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A disease control approach to reduce violence and change behavior

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Introduction

Despite recent improvements in the homicide rate in the United States, homicide continues to be one of the leading causes of death for individuals under the age of 45, claiming thousands of lives every year (CDC 2010). In 2008, 16,442 people were murdered in the United States (FBI 2008), and since 1950 well over 900,000 persons have been murdered (BJS 2011). The problem of homicide especially plagues certain urban areas. From 1976 to 2005, more than half of the homicides occurred in cities with over 100,000 residents, and almost a quarter of the homicides occurred in cities with over 1 million residents (BJS 2011).

The reaction to this continued problem has typically been increased law enforcement through additional personnel, firepower, and new technology as well as tougher sentences for the criminals who are caught (Stewart *et al.* 2008). These efforts seek to suppress violent crime by increasing the severity and likelihood of punishment. The results of these approaches have been mixed, with many suppression approaches having negative effects: increased gang cohesion and increased tension between the police and community coupled with failure to reduce crime (Greene and Pranis 2007).

Additionally, these suppression efforts sometimes have had disastrous effects on the targeted communities. For example, a suppression approach can actually increase the neglect and inequality in a community, making the police a cause of increased instability rather than making the communities safer (Stewart *et al.* 2008). Distrust of the police builds in some communities as residents come to think of the police as the enemy (Kennedy 2009). Certainly individuals who commit crimes should face consequences, and suppression efforts and the work of law enforcement are an essential element in making every community safer. But in response to the problem of lethal violence, an approach that seeks to prevent violence in the first place spares the community from the destabilizing effects of the crime and the response to that crime.

One preventive approach is the public health approach to lethal violence, which treats violent crime as if it were a disease. In this chapter, we describe the theory behind a public health approach to violence and how this approach can be used to prevent violence before it occurs. As an example of this public health

approach to decrease lethal violence, we use the Cure Violence Public Health Strategy, a strategy that was initially implemented in Chicago under the name CeaseFire and has since been implemented internationally. Cure Violence seeks to reduce lethal violence by working with the highest-risk individuals in the most impacted communities in order to interrupt conflicts and change the behaviors and norms related to violence.

The public health approach to reducing urban violence

Over the past 20–30 years, violence has been increasingly accepted as a public health problem by the criminal justice and the public health communities – at least in language, and sometimes in practice (Akers *et al.* 2013; Akers and Lanier 2009; Pridemore 2003; USDHHS 2001; Prothrow-Stith and Weissman 1991). Scholars have considered violence as an epidemic since at least the 1970s (Davis and Wright 1977), and the Surgeon General of the United States began viewing the youth violence problem as a public health issue in 1985 with the convening of a workshop to explore public health solutions to the youth violence problem (USDHHS 2001). Furthermore, crime has long been characterized using the language of epidemics: "crime waves," "crime spreading" (Philipson and Posner 1996), and, more recently, "risk factors," "protective factors," "diffusion of violence," and, generally, "the epidemic of violence" (Pridemore 2003).

The public health community could consider a more developed theory of violence that specifically sees violence spreading in the same way that a disease spreads. In the case of disease, the germ or virus is transmitted via contact between infected and uninfected populations. A public health perspective on violence would then see the common thinking and behaviors or norms of the community – in this case, of violence as a socially acceptable or even "expected" behaviour – as a kind of virus, which spreads from person to person as members of the community are exposed to violence and as the existing social pressures encourage individuals and groups to act violently. Violence also operates like a disease in that it displays similar temporal and spatial patterns. Diseases like cholera have specific points in time and place where outbreaks occur, owing to the fact that the disease spreads through contact with infected individuals. When a few cases of cholera appear, there is a risk that many others will be infected. With violent norms acting like viruses or bacteria, violence also has specific times and places where outbreaks occur. When a violent event occurs in a community, there is a heightened risk that there will then be other events – for example, retaliations for the shootings (Braga 2004).

Public health approaches to reducing violence use spatial and temporal patterns to identify the individuals, groups, and communities at highest risk, and then address that risk. Police programs such as "hot-spot" policing have utilized these spatial and temporal patterns to allocate resources, but they have generally used a suppression approach rather than a preventive approach. Much like disease control interventions, the public health approach to violence involves the prevention of violence *before* it occurs. This approach can be expanded by

including the understanding of violence as an acquired or learned behavior that is then maintained through social pressure – in other words, pointing to its "infectivity" as a person or a group influences others. Public health approaches could then attempt to use this social pressure to intervene as well as to change behavior and community norms regarding violence to prevent future acts of violence from occurring.

Norm change

At the center of this new and more fully developed public health perspective is the idea that violence not only is a learned behavior but can be prevented using specific disease control methods. This model begins by considering the social learning theory of behavior as pioneered by people such as Albert Bandura. Before Bandura's work, much of the literature on behavior focused on rewards and punishments (Bandura *et al.* 1961), a perspective very similar to many contemporary policy approaches to the violence problem. Bandura instead argues that behaviors are acquired either through direct experience or by observation. Since direct experience can be an inefficient way to learn, most human behavior is learned through observation and modeling (Bandura 1977).

Bandura's research was further expanded by Ronald Akers and others, who inferred that criminal behavior is a learned behavior that is reinforced through social interactions, thus making criminal behavior a function of social norms (Burgess and Akers 1966). These norms, and the motives, drives, rationalizations, and attitudes involved in them, are learned from the group. While Burgess and Akers' theories apply to all criminal behavior, they apply more strongly to aggressive behaviors in groups where reinforcement is received (Akers 1973).

More recent studies have shed light on how aggressive norms are perpetuated in certain communities. In poor urban areas, "the code of the street" – the norms of the community – are such that maintaining respect is essential and walking away from a fight is not considered an option. The code of the street prohibits 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. Safety comes therefore from having a tough reputation (Anderson 1999). One of the most powerful ways that a person in the street culture can gain respect and status is through violence (Wilkinson 2003). Thus, violence is justified if it gets the individual money, respect, or even just attention (Kellerman 1998). Violence is therefore a set of social events, and the use of violence a socially normative behavior.

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. In such communities – where violence is not only accepted but expected – violence becomes a social norm, which then leads to an increase in homicides over trivial interpersonal disputes; an insult or looking at someone the wrong way can be fatal in some communities (Kellerman 1998). Thus, the public health theory of violence predicts that changing community norms will help to reduce violence. To reduce violence, it is

necessary to change what is "normal" and what is acceptable, and to help persons grapple more realistically with the physical consequences of violence. To create a lasting reduction in violence, social environments must be created where peaceful conflict resolution becomes accepted and actually takes place (Stewart *et al.* 2008).

Theories on influencing behavior

There are many theories on how behavior can be influenced: the Social Cognitive Theory from the clinical perspective (Bandura 1986), the Theory of Reasoned Action from the social psychology perspective (Fishbein and Ajzen 1975), the Health Belief Model from the public health perspective (Becker 1974), and many others. Yet despite the competing theories, there is a growing consensus on a limited number of variables that influence behavior (Fishbein *et al.* 1992). These variables are intentions, skills, environmental constraints, outcome expectancies (or attitude), norms, self-standards, emotional reactions, and self-efficacy (Fishbein 1995). These can also be narrowed down to attitude, norms, and self-efficacy (Fishbein 2000). A successful intervention to change behavior will address one or more of these variables.

In addition to influencing an individual's behavior for long-term change, individual events are also able to be influenced to achieve outcomes that are favorable to all involved. Central to this theory is the idea of the third party: someone affected by a conflict, not centrally involved (Ury 2002). Third parties can bring the perspective of common ground and the process of dialogue to positively transform or contain a conflict in order to achieve outcomes that are favorable to all involved, especially the larger community. "[Third party involvement is] a kind of social immune system that prevents the spread of the virus of violence" (Ury 2002: 43)

A public health approach to violence – in practice

Cure Violence began in 1995 with the goal of reducing shootings and homicides in Chicago using disease control and public health methods that have been used by the World Health Organization and other organizations to address AIDS, cholera, diarrhea, and other leading causes of death in the world. The Cure Violence Strategy has three core activities that work in concert to disrupt the transmission and reduce the prevalence of violence in a community. These activities are *interrupt transmission*; *identify and change the thinking of highest-risk transmitters*; and *change group norms*. Additionally, data and monitoring are used at all levels to measure and provide constant feedback to the system.

Interrupt transmission

The Cure Violence strategy calls for workers to detect potentially violent events in a community and work to interrupt these events before they escalate to fatal

violence. At the street level, Cure Violence employs "violence interrupters": individuals who, because of their credibility, their past positions in the community, or in some cases their prior history with a gang, can effectively communicate with active gang members or others who may be involved with violence. Violence interrupters are trained in how to best utilize these personal relationships by acting as third-party persuaders and conflict mediators – learning of ongoing or impending disputes and preventing them from escalating into shootings. The violence interrupters persuade and mediate by talking individuals and groups out of planned violent events, and in some cases talking with and/or bringing together key individuals to cool down these conflicts. Interrupters learn many techniques of persuasion in a training curriculum for the violence interrupter.

One of the keys to this component of the Cure Violence intervention is the ability of its violence interrupters to "intercept whispers" and detect potential shooting events – what are termed "trigger situations." A trigger situation might be a shooting event or robbery that could inspire a retaliation; the admission of a shooting victim to an emergency room, which could also inspire retaliation; the release of a shooter for a gang from prison; anniversaries of past events; or other key events such as parties, parades, dice games, and club gatherings where interruption of misunderstandings can prevent potentially lethal violence. Violence interrupters also keep track of territorial disputes, interpersonal and gang conflicts, the emergence of new factions or cliques, and major arrests that leave power vacuums, all of which may require mediation to prevent lethal gun violence. Receiving timely information on conflicts that could escalate to deadly shooting events is essential to be able to prevent shootings. Violence interrupters have four main sources of information on these potential shooting events: community members, local police, high-risk individuals involved in the conflict, and hospital emergency rooms where shootings victims are treated and where friends of the victims often gather to draw up plans for retaliation.

The actual mediations occur in a number of ways that involve influencing the attitudes and self-efficacy of those involved. Violence mediators usually meet one on one with aggrieved individuals, host small-group peacekeeping sessions to foster diplomacy between groups, or on occasions bring in a respected third party to dissuade against further violence and/or negotiate conflicts. Once the key players have been approached or convened (third parties are not always necessary), violence interrupters employ a variety of different strategies to diffuse the situation, including creating cognitive dissonance by demonstrating contradictory thinking, changing the understanding of the situation to one that does not require violence, allowing parties to air their grievances, dispelling any misunderstandings, conveying the true costs of using violence, buying time to let emotions cool, and seeking out individuals who can use their influence to further assist in the cooling down of the situation with a potential shooter. Cure Violence has developed a specific training regimen that all violence interrupters go through and that equips them with a set of skills and experiences to develop their abilities to successfully and safely mediate these high-risk conflicts.

In addition to violence interrupters, Cure Violence employs indigenous outreach workers to act as credible messengers, behavior change agents, connecters, and mentors to help individuals at highest risk for being involved in lethal violence change their thinking in the short and long term about the desirability of using guns. This help specifically includes assistance in how to work with social pressures and how to avoid violent situations, as well as helping those at highest risk with their lives in other ways. These outreach workers are selected for their credibility in the community and among those at highest risk; they live in the community in which they work, and remain in constant contact with the population they serve. Furthermore, these individuals have frequently lived the same type of life as those who are being affected by violence. In some cases, outreach workers are also persons who may have been previously involved in the high-risk life, some having spent time in prison. Outreach workers and violence interrupters are recruited and selected for their access to potentially violent individuals, as well as their desire to help others not make violent "mistakes" in their lives.

Cure Violence is designed such that selected participants are generally from a much higher level of risk than those in most other social service, outreach, and violence prevention methods. Outreach workers identify individuals who are at high risk for being involved in a shooting and cultivate relationships with these high-risk individuals through home visits and involvement in positive activities. Cure Violence requires that outreach participants meet at least four of seven criteria for being at highest risk: carries or has ready access to a weapon; has a key role in a gang; has a prior criminal history; is involved in high-risk street activity such as dealing in illegal drugs; is a recent victim of a shooting (in the past 90 days); being between 16 and 25 years of age; and, finally, being recently released from prison or a juvenile facility for a criminal offense against a person. Although being part of a minority population is not a criterion, the majority of the Cure Violence clients are in fact either Hispanic or African American.

Outreach workers provide assistance to the program participants to address their attitude, norms, and self-efficacy in a variety of spheres, including dealing with education, leaving gangs, addressing drug abuse, coping with anger issues, and learning alternatives to the use of violence. Outreach workers develop a risk reduction plan, outlining how to work with the participant to reduce his or her risk for committing a shooting by challenging the participant to develop strategies to deal with issues such as conflict resolution and anger management. In many ways, the work of the outreach workers is at times similar to that of a highly credible mentor. Mentoring in general has been proven to be a successful approach at addressing violence as well as other behavior issues (Sheehan *et al.* 1999; Cheng *et al.* 2008), but there is less experience of using this approach for those at highest risk.

For this component, Cure Violence borrows from prior work performed by the Little Village Gang Violence Reduction Project (GVRP), a gang outreach intervention in the Chicago's Little Village neighborhood. Two of the main organizational staff members for Cure Violence had previously been integral

parts of the GVRP. An evaluation of GVRP found significant reductions in crime, particularly violent crimes and drug crimes (Spergel 2007; Spergel and Wa 2000). Notably, Spergel (1999) found the outreach work to be a particularly valuable component of GVRP: outreach workers with whom gang members could identify had the potential to establish relationships with the high-risk population and steer them to positive outcomes.

Cure Violence's efforts at community-level norm change are expressed in two main ways: community mobilization and public education. Cure Violence mobilizes communities so that community members will be active in efforts to reduce the violence. There is compelling evidence that community cohesion can be a protective factor against violence and crime (Sampson *et al.* 1997; Mercy *et al.* 2002). Furthermore, the willingness of local residents to intervene for the common goal (social control) is also an important factor in lowering violence (Sampson *et al.* 1997). Community mobilization takes a number of forms, including community activities to connect residents to one another; engaging local faith leaders to preach peace; the establishing of relationships with service providers; the organizing of shooting responses (the community rallies to send the message that shootings are not acceptable) when someone in the target area is shot or killed; and events specifically designed to engage high-risk individuals. Cure Violence encourages the establishment of relationships between police, community businesses, and residents.

In addition to community mobilization, Cure Violence also deploys extensive public education materials such as posters, flyers, and bumper stickers with an anti-violence message. These materials act as yet another messenger to convey the message that violence is not acceptable. Evidence for the effectiveness of the use of public education to change norms and behaviors has been shown in campaigns to increase cancer detection (MacKie and Hole 1992), to change attitudes toward depression (Paykel *et al.* 1998); to prevent cigarette smoking (Lantz *et al.* 2000); and to prevent HIV infection (Fishbein 1995; Slutkin *et al.* 2006). While many organizations have launched public education campaigns related to violence, few have been tested (Kellerman *et al.* 1998). Furthermore, public education in conjunction with community mobilization, outreach, and mediation is a unique approach. Changing complex behaviors requires more than just a billboard, but Cure Violence uses multiple messengers with the same message to have an effect (McGuire 1968). Furthermore, the behavior message is very specific, calling for individuals to stop using guns. Specific messages have been found to be more effective at achieving behavior change (Fishbein 2000).

The National Institute of Justice/Northwestern evaluation of Cure Violence

From 2004 to 2007, the Cure Violence Public Health Strategy underwent an extensive evaluation to determine the effectiveness of the strategy (Skogan *et al.* 2009). Each of the analyses showed positive results for Cure Violence, and overall the strategy was found to be effective. Through a time series analysis,

Skogan's team looked at 16 years of data, from 1991 to 2007. All seven of the communities analyzed experienced reductions in shootings, in the range of 27 percent to 73 percent. When compared to carefully matched control communities, the Cure Violence zones showed statistically significant results for four of the seven Cure Violence communities,[1] with reductions in shootings in the range of 16–28 percent that were specifically attributed to Cure Violence. All seven communities were found to have substantial reductions in the density of shootings, and six of the seven communities grew "noticeably safer." Finally, gang network analysis looked at gang-related homicides in the Cure Violence communities and comparison communities to determine whether the introduction of Cure Violence had any effect on patterns of homicides. The findings of this analysis were generally mixed, an outcome that is not surprising since an analysis of homicides in such a small area would yield numbers too small to reliably show an effect. However, the analysis of homicides by one gang against another, which are then reciprocated, with the other gang killing a member of the first gang, found that these reciprocal homicides were reduced by 100 percent in five of the eight Cure Violence communities.

Formative evaluation found that 84 percent of the clients met the criteria for being at high risk to be the victim or offender of a gun crime, and 87 percent of clients received the help they needed in terms of getting employment, leaving a gang, getting assistance for drug abuse, obtaining an education and other needs. Clients ranked Cure Violence outreach workers second only to parents as important adults in their lives upon whom they could rely. Since this initial evaluation in Chicago, the Cure Violence strategy implemented in Baltimore, named Safe Streets, has also been evaluated, with similar positive results. In Baltimore, the evaluation found statistically significant reductions in all four[2] communities studied, with reductions in homicides as high as 54 percent and reductions in shootings as high as 44 percent (Webster *et al.* 2012). Evaluations are currently being conducted on implementation of the Cure Violence strategy in other cities.

Conclusion

Lethal violence remains a serious threat to urban communities throughout the United States. While law enforcement strategies have been the typical response, the public health approach to violence prevention has much to offer. Most importantly, the public health approach seeks to prevent violence before it happens, sparing the community the costs of both the crimes and the police response to the crimes. Furthermore, the community-wide efforts involved in the public health approach address the root problem – a negative environment that creates individuals prone to violent behaviour – to break the cycle of violence permanently.

The Cure Violence Public Health Strategy has been successfully applied to violent communities throughout Chicago and has been adopted in several other cities in the United States, including Baltimore, Kansas City, New Orleans, New

York, Oakland, Philadelphia, and others, as well as in other countries, including Iraq and South Africa. This approach is designed to shift community norms away from treating violence as an acceptable behavior and instead use these norms and social pressure to stop violence before it occurs. This is accomplished by identifying and addressing those at the highest risk with outreach, identifying outbreaks of violence and addressing them with mediators and community mobilization, and changing the behavior and norms of the community and individuals in that community by providing information, guidance, and forums. Lastly, building on the epidemiological criminology model, as reflected in this publication, can serve as a complementary theoretical framework to the Cure Violence approach.

Notes

1 The time series analysis looked at two different measures of shootings: shots fired, which included aggravated assaults and batteries with a firearm; and persons shot, which included aggravated batteries with a firearm and homicides. The all-shots measure showed three significant results and the actual shots showed four significant results.

2 One community had a statistically significant reduction in both shootings and killings, two communities had statistically significant reductions in shootings, and one had a statistically significant reduction in killings in the first period of implementation. A fifth community was initially part of the strategy, but after implementation the program site was shut down, owing to implementation issues.

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Epidemiological Criminology

Theory to practice

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