CHAPTER 11

Community Policing in the Philippines: Communication, Trust, and Service Provision

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Policing in the Philippines faces numerous challenges, including limited capacity relative to Western standards, a geographically and demographically diverse jurisdiction, and a recent history of human rights abuses that stems in part from a lack of police autonomy from the government. We test the effects of a policing program that incorporates the two main principles of community policing—community engagement and problem-oriented policing—to evaluate whether community policing can overcome these challenges to improve public safety.

We implement this intervention in Sorsogon Province, one of eighty-one provinces nationwide. While Sorsogon saw virtually no violence associated with President Rodrigo Duterte's "War on Drugs," the national police with whom we partnered nevertheless suffer from a lack of perceived autonomy from broader government abuses. Government and police legitimacy are further challenged by an active communist rebellion. Although violence related to this rebellion is relatively low-intensity in Sorsogon, the persistent presence of insurgents and the alternatives they offer to state-provided law enforcement erode public trust in the police. Thus, the Philippines presents a challenging context for community policing. We seek to determine whether the same principles that contribute to public safety in developed contexts like Chicago and Tel Aviv translate to this setting with many additional challenges to police legitimacy and public safety.

The drug war and insurgent conflict pose significant challenges to police reform in the Philippines, but they also raise a number of important ethical considerations for our involve-

ment as researchers. As discussed in Chapter 13 of this volume, researcher involvement in policing interventions is an endeavor with high ethical stakes in general, but we recognize that the concerns in the Philippines context are distinctly serious. We devote a significant portion of this chapter to discussing our process for deciding whether to get involved in the evaluation, our ethical red lines, and the strategies we took to mitigate risks. Given the uniquely challenging context, we feel that our involvement in the research was only possible because of team members' deep contextual knowledge of policing in Sorsogon, which allowed us to more accurately evaluate risks.

To disaggregate the effects of different aspects of the community policing package, we sequenced the implementation of a pure community engagement program (CEP) and a problem-oriented policing program (POP) designed to focus on community-specific issues. Using pre-specified tests, we find little evidence that either CEP on its own or the combined CEP and POP interventions affected citizens' attitudes about public safety or experiences with crime. We observe no appreciable difference between treated and untreated villages on a wide array of issues, including satisfaction with police service provision, willingness to report crimes to the police, evaluations of police responsiveness, and self-reported crime victimization. While there were noticeable improvements on a number of public safety indicators over the course of the intervention, these improvements occurred in both treated and untreated units. We speculate that this pattern may have resulted from outside factors, like national-level changes in policing procedures or changes in the economic environment.

Finally, we present suggestive evidence of positive impacts on the specific types of crimes that barangays' problem-oriented policing teams elected to focus on, indicating that while community policing cannot address all of a community's problems en masse, it may improve specifically targeted issues. Still, the lack of results on the metaketa harmonized hypotheses indicates that community policing is not a panacea. Policymakers may be better served by assigning more modest goals to community policing, using it to target society's most pressing issues while acknowledging that it is perhaps ill-suited to achieve across-the-board improvements in public safety. We close by proposing a path forward through which the Philippine National Police and other public safety institutions in the Philippines might improve public safety by building trust with the community.

11.1. Context

We implemented our community policing intervention in Sorsogon Province, Philippines. Located on the southern tip of Luzon, the Philippines' most populous island, Sorsogon hosts a population of about eight hundred thousand citizens. Most of the province is rural, with rice paddies and dense forests sitting against a mountainous backdrop. The provincial capital, Sorsogon City, is the province's main urban center, alongside the semiurban towns of Matnog, Gubat, and Bulan. Sorsogon Province is divided into fifteen municipalities that encompass 541 barangays. The smallest administrative unit in the Philippines, a barangay, is akin to a village in rural areas or a neighborhood in urban areas. In Sorsogon, the median barangay has about eight hundred fifty residents. We use barangays as our study's primary unit of analysis.

Two main government institutions provide public safety throughout the Philippines. The Philippine National Police (PNP) is a full-service police force that serves under the command of the national government. The PNP investigates and deters major crimes, enforces traffic laws, and combats insurgency. The Sorsogon Provincial Police Office (PPO) has about eight hundred fifty officers distributed across sixteen municipal stations (one in each municipality, plus two district stations in Sorsogon City). Officers rotate regularly through different stations within the region. PNP presence is distributed unevenly; officers are omnipresent in urban centers but rarely patrol beyond the main highway in rural areas.

The PNP's ability to provide security is affected by each of the three challenges discussed in Chapter 3. First, like most national police departments, the PNP is beholden to the political agendas of the government, both in perception and in actuality. For example, even though the Sorsogon PNP had virtually no involvement in President Duterte's drug war, the agency's association with extrajudicial violence likely harmed trust and limited Sorsogon officers' ability to interact productively with civilians. We also observed that the Sorsogon PNP leadership seemed compelled to mention national-level priorities like drug prevention at briefings, taking focus away from more pressing local issues. Municipal mayors also often have their own priorities for public safety, which may not align with the goals of the police. Second, limited capacity hampers effective policing by preventing the PNP from routinely patrolling most areas of the province. Although the PNP is well-resourced relative to other agencies discussed in this vol-

ume, the Philippines' topography and infrastructure make patrols impossible in many areas at the PNP's current staffing levels. Consequently, in our midline survey, more than 45 percent of respondents said they see a PNP officer once per month or less. Finally, principal-agent issues, namely, the challenges of monitoring patrol officers, make effective policing difficult. Oversight is improved somewhat in Sorsogon because officers rarely patrol alone. Still, there is little opportunity for superiors to directly observe most of their officers' activities, leading to some amount of shirking.

Crime prevention is also provided by tanods, semiprofessional community security officers who serve at the barangay level. The elected leadership in each barangay selects approximately ten to twenty tanods, with the exact number determined by population, funding, and the barangay's needs. Tanods deal with minor crimes like theft, harassment, public intoxication, and noise complaints, alongside day-to-day operations like directing traffic. Tanods are also charged with settling minor neighbor and family disputes. The majority of crimes and disputes reported to tanods are investigated and adjudicated by the elected barangay captain and the chief tanod. Collectively, we refer to the tanods and elected barangay officials as the "local government unit." The tanods' capacity for settling minor issues internally provides an efficient, inexpensive mechanism through which the state provides public safety. In rural areas with limited PNP presence, tanods also provide a conduit through which citizens can report more serious crimes without having to make a costly and time-consuming trip to a municipal PNP station (Haim, Nanes and Davidson, 2021). Tanods' professionalization varies across barangays. All receive rudimentary training on relevant laws and procedures, as well as basic equipment like a uniform T-shirt and bamboo club. In urban areas, barangays may also provide vehicles, radios, and flashlights, but tanods in Sorsogon do not carry guns. In contrast to the PNP, tanods are ubiquitous in our study setting: almost 85 percent of survey respondents said they see a tanod at least once per day, and 46 percent identified them as the most important source of security in their barangay.

Sorsoganons face three main categories of public safety problems: crime, vehicle accidents, and insurgency. Crime, the main focus of our study, is subdivided roughly between serious crimes like murder, assault, and large-scale illegal logging, and petty crimes like theft, public intoxication, juvenile delinquency, and "alarm and scandal," a catchall term that includes

anything from libel to public arguments. Just under 9 percent of our midline survey respondents reported being the victim of a theft in the preceding six-month period. In many cases, crimes stem from festering, long-running disputes, often between extended families or clans. In our midline survey, nearly 21 percent of respondents reported being involved in a dispute with a neighbor or member of another family in the past six months. When left unresolved, these types of disputes often escalate into more serious criminal behavior like property damage, arson, assault, and murder.

Traffic accidents represent another substantial threat to public safety in Sorsogon. While we do not have official figures on traffic accidents, and most noninjury accidents likely go unreported, poor driving habits and roads shared by vehicles of all sizes traveling at dramatically different speeds create a treacherous environment. A substantial proportion of our problem-oriented policing teams (see below) elected to focus on reducing traffic accidents during their participation in the study.

Finally, Sorsogon is a hotspot for activity by the longstanding communist rebellion of the New People's Army (NPA). While violent altercations are rare, the NPA is entrenched in the fabric of many communities in Sorsogon Province and competes with the state to provide public services, including public safety. In these areas, the NPA is frequently involved in adjudicating crimes and disputes. This alternative to state institutions undercuts the state's legitimacy and threatens the police's autonomy, a threat to policing identified earlier in this volume. The NPA's willingness and ability to provide for the basic needs of Filipinos in rural areas long ignored by the government has harmed the police's ability to serve these areas, or in some cases even maintain a permanent presence there. Over the last decade, the government made substantial gains in terms of expanding its military control, but many rural areas still fail to experience effective governance or service provision. The state has attempted to win back primacy in the provision of basic services through a series of economic development programs (Crost, Felter and Johnston, 2016; Berman, Downey and Felter, 2016), but uneven implementation of these programs remains a challenge for the government as it aims to cement gains over the long term. Finally, the police's necessary militarization in response to the NPA may further harm its relationship with the community by making officers appear inaccessible or focused on issues other than crime prevention, potentially discouraging citizens from contacting the police for help.

As part of this project, the Sorsogon PNP implemented community policing in areas of the province that were safe for them to operate, avoiding NPA-infiltrated areas. Excluding NPA-infiltrated areas was necessary to protect participants, an ethical concern that we discuss at length in both the Appendix to this chapter and in this volume's general discussion of research ethics. Nevertheless, we think that understanding the effects of community policing in government-controlled areas adjacent to areas experiencing conflict is important to understanding the consolidation of state legitimacy. Providing effective services in areas already held by the government has been shown to reduce violence (Sexton, 2016), and individuals in conflict zones often look to the effectiveness of service provision in nearby government-held areas when deciding whether they should continue fighting (Haim, 2018). In existing studies about the consolidation of state legitimacy, public safety is an often overlooked public service, an unfortunate omission given that security is frequently the primary concern of civilians who live in the shadow of conflict.

Our study coincided with the Philippine government's War on Drugs, a major initiative that President Rodrigo Duterte launched in late 2016 aimed at "neutralizing" anyone involved in drug trafficking or dealing (Talabong, 2017). The initiative, directed by the government in Manila and carried out by the PNP, led to at least 27,000 deaths, including more than 5,600 at the hands of the police(Human Rights Watch, 2020). Our partnership with the Sorsogon PNP stemmed from the provincial leadership's efforts to put a "different face" on policing that contrasted with the focus on drugs and the ongoing crackdowns in other areas of the country. There was virtually no drug-related or anti–drug related violence in Sorsogon Province, a fact that allowed us to partner with the PNP in Sorsogon without contributing to extrajudicial violence. Still, the PNP's reputation for excess elsewhere in the country substantially damaged the organization's reputation among Filipinos, including in Sorsogon. One plausible benefit of community policing is that it allows officers to distance themselves from the reputations and bad behaviors of officers elsewhere. By fostering positive officer-citizen interactions and directing police to focus on local issues, community policing allows citizens to form opinions of the specific officers assigned to their community independently of their attitudes toward the national institution.

The dual challenges of the NPA and President Duterte's War on Drugs makes police-community

relations especially difficult in our setting. Even compared to the other Global South cases in this volume, mutual citizen-police trust is particularly low in the rural Philippines. Standard community policing practices therefore face a tough uphill battle. Still, we have reason to believe that carefully implemented community policing should effectively improve public safety. As we mention above, existing research suggests that improved government service provision can help consolidate state legitimacy in areas threatened by insurgency. Given the importance of public safety, an intervention that builds positive links between citizens and police officers should help break the negative feedback loop of poor service provision and low trust. Furthermore, the overwhelming majority of brutal antidrug operations occur outside of Sorsogon Province. An intervention that allows citizens to see the individuals behind the uniforms should help them distinguish between the misbehavior of officers elsewhere in the country and the intentions of PNP officers serving in Sorsogon.

11.2. Intervention

Our intervention was designed to address a range of challenges to policing, but especially those stemming from a lack of autonomy from the national government and the associated trust deficit with citizens. Given the highly touted links between community policing and civilian trust in the developed world, community policing seemed well-suited to break the perceptual links between the Sorsogon PNP and human rights abuses carried out by police elsewhere. At its core, our intervention aimed to improve citizen-police cooperation by making police officers more accessible to citizens. We also sought to address challenges related to capacity by increasing the efficiency with which the PNP employed existing resources.

The intervention included two distinct components of community policing, community engagement programs and problem-oriented policing. CEP focuses on increasing citizen-police information flows by reducing citizens' costs of sharing information and increasing their expected benefits. Citizens incur a variety of costs and benefits from engaging with the police. In many places, including our study location in the Philippines, the police take a reactive approach to policing, especially outside of the largest city centers. The police wait until a citizen calls to report an incident and then dispatch officers in response. Thus, there are few opportunities for citizens to communicate with officers unless they call the emergency number or travel

to a station. Civilians' interactions with the police almost always occur in a negative context, either because they were the victim of a crime or they are accused of committing one. Our community engagement program brought officers into direct contact with citizens in nonemergency contexts. In doing so, it signaled to civilians that the police were available, and also that they have sufficient capacity (in the form of personnel, training, and equipment) to convert any information they might share into actions that improve public safety. Existing research suggests that citizens expect a higher return on their "investment" in reporting when officers come from the same politically salient identity group (Nanes, 2020) or extended family (Haim, Nanes and Davidson, 2021). An effective community engagement program builds similar types of linkages by generating repeated interactions between officers and citizens.

The second component of our intervention, problem-oriented policing, directs the police to identify and address the issues that are most pressing at the local level, rather than follow a jurisdiction-wide agenda that may not be appropriate for all areas. POP is implemented at the community level, where civilians and local leaders help to inform the police about the specific issues that most threaten public safety in their communities. This localized focus signals the police's autonomy from the national government. In our case, the local focus reflects the fact that PNP national leadership allow regional and provincial commanders significant autonomy over policing operations. To the extent that this autonomy is not reflected in PNP activities, it is because local leadership fails to take initiative, not because local leaders are actively prevented from focusing on local issues. POP's local focus also addresses concerns that the police neglect certain communities, for example rural areas or neighborhoods with high concentrations of minorities. This latter mechanism is particularly important in our context, as it undermines the NPA's narrative of government neglect and helps differentiate locally assigned PNP officers in Sorsogon from those committing abuses elsewhere in the country.

We designed and implemented a community policing treatment to evaluate the harmonized metaketa hypotheses while also identifying the independent effects of CEP (see Table 11.1). We did so by staggering our intervention, first implementing CEP, then conducting a round of measurement, and finally following up with the POP intervention in the same communities that had experienced CEP. Thus, all treatment barangays received both the CEP and POP interventions, but the PNP implemented them in sequence.

Table 11.1: Intervention Design in Sorsogon Province, Philippines

Condition	Town hall meetings	Foot patrols	Problem oriented policing	Citizen feedback	Watch forum
Control	No	Occasional	No	No	No
Treatment	No	Weekly	Yes	Hotline (Half of treated units)	No

We took care to ensure that our community policing interventions were locally appropriate. Many procedures were adapted from policing programs already in place on a smaller scale, or programs that the PNP would have rolled out in the near future without our involvement. For instance, the impetus for our CEP program originated with then-PNP provincial police director in charge of Sorsogon Province Ronaldo Cabral in early 2016. As part of the One Sorsogon program, the PNP directed officers to engage with citizens in nonemergency settings in order to relay information about ongoing PNP crime-reduction efforts, gather information about the most pressing problems in the community, and invite citizens to participate in a signature drive to indicate their solidarity with the fight against crime in Sorsogon. Some officers chose to hold impromptu town hall–style meetings with small or medium-sized groups in the community, while others engaged citizens in one-on-one discussions. Designing and implementing the CEP around preexisting and organically developed community policing program ensured not only high levels of leadership and institutional buy-in but also that the program was appropriate for the local context.

Before the PNP began this initiative, our team worked with them to refine the program in two main ways. First, we created a standardized message that officers would convey when engaging with citizens. Officers (1) encouraged citizens to contact them not just with major emergencies but also with minor issues, (2) ensured that citizens understood how to contact the police, (3) solicited feedback about public safety issues facing the community, and (4) discussed ongoing police initiatives. Second, the PNP agreed to implement the engagement program only in a random subset of barangays, holding off implementation in control and nonstudy barangays until after our endline measurement was complete. The community engagement program occurred over the course of two months in early 2017, during which PNP officers engaged more than 138,000 citizens through visits to homes, schools, barangay assemblies, and public locations like markets. Following this two-month inervention, our team conducted a midline survey and collected administrative data between late August and early October 2017.

As discussed above, our study was unique in that it was designed to measure the effects of CEP independently from other community policing initiatives. We therefore test additional hypotheses beyond the harmonized hypotheses. CEP aims to reduce search costs for reporting and increase trust in the police, leading to Hypothesis 1P: CEP will improve attitudes to-

ward the police and increase citizens' willingness to report crimes to the police. Although CEP does not contain formal mechanisms through which the police translate citizen cooperation into crime prevention, it may still reduce crime overall through deterrence if criminals become aware of citizens' cooperation with the police or if police have more relevant information on which to act. Thus, whether CEP can improve public safety remains an open question, the answer to which will provide insights into the particular mechanisms, if any, linking community policing to crime reduction.

After implementing CEP and conducting midline measurements, our intervention continued with a second phase, problem-oriented policing. Some CEP-related activities continued during POP, for example, a second round of officers distributing stickers with the One Sorsogon slogan, but the majority of the program's efforts shifted to problem-oriented policing during this period. As with the CEP, we modeled the POP intervention after an existing PNP program. For a number of years, the PNP in Sorsogon had been holding "Enhance Managing Police Operations" meetings, where barangay officials regularly interfaced with the PNP to discuss safety and security issues in their areas. Meetings typically occur when a barangay exhibits a persistent public safety issue, making them a reactive rather than a proactive measure. They are typically held at the provincial police headquarters in Sorsogon City, in contrast to the POP meetings we describe below, which bring police officers to the barangays in question. After attending and observing one of these meetings and talking with parties involved about the strengths and weaknesses of this approach, we designed a POP program based around barangay-level meetings of security providers.

We first created problem-oriented policing teams in each treatment barangay. We randomly varied the composition of the teams as one of our study's cross-randomized alternative arms. All teams included the Barangay captain, the chief tanod, three regular tanods, and the kagawad (elected barangay councilor) in charge of peace and order. A random subset of POP teams also included two randomly selected PNP officers from the barangay's municipality.[1] We provided participating local officials and police officers with a small stipend to offset the time they devoted to each meeting. Thus, all teams had local knowledge, and some had additional

[1]We evaluate differences caused by team composition in other work. Analyses in this chapter pool these two versions of POP as a single treatment.

resources and expertise of the PNP. Preexisting channels of communication between the tanods and the PNP remained open and available to all POP teams.

At the outset of the POP phase, all PNP officers assigned to POP teams and one representative from the local government unit from each participating barangay attended a day-long training workshop in Sorsogon City. The training introduced participating PNP officers to a local government unit representative from their assigned barangay, explained the theory of change behind problem-oriented policing, and provided an overview of the POP meetings in which officers and local government unit representatives would participate over the subsequent six months. The PIs developed the training materials along with PNP leadership, and a Manila-based consultant who specializes in team building and other group-oriented training led the training sessions.

We implemented the POP treatment from December 2017 through May 2018. Each POP team met once per month in a suitable location within the barangay such as the barangay hall, school building, or church, or at the closest municipal police station if a suitable location in the barangay was not available. A member of the research staff attended and monitored each meeting but did not participate in it. Teams used Meeting 1 to review information about problems in the barangay and identify a set of relevant issues from which to choose a focal issue for the intervention. We provided each team with aggregate statistics from our midline survey detailing the types of crimes that citizens in their barangay experienced most often and the issues they said were most important to them. We also provided anonymized logs of any SMS tips sent to the PNP during the preceding months that referenced their barangay. The team reviewed this information during the meeting and was tasked with interviewing citizens in their barangay about public safety before the start of Meeting 2. At Meeting 2, teams decided on which issue they would focus and began crafting a strategy to address the issue. By the end of Meeting 3, teams provided our research staff with a proposed budget of up to five thousand pesos (approximately a hundred U.S. dollars) for implementing their strategy. The PIs reviewed the budgets to ensure compliance with funder regulations.

Many teams focused on stepping up tanod foot patrols in problematic areas and spent their budgets on basic equipment like flashlights, whistles, and rain ponchos that would allow tanods to conduct more extensive patrols. A few barangays created minor infrastructure improve-

ments. For instance, to discourage vagrancy and combat public intoxication, several barangays erected street lights in strategic locations. Cabigaan, Bulusan, built fences on either side of the main highway to prevent stray dogs from wandering into the road and causing vehicle accidents, a problem that they identified as particularly severe. Several barangays installed road safety signage. Finally, many POP teams addressed problems like juvenile delinquency and public intoxication by creating activities in which at-risk individuals could participate. The POP team in Cogon, Gubat, purchased sports equipment that school-age children could borrow from the barangay hall after school. Pamurayan, Sorsogon, used its funds to create a community garden tended to by at-risk youth.

Teams spent months four, five, and six of the intervention implementing their strategies. They met monthly to report on progress and discuss any issues. At the end of the six-month intervention, each participating barangay held a culminating event to reinforce public knowledge of their activities and discuss ways to continue activities that would improve public safety in the future.

As explained above, most POP teams selected a specific crime on which to focus, leading to nonharmonized Hypothesis 3P: Combined CEP-POP will improve outcomes related to the public safety issue on which a barangay's POP team focused on the basis of (1) citizens' recognition that the police are focusing on that issue, (2) citizens' evaluations of the police's handling the issue, and (3) rates of victimization on that issue. We also test the harmonized hypotheses presented earlier in this volume using both the combined CEP-POP treatments and the CEP treatment on its own.

11.2.1 Ethics

The community policing interventions involved increased interactions between PNP officers and citizens of Sorsogon Province. Partnering with the Sorsogon PNP on these initiatives required careful consideration of several important ethical issues. Two concerns that were particularly challenging in the context of our study: the broader Philippine drug war and local insurgent activity. We further expand on our discussion of ethics in the chapter's Appendix.

We considered several potential issues when deciding whether to partner with the PNP during Duterte's ongoing War on Drugs. As mentioned above, One Sorsogon was a homegrown

initiative of provincial police chief Ronaldo Cabral, who wished to de-emphasize the aggressive tactics of the drug war and instead focus on non–drug related public safety issues. Members of our research team learned about the planned rollout while in the field for another project, which happened to coincide with the EGAP request for proposals on community policing. Before approaching Cabral about a potential evaluation of the program, we used our extensive network of contacts in Sorsogon to confirm that the Sorsogon PNP leadership was true to its word regarding its rejection of the drug war's violent tactics. We consulted a number of local civilian experts, academics, and leaders of minority communities, who unanimously confirmed that the Sorsogon PNP under Cabral's leadership had not adopted violent tactics in the fight against drugs.

This pattern was confirmed using data from the Armed Conflict Location & Event Data Project, an independent research organization that collects information on violence from local news reports, human rights organizations, and official government data like the PNP's internal incident reports. The combined data recorded only five drug-related deaths in Sorsogon between Duterte's election and the initiation of our project (consistent with pre-Duterte patterns), and none in the subsequent nine months we spent planning and piloting the intervention. Only one incident of civilian-on-civilian violence, and none involving police-on-civilian violence, occurred during our study.

Given this context, we saw substantial ethical benefits stemming from the potential for broader reform within the PNP, paired with conditions that allowed us to implement the intervention safely. Policing in the Philippines is highly decentralized; regional and provincial police chiefs have a great degree of autonomy over the tactics used by their units. As a result, Cabral's community policing initiative was likely to have a large impact on day-to-day policing practices across the province. Cabral hoped to overhaul the Sorsogon PNP's approach to focus on community policing before his potential promotion to the regional office so that he could use it as a model for more widespread reform. When he learned of our interest in partnering on an evaluation of One Sorsogon, he was adamant that, if the program were successful, a credible external evaluation could help sell this "softer" approach to policing to higher-ups in the PNP.[2]

[2]Indeed, the model of One Sorsogon helped spur Cabral's regionwide "Usap Tayo" (trans. *Let's Talk*) initiative.

Although we saw significant potential benefits to the research, the primary factor in our ethical calculus was whether we could participate in the research without putting subjects or research staff in harm's way. During the project planning period, we held frequent meetings (both with and without the PNP leadership) to discuss how to mitigate risks associated with the intervention. One particularly important consideration was that the level of decentralization in the PNP could backfire. Despite the leadership-level buy-in with community policing practices, we were concerned that street-level officers might not adopt a similar perspective. To guard against the risk that officers would commit abuses as a result of the intervention, we put in place an extensive monitoring system for our research team to observe potential abuses. Multiple staff members from our experienced local research team acted as "community observers" during all barangay visits conducted as part of the CEP intervention. This allowed us to monitor the vast majority of police-citizen interactions that took place as part of the intervention. A member of the IPA research team was also present at every POP meeting. Finally, we designed the intervention so that barangay safety officials took the lead in implementing the public safety initiatives decided on during POP in their own communities, with the PNP playing a supporting role. We were prepared to immediately end our involvement in the project if we learned that the intervention created opportunities for individual PNP officers to abuse or intimidate citizens. No instances of abuse were reported.

A broader concern is whether the goal of improving trust and cooperation with the PNP as an institution was actually a good thing to do at a time when the institution was the face of abusive human rights violations. We wrestled significantly with this concern, but in the end several factors led us to proceed. First, the majority of citizens in Sorsogon seem to recognize the degree of decentralization in the PNP and the vastly different approaches to policing in major urban areas like Manila (where the drug war was primarily taking place) and rural provinces like Sorsogon. In other words, citizens can distinguish the PNP as an institution operating at these two levels. Second, we devoted significant attention to mitigating the risk that the Sorsogon PNP might capitalize on increased citizen trust to enable abusive practices over the long term. Based on discussions with key informants, we came to believe that One Sorsogon would empower the community-focused municipal Police Community Relations of-

See Haim, Ravanilla and Sexton (2021).

ficers to remain influential even if a changeover in provincial police leadership occurred. This proved correct when Cabral was promoted to the regional office early in the POP intervention. Although Cabral's successor wanted to implement his own initiatives, the momentum of One Sorsogon convinced him to continue with a community-focused approach. In terms of our own commitment as researchers, we viewed our involvement in One Sorsogon to be the beginning of longer-term efforts to help implement "best practices" of policing across the province and the region.[3]

A second important category of risks related to the safety of study participants stems from the ongoing insurgency in Sorsogon. NPA presence in some areas made community policing and research activities unsafe, resulting in us paring down the sample area to a conservative subset of barangays where we could implement and evaluate the intervention without placing participants in unsafe situations. First, we ruled out all barangays identified by the Ninth Infantry Division of the Armed Forces of the Philippines (AFP) as posing a risk of NPA ambush. The AFP provides regular intelligence reports to PNP leadership about which barangays are at risk, and we reviewed these reports with all municipal chiefs of police. In order to travel to these areas, PNP officers require advanced clearance from the AFP, which presents a costly and time-consuming bureaucratic hurdle. Second, we relied on our team's personal networks to consult with local civilian leaders and individuals with ties to the NPA to confirm that the NPA would not consider research or police activities in any of our sample barangays as posing a threat to their areas of control. We eliminated a handful of additional barangays during this step. In the end, this conservative approach resulted in us eliminating approximately 45 percent of the barangays in the province from the study sample, while the latest intelligence reports suggested that only 4 percent of the barangays in Sorsogon were NPA-infiltrated and another 26 percent were NPA-threatened.

The participation of local researchers and stakeholders proved to be a key factor in our ability to accurately assess ethical risks and benefits. Our extensive network of local stakeholders helped us to brainstorm and assess the situations that might arise as a result of the intervention. One of the study authors was born and raised in the region, as was the full-time field research

[3]Each of us is still involved in ongoing research on policing in the region, and at no time did we consider this to be a one-off project.

manager. The field research manager has a long-running relationship with the PIs that allows her to freely express ethical or other concerns about things she observed in the field. These researchers' extensive local knowledge and experience proved critical in our ability to make reliable determinations about safety and carry out the research in a safe, ethical manner.

11.3. Research Design

We conducted our study in the 298 of Sorsogon's 541 barangays that were designated as "safe" using the procedure described in the previous section. Of these 298 barangays, we randomly selected 198 for treatment and 100 for control.[4] Each of the 198 treatment barangays received both the CEP and POP portions of the intervention.

For the midline and endline surveys, we used as our sampling frame the list of registered voters in each barangay provided by the Department of Interior and Local Government. Voter registration rates in Sorsogon are above 85 percent, making this a reasonable approximation of all adult residents. For the midline survey, we randomly selected ten respondents per barangay. We partnered with the Sorsogon office of Innovations for Poverty Action, a global research firm, to field the survey. Locally hired enumerators went to each barangay and attempted to interview the selected individuals. If the selected individual's household could not be located, the enumerator moved on to the next randomly selected name. If the enumerator located the selected individual's household but the respondent was unavailable and not expected to return in the same day (or was unwilling to participate), the enumerator interviewed an available adult member of the same household. For the endline, we first attempted to recontact the individuals surveyed at midline. Enumerators succeeded in reinterviewing 64 percent of midline respondents. We then randomly selected additional respondents in each barangay from the list of registered voters and contacted them using the same procedures as used during midline until we had achieved fifteen responses per barangay. Respondents were not compensated for their participation. Nearly all surveys occurred in the respondent's home.

Due to the design of the study, blinding was generally not possible: local officials and police

[4]We intended to bloc-randomize on crime quartiles to ensure an even distribution of treatment conditions across baseline public safety levels. However, a coding error resulted in 21 blocs with only a handful of barangays each, plus one bloc with 211 barangays. Simulations using our treatment assignment code show that the probability of assignment to treatment condition does not vary in any meaningful way across blocs. We therefore ignore the blocs and treat all assignments as random with equal probability.

officers knew about the study so they could implement it, and enumerators were aware of each barangay's treatment status. However, survey respondents were not informed about the study's existence, nor of their barangay's treatment status. The Institutional Review Board of the University of California San Diego (the home institution of all three authors at the time of the study implementation) approved all intervention and data collection procedures.

Table 11.2: Summary Statistics at Baseline in Sorsogon Province, Philippines

Outcome Family	Outcome	Range	Mean	SD
Compliance	Foot patrol frequency	1-5	2.13	1.44
	Vehicle patrol frequency	1-5	3.25	1.53
	Community meeting awareness	0-1	0.23	0.42
Crime victimization	Violent crimes (personal)	0-31	0.06	0.62
	Nonviolent crimes (personal)	0-24	0.04	0.47
Perceived future insecurity	Feared violent crime	0-4	2.11	1.60
	Fear nonviolent crime	0-4	2.14	1.55
	Feared walking	0-4	0.74	1.14
Overall perceptions of police	Trust in police	0-4	3.34	0.82
	Trust in service of police	0-4	3.16	0.89
Police abuse	Police abuse	0-1	0.01	0.10
	Bribe frequency	1-4	1.00	0.08
	Bribe amount	0-40	0.02	0.76
Crime reporting	Violent crimes reported (personal)	0-2	0.01	0.08
	Nonviolent crimes reported (personal)	0-1	0.00	0.05
	Burglary resolution	0-1	0.23	0.42
	Domestic abuse resolution	0-1	0.16	0.37
	Armed robbery resolution	0-1	0.48	0.50
Crime tips	Contacted police for suspicious activity	0-1	0.11	0.31
	Gave information to police	0-1	0.08	0.27
Police abuse reporting	Reported drinking on duty	0-4	2.65	1.41
	Reported police beating	0-4	3.00	1.24
	Reported police abuse	0-1	0.01	0.07
Perceived police intentions	Police will investigate	0-4	3.21	0.86
	Police will be fair	0-4	2.97	1.00
	Police are corrupt	0-4	1.07	1.06
	Police serve equally	0-4	3.08	0.92
Cooperation norms	Reporting norm (theft)	0-4	3.00	1.30
	Reporting norm (domestic abuse)	0-4	2.91	1.30
	Obey police norm	0-4	3.72	0.70

Perceived police capacity	Police timeliness	0-4	3.14	0.94
	Police investigation capacity	0-4	3.05	0.93
Perceived police responsiveness	Perceived police responsiveness	0-4	3.17	0.90
Perceived state legitimacy	Perceived state legitimacy	0-4	2.95	0.95
Community trust	Community trust	0-4	3.11	0.94

11.4. Results

Before analyzing any of our data, we preregistered hypotheses and associated tests (Haim, Nanes and Ravanilla, 2019). We begin this section by presenting results from the preregistered tests evaluating the "harmonized" treatment, meaning the treatment arms implemented by all Metaketa IV studies, using the agreed-upon metaketa outcome indexes. First, we evaluate the combined effects of the CEP and POP treatments by comparing survey responses from citizens living in treated barangays to those living in untreated barangays, measured using the endline survey. Broadly speaking, we expect to find lower rates of crime victimization and higher rates of trust in the police, feelings of security, and knowledge of the law among respondents in barangays that received community policing. We then evaluate the effects of CEP alone, that is, information-gathering and community engagement in the absence of any systematic attempt by the police to harness citizen-provided information or implement hyperlocalized solutions. We evaluate CEP by analyzing data from the midline survey conducted after CEP but before POP. We expect CEP to improve trust in the police and willingness to provide information to them, but to have little or no effect on the likelihood of crime victimization.

For all harmonized hypotheses, outcomes are measured as indexes that combine several outcome variables and standardize them as deviations from their preintervention values. Because our baseline survey was conducted before the metaketa group finalized the survey instrument, we cannot use our baseline survey for these purposes. Instead, our indexes are deviations from the mean value of *untreated barangays* measured at *midline.* Our main independent variable is a dummy coded "1" if a barangay received the CEP-POP community policing treatment, otherwise "0." All models in this chapter also control for several cross-randomized treatments that a random subset of treated barangays received, but we exclude their coefficients for space. We use OLS, and we cluster standard errors by barangay, the unit at which the treatment was assigned.

11.4.1 Combined CEP and POP Community Policing

Figure 11.1 shows the results of our tests of the harmonized hypotheses alongside the meta-analytic estimates. Encouragingly, survey respondents in treated barangays reported more

frequent observations of police officers engaging in community policing tasks compared to respondents in control barangays, suggesting that the community policing treatment was implemented as intended (*compliance*).

Like the meta-analysis, we fail to find evidence of any combined impact of the CEP and POP programs on the other primary outcome indexes, including crime victimization, perceived insecurity, perceptions of the police, and other attitudinal outcomes. While coefficients are generally signed as expected—for example, a negative effect of community policing on crime victimization and a positive effect of community policing on norms of cooperation—the estimates are statistically indistinguishable from zero.

FIGURE 11.1 ABOUT HERE

11.4.2 CEP Alone

The models in Figure 11.2 evaluate the effects of the community engagement program on its own by testing the difference in outcomes between treated and untreated barangays measured at midline (that is, after CEP but before POP). We expect that CEP on its own may improve attitudinal outcomes and perceptions of the police, and may induce citizens to behave differently toward the police, but should have little impact on public safety outcomes, since the police do little to harness their improved relationship with the community. A possible exception is that CEP may deter crime if criminals are aware that citizens cooperate more with police. The results show no perceptible differences between treated and untreated barangays on attitudinal outcomes. In no case is the coefficient on the main treatment variable appreciably different from zero, and the r^2 values show that the models explain virtually none of the variance in the dependent variables.

FIGURE 11.2 ABOUT HERE

Our failure to find effects of this intensive community policing program on any of our prespecified outcomes, including citizen perceptions, citizen behaviors, and public safety outcomes, is striking. The PIs and senior members of the field team verified throughout the program that the police were implementing the intervention, and we heard from people throughout the area who were uninvolved in the research that they were aware of the community policing initiative.

Thus, we do not think that a failure to implement the intervention is responsible for the null results.

One possibility is that spillovers between treatment and control barangays allowed control barangays to benefit from the treatment, reducing measurable differences between the two conditions. Figure 11.3 shows the location of all treated and untreated barangays in the study relative to one another. The darkest-shaded barangays received the main community policing treatment. Mid-shaded barangays received the community policing treatment as well as a cross-randomized additional SMS tipline treatment. For the analyses in this chapter, these "CEP with SMS tipline" barangays are pooled with the main CEP treatment barangays. The lightest-shaded barangays are control barangays, while the empty barangays were not included in the study due to security concerns.

The figure illustrates the high potential for spillovers between treated and untreated barangays due to proximity, as well as the necessity of traveling between barangays of different treatment status. For instance, citizens living in control barangays could have been exposed to the treatment either because the police inadvertently implemented it in control barangays or because they traveled to treated barangays. Indeed, during implementation, we observed several of our CEP information stickers on moto-trikes and jeepneys (public buses) that travel throughout barangays assigned to both the treatment and control conditions.

FIGURE 11.3 ABOUT HERE

While spillovers seem plausible and we cannot rule them out entirely, an ex post evaluation of the data fails to show any evidence of spillovers at play. First, if citizens in control barangays had been exposed to the treatment, we should observe similar levels of "uptake" in the form of observed community policing or knowledge of the program between citizens in treatment and control barangays. Yet Figure 11.4 shows that survey respondents living in treatment barangays were overwhelmingly more likely to have been exposed to the community policing treatment.

FIGURE 11.4 ABOUT HERE

Another possibility is that the treatment may have affected public safety in nearby control barangays. Criminals may have been aware of the province-wide initiative and changed

their behavior in both treated and untreated areas. To evaluate whether proximity to a treated barangay influenced crime, we add a control for whether at least one neighboring barangay received the treatment.[5] In total, fourteen barangays were neither assigned the treatment nor have a contiguous neighbor assigned to treatment, eighty-four were assigned to treatment but had at least one neighbor in the control group, twenty-eight were assigned to the treatment group without any neighbors in the control group, and the remainder were both assigned to treatment and neighbored at least one barangay that was also assigned to treatment. Figure 11.A in the chapter's Appendix reveals that controlling for neighboring barangay treatment status does not meaningfully change our results.

Finally, spillovers could occur if arrests in treated barangays reduce the availability of criminals to commit crimes in both treatment and control barangays. To evaluate this mechanism, we explore the effects of the community policing treatment on specific threats to public safety. Some, like theft, drug pushing, and road accidents, do not necessarily occur in either the victim or the perpetrator's home barangay, making them more susceptible to spillovers. Others almost always occur in the home barangay of the involved individuals. Feuds between clans and disputes between neighbors are two such problems common in Sorsogon. About 15 percent of our survey respondents said that they personally had been affected by one or both of these issues in the past six months, making these some of the most common threats to public safety in Sorsogon Province. Because these issues overwhelmingly occur in the perpetrator's home barangay, they should not be affected by higher rates of arrests or other police activity in nearby barangays. Figure 11.5 presents models that show no evidence of such an effect.

FIGURE 11.5 ABOUT HERE

However, we do find evidence of across-the-board change over time on many outcomes in both treatment and control barangays. Results in Figure 11.6 show systematic changes in outcomes *over time* between the midline and endline surveys, but not on the cross-sectional treatment condition indicators. Participants on the endline survey (interviewed at the end of the treatment) report significantly lower rates of *crime victimization*, perceived *insecurity*, and *police*

[5]Using ArcMAP 10.4, we identify contiguous barangays using the "Polygon Neighbors" tool, then merge the resulting list of baragay dyads with our list of treatment assignments.

abuse, and higher *overall perceptions of the police*, *knowledge of the criminal justice system*, *cooperation norms*, *perceived police capacity*, and *community trust*, compared to respondents on the midline survey.[6]

FIGURE 11.6 ABOUT HERE

The improvements we observe in public safety outcomes over time may have been caused by a third factor unrelated to our treatment. For example, there could have been national-level policing initiatives during our study which reduced crime and improved attitudes in all areas of the Philippines, or the economy may have improved in ways that decreased criminal activity. According to the Philippines National Statistics Office, unemployment rates fell from 6.6 percent in January 2017, before the start of our research, to 5 percent in January 2019 after our data collection had concluded.[7] While these figures are for the entire country and not Sorsogon specifically, they could explain an overall decline in criminality. Alternatively, the start of our intervention coincided with the most violent days of President Duterte's drug war, which polarized citizens and painted the police in a negative light in many communities. Although the War on Drugs continued in various forms throughout our period of study, its level of violence declined sharply, perhaps causing improvements in citizens' perceptions of the police.

11.4.3 Digging Deeper into Problem-Oriented Policing

The problem-oriented policing component of our intervention was designed to improve police efficiency by directing resources to locally appropriate uses. The intervention asked police and local government officials to identify and target a specific problem in each participating barangay. The teams selected issues that they believed to be especially problematic, usually based on conversations with citizens, crime statistics, or personal observations. They then designed a strategy to combat that specific issue and spent at least four months implementing their strategy. Thus, beyond community policing's overall effects on public safety, we would like to know how it affected the specific issues on which each POP team focused. The deter-

[6]We observe one temporal effect that runs counter to our hypotheses: respondents on the endline are less likely to have reported a crime to the police compared to those at the midline. We speculate that since this outcome is endogenous to the likelihood of experiencing a crime (one cannot report a crime that did not occur), the observed result likely reflects the lower levels of crime.

[7]See https://tradingeconomics.com/philippines/unemployment-rate

mination of these POP focus crimes occurred after barangays were assigned to treatment, undermining our ability to identify a causal relationship. Still, this exploratory analysis provides additional nuance to the apparent impacts of community policing on public safety.

The four most common issues selected, and the only ones covering at least 7 percent of endline respondents, were juvenile delinquency (35 percent), vehicle accidents (22 percent), public intoxication (20 percent), and thefts (14 percent). Figure 11.7 tests the effect of the POP treatment on three outcomes: perceptions that the police focused on a particular issue during the treatment period, evaluations of how effectively the police dealt with a specific type of crime, and whether respondents were personally victimized by a specific crime in the previous six months. Each of these outcomes references the crime on which the POP team in the respondent's barangay elected to focus, compared to responses about that crime from respondents in POP control barangays. In other words, for a respondent in a barangay where the POP team focused on thefts, we use the set of questions asking about thefts, and compare against the questions about thefts for all control-condition respondents. We use bivariate OLS models with robust standard errors.

Results show that respondents were generally aware of their POP team's focus, with respondents in treatment barangays significantly more likely to say that the police were focusing on the selected issue compared to respondents in control barangays.

FIGURE 11.7 ABOUT HERE

Perceptions of how well the police were dealing with the selected issue were mixed. In barangays where the POP team focused on feuds and thefts, respondents evaluated the police's effectiveness on those issues significantly higher than respondents in the control group. On the other hand, we observe no perceptible difference between treatment and control in evaluations of the police handling public intoxication, while evaluations on juvenile delinquency are slightly lower in treatment compared to control.

Results on personal victimization are somewhat encouraging. Here, we caution that victimization is relatively rare, and dividing the data into this many subgroups leaves very little statistical power. Still, Figure 11.7 shows that in barangays where the POP team focused on feuds or public intoxication, respondents were significantly less likely to have been the victim

of this issue (meaning harassed by a drunk person in the latter case) compared to respondents in the control group. On the other hand, we do not observe any perceptible effect of the POP treatment on juvenile delinquency or theft.

11.5. Discussion

On the whole, our results are consistent with the overall metaketa findings. We fail to find evidence that community policing improves public safety. While we find lower rates of certain crimes in barangays whose problem-oriented policing teams focused specifically on those crimes, we fail to find evidence of the mechanisms through which we theorize community policing to work: improved trust in the police, perceptions of legitimacy and competence, and willingness to provide information. We observe a general improvement on these outcomes over the course of the study in both treatment and control barangays, but we think the most likely explanation involves an outside factor such as improvements in the economy or changes in national-level policing policies.

These results suggest that perhaps researchers and policymakers should moderate expectations of community policing. When we tasked law enforcement officers and local officials with identifying the most important issues in their locality and, through POP, focusing their efforts on improving public safety related to those issues, there was evidence of some improvement on those specific issues. Yet the POP teams selected issues based not only on how serious they were but also on their expected ability to address them with the resources at hand. Many of the barangays in our sample were in rural, hard-to-reach areas where barangay leadership and tanods deal with local threats to public safety without the benefit of regular police presence. As a result, most barangays chose issues their local leadership could deal with directly and without significant long-term costs. These included neighborhood disputes, traffic accidents, juvenile delinquency, and public intoxication. Very few POP teams attempted to focus on more serious crimes like armed robbery, burglary, and assaults, presumably not because they believed them to be unimportant but because they were pessimistic about the program's ability to have an impact on them. In addition, because the POP teams focused on issues that are mostly handled by barangay leadership and local tanods, the intervention failed to impact citizens' perceptions of the PNP.

Our intervention was also limited by practical concerns. Like most policy interventions, ours faced a tension between the desire to blanket the population with the strongest possible combination of treatments to ensure a measurable effect and the desire to implement a treatment that was limited enough to (1) identify causal mechanisms and (2) retain a semblance of realism. Had our treatment generated hundreds of thousands of informal police-citizen contacts, daily problem-oriented policing meetings in every treated barangay, massive additional resources for patrols and infrastructure, improved mechanisms for citizen information reporting, and a complete reorganization of policing to give each barangay total control over public safety, we almost certainly would have observed measurable changes in outcomes. Yet such a study would not have provided much clarity on which portions of the intervention were responsible for any observed changes. At the same time, proving the effectiveness of a program that is too expensive to see the light of day would serve little purpose. Instead, future field experiments on community policing should continue to evaluate realistic, context-appropriate interventions that allow for the isolation of potential mechanisms, while ensuring that the evaluation procedures match both the specific treatment being implemented and the local context.

11.A. Appendix

11.A.1 Balance

Due to our study's timing, we do not have pretreatment measures on most key outcomes. We do, however, have data from the 2010 census. Table 11.A shows that treatment assignment was generally uncorrelated with demographic variables.

Table 11.A: Pretreatment Means in Sorsogon Province, Philippines

Variable	**Control Mean (Std. Error)**	**Treatment Mean (Std. Error)**	**Difference**
Barangays	*100*	*198*	
Population	1005.9 (101.8)	937.4 (41.6)	68.5
Pct. Male	0.502 (0.0019)	0.500 (0.0013)	0.002
HH Size	3.37 (0.05)	3.26 (.03)	0.11*
Overseas Foreign Workers	0.012 (0.0010)	0.011 (0.0008)	0.001
Education	1.91 (0.029)	1.86 (0.019)	0.048
Pct. Ages 18-39	0.538 (0.0044)	0.536 (0.0032)	0.002
Pct. Single	0.289 (0.0049)	0.279 (0.0030)	0.010*
Pct. Catholic	0.951 (0.0037)	0.954 (0.0026)	-0.003

* $p < .10$

11.A.2 Ethical Considerations and Research Challenges

This study, like some others in this volume, presented special challenges to research ethics due to our partnership with a police department with a history of extrajudicial violence. In particular, our study coincided with President Rodrigo Duterte's War on Drugs, a policy initiative aimed at "neutralizing" individuals involved in drug trafficking and dealing. While the exact number of deaths under the program remains in dispute, there is no doubt that it led to a substantial amount of violence by police officers, including accusations of extrajudicial killings and

Table 11.B: Balance on Re-Contacted Status in Sorsogon Province, Philippines

	(1)
Age	0.00271***
	(0.000703)
Education	-0.0251***
	(0.00715)
Employment	-0.00317
	(0.00614)
Income	-1.193
	(5.753)
Yrs. in Barangay	0.000790***
	(0.000286)
Male	-0.177***
	(0.0213)
Crime (Barangay)	1.081
	(3.258)
Constant	0.596***
	(0.0444)
Observations	2877
R^2	0.053

OLS with barangay-clustered SE in parentheses.
* $p < .10$, ** $p < .05$, *** $p < .01$

Subjects who were successfully re-contacted for the endline after participating in the midline exhibited several differences, compared to those who could not be re-contacted, as measured at midline.

unjustified uses of force.[8]

In this context, the primary ethical risk facing the study was that enhancing the police's effectiveness could bolster the police's capacity for committing violence. If the police's motives were not sound, building police capacity could backfire by contributing to more extrajudicial killings rather than enhancing public safety.

Despite these challenges, we felt comfortable partnering with the Sorsogon Provincial Police for the following reasons:

- Even though the PNP is a national institution, with local officers receiving orders from a chain of command that initiates in Manila, provincial police leadership retains substantial autonomy over policing policy within their province. The leadership in Sorsogon gave no indication that the government's antidrug program was relevant to their area.

- Consistent with the above observation, very little antidrug violence occurred in Sorsogon Province. Throughout the initiative, and especially after November 2016, a disproportionate number of fatal antidrug operations occurred in the metro Manila area, hundreds of miles from our research (Atun et al., 2019). Only 2.4 percent of all antidrug deaths are estimated to have occurred in the Bicol Region. (Sorsogon is one of six provinces in Bicol.) Whether measured in absolute numbers of deaths or as a proportion of population, Sorsogon had less antidrug violence than nearly all other provinces in the country (Atun et al., 2019).

- Our community policing initiative emphasized refocusing on local issues rather than nationally driven policing policy. Given the overwhelming emphasis from police headquarters in Manila on antidrug operations, any shift toward a locally determined policy would necessarily de-emphasize antidrug operations.

We took the following steps to ensure that our study maintained the highest possible ethical standards throughout the research process:

- We conducted all procedures under the approval of the University of California San

[8]Human Rights Watch puts the total number of program-related deaths at over 12,000, while the police said in February 2019 that its officers killed 5,176 individuals in antidrug operations, with an additional 22,983 potential drug-related deaths under investigation (Atun et al., 2019).

Diego's Institutional Review Board. All three authors were at UCSD when the project began. We subsequently obtained approval from the IRBs at Saint Louis University, Dartmouth College, and American University after Nanes and Haim moved while the project was underway.

- Intervention and data-collection procedures were discussed at length with academics familiar with the Philippines context, as well as local research staff from Sorsogon Province, before being implemented.
- We discussed all foreseeable ethical issues with the Metaketa IV steering committee before program implementation and submitted quarterly reports assessing risks to the steering committee.
- We maintained a permanent presence in Sorsogon throughout program implementation. When possible, one or more of the PIs was in Sorsogon. At all other times, a senior research manager in Sorsogon was assigned to the project full-time and maintained constant communication with the PIs.
- Our treatment explicitly avoided providing the PNP with weapons or other infrastructure that could be used to harm citizens.

In addition to ethical concerns surrounding the drug war, we took substantial efforts to ensure that the intervention would not pose additional risks to participants, police officers, or community members stemming from the ongoing NPA insurgency. We took the following steps to remove from our study sample all barangays where there was substantial risk for NPA attacks on police officers or research staff, active military attacks against the NPA, or NPA/government intimidation of civilians for the purpose of gaining an upper hand in the conflict. The following bullet points outline the steps we took to establish a study sample of "safe" barangays.

- The first step of our procedure was to consult Armed Forces of the Philippines intelligence reports shared with the PNP. The AFP shares these reports with the PNP in order to prevent the PNP from operating in areas that pose a danger to their security. In Sorsogon, and the Philippines more broadly, the AFP is normally considered to have authority

over areas that are NPA-affected, while the PNP is considered to have jurisdiction in non-threatened areas. In order to operate more than five kilometers from the municipal center or in any zone designated as unsafe by the AFP, the PNP requires advance clearance from the AFP. The PNP is expected to foot the bill for AFP advance patrols and information-gathering activity, resulting in the PNP generally being unwilling to operate in these areas. Our research team regularly conferred with provincial and municipal PNP leadership to ensure that none of the barangays in our sample were designated as unsafe for the intervention.

- While the PNP has a substantial incentive to avoid areas where insurgency might pose a risk to officer safety, we validated our sample of barangays with an extensive network of local experts and civilian leaders before proceeding with the intervention. Ravanilla, one of the PIs on this project, is a native of Sorsogon Province and maintains a number of important contacts across the province, who helped review the sample barangays for this project. In addition, our local IPA research manager, Grace Labalan, has been conducting research projects in Sorsogon continuously over the course of the last decade, affording her with an extensive knowledge of local conflict dynamics. Ms. Labalan conferred with multiple civilian community leaders in every municipality of our sample (including with individuals with contacts in the NPA) to confirm the safety of the intervention and research activities in all barangays.

11.A.3 Results

FIGURE 11.A ABOUT HERE

Table 11.C:
Effects of Community Policing in Sorsogon Province, Philippines

Hyp.	Outcome	Estimate	S.E.	Conf. Int.	p-value	Adj. p-value
C	Compliance idx.	0.276	0.111	(0.056, 0.496)	0.014	
1a	Crime victimization idx.	-0.075	0.046	(-0.165, 0.016)	0.105	0.570
1b	Perceived future insecurity idx.	0.037	0.058	(-0.077, 0.151)	0.525	0.735
2	Overall perceptions of police idx.	0.020	0.066	(-0.110, 0.150)	0.762	0.860
3b	Police abuse idx.	-0.035	0.033	(-0.101, 0.031)	0.301	0.701
4a	Crime reporting idx.	-0.040	0.058	(-0.155, 0.075)	0.496	0.735
4b	Crime tips idx.	-0.065	0.047	(-0.158, 0.027)	0.163	0.570
4c	Police abuse reporting idx.	-0.007	0.038	(-0.081, 0.068)	0.860	0.860
M1a	Perceived police intentions idx.	-0.036	0.060	(-0.154, 0.082)	0.551	
M1c	Cooperation norms idx.	0.010	0.054	(-0.097, 0.116)	0.859	
M2a	Perceived police capacity idx.	-0.004	0.068	(-0.137, 0.130)	0.956	
S1	Perceived state legitimacy	0.005	0.061	(-0.115, 0.125)	0.933	
S2	Community trust	-0.029	0.065	(-0.157, 0.100)	0.659	

Corresponds to Figure 11.1.

Table 11.D:
Constituent Outcomes and Indices Hypotheses in Sorsogon Province, Philippines

Hyp.	Outcome	Estimate	S.E.	Conf. Int.	p-value	Adj. p-value
C	Foot patrol frequency	0.163	0.102	(-0.039, 0.366)	0.113	
C	Vehicle patrol frequency	0.233	0.127	(-0.018, 0.483)	0.069	
C	Community meeting awareness	0.107	0.068	(-0.028, 0.242)	0.119	
1a	Violent crimes (personal)	-0.001	0.035	(-0.070, 0.069)	0.986	0.986
1a	Armed robbery (personal)	-0.029	0.027	(-0.083, 0.024)	0.281	
1a	Simple assault (personal)	0.082	0.068	(-0.052, 0.217)	0.229	
1a	Other violent crimes (personal)	-0.024	0.037	(-0.096, 0.048)	0.513	
1a	Nonviolent crimes (personal)	-0.033	0.031	(-0.096, 0.029)	0.288	0.617
1a	Burglary (personal)	-0.033	0.031	(-0.094, 0.029)	0.298	
1a	Other nonviolent crimes (personal)	-0.010	0.051	(-0.111, 0.091)	0.850	

1a	Violent crimes (community)	-0.027	0.058	(-0.143, 0.088)	0.642	0.803
1a	Armed robbery (community)	-0.015	0.041	(-0.095, 0.065)	0.710	
1a	Aggravated assault (community)	-0.019	0.041	(-0.099, 0.062)	0.642	
1a	Simple assault (community)	-0.064	0.048	(-0.158, 0.030)	0.180	
1a	Sexual assault (community)	-0.001	0.064	(-0.128, 0.125)	0.984	
1a	Domestic abuse (community)	0.000	0.040	(-0.079, 0.079)	0.997	
1a	Murder (community)	0.074	0.111	(-0.147, 0.294)	0.510	
1a	Other violent crimes (community)	0.066	0.073	(-0.079, 0.210)	0.370	
1a	Non-violent crimes (community)	-0.097	0.046	(-0.189, -0.006)	0.037	0.185
1a	Burglary (community)	-0.101	0.047	(-0.193, -0.009)	0.032	
1a	Other nonviolent crimes (community)	0.014	0.061	(-0.107, 0.135)	0.816	
1b	Feared violent crime	0.058	0.064	(-0.070, 0.185)	0.371	0.557
1b	Fear nonviolent crime	0.071	0.062	(-0.052, 0.194)	0.254	0.557
1b	Feared walking	0.001	0.053	(-0.103, 0.105)	0.986	0.986
2	Trust in police	0.007	0.066	(-0.125, 0.138)	0.921	0.921
2	Trust in service of police	0.031	0.059	(-0.086, 0.148)	0.600	0.921
3b	Police abuse	-0.036	0.043	(-0.121, 0.050)	0.413	0.826
3b	Police abuse	-0.015	0.039	(-0.091, 0.062)	0.701	0.935
3b	Bribe frequency	0.003	0.046	(-0.088, 0.093)	0.955	0.955
3b	Bribe amount	-0.040	0.026	(-0.092, 0.012)	0.131	0.526
4a	Violent crimes reported (personal)	0.012	0.047	(-0.081, 0.105)	0.798	0.905
4a	Nonviolent crimes reported (personal)	0.006	0.046	(-0.086, 0.097)	0.905	0.905
4a	Violent crimes reported (community)	0.074	0.099	(-0.121, 0.270)	0.453	0.755
4a	Nonviolent crime reported (community)	-0.081	0.044	(-0.167, 0.005)	0.066	0.166
4a	Resolution of crime index	-0.138	0.056	(-0.250, -0.027)	0.016	0.078
4a	Burglary resolution	-0.095	0.055	(-0.203, 0.014)	0.087	
4a	Domestic abuse resolution	-0.097	0.049	(-0.193, -0.001)	0.049	
4a	Armed robbery resolution	-0.109	0.054	(-0.215, -0.002)	0.045	
4b	Contacted police for suspicious activity	-0.060	0.049	(-0.156, 0.037)	0.223	0.223
4b	Gave information to police	-0.059	0.042	(-0.142, 0.025)	0.170	0.223
4c	Reported drinking on duty	0.059	0.044	(-0.028, 0.146)	0.180	0.541
4c	Reported police beating	0.025	0.047	(-0.068, 0.117)	0.599	0.856
4c	Reported police abuse	-0.009	0.047	(-0.101, 0.084)	0.856	0.856
M1a	Police will investigate	-0.021	0.061	(-0.142, 0.100)	0.733	

M1a	Police will be fair	0.001	0.050	(-0.097, 0.099)	0.986
M1a	Police are corrupt	-0.059	0.066	(-0.189, 0.070)	0.366
M1c	Reporting norm (theft)	0.022	0.053	(-0.084, 0.127)	0.682
M1c	Reporting norm (domestic abuse)	0.015	0.057	(-0.097, 0.127)	0.789
M1c	Obey police norm	-0.014	0.046	(-0.104, 0.077)	0.767
M2a	Police timeliness	-0.001	0.065	(-0.130, 0.129)	0.992
M2a	Police investigation capacity	-0.004	0.064	(-0.132, 0.123)	0.949
S1	Perceived state legitimacy	0.005	0.061	(-0.115, 0.125)	0.933
S2	Community trust	-0.029	0.065	(-0.157, 0.100)	0.659

Table 11.E:
Effects of Community Engagement Program in Sorsogon Province, Philippines

Hyp.	Outcome	Estimate	S.E.	Conf. Int.	p-value	Adj. p-value
C	Compliance	-0.123	0.066	(-0.253, 0.007)	0.065	
1a	Crime victimization	0.014	0.036	(-0.056, 0.085)	0.689	0.886
1b	Perceived future insecurity	0.027	0.045	(-0.061, 0.115)	0.551	0.886
2	Overall perceptions of police	-0.007	0.051	(-0.107, 0.093)	0.894	0.894
3b	Police abuse	-0.012	0.024	(-0.060, 0.036)	0.623	0.886
4a	Crime reporting	-0.016	0.038	(-0.090, 0.058)	0.676	0.886
4c	Police abuse reporting	0.014	0.042	(-0.069, 0.097)	0.738	0.886
M1a	Perceived police intentions	-0.031	0.046	(-0.121, 0.059)	0.497	
M1b	Knowledge of criminal justice	-0.005	0.029	(-0.062, 0.052)	0.854	
M1c	Cooperation norms	-0.047	0.043	(-0.133, 0.038)	0.274	
M2a	Perceived police capacity	-0.049	0.050	(-0.148, 0.050)	0.327	
S1	Perceived state legitimacy	-0.031	0.050	(-0.129, 0.066)	0.528	
S2	Community trust	-0.087	0.053	(-0.190, 0.017)	0.101	

Corresponds to Figure 11.2.

Table 11.F:
Effects of Problem-Oriented Policing in Sorsogon Province, Philippines

Hyp.	Outcome	Estimate	S.E.	Conf. Int.	p-value	Adj. p-value
C	Compliance	-0.074	0.067	(-0.206, 0.058)	0.268	
1a	Crime victimization	-0.119	0.069	(-0.256, 0.017)	0.087	0.260
1b	Perceived future insecurity	0.079	0.063	(-0.045, 0.203)	0.209	0.309
2	Overall perceptions of police	-0.053	0.063	(-0.179, 0.072)	0.401	0.401
3b	Police abuse	-0.047	0.025	(-0.097, 0.003)	0.066	0.260
4a	Crime reporting	-0.058	0.038	(-0.134, 0.018)	0.133	0.267
4c	Police abuse reporting	0.066	0.058	(-0.049, 0.180)	0.258	0.309
M1a	Perceived police intentions	-0.036	0.056	(-0.147, 0.074)	0.519	
M1b	Knowledge of criminal justice	0.009	0.041	(-0.073, 0.090)	0.831	
M1c	Cooperation norms	-0.023	0.052	(-0.126, 0.080)	0.657	
M2a	Perceived police capacity	-0.054	0.061	(-0.176, 0.068)	0.380	
S1	Perceived state legitimacy	-0.024	0.073	(-0.169, 0.120)	0.739	
S2	Community trust	-0.073	0.075	(-0.221, 0.075)	0.332	

Table 11.G:
Effects of Time on Outcome Measures in Sorsogon Province, Philippines

Hyp.	Outcome	Term	Estimate	S.E.	Conf. Int.	p-value	Adj. p-value
C	Compliance	Treated	-0.131	0.070	(-0.270, 0.007)	0.062	
C	Compliance	Endline	-0.050	0.019	(-0.088, -0.012)	0.010	
1a	Crime victimization	Treated	-0.045	0.035	(-0.114, 0.024)	0.199	0.399
1a	Crime victimization	Endline	-0.057	0.021	(-0.098, -0.017)	0.006	0.009
1b	Perceived future insecurity	Treated	0.053	0.039	(-0.025, 0.130)	0.180	0.399
1b	Perceived future insecurity	Endline	-0.243	0.023	(-0.288, -0.198)	0.000	0.000
2	Overall perceptions of police	Treated	0.033	0.046	(-0.058, 0.124)	0.473	0.520
2	Overall perceptions of police	Endline	0.064	0.023	(0.019, 0.110)	0.006	0.009
3b	Police abuse	Treated	-0.024	0.015	(-0.054, 0.006)	0.119	0.399
3b	Police abuse	Endline	-0.029	0.012	(-0.052, -0.006)	0.015	0.018
4a	Crime reporting	Treated	-0.029	0.030	(-0.089, 0.030)	0.330	0.494

4a	Crime reporting	Endline	-0.075	0.015	(-0.105, -0.046)	0.000	0.000
4c	Police abuse reporting	Treated	0.021	0.033	(-0.044, 0.086)	0.520	0.520
4c	Police abuse reporting	Endline	-0.003	0.020	(-0.043, 0.036)	0.873	0.873
M1a	Perceived police intentions	Treated	0.004	0.040	(-0.076, 0.083)	0.927	
M1a	Perceived police intentions	Endline	0.036	0.020	(-0.004, 0.076)	0.076	
M1b	Knowledge of criminal justice	Treated	0.044	0.025	(-0.004, 0.093)	0.075	
M1b	Knowledge of criminal justice	Endline	0.093	0.014	(0.064, 0.121)	0.000	
M1c	Cooperation norms	Treated	-0.006	0.034	(-0.072, 0.061)	0.863	
M1c	Cooperation norms	Endline	0.085	0.020	(0.046, 0.124)	0.000	
M2a	Perceived police capacity	Treated	-0.006	0.047	(-0.099, 0.086)	0.896	
M2a	Perceived police capacity	Endline	0.045	0.022	(0.001, 0.088)	0.044	
S1	Perceived state legitimacy	Treated	0.003	0.044	(-0.085, 0.090)	0.953	
S1	Perceived state legitimacy	Endline	0.000	0.026	(-0.050, 0.051)	0.990	
S2	Community trust	Treated	-0.015	0.051	(-0.116, 0.085)	0.767	
S2	Community trust	Endline	0.063	0.024	(0.015, 0.110)	0.010	

Corresponds to Figure 11.6.

Table 11.H:
Effects of Neighbor Treatment Status in Sorsogon Province, Philippines

Hyp.	Outcome	Term	Estimate	S.E.	Conf. Int.	p-value	Adj. p-value
C	Compliance	Treated	-0.118	0.076	(-0.268, 0.033)	0.123	
C	Compliance	Nbr Treated	0.033	0.090	(-0.146, 0.211)	0.718	
1a	Crime victimization	Treated	-0.067	0.043	(-0.153, 0.019)	0.124	0.503
1a	Crime victimization	Nbr Treated	0.029	0.061	(-0.092, 0.150)	0.634	0.828
1b	Perceived future insecurity	Treated	0.043	0.053	(-0.062, 0.147)	0.419	0.503
1b	Perceived future insecurity	Nbr Treated	-0.010	0.062	(-0.133, 0.112)	0.867	0.867
2	Overall perceptions of police	Treated	0.016	0.057	(-0.096, 0.128)	0.782	0.782
2	Overall perceptions of police	Nbr Treated	0.042	0.069	(-0.095, 0.179)	0.541	0.828
3b	Police abuse	Treated	-0.018	0.020	(-0.058, 0.023)	0.391	0.503
3b	Police abuse	Nbr Treated	0.007	0.018	(-0.028, 0.042)	0.690	0.828
4a	Crime reporting	Treated	-0.031	0.032	(-0.094, 0.031)	0.326	0.503
4a	Crime reporting	Nbr Treated	0.036	0.035	(-0.033, 0.106)	0.302	0.828

4c	Police abuse reporting	Treated	0.051	0.040	(-0.028, 0.131)	0.205	0.503
4c	Police abuse reporting	Nbr Treated	0.057	0.048	(-0.038, 0.151)	0.237	0.828
M1a	Perceived police intentions	Treated	0.002	0.049	(-0.095, 0.099)	0.969	
M1a	Perceived police intentions	Nbr Treated	0.028	0.057	(-0.085, 0.140)	0.626	
M1b	Knowledge of criminal justice	Treated	0.057	0.031	(-0.005, 0.119)	0.070	
M1b	Knowledge of criminal justice	Nbr Treated	-0.012	0.034	(-0.080, 0.056)	0.722	
M1c	Cooperation norms	Treated	0.026	0.040	(-0.054, 0.106)	0.520	
M1c	Cooperation norms	Nbr Treated	0.064	0.046	(-0.027, 0.154)	0.166	
M2a	Perceived police capacity	Treated	-0.014	0.058	(-0.129, 0.100)	0.803	
M2a	Perceived police capacity	Nbr Treated	-0.027	0.070	(-0.166, 0.111)	0.696	
S1	Perceived state legitimacy	Treated	0.002	0.058	(-0.113, 0.116)	0.978	
S1	Perceived state legitimacy	Nbr Treated	0.034	0.063	(-0.091, 0.159)	0.592	
S2	Community trust	Treated	-0.035	0.060	(-0.154, 0.084)	0.559	
S2	Community trust	Nbr Treated	-0.031	0.076	(-0.181, 0.119)	0.686	

Table 11.I:
Effects on Specific Types of Crime in Sorsogon Province, Philippines

Outcome	Estimate	S.E.	Conf. Int.	p-value
Theft	-0.019	0.012	(-0.042, 0.004)	0.101
Family Feuds	0.002	0.014	(-0.026, 0.030)	0.877
Neighbor Disputes	-0.008	0.012	(-0.032, 0.016)	0.518
Drugs	-0.005	0.003	(-0.011, 0.001)	0.078
Public Intoxication	-0.020	0.013	(-0.046, 0.005)	0.118
NPA Insurgency	0.000	0.003	(-0.007, 0.006)	0.896
Juvenile Delinquency	-0.005	0.008	(-0.021, 0.012)	0.577
Vehicle Accidents	-0.015	0.012	(-0.038, 0.008)	0.201

Corresponds to Figure 11.5.