Evaluating Cure Violence in Trinidad and Tobago

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Hal Greaves was a community outreach worker in Trinidad and Tobago for many years. The young men in the communities where he worked called him "Uncle Roy" in reference to a character he once played on a local television skit. Hal was one of the first people to teach us about gangs and violence in Trinidad and Tobago, not only on

this project, but also on earlier projects dating back to 2005. At the time of his death in October 2016, he served as an advisor to Project REASON. Upon his passing, a local newspaper referred to him, fittingly, as "the nation's peacemaker" (*Trinidad and Tobago Express*, 2016). We are enormously grateful to Hal and we hope the information presented in this report honors his memory and his lifelong commitment to community violence prevention.

Finally, our fieldwork as part of this project took us into several communities rich in culture and history, where residents unfortunately live in fear. We spoke to residents whose family members had been murdered and parents who were desperately trying to keep their children out of gangs. We spoke to community leaders who had devoted their own lives to helping improve the lives of others in their communities. We spoke to gang leaders and gang members who shared their perspective on what it is like to grow up in communities beset with violence and where economic opportunities are sparse. We are grateful to the residents of these communities—especially those who took the time to share their thoughts, feelings, and experiences with us—and we share their hope for a better, safer future.

Executive Summary

Crime and violence are among the most significant concerns for residents of Trinidad and Tobago. In 1999, 93 people were murdered in the country. In 2008, the number of murders rose to 547, a 488 percent increase. Over the next seven years (from 2009 through 2015), the number of murders averaged 420 per year. The average annual murder rate during this seven-year period averaged 31.6 per 100,000 inhabitants, placing Trinidad and Tobago among the world's most violent nations. More than three-quarters of these murders were firearm-related, with street gangs fueling much of this violence. Given the contributions of firearms and gangs to homicides in Trinidad and Tobago, focusing on these issues is important for reducing violence.

In 2008, the Ministry of National Security in Trinidad and Tobago established the Citizen Security Programme (CSP), financed in part by the Inter-American Development Bank (IDB). The CSP's mission is to help reduce crime and violence within 36 "high-needs" communities throughout the country. As part of its efforts to reduce violence in some of these communities, the CSP spearheaded the adoption of Cure Violence, an initiative that was first implemented in Chicago. Cure Violence relies on a public health approach to violence prevention and reduction, including violence associated with firearms and gangs. Cure Violence seeks to interrupt the cycle of violence and to change community norms about violent behavior. The program is based on five core components: street outreach to at-risk youth, public education, faith-leader involvement, community mobilization, and collaboration with law enforcement.

The Cure Violence program in Trinidad and Tobago had the following objectives:

- To prevent harm and reduce injuries associated with firearm-related violence
- To proactively prevent the escalation of tension that is likely to lead to violence
- To reduce the likelihood that high-risk individuals will engage in criminal and antisocial behavior
- To improve public perceptions of safety
- To improve coordination and collaboration among stakeholders to enhance efficiency in delivering violence prevention services

A small body of research has examined the effectiveness of Cure Violence and related strategies in achieving some of these objectives. Some communities have experienced reductions in violence, while others have experienced either no change or increases in violence. As one recent review of the research on Cure Violence concluded: "the evaluation evidence in support of the CV model to date is mixed at best" (Butts et al., 2015). Unfortunately, this body of research is not yet sufficiently developed to draw clear inferences about the factors responsible for these differential effects and the conditions under which the program is most likely to succeed.

The IDB contracted with Arizona State University to conduct a comprehensive evaluation of the Cure Violence initiative in Trinidad and Tobago. The IDB's decision to sponsor this rigorous evaluation provided a useful opportunity to expand the body of knowledge on the nature and effects of Cure Violence.

In Trinidad and Tobago, the local adaptation of Cure Violence was known as Project REASON (Resolve Enmity, Articulate Solutions, Organise Neighbourhoods). Project REASON began in July 2015 and ended in August 2017. It was implemented in 16 urban communities in the Port of Spain metropolitan area, including: Beetham Estate, Belmont, Eastern Port of Spain, Eastern Quarry, Gonzales, Laventille, Marie Road, Mon Repos, Morvant, Never Dirty, Picton, Port of Spain Proper, Romain Lands, Sea Lots, St. Barbs, and Upper Belmont. These 16 communities constituted the "intervention" or "treatment" area in this evaluation.

This report describes the evaluation's methods and findings and includes three main components: a process evaluation, an impact evaluation, and a cost-effectiveness analysis. The findings presented in this report are based on the analysis of qualitative and quantitative data collected before, during, and after the program's 26-month implementation period beginning July 1, 2015 and ending August 31, 2017.

Process Evaluation Findings

Our process evaluation revealed that Project REASON staff successfully implemented key aspects of the Cure Violence model in a number of distressed and violent communities in the Port of Spain area. While the project was still operating, staff were routinely engaging in efforts to prevent harm and reduce injuries associated with firearm-related violence, to prevent the escalation of tension that is likely to lead to violence, to reduce the likelihood that high-risk individuals will engage in criminal and antisocial behavior, to improve public perceptions of safety, and to improve coordination and collaboration among stakeholders involved in delivering violence prevention services.

Three factors served as strong facilitators of the implementation of Project REASON in Trinidad and Tobago:

- *The project appeared to have selected the right types of people for the job.* Project staff reported that they had been doing community outreach work in various capacities for many years prior to joining Project REASON. They appeared to be deeply embedded in their assigned communities, which gave them a unique ability to engage with known or would-be violent offenders in ways that others would likely

find more challenging. The staff had the street credibility and the social networks to enable them to navigate these dangerous communities fluidly and to anticipate and intervene in potentially violent situations.

- *Project REASON benefited significantly from a strong support system through the Cure Violence headquarters staff in Chicago.*
  Chicago team members provided ongoing training and technical assistance for Project REASON staff throughout the life of the project.
- *The relationships between Project REASON staff and the "Hearts and Minds" officers in the Interagency Task Force were an invaluable resource.*
  Staff in some Cure Violence sites report that they do not talk to the police, that police harass them, and that police cannot be trusted. The partnership between Project REASON and the Hearts and Minds initiative was both unique and powerful.

Our process evaluation also uncovered a number of challenges and impediments experienced by Project REASON. The following concerns should be addressed in future replications of the program in Trinidad and Tobago and elsewhere:

- *Staff must concentrate their efforts on the highest-risk clients.*
  The Cure Violence model is premised on the idea of working with clients who are at the highest risk for involvement in violence, whether as potential victims or offenders. Therefore, it is important for outreach workers to focus their efforts on these clients rather than providing more general types of social services for people who are not at high risk for involvement in violence.
- *Staff must prioritize the conflict mediation aspects of their work and report activities in an accurate and timely manner in the Cure Violence database.*
  Due to data quality issues, we are uncertain about the validity of some of the implementation measures included in this report. Given research evidence that areas with more conflict mediation activity experience the greatest reductions in violence, it is important for project staff to record this activity in the Cure Violence database regularly.
- *Staff must prioritize responses to each shooting incident in an intervention community.*
  Staff were unable to develop formal responses to every single shooting incident within the intervention area as required by the Cure Violence model. This is an important aspect of the program that must be prioritized.
- *Staff must hire a sufficient number of personnel and invest in community partnerships.*
  Staff emphasized that they did not have enough personnel to cover all the target communities adequately. Problems associated with being understaffed were also cited as limiting their ability to invest in more collaborative partnerships with other community stakeholders, a key component of the Cure Violence model.
- *The project must have proper management and oversight.*
  Most importantly, staff highlighted an ongoing pattern of poor oversight and mistrust associated with Project REASON management. Frequent conflict between TAIRASS (the entity contracted to carry out the Cure Violence initiative in Trinidad) and the Citizen Security Programme led to a variety of ill effects for the day-to-day

operations of Project REASON and to the health and well-being of its staff. These issues ultimately resulted in the project ending three months early.

Impact Evaluation Findings

Our impact evaluation provides many reasons for optimism. Based on a series of quasi-experimental designs using three independent data sets maintained and updated by separate entities, we examined the impact of Project REASON on several indicators of violence. One analysis focused on official crime data from the Trinidad and Tobago Police Service (TTPS), another focused on police calls-for-service data from the Ministry of National Security, and another used hospital admissions data. Findings from these various data sets and analyses include the following:

- The difference-in-differences and synthetic controls analyses of official data on five categories of violent crime found that the Cure Violence intervention was associated with significant and substantial reductions in violence.
- The difference-in-differences analysis of police calls-for-service data on three categories of violent incidents also found substantial and significant reductions in reported violence.
- The interrupted time series analysis of emergency room admissions data from two hospitals found that Cure Violence reduced gunshot wound admissions in a treatment hospital near the intervention area but not in a comparison hospital located 55 kilometers away.

Based on all three analyses, we conclude that Project REASON reduced violence in the treatment area. Our impact analysis also included a community victimization survey. Survey analyses detected a significant small-to-moderate reduction in fear of crime in the treatment community, as well as a small reduction in self-reported violent victimization. Other survey results were less promising, suggesting that Project REASON did not penetrate the community as fully as expected. Only 16 percent of residents surveyed in the treatment community had heard of Project REASON.

Cost-Effectiveness Analysis Findings

We also carried out cost-effectiveness analyses using three of the data sets we just discussed. The findings from these analyses were remarkably consistent across the three independent data sets and showed that Project REASON cost, on average, approximately US$3,500 to US$4,500 for every violent incident it prevented. Given the enormous costs of violence in both human and economic terms, these estimates provide hope not only that violence can be prevented, but that effective solutions for preventing violence may actually be affordable.

Introduction

Crime and violence continue to be among the most significant concerns for residents of Trinidad and Tobago. A 2010/11 survey of more than 11,000 residents in seven Caribbean nations revealed that respondents from Trinidad and Tobago reported feeling less secure than those from any of the other six participating nations, including Jamaica (UNDP, 2012). Fewer than a quarter of the residents surveyed reported that they felt secure living in Trinidad and Tobago. These issues are particularly salient in the East Port of Spain area. A 2015 survey found that 56.2 percent of residents from communities in East Port of Spain felt unsafe on the streets at night. The same survey found that 57.8 percent of respondents from these communities reported that their neighborhood is affected "somewhat or a lot by gun violence." In two East Port of Spain communities (Sea Lots and Port of Spain Proper), this percentage exceeded 95 percent (QURE Limited, 2015).

These security concerns are not without merit. In 1999, there were 93 murders in Trinidad and Tobago; by 2008, the number of murders had risen to 547, a 488 percent increase. As illustrated Figures 1 and 2, both the raw number and the rate of murders in Trinidad and Tobago dropped each year from 2009 to 2011 but then began to climb again starting in 2012.[1,2] Even with these declines, the average annual murder rate in Trinidad and Tobago over the six-year period from 2010 to 2015 was still approximately 30.6 per 100,000 residents, placing it among the world's most violent nations.[3] The use of firearms is also of serious concern, with 78.5 percent of all murders and 63.0 percent of all woundings from 2010 to 2015 classified as firearm-related.[4] Street gangs fuel much of

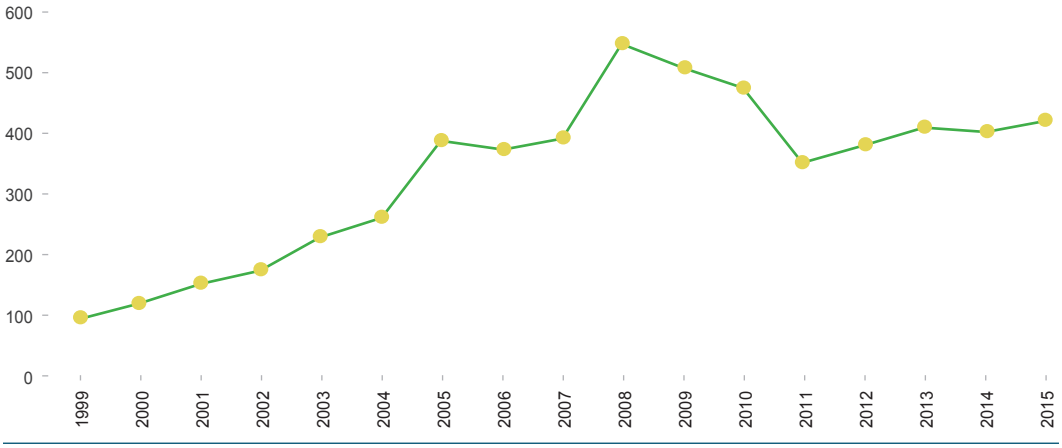
[1] Figure 2 shows annual murder rates per 100,000 population in Trinidad and Tobago. For 1999 and 2000, we used the population estimate from the 2000 census (1,262,366) to calculate the murder rate. For 2011–2015, we used the population estimate from the 2011 census (1,328,019). For 2001–2010, we relied on linear interpolations of the 2000 and 2011 estimates.

[2] To our knowledge, there is no widely accepted explanation for why homicides dropped from 2009 to 2011. There is some speculation that the spike in homicides in 2008 was the result of particularly intense levels of gang conflict and that the subsequent drop was associated with reductions in the intensity of that conflict. However, we are not aware of any rigorous research on the changes in violence during this period.

[3] The numerator of the murder rate is based on the 2,434 murders that occurred in Trinidad and Tobago from 2010 to 2015, for an annual average of 405.7. The denominator is based on the 2011 census population of 1,328,019.

[4] For murders, the crime data supplied by the Trinidad and Tobago Police Service contain detailed information on weapon types for all but 59 of the 2,392 murders recorded from 2010 to 2015. Of the remaining 2,333 murders with

FIGURE 1: ANNUAL NUMBER OF MURDERS IN TRINIDAD AND TOBAGO, 1999–2015



Source: Data provided by the TTPS Crime and Problem Analysis Branch.

the violence, including disputes within and between gangs as well as violence committed by gang members against others who are not gang-involved (Maguire et al., 2008). Given the role of firearms and gangs as proximate causes of homicide in Trinidad and Tobago, criminologists and other social scientists have emphasized the importance of focusing on these issues to reduce violence (see Agozino et al., 2009; Katz and Maguire, 2015; Wells, Katz, and Kim, 2010).

The Ministry of National Security in Trinidad and Tobago established the Citizen Security Programme (CSP) to help reduce crime and violence within 36 "high-needs" communities throughout the nation. As part of its efforts to reduce violence in some of these communities, the CSP spearheaded the adoption of Cure Violence in Trinidad and Tobago. Cure Violence, which was first implemented in Chicago, relies on a public health approach to the prevention and reduction of violence, including violence associated with firearms and gangs (Ransford and Slutkin, 2017).

Cure Violence seeks to interrupt the cycle of violence and to change community norms about violent behavior.[5] The program is based on five core components: street outreach to at-risk youth, public education, faith-leader involvement, community mobilization, and collaboration with law enforcement. The specific objectives of Cure Violence in Trinidad and Tobago were the following (CSP, n.d.):

- To prevent harm and reduce injuries associated with firearm-related violence
- To proactively prevent the escalation of tension that is likely to lead to violence
- To reduce the likelihood that high-risk individuals will engage in criminal and antisocial behavior
- To improve public perceptions of safety

information on weapon types, 1,831 of them were committed with firearms (78.5 percent). For woundings, the data contained less detail about weapon types. Of the 2,174 cases of wounding with intent recorded from 2010 to 2015, 825 cases are missing information on weapon types. Of the remaining 1,349 cases, 850 involved a firearm (63.0 percent).

[5] Readers interested in a detailed explanation of the theory of change for reducing violence using the Cure Violence model should consult Ransford and Slutkin (2017).

FIGURE 2: ANNUAL MURDER RATES IN TRINIDAD AND TOBAGO, 1999–2015

Source: Data provided by the TTPS Crime and Problem Analysis Branch.

- To improve coordination and collaboration among stakeholders to enhance efficiency in delivering violence prevention services

A small body of research evidence is now available on the effectiveness of Cure Violence and related strategies (see Fox et al., 2015; Picard-Fritsche and Cerniglia, 2013; Skogan et al., 2009; Webster et al., 2013; Wilson and Chermak, 2011). Some communities have experienced the hypothesized reductions in violence. Others have experienced either no change in violence or even increases in violence (Maguire, 2017). As one recent review of the research on Cure Violence concluded, "The evaluation evidence in support of the CV model to date is mixed at best" (Butts et al., 2015). Unfortunately, this body of research is not yet sufficiently developed to draw clear inferences about the factors responsible for these differential effects and the conditions under which the program is most likely to succeed. One strong possibility is that depth of implementation may be associated with the degree of effectiveness, thus reinforcing the need for detailed measures of implementation depth across communities.[6] The evaluation of Cure Violence in Trinidad and Tobago offers a useful opportunity to expand the body of knowledge on the nature and effects of Cure Violence.

In Trinidad and Tobago, the local adaptation of Cure Violence was known as Project REASON (Resolve Enmity, Articulate Solutions, Organise Neighbourhoods). Project REASON began in July 2015 and ended in August 2017. The program was implemented in 16 urban communities in the Port of Spain metropolitan area.[7] These include the

[6] For instance, based on their study of a Cure Violence replication site in Baltimore, Whitehill et al. (2013: 204) found that "neighbourhoods with programme-associated reductions in homicides mediated more gang-related conflicts; neighbourhoods without programme-related homicide reductions encountered more retaliatory conflicts and more weapons."

[7] The evaluation team was not involved in the selection of these intervention communities. Local officials made that decision prior to the design of the evaluation. Our interviews with these officials revealed that the Port of Spain metropolitan area was selected because some of the communities in this area have the highest rates of gun violence in the country. Although there are other communities with high levels of gun violence (higher than some of the intervention communities), they are located in other parts of the country. Local officials reasoned that with

MAP 1: CURE VIOLENCE INTERVENTION COMMUNITIES

Source: Shapefiles obtained from Central Statistical Office. Map created by Julie Hibdon.

limited resources, it would be best to concentrate the intervention in one zone containing contiguous communities. Another factor that played a role in the selection of these communities was that certain partnerships had already been established within them, and they would be a valuable resource in the implementation of Cure Violence. While these decisions are justifiable from the perspective of program implementation, they introduce significant challenges for the design of a high-quality impact evaluation. If Cure Violence is implemented in other sites, the decision about which communities receive the intervention should take evaluation concerns into account so that evaluators can draw unambiguous inferences about whether the intervention produces the intended effects.

MAP 2: INTERVENTION AREA RELATIVE TO SURROUNDING COMMUNITIES

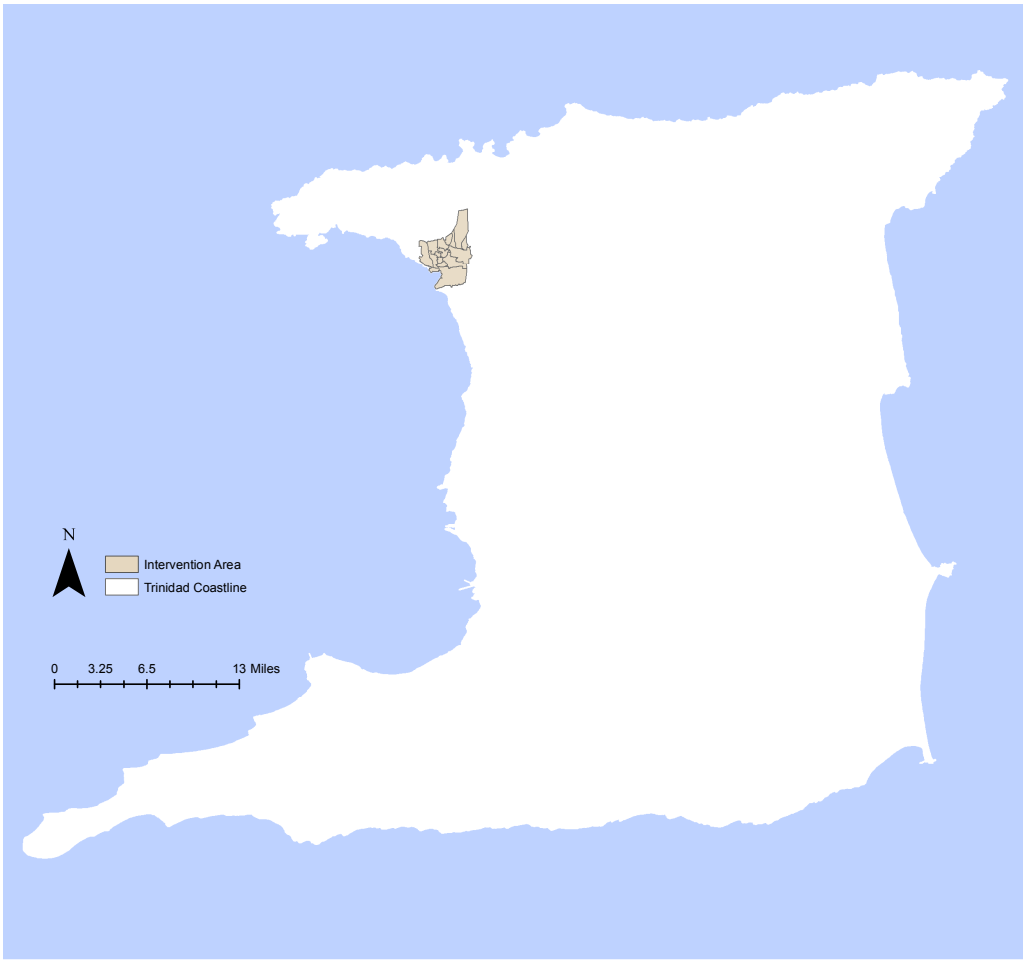
Source: Shapefiles obtained from Central Statistical Office. Map created by Julie Hibdon.

following (as defined by Central Statistical Office boundaries and local naming conventions): Beetham Estate, Belmont, Eastern Port of Spain, Eastern Quarry, Gonzales, Laventille, Marie Road, Mon Repos, Morvant, Never Dirty, Picton, Port of Spain Proper, Romain Lands, Sea Lots, St. Barbs, and Upper Belmont. Throughout this report, we refer to these 16 target communities collectively as the "intervention" or "treatment" areas. Map 1 shows the location and boundaries of these 16 communities. Maps 2 and 3 illustrate the intervention area relative to surrounding areas.

As Map 3 makes clear, the intervention area is small relative to the nation as a whole. However, it is responsible for a disproportionate share of the nation's violence problem. For instance, although these areas constitute only 0.5 percent of the nation's land mass and 5.9 percent of the nation's population, they were home to 27.5 percent of the murders and 30.1 percent of the shootings and woundings in Trinidad and Tobago from 2010 to 2015.[8] Consistent with criminological research on the spatial distribution of crime more generally (Weisburd, Groff, and Yang, 2012), research has shown that violence in Trinidad and Tobago is spatially concentrated in a handful of particularly

[8] Between 2010 and 2015, Trinidad and Tobago experienced 2,392 murders. Of these, 658 (27.5 percent) occurred within one of the 16 Cure Violence intervention communities. During that same period, there were 3,216 shootings and woundings in Trinidad and Tobago. We were unable to determine locations for 16 of these incidents. For the remaining 3,200 incidents, 963 (30.1 percent) occurred within one of the Cure Violence intervention communities.

MAP 3: INTERVENTION AREA RELATIVE TO THE ISLAND OF TRINIDAD



Source: Shapefiles obtained from Central Statistical Office. Map created by Julie Hibdon.

violent communities. Thus, interventions intended to address this chronic violence must be similarly concentrated (Maguire, et al., 2008).

The IDB contracted with Arizona State University to conduct a comprehensive evaluation of the Cure Violence intervention in Trinidad and Tobago. This report offers a final evaluation of the program and includes three main components: a process evaluation, an impact evaluation, and a cost-effectiveness analysis. For the impact evaluation, we rely on multiple independent data sources. This report provides evaluation results based on qualitative and quantitative data collected before, during, and after the program's 26-month implementation period, beginning July 1, 2015, and ending August 31, 2017 (later in the report we discuss in more detail the complexities associated with identifying both the launch date and end date).

Purpose and Scope of the Evaluation

The overall purpose of the evaluation is to assess the extent to which the Cure Violence intervention was implemented as planned, whether the program generated the intended outcomes, and whether it was cost-effective. The final evaluation consists of the following three main components:

- A multi-method process evaluation examines the implementation process in detail. This portion of the evaluation focuses on the nature of service delivery, access to the program, management practices, and the ways in which various internal or external factors may have influenced program implementation. The process evaluation component allows us to draw inferences about the extent to which the program was implemented as planned as well as obstacles to implementation and the depth or "dosage" of implementation across the 16 intervention communities.
- A quasi-experimental impact evaluation estimates the effectiveness of the Cure Violence initiative in Trinidad and Tobago, including its impact on reported crime (murders, attempted murders, shootings, and woundings), hospital admissions for gunshot wounds, and calls for service to the police for violent crime. This analysis also provides quantitative findings on changes in participants' behaviors and attitudes.
- A cost-effectiveness analysis reviews the costs associated with whatever benefits result from the implementation of Cure Violence in Trinidad and Tobago. The findings from this portion of the analysis will be useful for policymakers who are faced with the difficult decision about whether to implement Cure Violence or other violence-prevention initiatives. A cost-effectiveness analysis allows decision makers to choose those initiatives that provide the greatest violence reduction benefits per unit cost.

Determining the Start and End Date of the Intervention

As is often the case in evaluation research, determining the inception date of the intervention for evaluation purposes is complicated. The implementation of Cure Violence in Trinidad and Tobago was staggered over several months. Seven of the 12 outreach workers (OWs) and violence interrupters (VIs) were hired on July 1, 2015; the remaining

five were hired on September 1, 2015. Even before the initial round of hires in July, some members of the eventual Cure Violence team engaged in mediation activities in the intervention communities in an effort to prevent violence. After the initial round of hires, the staff report that they spent much of their time gearing up and preparing to launch the intervention. On September 19, 2015, Cure Violence staff participated in a "Love March," a public event held in Woodford Square, Port of Spain to protest violence in the surrounding communities (*Trinidad and Tobago Newsday*, 2015). While July 1, 2015, was the official launch date of Cure Violence in Trinidad and Tobago, program staff report that September 19, 2015, is when Cure Violence first engaged in visible activity in the community. Thus, for purposes of the evaluation, we treat July 1, 2015, as the internal launch of Cure Violence, and September 19, 2015, as the date of its external launch in the community.

Project REASON was scheduled to be funded through November 2017. However, because of administrative complications, the program ended early on August 31, 2017. We will discuss these complications and their effect on the project in more detail in the Process Evaluation section. For purposes of final data analysis, we treat August 31, 2017, as the end date of the program.

1 Process Evaluation

The process evaluation details the internal and external factors that influenced the Cure Violence program's implementation, operations, and outcomes. The Cure Violence model includes the following five components essential to implementation:

1. Detecting and interrupting potentially violent conflicts
2. Treating those at highest risk for involvement in violence
3. Group and community norm changes
4. Data and monitoring
5. Training and technical assistance

Appendix 1 outlines these components as well as the action items identified by the Cure Violence Model as necessary to carry out each component successfully. To examine the extent to which Project REASON faithfully implemented the Cure Violence model, we draw from the following qualitative and quantitative data sources:

- Evaluation team field notes resulting from individual and focus group interviews with Cure Violence managers and staff (including outreach workers and violence interrupters), community stakeholders, police officers, and program participants. See Appendix 2 for a list of sample questions that were used during our semi-structured interviews.
- Evaluation team field notes resulting from observations of program activities in Cure Violence offices and intervention communities.
- Internal archival data from program staff, including reports on project activities and other administrative data maintained by program personnel. Most of the archival data are derived from the Cure Violence database.

Each of the five components of the Cure Violence model hinges on the selection and training of credible VIs and OWs. The following section summarizes the staff hiring and training process that established the foundation for the implementation processes to follow.

Trained Credible Messengers

The initial screening of Project REASON staff began in the spring of 2015 before the program's official launch on July 1. Individuals were nominated for positions in one of two ways: (i) by a program Steering Committee composed of community stakeholders from the East Port of Spain region, or (ii) by a local consultant hired to assist with the intervention. This consultant had made a career out of community outreach and was heavily involved in violence reduction efforts within the intervention communities prior to Cure Violence.

Candidates were first vetted by the TTPS. Formal interviews were then held and included members of the Cure Violence Chicago team, individuals from the TTPS, Steering Committee members, and a representative from the CSP. The formal Cure Violence protocol on interview processes and scoring of candidates was followed, with careful oversight from Cure Violence Chicago personnel. The majority of staff members hired by the program were already engaged in outreach work within the intervention communities and thus were well suited to take on the roles of OWs and VIs. Seven of the 12 OW and VI positions were filled on July 1, 2015; the remaining five were filled on September 1, 2015, for a total of seven VIs and five OWs. In addition to VI and OW staff members, a handful of other administrative staff were hired to support the program. In August and September 2016, the program lost two staff members (one VI, one OW) due to a resignation and a death. To our knowledge, the OW vacancy was never filled. The VI position was filled by an OW approximately six months after the vacancy, leaving two OW positions unstaffed during the final year of the program.

Individuals selected to act as VIs and OWs were carefully selected, vetted, and well poised to act as violence reduction ambassadors within their assigned communities. Other Cure Violence sites have reported difficulties identifying suitable candidates for staffing and getting stakeholders to buy in to the roles and responsibilities of VIs and OWs. This was much less of an issue in Trinidad and Tobago. Project REASON staff were by and large individuals who were already engaging in efforts to reduce crime in their communities. Many staff reported having credibility with gang leaders and members and having the freedom to move between gang territories without fear of reprisal. Anecdotal evidence of staff credibility includes the following:

- One VI told us that on occasion gang members would call him to ask if he could stay on the block so that their wives, women, children, or even followers could pass safely into the next community.
- An OW revealed that certain gang members would call her for guidance as they "wrestled with their demons" after being given orders to rob, shoot, or kill.
- Another VI shared that prior to his incarceration and work on the project, he was the leader of a gang and that now he was the only member of the gang who was still alive. As a result, he had access to many of the gang members in the community and helped introduce the TTPS Hearts and Minds program into his neighborhood.

This level of staff credibility early on was a significant advantage for the program which helped strengthen the team, as indicated by these reflections from staff:

- "The dynamic of the team works well with us. I go through on a daily basis what the people go through because I live in the neighborhood. I am a living example."
- "[Project REASON] gives me the opportunity to do things I've been trying to do for a long time."

We now turn to a discussion of the extent to which VIs and OWs in Trinidad and Tobago were successful in implementing the five core components of the Cure Violence model.

Detecting and Interrupting Potentially Violent Conflicts

The Cure Violence Model asserts that trained, credible messengers can prevent the cycle of violence by identifying potentially violent conflicts and mediating them to prevent violence. To assess these efforts within the implementation of Project REASON, we reviewed conflict mediation data from the Cure Violence database as well as anecdotal evidence from staff interviews.

Project REASON staff did not appear to follow any formal processes for uncovering potentially violent incidents. Rather, their efforts were more informal and fluid. Because many of the staff hired by Project REASON were already familiar with the communities to which they were assigned, they learned about potential violence by canvassing their communities and speaking with residents and known violent offenders. While fidelity to the model calls for the use of a regularly updated strategic plan for gathering information on potential violence and responding accordingly, it does not appear that Project REASON followed such a process. However, it does appear that staff members were active enough in their communities to learn about potentially violent situations in time to undertake preventive efforts. In one Project REASON community, an individual crashed a car after being too afraid to stop at a traffic light in enemy gang territory. Gang members saw this individual exit the vehicle and arranged for a hit. A VI learned about the incident and was able to intercept the would-be killer to prevent the imminent murder. Another VI was called "in the dead of night" by a gang member who had been given orders to kill. Two VIs went to visit this gang member to dissuade him from carrying out the murder.

As these examples illustrate, Project REASON staff relied upon a variety of methods for uncovering and attempting to prevent violence. In many cases, being out in the streets and engaging with residents led staff to discover useful information. In other instances, relationships staff members had formed with at-risk individuals resulted in useful information sharing. Project REASON staff appear to have been successful in canvassing intervention communities for potential violence and coming up with alternative violence-reduction solutions when at-risk participants were not receptive to their efforts. As one VI shared, "sometimes they tell you there is nothing you can do to stop them, and you just have to respect that and let them be. But if I

cannot talk a guy out of killing someone, I might be able to talk the potential victim out of the area."

We now turn to a discussion of the mediation efforts staff undertook to respond to potential violence. Under the Cure Violence model, conflict mediations are one of the main means for interrupting cycles of violence and creating new non-violent, non-retaliatory norms. The Cure Violence database is a web-based data portal operated by the Cure Violence headquarters in Chicago. The database acts as a repository for program data across all Cure Violence project sites. While our analysis of the ability of Project REASON staff to detect potential violence is based primarily on qualitative data, the Cure Violence database provides an opportunity to do some basic quantitative analyses of the program's mediation activities as well.

During the 26-month intervention period, Project REASON staff conducted 77 mediations, an average of approximately 3 per month, for a total of 520 hours spent on mediations across staff members during the intervention period. Mediations occurred in 9 of the 16 intervention communities, as depicted in Table 1.1. Figure 1.1 illustrates the timing of mediations across the project period.

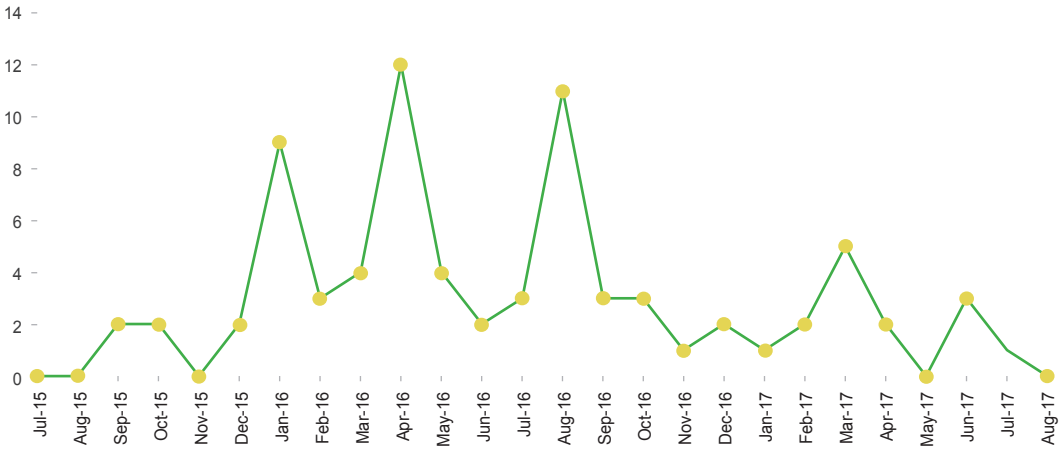
Almost all of the mediations (93.5 percent) were conducted the same day as, or the day after, the reported conflict, indicating that staff were prompt in their conflict resolution efforts after learning about the potential for violence. Staff reported that 88 percent of conflicts mediated involved parties that were members of a group actively involved in violence, while 87 percent of the conflicts mediated included an individual who was thought to have

TABLE 1.1: PROJECT REASON MEDIATIONS PER INTERVENTION COMMUNITY (JULY 2015–AUGUST 2017)

Community	Number of Mediations	Percent
Beetham Estate	1	1.3
Belmont	1	1.3
East Port of Spain	18	23.4
Eastern Quarry	—	0
Gonzales	—	0
Laventille	27	35.1
Marie Road	—	0
Mon Repos	—	0
Morvant	—	0
Never Dirty	—	0
Picton	1	1.3
Port of Spain Proper	18	23.4
Romain Lands	—	0
Sealots	2	2.6
St. Barbs	2	2.6
Upper Belmont	1	1.3
Outside Target Areas	6	7.8

Source: Cure Violence database.

FIGURE 1.1: MEDIATIONS CONDUCTED BY PROJECT REASON STAFF (JULY 2015–AUGUST 2017)



Source: Cure Violence database.

a history of violence. Staff reported that a weapon was present at 66 percent of the original conflicts, while only 39 percent of mediations involved a weapon present. Table 1.2 highlights other mediation data captured by the Cure Violence database.

While there is no standard within the Cure Violence model for the number of mediations that should occur within a site, it is useful to view Project REASON's numbers alongside other sites as a point of comparison. The New York-based Save Our Streets initiative (Picard-Fritsche and Cerniglia, 2013) completed 108 mediations during a 29-month evaluation period (approximately 3.7 per month), while the Phoenix-based TRUCE program (Fox, et al., 2015) mediated 58 conflicts over 19 months (approximately 3 per month). The Baltimore Safe Streets initiative (Webster, et al., 2012) reported 276 mediations over a 42-month program period (approximately 6.6 per month).

Project REASON's monthly average was less than Baltimore's and New York's, but about the same as Phoenix's. It is important to remember that mediations occur as staff members become aware of brewing conflicts or possible retaliations. The impact data for Project REASON (presented later in this report) indicates that crime in the intervention communities decreased over the course of the project period. It is possible that sites experiencing decreases in violence will experience a diminishing need for mediations as a result.

The database also offers information on the level of mediation activity per Project REASON staff member. As depicted in Table 1.3, there is considerable variation in mediation activity across staff. One possibility for this variation could be that some staff were assigned to more violent target areas than others. Another possibility is that some staff did a better job than others in recording their activities. Most mediations were carried out by VIs, consistent with the design of the Cure Violence model, although OWs did engage in mediations as the need arose in the field.

Mediation data suggest there was some degree of fidelity to the Cure Violence model. However, our research uncovered some important caveats worthy of consideration. First, there remains considerable uncertainty about the accuracy of the mediation counts and whether erratic reporting practices may have influenced them. During

TABLE 1.2: CURE VIOLENCE DATABASE MEDIATION DATA

Question[a]	Response Options	Frequencies
Did this mediation occur on the…	1. Front End (little to no violence prior to the conflict being squashed). 2. Middle (some violence or back and forth but CV was able to come to a solution before more serious violence). 3. Retaliation (one incident attempted or resulted in serious violence prior to CV mediation but further violence was prevented).	46 20 11
How did you find out about the conflict?	1. Personal Contact 2. Street (while walking in the community) 3. Family of people involved in conflict 4. Program Participant 5. Other 6. Police	54 30 7 7 4 1
Primary reason for the current conflict	1. Altercation (personal) 2. Group/clique/gang/crew, etc. 3. Narcotics 4. Other 5. Child Abuse 6. Unknown 7. Burglary 8. Robbery/jumped/mugged	21 21 10 8 6 5 3 3
Outcome of the mediation	1. Conflict resolved 2. Conflict resolved temporarily 3. Conflict resolved as long as certain conditions are met 4. Conflict ongoing 5. Unknown	25 22 22 5 3
Without a mediation, could this current conflict have led to a/another shooting?	1. Very likely 2. Unknown 3. Likely 4. Unlikely 5. Very unlikely	32 19 17 5 4
What is the likelihood of this incident/conflict reigniting?	1. Likely 2. Unknown 3. Unlikely 4. Very unlikely 5. Very likely	21 16 15 14 11
Did CV staff know the parties involved in the current conflict?	1. Yes 2. No	56 21

Source: Cure Violence database.
Note: This table is not exhaustive of all the mediation data that is captured by the Cure Violence database, but includes those data points that are most relevant to the current evaluation of Project REASON.
[a] Project REASON staff were left to their own judgement when entering the data presented in this table. The evaluation team is unable to measure the accuracy of these judgements and so they should be interpreted with that limitation in mind.

stakeholder interviews, concerns were raised about infrequent recording of mediations. It is a cultural norm among citizens of Trinidad to engage in "street talk" with members of the community, and in some cases it was difficult for staff to differentiate between work and normal everyday interactions. Second, while the Cure Violence Model suggests the use of specific conflict mediation techniques (see Appendix 1, point 1d), our interviews revealed that Project REASON staff were not using these techniques in a strategic or targeted way. Much like the detection of potential violence, mediation approaches were largely informal; staff often relied on tactics they were most familiar with from their previous work in these communities. Third, the Cure Violence database

does allow for tracking conflict mediation follow-ups. While the majority of the conflicts recorded in the database were not conclusively resolved, only 16 conflict mediation follow-ups were entered into the database. Increasing the use of this aspect of the database would allow staff, management, and evaluators to track over time how successful mediation efforts have been in preventing further violence beyond the initial mediation. Finally, the Project REASON director noted that because of insufficient resources, staff were unable to carry out reliable responses to victims of violence within area hospitals, a component he felt would have strengthened the program. Chicago's Cure Violence now engages in hospital-based mediation efforts. Hospitals are critical venues for reaching people who are at elevated risk of engaging in retaliatory violence (Florence et al., 2011). Routine hospital-based mediation activities should be tested during future replications of the program.

TABLE 1.3: NUMBER OF CONFLICTS MEDIATED PER PROJECT REASON STAFF MEMBER

Position	Number of Mediations
VI Supervisor #1:	4
VI Supervisor #2	7
VI #3	16
VI #4	1
VI #5	9
VI #6	23
VI #7	7
OW Supervisor	2
OW #1	1
OW #2	1
OW #3	6
OW #4	0

Source: Cure Violence database.
Note: OW #3 resigned in August 2016 and VI #4 died in September 2016.

Treating those at Highest Risk for Involvement in Violence

The Cure Violence model prioritizes the need to identify potentially violent people and to engage in mediation efforts intended to reduce the likelihood that they will participate in violence. These efforts are typically directed toward the highest-risk individuals within a community. High-risk participants are then given a variety of support services to interrupt cycles of violence and establish norm changes. To evaluate this component of the Cure Violence model, we first consider how staff spent their time in the field and then turn to staff interactions with high-risk participants.

Staff members used daily log forms within the Cure Violence database to track the activities in which they participated, the amount of time spent in the field, the number of persons with whom they interacted, and the location of those activities. Staff recorded 17,381 hours of activity during the course of the project. Of those hours, 16,352 (94.1 percent) were spent in target communities, while an additional 1,029 hours (5.9 percent) were recorded in communities outside those where they were assigned.[9]

[9] Our anecdotal evidence raises some questions about whether staff may have considered areas outside their assigned target community as outside the intervention area. As such, this percentage does not necessarily reflect time spent in non-Cure Violence communities.

TABLE 1.4: PERCENTAGE OF DAILY LOG ACTIVITIES (JULY 2015–AUGUST 2017)

Activity Type[a]	Percent of Daily Logs
1. Canvassing (walking/driving target area/community engagement)	62.1
2. Monitoring hot-spot(s)	54.6
3. Monitoring individual (s)	29.0
4. Maintaining peace agreements	21.8
5. Participant interaction(s)	10.7
6. Building rapport with non-CV participants	3.9
7. Other	2.1
8. Getting assistance/working to mediate a conflict	1.1
9. Following up on mediation	0.7
10. Assisting another CV site	0.1

Source: Cure Violence database.
[a] Staff were able to report more than one activity type in a single daily log entry.

As depicted in Table 1.4, of the 3,568 daily logs recorded, the majority of staff time was spent on two activities: (i) Canvassing the area (i.e., walking or driving around the community and engaging with residents), with 62.1 percent of daily logs reporting this activity; and (ii) Monitoring hot-spot(s) (i.e., known areas of high crime and violence), with 54.6 percent of daily logs reporting this activity. Only 10.7 percent of logs were recorded for "participant interaction(s)" and only 1.1 percent of logs were recorded for "getting assistance/working to mediate a conflict."

The Cure Violence model specifies seven risk factors that should be used to identify high-risk participants and five stages for recruiting program participants (Cure Violence, 2015a). There is little evidence that Project REASON followed these formal participant recruitment processes. Our anecdotal evidence suggests that many participants were recruited by staff who were already familiar with these individuals from their previous work in the intervention communities.

During the intervention period, 64 participants were recorded in the Cure Violence database. The characteristics of Project REASON's participants, the majority of whom were black males between the ages of 15 and 34, are presented in Table 1.5. Again, there is no standard within the Cure Violence model regarding number of participants to be recruited. Caseload suggestions do exist (as we discuss in more detail below), but even those numbers vary. The number of participants recruited in other Cure Violence sites offers some point of comparison. During the 29-month Save Our Streets initiative in New York, 4 staff members recruited 96 participants (Picard-Fritsche and Cerniglia, 2013) while staff from the Phoenix Truce project recruited 118 clients during the 19-month program period (Fox et al., 2015). These figures suggest that the number of participants recruited by Project REASON staff may have been low.

Staff reported a total of 3,421 hours spent in contact with program participants. Staff conducted interactions with program participants most frequently through street contacts (with 988 such interactions reported in the database) and home visits (with 447 such interactions recorded). These numbers suggest that Project REASON staff

TABLE 1.5: DEMOGRAPHICS OF PROJECT REASON PARTICIPANTS

Characteristic	Number	Percent
Gender		
Male	56	87.5
Female	8	12.5
Age		
15–24	26	40.6
25–34	27	42.2
35–44	10	15.6
45+	1	1.6
Race		
African American/Black	47	73.4
Two or more races	3	4.7
Other	14	21.9
Client risk factor		
High risk	26	40.6
Medium risk	20	31.3
Low risk	17	26.5
Missing	1	1.6

Source: Cure Violence database.

were conducting the majority of participant follow-ups in person and most frequently by canvassing the intervention communities. As one participant we interviewed stated about her OW, "I don't want to say its harassment but she come look for me all the time. If she don't see me, she leave a message."

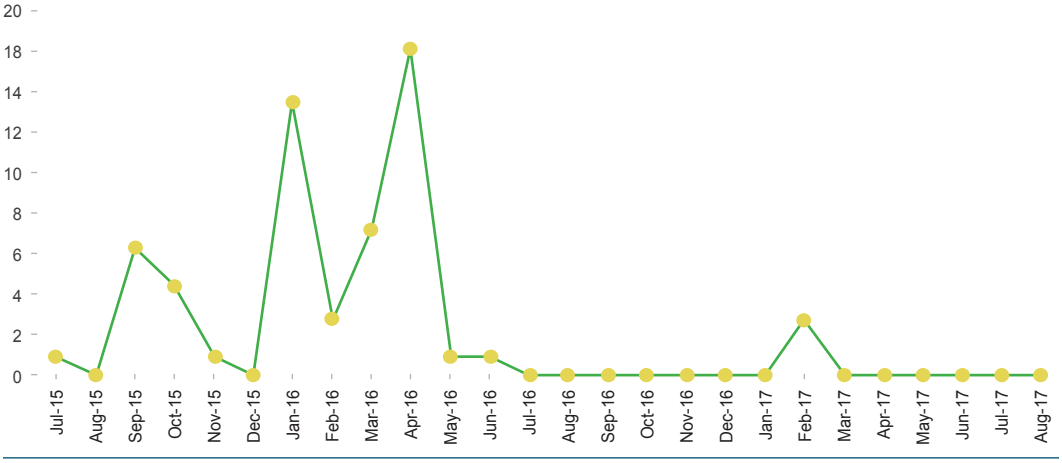
As depicted in Figure 1.2, the majority (95.2 percent) of participants were recruited during the first 12 months of the program (July 1, 2015 to June 30, 2016). Only three new participants were enrolled in the program during the remaining 14 months, and all of those were signed up in February 2017.[10] Participant intake numbers coincide with our staff interviews, with most OWs reporting in June of 2017 that they were still working with the original participants who were recruited when the program first began.

Only 40.6 percent of Project REASON's 64 participants were labeled as high-risk. This is inconsistent with the spirit of the Cure Violence model's focus on high-risk individuals and represents one of Project REASON's greatest deviations from the model. Moreover, it is lower than the percentages from other Cure Violence sites.[11] Table 1.6 rank-orders the risk factors that Project REASON staff reported at intake for each participant. Project REASON participants meeting five or more of these criteria were treated as high-risk; those meeting three to four were treated as medium-risk, and those meeting only one or two were treated as low-risk. Other Cure Violence sites have typically required participants to meet only four of these criteria to be labeled as high-risk.

[10] Staff from the New York-based Save Our Streets initiative also reported declining participant recruitment over the program period (Picard-Fritsche and Cerniglia, 2013).

[11] As a point of comparison, the New York-based Save Our Streets replication of Cure Violence included 96 participants over a 29-month implementation period, 68 percent of whom were labeled high-risk and 18 percent of whom were labeled medium-risk (Picard-Fritsche and Cerniglia, 2013). The Phoenix TRUCE program enrolled 118 participants, all of whom were considered to be high-risk (Fox et al., 2015).

FIGURE 1.2: PROJECT REASON PARTICIPANT INTAKES BY MONTH (JULY 2015–AUGUST 2017)



Source: Cure Violence database.

In the case of Project REASON participants, this classification strategy resulted in a handful of participants being categorized as low-risk while also being labeled as gang-involved or heavily involved in violent street activity. Our interviews also revealed that individuals who were victims of violence and who needed social service support systems were also viewed as eligible participants by Project REASON staff regardless of their risk levels. For example:

- One staff member described her close relationship with a participant who was the mother of an incarcerated individual. This OW formed a strong bond with the

TABLE 1.6: RISK FACTORS AMONG PROJECT REASON PARTICIPANTS

Risk Factor	Total Number of Participants	Percent of Participants
1. Participant is thought to be a member of a gang known to be actively involved with violence	52	81.3
2. Participant is involved in street activity highly associated with violence	40	62.5
3. Participant is a weapons carrier	38	59.4
4. Participant has a prior criminal history against person(s) and/or pending or prior arrests for weapons offenses	26	40.6
5. Participant is between the ages of 16 and 25 years	26	40.6
6. Participant is thought to have key role in gang known to be actively involved with violence	23	35.9
7. Someone close to participant was the recent victim of shooting (i.e., shot within last 90 days)	19	29.7
8. Participant was recently released from prison and the underlying offense was a violent crime	13	20.3
9. Participant is the victim of a shooting (i.e., shot within the last 90 days)	8	12.5

Source: Cure Violence database.

mother, helping to raise funds for one of her children who died due to complications from HIV. This staff member viewed both the incarcerated son and the mother as active Project REASON participants, even though the mother did not exhibit any significant risk factors.

- During an interview, one participant recounted having lost both her husband and son to violence just one year apart from one another. She praised Project REASON for coming to her rescue and taking her to counseling appointments. Although she had been a victim of violence, this participant did not exhibit significant risk factors.

Staff members were already familiar with many of the participants they recruited; thus, it is possible that they did not make a specific or concerted effort to enroll higher-risk people in their caseloads. Another possibility is that they may have been unsuccessful in recruiting more violent individuals who would have been classified at higher risk levels. In either case, one clear finding from this study is that the OWs did not recruit a sufficient concentration of high-risk people.

The Cure Violence model suggests that each staff member carry a caseload of 10–20 participants (see Appendix 1, point 2d). Participant caseloads among Project REASON staff varied considerably. The Cure Violence model requires OWs to assume primary responsibility for participant caseloads and referrals. VIs are expected to focus their efforts on mediations and community norm changes, connecting participants to OWs as new clients are recruited and/or current participants require agency referrals. Table 1.7 depicts the distribution of participants across staff during the 26-month implementation period. Note that these totals do not necessarily reflect the total number of clients on an OW's caseload at any given time, since a participant's status can change from active to closed. Our interviews revealed that Project REASON staff were expected to carry a participant caseload of 15–20 clients. Evaluators of the Chicago Cure Violence initiative (known as Chicago CeaseFire) found that "having a full 15-client caseload was challenging for many outreach workers…in reality, most had smaller caseloads" (Skogan et al., 2009: 4–7). The general pattern in other implementation sites is caseloads that range from 5 to 15 participants per staff member.[12] If Project REASON is reconstituted, we recommend that particular attention be paid to establishing the most appropriate composition and size of OW caseloads.

While high-risk participant enrollment was not prioritized effectively, there is no question that Project REASON staff members were deeply committed to their communities and the individuals with whom they worked. For example:

- One OW reported taking two of her participant's children into her own home while the participant found suitable housing and got back on her feet.

[12] The original Chicago CeaseFire initiative sought to have OWs establish and maintain caseloads of 15 individuals (Skogan, et al., 2009); In the Brooklyn, NY Save Our Streets Cure Violence initiative, OWs carried caseloads ranging from 5 to 15 participants (Butts, et al., 2015); The Baltimore Safe Streets Initiative expects OW staff to work with 15 to 20 participants at a given time (Baltimore City Health Department, 2017); finally the Philadelphia-based 'One Vision One Life' program which was partially modeled after Cure Violence relied on community coordinators with caseloads of at least 10 high-risk clients (Wilson, et al., 2010).

- A VI shared, "Last month I brought a shooting victim's mother in my care to see her son who was dead. That was one of the hardest things I've ever done."
- While traveling to school, a resident was beaten and threatened with a firearm for passing through rival gang territory. An OW learned of this incident and approached the responsible gang leader. The OW was able to make arrangements for the resident to continue passing through the area without fear so he would no longer have to miss school.

TABLE 1.7: NUMBER OF PARTICIPANTS PER PROJECT REASON STAFF MEMBER

Position	Number of Participants
1. OW Supervisor	11
2. OW #1	9
3. OW #2	10
4. OW #3	15
5. OW #4	8
6. VI Supervisor #1	0
7. VI Supervisor #2	0
8. VI #3	0
9. VI #4	0
10. VI #5	1
11. VI #6	0
12. VI #7	10

Source: Cure Violence database.
Note: VI#4 died in September 2016; while OW#3 resigned in August 2016.

To a certain extent, the diligence of Project REASON staff compromised their specific Cure Violence mandates. As one VI stated, "my role as a VI extends way beyond just violence interrupter." He went on to explain the remedial help he provides to community members. This was a sentiment reiterated by almost every staff member we interviewed. Nearly all of the individuals hired as OWs and VIs were engaged in community outreach activities before this project began. One could argue that as a result, they were predisposed to provide a certain level of holistic care to the communities and individuals they served. While that orientation made them excellent candidates for the staff positions, it may have also made it more difficult for them to prioritize certain aspects of the Cure Violence model.

Some of the stakeholders we interviewed noted that many of the staff were experiencing a degree of "scope creep," placing more emphasis on community engagement than interrupting cycles of violence. Early in the intervention period, a staff member told us that program resources were heavily invested in providing social services even though "this is a deviation from the initial conception of Cure Violence." Often during interviews, staff indicated that the program could be improved by hosting more events and pro-social activities in the communities. While those activities are an important part of effecting norm changes, they are secondary to interrupting cycles of violence among the highest-risk individuals. During a Steering Committee meeting in June 2017, Cure Violence Chicago staff encouraged Project REASON to consider holding events that were more participant-specific, focusing less on community-wide events.

Another reason staff struggled in their efforts to adhere to this component of the model was the lack of successful partnerships with social service agencies that could assist with individual participant needs. Part of the Cure Violence Model surrounding norm changes focuses on giving participants the tools needed to effect change. Those tools include education or job referrals; mental health, alcohol, or drug treatment; help reintegrating from prison into the community; and a variety of other possibilities.

These types of social service partnerships are critical to the Cure Violence model but were almost nonexistent for Project REASON. Many of the OW staff we interviewed reported that a lack of interagency partnerships limited their ability to refer clients to other potentially helpful community resources. Our interviews suggest that staff were more inclined to take on these responsibilities themselves, assisting participants with school and job applications, or providing transportation to and from job sites or court hearings. Project REASON staff took on the burden of providing this type of holistic care to participants, and thus were less able to focus specifically on working with high-risk participants. The stakeholders we interviewed noted that future replications of the program in Trinidad should focus more heavily on creating a "support system around the OWs" to refer participants asking for help. Increasing these partnerships would allow Project REASON staff to ensure that individuals are being taken care of while freeing up time to direct their efforts specifically toward the core components of the Cure Violence model. Identifying and treating high-risk participants was clearly very challenging for Project REASON staff.

In addition to the concerns outlined above, staff and stakeholders also noted that access to prisoners—many of whom were able to order hits while incarcerated—was a missing component of the program. While prisoner mediations could pose increased safety challenges, staff and stakeholders agreed that this possibility warranted further consideration. Access to these types of high-risk offenders should be considered carefully in future replications of the program.

Group and Community Norm Changes

Another important aspect of the Cure Violence model is to change the way participants and other residents in the intervention communities think about violence. One VI shared with us the following story about a lower-level gang member who called him in the middle of the night after being given orders to carry out a homicide:

> You could see tears rolling down [the gang member's] cheeks as he wrestled with his decision. Despite the VI's counseling this individual for hours, the gang member wept and said, "it's either this guy's life or mine," indicating that there would be consequences from the gang leader if the hit was not carried out as ordered. The gang member ultimately committed the murder.

This example underscores the intense need for these types of norm changes, especially among the highest-risk individuals. The Cure Violence Model suggests facilitating such changes through the organization of community events, the distribution of program literature, and the development of responses to shooting incidents.

Project REASON organized and participated in 15 different events and distributed 42,538 public education materials during the intervention period. The program's first public event was held on September 19, 2015, with a "Love March" in Woodford Square, Port of Spain, to protest violence in the surrounding communities (*Trinidad and Tobago Newsday*, 2015). Additional community events included cook-outs, barbeques, sports

and youth related programs, and holiday gatherings. Staff members also partnered with the Hearts and Minds officers of the TTPS to hold two mobile health clinics. These events were well received by the communities and highly regarded by Project REASON staff as some of the most important work being done by the program. During events, promotional materials about Project REASON, such as those shown in Appendices 3 and 4, were distributed and messages of non-violence were promoted.

The Project REASON team put significant effort into branding their program within the intervention communities. The team selected the name Project REASON based on a meaningful acronym (Resolve Enmity, Articulate Solutions, Organise Neighbourhoods) that would allow the program to establish a unique local identity. Logos, event posters, and brochures with this name were developed and distributed throughout the intervention communities. These materials were handed out frequently over the course of the intervention period. Project REASON staff wore light blue polo shirts with the program's logo so they would be easily identified within communities. "Project REASON: Stop the Shooting" wristbands and matching bandanas were designed and distributed extensively during community events. Program management felt these efforts provided much needed legitimacy within dangerous communities, while staff members reported experiencing a greater sense of pride and purpose in their work. This level of branding helped solidify Project REASON staff as nonviolence messengers within their communities.

As part of the effort to change community norms surrounding violence, the Cure Violence model requires staff to hold a public response to every shooting incident that occurs within an intervention community. In doing so, consistent messages of nonviolence are transmitted to the community at large. The nature of shooting responses by Project REASON staff varied, though most often included candlelight vigils. The example below illustrates another type of shooting response developed by staff:

> When a well-respected young man was accidentally shot and killed in the community by gang members, VIs brought large pieces of cardboard with the young man's photo on them into the communities and put them up in buildings where the youth could write on the cardboard their feelings about the man's death and the war/killings in their neighborhood.

Project REASON was unable to respond to every shooting incident that occurred within the 16 communities. The frequency with which vigils and other shooting response events were held was inconsistent. The Cure Violence database recorded 98 violent incidents over the course of the project, while only a single candlelight vigil was reported. Underreporting may account for some of this discrepancy, as our interviews suggest that other responses were initiated beyond those recorded in the database. However, it does appear that many shootings went without a targeted response. Limitations of staff resources as well as oversight and management concerns may be responsible for the lack of fidelity to this component of the model. Regardless, future replications of the program should emphasize the need for a strategic response to every shooting incident that occurs in a Cure Violence community.

Collaborative relationships with community partners were useful for helping Project REASON staff spread messages of nonviolence. Project REASON developed a unique relationship with the Hearts and Minds program of the Inter-Agency Task Force (IATF). Formed in 2004, the IATF is a branch of the Ministry of National Security that brings together members of the TTPS and the Trinidad and Tobago Defence Force (TTDF) to carry out joint crime control efforts in some of the highest-crime communities in Trinidad. The Hearts and Minds program, established in 2012, includes a cadre of IATF officers that organize and participate in outreach efforts to increase community engagement between residents and the police and create prosocial opportunities for youth. Throughout the Project REASON initiative, staff members worked closely with Hearts and Minds officers. As one officer noted, "I admire Project REASON and the work they do. Hearts and Minds officers try to give children a different perspective… Project REASON is complementing what we do in the communities." A VI shared with us, "we used to go in [to these communities] with the police; now we are taking the police into the community."

The relationship that developed between Project REASON and the Hearts and Minds initiative is unique among Cure Violence sites and was an invaluable resource to the program in Trinidad. Because Cure Violence is not enforcement-driven, other Cure Violence sites have reported more strained or simply nonexistent relationships with the police. However, the cooperation between these two entities in Trinidad allowed both to execute their various mandates without competition or tension, often in partnership with one another. In many cases Project REASON staff would reach out to Hearts and Minds officers to help transport participants/residents outside their communities to attend events, apply for jobs, or engage in other prosocial activities that would otherwise be impossible because crossing over gang boundaries is often dangerous or even deadly due to gang turf wars. While some officers within the TTPS expressed frustration with the program's unwillingness to share intelligence with the police (something that Project REASON staff members repeatedly told us could not happen because it would compromise their legitimacy), our interviews suggest that some degree of information sharing was taking place between Project REASON staff and senior TTPS officials. As one TTPS officer told us, "we [officers] have to be respectful of the role of [Project REASON] and how they are trying to do things versus us—conflict resolution versus enforcement. This is challenging because of the responsibility of law enforcement to deal with crime." This perspective is beneficial for framing the different roles each entity plays in reducing violence and underscoring how this partnership helped spread a message of nonviolence within Project REASON communities.

Data and Monitoring

The fourth component of the Cure Violence model requires that sites analyze data on an ongoing basis to establish implementation oversight and track changes in violent activity over time. Project REASON was successful in these efforts to varying degrees through both internal monitoring and evaluation of the program as well as use of the Cure Violence database.

Internal Monitoring and Evaluation

From the initial planning stages of the initiative, the program hired an internal monitoring and evaluation specialist. This individual was responsible for collecting data on murders, shootings, and woundings within the intervention communities, detecting patterns of change, and reporting findings to the Cure Violence manager. Throughout the duration of the program, this specialist consistently prepared detailed reports. It was difficult for us to ascertain the extent to which those reports influenced strategic decision making by managers. However, findings from these reports were discussed during staff meetings, and many of the staff members were pleased to share with us information about the decreasing rates of violence as the project progressed.

Project REASON also conducted its own community survey in May 2017. This survey was intended to measure victimization experiences, public opinion on crime and violence, and views regarding Project REASON's efforts to reduce violence. An outside agency administered the survey in a select group of intervention communities. Unfortunately, survey administration was delayed by months due to financial complications. Findings were not available until just a few months before the program ended prematurely. As such, the data were not used strategically to inform program implementation. However, Project REASON management did report survey findings as well as overall monitoring and evaluation efforts to the implementation agency (CSP) to aide in overall program accountability.

The Cure Violence Database

The Cure Violence database offered the most comprehensive means for Project REASON managers to track program implementation. This database allows staff to record data on daily activities, participants, violent incidents, conflict mediations, and public events. Project REASON staff began entering daily logs into the Cure Violence database on September 11, 2015. These logs documented daily staff activity across the program. Initially, staff members were backfilling data from previous months of activities in addition to logging current field work. Staff members relied on both handwritten records and memory to enter their activities into the database. During the early stages of data entry, the evaluation team alerted Project REASON staff to three primary areas of concern, including: (i) the gap in time between when an activity occurred and when it was entered, (ii) the lack of location data being recorded, and (iii) the need for each data sheet to be completed as thoroughly as possible. It is not uncommon for there to be a learning curve associated with the use of new data systems. While the data are essential for effective program monitoring and evaluation, tracking the level of data required by the CV database is time consuming. It can be difficult to encourage staff who spend the majority of their time working out in the streets to return to the office for data entry after a long day or night of work.

Initially, Project REASON staff experienced some difficulty tracking activities through the database. As one staff member reported early on in the project, "This program wants you to report everything you do. But not every time you do something you have to put

it to paper." Concerns were also raised about the literacy of some staff members and their ability to record data either by hand or in the database. In the months prior to the release of the midterm evaluation, we advised Project REASON management to consider assigning staff members to act as desk clerks with responsibility for sitting down with every OW and VI to discuss that day's activities and ensure they were properly entered into the system. Due to staffing and financial constraints, Project REASON did not act on this suggestion. The evaluation team communicated directly with staff members from Cure Violence Chicago to discuss early concerns with data entry. The Chicago team offered support to Project REASON staff and conducted multiple database refresher courses specifically to address the evaluation team's concerns. Following the initial six months of data entry, the evaluation team noticed a marked improvement in each of the three areas of concern outlined above.

During the 26-month intervention period, Project REASON staff recorded 3,570 daily logs documenting their activities.[13] In addition, they recorded details associated with 77 conflict mediations, 64 participant profiles, and 15 community activities. The daily log was the most consistently recorded program data by far. As discussed previously, the actual number of mediations and community activities may have been underreported, and the number of participants entered was lower than expected.

According to the daily log records, Project REASON staff activities took place disproportionately in only some of the 16 intervention communities, with 3 communities (East Port of Spain, Port of Spain Proper, and Laventille) accounting for 78.1 percent of all activities.[14] Table 1.8 indicates the percentage of activities that took place in each intervention community. The three communities most frequented by Project REASON are among the most violent in the area. Staff indicated that concerns with understaffing resulted in some communities receiving less attention and that certain parts of the intervention area went relatively untreated because Project REASON did not have enough staff to forge relationships or respond effectively to signs of trouble in those areas. The distribution of daily logs and mediation data across intervention communities supports this finding.

Our experience interacting with Project REASON staff on the ground leads us to question the accuracy of location data in the Cure Violence database. The community names used in this study come from the Central Statistical Office, and it is likely that program staff may not have been familiar with the boundaries of these communities. Regardless, program management does not appear to have used the Cure Violence database data in a strategic manner to inform program implementation. Future replications of the program should commit to using data to monitor internal program activity and to track patterns of violence. This will allow more strategic decision making about when, where, and how to deploy personnel and other resources.

[13] Two daily logs were entered before July 1, 2015. Because these events occurred prior to the official launch of the program or hiring of staff, we did not include these cases in our analysis. We focused on the remaining 3,568 daily logs recorded from July 2, 2015, to August 22, 2017.

[14] We believe the location data may contain errors due (in part) to the two ways that people think about the East Port of Spain area. East Port of Spain is a community with boundaries that are clearly defined by Trinidad and Tobago's Central Statistical Office. East Port of Spain is also a term used informally to describe a much larger area that encompasses most or all of the communities where Cure Violence was implemented.

TABLE 1.8: PROJECT REASON DAILY LOG ACTIVITIES PER INTERVENTION COMMUNITY (JULY 2015–AUGUST 2017)

Community	Number of Activities	Percent
1. Beetham Estate	7	0.2
2. Belmont	25	0.7
3. East Port of Spain	1,134	31.8
4. Eastern Quarry	28	0.8
5. Gonzales	2	0
6. Laventille	732	20.5
7. Marie Road	1	0
8. Mon Repos	2	0
9. Morvant	6	0.2
10. Never Dirty	0	0
11. Picton	98	2.8
12. Port of Spain Proper	922	25.8
13. Romain Lands	0	0
14. Sealots	63	1.8
15. St. Barbs	33	0.9
16. Upper Belmont	8	0.2
17. Missing[a]	507	14.2

Source: Cure Violence database.
[a] The majority of cases with missing data are those that were entered early on in the intervention period before data integrity issues had been properly addressed.

In addition to the learning curve associated with use of the Cure Violence database and initial resistance to recording program-related activities diligently, logistical concerns also posed a challenge for database usage. A few staff members noted that it could be difficult to gain access to a computer because someone else was using it or because the office building was locked. These instances were likely to result in either delayed data entry or lack of data entry altogether. For instance, the time elapsed between when an activity was recorded as taking place and the date on which the record was entered into the database ranged from 0 to 236 days, with a mean of 9.1 days. A quarter (25 percent) of the records were entered within two days, half (50 percent) of the records were entered within four days, and three-quarters (75 percent) of the records were entered within nine days. While a short delay in data entry is not necessarily cause for alarm, longer delays increase the risk that that the data entered will be less accurate or complete. Addressing concerns about access to computers may help reduce data entry delays in the future.

The amount of data needing to be entered was overwhelming, especially for staff members with varying degrees of computer literacy and who spent most of their time working outside the office. Even the evaluation team found it difficult at times to determine which parts of the database were most useful. From an evaluation standpoint, the database offers a wealth of possibilities. However, the database is only useful when the data are accurate and complete. We encourage the Cure Violence program to consider evaluation-critical data points and to emphasize and prioritize training on them. Not

only would this strengthen data entry among staff members, but it would also create a baseline set of evaluation data across program sites. In addition, our recommendation for Project REASON to staff a desk clerk position with sole responsibility for data entry may offer another avenue for ensuring that data are captured in a timely, accurate, and thorough manner.

Training and Technical Assistance

The final component of the Cure Violence model is training. Cure Violence promotes the need for consistent training among managers, and staff to ensure program fidelity and achieve the intended reductions in violence. Reliable support and training from the Cure Violence Chicago team was a key asset for Project REASON before, during, and after formal program implementation. In line with standard Cure Violence program protocol, multiple trainings were held throughout the intervention period, as detailed in Appendix 4. Chicago staff also provided training on data entry based on concerns raised by the Arizona State University team in the midterm evaluation. Refresher trainings were provided to Project REASON staff members as needed and the Chicago team conducted frequent visits to Trinidad to provide real-time mentoring on activities taking place in the field. Cure Violence staff also maintained consistent contact with Project REASON between visits to provide ongoing technical support. Overall, our interviews suggest that Project REASON and the staff at Cure Violence Chicago had a very effective working relationship.

Administrative Obstacles

Despite the program's many successes, administrative complications were evident during much of the implementation period. While not directly related to the core implementation components of the Cure Violence Model, these issues are worthy of discussion because they had a strong influence on Project REASON's ability to successfully implement each component of the model.

One of the Cure Violence Chicago team members noted that the VI and OW salaries in Trinidad were some of the lowest among Cure Violence sites. More than one OW noted that because VIs were paid significantly more, many OWs sought to be promoted to a VI position. One OW even indicated that he had gone out on his own to obtain a mediation certificate in the hope of receiving such a promotion. This is interesting given that these are two distinct staffing positions, each requiring its own unique skill set. Some Cure Violence sites have employed only OWs, requiring those individuals to assume the responsibilities of VIs (Webster, et al., 2012). There was some degree of role sharing among Project REASON OWs and VIs. To the extent this fluidity exists in a given site, the compensation for each position should be considered carefully so as not to create unnecessary tension between people with different job titles.

Staff also frequently discussed the idea of a petty cash fund as something that would significantly benefit the program. Many staff reported using their own money to assist participants and community members. As one VI told us, "In order to win over

these guys, you have to do something for them." Similarly, another VI said, "When you approach a man and you want to change his mind you need to feed him. If his belly rumbling, he ain't listening." Staff were initially provided a stipend to call participants, but that was eventually taken away. Travel stipends were never offered despite staff needing to travel to mediations, court dates, and other places. Other Cure Violence sites have also considered this type of petty cash funding. While beneficial to the program, such funds would need to be carefully monitored to ensure they are being spent on purchases directly relevant to the Cure Violence model.

Most significant to the implementation of Project REASON were concerns with program management and oversight. The CSP contracted with The Anatol Institute for Research and Social Science (TAIRASS) to administer the Cure Violence initiative in Trinidad and Tobago. Formal implementation of the program began in July 2015. As early as December 2015, CSP began to alert TAIRASS about their concerns regarding program activities, contractual obligations, and fiscal responsibilities. Over the remainder of the project, these concerns erupted into a full-blown dispute between the two parties, at times involving legal counsel. As a result of these concerns, CSP frequently withheld remuneration to TAIRASS for program salaries and activities. This withholding of funds appears to have had a significant impact on the program.

Our qualitative interviews suggest that over time, the conflict resulted in Project REASON management avoiding the program office and staff, thereby compromising program oversight and accountability. While OW and VI supervisors did their best to push forward without proper support from management, the feud between CSP and TAIRASS had a significant negative impact on staff morale and productivity and was responsible for the project ending three months prior to the originally contracted end date. During the evaluation team's final interviews in June 2017, almost all of the staff mentioned this conflict, its implications for the program, and an overall lack of program oversight and management. Our interviews with Project REASON staff revealed sentiments like the following:

- "The concept of the project is great, it's just admin that is the problem."
- "The respect don't come from the top. The way how staff is being treated is bad. People thinking about resigning. The office is disorganized…It is a good program with poor leadership."

By the end of the project period, the conflict between CSP and TAIRASS had reached a toxic level. The contentious relationship between these two entities overshadowed much of the latter half of the program. Anecdotal evidence suggests that this issue had a significant impact on the day-to-day operations of Project REASON. As one senior official in the Ministry of National Security told us in June 2017, two months before the program ended prematurely, "the key to the success and continuation of Project REASON is the management… this management would need to change in order to expand the project to other areas." Future replications of the Cure Violence model in Trinidad and Tobago (and elsewhere) must pay careful attention to the selection of appropriate people and entities to manage the intervention. Management failures in Project REASON quickly

became the elephant in the room for project staff as well as the government agency overseeing the project (the CSP).

Conclusions

This report discusses the extent to which the Project REASON initiative was successful in achieving the five core components of the Cure Violence model as depicted in Appendix 1. Project REASON was successful in implementing several key components of the Cure Violence model, including the following:

- Selecting credible messengers who established an effective rapport within the intervention communities
- Identifying opportunities to prevent violence and mediate disputes
- Developing a close relationship with the national Cure Violence headquarters team and the local Hearts and Minds officers of the TTPS

Other central components of the model were not prioritized as effectively and represent opportunities for improvement in future replications of the program. Those components include the following:

- Prioritizing high-risk participants
- Establishing stronger partnerships with social service agencies
- Developing targeted responses to each shooting incident in an intervention community
- Strengthening the consistency of data entry and relying more heavily on data to inform strategic decision making
- Carefully selecting effective leadership to manage the day-to-day implementation of the program

Overall, the Cure Violence Model in Trinidad and Tobago was only partially implemented, with certain important components receiving less attention than others. OWs and Vis were deeply ingrained in their communities and invested in reducing violence through mediation and other outreach efforts. Staff members worked hard to establish relationships with clients, community members, and stakeholders that would help them achieve program goals. However, as a result of the ongoing dispute between CSP and TAIRASS, the day-to-day management of Project REASON was inadequate and significantly limited fidelity to the model in a number of critical ways. Prioritizing the opportunities for improvement outlined above will go a long way toward improving future replications of the program.

2 Impact Evaluation

In this section, we report findings from our analysis of the impact of Cure Violence in Trinidad and Tobago. We draw primarily on four data sources: violent crime reported to the police, calls for service to the police for violent incidents, hospital admissions for gunshot wounds, and surveys of residents in treatment and comparison communities. The study was originally intended to be a randomized controlled trial, but the selection of treatment communities prior to the start of the evaluation made that approach impossible. Therefore, the impact evaluation relies on quasi-experimental methods.

Due to differences in the nature of the data sources used in this study, we rely on several different quasi-experimental methodologies to assess overall impact, including difference-in-differences estimates, synthetic control methods, and interrupted time series models. While all of these methods are informative, the synthetic control estimates represent our strongest quasi-experimental assessment of program impact. The application of synthetic control methods in this case involved constructing a weighted combination of untreated communities that most closely resembled the treated communities before the treatment was administered. Synthetic control methods are thought to approximate the counterfactual framework more closely than other methods and therefore to generate more defensible estimates of program impact (Abadie, Diamond, and Hainmueller, 2010, 2011, 2015).

Impact on Crime Reported to the Police

We begin by presenting findings from our analyses of changes in violent crime reported to the police. We include five types of violent crime in these analyses: murder, attempted murder, shooting with intent, wounding with intent, and grievous bodily harm. We start with a simple analysis that compares violent crime rates for these offense types during the 60 months before Cure Violence was launched and the 24 months after it was launched (until its dissolution in August 2017) in both treated and untreated communities.[15] This analysis raises important questions about the pre-intervention equivalence of the treatment and comparison communities. Therefore, after presenting the findings

[15] An external reviewer questioned the decision to use pre-intervention data for such a long period of time. We chose 60 months because we were concerned that a shorter period would result in our comparing the post-intervention

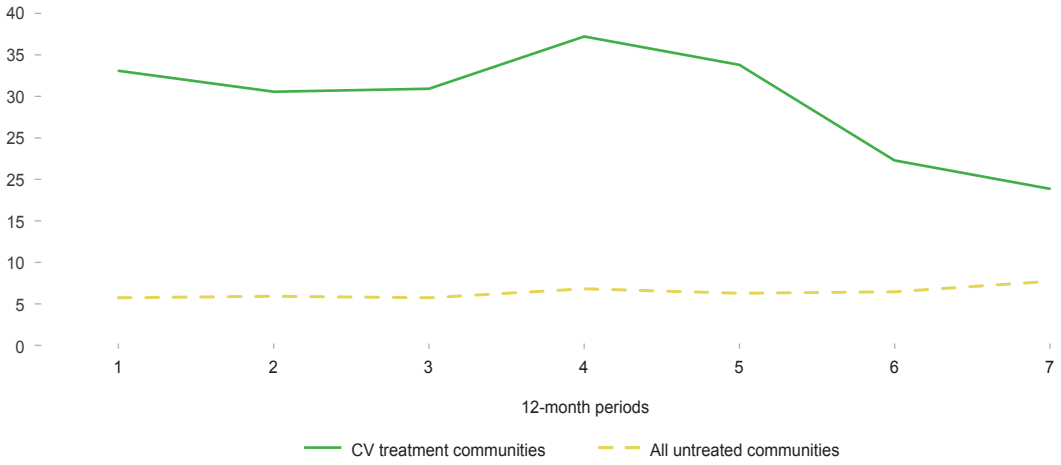
from this initial analysis, we then turn to the use of synthetic controls to account for any pre-intervention differences.

To address the problem of low base rates in many communities, we examine violent crime measures over 12-month periods, but we should note that these are not calendar years that begin in January and end in December. For purposes of the impact assessment, we needed the launch of Cure Violence (September 2015) to align with the first month of the post-intervention period. As a result, each of the seven 12-month periods begins in September and ends in August. We have pre-intervention data for five 12-month periods and post-intervention data for two 12-month periods for all communities in Trinidad and Tobago. Cure Violence was implemented in 16 of these communities.

Figure 2.1 shows the violent crime rates (for the five offenses specified earlier) for the treatment area and a comparison area that comprises all other untreated communities in Trinidad and Tobago. The comparison area in this analysis (an aggregate of all untreated communities) was selected to assess whether a general trend in violent crime outcomes occurred in Trinidad and Tobago. Two patterns are clearly evident from looking at Figure 2.1. First, the treatment area (as denoted by the solid line) has much higher violent crime than the average for the rest of the country. Interventions meant to reduce violent crime are typically implemented in the most violent communities, which makes sense from a program perspective, but raises challenges for evaluators seeking equivalent comparison communities. Second, while violent crime fell in the treatment area after Cure Violence was launched, it increased in the comparison area.

Table 2.1 shows the differences in the mean number of violent offenses per treatment and comparison community before and after the implementation of Cure Violence.[16] The

FIGURE 2.1: VIOLENT CRIME RATE PER 10,000 POPULATION



Source: Data provided by the TTPS Crime and Problem Analysis Branch.

period with an anomalous pre-intervention period. The 60-month period helps to smooth out some of the dramatic increases and decreases in crime that occurred during this period.

[16] We present the raw number of violent offenses here instead of the rate per unit population because many communities in Trinidad and Tobago are tiny and the crime rates for these small communities are erratic as a function of their size. For example, one community with 40 residents experienced a homicide, which led its homicide rate to jump from zero to 250 per 10,000 residents.

TABLE 2.1: CHANGES IN VIOLENT CRIME IN THE TREATMENT AND COMPARISON COMMUNITIES

	Pre-treatment	Post-treatment	Change (in percent)	p
Treatment area	16.2	10.0	–38.2	0.009
Comparison area	1.4	1.6	+16.3	0.032

Source: Data provided by the TTPS Crime and Problem Analysis Branch.

Cure Violence treatment communities experienced a statistically significant 38.2 percent reduction in the number of violent crimes recorded by police. Meanwhile the comparison area, which consists of all untreated communities in Trinidad and Tobago, experienced a statistically significant 16.3 percent increase in violent crime. This is a promising finding, although it is important to keep in mind that the treatment and comparison areas are not equivalent, as shown in Table 2.1.

We estimated an initial difference-in-differences regression model with no control variables included to test the effect of the treatment on the number of violent offenses reported to the police.[17] The analysis revealed that the treatment was associated with 6.4 fewer violent offenses per community per year (B = –6.4, p<.001). We also estimated a difference-in-differences model that included a series of demographic and economic control variables to account for pre-treatment differences between the treated and untreated communities.[18] The results from that model were similar to the model with no controls included. The coefficient was nearly identical, but the standard error of the estimate decreased in the presence of the control variables. Once again, the Cure Violence treatment was associated with 5.1 fewer violent offenses per community per year (B = –6.4, p<.001).

The difference-in-differences estimator is not ideal in this case because it gives equal weight to all untreated units whether or not they are similar to the treated units. Moreover, it does not perform well unless pre-treatment differences between groups were constant over time.[19] A better approach is to use a synthetic control estimator (Abadie et al., 2010, 2015). This approach is based on the idea that forming a weighted synthetic composite of a subset of the untreated units can provide a more valid comparison group than using the difference-in-differences approach, even after controlling for observable characteristics of the communities. According to Athey and Imbens (2017), "arguably the most important innovation in the evaluation literature in the last fifteen years is the synthetic control method… this method builds on difference-in-differences estimation but uses arguably more attractive comparisons to get causal effects." Therefore, we estimate a series of synthetic control models to evaluate the impact of Cure Violence on violent crime.

[17] The total N for this analysis was 3,696, which is based on 528 communities, each with 7 years of data.

[18] The control variables included population, percent African residents, percent males aged 16–24, percent foreign born, percent living in the same residence since 2000, percent who identify with a specific religion, percent with a secondary education or higher, percent employed, percent head of household employed, percent of homes with running water, and percent of homes built on public land ("squatter" properties).

[19] Moreover, visual inspection of the pretreatment trends reveals clear differences between the treatment and comparison communities, thus violating the parallel trends assumption on which difference-in-differences estimation is based.

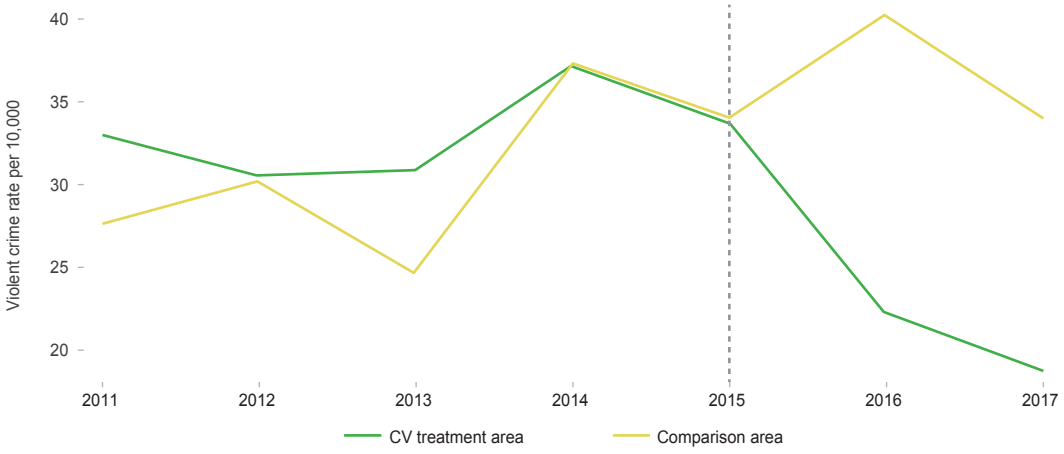
Ideally, the synthetic control analysis will examine rates of violent crime per unit population rather than levels. This was difficult in the difference-in-differences analysis, which uses all untreated communities as a comparison group, including communities with small populations where just one or two violent offenses can produce inflated violent crime rates that end up becoming outliers in the analysis. But the synthetic control analysis does not use all untreated communities. Instead, it selects from a pool of "donor" communities those that most closely resemble the pretreatment characteristics of the treatment communities. The selected donor communities are used to create a weighted synthetic composite that serves as a comparison group. The post-treatment outcomes of this synthetic composite "are then used to estimate the outcomes that would have been observed for the treated unit in the absence of the intervention" (Abadie et al., 2011: 2). We used the synthetic control methods established by Abadie et al. (2010, 2015) and implemented in Stata. To establish the donor pool, we chose the 100 untreated communities in Trinidad and Tobago with the highest violent crime rates that had a population of at least 1,000. We included five 12-month pretreatment periods and two 12-month post-treatment periods. We included all of the covariates used in the difference-in-differences analyses reported earlier, as well as three lagged values of the outcome (from periods 1, 3, and 5).[20]

As shown in Figure 2.2, the synthetic control area tracks the treatment area closely in certain years, particularly the two years before the launch of Cure Violence. In the 12- to 24-month period immediately prior to the launch, the violent crime rates were virtually identical (37.2 per 10,000 in the treatment group and 37.4 in the comparison group), and a visual inspection of the trends suggest that the pre-intervention trends were approximately parallel. After the implementation of Cure Violence, the two trends diverge sharply. In August 2016, one year after the launch of Cure Violence, the violent crime rate in the treatment area was 22.1 per 10,000 people and in the synthetic comparison area, it was 40.3. Put differently, the violent crime rate in the treatment areas was 45.1 percent lower than in the synthetic comparison area. In August 2017, two years after the launch of Cure Violence, the violent crime rate in the treatment area was 18.7 per 10,000 people and in the synthetic comparison area, it was 34.0. Put differently, the violent crime rate in the treatment area was 44.9 percent lower than in the synthetic comparison area.[21] These findings provide strong evidence that the implementation of

[20] When estimating synthetic control models, it is important to include pre-treatment outcomes and covariates as predictors. However, using all of the pre-treatment outcomes renders the covariates irrelevant during the estimation process. As a result, it is important to exclude some of the pre-treatment outcomes (Kaul et al., 2018). Here we excluded the pre-treatment outcomes from periods 2 and 4 and included the outcomes from periods 1, 3, and 5.

[21] We also estimated three alternative model specifications using different subsets of covariates, different lagged values of the outcomes, and different years. The results from the different specifications varied only minimally from the primary analysis reported here. Across all four of the models we estimated, the differences between the treatment and comparison areas in 2016 ranged from 44.7 percent to 46.3 percent with a mean of 45.2 percent. In 2017, the differences ranged from 44.5 percent to 47.5 percent with a mean of 45.8 percent. We chose the specification that produced the lowest root mean squared prediction error (3.67). The resulting synthetic composite was based on three communities: San Fernando, City Proper (81.7 percent), Cocorite (10.0 percent), and L'Anse Mitan, Moruga (8.2 percent).

FIGURE 2.2: SYNTHETIC CONTROL ANALYSIS RESULTS



Source: Data provided by the TTPS Crime and Problem Analysis Branch.

Cure Violence was associated with a substantial reduction in the rate of violent crime reported to the police in the treatment area.[22]

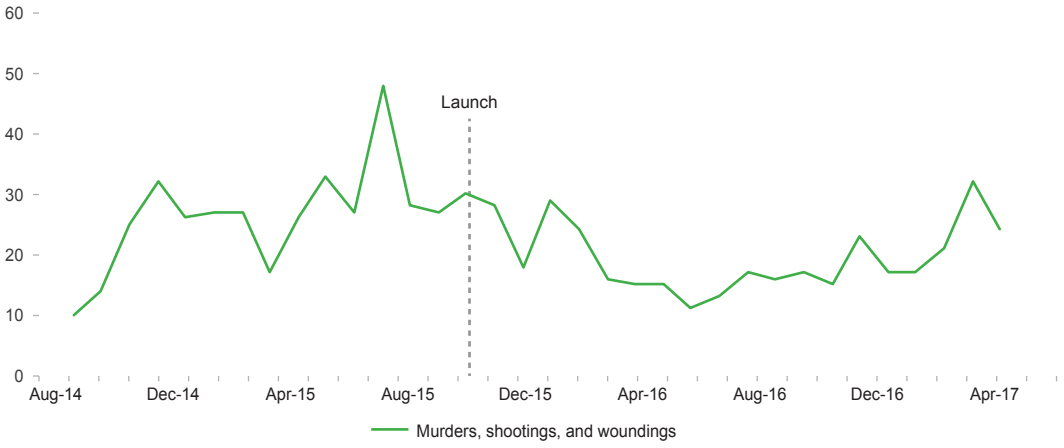
Impact on Police Calls for Service

We gathered data on police calls for service from January 1, 2010, to June 12, 2017, from Trinidad and Tobago's E-999 Command Center. This entity receives emergency calls for the Trinidad and Tobago Police Service and dispatches police units to respond accordingly. Synthetic control methods are not a good option for analyzing this data set for several reasons, including temporal and geographic inconsistencies in the data. Thus, we planned to examine changes in police calls for service for violent incidents for the treatment area and a suitable comparison area using interrupted time series analysis.

Unfortunately, this type of analysis was also not possible because the Command Center switched to a new software vendor in July 2014. We discovered significant changes in the police calls for service database after the new software was implemented. Although the same offense classifications were used, changes in the recording of geographic location made it difficult to compare the old and new databases. For this reason, we were only able to use the new database that began on July 22, 2014. That left us with only 11–13 complete months of pre-intervention data depending on which date we used to indicate the onset of the intervention. This is not a long enough pre-treatment period to allow for a reasonable synthetic control or interrupted time series analysis. As a result, we were forced to rely on alternative approaches.

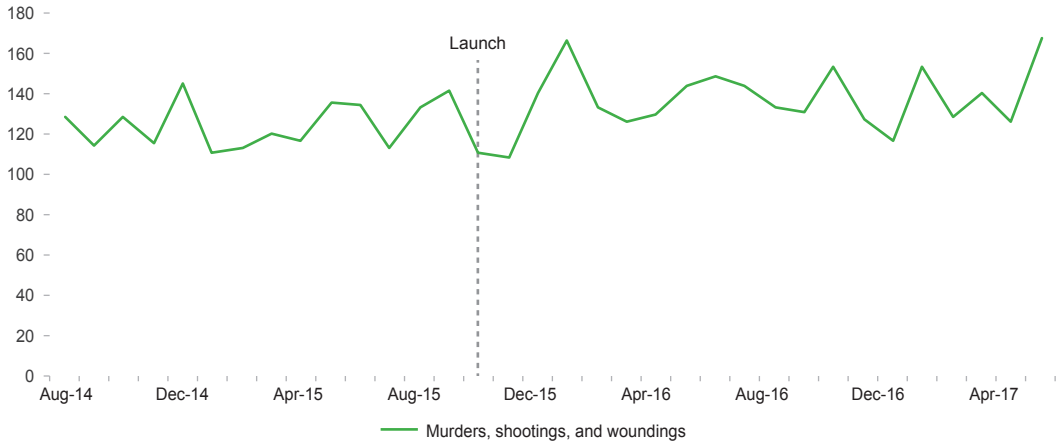
[22] We had originally anticipated controlling for the impact of a hot spots policing initiative on violent crime in these communities. However, after obtaining information on the location and timing of the hot spots project, we discovered that it would not be possible to control for its effects because it was implemented in nearly all of the treatment and potential comparison communities. Moreover, it was implemented well before Cure Violence and remained in place throughout the entire Cure Violence implementation period. Put differently, the hot spots policing intervention was a near constant in both the treatment and comparison communities examined in this study.

FIGURE 2.3: MONTHLY CALLS TO THE POLICE FOR VIOLENT OFFENSES, TREATMENT AREA



Source: Trinidad and Tobago's E-999 Command Center database.

FIGURE 2.4: MONTHLY CALLS TO THE POLICE FOR VIOLENT OFFENSES, COMPARISON AREA



Source: Trinidad and Tobago's E-999 Command Center database.

Figure 2.3 shows the number of monthly calls to the police for three violent offense types (murders, shootings, and woundings) in the treatment area during the 34-month period from August 2014 to May 2017. Figure 2.4 provides the same information for all communities in Trinidad and Tobago where the Cure Violence treatment was not implemented. The vertical line in Figures 2.3 and 2.4 denotes that onset of the treatment in September 2015.

Table 2.2 shows the mean monthly number of calls to the police for the number of murders, shootings, and woundings during the pre- and post-treatment periods for the treatment area and for a comparison area consisting of all communities in the nation that called the police at least once. In this analysis, we treat September 2015 as the launch of the intervention.[23] This simplistic analysis shows that calls to the police for murders, shootings, and woundings decreased in the treatment area by 22.6 percent and increased in

[23] We also ran analyses in which we treated July 2015 as the launch of the intervention. The effect was slightly weaker but the results did not differ substantially.

TABLE 2.2: CALLS TO THE POLICE FOR VIOLENT INCIDENTS, TREATMENT VERSUS COMPARISON AREA

	Pre-intervention	Post-intervention	Change (in percent)	p
Treatment area	26.2	20.2	–22.6	0.033
Comparison area	124.0	136.9	+10.4	0.015

Source: Trinidad and Tobago's E-999 Command Center database.

the comparison area by 10.4 percent. T-tests revealed that both changes were statistically significant using an alpha level of .05.[24] Another approach to this analysis is to estimate a regression model using a difference-in-differences estimator with a natural log transformation of the dependent variable. Visual inspection of the treatment and comparison series before the onset of Cure Violence reveal that they are approximately parallel, although the treatment series is less stable than the control series. The results from this analysis confirm that the treatment effect is statistically significant (B = –.329, p = .01) and that it reduced the number of calls to the police for murders, shootings, and woundings in the treatment area.

Impact on Hospital Admissions for Gunshot Wounds

Ultimately, the goal of Project REASON was to reduce levels of violent victimization, and more specifically firearm-related violence within the target communities. In this section, we discuss the methodology and findings associated with our attempt to test the potential impact of Project REASON on hospital admissions for gunshot wounds. The hospital nearest to the treatment area, and thus the hospital most likely to experience a change as a result of the Cure Violence treatment, was Port of Spain General Hospital. This site is used to examine whether the average number of monthly gunshot wound admissions decreased after the onset of the Cure Violence strategy. We use San Fernando General Hospital as a comparison site to assess whether a general change in gunshot hospital admissions was experienced outside of the intervention setting at the same time as the overall intervention. Hospital admissions data (independent of police data) provides a degree of measurement validity to the current investigation. Hospital admissions data have been widely regarded as a strong and accurate indicator of violent activity, which operate independently from official criminal justice data sources (see Kernic, Wolf, and Holt, 2000).

In terms of the intervention onset, Project REASON staff suggest that the most appropriate start date to use in evaluating the intervention is September 19, 2015, when a Love March was held in several target communities. Thus, we also include a second post-intervention measure as 0 = all months prior to September 2015 and 1 = all months including and after September 2015.[25]

[24] The mean and variance stability and approximately normal distribution of outcomes corresponded with the assumptions of the t-test analysis.

[25] We also conducted analyses using the official launch date for Project REASON, which was July 1, 2015. In all supplemental models we assess the intervention by incorporating an indicator variable as 0 = all months prior to July 2015 and 1 = all months including and after July 2015. However, project-related activity in the target communities was minimal at that time because the project focused primarily on hiring staff and ramping up the internal structure and administration of Project REASON.

Interrupted Time Series Analyses: ARIMA and Maximum Likelihood Estimation

Interrupted time series analysis was used to examine whether there was a significant shift in gunshot hospital admissions between pre- and post-intervention periods while controlling for underlying trends in the longitudinal data. Time series analysis can be a useful analytical tool for isolating program impact (Cook and Campbell, 1979). The two most common approaches to time series estimation are autoregressive integrated moving average (ARIMA) analysis and maximum likelihood count regression modeling. Each of these approaches offers certain strengths, and each is susceptible to inherent limitations with time series data. ARIMA modeling is particularly precise when identifying the underlying trends and temporal autoregressive parameters, thus providing a more exact estimation of the intervention parameter; however, ARIMA assumes the residuals are normally distributed and suffers from accuracy issues when outcomes are skewed, which is a common problem with event counts (see Berk, 2005). Conversely, maximum likelihood estimation provides more accurate inferences when data are skewed—again, a standard problem with event counts (see Osgood, 2000); however, the specific parameters of the underlying temporal model (e.g., the specific form of the autoregressive parameters) are estimated less precisely. In an effort to provide the most empirically defensible analyses, we present both approaches here to maximize the strengths of each technique and examine whether the results are consistent across both model estimation strategies.

ARIMA Estimation

For ARIMA estimation we followed the Box and Jenkins (1976) ARIMA approach using model identification, estimation, and diagnostic testing to find the most appropriate stochastic model for each time series prior to estimating program impact. For this approach the natural logarithm for each event count (Port of Spain and San Fernando General Hospital) was used to compress the variability in the monthly data and to smooth the distributions to more closely feature or approximate a normal outcome distribution (POS logarithmic average = 3.06, SD = 0.45; SFGH logarithmic average = 1.61, SD = 0.96).

After diagnosis and model selection, the intervention parameter (abrupt, permanent transfer function given the theorized 'light-switch' impact) was then incorporated into each ARIMA model. Alternative functional forms (i.e., first-order, gradual (pulse) transfer functions) were examined and yielded no substantive differences, and thus were excluded in the analyses presented here.

The best-fitting time series model for each series was selected based on reviewing the time plots, the autocorrelation function (ACF), partial autocorrelation function (PACF), and model fit statistics (AIC and BIC). An AR1 model with a quarterly seasonal parameter (1,0,0)(1,0,0)4 was selected to estimate changes in gunshot admissions in Port of Spain General Hospital (the treatment hospital). The most appropriate model for San Fernando General Hospital (the comparison hospital) gunshot outcomes was found to be an AR2 model with a quarterly seasonal parameter (2,0,0)(1,0,0)4. For each model selected, there were no significant spikes in the Box-Ljung Q residual statistics at key lags (24 months).

TABLE 2.3: IMPACT OF PROJECT REASON ON MONTHLY GUNSHOT WOUND HOSPITAL ADMISSIONS (JANUARY 2010–SEPTEMBER 2017)

Port of Spain General Hospital			
ARIMA Parameters	**Estimate**	**Std. Err.**	**Z-Value**
Intervention (09/2015)	–0.490	0.107	–4.57
AR (1)	0.258**	0.109	2.37
AR (4) quarterly estimate	–0.100	0.105	–0.95
San Fernando General Hospital			
ARIMA Parameters	**Estimate**	**Std. Err.**	**Z-Value**
Intervention (09/2015)	0.194	0.407	0.63
AR (2)	0.362*	0.103	3.52
AR (4) quarterly estimate	0.297**	0.107	2.76

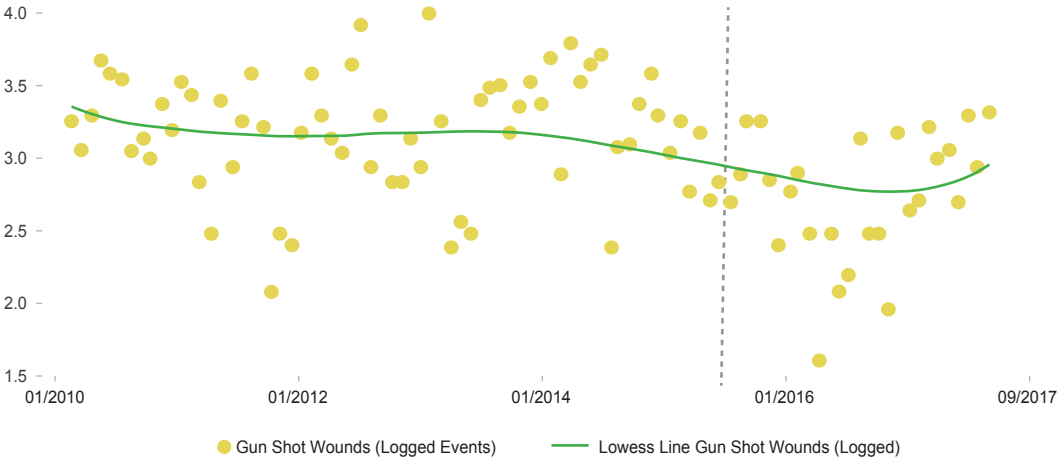
Sources: Port of Spain General Hospital and San Fernando General Hospital intake records.
Notes: AR: autoregressive term, parameters are in months; * p <.05, ** p < .01.

In both sets of models (Port of Spain General Hospital and San Fernando General Hospital) the identification and estimation steps were conducted prior to any estimation of the intervention parameters. The time series for the analyses equated to 93 monthly observations running from January 2010 to September 2017. The ARIMA results showed a clear pattern in the data, as seen in Table 2.3. Controlling for a one-lag autoregressive as well as a quarterly autoregressive process in the data, the intervention parameter for Port of Spain was statistically significant (Estimate = –.490, SE = 107, $p < .05$) equating to a mean reduction in the logged monthly shootings in the post-intervention period of roughly 38.7 percent.[26] Table 2.3 provides a visual depiction of the post-intervention decline (and subsequent diminished decline after the conclusion of the intervention). For San Fernando General Hospital (the comparison setting), after controlling for a two-lag autoregressive process as well as a quarterly autoregressive parameter, the intervention estimate was not statistically significant, indicating that there was no change at the time of the September 2015 intervention in San Fernando General Hospital, as was the case in Port of Spain General Hospital.[27] These findings suggest that the implementation of Cure Violence was associated with a significant reduction in the number of gunshot wound admissions at Port of Spain General Hospital.

[26] When comparing the results presented in the main body of the report with the alternative intervention onset date (July 2015), the results for Port of Spain are roughly equivalent. Specifically, when we set the intervention parameter to July 2015, the intervention estimates were as follows: Estimate –.482, SE = .105, Z = –4.57. The estimated decline was slightly less extending the parameter to July from September (–38.2 percent decline from July 2015 compared with –38.7 percent decline from September 2015).

[27] It is important to note that the autoregressive lags used in the time series models differed by location (AR1 in Port of Spain and AR2 in San Fernando). These different specifications reflect the site-specific autoregressive patterns that were evident from the data based on our preliminary diagnostics. The intervention pre/post measure is not lagged separately across the locations, meaning that the pre/post impact interpretation should be weighed similarly. The underlying autoregressive processes (which are controlled for at each site) are set so that only the intervention parameter is meaningful.

FIGURE 2.5: LOWESS TIME SERIES GRAPH OF PORT OF SPAIN GUNSHOT HOSPITAL ADMISSIONS (JANUARY 2010–SEPTEMBER 2017)



Source: Port of Spain General Hospital intake records.

Survey Analysis Results

From the outset, the research team recognized the importance of measuring community perceptions pre- and post-implementation, however the project budget was insufficient to enable us to carry out two rounds of surveys. While the project was still being planned, the CSP was also planning a national crime victimization survey in Trinidad and Tobago. CSP agreed to insert some of our questions into their survey. The national survey was administered from June 30 to August 29, 2015, with 4,245 surveys completed in 105 communities. The questions we added to the survey constitute the source of our Wave 1 survey data. We administered the Wave 2 survey from March 24 to May 6, 2018, with 638 surveys completed in ten communities (8 treatment and 2 comparison communities).[28]

For measures on which data were gathered during Wave 1 and Wave 2, our survey analysis compares measures constructed from both waves for these ten communities. As in earlier analyses, we rely on a difference-in-differences approach to test the effect of the intervention on the survey-based measures. For this portion of the analysis, we

[28] The funding for the project was insufficient to carry out pre- and post-intervention surveys in all treatment communities and in a similar number of comparison communities. Fortunately, we were able to take advantage of a survey administered by CSP at no cost to the project to gather pre-intervention survey data. We then carried out a very limited post-intervention survey in ten communities, including eight of the treatment communities and two high-crime communities located distant from where the Cure Violence intervention was carried out. We selected the eight treatment communities based on discussions with Project REASON staff about where the program had been implemented most vigorously. We did not want to test the effects of the program in communities where it had only been implemented in a shallow manner due to resource constraints. The survey budget did not allow for a large number of surveys to be administered in non-treatment (comparison) communities. Nonetheless, we selected two comparison communities that participated in the Wave 1 survey and that most closely resembled the treatment communities on rates of violence before the project was implemented. Residents in the eight treatment communities filled out 1,070 surveys (559 before the intervention and 511 after). Residents in the two comparison communities filled out 215 surveys (88 before and 127 after). Given the importance of community norms and perceptions, future evaluations of Cure Violence should be given sufficient funding to sample more people and more communities before and after the intervention.

TABLE 2.4: DESCRIPTIVE STATISTICS FOR W1/W2 OUTCOME MEASURES, FULL SAMPLE

	Minimum		Maximum		Mean		Median	
Outcome	W1	W2	W1	W2	W1	W2	W1	W2
Fear of crime	5	5	25	25	11.58	13.89	11	13
Violent victimization	0	0	3	5	0.09	0.41	0	0
Community mobilization	5	5	20	20	6.34	6.70	5	6
Perceived influence of gun/gang violence	2	2	8	12	5.36	4.92	5	5

Sources: Citizen Security Programme National Crime and Victimization Survey, 2015; Project REASON Evaluation Survey, 2018.
Note: W1 = Wave 1; W2 = Wave 2.

TABLE 2.5: DIFFERENCE-IN-DIFFERENCES ESTIMATES OF INTERVENTION EFFECTS

Outcome	*treatment*	*time*	*did*
Fear of crime	1.11*	3.66***	–1.56*
Violent victimization	–0.08	0.45***	–0.17
Community mobilization	–0.68	0.16	0.18
Perceived influence of gun/gang violence	0.53*	–0.14	–0.33

Sources: Citizen Security Programme National Crime and Victimization Survey, 2015; Project REASON Evaluation Survey, 2018.
Notes: Cells contain unstandardized regression coefficients. Asterisks are used to indicate statistical significance levels: *** (p<.001), ** (p<.01), * (p<.05).

examine the effect of the intervention on four composite outcome measures, each composed of multiple indicators: fear of crime, violent victimization, community mobilization, and perceptions of gun/gang violence. In addition, we also present findings for other measures that were only gathered during Wave 2.

We begin our analysis by testing the effects of the Cure Violence intervention on four composite outcome measures. The first outcome is a measure of fear of crime, and it contains five items (see Appendix 6 for a list of the items comprising each composite measure).

The second outcome is a measure of violent victimization, and it contains seven items. The third outcome is a measure of community mobilization in response to violence, and it contains five items. The fourth outcome is a measure of the extent to which respondents believe their community is affected by gun violence and gangs; it contains two items. Table 2.4 provides descriptive statistics for each composite outcome, including minimum, maximum, mean, and median, all listed separately for Waves 1 and 2.[29]

Table 2.5 contains the results from our difference-in-differences analyses for each of the four outcomes. The *treatment* variable is coded 0 for the comparison communities and 1 for the treatment communities. A significant coefficient on this variable indicates

[29] With the exception of violent victimization, we computed Cronbach's alpha values to measure the reliability of all scales at Wave 1 and Wave 2. All of the composite measures are internally consistent ($\alpha > .70$). We did not compute alpha values for violent victimization because it is a formative construct (as opposed to a reflective construct) in which we would not expect the items to be correlated with one another.

that there was a significant difference in the value of the outcome between the treatment and comparison communities overall (regardless of period). The *time* variable is coded 0 for Wave 1 and 1 for Wave 2. A significant coefficient on this variable indicates that there was a significant change in the value of the outcome between periods (regardless of treatment/comparison status). A positive coefficient means the outcome increased and a negative coefficient means the outcome decreased. The difference-in-differences *(did)* variable is an interaction term formed by multiplying the time and treatment variables. It is coded 1 for the treatment communities during Wave 2 and 0 for all other cases. It is the principal quantity of interest and represents the difference-in-differences estimate of the effect of the Cure Violence intervention. For that reason, the *did* column in Table 2.5 is shaded. A significant positive effect means the outcome measure increased significantly because of the intervention. A significant negative effect means the outcome measure decreased significantly because of the intervention. A non-significant effect means the intervention did not have a significant effect on the outcome.

Based on a statistical significance criterion alone, the findings reveal that Cure Violence was effective in reducing fear of crime in the treatment communities. This is evident from the statistically significant coefficient for fear in the *did* column of Table 2.5. The findings show that Cure Violence was not associated with a statistically significant reduction in self-reported violent victimization, perceived community mobilization, or perceived influence of gun/gang violence in the community.

Given credible concerns about statistical significance as a criterion for inferring the magnitude of effects, researchers also rely on another criterion: standardized effect sizes. Statistical significance is a useful criterion for certain purposes, but it does not provide evidence about the size or magnitude of an effect. Effect sizes are useful quantities for this purpose. Table 2.6 presents standardized mean-difference effect sizes that summarize the effects of the intervention on the four composite outcome measures. According to Cohen (1988), an effect size of .20 is a small effect, .50 is medium, and .80 is large. According to Lipsey (1990), an effect size of .15 is small, .45 is medium, and .90 is large. These are subjective criteria, but they are useful for drawing inferences about the effects of the intervention on the four composite outcome measures examined here.

The effect size estimates in Table 2.6 provide a different lens for interpreting the effects of the intervention relative to the statistical significance criterion used earlier. Consistent with the earlier findings, the Cure Violence intervention appears to have exerted a small-to-medium negative effect on fear of crime (d = –0.34). Although the earlier findings revealed that the intervention did not have a statistically significant effect

TABLE 2.6: "COHEN'S D" EFFECT SIZES

Outcome	Cohen's d
Fear of crime	–0.34
Violent victimization	–0.22
Community mobilization	0.07
Perceived influence of gun/gang violence	–0.14

Sources: Citizen Security Programme National Crime and Victimization Survey, 2015; Project REASON Evaluation Survey, 2018.

on violent victimization, the small, negative effect size (d = –.022) suggests that Cure Violence may have reduced violent victimization. The earlier analysis revealed that the intervention did not have a significant effect on community mobilization; the effect size estimate (d = 0.07) is consistent with that finding. Similarly, the earlier analysis revealed that the intervention did not have a significant effect on perceptions of gun and gang violence; the effect size estimate (d = –.014) is just below Lipsey's criterion for inferring a small effect. One factor worth exploring in future research is the extent to which these types of findings are influenced by the proportion of residents who know about the existence of Cure Violence in their community.

In addition to the generic outcomes we have already examined, we were also interested in outcomes specifically associated with Project REASON. The Wave 2 surveys asked respondents a series of questions associated with their knowledge of Project REASON and its activities (these same questions were not asked in Wave 1 since Project REASON had not yet been launched). We began by showing respondents a picture of the Project REASON logo and asking if they had ever heard of the initiative. Out of the full sample, 14.5 percent of respondents said they had heard of it, including 8 percent of respondents in the comparison communities and 16 percent in the treatment communities. Among the 82 respondents in the treatment communities who told us they had heard of Project REASON:

- 31.7 percent had attended a Project REASON event;
- 42.7 percent had received information, such as flyers or other types of information from Project REASON staff;
- 46.3 percent had heard about Project REASON staff working to reduce violence in their community;
- 9.8 percent had requested assistance from Project REASON staff; and
- 14.6 percent had communicated within the past year with Project REASON staff about issues or problems facing their community.

We were surprised to learn that only 16 percent of residents in the treatment communities had heard of Project REASON (82 out of 509 residents). We had anticipated that a greater proportion of residents would be familiar with the initiative.

Overview of Impact Evaluation Findings

This chapter presents findings from four separate data sources on the impact of Cure Violence in Trinidad and Tobago: violent crimes reported to the police, police calls for service for violent incidents, hospital admissions for gunshot wounds, and data from two waves of surveys in treatment and comparison communities. The first three data sources are independent of one another and are therefore useful for generating independent estimates of the impact of Cure Violence on changes in violence. First, using a synthetic control methodology, we found that the treatment communities where Cure Violence was implemented had about half the crime rates of the synthetic control area that we believe serves as the best source of comparison for this analysis. Second, using

a difference-in-differences regression approach, we found that calls for service for murders, shootings, and woundings dropped significantly in the treatment area but not in the comparison area. Third, our analysis of hospital admissions for gunshot wounds found that the hospital closest to the Cure Violence treatment area experienced a significant reduction in gunshot wound admissions. A comparison hospital located 55 kilometers away did not experience a significant reduction during that same period. Thus, three different data sources used in our impact evaluation suggest that Cure Violence was associated with a significant and substantial drop in violence during the time in which this intervention was put in place.

We also examined survey data from residents in treatment and comparison communities before and after the implementation of Cure Violence in Trinidad and Tobago. These findings revealed that the intervention was associated with a statistically significant small-to-medium drop in fear of crime in the treatment community. We also detected a small decrease in self-reported violent victimization, although the change was not statistically significant. Our analyses did not detect meaningful changes in community mobilization or perceptions of gun/gang violence. Our findings also showed that only 16 percent of residents surveyed in the treatment communities had heard of Project REASON, compared with 8 percent in the comparison communities.

Some readers may view the survey results as contradicting the findings from the other data sources, but we urge caution in attempting to reconcile these seemingly disparate findings. With regard to the findings on victimization, two caveats are important. First, because victimization surveys collect information from living survey respondents, they are not useful for drawing inferences about homicide. Second, if victimization is largely concentrated in a subset of the population (such as young men involved in gangs), then a random sample of the community would likely underestimate the degree of victimization, particularly if those at greatest risk chose not to participate in the survey. With regard to perceptions of community mobilization, one possibility is that Project REASON staff may have been working in a concentrated fashion with certain people and in certain places. If this is true, a broader cross-section of the community may not be as aware of Project REASON's activities. Qualitative data collected on the project strongly supports this assumption. More generally, the survey portion of the study was underfunded (leading to a smaller than ideal sample size) and underpowered (making it more difficult for statistical tests to detect effects). While the survey findings are suggestive, particularly those that focus on effect size rather than significance testing, readers should keep the limitations of the survey methodology in mind when attempting to reconcile the various findings reported here. In spite of these limitations, it is important to emphasize one key substantive takeaway from the survey findings. Although Project REASON and related interventions focus their efforts on people who are at greatest risk for being involved in violence, it is still crucial to ensure that the broader community is made aware of these anti-violence efforts.

Cost Effectiveness Evaluation

3

Most evaluations of violence reduction interventions focus on outcomes such as the number or rate of violent incidents, perceptions of violence, self-reported victimization, or fear of being victimized. These are all important measures, but they alone are insufficient to allow decision makers to make informed choices about which interventions to adopt. Including costs in evaluations of these initiatives is also very important (Chong et al., 2015). The previous chapter showed that Project REASON was effective in reducing the number of violent crimes reported to the police, the number of E999 calls to the police for violent incidents, and the number of gunshot wound admissions to Port of Spain General Hospital. The next step in our evaluation is to estimate the cost of achieving each of these beneficial outcomes, or put differently, to estimate the "cost effectiveness" of the intervention.

A cost-effectiveness analysis is a tool used to help decision makers arrive at an informed decision when selecting between alternative programs or initiatives. Most often used in medicine and public health, cost-effectiveness analyses are typically expressed as the cost of achieving a beneficial outcome. In medicine, for instance, cost-effectiveness analyses estimate the costs of achieving health outcomes such as "cases of a disease prevented, years of life gained, or quality-adjusted life-years" (Sanders et al., 2016: 1093). Within the arena of violence prevention, cost-effectiveness analyses typically focus on outcomes like lives saved or violent incidents prevented.

The total cost of the Cure Violence initiative through August 31, 2017 (the official end date of the project) was US$937,139.82. Table 3.1 shows the breakdown of these costs, with 78.1 percent used for salaries, 4.4 percent used for training, 7.7 percent used for program administration, and 9.8 percent used for community activities and outreach. As a point of reference for assessing the total cost of the initiative, consider that in 2014, Trinidad and Tobago's Ministry of National Security budgeted about US$63.3 million for public safety and citizen security expenditures. The CSP (the entity within the Ministry of National Security that oversaw the implementation of Project REASON) received approximately US$4.7 million to carry out projects aimed at reducing crime and violence (Seepersad, 2016).[30]

[30] These calculations are based on the exchange rate as of December 31, 2014 (1 TT = US$0.156875).

TABLE 3.1: PROJECT REASON COSTS

Category	Amount (USD)	Percent
Salaries	$731,587.88	78.1
Training	$41,084.96	4.4
Administrative	$72,402.41	7.7
Community activity/outreach	$92,064.57	9.8
Total	$937,139.82	100

Source: Citizen Security Programme.

Our cost-effectiveness analysis of Project REASON examines the costs associated with achieving three outcomes: reducing violent crimes reported to police, reducing the number of calls to the police for violent incidents, and reducing the number of emergency room admissions for gunshot wounds. The findings from this portion of the analysis will be useful for policymakers who are faced with the difficult decision whether to implement Cure Violence or alternative violence prevention initiatives for which cost-effectiveness measures are available. A cost-effectiveness analysis allows decision makers to choose those initiatives that provide the greatest violence reduction benefits per unit cost.

Reducing Violent Crime

The synthetic control analysis presented earlier represents our best estimate of the effect of Cure Violence on violent crime reported to the police. The outcome in this analysis was violent crime rate per 10,000 population. Five categories of violent crime were used to compute this measure: murder, attempted murder, shooting with intent, wounding with intent, and inflicting grievous bodily harm. Our findings revealed that approximately two years after the implementation of Cure Violence, the violent crime rate was 45.1 percent lower in the treatment area than in the synthetic control area in 2016 and 44.9 percent lower in 2017. Recall that the post-treatment outcome values of the synthetic control are our best estimate of what these values would have been in the treatment group absent the implementation of Cure Violence. This translates to an estimate of approximately 142 violent crimes prevented in the first 12 months and an additional 120 violent crimes prevented in the next 12 months. With approximately 262 violent crimes prevented at a total program cost of US$937,138.82, we estimate the cost of preventing one violent crime reported to the police to be approximately US$3,577.

Reducing Calls to the Police for Violent Incidents

The difference-in-differences analysis of police calls-for-service data presented in the previous section represents our best estimate of the effect of Cure Violence on the number of calls to the police for violent incidents. The outcome in this analysis was the total number of calls to the police for murders, shootings, and woundings. Our findings revealed that nearly two years after the implementation of Cure Violence, the percentage of calls to the police for these types of violent incidents dropped by 22.6 percent in the

treatment area and increased by 10.4 percent in the comparison area (which consists of all untreated communities in Trinidad and Tobago that made at least one call to the police for a violent incident during the study period). Over a 24-month period, this translates to an estimate of approximately 207 fewer calls to the police for violent incidents in the treatment area. With approximately 207 fewer calls for violent incidents prevented at a total program cost of US$937,138.82, we estimate the cost of preventing one call to the police for a violent incident to be approximately US$4,527.

Reducing Hospital Admissions for Gunshot Wounds

We estimated predicted values of the outcomes based on specific values of the independent variables included in the regression models presented earlier. The use of predicted probabilities provides an estimate of the change in gunshot wound admissions that corresponds with the onset of the Cure Violence treatment, net of controls.[31] The estimated number of monthly gunshot wound admissions in Port of Spain General Hospital changed, on average, from 25.5 events per month (LL = 23.4, UL = 27.5) to 16.4 events per month (LL = 13.7, UL = 19.3) for the 24-month post-intervention period (through September 2017). In sum, this equates to roughly 218 total fewer estimated gunshot wound admissions (LL = 197.7 – UL = 234.2) in Port of Spain General Hospital, net of temporal control variables. Given that the total cost of the program over the treatment period was roughly US$937,140, the estimated cost to reduce each gunshot wound admission in Port of Spain was roughly US$4,299. The range for the lower and upper limits for the projected estimates ranged from US$4,000 to US$4,757 to prevent each additional hospital gunshot wound admission.

Conclusions

This chapter presents cost-effectiveness analyses based on three independent data sets. The first analysis focused on violent crimes reported to the police. We estimated that Cure Violence was associated with approximately 262 fewer violent offenses in the treatment area, at a cost of about US$3,577 for each violent crime that was prevented. Next, we estimated that Cure Violence was associated with approximately 207 fewer calls to the police for violent incidents in the treatment area, at a cost of about US$4,527 for each violent incident prevented. Finally, we estimated that Cure Violence was associated with approximately 218 fewer gunshot wound admissions at Port of Spain General Hospital at a cost of about US$4,300 for each hospital admission that was prevented. We emphasize that these are all statistical estimates and each one is subject to a certain degree of error. Yet across three independent data sources, each administered by a different entity, the findings are remarkably consistent. This consistency across data sources lends credibility to the findings.

[31] The SPost package developed by Long and Freese (2003) features the 'prvalue' estimation, which can be used for Poisson regression models. In this example, the indicator variable is set to 0 and 1 (pre/post-intervention) while all monthly indicator variables are held constant.

While the investment costs for an initiative like Project REASON are considerable, the beneficial effects of reducing violent crime, both in human and economic terms, are substantial. The human costs of violence are not easily quantified, but a sizeable scientific literature has accumulated to estimate the economic costs of crime (e.g., Cohen et al., 2004; Miller and Cohen, 1997; Rajkumar and French, 1997). According to McCallister, French, and Fang (2010): "programs that directly or indirectly prevent crime can… generate substantial economic benefits by reducing crime-related costs incurred by victims, communities, and the criminal justice system." Based on research in the United States, they estimate the total economic cost of a murder to be nearly US$9 million once the various tangible costs (such as lost earnings, medical expenses, criminal justice costs, etc.) and intangible costs (such as pain and suffering) are all taken into account. An aggravated assault, which is the equivalent of a shooting or wounding in this study, is estimated to cost more than US$107,000. Similarly, based on research in the United States and Canada, Miller and Cohen (1997) projected the cost for each gunshot wound survivor to be roughly US$154,000 dollars per incident. Our estimates to prevent violent incidents in Trinidad range from US$3,577 to US$4,527. These costs pale in comparison to the overall economic costs of violent crime.

A recent report by the IDB examined the costs of crime and violence in 17 Latin American and Caribbean countries, including Trinidad and Tobago (Jaitman, 2017). The report acknowledged the complexities associated with estimating the costs of crime:

> In the face of high crime rates, the costs of crime can be sizable: individuals change their behavior to avoid (or engage in) criminal activity, households and businesses spend to protect themselves from crime, firms reduce their levels of investment and incur productivity losses, and governments shift the allocation of resources to tackle the associated problems (Jaitman, 2017: 1).

The report relied on an accounting methodology to estimate the monetary costs imposed upon society by crime and violence, finding that Trinidad and Tobago spent approximately 3.5 percent of its GDP on crime-related costs in 2014; only five other countries in the region spent a larger share of GDP on crime. However, Trinidad and Tobago had the highest per capita crime-related costs out of the 17 countries included in the study (Jaitman et al., 2017: 28). Because the costs of crime in Trinidad and Tobago are among the highest in the region, determining the cost-effectiveness of the country's crime-prevention efforts is especially important.

Although Trinidad and Tobago had one of the highest government expenditures on crime prevention in the region, "for every dollar spent on security, only 15 cents [was] spent on prevention." (Jaitman et al., 2017: 87). Once cost-effectiveness estimates become available for a greater number of crime-related programs, policies, and interventions, these estimates can be used to design more optimal combinations of crime-control strategies.

Key Findings and Moving Forward

4

Our process evaluation of Project REASON in Trinidad and Tobago provides much room for optimism. Project REASON staff appeared to have successfully implemented key aspects of the Cure Violence model in a number of distressed and violent communities in the Port of Spain area. While the project was still operating, staff routinely engaged in efforts to prevent harm and reduce injuries associated with firearm-related violence; prevent the escalation of tension that is likely to lead to violence; reduce the likelihood that high-risk individuals would engage in criminal and antisocial behavior; improve public perceptions of safety; and increase coordination and collaboration among stakeholders involved in delivering violence prevention services.

Three factors served as strong facilitators of the implementation of Project REASON in Trinidad and Tobago. First, the project appears to have selected the right types of people as OWs and VIs. Project staff report that they had been doing community outreach work in various capacities for many years prior to joining Project REASON. They appear to be deeply embedded in their assigned communities, which gives them a unique ability to engage with known or would-be violent offenders in ways that others would likely find more challenging. The staff has the street credibility and the social networks to enable them to navigate these dangerous communities fluidly and to anticipate and intervene in potentially violent situations. Second, Project REASON benefits significantly from a strong support system through the Cure Violence headquarters staff in Chicago. Chicago team members have provided ongoing training and technical assistance for Project REASON staff through the life of the project. Third, the relationship between Project REASON staff and the Hearts and Minds police officers in the Interagency Task Force is a valuable resource. Staff in some Cure Violence sites report that they do not talk to the police, that police harass them, and that police cannot be trusted. The partnership between Project REASON and the Hearts and Minds initiative is both unique and powerful. Taken together, these factors all contributed in important ways to the ability of Project REASON to deliver the Cure Violence Intervention.

If Project REASON is reconstituted, the remaining challenges moving forward will include the need to ensure that staff report their activities in an accurate and timely manner in the Cure Violence database, that they prioritize the conflict-mediation aspects

of their work, and that they concentrate their efforts on the highest-risk clients. Due to data quality issues, unfortunately we are uncertain about the validity of some of the quantitative implementation measures included in this report. Given research evidence that areas with more conflict-mediation activity experience the greatest reductions in violence, it is important for project staff to record this activity in the Cure Violence database regularly and accurately. With regard to the risk-level of clients, the Cure Violence model is premised on working with clients at the highest risk for involvement in violence. Therefore, it is important for OWs and VIs to focus their efforts on these clients rather than providing more general social services for people who are not at risk for violence.

Our process evaluation also revealed some potential impediments that may be worthy of attention if the project is reconstituted. First, a consistent theme in all of our interactions with Project REASON staff was the need for additional personnel. Staff emphasized that they did not have enough personnel to cover all the target communities adequately. Project staff cited problems with understaffing as limiting their ability to invest in more collaborative partnerships with other community stakeholders. Staff also recommended a variety of other resources, including a safe house located outside of the intervention area, an on-call psychologist or counselor, and a petty cash fund to enable them to assist vulnerable people in need by purchasing food, diapers, clothing, and making other small expenditures that they routinely paid for out of their own pockets. Staff emphasized the need for assistance with managing the stress and danger associated with their work. It may be worthwhile to explore lessons from other Cure Violence sites about how to address these important concerns. Finally, and perhaps most importantly, staff emphasized an ongoing pattern of mismanagement and mistrust associated with Project REASON management. Frequent conflict between TAIRASS (the entity contracted to carry out the Cure Violence initiative) and the CSP led to a variety of ill effects for the day-to-day operations of Project REASON and to the health and well-being of its staff. If the project is reconstituted, special efforts must be put in place to ensure that these dynamics are addressed.

Our impact evaluation also provides many reasons for optimism. Based on a series of quasi-experimental designs using three independent data sets maintained and updated by different entities, we examined the impact of Project REASON on several indicators of violence. One analysis focused on official crime data from the TTPS, one focused on police calls-for-service data, and one focused on hospital admissions data. Our difference-in-differences analysis and synthetic controls analysis of official data on five categories of violent crime found that the Cure Violence intervention was associated with significant and substantial reductions in violence. Our difference-in-differences analysis of police calls for service data on three categories of violent incidents also found substantial and significant reductions in violence. Finally, our interrupted time series analysis of emergency room admissions data from two hospitals found that Cure Violence reduced gunshot wound admissions in a treatment hospital near the intervention but not in a comparison hospital located 55 kilometers away. Based on all three analyses, Project REASON reduced violence in the treatment area. Our survey analyses detected a significant small/medium reduction in fear of crime in the treatment community, as

well as a small reduction in self-reported violent victimization. Other survey results were less promising and suggest that Project REASON did not penetrate the community as fully as expected. Only 16 percent of residents surveyed in the treatment community had heard of Project REASON.

We also carried out cost-effectiveness analyses using three of the data sets we just discussed. The findings from these analyses were remarkably consistent across the three independent data sets and showed that Project REASON cost, on average, approximately US$3,500 to US$4,500 for every violent incident it prevented. Given the profound costs of violence in both human and economic terms, these estimates provide hope not only that violence can be prevented, but that an effective mechanism for preventing violence may also be affordable.

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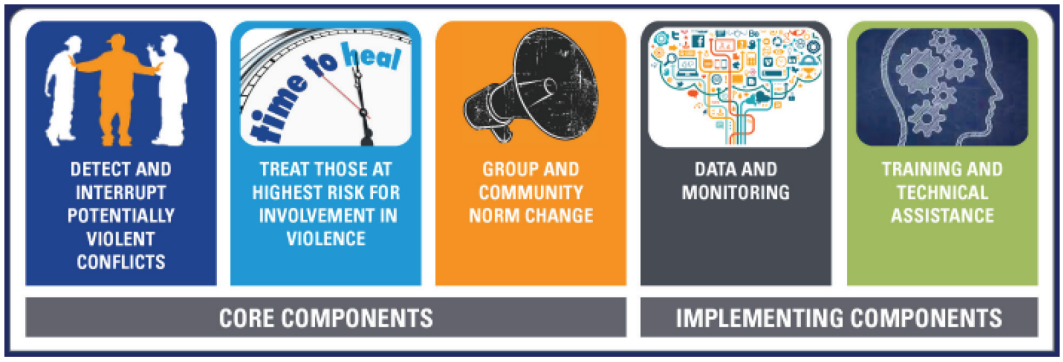
Appendices:

Appendix 1: Implementing The Cure Violence Health Model[32]



The Cure Violence Health Model is a data-driven, research-based, community-centric approach to violence prevention. Cure Violence maintains that violence is a learned behavior and that it can be prevented using disease control methods. The Cure Violence Model has three core components and two implementing components that are essential to disrupt the transmission of violence. Omission of any component is not a faithful replication of the Model and may not achieve anticipated decreases in violence.

1. Trained credible messengers detect potentially violent events and interrupt them to prevent violence.
   a. Formulate and regularly update (daily, weekly, and quarterly) a strategic plan of action for gathering information and assessing its accuracy and use.
   b. Identify situations that are likely to result in violent acts, such as a prior shooting, group conflict, territory dispute, formation of new group, major arrest, anniversaries, release of key individual from incarceration, and ongoing conflicts.

[32] Taken directly from the Cure Violence website at: http://www.cureviolence.org/the-model/implementation/5-required-criteria-cure-violence/.

c. Respond to shooting victims at partner hospitals by approaching the injured patient, as well as their family and friends, who may be planning to retaliate on their behalf.
d. Peacefully mediate conflicts using training in techniques such as creating cognitive dissonance, derailing, changing the thinking, changing the decision, providing information, buying time, and negotiating compromise.

2. Trained credible messengers provide ongoing behavior change and support to high-risk individuals.
a. Formulate and regularly update (daily, weekly, and quarterly) a plan of action that identifies a strategy for gathering information and assessing its accuracy and use.
b. Identify individuals in program area who are at highest risk for involvement in violence (based on established criteria) through personal connections and knowledge gained from spending time in the community.
c. Establish contact with highest-risk individuals and groups, developing a relationship, imparting messages rejecting violent behavior, and working to change behaviors.
d. Each worker establishes a caseload of highest-risk participants who agree to be part of the program. Workers will have a predetermined number of participants (typically 10 to 20) within the first four months of work.

e. For each participant, the worker conducts an assessment and develops a risk reduction plan for reducing the participant's risk and shifting their behavior.
f. Workers meet with participants several times a week, including at critical times of need, developing a relationship and working to change behaviors through specific messaging designed to address issues faced by the participant.
g. Workers assist participants in dealing with a number of issues—such as education, employment, criminal justice, mental health, alcohol, drugs, trauma, reentry, and related life skills—through the utilization of existing social services.
h. Formal weekly staff meetings and regular supervisor reviews are conducted to discuss and update the current understanding of the violence in the community and the strategies for interrupting it.

3. Cure Violence works to change community norms that allow, encourage, and exacerbate violence in chronically violent neighborhoods to healthy norms that reject the use of violence.
a. Workers and program staff hold group sessions to discuss and make collective decisions about a community response to violence.

b. The goals of the response are to spread correct information, change behaviors and norms, and teach methods of reducing violence.
c. The specific groups are determined locally, but may include: Cure Violence staff, highest risk individuals, friends and family of the highest risk, residents, business owners, and others.
d. Credible messengers and volunteers spread messages that discourage the use of violence through public education materials such as posters and fliers.
e. Door-to-door canvassing, participating in events in the community, and distribution of materials through clergy, schools, and other community partners has proven effective.
f. Program staff host events and activities in the area, at times during late hours, to spread messages about rejecting the use of violence.
g. Program staff host responses to every shooting where community members come together and express the rejection of violent behavior and norms.

4. The implementation agency should continually analyze data to ensure proper implementation and identify changes in violence patterns and levels.

a. The implementing agency or monitoring partner measures changes in violence in the target areas and comparison areas.
b. "Inputs" are measured, and efforts undertaken by field staff and partner organizations to stop violence and change thinking related to violence.
c. The implementing agency or monitoring partner provides regular feedback to program staff on violence levels and implementation changes.
d. Supervisors and workers conduct an analysis of every shooting that occurs in or near their target area to determine the causes, the necessary response to prevent a retaliatory act of violence, a community response, the reason the shooting was not prevented and what the program site can improve to prevent shootings in the future.

5. Training and technical assistance provides workers, program managers, and implementation agency with the necessary skills to implement the model correctly and are required to achieve the expected decreases in violence.

a. The implementing agency is provided training by Cure Violence national training staff on how to manage a site.
b. Workers are provided with an initial 40 hours of training as well as quarterly, booster training sessions.
c. The Cure Violence technical assistance staff will provide a tool kit with the essential materials for implementing the Cure Violence model.

d. The Cure Violence technical assistance staff will provide an embedded worker for the initial implementation.
e. The Cure Violence technical assistance staff will work closely with the site, including weekly phone calls and quarterly site visits and assessments and provide regular management and worker booster training.

Appendix 2: Semi-Structured Interview Questions

Included below is a draft of the questions used during semi-structured interviews with Cure Violence staff members and other relevant project stakeholders.

Interviews with Program Staff (Supervisors, Outreach Workers, etc.)

1. Please describe the violence problem in the communities covered by Cure Violence.
2. Are there specific areas or places, or are there specific people who are at the root of the problem?
3. Are there other, more important problems in these communities?
4. What responses, if any, have been tried in the past to address violence in these communities? To what extent were these efforts successful?
5. What have you learned thus far about the violence problem in these communities and the intended response by Cure Violence?
6. What short-term successes have you seen? Failures?
7. What's working? What isn't working?
8. How was the program originally conceived?
9. What specific intervention strategies were selected?
10. What rules or guidelines were established to select outreach workers and violence interrupters?
11. What initial training was provided? What about ongoing training?
12. What activities were first implemented?
13. Have things gone as planned? If not, what obstacles emerged and how were they handled?
14. What was the "dosage" of intervention activities (e.g., number and type of mentoring contacts, services needed, and services provided) provided to clients?
15. If there were gaps in service delivery, what were they and how were they addressed?

Additional Questions for Use during Interviews with Violence Interrupters

1. Please describe your own history of arrests/incarceration.
2. Please describe your own affiliation with gangs.
3. Please describe any previous experience with street outreach/mediation work.
4. What is your Cure Violence assignment area?
5. Please assess your current knowledge about your assigned area. Do you know it well? Do you know many law-abiding people in the area? Do you know the gangs and/or criminal offenders in the area well?
6. To what extent do you feel optimistic about your ability to reduce violence in your assigned area?
7. What people or institutions exist in your assigned area that can help play a role in reducing violence? Are these people or institutions playing an active role in violence reduction?

8. What people or institutions exist in your assigned area that may make it more difficult to reduce violence? Are these people or institutions standing in the way of the Cure Violence initiative?
9. Do you feel like you are in danger when carrying out your duties? If so, what do you do about it?

Interviews with Community Stakeholders

1. Is there a particular Cure Violence community (or communities) in which you work or reside or that you know very well? Which ones?
2. What is your role in the community? What is your association with Cure Violence?
3. Please describe the violence problem in the community.
4. Are there specific areas or places, or are there specific people in the community who are at the root of the problem?
5. Are there other, more important problems in the community?
6. What responses, if any, have been tried in the past to address violence in the community? To what extent were these efforts successful?
7. What have you learned thus far about the violence problem in the community and the intended response by Cure Violence?
8. What short-term successes have you seen? Failures?
9. What's working? What isn't working?
10. If there have been gaps in service delivery by Cure Violence, what were they and how were they addressed?
11. To what extent do you feel optimistic about the ability of Cure Violence to reduce violence in the community?
12. What people or institutions exist in the community that can help play a role in reducing violence? Are these people or institutions playing an active role as Cure Violence partners?
13. What people or institutions exist in the community that may make it more difficult to reduce violence? Are these people or institutions standing in the way of the Cure Violence initiative?

Interviews with Police Officials

1. To which unit, branch or division in the Police Service are you assigned?
2. To what extent are you familiar with the Cure Violence initiative?
3. Is there a particular Cure Violence community (or communities) in which you work or reside or that you know very well? Which ones?
4. Please describe the violence problem in the community.
5. Are there specific areas or places, or are there specific people in the community who are at the root of the problem?
6. Are there other, more important problems in the community?
7. What responses, if any, have been tried in the past to address violence in the community? To what extent were these efforts successful?

8. What have you learned thus far about the violence problem in the community and the intended response by Cure Violence?
9. What short-term successes have you seen? Failures?
10. What's working? What isn't working?
11. If there have been gaps in service delivery by Cure Violence, what were they and how were they addressed?
12. To what extent do you feel optimistic about the ability of Cure Violence to reduce violence in the community?
13. What people or institutions exist in the community that can help play a role in reducing violence? Are these people or institutions playing an active role as Cure Violence partners?
14. What people or institutions exist in the community that may make it more difficult to reduce violence? Are these people or institutions standing in the way of the Cure Violence initiative?
15. How would you describe the relationship between the Police Service and the Cure Violence initiative? Would you describe it as a partnership? Which parts are working well and which ones can be improved?

Interviews with Cure Violence Participants

1. In which community do you live?
2. Do you work? If so, what kind of work do you do?
3. In what ways have you been involved with Cure Violence?
4. Please describe the violence problem in the community. What is causing the violence?
5. How much of the violence is gang-related? Drug-related?
6. Much of the violence involves guns. Is it easy to get a gun in the community? How much does it cost to rent a gun? To buy a gun?
7. Have you or people you care about been the victims of violence? What happened and why?
8. Do you think Cure Violence will be successful in reducing violence? Why?
9. What is Cure Violence doing well? What can be done better?
10. In what ways has Cure Violence influenced you?

Appendix 3: Project REASON Promotional Posters

PRIZES

First Prize $500

Second Prize $300

Third Prize $200

We Want Safer Neighbourhoods

Youth Poster Competition open to youths between the ages of 8 and 20 years old. Posters should be designed around the theme ***"We Want Safer Neighbourhoods".***

Posters can be in colour, black or white and should be presented on Bristol board.

All submissions should be made between November 20th to November 30th to Project REASON, 8 Borde Street, Port of Spain between the hours of 10am and 3pm.

Deadline Date for Submission: November 30th 2015

R.E.A.S.O.N

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A partner of Cure Violence

Chosen designs will be considered for printing to be used throughout Trinidad and Tobago.

Appendix 4: Project REASON Brochures

What is The Cure Violence Changing Behavior Model?

Violence is a learned behavior that can be unlearned. Our program sites have been effective in identifying those who are most likely to behave violently and changing their behavior.

R.E.A.S.O.N

T: 868-783-8506
www.projectreasontt.com
The Annex, 8 Borde St. Port of Spain

projectreasontt

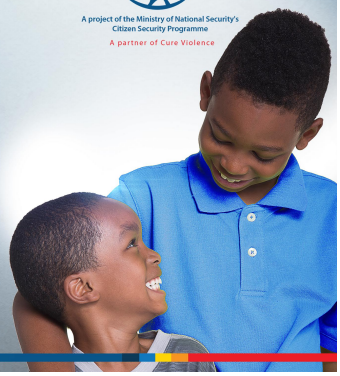
The cure

Violence Changing Behavior Model

R.E.A.S.O.N

A project of the Ministry of National Security's Citizen Security Programme

A partner of Cure Violence



The cure

A campaign to stop the spread of violence in our community.

Violence Changing Behavior Model

ESTABLISHING TRUST

In order for this behavior change work to occur, the person being served must trust and respect the worker that is helping him. Those mostly likely to commit violence will often not interact with someone at all if they do not trust them. Being able to challenge behaviors and impart new ways of behaving to these individuals requires a deep level of trust. One of the best ways to have this sort of trust is to use workers who are from the community being served.

CHANGING INDIVIDUAL BEHAVIORS

Once this trust is established, a worker can change behaviors. First, workers address all problems that the clients have – such as drug problems, lack of education, issues with anger, and help with parenting. Simultaneously, workers educate clients on the effects of violence on them and those around them – for example, talking to them about what would happen to their girlfriend or children if they went to prison or how their mother would feel if something happened to them. Workers also teach their clients new methods of behavior, such as how to deescalate conflicts, save face in a confrontation, and stop a friend from being violent. Workers are also trained in methods of persuasion, alternatives to violence, detection and diagnosis of violent behavior, appropriate referrals for client issues, as well as a number of other areas. They learn the methods that can be used to encourage new positive behaviors such as conveying new information, teaching new skills applicable to the new behaviors, practicing, developing opportunities for positive peer reactions, and avoiding negative peer reaction.

CHANGING GROUP AND INDIVIDUAL BEHAVIORS

One of the most important factors of whether someone commits violence is what we think our peers expect us to do. Aggressive norms are perpetuated in environments by norms that promote maintaining respect as essential and discourage walking away from any fight. These norms prohibit an individual from allowing others to take advantage of him or "mess with him" and demands a willingness to exact retribution if such incidents do occur. One of the most powerful ways that a person in the street culture can gain respect and status is through violence. Further, when violence is concentrated for a long period of time in an individual community, it becomes normalized and therefore even "expected" by peers – and in fact by the whole community. To reduce violence, it is necessary to change what is "normal" and what is acceptable and to help people to feel that it is acceptable to walk away from a fight. To create a lasting reduction in violence, communities must have expectations of peaceful conflict resolution so that it is accepted and actually takes place.

R.E.A.S.O.N

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A partner of Cure Violence

Appendix 5: Project REASON Trainings from Cure Violence Chicago

- June 8–18, 2015: Cure Violence Chicago provided training to prospective Violence Interrupters and Outreach Workers and management staff. The training focused on the guiding principles of the Cure Violence initiative and related methods and strategies from other intervention sites.
- August – September 2015: Cure Violence Chicago conducted the first training on the Cure Violence (CV) database. This training was provided to all current Project REASON staff and focused on proper data entry of 'real time' intervention work within the target communities.
- September – December 2015: Project REASON management continue training on the Cure Violence database to respond to concerns raised by the evaluation team regarding the consistency and quality of data entry.
- December 2015: Violence Interrupter Supervisor is hosted by the Cure Violence Chicago team on a site visit to Washington, DC to see additional Cure Violence intervention sites that were being established.
- January 18–29, 2016: Cure Violence Chicago conducted training with all VIs and OWs to cover administrative topics such as program processes and procedures as well as data entry and reporting. Trainers also shadowed staff in the field to provide real-time feedback on their work within the target communities.
- April 25–May 7, 2016: Cure Violence Chicago administered refresher database training to all Project REASON staff and participated in site-visits to intervention communities to offer guidance as needed.
- April 17–24, 2017: Cure Violence Chicago participated in administrative meetings with staff, conducted refresher database training specific to mediation data, and participated in site-visits to intervention communities to offer guidance as needed.
- June 12–23, 2017: Cure Violence Chicago offered booster trainings to staff as needed.

Appendix 6: Items Used to Construct Composite Measures

Fear of Crime

- How do you feel in the following places as far as your personal security is concerned?
  - In your home or apartment (T_85_1)
  - On the streets of your community during the day (T_85_2)
  - On the streets of your community at night (T_85_3)
  - In your city centre (Q_86)
  - In a business establishment (e.g. bank, bar, restaurant, supermarket)(T_87_2)

Violent Victimization

- Have you had something taken from you in the past 12 months by someone who used violence on you OR who was armed? (Q_103)
- Have you witnessed an armed robbery or robbery which involved violence to some other person in the last 12 months? (Q105)
- Have you been beaten by some other person or persons in the past 12 months? (Q115)
- Have you been wounded with a firearm in the past 12 months? (Q117)
- Have you been wounded with a weapon that is not a firearm in the past 12 months? (Q119)
- Have you seen someone wounded by a firearm or another weapon in the past 12 months? (Q_121)

Community Mobilization

- In recent months, have you seen or heard about:
  - A gun violence prevention program in your neighborhood? (T_157_1)
  - People in gangs attempting to mediate conflicts and reduce gun violence in your neighborhood? (T_157_2)
  - People not in gangs attempting to mediate conflicts and reduce gun violence in your neighborhood? (T_157_3)
  - Residents in your neighborhood taking legally permissible actions to reduce gun violence? (T_158_1)
  - Signs or flyers about reducing gun violence in your neighborhood? (T_158_3)

Perceived Influence of Gun/Gang Violence

- To what extent do you think your neighborhood is affected by gun violence? (Q_159)
- To what extent do you think your neighborhood is affected by gangs? (Q_162)


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