

RESEARCH ARTICLE SUMMARY

COMMUNITY POLICING

Community policing does not build citizen trust in police or reduce crime in the Global South

Graeme Blair*, Jeremy M. Weinstein, Fotini Christia, Eric Arias, Emile Badran, Robert A. Blair, Ali Cheema, Ahsan Farooqui, Thiemo Fetzer, Guy Grossman, Dotan Haim, Zulfiqar Hameed, Rebecca Hanson, Ali Hasanain, Dorothy Kronick, Benjamin S. Morse, Robert Muggah, Fatiq Nadeem, Lily L. Tsai, Matthew Nanes, Tara Slough, Nico Ravanilla, Jacob N. Shapiro, Barbara Silva, Pedro C. L. Souza, Anna M. Wilke

INTRODUCTION: More than one-fourth of the world's population lives in conditions of insecurity because of high levels of crime and violence, especially in the Global South. Although the police are central to reducing crime and violence, they are also often perpetrators of unjust harm against citizens. We investigated the effects of community policing, a set of practices designed to build trust between citizens and police, increase the co-production of public safety, and reduce crime. Community policing is meant to improve outcomes by increasing engagement between citizens and police through increased foot patrols, community meetings, and the

adoption of problem-oriented policing strategies that address concerns raised by citizens. When cooperation leads to effective police responses, this approach reinforces citizen trust and facilitates further cooperation, creating a virtuous cycle. Community policing has been implemented around the world on every continent. However, although there is evidence for its positive effects in rich countries, there is no systematic evidence about whether community policing effectively generates trust and reduces crime in the Global South.

RATIONALE: Working in partnership with local police agencies, we conducted six coordinated

field experiments in Brazil, Colombia, Liberia, Pakistan, the Philippines, and Uganda. We collaborated with the police to implement locally appropriate increases in community policing practices. We planned for risks involved in partnering with the police by soliciting reports of police abuse and carefully selecting the areas we worked in and the police units we partnered with. We randomly assigned areas to either the community policing practices or a control group. Our interventions reached approximately 9 million people in 516 treated areas. At end line, we surveyed 18,382 citizens and 874 police officers and obtained crime data from the police. We conducted experiments in multiple settings with common measures to strengthen the generalizability of our findings and pre-registered a joint analysis of the six studies to reduce the risk of publication bias.

RESULTS: Increases in locally appropriate community policing practices led to no improvements in citizen-police trust, no greater citizen cooperation with the police, and no reduction in crime in any of the six sites. Despite a strong commitment from leadership in each context at the outset, the police implemented the interventions unevenly and incompletely. Although citizens reported more frequent and robust exposure to the police in places where community policing was implemented, we have limited evidence of police action in response to citizen reports. Three implementation challenges common to police reforms may have contributed to these disappointing results: a lack of sustained buy-in from police leadership, frequent rotation of police leadership and their officers, and a lack of resources to respond to issues raised by citizens.

CONCLUSION: At a time when police departments around the world are considering reform efforts to foster greater trust between citizens and the police, it is more important than ever to ask hard questions about the evidence base for the most popular reform proposals. In contexts with limited incentives and resources to change, the results of our coordinated experiments deliver a clear message. Community policing does not, at least immediately and on its own, lead to major improvements in citizen-police relations or reductions in crime. Structural reforms to the police may be needed to successfully reduce crime while building greater police accountability to citizens. ■



Evaluating community policing. In six field experiments across the Global South conducted in partnership with local police agencies, we assessed the effectiveness of community policing. We found that community policing does not improve citizen-police trust or cooperation and does not reduce crime.

The list of author affiliations is available in the full article online.

*Corresponding author. Email: graeme.blair@ucla.edu

Cite this article as G. Blair et al., *Science* 374, eabd3446 (2021). DOI: 10.1126/science.abd3446

S READ THE FULL ARTICLE AT
<https://doi.org/10.1126/science.abd3446>

RESEARCH ARTICLE

COMMUNITY POLICING

Community policing does not build citizen trust in police or reduce crime in the Global South

Graeme Blair^{1*}, Jeremy M. Weinstein², Fotini Christia³, Eric Arias⁴, Emile Badran⁵, Robert A. Blair^{6,7}, Ali Cheema⁸, Ahsan Farooqui⁹, Thiemo Fetzer¹⁰, Guy Grossman¹¹, Dotan Haim¹², Zulfiqar Hameed¹³, Rebecca Hanson^{14,15}, Ali Hasanain⁸, Dorothy Kronick¹¹, Benjamin S. Morse¹⁶, Robert Muggah⁵, Fatiq Nadeem¹⁷, Lily L. Tsai³, Matthew Nanes¹⁸, Tara Slough¹⁹, Nico Ravanilla²⁰, Jacob N. Shapiro²¹, Barbara Silva⁵, Pedro C. L. Souza¹⁰, Anna M. Wilke²²

Is it possible to reduce crime without exacerbating adversarial relationships between police and citizens? Community policing is a celebrated reform with that aim, which is now adopted on six continents. However, the evidence base is limited, studying reform components in isolation in a limited set of countries, and remaining largely silent on citizen-police trust. We designed six field experiments with Global South police agencies to study locally designed models of community policing using coordinated measures of crime and the attitudes and behaviors of citizens and police. In a preregistered meta-analysis, we found that these interventions led to mixed implementation, largely failed to improve citizen-police relations, and did not reduce crime. Societies may need to implement structural changes first for incremental police reforms such as community policing to succeed.

How can societies effectively reduce crime and insecurity? One important answer begins with the police (1, 2). Since the origins of modern policing in the early 1800s, societies around the world have relied on a professional, uniformed, and regulated authority to prevent crime and maintain order (3). But the creation of modern policing generated problems of its own: the lack of independence of police from political influence

(4, 5), the misuse of coercive capability (6, 7), and the challenge of maintaining the respect, approval, and cooperation of the public (8–10). Many policing innovations intended to reduce crime have backfired by eroding citizen-police relations, including stop-and-frisk, zero-tolerance policies, broken windows policing, and militarized policing (11–15).

Perhaps the most celebrated approach in recent decades to address both crime and citizen-police trust has been community policing. Broadly, community policing departs from traditional policing by “involv[ing] average citizens directly in the police process” to build channels of dialogue and improve police-citizen collaboration (16). Community policing programs often involve increasing the frequency of beat patrols, decentralized decision-making, community engagement programs such as town halls, and problem-oriented policing programs to act on information from citizens to prevent crime (17, 18). By expanding opportunities for communication and engagement, community policing is designed to generate trust and build more effective police agencies in environments of low trust (16, 17, 19).

The first compelling evidence for the utility of this approach emerged from Chicago’s Alternative Policing Strategy (CAPS) in the early 1990s. Introduced in stages to facilitate careful study, researchers reported improving conditions in the targeted neighborhoods, better relationships between police and residents, higher levels of community involvement, and greater satisfaction with the police and public services (19). Inspired by these effects, community policing took off in the following years. By 2015, nearly all large US cities of >250,000 people explicitly identified community policing

as a core element of their mission (20). Although this commitment to community policing reflected a shared view that the police and public should be “coproducers of safety” and take a proactive approach to crime prevention, the actual strategies deployed across contexts were highly heterogeneous.

A reform that had its origins in practices pioneered in the United States and United Kingdom is increasingly advanced as a solution to the mistrust that characterizes citizen-police relations in many countries in the Global South. Along with hot-spots policing (21), it is one of the United States’ most frequently exported policing practices. Police agencies have implemented community policing on six continents; the policy is promoted locally by police forces and externally by donors (22–24). The International Council of Chiefs of Police encourages police agencies to adopt community policing as “the key operational philosophy in mission statements, strategic plans, and leadership development programs” (25).

In this study, we asked: Can community policing reduce crime and also build trust in the police in the Global South? The challenge in answering this question is that there is no single model of community policing. Instead, community policing is an organizational strategy that involves police and residents working together to set priorities and organize activities. Informed by a commitment to citizen involvement, problem-solving, and decentralization, this organizational strategy necessitates localization, with the specific activities, projects, and programs emerging in each context from dialogue and engagement. As a result, investigating the effects of community policing means asking how police departments operationalize these concepts in different contexts and whether their localized applications have comparable effects. We tackled the challenge of assessing these context-specific effects through a coordinated multisite randomized trial of community policing practices in six contexts across the Global South.

Our results add to an evidence base on community policing that, despite the great enthusiasm of professionals advocating its adoption around the world, is mixed and incomplete. A 2017 review by a panel of the National Academy of Sciences emphasized how difficult it is to generalize about the possible effects of community policing given the highly variable set of activities undertaken by the police in different contexts. Our systematic review identified 43 randomized trials, most of which study two subcomponents of community policing: increasing police presence in communities (e.g., through foot patrols) and problem-oriented policing. The weight of evidence suggests that these interventions reduce crime, but several studies have found mixed or null

¹Department of Political Science, University of California–Los Angeles, Los Angeles, CA 90095, USA. ²Department of Political Science, Stanford University, Stanford, CA 94305, USA. ³Department of Political Science, Massachusetts Institute of Technology, Cambridge, MA 02139, USA.

⁴Equitable Growth, Finance, and Institutions Practice Group, World Bank Group, Bouchard 547, Piso 29, CP1106, Buenos Aires, Argentina. ⁵Garapé Institute, Rio de Janeiro, Brazil 22281. ⁶Department of Political Science, Brown University, Providence, RI 02912, USA. ⁷Watson Institute for International and Public Affairs, Brown University, Providence, RI 02912, USA. ⁸Department of Economics, Lahore University of Management Sciences, Lahore, Pakistan 54792. ⁹Institute of Development and Economic Alternatives, Lahore, Pakistan 54000. ¹⁰School of Economics and Finance, Queen Mary University of London, London E14NS, UK.

¹¹Department of Political Science, University of Pennsylvania, Philadelphia, PA 19104, USA. ¹²Department of Political Science, Florida State University, Tallahassee, FL 32306, USA. ¹³Punjab Police, Government of Punjab, Lahore, Pakistan 54000. ¹⁴Center for Latin American Studies, University of Florida, Gainesville, FL 32611, USA.

¹⁵Department of Sociology, Criminology, & Law, University of Florida, Gainesville, FL 32611, USA. ¹⁶Social Impact, Arlington, VA 22201, USA. ¹⁷Bren School, University of California–Santa Barbara, Santa Barbara, CA 93117, USA. ¹⁸Department of Political Science, Saint Louis University, St. Louis, MO 63103, USA. ¹⁹Wilf Family Department of Politics, New York University, New York City, NY, 10003, USA.

²⁰School of Global Policy and Strategy, University of California–San Diego, La Jolla, CA 92093, USA. ²¹Department of Politics, Princeton University, Princeton, NJ 08544, USA. ²²Department of Political Science, Columbia University, New York, NY, 10027, USA.

*Corresponding author. Email: graeme.blair@ucla.edu

results, especially for community-presence interventions. There is little evidence on how these interventions affect perceptions of insecurity or the frequency of police abuse. Moreover, there is little evidence on other standard components of community policing, including community meetings and tiplines. Most notably, the studies are mainly from the United States, the United Kingdom, and Australia. A very small number come from the Global South (26–35).

To study the design and impact of community policing interventions across diverse contexts, we partnered with police departments in Santa Catarina State in Brazil; the city of Medellín in Colombia; Liberia's capital city, Monrovia; Sorsogon Province in the Philippines; rural areas throughout Uganda; and two districts in Punjab province in Pakistan. We collaborated with the relevant local or national police agency at each site, which implemented a locally appropriate community policing intervention. Informed by global best practices, the interventions had a core set of common elements across all six contexts but also included features that built on existing approaches in each agency. The police implemented the community policing interventions in 707 neighborhoods, districts, and villages, covering ~9 million people. In addition, the six research teams coordinated on an experimental design and harmonized outcome measures of crime, insecurity, and trust in the police, all of which we preregistered. Across the coordinated studies, we investigated whether implementing these community policing practices generated changes in the level of trust in the police, increased cooperation by citizens with the police, and lowered the crime rate, among other outcomes. We measured these outcomes with harmonized surveys of citizens and police officers and using administrative crime data from the police. We interviewed 18,382 citizens and 874 police officers in our postintervention surveys.

We address four shortcomings of the existing evidence base. First, we measured a harmonized and comprehensive set of outcomes including crime rates, citizen perceptions of and cooperation with the police, and police abuse. Without evidence on all of these outcomes from the same studies, it is difficult to determine whether an erosion of trust accompanies decreases in crime rates (if any), or if community policing improves police-community relations. Second, we examined local programs that strive to adopt multiple practices advanced by community policing advocates, including police-community forums, increased police presence in communities, and problem-oriented policing. When studied in isolation, the interactive and cumulative effects of these components, which tend to be implemented together in practice, would be missed. Third, we designed the six studies jointly, preregistered them, and implemented them during the

same period, thus increasing our confidence in the comparability of the results and avoiding the widespread challenge of publication bias (36). Finally, this project expands the scope of evidence on community policing to the Global South, where these reforms are increasingly deployed and where there is considerable policy momentum to address high levels of crime and police abuse. By reporting on simultaneous trials in multiple sites, the study provides evidence of the external validity of its findings, which is unusual in the social sciences (37–39).

Our preregistered meta-analysis found that the community policing interventions did not generate greater trust between citizens and the police or reduce crime. We can reject even minor improvements in measures of our primary outcomes. We are also able to reject even minor backfire effects. We designed the interventions in partnership with the police, who were initially committed to fully implementing them, but we document uneven implementation of the planned community policing strategies in practice—a problem that has afflicted community policing programs in the Global North as well. Although there is evidence of increased community engagement through regular meetings, the police did not substantially increase foot patrol frequency in any site, and meeting attendance varied across sites. Community policing practices did not lead to changes in our primary outcomes: crime victimization, perceived future insecurity, perceptions of police, police perceptions of citizens, police abuse, crime reporting, crime tips, or the reporting of police abuse. We did not see reductions in crime, whether measured in administrative data from police blotters or in victimization surveys. We saw some changes in secondary attitudinal outcomes regarding perceived police capacity (Colombia) and perceived police intentions toward citizens (Liberia and Pakistan). In sum, however, locally designed increases in community policing did not lead to the expected changes in any of our six sites, in high- or low-crime communities, or among individuals with high or low baseline levels of trust in the police. In contexts with limited incentives and resources to change, incremental reforms to police practices such as community policing may have to be preceded or complemented by structural reforms to be successful.

Conceptual framework

The theory motivating community policing starts from the idea that citizens are a critical source of valuable information about where crime is happening, who is committing it, and their concerns about suspicious people or activities. This kind of information, when provided consistently, helps the police allocate their time and attention in ways that will prevent crime (40).

When citizens consider whether to cooperate with the police, they weigh the costs of this cooperation against the expected returns (29). Citizens often face search costs: They may not know how or on what issues to engage the police, may need to travel long distances to reach police stations, or may lack access to telephones to call the police. They may also fear retaliation (and judge the police to be unable to protect them). In terms of benefits, citizens have expectations about police capacity or willingness to respond to reports. In environments of high corruption, low capacity, or predatory police behavior, citizens may calculate that the costs of engaging the police exceed the benefits. When citizens do not cooperate with police, police may be less effective, affecting citizen perceptions of police intentions, thus generating a vicious cycle (25, 41).

Community policing aims to break this cycle by shifting the costs and benefits of cooperation and affecting police behaviors. Costs are brought down by increasing the visibility and accessibility of police officers and creating an environment in which it becomes accepted to engage with police. Formal meetings and regular lines of communication reinforce this new norm. Expected benefits are increased by changing perceptions about both the intentions and capacity of the police. By increasing interaction with citizens, community policing may also more directly affect police behavior by increasing the risks of abusing their positions and victimizing citizens or simply by improving intentions toward citizens.

Community policing is hypothesized by scholars and practitioners to affect community-level outcomes and the behaviors of citizens writ large, not only the outcomes for individuals who encounter the police or participated in a community meeting (19, 25). These knock-on effects may happen through others in the neighborhood learning about community meeting events from participants, changes to police behavior, or other general equilibrium effects.

For some practitioners, community policing aims to improve trust between citizens and police, a worthwhile goal on its own, and not necessarily affect levels of insecurity. In our empirical strategy, we are open to this possibility.

Prior evidence on community policing

To assess the existing literature on community policing, we conducted a systematic review of studies since 1970 on the effectiveness of community policing components such as foot patrols and problem-oriented policing. The search, filtering, and coding procedures we used are detailed in the supplementary materials, section A.6.

The review identified 43 randomized trials, the results of which are described in Table 1. Four findings emerge. First, problem-oriented policing likely reduces crime, with typical effects of ~0.25 standard units [see also (42)].

Table 1. Systematic evidence review on community policing. Counts are of estimates for an intervention-outcome pair (studies may appear more than once). Mixed effects rows report the number with a given combination of effect sizes, with – representing negative, + positive, and 0 null estimates.

Intervention (effect direction)	Outcome measure					
	Crime incidence	Perceptions of safety	Perceptions of police	Police accountability	Citizen reporting	Trust in the state
Community forums						
Increase	–	–	1	–	–	–
Null	–	1	–	–	–	–
Community presence						
Increase	–	2	5	1	2	–
Null	5	3	4	–	1	1
Decrease	13	–	–	–	–	–
Mixed	8 (7 –/0; 1 –/+)	1 (+/0)	2 (1 +/0; 1+/-)	1 (+/0)	–	–
Citizen feedback						
Null	–	–	1	–	–	–
Mixed	–	–	1 (+/0)	–	–	–
Problem-oriented policing						
Increase	–	2	1	–	–	–
Null	1	1	1	–	–	–
Decrease	6	–	–	–	–	–
Inconclusive	1	–	–	–	–	–

Second, there is mixed evidence about whether community presence reduces crime: Thirteen randomized trials found that it does, but five trials found null results and eight yielded mixed results. Typical effects among the 13 studies were also ~0.25 standard units. Third, the balance of evidence suggests that increasing community presence does not substantially affect citizen perceptions of safety or their views of the police, but the evidence for this is not conclusive. Fourth, it appears, again with limited evidence, that problem-oriented policing may increase perceptions of safety.

This review highlights how much there is yet to learn about the impacts of community policing (Table 1). Few studies have examined multiple families of outcomes (e.g., crime and perceptions of the police). Although we have collected substantial evidence on how components of community policing affect crime rates, we know little about how perceived insecurity, police abuse, and citizen cooperation with the police are affected.

The bulk of experimental evidence comes from three countries, the United States, the United Kingdom, and Australia (74%). Evidence from the Global South is limited; we identified only 10 randomized trials, conducted in Colombia, India, Liberia, and Papua New Guinea. Because each study focused on a unique intervention, e.g., hot-spot policing in Colombia, changes in management practices in India, and increased community patrols in Liberia, comparison is difficult, underscoring the need for a coordinated approach.

Study contexts

This study examined community policing in six contexts in the Global South, which we now

briefly describe (see the supplementary materials, section A.1, for further details).

In Brazil, we studied community policing in urban municipalities in wealthy, southern Santa Catarina State. Citizens have experienced high crime rates and victimization by a highly militarized police force. Organized crime is also present. Community policing was not new in Brazil; it was implemented in eight states and the capital starting in 1985 (43). Our program expanded an existing community policing effort begun in 2016: *Rede de Vizinhos*, run by the *Policia Militar de Santa Catarina*, the main preventive policing organization.

In Colombia, we partnered with the Medellín metropolitan police. The city experienced a marked decrease in crime and police abuse after an era of narcotrafficking and police impunity in the 1980s and 1990s (44). However, surveys reveal persistent distrust of the police. The police now compete (or in some places cooperate) with local gangs known as *combos* to provide public safety (45). Colombia has a long history with some community policing practices (46). Most recently, a substantial community policing and problem-oriented policing initiative began in 2010 (26, 47, 48).

Our third site was Monrovia, Liberia's capital city, still suffering the effects of a long-running civil war that ended in 2003. Residents are experiencing high crime rates, and 24% live in neighborhoods with an active local security group unaffiliated with the police. Moreover, the limited reach of the state has left many unfamiliar with the laws and how to report violations to the police. Liberia introduced community policing practices after the end of the war. By creating community watch groups that worked directly with the police, the aim

was to rebuild trust in the police and to provide an alternative to vigilantism.

In Pakistan, we partnered with the police in two mixed urban-rural districts in Sheikhupura Region in Punjab Province. Sheikhupura had lower crime rates than our other contexts, but police are among the least-trusted institutions in Pakistan. Pakistani law constrains police capacity to investigate crime; many crimes require magistrate approval for investigation, and difficult-to-obtain eyewitness testimony is a de facto requirement for conviction. Perceptions of police corruption also drive low rates of citizen cooperation. The government introduced two reforms intended to link police with citizens in 2001 and 2002, but implementation was uneven and only robust in affluent areas (49, 50). The police have since piloted community policing practices in several parts of the country, including Sheikhupura district in our study area (51).

Sorsogon Province was the site of our partnership in the Philippines. Most of the province is rural, with its largest urban center, Sorsogon City, home to 20% of the province's 800,000 people. The national police provide security alongside semiprofessional auxiliary police called *tanods* appointed by local leaders. *Tanods* deal with minor crimes and disputes and day-to-day tasks such as directing traffic. The police are widely present in urban centers but less so in rural areas. The Philippine National Police are associated with President Rodrigo Duterte's war on drugs. Although there was little drug or anti-drug-related violence in Sorsogon, the reputation of the Philippines police for extrajudicial violence in other provinces eroded citizen trust. A long-running insurgency of the New People's

Army also threatens the government. The group was present in some rural areas of Sorsogon, which were excluded from our study area. Community policing principles have long been discussed in the Philippines but have not been deeply implemented (52, 53). A more systematic implementation began in 2012 (54) but was limited in scale in our study province. Our intervention builds on a further expansion of community policing practices in the province, labeled the “One Sorsogon” campaign. Officers across the entire force conducted scheduled visits in communities and held informal town hall meetings and one-on-one discussions.

Finally, we partnered with the national police in rural Uganda. As in many authoritarian contexts, the Uganda Police Force serves dual roles: preventing and responding to crime and maintaining the power of the ruling National Resistance Movement party. As a result, levels of trust are low. Crime rates were higher in the rural areas, where we conducted our study, than in Ugandan cities. The police introduced community policing to Uganda in the capital, Kampala, in 1989 and, on paper but not in practice, across the country in 1993. The programs involved light training but little else. A pilot study of more intensive community policing practices in Kampala and four outlying

towns began in 2010. That study, which ended in 2018, involved motorcycle and foot patrols, citizen watch teams, and occasional town hall meetings (55).

Our six study sites differ substantially from the Global North contexts where scholars have tested community policing in prior research. They are less democratic (indeed, two are autocracies), less wealthy, and most have a recent history of armed conflict. In several contexts, police share law enforcement responsibility with other formal authorities such as auxiliary police or nonstate enforcers such as vigilante groups. Moreover, in others, the police compete with armed gangs in providing security. As a result of these differences, the impact of community policing may differ from past studies.

However, the six contexts are broadly representative of countries in the Global South in which police are adopting community policing widely. Per capita incomes in our sites encompass the range of low to upper-middle quantiles of countries in the Global South; a fourth of Global South countries share with several of ours a recent history of armed conflict (56) and, as in the rest of the Global South, our sites exhibit wide variation in institutions, from dictatorships to electoral democracies (Table 2).

If community policing practices work in some but not all of these environments, it may be because of variations in institutional settings and baseline conditions. If these practices yield little progress in all contexts, then this may provide evidence that increasing the strength of community policing practices does not address the core challenges of crime and insecurity in the Global South.

Compliance with treatment

The police complied with the planned community policing practices, but unevenly, only on some compliance measures, and differently across sites. Our index measure of citizen awareness of community meetings and police patrol frequency increased in each site (Fig. 1). In Liberia, there was a 1.662 SD increase ($P < 0.001$) in the compliance index; in the other cases, increases were smaller, between 0.159 and 0.447 SD (all statistically distinguishable from no effect at the 0.05 level, except in Brazil as described below). However, our measures of compliance are imperfect. Several sites did not aim to increase foot or vehicle patrol frequency (e.g., in Colombia, where frequent foot patrols were already in place). Compliance in several dimensions of treatment, including problem-oriented policing work and watch forums, is not measured. We estimate large

Table 2. Descriptive statistics for study sites. Sources are provided in the supplementary materials, section A.7.

	Brazil	Colombia	Liberia	Pakistan	Philippines	Uganda
Political freedoms	Partly free	Not free				
Regime type	Electoral democracy	Electoral democracy	Electoral democracy	Electoral autocracy	Electoral autocracy	Electoral autocracy
Corruption score	45/100	39	32	31	46	26
Criminal justice score	34/100	34	31	35	31	31
Income category	Upper middle	Upper middle	Low	Lower middle	Lower middle	Low
Inequality (Gini coefficient)	54	50	35	33	44	42
Study site	Santa Catarina	Medellín	Monrovia	Punjab Province	Sorsogon Province	–
Type	State	Large city	Large city	Two districts	Province	Country
Rate of crime victimization (%)						
Simple assault	1	5	6	5	3	6
Burglary	4	15	17	16	2	19
Armed robbery	0	6	3	10	0	2
Murder	1	9	7	–	1	9
Trust in police (%)	79	47	46	23	86	62
Citizen cooperation (%)	1	5	–	2	1	5
Police capacity indicators						
Vehicle	✓					
Motorbike	✓	✓			✓	✓
Gun	✓	✓		✓	✓	
Radio	✓	✓		✓	✓	✓
Computer	✓	✓			✓	
Printer	✓	✓			✓	
Camera	✓	✓			✓	
Officers per capita	1:473	1:333	1:950	1:560	1:991	1:910
Budget per officer	\$56,000	\$18,000	\$3642	\$3400	\$18,000	–
Citizens per station	–	143,000	21,428	500,000	44,444	
Officer rotation rate	–	15 months	–	1 month	6 months	17 months

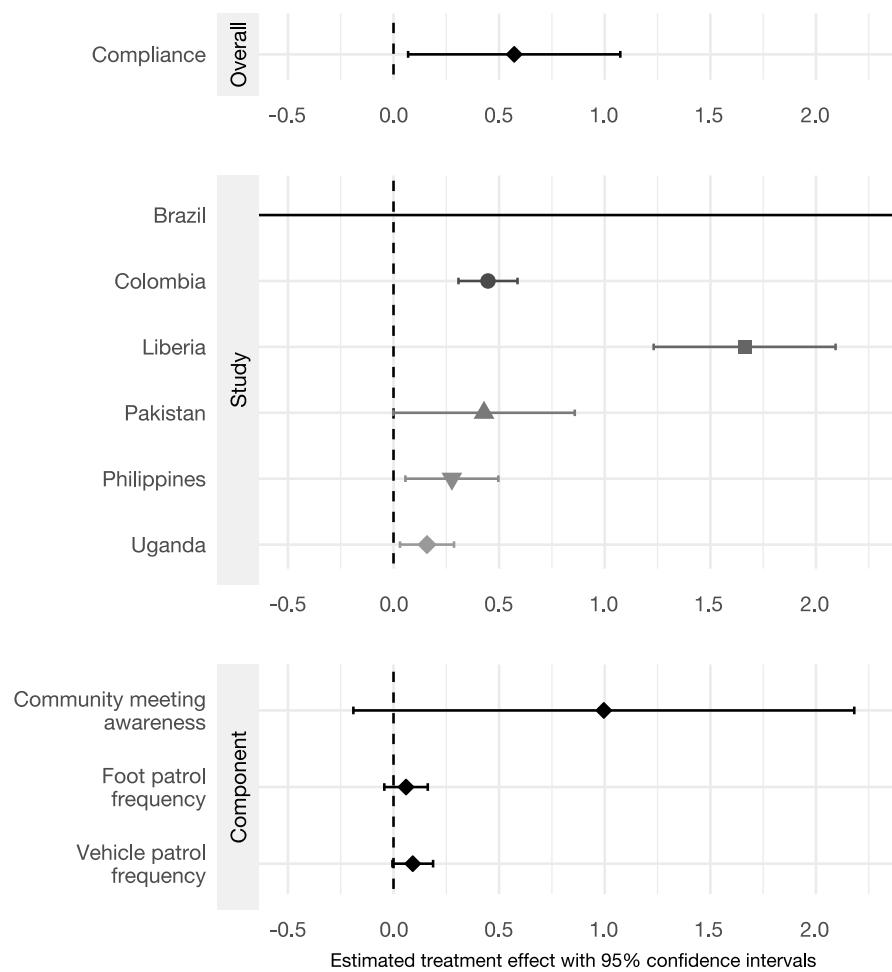


Fig. 1. Compliance with treatment. We report the meta-analytic estimate and country estimates of the average compliance rates, measured using three variables measuring the frequency of patrols, frequency of encounters with police, and citizen knowledge of community engagement community meetings with police, along with 95% confidence intervals. The x-axis is restricted for readability because of the wide confidence intervals for Brazil.

changes in awareness of community meetings, but we cannot distinguish them from no effect (estimate = 0.996 SD, $P = 0.1$). The police held many meetings as part of the treatment, 109 in Brazil and >800 in the Philippines (table S1). Average attendance ranged between 10 people in the Philippines and 51 in Uganda. Many meetings were attended by hundreds of citizens. These figures are evidence of the police's compliance in holding meetings, which were an essential aspect of treatment, and demand for community policing from citizens.

We estimated small increases that are statistically indistinguishable from zero in foot patrols (estimate = 0.059, $P = 0.259$) and vehicle patrol frequency (estimate = 0.091, $P = 0.064$). The police in our sites appeared to patrol on foot less intensely at baseline and in treatment areas than prominent past studies in the United States. For example, in the Philadelphia Foot Patrol Experiment, officers patrolled 16 hours a day 5 days a week in treatment areas (57). We

do not have direct measures of foot patrol frequency, but we surveyed citizens about how frequently they saw officers patrolling on foot. At the low end, 7% of citizens in Uganda and 11% in Liberia reported seeing officers daily or weekly. The rest ranged from 29% (Pakistan) to 70% (Philippines). There was not a large increase in foot patrol frequency.

Our six sites compare favorably to recent tests of increased citizen-police contact in the Global South. Recent studies focused on 20- to 30-min face-to-face visits with 25 households over single 1- to 3-day visits to rural villages in Liberia (32) and town hall meetings with citizens four or five times over 14 months lasting 1.5 to 3 hours in rural Liberia (29). In our sites, town hall meetings were held approximately semiannually (Brazil and Uganda), once every three months (Colombia), bimonthly (Liberia), or monthly (Pakistan). In the Philippines, the community engagement treatment was not community meetings but more intensive inter-

actions in small groups during foot patrols. Additional meetings as part of community watch forums were held in Liberia and Uganda.

Contact in meetings was not much less frequent than in prominent success stories in the United States (19). Sizable proportions of citizens in treatment areas reported hearing about citizen-police meetings in most but not all sites (Brazil: 8%; Colombia: 37%; Liberia: 41%; Pakistan: 5%; Philippines: 25%; Uganda: 45%). These proportions are somewhat but not markedly lower than the proportion of Chicagoans (60%) who had heard about that city's canonical community policing program 5 years into its implementation (19). Meeting attendance rates ranged from 6 to 35% (Brazil: 6%; Colombia: 8%; Liberia: 31%; Philippines: 16%; and Uganda 35%), proportions comparable to the annual reach of the Chicago meetings (the attendance question was mistakenly excluded in the Pakistan study).

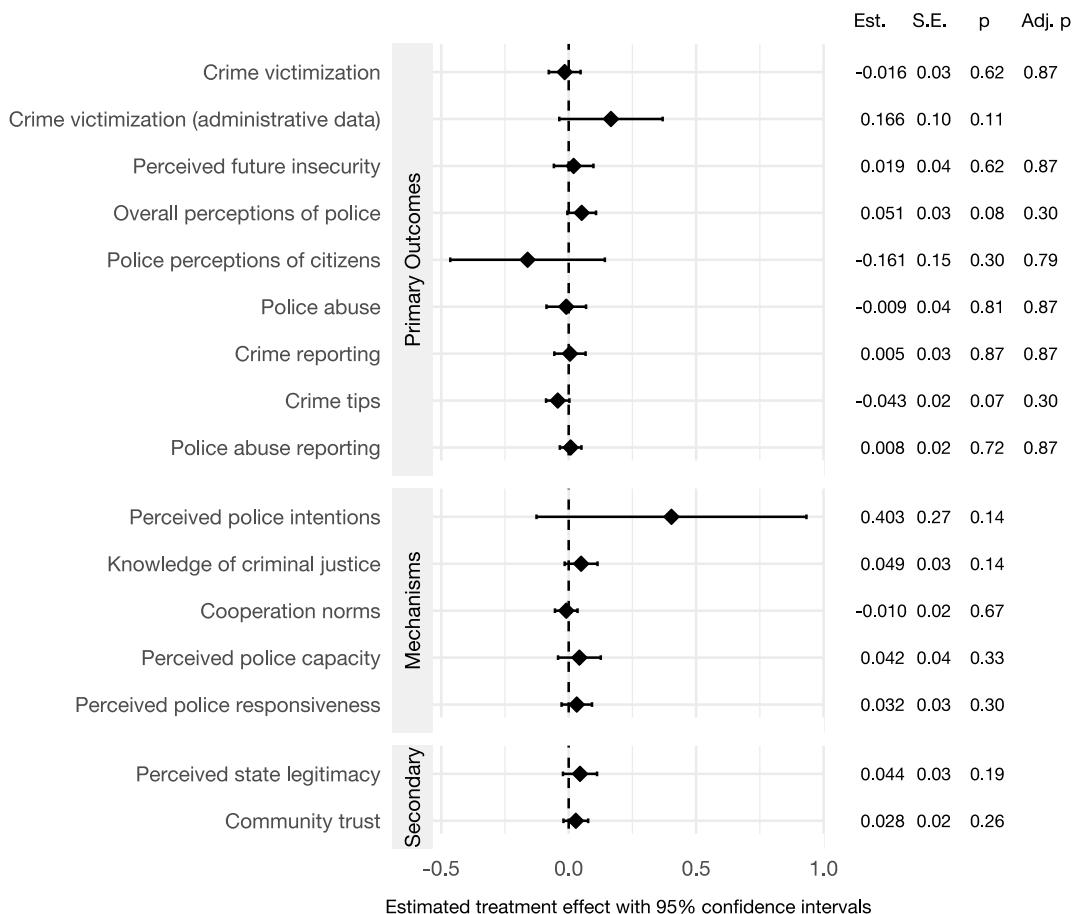
In Brazil, our encouragement design did not translate into higher take-up of the community policing program. We failed to reject the null hypothesis of zero effects in the first stage (table S13). One explanation is that the *Rede de Vizinhos* program had expanded substantially when our study began compared with when we planned our encouragement. In addition, there was noncompliance in the administration of the encouragement: The police did not hold meetings in 11 locations where they were randomly assigned to hold meetings. We present the meta-analysis results including Brazil as we preregistered, but they are essentially unchanged, with Brazil excluded given the low precision of the study's estimates.

Main results

Community policing generated none of the main effects that we hypothesized. In the meta-analysis, we found no impact of increased community policing practices on any of our primary outcomes: crime victimization, perceptions of insecurity, citizen perceptions of police, police abuse, or citizen cooperation with police (Fig. 2, top panel). Community policing also did not appear to backfire.

We can rule out even very small effects in a positive or negative direction for most outcomes. The meta-analysis confidence intervals rule out reductions in crime larger than -0.078 SDs (and increases larger than 0.047 SDs) as measured in surveys. We also saw no decrease in crime when measured through police administrative data ($P = 0.109$); indeed, the estimated effect was positive. In terms of overall perceptions of police, there was a 0.051 SD increase ($P = 0.075$). In terms of minimum detectable effect sizes, the standard post hoc rule of thumb of 2.8 times the SE suggests that we can rule out improvements (or backslash) of >0.089 SDs in crime victimization and 0.080 SDs in police perceptions. However, in

Fig. 2. Community policing does not improve (or harm) crime victimization, citizen perceptions of the police, police perceptions of citizens, or citizen-police cooperation. We report meta-analytic estimates of intent-to-treat effects pooling across contexts for each of the primary outcomes, mechanism outcomes that we used to evaluate the channel of effects, and secondary outcomes, along with 95% confidence intervals. We present the estimate, SE, *P* value, and, for the primary outcomes, a *P* value adjusted for multiple testing.



Downloaded from https://www.science.org at Universidad de Los Andes - Colombia on February 06, 2025

several cases, such large reductions in crime outcomes were unlikely simply because of low base rates (e.g., in Brazil and the Philippines; Table 2). For other outcomes, if there were effects of community policing that we failed to detect, they are likely to be very small given the narrow confidence intervals and small minimum detectable effects. We did not find the large impacts observed in contexts in the Global North or the effects expected by practitioners who advocate community policing in the Global South.

The null effects do not hide heterogeneity across sites: Community policing did not lead to the expected changes across our eight hypotheses in any of the six sites (Fig. 3). We saw no effects distinguishable from zero in our eight primary outcomes in any of the six sites. We did, however, find effects on secondary measures of citizen attitudes toward the police in three sites. In Liberia and Pakistan, we found sizable shifts in our measure of perceived police intentions (Liberia: 0.760 SDs, *P* = 0.001; Pakistan: 1.321 SDs, *P* < 0.001). In Colombia, perceptions of police capacity increased (0.115 SDs; *P* = 0.006). In Brazil, we were not able to rule out large changes from community policing for any outcome because of the low compliance rate, which leads to very

wide estimated confidence intervals. In terms of crime, in our secondary measure using administrative data, we saw a positive shift in reported crime in one site: Uganda. Data on crime from police blotters conflates crime incidence and crime reporting to police. We suspect that this finding reflects increases in reporting, not incidence.

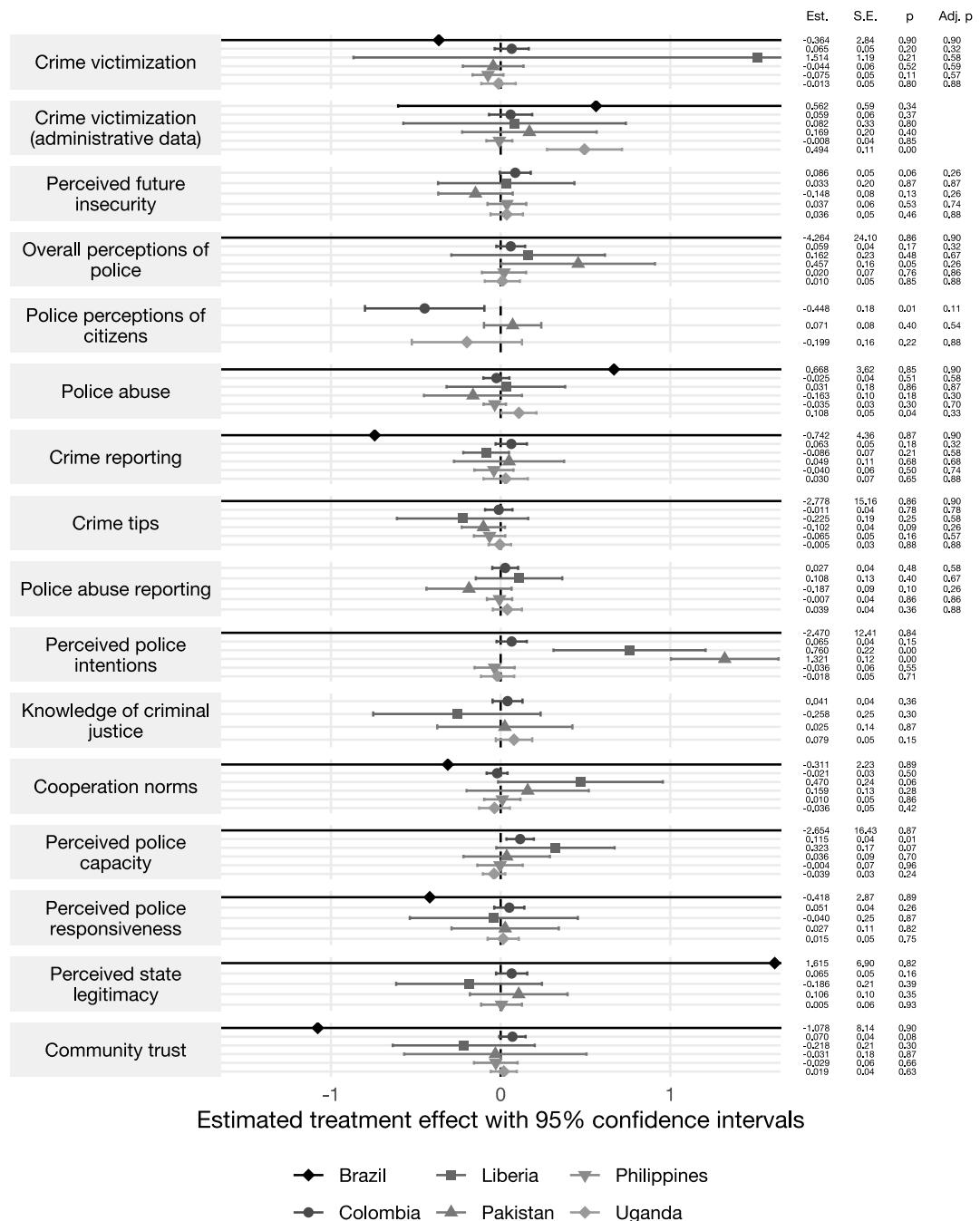
Within each site, the null effects do not reflect cross-cutting effects in opposing directions: We did not find heterogeneous effects by baseline crime rate, trust in police, community trust, or perceived state legitimacy in any of our primary outcomes. Moreover, we found no evidence of heterogeneous effects across any factor in tests of equal variances across the treatment and control groups in any site (see the supplementary materials, section C.6.1).

Our results also do not hide heterogeneity in index components. There were no average effects of community policing on any index item in the eight primary indices in the meta-analysis (Fig. 4). In addition, there were no effects on any of the intermediate outcomes that we hypothesized as being mechanisms for improving citizen trust and effectiveness of the police (Fig. 2, middle panel). Community policing did not increase citizen perceptions of

police intentions, knowledge of criminal justice procedures, norms of cooperation with police, perceptions of police capacity, or perceptions of the responsiveness of police. Community policing also did not affect trust in the state or communal trust, our secondary outcomes (Fig. 2, bottom panel).

Why did community policing fail to increase cooperation and reduce crime victimization? We can rule out several explanations that we preregistered. We did not see evidence that citizens refused to cooperate with police because of a mismatch between raised citizen expectations and the police's inability to deliver promised changes in practice; there was no change in citizen perceptions of police capacity or intentions (*P* = 0.325 and *P* = 0.136, respectively). We also saw no evidence that community policing crowded out positive changes by increasing contact between citizens and police who may engage in abuse or extortion; the rate of police abuse did not change (*P* = 0.811). Crime displacement also did not appear to drive our results. If community policing reduced crime by pushing criminal activity out to other places, then we would expect to see reductions in treated areas between baseline and end line and increases in control areas. We did not observe

Fig. 3. Null meta-analysis effects do not hide substantial variation across sites. We report the country-level estimates of intent-to-treat effects for each main effect, along with 95% confidence intervals. We present the estimate, SE, P value, and, for the primary outcomes, a P value adjusted for multiple testing within sites. The x-axis is restricted for readability because of the wide confidence intervals for Brazil.



this pattern in crime victimization measured in citizen surveys or police data in any site. We fail to reject the null of no difference at the $\alpha = 0.05$ level. However, this is not a direct test of the presence of spillover effects, and patterns of interference that do not conform to police beats remain possible (30). However, these patterns are unlikely to explain our results in study sites focused on rural areas, where the distances between treatment and control units are generally large, and where residents often do not have easy access to transportation.

Our treatment might have had large effects on those directly affected (e.g., community meeting participants) but none on the broader study community. Our surveys measured outcomes for all residents in treated and control areas, not just meeting attendees. If this were the case, then we would expect to see null effects, because our sample of meeting participants was small relative to the population. We leave this question to further research, but we note that this is not the theory of change proposed by advocates of community policing, who argue that community policing practices

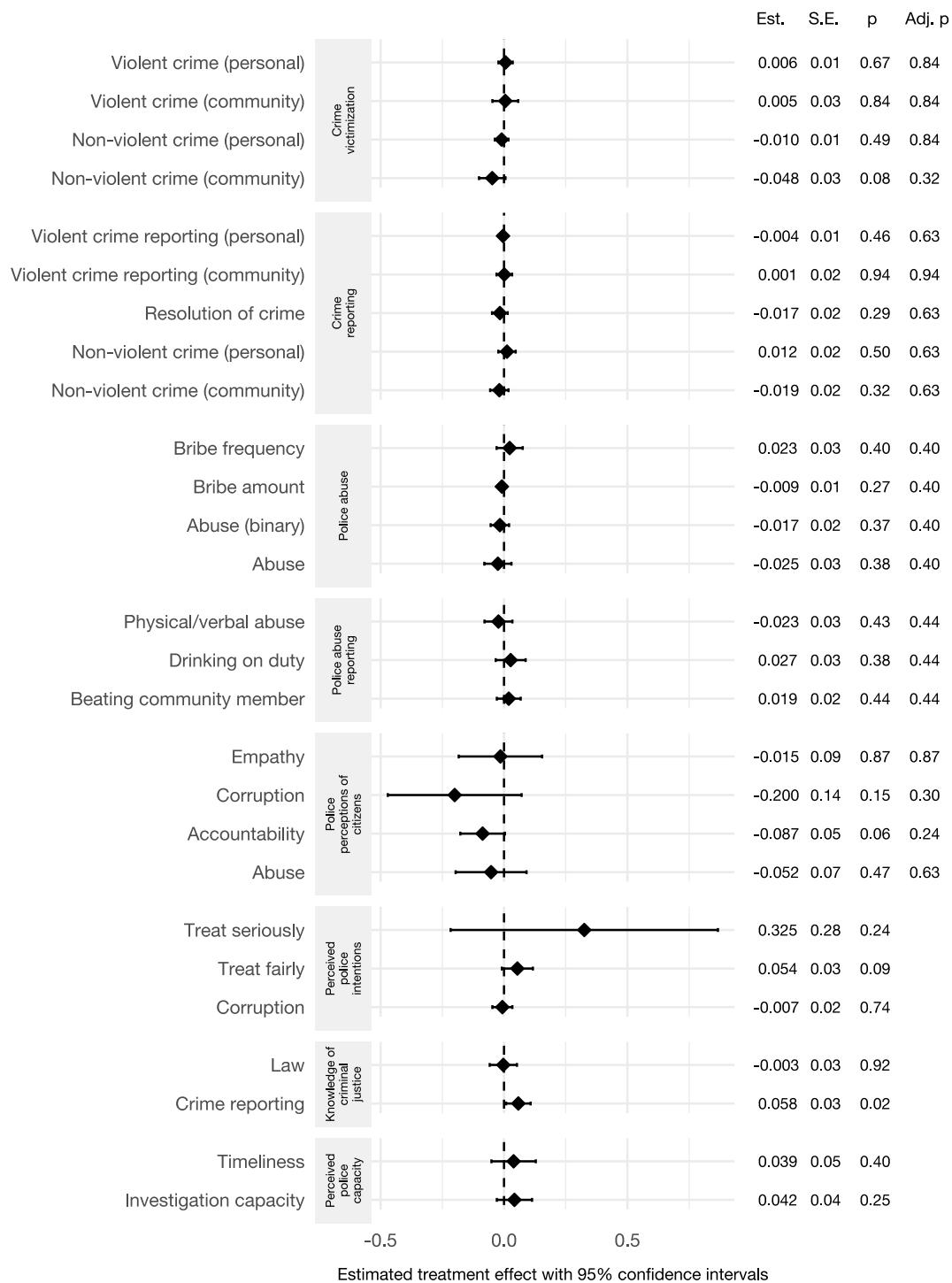
lead to changes in citizen cooperation, police attitudes toward citizens, and crime that reinforce one another (16, 17, 19). Our results suggest that the effects of community policing, at least of interventions of similar scope and intensity to those implemented in our six sites, will be small on communities as a whole.

Our interventions were shorter than some prominent examples of community policing in the United States, such as that in Chicago (19), which lasted years. Our community policing intervention lasted between 6 months (Pakistan) and 17 months (Philippines). Given

Fig. 4. Null index effects do not

hide variations across index components.

We report meta-analytic estimates of intent-to-treat effects pooling across contexts for the constituent items of the main outcome indices, along with 95% confidence intervals. We present the estimate, SE, P value, and, for the primary outcomes, a P value adjusted for multiple testing.



that community policing advocates describe successful implementations as organization-wide movements or cultural shifts, the effects may simply take longer.

We designed our outcome measurement to capture the impact of community policing broadly regardless of whether our theory of citizen-police relations underlies its effects. Thus, our null results imply that if increases to community policing practices did lead to

changes, then they would only be found in peripheral outcomes not identified by scholars as being of central importance.

Discussion

We studied the effects of locally appropriate increases in community policing practices in six varied contexts. We found that the police did not fully implement the intensive changes to policing practices that the celebrated mod-

els of community policing would imply. The changes they did pursue did not lead to a virtuous cycle of citizen cooperation with police efforts to fight crime in any of the six sites. Why did community policing fail to deliver?

We leveraged qualitative data to identify constraints the police faced that could have contributed to these results. We asked each study team to fill out a questionnaire about their experiences working with the police. Each

team recontacted their research staff to collect information about implementation. Teams reviewed written transcripts collected at community meetings. Finally, we interviewed our police partners after the interventions ended.

From these materials, we identified three structural constraints that may have impeded change: (i) a lack of prioritization of community policing by police leadership, (ii) the rotation of community policing officers and the police leaders championing the reform, and (iii) limited resources to follow up on concerns identified by citizens. These constraints are not unique to our contexts; they are common in many parts of the Global South (33, 58, 59).

The first problem was prioritizing community policing among the other responsibilities of the police. Police agencies that chose to partner with us were interested in implementing community policing reforms and learning whether community policing was an effective tool. We worked directly with each agency, coordinating the intervention across levels of police hierarchy and with other government officials in some cases. At the outset, we believed that these partnerships represented a best-case scenario in terms of police buy-in and that compliance would, if anything, be higher than in typical practice. Instead, in our observations and interviews with citizens and the police, it was clear in several sites that this was not the case. In Uganda, for example, senior leadership in the Uganda Police Force did not ultimately commit substantial political capital to the project and in general had limited ability (and will) to supervise station-level officers. As a result, station leadership could safely not prioritize community policing responsibilities.

Prioritizing tasks not traditionally within the remit of police was a particular problem. In community meetings, citizens often raised local issues distinct from the major crimes that often occupied police effort. Although sharing concerns that reflect underlying causes of insecurity is a core component of community policing, there were formal and informal barriers to spending time addressing them. In the Philippines, officers received the message from commanders that “major” crimes related to murder, drugs, and a local insurgency were higher priority than the “local” issues often raised by citizens. In Pakistan, the barriers are institutional: Police could not by law respond to many of the problems consistently identified by the community during their forum discussions because they involved “non-cognizable” crimes such as domestic abuse, harassment, and financial misconduct. As one community policing officer put it, “We take these problems to our [station lead officer] and instead of helping us implement the agreed actions, he ignores them and gives us other tasks to do.” Administrative records of com-

munity meetings in the Pakistan site confirm this pattern: The police followed up on <25% of the problems selected by the forums. Similarly, officers in the Philippines often referred issues not in the remit of the police to other government agencies, but it was common knowledge that these other agencies had low capacity for addressing the referrals.

The regular rotation of police leadership in several contexts also interrupted initially strong interest. In Pakistan, regional and district-level leaders were transferred multiple times during the study period, which led to further changes at the station house level and transfers of community police officers. In the Philippines, our primary partner in the Sorsogon provincial police was promoted out of the province weeks into implementing the study, reducing buy-in for the intervention. Municipal police leaders were also rotated out.

Rotation was even more frequent for local station chiefs and rank-and-file officers in many sites. We depended on local leaders to align incentives and provide rank-and-file officers resources to carry out community policing tasks. Turnover in officers assigned to carry out community policing tasks may be a problem for two reasons: (i) a lack of training for officers who join the program after its inception and (ii) difficulty establishing rapport with citizens and local leaders during short assignments. In Uganda, officers rotate between police posts on average every 17 months, in Colombia every 15 months, and in Pakistan every month. The police typically did not have resources to train up new officers rotated into treated posts, so many did not receive full training in community policing practices. In the Philippines, we estimate that only 54% of officers in our study area at midline were still in the same post at end line, just 11 months later.

Capacity constraints may also mute effects. Officers in some cases reported that they were asked to carry out additional duties related to community policing, such as investigating concerns raised by citizens in community forums, but were not provided the additional resources to do so. In others, the resource constraint was already binding in terms of salary, transportation, or materials for investigation. In Pakistan, an officer told us: “Yesterday, I was on beat patrolling all night that was unconnected to the program. Today I was asked by the [station house officer] to travel to Lahore on my own expense to appear in court in connection with a case that is unconnected to the program. I haven’t eaten anything since the morning, it is unfair to expect me to be punctual and behave well in community meetings with such a tough work routine.”

If the police cannot investigate crimes and concerns raised by citizens, then community policing is unlikely to lead to reductions in crime or to build citizen trust. In Liberia,

Pakistan, and Uganda, a lack of funds for investigations and travel appears to have been a binding constraint. In Liberia, for example, after taking into account salaries, funds for all nonsalary police expenses such as fuel amount to just US \$4 million for the entire country (source: Government of the Republic of Liberia Draft National Budget FY 2017-18). In our study areas in Uganda, only 10% of police stations receive a monthly fuel allowance; none of the smaller police posts do. Ugandan police stations in our sample average a single motorbike for transportation, and posts average less than one.

The three issues also may interact. Many argue that successful community policing requires a partnership between the police and other municipal agencies to enable nonpolicing responses to concerns raised by citizens (19). The lack of ongoing buy-in that resulted from the rotation of station leaders and our research partners likely further undermined the possibility for interagency cooperation in problem-oriented policing.

Future research should identify whether community policing is effective when implemented alongside changes such as prioritizing openness to citizen input, incentivizing unit commanders and rank-and-file officers to change how they engage with the community, and providing officers with the resources they need to respond to concerns raised by citizens. The beneficial effects of community policing that have been observed in some settings in rich countries may reflect not only the outcomes of the intervention itself but also these salient background conditions. However, the structural constraints that we identified here are not unique to contexts in the Global South; they are shared with some places where police reforms such as community policing are being proposed, including in the United States and other countries in the Global North.

Our results sound a note of caution for community policing advocates around the world. Individual reforms are implemented in complex institutional environments. Those environments can foster or hinder the efficacy of community policing, including whether officers comply with community policing protocols and if they respond to concerns raised by the community. The challenge going forward is to identify which structural conditions are required for incremental reforms such as community policing to matter or to refocus attention on the major structural changes in police departments that may be needed.

Materials and Methods

We briefly describe the research design for each experiment and for the meta-analysis. We provide study-specific details on sampling and treatment assignment procedures in the supplementary materials, section A.3, and a codebook of outcome measures in table S23.

Interventions

We worked with each police agency to identify concrete, locally appropriate ways to make a meaningful increase in the strength of community policing, informed by global best practices (17, 18). Our intervention focused on increasing the frequency of beat patrols, community meetings, reporting hotlines, and problem-oriented policing. In some contexts, this meant building on existing approaches, whereas in others, a community orientation was largely new. The result is a set of interventions with core features in common and complementary elements that differ across contexts (Table 3). The variation in the interventions across our sites reflects the diversity of implementation of community policing around the world (22). We interpret our effects as being estimates of what happens when a police agency decides to increase its commitment to community policing, tailored on the basis of its existing policing practices and local context. We briefly outline the intervention in each site (further details are provided in the supplementary materials, sections A.1 and A.2).

Santa Catarina State, Brazil

Our intervention in Brazil had two components: town hall meetings to encourage the formation of ongoing communication between citizens and police through new chat groups on the WhatsApp platform and the groups themselves, in which officers collected suggestions and concerns.

The police implemented the program in 300-m circular locations commanders identi-

fied as suitable. Each location was in an urban part of Santa Catarina, with a population density of 445 people/km². Precinct commanders recruited officers for the program, in some cases full-time and in others only a fraction of their time.

City of Medellín, Colombia

The *Policía Metropolitana del Valle de Aburrá* (MEVAL) implemented changed community policing practices at the beat level across Medellín for the study. MEVAL is a division of the national police but with some policy authority and funding responsibility delegated to the municipal government. The police focused on prioritized neighborhoods of similar size at the center of the beat. Beats are small (0.44 km²) and highly dense (26,341 people/km²).

The intervention consisted of community meetings, three per beat, one every three months. The police assigned two patrol officers to attend each session, and higher-ranking officers or government officials sometimes also participated. Officers outlined police roles, shared reporting lines, and talked with citizens. Most meetings concluded with a cooperation agreement that identified three top problems and actions each party would take to address them.

The police recruited station chiefs across the city to participate and selected two community policing officers. Meetings were added to the officers' *tablas de acciones mínimas requeridas* ("Tamir") or daily required activity document. Meeting facilitators helped police structure and organize meetings according to a stan-

dard format; no other special training was provided.

City of Monrovia, Liberia

The Liberian National Police shifted community policing practices for our study in Monrovia's densely populated urban neighborhoods (7811 people/km²). The police nominated 35 communities labeled as priority areas with high crime; we randomly sampled 65 to supplement this set. The intervention targeted central parts of each community.

The intervention involved holding town hall meetings, increased foot patrol frequency, and encouragement to form a community watch forum. Community policing officers organized and led the intervention. These officers had responsibility for spearheading community outreach events and were assigned to most police stations throughout Monrovia. Officers used town hall meetings to encourage communities to form a community watch group. Officers undertook the intervention activities at the expense of regular duties. No special training was provided, but these community policing officers received ad hoc training in the past from international actors such as the United Nations.

Sheikhupura and Nankana Sahib districts, Punjab Province, Pakistan

The Punjab Police implemented the study intervention in police beats in urban and rural parts of the Sheikhupura and Nankana Sahib districts. Urban beats average 9.5 km² in area and have a population density of 5698 people/

Table 3. Community policing policies by experimental condition.

	Brazil		Colombia		Liberia		Pakistan		Philippines		Uganda	
Study units	Neighborhoods		Beats		Communities		Beats		Barangays		Police stations	
People per km ²	445		26,341		7811		804		529		—	
Special training	No		No		No		Yes		Yes		Yes	
Dedicated officers	Yes		No		Yes		Yes		Yes		No	
Duration of program	7 months		12 months		11 months		6 months		17 months		13 months	
Community policing practices by treatment condition (elements of study intervention are indicated in bold)												
Town hall meetings	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment	Control	Treatment
Watch forum	Never	Semiannually	None	Every three months	Occasionally	Bimonthly	No	Monthly	No	No	No	Bimonthly
Foot patrols	Occasionally	Occasionally	Daily	Daily	Occasionally	Bimonthly	Occasionally	Occasionally*	Occasionally	Weekly	Occasionally	Occasionally
Citizen feedback	No	WhatsApp	Hotline; mobile application	Hotline; mobile application	No	No	Hotline	Hotline (use encouraged)	No	Hotline†	No	No
Problem-oriented policing	No	Yes	Yes	Yes	No	No	No	Yes	No	Yes	No	No

*In Pakistan, increased foot patrol frequency was not a planned part of the intervention, but frequency increased from occasional to frequent in response to requests from citizens in townhall meetings in treated areas. Watch Forums were also not a part of intervention in Pakistan, but their use was encouraged in response to requests from citizens in town hall meetings in treated areas. †In the Philippines, a hotline was advertised to half of treated units.

km²; average rural beats average 62 km² and have 1395 people/km².

The intervention consisted of townhalls, selected increases in foot patrols, encouragement of the use of a police hotline, a problem-oriented policing program, and encouragement to form community watch forums.

Officers were selected to participate by each district's police human resources establishment branch. Local officers from the treatment beats were given preference, and chosen officers added the community policing responsibilities to their existing duties. The police ran a 4-day training program in partnership with the premier police training college in Punjab Province.

Sorsogon Province, Philippines

We partnered with the Philippine National Police in Sorsogon Province to implement increases in community policing practices in selected *barangays* in urban and rural parts of the province. *Barangays* consist of neighborhoods in the cities (average area 2.1 km², 4800 people/km²) and larger rural districts (average area 3.3 km², 1125 people/km²).

The intervention consisted of foot patrols in a first phase and a problem-oriented policing program second. On patrol, officers were instructed to engage citizens they encountered, make stops at businesses and schools, make home visits, attend *barangay* assembly meetings, and hold informal gatherings with groups of citizens. In some randomly assigned *barangays*, police conducted joint patrols with local *tanods*.

Most officers took part in the first phase. In the second phase, a randomly selected subset of officers participated. The police trained officers for both phases.

Uganda

We worked with the Uganda Police Force to implement community policing practices at rural police stations prioritized by the police for regional balance and crime rates. Some stations had multiple police posts within them, in which case we randomly selected a single post in which to focus the work.

The intervention consisted of town hall meetings, door-to-door visits, night patrols, and the formation of neighborhood watch teams. Officers selected by the police were reassigned from other tasks to participate in community policing activities.

Sampling

We studied targeted areas where our police partners believed community policing would be most effective (see the supplementary materials, section A.3). We randomly sampled citizens within these areas, in most cases using random walk procedures, and surveyed selected citizens. We did not sample citizens on the basis of their interactions with police or lack thereof. In our

view, this is a virtue of the design. If community policing is to be used cost-effectively, then it must reduce crime and increase trust in the community broadly, not just for the relatively small number of people directly exposed.

Treatment assignment

The studies rely on randomization of police beats, neighborhoods, districts, or police stations to a control condition or the common community policing treatment arm. In some cases, we blocked randomization on pretreatment measures from baseline surveys and administrative crime data.

In most studies, there was also a second treatment group that, per our preregistration, we will not analyze here. In the Philippines site, a community engagement program was rolled out first and then a problem-oriented policing program (we estimate the combined effect using an end line after the police implemented both phases); in the other five, the police rolled out the intervention all at once. In Brazil, the treatment was an encouragement to form community-police groups.

Outcome measurement

We collected four sets of outcome measures, harmonized across all sites: crime, citizen attitudes toward the police, citizen cooperation with the police, and police behavior (Table 4).

We designed common measures to be used in all six sites to estimate the effects of community policing on common scales. We obtained administrative crime data from each police agency and aggregated them into standardized crime types. We developed shared citizen and police officer survey instruments, which we then translated into local languages and adapted to each local context. We enumerate the small number of cases in which measures differ across sites in table S3.

We aimed to measure a comprehensive set of outcomes. As our systematic review demonstrates, we are one of the few studies that measured both crime and citizen trust outcomes together. Moreover, very few studies have surveyed officers in addition to citizens even though changes in officer behavior is a core part of the theory of change.

First, we measured crime incidence using police blotter data and crime victimization surveys of citizens and building on past surveys (29, 60). We treated the surveys as our primary measure, because police blotter data confound crime incidence and reporting to police. We also measured police abuse incidence using citizen surveys.

Second, we measured the attitudes, norms, and knowledge of citizens using surveys. We measured trust in the police, perceptions of police (their intentions, responsiveness, and capacity), perceptions of insecurity, knowledge of criminal justice procedures, norms of

cooperation with the police, perceived state legitimacy, and communal trust.

To measure the effects on citizen cooperation, reporting crimes and police abuse, we relied on survey questions that asked, for each offense for which the respondent was a victim, whether the crime was reported to the police. To avoid posttreatment bias by analyzing reporting conditional on crime victimization (61), we examined two sets of treatment effects in tandem: the impact on crime victimization rates and the impact on a recoded reporting variable, where zero represents either not being victimized or being victimized and not reporting and one means victimization and reporting.

We measured police officer attitudes and reported behaviors toward citizens with surveys. In Colombia, Pakistan, and Uganda, officers were randomized into treated areas and control areas by virtue of randomizing neighborhoods and police stations. In these settings, we estimated the effect of community policing on officer attitudes.

Analysis strategy

To estimate treatment effects in each study, we used linear regressions with an indicator for the common treatment arm controlling, when possible, for baseline outcomes and if treatment assignment was block randomized, also for block fixed effects. We interpreted these effects as intent-to-treat effects given the imperfect compliance with assigned treatment that we document. We weighted the regressions by the inverse of the product of the probability of inclusion in the sample, when calculable, and the probability of assignment to treatment (62). We report CR2 robust SEs clustered at the level of treatment assignment to account for our cluster-randomized design (62, 63).

In Brazil, instead of intent-to-treat effects, we estimated complier average causal effects using instrumental variables estimation because of the nature of the Brazil study's treatment. The randomized encouragement consisted of a single meeting with a police commander, who informed residents about how to form a community forum. The endogenous treatment was the forum being formed, most similar to treatment in the other sites where watch forums were created and community meetings were held throughout the treatment period.

We pooled the study estimates in a random-effects meta-analysis (64) to assess the average effects of community policing and how effects vary across contexts.

We took two steps to address the risk of false discovery from multiple comparisons: We constructed eight indices representing our main hypotheses and then applied the Benjamini-Hochberg (65) adjustment to *P* values. Together, the eight represent a test of the hypothesis that increases in community policing practices can

Table 4. Outcome measures and data sources.

Hypothesis	Outcome index	Index components (if more than one)	Data source
Primary outcomes			
1a.	Crime victimization index*	Violent crime (personal); nonviolent crime (personal); violent crime (community); nonviolent crime (community)	Citizen survey
1a. (alt.)	Crime victimization index (administrative)*	Violent crime; nonviolent crime	Police blotters
1b.	Perceived future insecurity index	Feared violent crime; feared walking	Citizen survey
2.	Overall perceptions of police index	Trust in police; trust in service of police	Citizen survey
3a.	Police perceptions of citizens index†	Abuse index; accountability index; corruption index; empathy index	Officer survey
3b.	Police abuse	Abuse (binary); bribe amount; bribe frequency	Citizen survey
4a.	Crime reporting index	Violent crime (personal); violent crime (community); nonviolent crime reporting (community); nonviolent crime reporting (personal); resolution of crime index	Citizen survey
4b.	Crime tips index		Citizen survey
4c.	Police abuse reporting index	Beating community member; verbal abuse	Citizen survey
Mechanism outcomes			
M1a.	Perceived police intentions index	Corruption; treat fairly; treat seriously	Citizen survey
M1b.	Knowledge of criminal justice†	Legal knowledge; knowledge of how to report crimes	Citizen survey
M1c.	Cooperation norms index	Reporting norm (theft); reporting norm (domestic abuse); obey police norm	Citizen survey
M2a.	Perceived police capacity index	Police timeliness; police investigation capacity	Citizen survey
M2b.	Perceived police responsiveness		Citizen survey
Secondary outcomes			
S1.	Perceived state legitimacy§		Citizen survey
S2.	Community trust		Citizen survey
C.	Compliance index	Foot patrol frequency; vehicle patrol frequency; community meeting awareness	Citizen survey

*Colombia estimates are not included in the meta-estimate because of a difference in measurement. A common measure of crime victimization with all estimates is included in the supplementary materials. †Brazil, Liberia, and Philippines sites are not included in the meta-analysis because officers were not randomized into participation in community policing or control because of the organizational structure of the police agency. ‡Philippines' estimates are not included in the meta-analysis because of a difference in measurement. §Uganda and Pakistan sites are not included in the meta-analysis because state legitimacy was not measured in these two cases.

reduce crime and build trust in the police. We adjusted each set of P values for suboutcomes within a hypothesis with the same procedure.

Ethics

The experiments described in this paper raise an important and unique set of ethical considerations (see the supplementary materials, section A.4, for an extended discussion of ethical issues). Each experiment was motivated by high levels of citizen mistrust in the police and concerns about police behavior, including corruption and abuse of power. However, all of the experiments involved direct collaboration between research teams and these same police agencies. Although we shared with the police the goal of understanding how potential reforms to police practices might change police behavior and police-citizen interactions, we were also highly attentive to concerns that these partnerships might implicate us as researchers in actions that might cause harm to individuals. For this reason, the research teams went beyond the traditional standards imposed by institutional review boards and national laws. As part of this joint project, each site's team weighed the

costs and benefits of partnering with each police agency seriously, focused on minimizing the risk of any potential harm from the intervention, and sought to provide transparency and informed consent to all participants in the research.

Several best practices emerged in the process. First, we carefully considered the appropriateness of the local context in the design of each experiment. For example, with obvious concerns about police complicity in the abusive war on drugs in the Philippines, the research team focused their collaboration with the police in Sorsogon, a province where drug trafficking is not a salient issue. More broadly, teams engaged in substantial pre-vetting of police units and areas to ensure that the work was being done in places where risks to citizens were relatively low. Second, we ensured that the police provided training for participating officers as part of the intervention. The focus was on developing meaningful training practices that could influence how police officers think about their relationship with citizens and carry out community policing activities. Third, and perhaps most importantly, each team developed an extensive risk

mitigation plan. The teams often deployed monitors on the ground to observe police activities. Each team developed clear red lines to guide decisions about ending researcher participation in response to public safety and police behavior concerns. Finally, teams were committed to transparency about the research and the protection of confidentiality for research subjects. Given the sensitivity of survey responses about police behavior and abuse, it was important that the information we collected be anonymized and presented only in the aggregate to our police partners.

Although we worked in partnership with the police, we did not see this as transferring our ethical responsibilities to a third party. Throughout, we were careful to evaluate the risks associated with these partnerships, the potential of the research to improve police practices for the better, and how we could identify and mitigate potential harm throughout the research process.

REFERENCES AND NOTES

1. L. W. Sherman, D. Gottfredson, P. Reuter, S. Bushway, "Preventing crime: What works, what doesn't, what's promising," in National Institute of Justice Research in Brief (National Institute of Justice, 1998), <https://www.ojp.gov/pdffiles/171676.pdf>.

2. D. Weisburd, J. E. Eck, What can police do to reduce crime, disorder, and fear? *Ann. Am. Acad. Pol. Soc. Sci.* **593**, 42–65 (2004). doi: [10.1177/0002716203262548](https://doi.org/10.1177/0002716203262548)
3. C. Reith, *A New Study of Police History* (Oliver, 1956).
4. G. Marshall, *Police and Government: The Status and Accountability of the English Constable* (Methuen, 1965), vol. 216.
5. D. P. J. Walsh, V. Conway, Police governance and accountability: Overview of current issues. *Crime Law Soc. Change* **55**, 61–86 (2011). doi: [10.1007/s10611-011-9269-6](https://doi.org/10.1007/s10611-011-9269-6)
6. W. A. Geller, H. Toch, *Police Violence: Understanding and Controlling Police Abuse of Force* (Yale Univ. Press, 1959).
7. F. E. Zimring, *When Police Kill* (Harvard Univ. Press, 2017).
8. D. Beetham, *The Legitimation of Power* (Macmillan Education, 1991).
9. P. A. J. Waddington, *Policing Citizens: Authority and Rights* (Psychology Press, 1999).
10. T. R. Tyler, Y. Huo, *Trust in the Law: Encouraging Public Cooperation With the Police and Courts* (Russell Sage Foundation, 2002).
11. R. Collins, Strolling while poor: How broken-windows policing created a new crime in baltimore. *Georget. J. Poverty Law Policy* **14**, 419 (2007).
12. K. B. Howell, "Broken lives from broken windows: The hidden costs of aggressive order-maintenance policing," in *New York University Review of Law and Social Change* (NYU, 2009), vol. 33, p. 271.
13. T. R. Tyler, Trust and legitimacy: Policing in the USA and Europe. *Eur. J. Criminol.* **8**, 254–266 (2011). doi: [10.1177/1477370811411462](https://doi.org/10.1177/1477370811411462)
14. J. Mummolo, Militarization fails to enhance police safety or reduce crime but may harm police reputation. *Proc. Natl. Acad. Sci. U.S.A.* **115**, 9181–9186 (2018). doi: [10.1073/pnas.1805161115](https://doi.org/10.1073/pnas.1805161115); pmid: [3026997](#)
15. B. Magaloni, E. Franco-Vivanco, V. Melo, Killing in the slums: Social order, criminal governance, and police violence in Rio de Janeiro. *Am. Polit. Sci. Rev.* **114**, 552–572 (2020). doi: [10.1017/S0003055419000856](https://doi.org/10.1017/S0003055419000856)
16. J. R. Greene, S. D. Mastroski, *Community Policing: Rhetoric or Reality?* (Praeger, 1988).
17. W. G. Skogan, *Community Policing: Can It Work?* (Wadsworth/Thomson Learning, 2004).
18. Arizona State University Center for Problem-Oriented Policing, "The key elements of problem oriented policing" (ASU, 2018); <https://popcenter.asu.edu/content/key-elements-problem-oriented-policing-0>.
19. W. G. Skogan, S. M. Hartnett, *Community Policing, Chicago Style* (Oxford Univ. Press, 1997).
20. B. A. Reaves, *Local Police Departments, 2013: Personnel, Policies, and Practices* (National Criminal Justice Reference Service, 2015).
21. A. A. Braga, B. S. Turchan, A. V. Papachristos, D. M. Hureau, Hot spots policing and crime reduction: An update of an ongoing systematic review and meta-analysis. *J. Exp. Criminol.* **15**, 289–311 (2019). doi: [10.1007/s11292-019-09372-3](https://doi.org/10.1007/s11292-019-09372-3)
22. European Crime Prevention Network, "Community-oriented policing in the European Union today" (EUCPN, 2018); https://eucpn.org/sites/default/files/document/files/Toolbox%202014_EN_LR.pdf.
23. United States Government Accountability Office, "Foreign police assistance: Defined roles and improved information sharing could enhance interagency collaboration" (GAO, 2012); <https://www.gao.gov/assets/gao-12-534.pdf>.
24. United Nations Police, "Police manual on community-oriented policing in UN peace operations" (UNPOL, 2018); <https://police.un.org/en/manual-community-oriented-policing-in-peace-operations>.
25. International Association of Chiefs of Police, "IACP national policy summit on community-police relations: Advancing a culture of cohesion and community trust" (IACP, 2015); https://www.theiacp.org/sites/default/files/2018-09/CommunityPoliceRelationsSummitReport_web.pdf.
26. J. F. Garcia, D. Mejia, D. Ortega, "Police reform, training and crime: Experimental evidence from Colombia's Plan Cuadrantes" (CAF, 2013); https://scioteca.caf.com/bitstream/handle/123456789/245/police_reform_training_crime_experimental_evidence_colombia.pdf?sequence=1&isAllowed=y.
27. J. Cooper, "Randomized impact evaluation of the community auxiliary police, Bougainville, Papua New Guinea" (AEA RCT Registry, 2016); <https://www.socialscienceregistry.org/trials/1505>.
28. R. Muggah, I. S. de Carvalho, N. Alvarado, L. Marmolejo, R. Wang, "Making cities safer: Citizen security innovations from Latin America" (IADB, 2016); <https://publications.iadb.org/en/making-cities-safer-citizen-security-innovations-latin-america>.
29. R. Blair, S. Karim, B. Morse, Establishing the rule of law in weak and war-torn states: Evidence from a field experiment with the liberian national police. *Am. Polit. Sci. Rev.* **113**, 641–657 (2019). doi: [10.1017/S0003055419000121](https://doi.org/10.1017/S0003055419000121)
30. C. Blattman, D. P. Green, D. Ortega, S. Tobón, "Place-based interventions at scale: The direct and spillover effects of policing and city services on crime" (SSRN, 2017); https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3050823.
31. D. Collazos, E. García, D. Mejía, S. Tobón, D. Ortega, "Hot spots policing in a high crime environment: An experimental evaluation in Medellín" (SSRN, 2019); https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3316968.
32. S. Karim, Relational state building in areas of limited statehood: Experimental evidence on the attitudes of the police. *Am. Polit. Sci. Rev.* **114**, 536–551 (2020). doi: [10.1017/S0003055419000716](https://doi.org/10.1017/S0003055419000716)
33. A. Banerjee, R. Chattopadhyay, E. Duflo, D. Keniston, N. Singh, Improving police performance in Rajasthan, India: Experimental evidence on incentives, managerial autonomy and training. *Am. Econ. J. Econ. Policy* **13**, 36–66 (2021). doi: [10.1257/pol.20190664](https://doi.org/10.1257/pol.20190664)
34. R. A. Blair, M. Weintraub, "Military policing exacerbates crime and human rights abuses: A randomized controlled trial in Cali, Colombia" (SSRN, 2021); https://autopapers.ssrn.com/sol3/papers.cfm?abstract_id=3925245.
35. R. A. Blair, M. Moscoso, A. Vargas, M. Weintraub, "After rebel governance: A field experiment in security and justice provision in rural Colombia" (SSRN, 2021); https://autopapers.ssrn.com/sol3/papers.cfm?abstract_id=3815789.
36. A. Franco, N. Malhotra, G. Simonovits, Publication bias in the social sciences: Unlocking the file drawer. *Science* **345**, 1502–1505 (2014). doi: [10.1126/science.1255484](https://doi.org/10.1126/science.1255484); pmid: [25170047](#)
37. D. T. Campbell, J. C. Stanley, *Experimental and Quasi-Experimental Designs for Research* (Houghton Mifflin, 1967).
38. T. Dunning, Transparency, replication, and cumulative learning: What experiments alone cannot achieve. *Annu. Rev. Polit. Sci.* **19**, S1–S23 (2016). doi: [10.1146/annurev-polisci-072516-014127](https://doi.org/10.1146/annurev-polisci-072516-014127)
39. T. Dunning et al., Voter information campaigns and political accountability: Cumulative findings from a preregistered meta-analysis of coordinated trials. *Sci. Adv.* **5**, eaaw2612 (2019). doi: [10.1126/sciadv.aaw2612](https://doi.org/10.1126/sciadv.aaw2612); pmid: [31281891](#)
40. G. Akerlof, J. L. Yellen, "Gang behavior, law enforcement, and community values" (The Brookings Institution, 1994); <https://www.brookings.edu/wp-content/uploads/2016/06/gang-behavior-law-enforcement-community-values-akerlof-yellen.pdf>.
41. President's Task Force on 21st Century Policing, "Final report of the President's Task Force on 21st Century Policing" (OCP, 2015); <https://www.ojp.gov/njrs/virtual-library/abstracts/final-report-presidents-task-force-21st-century-policing>.
42. D. Weisburd, C. W. Telep, J. C. Hinkle, J. E. Eck, Is problem-oriented policing effective in reducing crime and disorder? *Criminol. Public Policy* **9**, 139–172 (2010). doi: [10.1111/j.1745-9133.2010.00617.x](https://doi.org/10.1111/j.1745-9133.2010.00617.x)
43. P. de Mesquita Neto, A. Loche, "Police-community partnerships in Brazil," in *Crime and Violence in Latin America: Citizen Security, Democracy, and the State*, H. Fröhling, J. S. Tulchin, H. A. Golding, Eds. (Wilson Center, 2003); pp. 179–204.
44. Amnesty International, "Political violence in Colombia: Myth and reality" (Amnesty International, 1994); <https://www.amnesty.org/en/documents/AMR23/001/1994/en/>.
45. C. Blattman, G. Duncan, B. Lessing, S. Tobón, "Gang rule: Understanding and countering criminal governance" (National Bureau of Economic Research Working Paper 28458, 2021).
46. Y. González, The social origins of institutional weakness and change: Preferences, power, and police reform in Latin America. *World Polit.* **71**, 44–87 (2019). doi: [10.1017/S004388711800014X](https://doi.org/10.1017/S004388711800014X)
47. P. Bulla, I. Beltran, F. Sanchez, R. Escobedo, S. Guarin, B. Ramirez, J. F. Garcia, C. Molinos, J. Esguerra, D. Quintero, N. Guio, D. Jaramillo, M. Quintero, "Evaluación de impacto del plan nacional de vigilancia comunitaria por cuadrantes" (FIP, 2012); https://www.files.ethz.ch/isn/156369/Informe%20Fip%2018%20PNVCC_web.pdf.
48. Policia Nacional de Colombia, "Estrategia institucional para la seguridad ciudadana: Plan nacional de vigilancia comunitaria por cuadrantes (PNVCC)" (PNC, 2010); <http://www.oas.org/es/sap/dgpe/innovacion/banco/anexo%20%20PNVCC.pdf>.
49. M. O. Masud, "Research summary #17 – Co-producing citizen security: The citizen-police liaison committee in Karachi (IDS, 2002); <https://assets.publishing.service.gov.uk/media/57a08d3f40f6b6497400174a/Ressum17.pdf>.
50. T. Khosa, "Police, politics, and the people of Pakistan" (PILDAT, 2015); <https://www.scribd.com/document/255462754/Performance-of-Police-Politics-and-People-of-Pakistan>.
51. B. Saed, "Handbook on community policing" (CPDI, 2015); <http://www.cpdi-pakistan.org/wp-content/uploads/2017/10/Handbook-on-Community-Policing.pdf>.
52. Directorate for Police Community Relations, "About us" (DPCR, 2021); <https://dpcr.pnp.gov.ph/portal/index.php/about-us>.
53. R. E. Narag, "Philippines," in *Community Policing in Indigenous Communities*, G. R. Newman, M. K. Nalla, Eds. (Taylor & Francis, 2013), pp. 201–212.
54. Directorate for Police Community Relations, "Police community relations manual (revised)" (DPCR, 2012); <https://dpcr.pnp.gov.ph/portal/images/downloads/Publication/PCR%20Manual%202012.pdf>.
55. M. Visser, Z. Driscoll, S. Lister, D. Opio, "Evaluation of Irish Aid's Uganda Country Strategy Programme 2010–2014" (Mokoro, 2015); https://www.irishaid.ie/media/irishaid/allwebitems/30whatwed/oIA_UgandaCSP_FinalReport_Final_05-05-2015.pdf.
56. T. Pettersson, K. Eck, Organized violence, 1989–2017. *J. Peace Res.* **55**, 535547 (2017).
57. J. H. Ratcliffe, T. Taniguchi, E. R. Groff, J. D. Wood, The Philadelphia foot patrol experiment: A randomized controlled trial of police patrol effectiveness in violent crime hotspots. *Criminology* **49**, 795–831 (2011). doi: [10.1111/j.1745-9125.2011.00240.x](https://doi.org/10.1111/j.1745-9125.2011.00240.x)
58. M. Hassan, The strategic shuffle: Ethnic geography, the internal security apparatus, and elections in Kenya. *Am. J. Pol. Sci.* **61**, 382–395 (2017). doi: [10.1111/ajps.12279](https://doi.org/10.1111/ajps.12279)
59. S. Brierley, Unprincipled principals: Co-opted bureaucrats and corruption in Ghana. *Am. J. Pol. Sci.* **64**, 209–222 (2020). doi: [10.1111/ajps.12495](https://doi.org/10.1111/ajps.12495)
60. J. Sunshine, T. R. Tyler, The role of procedural justice and legitimacy in shaping public support for policing. *Law Soc. Rev.* **37**, 513–548 (2003). doi: [10.1111/1540-5893.3703002](https://doi.org/10.1111/1540-5893.3703002)
61. T. Slough, "On theory and identification: When and why we need theory for causal identification," International Methods Colloquium Talk, 8 November 2019; http://taraslough.com/assets/pdf/theory_id.pdf.
62. J. E. Pustejovsky, E. Tipton, Small sample methods for cluster-robust variance estimation and hypothesis testing in fixed effects models. *J. Bus. Econ. Stat.* **36**, 672–683 (2018). doi: [10.1080/07350015.2016.1247004](https://doi.org/10.1080/07350015.2016.1247004)
63. D. F. McCaffrey, R. M. Bell, Bias reduction in standard errors for linear regression with multi-stage samples. *Qual. Control Appl. Stat.* **48**, 677–682 (2003).
64. M. Borenstein, L. V. Hedges, J. Higgins, H. R. Rothstein, *Introduction to Meta-Analysis* (Wiley, 2009).
65. Y. Benjamini, Y. Hochberg, Controlling the false discovery rate: A practical and powerful approach to multiple testing. *J. R. Stat. Soc. B* **57**, 289–300 (1995). doi: [10.1111/j.2517-6161.1995.tb02031x](https://doi.org/10.1111/j.2517-6161.1995.tb02031x)
66. Data and code for: G. Blair, J. Weinstein, F. Christia, E. Arias, E. Badran, R. A. Blair, A. Cheema, A. Farooqui, T. Fetzer, G. Grossman, D. Haim, Z. Hameed, R. Hanson, A. Hasanain, D. Kronick, B. S. Morse, R. Muggah, F. Nadeem, L. L. Tsai, M. Nanes, T. Slough, N. Ravanilla, J. N. Shapiro, B. Silva, P. C. L. Souza, A. M. Wilke, Community policing does not build citizen trust in police or reduce crime in the Global South. Open Science Framework (2021); doi: [10.17605/OSF.IO/2JUYZ](https://doi.org/10.17605/OSF.IO/2JUYZ)

ACKNOWLEDGMENTS

We thank the police leadership and their staff in each of our study regions for institutional support throughout the project. We thank J. Leaver for leadership and support throughout; J. Lyall and C. Samii for their substantial service in developing the project; M. Humphreys, S. Hyde, and C. Samii for assistance in their roles as EGAP executive directors; J. Bowers, A. Coppock, and D. Green for methodological advice; and E. Chapin, B. Crisman, A. Miller, C. Reardon, and V. Wirtschafter for research assistance. This research was approved by the institutional review boards (IRBs) for each site: Brazil by the Pontifícia Universidade Católica do Rio de Janeiro IRB (VRAC 11/2018); Colombia by the University of Pennsylvania IRB (827913) and the University of Florida IRB (201701883); Liberia by the MIT IRB (1704947586); Pakistan by the Princeton University IRB (7250); Philippines by the UCSD IRB (161252S, 170415S, and 170974S); and Uganda by the Brown University IRB (1897), the Columbia University IRB (AAAS2586), the Mildmay Uganda Research Ethics Committee (0306-2017), the

University of Pennsylvania IRB (827645), and the Uganda National Council for Science and Technology (SS 4421). The meta-analysis was approved as exempt by the UCLA IRB (19-001869). **Funding:** Funding for the Brazil, Colombia, Liberia, Pakistan, and Uganda sites and overall study coordination and the meta-analysis was provided by the UK Foreign, Commonwealth & Development Office (205133). Funding for the Philippines study was provided by a grant from the Fidelity Charitable Gift Fund (5896). Individual studies received supplementary funding or in-kind support from various sources. The Pakistan study was supported by the Jameel Poverty Action Lab Crime and Violence Initiative (PKGR-0895); Philippines from the University of California–San Diego Policy Design and Evaluation Lab;

Uganda from Oxford Policy Management (A0014-21585); and Colombia from the University of California–Berkeley Economic Development and Institutions program and Corporación Andina de Fomento. **Author contributions:** All authors contributed to the design of the study. Study teams, G.B. and F.N. analyzed the data for each site. G.B. and F.N. conducted the meta-analysis. G.B., J.W., and F.C. oversaw the coordinated studies and wrote the paper.

Competing interests: The authors do not have any real or apparent conflicts of interest except that Z.H. was employed by the Punjab Police, our police partner in the Pakistan study site. **Data and**

materials availability: A preanalysis plan was registered with EGAP (Evidence in Governance and Politics) at <http://egap.org/>

registration/5154. Data and code are posted at the Open Science Framework (66).

SUPPLEMENTARY MATERIALS

science.org/doi/10.1126/science.abd3446

Supplementary Text

Figs. S1 and S2

Tables S1 to S23

References (67–80)

2 December 2020; accepted 21 October 2021

10.1126/science.abd3446