellings consist of 1.5 rooms. More than 50% of the households do not have toilets in their houses. Of these households, 27 % did not have electricity in their homes. Only 1% owned a car and 20% owned a bike. In terms of livestock, people do not have much livestock on average; the numbers of goats, cows, sheep, and buffaloes are less than 1. In terms of savings, only 7% of the sample had savings at the time of the survey. There is little borrowing; among those who borrow, the most common sources are family/relatives and shopkeepers. Households buy goods on credit, and whenever they earn money, they pay them back. Less than 2% of the people have taken loans from banks or other NGOs.

Attrition - Attrition in our sample may have occurred for multiple reasons. The three main sources of attrition were households that declined to participate in the survey, households that might have migrated, and enumerators that failed to locate some households. In midline data, attrition was approximately 15 percent. Among the attrited households, 72 % were in the treated group and 28% were in the control group. We checked the balance across the treatment and control groups for the non-attrited sample. All variables except the asset index are balanced across the two groups, as shown in Table A1 in the Appendix.

4.5 Empirical strategy

To assess the impact of SUCCESS on women empowerment, we estimate the following model at the household or individual level, as relevant, separately for the overall sample and subsample of leaders:

$$Y_{ivt} = \alpha + \beta SUCCESS_{iv} + \delta Y_{iv0} + PSC_{iv0} + \epsilon_{ivt} \tag{1}$$

where SUCCESS is an indicator of participation in the CDD program and PSC is the household poverty score at baseline. Our coefficient of interest is β, which provides the average ITT effect.[6] Whenever possible, we control for the baseline value of the outcome variable (Y). Standard errors are clustered at the VO level, which is the unit of randomization. We also run two sets of regressions with different specifications, as a robustness check. In the first, we did not control for the poverty score, and in the second set of regressions, we removed the replacement sample. Our results remained qualitatively unchanged.

Whenever multiple indicators are used, we construct an index for each family of outcomes by taking a weighted average of the individual z-score (see Kling et al., 2007). The z-scores were calculated by subtracting the mean of the control group and dividing by the standard deviation of the control group. Throughout our analysis, we adjust for the fact that we estimate multiple hypotheses on the same dataset by implementing sharpened False Discovery Rate (FDR) q-values. The FDR is the expected proportion of rejections that are type I errors (false rejections) (Anderson, 2008). These adjustments run across the nine outcome families or across hypotheses within a given family as relevant.[7]

5 Results

We present the results of the impact of participation in the SUCCESS program on women's empowerment, first for the whole sample, and then for the subsample of leaders. The latter is the combined effect of participation in the program and leadership. We look at the impact on nine outcome families: (i) access to information about local government, (ii) access to information about public services/goods, (iii) access to public services/goods, (iv) perception about civic engagement, (v) civic engagement, (vi) intra-household deci-

---

[6]We compare treatment and control at the midline rather than the difference-in-difference approach. This is because most of the outcome indicators are based on a midline survey instrument responded to by women, which are not available for the baseline survey due to differences in the survey instrument.

[7]Unfortunately, rigorously accounting for multiple hypothesis testing comes at the cost of an increased risk of false negatives. In case an effect turns insignificant due to the procedure, we thus nevertheless take a closer look at the effect size and composition (in case of an index) to inform a cautious conclusion.

sion making, (vii) household consumption, (viii) household assets, and (ix) trust. For the economic outcomes (household consumption and assets) we restrict the sample to those who are actually eligible to receive economic benefit packages (PSC values 0-23). The outcomes were pre-registered in an RCT in the American Economic Association Registry for Randomized Control Trials under Trial Number AEARCTR-0006171.

5.1 Impact of participation in the program

First, we assess whether the participation in the SUCCESS program had an impact on any of the nine families of outcomes on the overall sample. Table 2 reports the results. Outcome variable in all columns (apart from column 7) is an index which incorporates the relevant outcomes for that particular family.[8]

Table 2: Overall Treatment Effects

	Info. Local Govt.	Info. Public goods	Public goods usage	Percep. civic engagement	Civic engagement	Intra-HH bargain	HH Consumption	HH Assets	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment	0.241**	0.057	0.022	0.124	0.100	0.025	80.581	0.006	0.059
	(0.028)	(0.499)	(0.452)	(0.305)	(0.328)	(0.639)	(0.684)	(0.836)	(0.449)
	[0.345]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Observations	2,286	2,286	2,286	2,286	2,286	2,286	1,484	1,484	2,286
Control mean	0.000	0.000	-0.000	0.000	0.000	0.007	3828.585	-0.000	-0.000

Notes: i) The outcome variable in column 1 is an index of information about local government, column 2 is an index of information about public goods, column 3 is an index of usage of public goods, column 4 is an index of perception of women's civic engagement, column 5 is an index of civic engagement, column 6 is an index of intra-household bargaining, column 7 is household consumption, column 8 is an index of household assets, and column 9 is an index of trust. In column (7) and (8), we restrict the sample to those who are eligible to receive economic benefit packages (PSC values 0-23). ii) p-values are in parentheses and q-values are in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% iii) Standard errors are clustered at the VO level.

We find a positive impact of participation on access to information about the local government. Column (1) shows that, compared to the control women, treated women are 0.241 standard deviations more likely to have information about the local government. However, after controlling for multiple hypothesis testing, the estimate is no longer significant at the conventional level. We nevertheless take a deeper look at what is driving the positive shift in the index, and we examine the individual outcomes within the access to information about local government family. The results are presented in Table 3. The result is driven by

---

[8]See Figure A1 and A2 in Appendix A for the individual outcomes used to construct each index and their respective mean for the control groups.

all outcomes in the index; all three individual outcome variables are statistically significant at the conventional level even after controlling for multiple hypothesis testing within this family of outcomes. Column 1 in Table 3 shows that treated women are 12 percentage points more likely to know the name of the union councillor. Likewise, columns 2 and 3 show that treated women are 8 percentage points more likely to know who the chairperson of the union council is and 10 percentage points more likely to know the location of the UC chairperson's office, respectively. We take these results as an indication that the intervention might have increased access to information about the local government, but that this could also be a spurious finding.

Table 3: Access to information about local government

	UC Councillor name	UC Chairperson name	UC Chairperson office
	(1)	(2)	(3)
Treatment	0.119**	0.082*	0.100**
	(0.031)	(0.066)	(0.019)
	[0.0500]	[0.0500]	[0.0500]
Observations	2,286	2,286	2,286
Control mean	0.244	0.241	0.159

Notes: i) The outcome variable in column 1-3 is an indicator variable and refers to whether the respondent knows the name of at least one UC councillor, knows the name of the UC chairperson, and knows the location of the UC chairperson's office, respectively. ii) p-values are given in parentheses and q-values are given in square brackets. Significance levels are based on p-values, ***=significant at 1%, **=significant at 5%; *=significant at 10% based on p-values. iii) Standard errors are clustered at VO level.

5.2 Impact of being leader in the program

The unique setting of our experiment, wherein the control group also received treatment after the midline (3 years), allows us to examine the impact of the program on the subgroup of women who became leaders. These are women elected by members as the president and manager of the COs.

We expect stronger effects on leaders, as leaders are more engaged in social mobilization. They manage CO meetings, disburse loans and grants, and engage with village leaders. They also become part of VOs and LSOs, which increases their engagement in the broader context of the program. Second, leaders receive more training such as those on management and leadership skills. Third, leaders can receive or expect more financial gain. Leaders approve grants and loans, and can potentially capture the financial benefits for their own gains. Finally, there is self-selection in leadership: individuals opting to become leaders might possess certain attributes that enable them to derive more benefits from

the intervention than others. Table A2 in the Appendix compares the baseline differences between female leaders and non-leaders, some of which were significant. Leaders come from relatively poor and larger households, have better educational outcomes for children (especially for male children), and more women in those households are engaged in paid work.

Table A3 in the Appendix reports the control and treatment means, differences, and p-values of the selected variables at baseline for leaders in the treatment and control groups. Even without controlling for multiple hypothesis testing, there is an overall statistical balance between the leaders in the treatment and control groups. Only the poverty score is significantly different at the 5% percent level (leaders in the control group were slightly poorer at baseline). We therefore control for the poverty score in all the regressions.

Table 4 presents the results of the impact of the SUCCESS intervention on female leaders. We compare the midline outcomes of leaders in the treatment group with women who eventually became leaders in the control group after receiving the intervention.

Table 4: Treatment Effects on Leaders

	Info. Local Govt.	Info. Public goods	Public goods usage	Percep. civic engagement	Civic engagement	Intra-HH bargain	HH Consumption	HH Assets	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment	0.291*	-0.020	0.216**	0.465***	-0.054	0.111	72.775	-0.013	0.019
	(0.095)	(0.859)	(0.018)	(0.005)	(0.649)	(0.242)	(0.798)	(0.799)	(0.881)
	[0.287]	[1]	[0.0790]	[0.0430]	[1]	[0.570]	[1]	[1]	[1]
Observations	212	212	212	212	212	212	157	157	212
Control mean	-0.000	-0.000	-0.005	-0.000	-0.000	0.009	4344.660	0.000	-0.000

Notes: i) The outcome variable in column 1 is an index of information on local government, column 2 is an index of information about public goods, column 3 is an index of usage of public goods, column 4 is an index of perception of women's civic engagement, column 5 is an index of civic engagement, column 6 is an index of intra-household bargaining, column 7 is household consumption, column 8 is an index of household assets, and column 9 is an index of trust. In column (7) and (8), we restrict the sample to those who are eligible to receive economic benefit packages (PSC values 0-23). ii) p-values are in parentheses and q-values are in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% iii) Standard errors are clustered at the VO level.

We find a positive and significant impact of the intervention on leaders in three of the nine outcome families. Similar to the overall treatment effects, we find that participation in the program improved access to information about local governments (column 1) for leaders as well. The effect size is relatively stronger than in the overall sample, but, after controlling for multiple hypothesis testing, the estimates are no longer significant.[9]

---

[9]See Table A4 in the Appendix for results on the individual outcomes. Effects are of similar size than in the overall sample, but lack significance throughout.

We also find a strong impact on access to public goods. Compared to the households with leaders in the control group, those in the treated group are 0.216 standard deviations more likely to access public goods. The effect is significant at conventional levels even after correcting for multiple hypotheses. To get an idea about what drives the results in the index, we looked at the individual outcomes of the index. Table 5 presents the results. The coefficients are sizable and positive for all outcomes; however, two individual outcomes are statistically significant. Household members in the treated group are 10 percentage points more likely to have national identity cards (CNIC for adults and birth registration certificates for children). Additionally, the pregnant women in these households are 8 percentage points more likely to be vaccinated. Both outcomes remain significant after correcting for multiple hypotheses.

Table 5: Access to Public Goods for Leaders

	National ID cards	School enrolment	Pregnancy vaccine	Birth attended by professional	Illness attended by professional	Children vaccine
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment	0.100***	0.092	0.080**	0.060	0.050	0.040
	(0.009)	(0.284)	(0.035)	(0.176)	(0.598)	(0.507)
	[0.0570]	[0.397]	[0.0960]	[0.307]	[0.544]	[0.544]
Observations	212	212	212	212	212	212
Control mean	0.899	0.477	0.018	0.064	0.486	0.165

Notes: i) The outcome variables are indicator variables of whether members of the household either have CNIC or birth registration certificate (column 1), whether school age going children are enrolled in school (column 2), whether pregnant women are vaccinated (column 3), whether recent birth was attended by a professional in hospital/clinic (column 4), whether recent illness was treated by a professional in hospital/clinic (column 5), and whether eligible children were vaccinated (column 6). ii) p-values are given in parentheses and q-values are given in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% based on p-values. iii) Standard errors are clustered at the VO level.

The strongest impact, however, is seen in women's perceptions about their civic engagement. We find that compared to the control group, women in the treated households improved their perceptions about women's civic engagement by 0.465 standard deviations (column 5; Table 4). To dig deeper into the types of perceptions that changed for the treated women, we examined the treatment effects on individual outcomes of the women's civic engagement perception index. Results are reported in Table 6.

Table 6: Perceptions about Women's Civic Engagement for Leaders

	Contest elections	Discuss Politics	Vote in elections	Vote for preferred candidate	Stating public good preferences
	(1)	(2)	(3)	(4)	(5)
Treatment	0.190***	0.153*	0.195**	0.248***	0.255***
	(0.008)	(0.063)	(0.045)	(0.002)	(0.003)
	[0.00700]	[0.0230]	[0.0120]	[0.00500]	[0.00500]
Observations	212	212	212	212	212
Control mean	0.257	0.239	0.284	0.284	0.239

Notes: i) The outcome variables are indicator variables whether respondent think it is appropriate for women to: contest elections (column 1), discuss politics (column 2), vote in the elections (column 3), vote for the candidate of her own choice (column 4), reveal her preferences for public good (column 5). ii) p-values are given in parentheses and q-values are given in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% based on p-values. iii) Standard errors are clustered at the VO level.

All individual outcomes have strong effect sizes and are significant, even after correcting for multiple hypotheses. We find that women in the treated group are 19 percentage points more likely to think that it is appropriate for women to contest elections, 15 percentage points more likely to think that it is appropriate for women to discuss politics, 20 percentage points more likely to think that it is appropriate for women to vote in elections, 25 percentage points more likely to vote for women's preferred candidates, and 26 percentage points more likely to think that it is appropriate for women to reveal their preferences for public goods.

We check for the robustness of our results, first by restricting the sample to only stayers (i.e. without replacement observations for attrition) and second by not controlling for the poverty score. Tables A5 and A6 in the Appendix present the results for the stayers in the overall sample and subsample of leaders, respectively. Our primary results hold: we continue to observe a significant positive treatment effect on access to information about local governments for the overall sample and a positive and significant effect on both access to information on local government and perceptions about women's civic engagement in the subsample of leaders. Tables A7 and A8 in the Appendix present the results without controlling for the poverty score in the overall sample and subsample of leaders, respectively. All of our main results hold even after controlling for multiple hypotheses.

6 Discussion

Our study finds a significant impact of the program on access to public goods and the perception about women's civic engagement for the subsample of leaders. In this section, we first discuss the mechanisms that could explain the impact and then discuss the null effects for both the overall sample and the subsample of leaders.

6.1 Mechanisms

To understand the mechanisms generating the impact on the subsample of leaders, we could examine whether the impact is induced by mobilization or by the support packages. Even though our RCT is not designed to separate these effect channels, they point to several interesting heterogeneity analyses. If mobilization drives this effect, we would expect a positive heterogeneous effect based on the intensity of mobilization. We therefore test whether those leaders who participate in more meetings are associated with larger effect sizes. Table 7 presents the results of the heterogeneous effects on access to public goods and on perceptions about women's civic engagement by participation intensity in social mobilization. We used administrative data to measure the intensity of participation based on the relative number of meetings attended by the leader. More precisely, we created a dichotomous variable, 'Regular meetings', which takes a value of 1 if a leader attends more than the average (median) number of meetings attended by the leaders. We did not find any heterogeneous treatment effect of meeting intensity.

Table 7: Heterogeneous effects by meeting intensity

	Public goods usage	Percep. civic engagement
	(1)	(2)
Treatment	0.199**	0.524***
	(0.024)	(0.004)
Regular Meetings	-0.068	-0.079
	(0.483)	(0.594)
TreatmentXRegular Meetings	-0.054	0.036
	(0.626)	(0.793)
Observations	196	196
Control mean	-0.005	-0.000
Treatment+TreatmentXRegular Meetings	0.250	0.010

Notes: i) $Regular Meetings$ is a dichotomous variable equal to 1 if the leader has a meeting attendance higher than the median attendance of the leaders. ii) Standard errors are clustered at the VO level. ***=significant at 1%, **=significant at 5%; *=significant at 10%.

On the other hand, if support packages would drive the effect, this should be reflected in larger effect sizes for those who receive more benefits. Although the SUCCESS program bundles women's mobilization with various support packages, making it difficult to disentangle the effect of an individual package, all the packages have qualification (preconditions) requirements that are conditional on the household's poverty score, and no support package is offered to households with poverty scores greater than 23. We can exploit these eligibility criteria and test for heterogeneous treatment effects for households that were eligible for the support packages (poverty scores between 0-23). It is important to keep in mind that the eligibility criteria are necessarily correlated to poverty status, which itself might be a determinant of baseline empowerment. Hence, there are multiple reasons why this heterogeneity analysis by poverty score might be interesting. Table 8 presents the results of the heterogeneous treatment effects on access to public goods and the perceptions about women's civic engagement.

Table 8: Heterogeneous effects by poverty score

	Public goods usage	Percep. civic engagement
	(1)	(2)
Treatment	0.291*	0.076
	(0.068)	(0.777)
TreatmentXPSC ≤ 23	-0.098	0.505**
	(0.483)	(0.050)
Observations	212	212
Control mean	-0.005	-0.000
Treatment+TreatmentXPSC ≤ 23	0.030	0.000

Notes: i) $PSC23$ is a dichotomous variable that is equal to 1 if the household has a poverty score between 0-23. ii) Standard errors are clustered at the VO level. ***=significant at 1%, **=significant at 5%; *=significant at 10%

We indeed find a significantly different effect on the perceptions about women's civic engagement for poorer leaders who are eligible to receive support packages. In fact, the point estimate on leaders in general (0.465) seems completely driven by poorer households. The estimate of the interaction term is positive (0.505) and significant at the 5% level. As discussed above, several plausible explanations for this significant impact could exist. The support packages could generate additional channels through which a stronger effect is realized. First, receiving support could trigger a sense of ownership, feeling good, and reciprocity effects that impact leaders' effort and seriousness in the mobilization and cause a stronger impact. Unfortunately, we are unable to investigate this channel further due to data limitations. Second, the support packages might have empowered female leaders via an improvement of their economic situation. This appears unlikely, though, as there is no indication of a substantial economic impact of the program on poor female leaders' household level consumption and assets (see Table 4). Finally, a lower poverty score also means that these households were the most disadvantaged to start with. This could be an important factor in generating the heterogeneous effects, as the poorest leaders might initially be less empowered, and in catching up with the others (relatively more empowered), may experience higher changes. More precisely, if poorer individuals score lower on the perception index of women's civic engagement, then the intervention could help them catch up. We can get some sense of this by comparing women's perceptions about civic engagement between (PSC 0-23) and less poor (PSC above 23) female leaders. Table 9 shows the mean differences between the two groups in the control group at the midline. We find suggestive evidence for such differences: women in households with a poverty score below 23 are 0.395 standard deviations less likely to favor women's civic engagement. This suggests that the higher impact on poorer households could also be due to lower initial empowerment. Unfortunately, with our experimental design, we were unable to distinguish between

26

various possibilities.

Table 9: Differences in the control group at the midline

	Public goods usage	Percep. civic engagement
	(1)	(2)
PSC≤ 23	-0.206	-0.395*
	(0.354)	(0.092)
Observations	109	109

Notes: Standard errors are clustered at the VO level. ***=significant at 1%, **=significant at 5%; *=significant at 10%

6.2 Null effects

Our results show no significant effects for the overall sample as well as on some of the outcomes for the subsample of leaders. Not all of these should be considered precise null effects; some of the no-findings might be related to our strict control for multiple hypothesis testing (avoiding type I error, i.e., false positives). Unfortunately, this comes at the cost of increased risk for type II error (i.e., false negatives), such that we can only find relatively large effects. Therefore, some of our null effects might include a more subtle effect, which might not (yet) have fully materialized. Nevertheless, we would like to discuss the possible reasons for some non-transformatory effects that appear interesting in light of our significant effects.

Our literature review already revealed a broader failure of CDD programs to produce transformational social change in what Casey et. al (2012) define as the 'software' side of the institutions (Casey et al., 2023; Casey, 2018; Mansuri & Rao, 2013).[10] While our women-only intervention is somewhat more promising and seems to have at least improved the information and perceptions of civic engagement for female leaders, this did not materialize in more action in terms of civic engagement. A main difference to the affected outcomes is that action is likely influenced by other household members, in particular the husband. Women might have the perception that it is appropriate to discuss politics or run for an election, but might not do so without the approval of their husband. In our conservative cultural setting, patriarchal family values are deeply rooted. Males take all major household decisions, including those that directly relate to women, and values evolve slowly. This is also in line with the null effect we find on intrahousehold bargaining. Any detectable change in the norms affecting the intrahousehold hierarchical

---

[10]see Casey, 2018 for meta analysis and for the broader discussion on failure of CDD programs to generate transformational impact.

standing thus might take considerably more time than the typical lifespan of CDD inter-vention (2-3 years in our case), such that only more long-term research might be able to detect effects. Furthermore, convincing men to allow for empowerment might be required to significantly alter women's bargaining position and change household decision-making dynamics. For example, a field experiment in Pakistan found that targeting women with a non-partisan get-out-the-vote campaign had no effect on their turnout in a national elec-tion, unless male household members were canvassed to support women's participation (Cheema et al., 2023).

Another aspect that might appear countertintuitive at first, is that information about public goods does not improve, even though the use of public goods increases (at least for leaders) and other information (about local government) increases as well. An explanation is offered by the initial level of information. Figure A1 and A2 clearly reveal that three out of five index components on access to information about public goods are already at a very high level. Thus, it seems we selected an index with limited variability and hence low potential for improvement, such that a null effect should not be interpreted as contradicting an effect further downstream.

While not our main outcomes of interest, we would also like to discuss the null effects on household consumption and assets, as those might seem surprising given the design of the support packages. For this purpose, it is worthwhile to delve into the intervention de-tails and general economic conditions during the intervention period. First, the loan amount under the CIF was small and had limited coverage. The average loan was Rs.16,424, which is around half of the minimum wage in Sindh, and it covered only 893 households. More-over, all loans (98 percent) were repaid after one year. The income grant was even smaller and had lower coverage. The average amount of grants was Rs. 13,000 and only 169 households were able to access it. Second, prior to the midline, there was a large adverse economic shock due to Covid-19. The economic restrictions during this time led to sub-stantial income losses, in particular for poor households. At the same time, sizable cash transfers programs were rolled out in response, covering both our treatment and control group.[11] Lower opportunities for the productive use of SUCCESS loans and grants, and the the existence of a more comprehensive program covering also the control group might make it hard to detect an economic effect of the SUCCESS program.

---

[11]The Ehsaas Emergency Cash Program disbursed a payment of Rs.12,000 to almost 15 million beneficia-ries in 2020 alone WorldBank (2020)

7 Conclusions

The last few decades have witnessed a drastic shift in aid agencies' approach to tackling exclusion and poverty in weak institutional settings through the creation of more inclusive community institutions. We study one such unique institutional intervention targeting women in rural Pakistan, a country that fares poorly in all aspects of women's empowerment. The community-driven development program (SUCCESS) formed local institutions from a neighborhood to a union council level and supported participating women through various support packages. The program also created female leaders at each level of the institution building. By having women as the sole beneficiaries of the program and some of them then taking on the leadership role, the program was expected to generate a transformative impact on women's empowerment.

This study contributes to the literature by (i) evaluating the first-ever women-only CDD program (to our knowledge), (ii) evaluating the impact on leaders who are endogenously formed, and (iii) investigating whether building new female leaders as part of building a new local institution can improve the position of women. The results indicate that apart from a possible improvement in access to information about local governments, the program did not have any significant impact on women in the overall sample. However, there was a strong impact on women who assumed leadership roles. While households with female leaders have improved access to public goods, the strongest impact, is seen on women's perceptions about civic engagement. Importantly, the observed changes in perception are driven entirely by leaders from poorer households, who have lower scores in the absence of the program. These households were also eligible to receive financial gains through support packages, but it appears unlikely to derive the results as these households did not achieve significant changes in their consumption or assets. Thus, the evidence suggests that the strategy to provide leadership roles to poor women produces some changes even in highly adverse environment.

One would expect effects beyond women's perceptions, but we do not find any such evidence. There is no transformational change in women leaders' civic engagement or their position in intra-household decision-making. The null effects could either be attributed to the limited time span in which the effects are measured or to the nature and context of the intervention. The dynamics of social norms in which men and women are perceived differently change slowly and may require interventions that not only target women but also men, who are often the gatekeepers for women's engagement. For a better understanding of these dynamics and to distinguish between the two channels require future research to investigate in longer time horizons and to test interventions targeting the male gatekeepers.

References

Alsop, R., Bertelsen, M. F., and Holland, J. (2006). *Empowerment in practice: From analysis to implementation*. World Bank Publications.

Anderson, M. L. (2008). Multiple inference and gender differences in the effects of early intervention: A reevaluation of the abecedarian, perry preschool, and early training projects. *Journal of the American Statistical Association*, 103(484):1481–1495.

Bardasi, E. and Garcia, G. (2017). Women's empowerment in rural community-driven development projects. Technical report, World Bank, Washington, DC.

Beaman, L., Chattopadhyay, R., Duflo, E., Pande, R., and Topalova, P. (2009). Powerful women: does exposure reduce bias? *The Quarterly Journal of Economics*, 124(4):1497–1540.

Beath, A., Christia, F., and Enikolopov, R. (2013). Empowering women through development aid: Evidence from a field experiment in afghanistan. *American Political Science Review*, 107(3):540–557.

Bhavnani, R. R. (2009). Do electoral quotas work after they are withdrawn? evidence from a natural experiment in india. *American Political Science Review*, 103(1):23–35.

Casey, K. (2018). Radical decentralization: does community-driven development work? *Annual Review of Economics*, 10:139–163.

Casey, K., Glennerster, R., and Miguel, E. (2012). Reshaping institutions: Evidence on aid impacts using a preanalysis plan. *The Quarterly Journal of Economics*, 127(4):1755–1812.

Chang, W., Díaz-Martin, L., Gopalan, A., Guarnieri, E., Jayachandran, S., and Walsh, C. (2020). What works to enhance women's agency: Cross-cutting lessons from experimental and quasi-experimental studies. *J-PAL working paper*.

Chattopadhyay, R. and Duflo, E. (2004). Women as policy makers: Evidence from a randomized policy experiment in india. *Econometrica*, 72(5):1409–1443.

Cheema, A., Khan, S., Liaqat, A., and Mohmand, S. K. (2023). Canvassing the gatekeepers: A field experiment to increase women voters' turnout in pakistan. *American Political Science Review*, 117(1):1–21.

Dhar, D., Jain, T., and Jayachandran, S. (2019). Intergenerational transmission of gender attitudes: Evidence from india. *The Journal of Development Studies*, 55(12):2572–2592.

Giné, X. and Mansuri, G. (2018). Together we will: experimental evidence on female voting behavior in pakistan. *American Economic Journal: Applied Economics*, 10(1):207–235.

Greig, F. and Bohnet, I. (2009). Exploring gendered behavior in the field with experiments: Why public goods are provided by women in a nairobi slum. *Journal of Economic Behavior & Organization*, 70(1-2):1–9.

Humphreys, M., de la Sierra, R., and Van der Windt, P. (2015). Social engineering in the tropics: a grassroots democratization experiment in the congo. working paper. *Columbia University*.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *Annual Review of Econnomics*, 7:63–88.

Khan, A. (2007). Women and paid work in pakistan. *Pathways of Women's Empowerment, South Asia Research Programme, Pakistan Scoping Paper*.

Mansuri, G. and Rao, V. (2013). *Localizing development: Does participation work?* World Bank Publications.

Naqvi, Z. F., Shahnaz, L., and Arif, G. (2002). How do women decide to work in pakistan?[with comments]. *The Pakistan Development Review*, pages 495–513.

Rouse, S. J. (2004). *Shifting body politics: Gender, nation, state in Pakistan*. Women Unlimited.

Shapland, P., van Paassen, A., Almekinders, C. J., and Leeuwis, C. (2024). Women's resistance: An alternative perspective to women's participation in community-driven development. *The Journal of Development Studies*, 60(2):179–195.

Van der Windt, P., Humphreys, M., and de la Sierra, R. S. (2018). Gender quotas in development programming: Null results from a field experiment in congo. *Journal of Development Economics*, 133:326–345.

Voss, J. (2008). *Impact evaluation of the second phase of the Kecamatan Development Program in Indonesia*. World Bank.

WorldBank (2012). *World Development Report 2012: Gender Equality and Development*. World Bank.

WorldBank (2020). Covid-19 g2p cash-transfer payments country brief: Pakistan. Technical report, World Bank.

31

A Appendix-A

Table A1: Baseline balance for stayers

	Obs	Cont(mean)	Cont(sd)	Treat(mean)	Treat(sd)	Diff	p-val
Household composition							
Adults (age $\geq$ 16)	1945.00	3.39	1.91	3.17	1.72	-0.11	0.13
kids (age <16)	1945.00	3.15	2.12	3.28	2.11	0.06	0.42
Male head	1945.00	0.96	0.19	0.97	0.18	0.01	0.69
Head's age	1945.00	41.30	12.35	40.64	12.14	-0.13	0.43
Head with education	1945.00	0.28	0.45	0.23	0.42	-0.06	0.28
Employement							
Paid work	6505.00	0.61	0.49	0.63	0.48	0.03	0.37
Paid work (Male)	3086.00	0.82	0.38	0.81	0.39	-0.01	0.72
Paid work (Female)	3000.00	0.33	0.47	0.39	0.49	0.07	0.15
Schooling							
Child ever attended school	4973.00	0.39	0.49	0.29	0.46	-0.10	0.03
Child ever attended school (Female)	2360.00	0.29	0.45	0.19	0.39	-0.11	0.07
Male Child ever attended school (Male)	2613.00	0.47	0.50	0.39	0.49	-0.08	0.07
Assets							
Rooms in HH	1923.00	1.40	0.73	1.30	0.64	-0.08	0.10
No toilet	1945.00	0.50	0.50	0.55	0.50	0.05	0.41
Own land	1945.00	0.05	0.22	0.04	0.20	-0.02	0.53
Own bike	1945.00	0.19	0.39	0.20	0.40	0.02	0.67
Own Mobile	1945.00	0.40	0.49	0.31	0.46	-0.09	0.09
No electricity	1945.00	0.22	0.42	0.30	0.46	0.09	0.16
Livestock							
Cows	1945.00	0.07	0.43	0.05	0.33	-0.02	0.42
Goats	1945.00	0.38	1.53	0.38	2.94	0.00	0.99
Sheeps	1945.00	0.00	0.07	0.00	0.10	0.00	0.75
Buffalo	1945.00	0.20	0.78	0.14	0.64	-0.04	0.29
Loans and Savings							
Savings	1945.00	0.10	0.29	0.05	0.22	-0.06	0.10
Family loans	1945.00	0.11	0.31	0.10	0.30	-0.01	0.77
Shopkeeper loans	1945.00	0.12	0.32	0.10	0.30	-0.03	0.58
Bank loans	1945.00	0.02	0.15	0.02	0.12	-0.01	0.65
PSC Score	1945.00	24.50	12.08	22.74	10.96	-0.37	0.15
Intra-HH bargain	1945.00	0.12	3.62	-0.08	3.72	-0.07	0.52

Notes: Summary statistics restricting the sample to households surveyed at both the baseline and midline (stayers). Column 5 represents the normalized difference between members and leaders. This is calculated by dividing the difference in the means of the two groups by the square root of the sum of their variances. Column 6 contains the p-values for these differences.

Table A2: Baseline differences between leaders and members

	Member(mean)	Member(sd)	Leader(mean)	Leader(sd)	Diff	p-val
Household composition						
Adults (age ≥ 16)	3.22	1.76	3.57	1.92	0.18	0.01
kids (age <16)	3.25	2.07	3.84	2.01	0.30	0.00
Male head	0.97	0.17	0.96	0.21	-0.02	0.31
Head's age	40.78	12.02	42.12	11.09	0.28	0.21
Head with education	0.24	0.42	0.26	0.44	0.02	0.56
Employement						
Paid work	0.62	0.48	0.66	0.47	0.04	0.14
Paid work (Male)	0.82	0.38	0.82	0.38	0.00	0.91
Paid work (Female)	0.37	0.48	0.45	0.50	0.08	0.07
Schooling						
Child ever attended school	0.31	0.46	0.36	0.48	0.05	0.04
Child ever attended school (Female)	0.20	0.40	0.25	0.43	0.05	0.12
Male Child ever attended school (Male)	0.40	0.49	0.46	0.50	0.06	0.07
Assets						
Rooms in HH	1.30	0.64	1.41	0.59	0.09	0.02
No toilet	0.55	0.50	0.54	0.50	-0.00	0.89
Own land	0.03	0.18	0.05	0.23	0.03	0.22
Own bike	0.17	0.38	0.19	0.39	0.02	0.62
Own Mobile	0.34	0.47	0.38	0.49	0.04	0.31
No electricity	0.27	0.45	0.25	0.43	-0.02	0.50
Livestock						
Cows	0.05	0.35	0.07	0.46	0.02	0.52
Goats	0.37	2.53	0.34	1.02	-0.01	0.83
Sheeps	0.00	0.09	0.01	0.07	0.01	0.74
Buffalo	0.13	0.60	0.15	0.44	0.01	0.77
Loans and Savings						
Savings	0.07	0.25	0.08	0.27	0.01	0.75
Family loans	0.10	0.30	0.14	0.34	0.04	0.20
Shopkeeper loans	0.10	0.31	0.11	0.31	0.01	0.86
Bank loans	0.02	0.13	0.03	0.16	0.02	0.33
PSC Score	22.37	10.06	20.15	9.86	-0.50	0.02
Women empowerment index	-0.06	3.64	0.21	4.14	0.10	0.50
Facilities usage index	1.34	9.10	1.75	8.30	0.10	0.51

Notes: The table reports the summary statistics by comparing members and leaders. Columns 1 and 2 show the mean and standard deviation, respectively, for members. Columns 3 and 4 show the mean and standard deviation for the leaders. Column 5 represents the normalized difference between members and leaders. This is calculated by dividing the difference in the means of the two groups by the square root of the sum of their variances. Column 6 contains the p-values for these differences.

Table A3: Baseline differences between leaders

	Obs	Cont(mean)	Cont(sd)	Treat(mean)	Treat(sd)	Diff	p-val
Household composition							
Adults (age ≥ 16)	183.00	3.59	1.79	3.54	2.07	-0.03	0.87
kids (age <16)	183.00	4.05	2.09	3.60	1.90	-0.23	0.15
Male head	183.00	0.97	0.17	0.94	0.24	-0.04	0.34
Head's age	183.00	43.05	10.69	41.05	11.50	-0.42	0.34
Head with education	183.00	0.24	0.43	0.28	0.45	0.03	0.57
Employement							
Paid work	692.00	0.67	0.47	0.65	0.48	-0.02	0.76
Paid work (Male)	312.00	0.84	0.37	0.80	0.40	-0.05	0.47
Paid work (Female)	320.00	0.42	0.50	0.47	0.50	0.05	0.59
Schooling							
Child ever attended school	617.00	0.35	0.48	0.37	0.48	0.02	0.75
Child ever attended school (Female)	303.00	0.25	0.43	0.25	0.43	-0.00	0.99
Male Child ever attended school (Male)	314.00	0.45	0.50	0.47	0.50	0.02	0.80
Assets							
Rooms in HH	179.00	1.39	0.57	1.43	0.61	0.04	0.69
No toilet	183.00	0.55	0.50	0.53	0.50	-0.02	0.74
Own land	183.00	0.06	0.24	0.05	0.21	-0.02	0.68
Own bike	183.00	0.13	0.34	0.25	0.43	0.13	0.12
Own Mobile	183.00	0.45	0.50	0.31	0.46	-0.15	0.06
No electricity	183.00	0.21	0.41	0.29	0.46	0.09	0.32
Livestock							
Cows	183.00	0.06	0.37	0.08	0.54	0.02	0.77
Goats	183.00	0.28	0.91	0.42	1.14	0.10	0.41
Sheeps	183.00	0.00	0.00	0.01	0.11	0.04	0.33
Buffalo	183.00	0.16	0.49	0.13	0.37	-0.04	0.69
Loans and Savings							
Savings	183.00	0.11	0.32	0.04	0.19	-0.11	0.15
Family loans	183.00	0.14	0.35	0.13	0.34	-0.02	0.80
Shopkeeper loans	183.00	0.11	0.32	0.11	0.31	-0.01	0.90
Bank loans	183.00	0.04	0.20	0.01	0.11	-0.05	0.25
PSC Score	183.00	18.29	7.66	22.29	11.59	0.91	0.05
Intra-HH bargain	183.00	0.38	4.41	0.02	3.83	-0.13	0.65

Notes: The table reports the summary statistics comparing leaders in the control and treatment group. Column 1 and column 2 has the mean and standard deviation for leaders in the control group. Column 3 and Column 4 has the mean and standard deviation for leaders in the treatment group. Column 5 represents the normalized difference between members and leaders. This is calculated by dividing the difference in the means of the two groups by the square root of the sum of their variances. Column 6 contains the p-values for these differences.

Table A4: Access to information about local government

	UC Councillor name	UC Chairperson name	UC Chairperson office
	(1)	(2)	(3)
Treatment	0.153*	0.117	0.118
	(0.060)	(0.206)	(0.134)
	[0.220]	[0.220]	[0.220]
Observations	212	212	212
Control mean	0.266	0.266	0.220

Notes: i) The outcome variable in column 1-3 is an indicator variable and refers to whether the respondent knows the name of at least one UC councillor, knows the name of the UC chairperson, and knows the location of the UC chairperson's office, respectively. ii) p-values are given in parentheses and q-values are given in square brackets. Significance levels are based on p-values, ***=significant at 1%, **=significant at 5%; *=significant at 10% based on p-values. iii) Standard errors are clustered at VO level.

Table A5: Overall Treatment Effect on Stayers

	Info. Local Govt.	Info. Public goods	Public goods usage	Percep. civic engagement	Civic engagement	Intra-HH bargain	HH Consumption	HH Assets	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment	0.227**	0.046	-0.070**	0.141	0.102	-0.008	55.554	0.018	0.056
	(0.041)	(0.583)	(0.017)	(0.246)	(0.298)	(0.881)	(0.781)	(0.567)	(0.473)
	[0.195]	[1]	[0.181]	[1]	[1]	[1]	[1]	[1]	[1]
Observations	1,945	1,945	1,945	1,945	1,945	1,945	1,247	1,247	1,945
Control mean	0.000	0.000	-0.000	0.000	0.000	0.007	3828.585	-0.000	-0.000

Notes: i) The outcome variable in column 1 is an index of information on local government, column 2 is an index of information about public goods, column 3 is an index of usage of public goods, column 4 is an index of perception of women's civic engagement, column 5 is an index of civic engagement, column 6 is an index of intra-household bargaining, column 7 is household consumption, column 8 is an index of household assets, and column 9 is an index of trust. In column (7) and (8), we restrict the sample to those who are eligible to receive economic benefit packages (PSC values 0-23). ii) p-values are in parentheses and q-values are in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% iii) Standard errors are clustered at the VO level.

Table A6: Treatment Effects on Leaders- Stayers

	Info. Local Govt.	Info. Public goods	Public goods usage	Percep. civic engagement	Civic engagement	Intra-HH bargain	HH Consumption	HH Assets	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment	0.367*	0.009	0.125	0.561***	-0.013	0.107	179.263	-0.022	0.020
	(0.057)	(0.948)	(0.131)	(0.001)	(0.917)	(0.323)	(0.549)	(0.703)	(0.892)
	[0.298]	[1]	[0.443]	[0.00600]	[1]	[0.939]	[1]	[1]	[1]
Observations	183	183	183	183	183	183	139	139	183
Control mean	-0.000	-0.000	-0.005	-0.000	-0.000	0.009	4344.660	0.000	-0.000

Notes: i) The outcome variable in column 1 is an index of information on local government, column 2 is an index of information about public goods, column 3 is an index of usage of public goods, column 4 is an index of perception of women's civic engagement, column 5 is an index of civic engagement, column 6 is an index of intra-household bargaining, column 7 is household consumption, column 8 is an index of household assets, and column 9 is an index of trust. In column (7) and (8), we restrict the sample to those who are eligible to receive economic benefit packages (PSC values 0-23). ii) p-values are in parentheses and q-values are in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% iii) Standard errors are clustered at the VO level.

Table A7: Overall Treatment Effect without PSC

|	Info. Local Govt.	Info. Public goods	Public goods usage	Percep. civic engagement	Civic engagement	Intra-HH bargain	HH Consumption	HH Assets	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment	0.204*	0.027	0.004	0.120	0.074	0.032	84.488	0.004	0.059
	(0.061)	(0.738)	(0.893)	(0.319)	(0.461)	(0.540)	(0.670)	(0.885)	(0.442)
	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
Observations	2,286	2,286	2,286	2,286	2,286	2,286	1,484	1,484	2,286
Control mean	0.000	0.000	-0.000	0.000	0.000	0.007	3828.585	-0.000	-0.000

Notes: i) The outcome variable in column 1 is an index of information on local government, column 2 is an index of information about public goods, column 3 is an index of usage of public goods, column 4 is an index of perception of women's civic engagement, column 5 is an index of civic engagement, column 6 is an index of intra-household bargaining, column 7 is household consumption, column 8 is an index of household assets, and column 9 is an index of trust. In column (7) and (8), we restrict the sample to those who are eligible to receive economic benefit packages (PSC values 0-23). ii) p-values are in parentheses and q-values are in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% iii) Standard errors are clustered at the VO level.

Table A8: Treatment Effects on Leaders without PSC

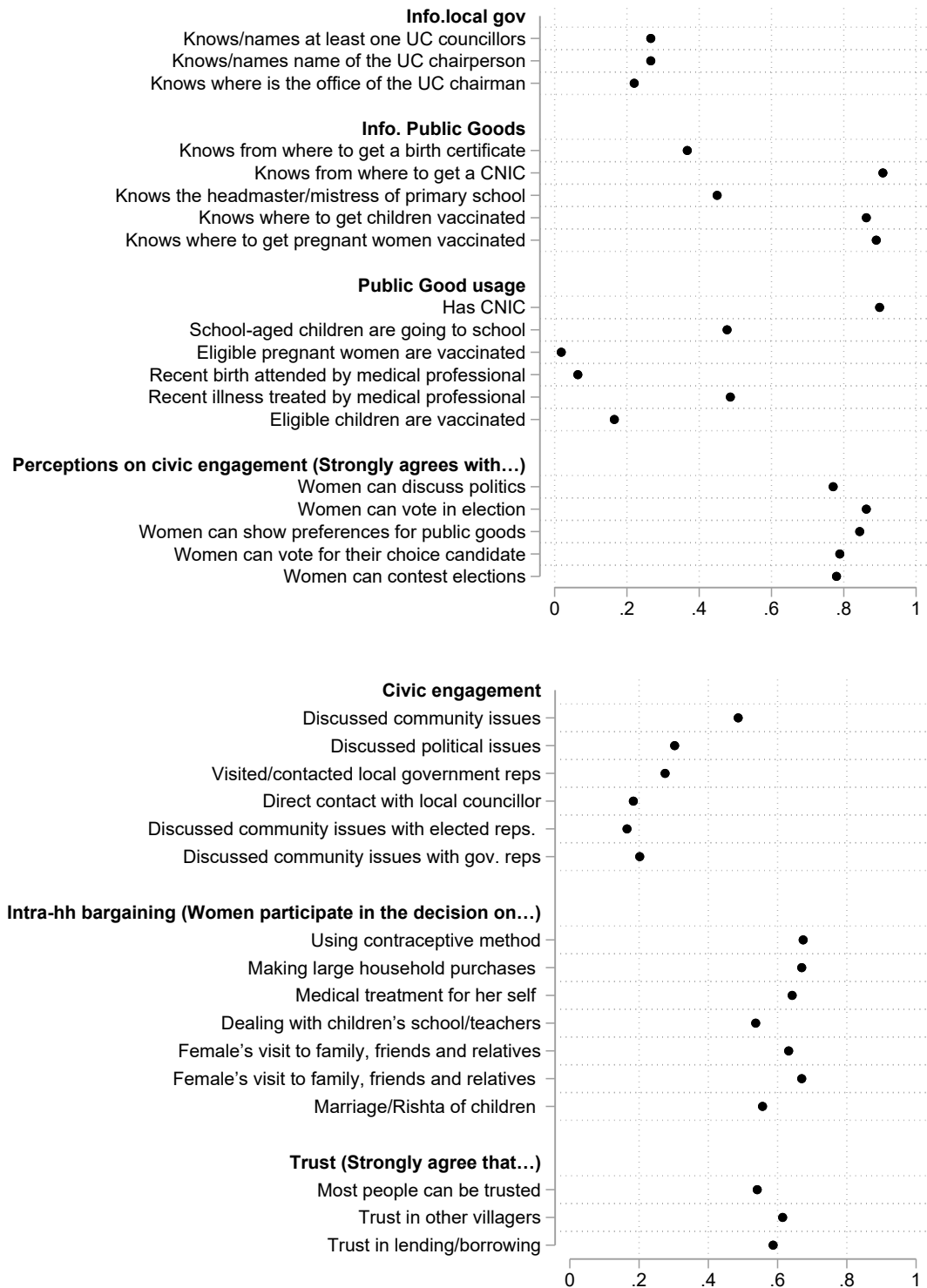|	Info. Local Govt.	Info. Public goods	Public goods usage	Percep. civic engagement	Civic engagement	Intra-HH bargain	HH Consumption	HH Assets	Trust
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment	0.310*	0.002	0.224**	0.488***	-0.047	0.107	90.699	-0.008	-0.000
	(0.068)	(0.985)	(0.013)	(0.003)	(0.685)	(0.255)	(0.756)	(0.878)	(0.998)
	[0.189]	[1]	[0.0540]	[0.0260]	[1]	[0.622]	[1]	[1]	[1]
Observations	212	212	212	212	212	212	157	157	212
Control mean	-0.000	-0.000	-0.005	-0.000	-0.000	0.009	4344.660	0.000	-0.000

Notes: i) The outcome variable in column 1 is an index of information on local government, column 2 is an index of information about public goods, column 3 is an index of usage of public goods, column 4 is an index of perception of women's civic engagement, column 5 is an index of civic engagement, column 6 is an index of intra-household bargaining, column 7 is household consumption, column 8 is an index of household assets, and column 9 is an index of trust. In column (7) and (8), we restrict the sample to those who are eligible to receive economic benefit packages (PSC values 0-23). ii) p-values are in parentheses and q-values are in square brackets. Significance levels are based on p-values: ***=significant at 1%, **=significant at 5%, and *=significant at 10% iii) Standard errors are clustered at the VO level.

Figure A1: Control means for variables used to construct indices - Overall sample
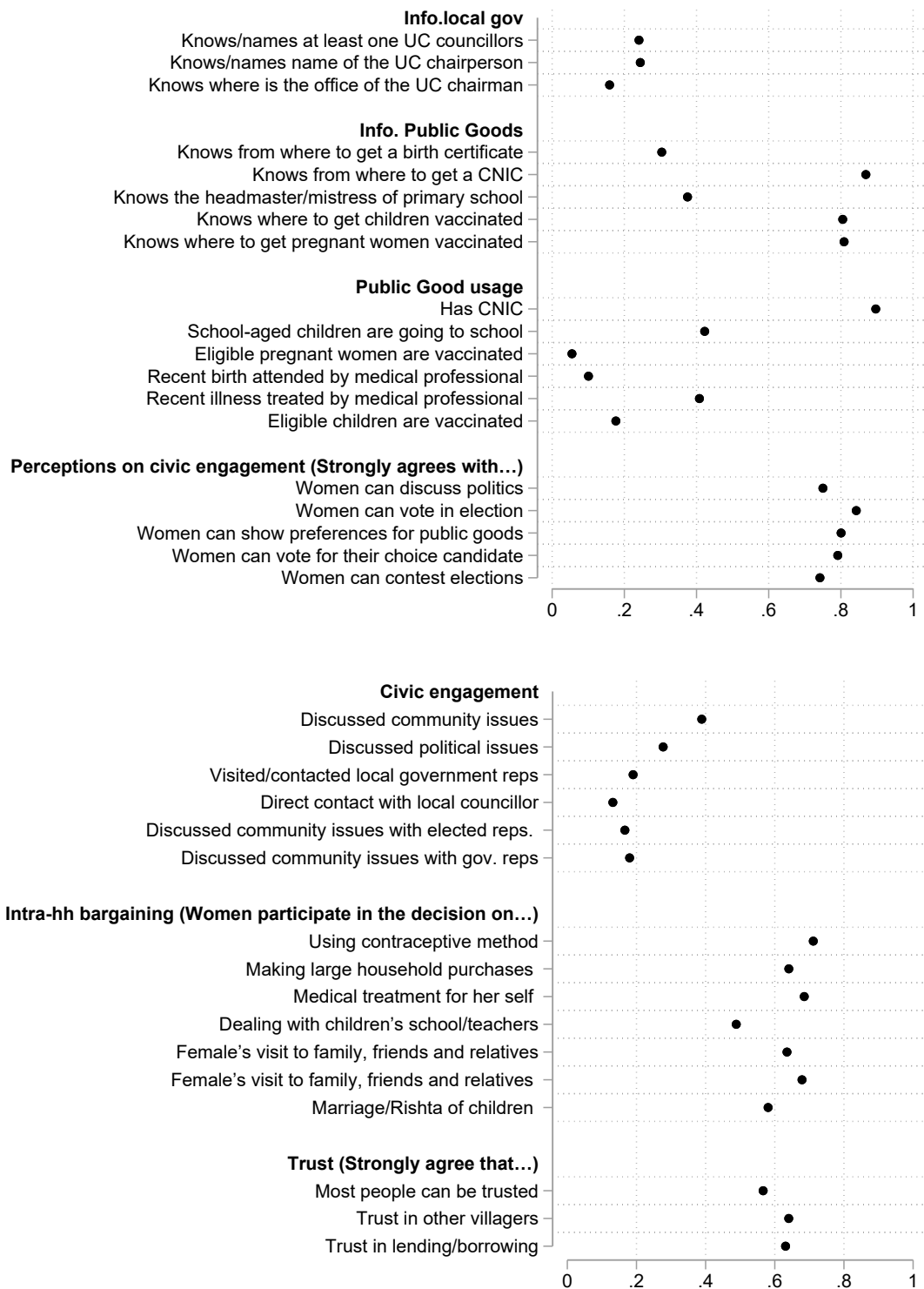
Note - The panel shows the control means for the individual components used to construct different indices.

Figure A2: Control means for variables used to construct indices - Leaders only

Note - The panel shows the control means for the individual components used to construct different indices.