COMBATING CRIME IN PUBLIC HOUSING: A QUALITATIVE AND QUANTITATIVE LONGITUDINAL ANALYSIS OF THE CHICAGO HOUSING AUTHORITY'S ANTI-DRUG INITIATIVE*

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The Chicago Housing Authority's (CHA) notorious high-rise developments are among the most dangerous public housing in America. In the early 1990s, the CHA launched an ambitious attack on crime, a comprehensive and collaborative crime prevention program known as the *Anti-Drug Initiative* (ADI). From 1994 to 1996 we tracked conditions in three of the CHA's high-rise developments, assessing the agency's success in implementing the ADI programs in each site as well as tracking other, related interventions. Using a combination of surveys and qualitative research methods, we examined the impact of these programs through the eyes of the residents and other key actors, looking at various outcome measures related to crime and disorder. Our findings indicate some positive results, but follow-up research conducted in 1996 documented the fragility of these changes and their vulnerability to gang influence.

The Chicago Housing Authority's (CHA) notorious high-rise developments are among the most dangerous public housing in America. An aging stock, buildings that were poorly designed and cheaply constructed, years of neglect and poor management and an increasingly troubled resident population combine to make CHA housing attractive targets for criminal activity. Almost two decades of management turmoil have exacerbated the disorder, leaving the gangs virtually unopposed. Because of the CHA's extreme management problems, the U.S. Department of Housing and Urban Development (HUD) took over the troubled agency in May 1995. The new CHA administration has made many bold changes, including

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demolishing some high-rise buildings and launching several redevelopment initiatives, but the agency's problems with crime continue to intensify.

An Urban War Zone

CHA high-rises in the 1950s and 1960s were preferable to the slums they replaced, but within two decades crime, drug trafficking, and substance abuse had become epidemic. Gangs dominated the social world of the developments, vying for control over individual buildings and open areas, recruiting young men and women, and operating a thriving drug business. Episodes of extreme violence became commonplace and unpredictable; after years of constant conflict, residents were so overwhelmed by the constant violence that many only expressed anger or shock when the shooting endangered young children. One resident of the Henry Horner Homes described conditions in her development in 1996:

> They (the gangs) shoot at each other every night. And sometimes it's like. . .whole weekends nobody can't come outside. Kids can't come out and play, whatever. And it just follows the same pattern over and over and over again. Police come through, ride around for a minute; they always come after everything is over.

The police and the CHA staff faced a nearly impossible task in trying to control the crime. The CHA's poorly designed buildings offered innumerable hiding places for criminals. Most residents were afraid to cooperate with the police because many felt that survival depended on "minding your own business" and looking the other way when crimes occurred. Most of the people responsible for the violence and drug trafficking were not strangers; they were the relatives, boyfriends, and neighbors of the leaseholders. Thus reporting crime put residents at risk for retaliation. Indeed, residents did not refer to the criminals as outsiders, but rather as "the boys" or "the gangbangers." This resident of neighboring Rockwell Gardens spoke as follows in 1994:

> . . .You can't just tell on them boys like that. You go out there and bring the police to one of them boys. If they take him to jail, the rest of them boys is going to get you. That's just the way it is.

Combating Crime

Although crime had become a serious problem in CHA housing by the 1970s, there was no systematic attempt to address the problems until many years later. In 1981 former Mayor Jane Byrne moved into the Cabrini-Green development for three weeks, promising to make it a decent place to live. This gesture had no long-

term effect (Gittelson 1982). Management turmoil at the CHA was so severe that the agency did not make any concerted effort to combat crime until the late 1980s. In 1988 newly appointed executive director Vincent Lane initiated Operation Clean Sweep, a massive law enforcement intervention that was gradually expanded over the next three years into a comprehensive and collaborative crime prevention program known as the *Anti-Drug Initiative* (ADI). From 1994 to 1996 the CHA launched its most ambitious attack on crime, spending approximately $80 million per year-more than half of its funds for major building repairs-on security and anti-drug activities in its developments.

During the three years of the CHA's most intensive efforts to contain crime, we tracked conditions in three high-rise developments: Rockwell Gardens, Henry Horner Homes, and Harold Ickes Homes.[1] We assessed the agency's success in implementing the ADI programs in each site, as well as tracking other, related interventions. Selecting three buildings in each development, we used multiple methods to examine the impact of these programs, allowing us to view the program from a variety of perspectives including those of residents, CHA staff, police, and the media. We conducted four waves of door-to-door surveys;[2] six rounds of in-depth interviews[3] with a small group of residents (key informants); two rounds of interviews (1994, 1996) with key staff involved in implementing the ADI; ethnographic observations of each of the developments from May 1995 to August 1996; and a content analysis of the Chicago *Tribune* and Chicago *Sun-Times* from 1988 through 1996.

In this article, we present our findings on the impact of the ADI on residents' perceptions of crime and disorder in their developments. We review the relevant research, describing the CHA's efforts in the context of the current thinking on the most effective ways to address crime in public housing. We present a detailed description of the different anti-crime initiatives. Finally, we examine the impact of living with such extreme violence on residents' lives, and discuss the implications for research and policy.

LITERATURE REVIEW

Policy makers and researchers have offered a variety of explanations for the prevalence of crime and disorder in public housing.

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[1] For a full report of the evaluation results, see Popkin et al. (1996).

[2] The surveys were conducted in May 1994, January 1995, May 1995, and December 1995.

[3] The in-depth interviews were conducted in June 1994, February 1995, June 1995, August 1995, December 1995, and February 1996.

Most agree, however, that the physical and social isolation of many large developments contributes greatly to the problems. During the 1950s and early 1960s, cities like Chicago constructed high-rises on "superblocks," which were intentionally separated from the surrounding neighborhood (Bowly 1978). These developments were often physically barricaded by expressways or rail tracks (Fosburg, Popkin, and Locke 1996). When the developments were constructed, site selection practices guaranteed that they would be located in areas with little industry or commercial activity; thus, the opportunities for legitimate employment within the neighborhood were limited. The physical design and poor construction of many developments exacerbated the problems of crime and drugs.

In addition to physical isolation and poor design, in Chicago as elsewhere, housing authority policies often determined that these developments would be completely racially segregated (Massey and Denton 1993). To compound the isolation, the developments were "artificially created" communities, lacking any existing social structure that might reinforce social norms. Gangs often filled the void, and the lack of other economic activity allowed the drug trade to flourish (Halpern 1995).

Historically, federal housing policies also have contributed to the concentration of problems in public housing. Although public housing was initially intended as short-term housing for the working poor, government policies, such as income ceilings and federal preferences that favored the poorest tenants, rapidly pushed out most working families during the 1960s and 1970s (Fosburg et al. 1996). Inadequate funds for maintenance, as well as managerial neglect, also accelerated the decline of many developments across the country (Meehan 1985).[4]

Early on, evidence began to appear that these huge developments could be disastrous environments for families. In the early 1960s Rainwater (1966, 1970) documented a variety of problems in the Pruitt-Igoe development in St. Louis, including a lack of social cohesion, a high tolerance for deviance (e.g., drug use and sales, teen pregnancy), and high levels of anxiety and helplessness among residents, especially women. All of these problems are noted in distressed public housing today.[5]

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[4] The "one-for-one" replacement rule generally prevented housing authorities from demolishing troubled sites and constructing new, smaller developments.

[5] Less than 10 years after its construction, the city closed the development. Pruitt-Igoe was demolished in 1973, after vandals had made it uninhabitable (Pate 1984).

Severely Distressed Public Housing Today

Conditions in many public housing developments, particularly those in large cities, are substantially worse today than a decade ago. Many of the worst developments face increasingly serious problems with violent crime: Disputes are much more likely to end in a shooting or killing and to involve innocent bystanders (Keyes 1992). These developments are also plagued by drug trafficking and other forms of disorder (Dunworth and Saiger 1993; Webster and Conners 1992). In addition, residents must cope daily with darkened hallways, abandoned apartments, graffiti, task, and street prostitution. Such visible disorder breeds fear, undermines social cohesion, and promotes crime and economic decay (Skogan 1990).

For residents of the worst public housing, the costs of violence and the resulting community disintegration are profound. Even pre-school children in the worst developments learn to hit the ground at the sound of gunfire and to avoid open areas, where shootings are common. Children are often victims or witnesses to the violence, and research shows that all children who live in high-crime developments are at risk for the psychological trauma and intellectual deficits that result from chronic fear (Garbarino, Kostelny, and Dubrow 1991).

Constant violence also affects adults, contributing to widespread depression, lack of motivation, and hopelessness. An inherently destructive "street" culture has developed, which discourages young people-particularly young men-from seeking mainstream employment, and actively encourages violent behavior (Bourgois 1995). For all of these reasons, the problems faced by residents in the most distressed developments are overwhelming, and the social world is both complex and dangerous.

Crime Prevention in Public Housing

Because the problems in distressed public housing are so severe, policy makers agree that controlling crime is a necessary first step to improving conditions (National Commission on Severely Distressed Public Housing 1992a, 1992b). In this section, we review the research on major crime prevention strategies that have been implemented in public housing and other poor communities, including environmental design, situational crime prevention, intensive law enforcement, and community crime prevention programs.

Environmental design. Much research effort has focused on the Crime Prevention Through Environmental Design (CPTED) approach, which grows out of Newman's (1972, 1996) work on defensible space. Newman argued that a major design flaw of the huge public housing developments of the 1950s and 1960s was the lack of "defensible space," defined as public areas clearly associated with a specific unit. Such space might be a fenced yard or an entryway leading to only one or two units, or a functional public area shared by only a few residents. In a "defensible" development, tenants can easily survey public areas from inside their units. Without clearly delineated space, Newman stated, residents had no sense of "territoriality" to motivate them to keep public areas free of crime and disorder. As a result, undefined public areas-such as the large open spaces around high-rises were easily taken over by gangs and drug dealers. The "public" character of public housing was also a fundamental problem: In poorly designed developments, buildings lacked secured lobbies or guarded entryways that could prevent outsiders from entering (Skogan and Annan 1994).

Strategies such as improving the layout of housing developments and controlling physical deterioration have succeeded somewhat in reducing crime, although questions about the effectiveness of this approach remain unresolved (Taylor and Harrell 1996). Further, some recent research suggests that the size of the development may play a greater role than the type of building (high-rise versus low-rise) in promoting crime (Holzman, Kudrick, and Voytek 1996). The physical structure of the development is still significant, however.

The moderate impacts found in evaluations of CPTED interventions may be due, in part, to the complexity of the problems involved. For example, adequate social services, regular activities for youths, and effective management may also be crucial in reducing crime in public housing (Feins, Epstein, and Widom 1997; Rouse and Rubenstein 1978). Further, a safe design may not be enough to overcome the effects of anonymity, distrust, and fear among residents (Merry 1981). Finally, CPTED emphasizes the prevention of crimes committed by intruders, but a significant proportion of crimes in public housing are committed by residents or their guests (Keyes 1992; Merry 1981).

Situational crime prevention. "Situational crime prevention" measures generally involve attempts to reduce the opportunities for committing specific crimes in particular locations (Clarke 1980; Clarke and Mayhew 1980). Strategies include screening people as they enter and exit buildings, controlling access to buildings by closing

entrances and requiring residents to use keys or security cards, using security guards or video cameras for surveillance, and setting formal visitation policies. In recent years, an increasing amount of research has documented the effectiveness of situational crime prevention measures in reducing victimization (see Clarke 1992, 1995), although concerns have been raised about the quality of these evaluations and the extent to which these programs displace criminal activity to other locations (Rosenbaum, Lurigio, and Davis 1998).

Law enforcement strategies. During the early 1980s, the focus of crime prevention efforts in housing developments shifted from changes in physical design to aggressive law enforcement tactics such as creating mini-precinct stations, intensifying police patrols, and conducting undercover investigations (Annan and Skogan 1992; Cuyahoga Metropolitan Housing Authority 1993; Greensboro Housing Authority 1993; Wilkins 1989). According to a review of the research on the effectiveness of these police tactics (Sherman et al. 1997), more police, random patrols, reactive arrests, or community policing efforts without a clear focus on crime risk factors did not prevent serious crime. However, directed patrols, proactive arrests, and problem solving at high-crime "hot spots" all appeared to be effective.

Although distressed public housing can be viewed as a large cluster of "hot spots," there is little direct evidence about effective strategies in this setting, primarily because of a lack of informative demonstration-and-evaluation projects. Law enforcement activity in public housing has focused largely on drug offenses. Research on the effectiveness of drug market arrests in general has shown mixed results, but most studies reveal that such arrests have no effect on crime (Kleiman 1988; Kleiman et al. 1988; Pate 1984; Uchida, Forst, and Annan 1992).[6] There have been few evaluations of enforcement activity in public housing, but the available evidence suggests that drug crackdowns do not affect crime rates (Annan and Skogan 1993).

One law enforcement strategy that has proved effective in urban neighborhoods is the attempt to maintain order by making arrests for minor offenses-a strategy based on the "broken windows" theory (Kelling and Coles 1996; Skogan 1990; Wilson and Kelling 1982). The available evidence suggests that crime can be reduced by focusing on public nuisances such as loitering youths (Boydstun

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[6] In one controlled experiment, raids of crack houses produced a drop in crime rates (Sherman and Rogan 1995), but the effects lasted no longer than one week.

1975; Reiss 1985). Serious questions arise, however, about the constitutionality of these popular "round 'em up" tactics, and about whether the effects will be long lasting (Rosenbaum 1993).

Another promising strategy is to focus police attention on reducing signs of physical disorder such as graffiti, broken windows, litter, and abandoned vehicles. While there are few systematic evaluations of this approach, evidence from a massive community policing program in five prototype neighborhoods, involving the coordination of other city services to clean up physical blight, showed evidence of reducing crime and fear, as well as lowering the levels of physical and social disorder (Skogan and Hartnett 1997). It remains to be seen whether this approach will be effective in severely distressed public housing.

Community involvement. By the late 1980s, researchers, managers, and policy makers agreed that successful anti-crime efforts in public housing should involve collaboration among the police, the public housing authority (PHA), and residents (Weisel 1990). Because residents have the largest stake in keeping developments safe, their active participation in crime prevention through organized programs or other initiatives came to be considered essential.

The community involvement approach (Heinzelman 1981; Lavrakas 1985; Rosenbaum 1988) is based, in part, on the concept of social control. Social disorganization theory suggests that criminal activity is encouraged when a neighborhood is socially disorganized: It is unable to exercise informal social control over its residents or to achieve common goals such as reducing the threat of crime (Bursik and Gramick 1993; Sampson and Groves 1989; Shaw and McKay 1942). This model suggests that reductions in crime and in fear of crime are by-products of various social activities such as vigorously enforcing social norms (Greenberg, Rohe, and Williams 1982; Jacobs 1961; Rosenbaum 1988; Sampson, Raudenbush, and Earls 1997), clearly delineating neighborhood boundaries and identities (Suttles 1972), and establishing a stronger sense of community and greater social interaction (Conklin 1975; DuBow and Emmons 1981).

Little evidence is available about the effectiveness of community crime prevention efforts (for reviews see Hope 1995; Lurigio and Davis 1992; Rosenbaum 1988; Rosenbaum et al. 1998). Also, despite their apparent potential, such initiatives are frequently unsuccessful in public housing (Skogan and Annan 1994). Often the residents fear and resent the police. The police are suspicious of

residents, and the housing authority management is uncooperative.[7]

The failure of community crime prevention programs to substantially reduce crime and disorder is often attributed to residents' inability or unwillingness to participate. Yet, because many of these communities lack the economic or psychological resources to mount organized anti-crime efforts, this view may be tantamount in some respects to "blaming the victim" (Buerger 1994; Halpern 1995). Further, residents in these communities have legitimate reasons to distrust their neighbors: Many of the criminals they fear are other residents, sometimes even friends and relatives (Furstenberg 1993). This well-founded fear and suspicion undermines the potential effectiveness of organized community anti-crime efforts and partnerships with police (Hope 1995). Therefore, it is unrealistic to expect that residents in extremely troubled communities will be able to organize effectively to combat crime unless their efforts are part of a more comprehensive anti-crime initiative.

Comprehensive programs. Successful anti-crime programs typically contain elements of all the strategies discussed above, including aggressive law enforcement, security enhancements, tenants' participation, and social services. Most also include improvements in housing authority management. Some housing authorities have experimented with restrictive management policies as a way to promote security and safety among residents. These tactics include screening potential residents through criminal history and credit checks, and limiting access to buildings through the use of resident identification cards (New York City Housing Authority 1993; Webster and Connors 1992).

Keyes (1992) studied anti-crime efforts in privately subsidized public housing developments in Boston, New York, and San Francisco. He found that the most effective management approaches to combating crime involved careful screening of tenants and reliance on in-house security forces (as opposed to private security guards). He also reported that local police cooperation and organized tenant patrols were important in the aftermath of initial police sweeps or raids. Finally, he found that the most successful housing authorities worked closely with social service agencies to address residents' needs. Similarly, in a national study of the early years of HUD's

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[7] A comprehensive public housing crime prevention program in Spokane shows promising preliminary results, but it is not clear whether this approach could be transferred to a more troubled setting (Giocomazzi, McGarrell, and Thurman. 1995).

Public Housing Drug Elimination Program (PHDEP),[8] Hammett and his colleagues found that the most successful programs combined law enforcement (with an emphasis on community policing), improved security measures, and prevention/intervention services (Hammett et al. 1994).

Such a comprehensive approach is now a major direction of HUD's policies for addressing the problems of severely distressed public housing. In addition to ongoing funding of both security and prevention programs under PHDEP, the HOPE VI program provides large grants (up to $50 million per development) to housing authorities to revitalize severely distressed developments.[9] Although HOPE VI funds are directed primarily toward treating physical conditions, the program emphasizes reducing crime, increasing social cohesion, and promoting self-sufficiency (Fosburg et al. 1996).

THE CHA'S ANTI-DRUG INITIATIVE

The ADI grew out of a former CHA chairman's efforts to wrest control of CHA's high-rise developments from the gangs. As originally conceived, the ADI was a model crime prevention program that appeared to offer great potential for reducing crime, violence, and disorder. The program incorporated many of the elements that researchers believed were essential for a successful program: It involved collaboration between residents, management, and police, and it included a comprehensive array of services including law enforcement, tenant patrols, drug prevention and treatment, and situational crime prevention. In this section, we describe the major components of the ADI that were implemented in the three study sites between 1994 and 1996.

Operation Clean Sweep

Operation Clean Sweep, known locally as "the sweeps," began in 1988 and was the first of the CHA's major law-enforcement interventions. When the sweeps began, they included door-to-door inspections of apartment units; enclosing first-floor lobbies with central entrances; undertaking maintenance and repair of common

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[8] PHDEP was created in 1988 as part of the Anti-Drug Abuse Act of 1988 to help housing authorities combat drug use and drug-related crime in their developments.

[9] HUD created the HOPE VI/Urban Revitalization Demonstration in 1993 on the basis of recommendations by the National Commission on Severely Distressed and Troubled Public Housing.

areas (e.g., lobbies, halls, and elevators); implementing 24-hour security and strict visitation policies; removing unauthorized residents; and rehabilitating vacant units. After the initial inspection, residents were sent to a central location to acquire photo identification cards. Finally, CHA Resident Programs' staff members interviewed residents about maintenance and social service needs, provided service referrals, and generated maintenance work orders.

For a variety of reasons including an increased demand for service from residents, mounting costs,[10] and the effects of two class-action lawsuits filed by the American Civil Liberties Union (ACLU),[11] the scope of the sweeps gradually became more limited. The service and maintenance components were curtailed, so that the sweeps became almost exclusively a law-enforcement intervention. Following the decision in *Pratt* (1993) (the second ACLU lawsuit), the agency limited the sweeps to lease violations (e.g., unauthorized tenants). By the end of 1994, the sweeps had been eliminated altogether.

In-House Police Force

In 1990 the CHA created its own police force, the Chicago Housing Authority Police Department (CHAPD), to supplement the activities of the Chicago Police Department (CPD) in public housing developments. The CHAPD worked closely with the Chicago police; many efforts, including sweeps and building patrols, were conducted jointly; and both departments patrolled CHA's developments and responded independently to residents' calls for police service. In 1996 the CHAPD force consisted of 450 officers and 50 civilian support persons (interview with CHA police chief, February 21, 1996).

In a 1996 interview, the chief of the CHAPD commented that a CHA police officer had "probably the most difficult police patrol job in America."

> . . .First of all, the level of ongoing, daily, consistent danger faced by the police officers here is greater than any force in the country, in my opinion. Here, our officers work in environments in certain developments where gunfire is just a routine, regular, all-day occurrence, where gang takeovers of lobbies and buildings is routine, to where you have to battle the gangs hand-to-hand constantly to take back buildings. . . To where you're seeing people shot, robbed,

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[10] Staff members estimated that the cost of sweeping a single building was over $100,000.

[11] Pratt (1993); *Summeries et al. vs. The Chicago Housing Authority* (1988).

raped, murdered, I mean, it happens on an ongoing basis. . .then certain physical issues, such as when you're responding to shots fired. . .the fact that you're running into oftentimes dark buildings, up 16-floor buildings where you can't really see, where you're liable to run into anything. . .(interview with CHA police chief, October, 14, 1994).

In-House Force

In 1990, in response to concerns about the performance of its contract security guards (described below), the CHA created its own security force. CHA Security Force (CHASF) officers and private guards served essentially the same function: They were stationed in booths or in the doorways of the high-rise buildings to verify residents' identification and to ensure that all guests were signed in by legitimate tenants. They also prevented people from loitering in the lobbies or entryways, and called the CHA police when they saw incidents occurring.

CHASF officers did not undergo police academy training, but they received six weeks of training at a local state university. Unlike the contract security guards, CHASF officers were required to have a high school diploma and to pass a drug test (interview with CHA director of public safety, October 4, 1994). Because of these criteria, the CHA had trouble filling positions, even though the security jobs paid about $15 per hour plus full benefits.

Contract Security Guards

Because of funding constraints and the difficulties in recruiting qualified applicants, the CHA did not have enough CHASF officers to provide security for all of its high-crime developments. Therefore the agency still relied heavily on contract security guards, hiring between 800 and 900 guards through private companies at a cost of approximately $25 million per year (interview with CHA director of public safety, October 4, 1994). These guards were paid $5 or $6 per hour, had only 20 hours of training, and were not screened for drug use. One of the companies that the CHA hired to provide security during the study period was the New Life Self-Development Company, a corporation affiliated with the National of Islam. The major distinction between New Life guards (most of whom were not themselves members of the Nation of Islam) and other contract guards was that New Life guards neither carried weapons nor wore uniforms.

The contract guards were poorly paid, and their jobs were extremely dangerous-often more dangerous than that of police officers. Staff members recognized that it was nearly impossible for these guards to be effective in CHA's high-rise developments:

> Obviously, they have a fear factor. . .I mean, they're getting paid minimum wage to go out there and just deal with armed people all the time, people who are better armed than they are; there's not very much backup for them. Residents might give them a hard time about certain things, but there are some real horror stories. . . Those security officers, contract and CHA, go through an awful lot. I mean, they've been ordered out of buildings, they've had their weapons confiscated by gang members, and several of them have been killed (interview with CHA manager of external affairs, August 19, 1994).

Despite the recognition that the guards were ineffective, the CHA continued to use private security guards in its developments through 1996.[12]

Drug Prevention and Treatment

As part of the ADI, the CHA offered drug prevention and treatment referral services in each of its high-rise developments through its CADRE (Combating Alcohol and Drugs through Rehabilitation and Education) centers. The first CADRE centers opened in spring 1991; centers were operating in all three study sites by 1992.

One of the distinctive features of the CADRE centers was that they were staffed primarily by residents. Each center was supposed to be linked to other agencies, which could provide beds in treatment centers for CHA residents and could guide staff members in developing prevention initiatives. The CADRE centers also established partnerships with nearby public schools to conduct prevention workshops (interview with the CHA director of resident programs and the CADRE program director, April 4, 1996).

Community Crime Prevention

The CHA's tenant patrols began in 1989, growing out of the volunteer efforts of a group of women who organized a school escort program in the Cabrini-Green development. According to the former director of the tenant patrol, the goal was:

> . . . to help make their buildings safe and secure. Do what the guards cannot. . . The security officers are basically in a

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[12] In 1997, Federal Security, the CHA's largest provider of private security guards during the early 1990s, was indicted for billing the agency for services never provided. In one instance, according to the indictment, the company billed the CHA for 400 to 500 guards while supplying less than half that number ("Former Firm CHA Used for Security is Indicted" July 24, 1997).

lobby post. They don't leave their posts to go into the buildings (interview with director of preventive programs, September 23, 1994).

CHA staff members worked to organize tenant patrols in all swept buildings. Patrol members received six months of training and worked in teams, conducting regular "walk-downs" through their buildings and noting any suspicious activity, vandalism, or needs for maintenance (CHA 1991).

The national evaluation of PHDEP found that the CHA had been remarkably successful in organizing and sustaining tenant patrols, despite difficult conditions (Hammett et al. 1994). CHA staff members noted that residents felt great pride in being part of the patrols (interview with director of preventive programs, September 23, 1994). Yet despite these initial successes, the CHA found it difficult to sustain patrols in some of its most dangerous developments (e.g., Horner and Rockwell). Even where patrols were sustained, they often focused on combating disorder rather than other types of crime (interview with director of preventive program, May 1, 1996).

METHODS

Study Sites

The evaluation focused on the impact of the ADI in three CHA high-rise developments: Rockwell Gardens, Henry Horner, and Harold Ickes Homes. Horner and Ickes have been included in a preliminary evaluation (Popkin et al. 1993; Popkin et al. 1995) and were selected because of their diversity as to crime rate, level of social organization, and implementation of ADI program components. Horner was a very high-crime development with a long history of management problems and a low level of social cohesion. Ickes had a moderately high crime rate, better site management than at Horner, and relatively strong resident organizations. Rockwell Gardens was selected because it offered an interesting comparison: Like Horner, it was plagued with very high crime rates, but like Ickes, it had a higher level of resident organization. In addition, the CHA had implemented two intriguing new programs in Rockwell: (1) private management and security services provided by a partnership of Moorehead and Associates, an experienced management company, and New Life Self-Development Company; and (2) resident management in one building.

Table 1 lists the site characteristics, including development size, building type, and level of crime and social cohesion. Three buildings in each of the three developments were chosen for the study sample.

Table 1. Site Characteristics

Rockwell Gardens
> 1,313 units; approximately 45% vacant; all high-rise
> Extremely high-crime; multiple gangs
> Socially isolated; moderate community organization; private
> management and Nation of Islam-affiliated guards from 1994 to
> 1996

Henry Horner Homes
> 1,777 units; approximately 40% vacant; predominantly high-rise
> Extremely high-crime; multiple gangs
> Socially isolated; low community organization; redevelopment
> initiated in August 1995

Harold Ickes Homes
> 803 units; approximately 5% vacant
> Moderately high-crime; one gang controlled drug trade
> Located adjacent to business district, institutions; high community
> organization

Data Collection

The ADI comprises a complex set of programs implemented over an eight-year period from 1988 to 1996. During the period of program evaluation, the CHA frequently changed its crime-prevention strategies. Therefore, to fully evaluate the program's effectiveness and its impact on levels of crime and social disorder, we collected several different types of data. These allowed us to assess the program and the effects of residents' lives from multiple perspectives:[13]

Resident surveys. We conducted four waves of resident surveys approximately six months apart-May 1994, January 1995, May 1995, and December 1995.[14] In each wave of data collection we attempted to interview one adult in every household in each of the selected buildings. After the first round of surveys we attempted to reinterview the same respondent in each subsequent wave, using birth date and gender as identifying information. If that person was not available, we interviewed any adult who lived in the household.[15] Our interviewing staff consisted of current and former CHA residents who were trained to work as interviewers. We conducted

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[13] The full evaluation also included an analysis of crime statistics from 1988 to 1995. (For a complete description of the study methodology, see Popkin et al. 1996.)

[14] The Wave 2 data collection was conducted in January rather than November because of a funding delay.

[15] The unit of selection was the building with its corresponding apartment numbers, not individuals. Typically, only one adult lives legally in the apartment; by choosing a respondent in this manner, we might have obtained viewpoints of illegal residents. Such residents represent a substantial proportion of the CHA population.

most of the interviews between 9 a.m. and 3 p.m., Monday through Friday; because of safety concerns, interviews generally were not held in the evenings or on weekends (see Gwiasda, Taluc, and Popkin 1997).

We completed a total of 396 interviews in May 1994, for an overall response rate of 61 percent. In Wave 2 we increased our number of completed surveys to 547, a 75 percent response rate, and maintained that level of cooperation for Waves 3 and 4.

The survey respondents were representative of the CHA's resident population; this, like the populations of most distressed properties, consists large of female-headed households with children (National Commission of Severely Distressed Public Housing 1992a).[16] Not surprisingly, then, the majority of respondents in our sample (about 80%) were female; about half were 35 or younger; the majority (again about 80%) had three or fewer children; over 70% had lived in CHA housing for five years or more; and about half had graduated from high school. We found few differences between the residents in the three developments or between survey waves.

The survey included a series of outcome measures designed to capture the impact of various components of the ADI. The key variables included the perceived severity of violence and other crime problems; the perceived severity of specific disorder problems; levels of fear of crime; victimization experience; and residents' sense of empowerment. Residents were also asked about various components of the ADI (guards, tenant patrols, sweeps, maintenance, and social services); special attention was given to their awareness, participation, and evaluation of these programs and activities.

We constructed indices from the items measuring residents' perceptions of the severity of problems with physical disorder, social disorder, and violent crime both inside and outside the buildings; these indices allowed us to test for changes over time. To construct the scales, we subjected individual items to principal-components factor analysis to determine scale composition and unidimensionality. We also conducted reliability analyses to measure each scale's internal consistency. (For complete information on scale properties, see Popkin et al. 1996.) Information about scale components and scale properties are shown on Tables 2 and 3.

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[16] Although adult males live in the developments, few are primary leaseholders; most are not legal tenants but the boyfriends or relatives of leaseholders.

Table 2. Scale Components

Title	Description	Items
Physical Disorder Inside	Three-item scale measuring the perceived level of physical disorder inside the building where the respondent lives.	Rate as big problem, some problem, or no problem: Graffiti, that is, writing or painting on the walls? Broken light bulbs that are not replaced for at least 24 hours? Trash and junk in the halls and stairwells?
Physical Disorder Outside	Two-item scale measuring the perceived level of physical disorder outside the building where the respondent lives.	Rate as big problem, some problem, or no problem: Graffiti, that is, writing or painting on the walls of the building? Trash and junk in the parking lots and lawns?
Social Disorder Inside	Four-item scale measuring the perceived level of social disorder inside the building where the respondent lives.	Rate as big problem, some problem, or no problem: People selling drugs? People using drugs? Young people controlling the building? Groups of people just hanging out?
Social Disorder Outside	Three-item scale measuring the perceived level of social disorder outside the building where the respondent lives.	Rate as big problem, some problem, or no problem: People selling drugs? People using drugs? Groups of people just hanging out?
Violence Inside	Three-item scale measuring the perceived level of violence inside the building where the respondent lives.	Rate as big problem, some problem, or no problem: People being attacked or robbed in the stairwells, hallways, elevators, and lobby of your building or inside your apartment? Shootings and violence? Rape or other sexual attacks?
Violence Outside	Three-item scale measuring the perceived level of violence outside the building where the respondent lives.	Rate as big problem, some problem, or no problem: People being attacked or robbed outside your building? Shootings and violence? Rape or other sexual attacks?

Title	Description	Items
Evaluation of CHA Guards	Two-item scale measuring residents' evaluation of the guards' effectiveness in preventing crime and reducing fear.	Rate as very good, good, fair, or poor: How good a job do you think the guards are doing to prevent crime in your building? How good a job do you think the guards are doing to make people less scared of crime in your building?
Evaluation of Tenant Patrols	Two-item scale measuring residents' evaluation of the tenant patrols' effectiveness in reporting crime and reducing fear.	Rate as very good, good, fair, or poor: How good a job is the tenant patrol doing to report crime in your building? How good a job is the tenant patrol doing to make people less scared of crime in your building?
Victimization	Scales created from eight victimization items. Scale collapsed into "none," "one," or "two or more" victimization experiences.	Any of the following happened to you or a member of your household in the past 12 months: Purse or jewelry snatched? Something taken by force? Beaten or assaulted? Stabbed or shot? Sexually attacked? Break-in to apartment? Caught in a shootout? Bullet came into apartment?
Fear of Crime	Two-item scale measuring residents' fear of crime inside and outside their building.	Rate as very safe, somewhat safe, somewhat unsafe, or very unsafe: How safe do you feel being alone outside in the parking lots, the lawns, the street or sidewalks right outside your building at night? How safe do you feel being alone inside your apartment at night?

Table 3.   Scale Characteristics for Relevant Surveys, Total Sample

Scale Name	Mean	SD	Minimum	Maximum	N	Cronbach's Alpha
Physical Disorder Inside	2.14	.81	1.0	3.0	1,928	.72
Physical Disorder Outside	1.97	.90	1.0	3.0	1,922	.63
Social Disorder Inside	2.06	.84	1.0	3.0	1,922	.85
Social Disorder Outside	2.22	.86	1.0	3.0	1,919	.86
Violence Inside	1.81	.65	1.0	3.0	1,926	.72
Violence Outside	1.89	.66	1.0	3.0	1,921	.77
CHA Guards	.51	.50	.0	1.0	1,681	.90
Evaluation Tenant Patrol	2.78	.92	1.0	4.0	817	.91
Evaluation Victimization	.49	.74	.0	2.0	1,922	.65
Fear of Crime	2.23	.82	1.0	4.0	1,921	.62

In-depth resident interviews. To supplement the findings from the resident surveys, we conducted in-depth interviews with a small sample of well-informed residents from all three sites. Each respondent was asked general questions about some or all of the following topics: crime and maintenance problems in the selected buildings; awareness of and opinions on various ADI components including tenant patrols, CADRE centers, sweeps, and security guards; resident empowerment, including residents' ability to work together to control crime; victimization experiences; and experiences in reporting crime to police or guards.

The first round of in-depth resident interviews was completed in June 1994, immediately after the first survey wave. We asked the resident staff of the CADRE centers to help us identify residents whom they considered well informed about conditions in the developments and who represented a range of views. In the first round, we completed 77 interviews divided almost evenly between the three sites. For the subsequent rounds of interviews, we selected approximately 32 of these respondents, who were particularly articulate and well informed, to serve as our "key informants."[17] The purpose of the follow-up interviews was to inquire about changes in CHA's ADI procedures and policies, such as the security guards, tenant patrols, social services, and crime. In addition, we asked about any major problems or events that might have occurred in the development, including gang wars or other incidents that might have affected residents' perceptions of crime and safety in their neighborhood.

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[17] At the end of the first round of interviews, the interviewer was asked to answer a few questions about the quality of the information obtained from the respondent. That information was used as the basis for selecting our key informants. We attempted to reinterview four residents per building but because of difficulties in locating some respondents, the actual number of key informants from each building ranged from three to five.

Staff interview. In addition to the resident interviews, we conducted periodic interviews with site staff members and interviewed all key ADI program staff members at least once. We also interviewed other key actors outside the CHA, including the chief of the Chicago Police CHA unit and attorneys representing tenants in the lawsuits over the constitutionality of the ADI. In addition to general questions about crime and conditions in the CHA, staff interviews included more specific questions about the respondent's role or the role of his or her office in implementing the ADI. These interviews were taped when possible; in the few cases where the respondent refused to be tape-recorded, staff members took extensive notes. These transcripts were hand-coded and then analyzed.

Ethnographic observations. The project ethnographer observed the study sites over a 15-month period. His goal was to speak with a broader range of residents than we reached through the surveys and key informant interviews, particularly the young men who lived in the developments. Further, he observed drug trafficking and gang activity, and talked to residents to learn how they coped with the pervasive dangers. Beginning with Horner in May 1995, the ethnographer conducted observations over a period of several months in each development, and generally made about 30 visits to each site.[18] He kept field notes on his observations and interviews, analyzed these notes for salient issues and themes, and prepared an ethnographic report on each development.

Analysis Strategy

Survey data. Analyzing change between survey waves was quite complex because of the change in the composition of the survey sample over time. Researchers typically assess change by making comparisons between independent samples (i.e., respondents at wave 1 are completely different from respondents at wave 2) or by testing for change within correlated samples (i.e., the same respondents are surveyed at both waves). The present study is a combination of these two types of samples; therefore it cannot be analyzed easily with conventional statistical techniques.[19]

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[18] The observations in Horner were conducted from May to September 1995, with a return visit in September 1996 to update our information about the development. The observations in Rockwell and Ickes were conducted between December 1995 and July 1996.

[19] Treating the four waves of data as independent (when in fact this was only partially true) would have resulted in an underestimation of standard errors. This bias would have increased the chances of making a Type 1 error: falsely concluding that statistically significant changes occurred between waves. Alternatively, if only the panel (repeat) sample had been used to conduct a repeated measures analysis, considerable statistical power would have been lost because the sample sizes would have declined by approximately 60 percent.

The most effective solution to this problem was to use a multilevel random-effects analysis strategy for longitudinal data (Hedeker and Gibbons 1997); this took into account the nonindependence of data for some respondents while retaining the statistical power associated with the full sample. To perform these analyses we used Hedeker's MIXOR and MIXREG programs (see Hedeker 1993; Hedeker and Gibbons 1994; Hedeker, Gibbons, and Davis 1991) and treated individuals as the random effect with varying amounts of missing data over time. The treatment of missing data was a key advantage of the random-effects model. As Hedeker and Gibbons (1997:65) note, "The model estimates the subject's trend across the time based on whatever date that subject has, augmented by the time-trend that is estimated for the sample as a whole and effects of all covariates in the model."[20]

We used two different analytic approaches to make comparisons between developments over time and to assess the impact of resident demographics on the outcome measures. In both of these techniques we used the entire data set, including all four waves of surveys, for each statistical test.

The first model treated the different waves of data as a single temporal linear trend variable (called "wave" in the analyses) with values of 0 through 3 (representing waves 1 through 4). These analyses allowed us to assess whether linear-trends were present in the outcome measures across the survey waves.[21] The coefficient for the slope (wave) variable indicates the direction of change over time at each site. A positive number indicates an increasing trend in a particular outcome measure; a negative number indicates a decreasing trend.

Our second analytic strategy generated more precise information about the amount of change that occurred from one wave to the next. This model included binary variables representing three of the four survey waves; each was compared with a reference wave. For example, one model included wave 1 versus wave 2, wave 1 versus wave 3, and wave 1 versus wave 4. (The model also controls the "main effect" of the development.)

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[20] The MIXOR and MIXREG programs have been tested and validated in many studies (see Hedeker 1993; Hedeker and Gibbons 1994; Hedeker, Gibbons, and David 1991). For continuous data, the MIXREG program produces results identical to those of the more conventional HLM programs. For dichotomous or ordinal data, traditional HLM-type programs may produce slightly different estimates because, unlike Hedeker's program, they do not use the full likelihood estimation procedure; instead they employ a simpler, quasi-likelihood approach.

[21] We created binary variables to detect differences between developments, using Ickes as the reference point. Interaction terms, representing the combination of the "wave" variable and the development variables, allowed us to check for differences in the linear trends between the developments.

Both the first and the second model included binary covariates representing age (over 35), education level (high school graduate), gender (female), number of children (three or more), and length of residency in CHA housing (greater than five years). We also tested for interactions between the demographic variables and other independent variables (wave and development).

Qualitative Data. The resident interviews were tape-recorded and transcribed. On the basis of reviews of the interview transcripts, we developed a codebook that identified key themes and issues discussed in the interviews, and coded each interview. To ensure consistency and reliability, a team of two coders coded all the interview transcripts. Any questions about the way to code certain segments were discussed and resolved. A third member of the team reviewed the coding as she entered the material.

The coded interviews were entered into the Ethnograph (Qualis Research Associates 1998), a qualitative data base program, for analysis. The Ethnograph allows researchers to sort a large database of qualitative interviews by the codes they have developed. For example, we used the Ethnograph to bring up all of the occasions when our key informants discussed instances of drug trafficking in their buildings. We then read through the output and could assess whether respondents generally felt that the problem was better, worse, or about the same. We also used the Ethnograph to compare responses about how the drug trade affected life in the development. Finally, we compared responses of the same topics across interview waves to help track trends over time. Because some of the staff interviews were not transcribed, we analyzed them by hand rather than entering them into the Ethnograph database.

Finally, we performed a content analysis of the two major Chicago newspapers, the *Tribune* and the *Sun-Times*, to track major events that had affected the CHA over time. We conducted a LEXUS/NEXUS search to track coverage before 1994, and then tracked both papers throughout the course of the study. We maintained a database highlighting key events that affected the CHA, creating a timeline that we could compare with our survey and interview data. The in-depth interview data, staff interview data, ethnographies, and information from the content analysis were integrated with the survey data to allow for comparisons and to enrich our understanding of change over time.

FINDINGS

It appears that the components of the ADI were implemented to different degrees in each of the three sites. In general the program was implemented most successfully in Ickes and least successfully in Horner. In this section we summarize residents' perceptions of the impact of the ADI interventions on various outcome measures related to crime and disorder. We also examine the program's impact on reported victimization and fear of crime.

Physical Disorder

As described above, in each survey wave we asked residents about their perceptions of the severity of problems with broken light bulbs, graffiti, and trash and junk in the halls and on the development grounds. In May 1994, residents from all three developments reported serious problems with physical disorder. Our fieldwork indicated that the Ickes Homes had a more powerful resident council, which was able to demand better janitorial service; in addition, at that time, the development was experiencing few problems with gang conflict. As expected, the proportion of residents reporting problems there was consistently lower than in the other developments. The results of the linear trend analysis in Table 4 show that both Rockwell and Horner residents reported significant improvements over time (these results are illustrated in Figure 1); Ickes residents did not perceive significant changes in physical disorder.
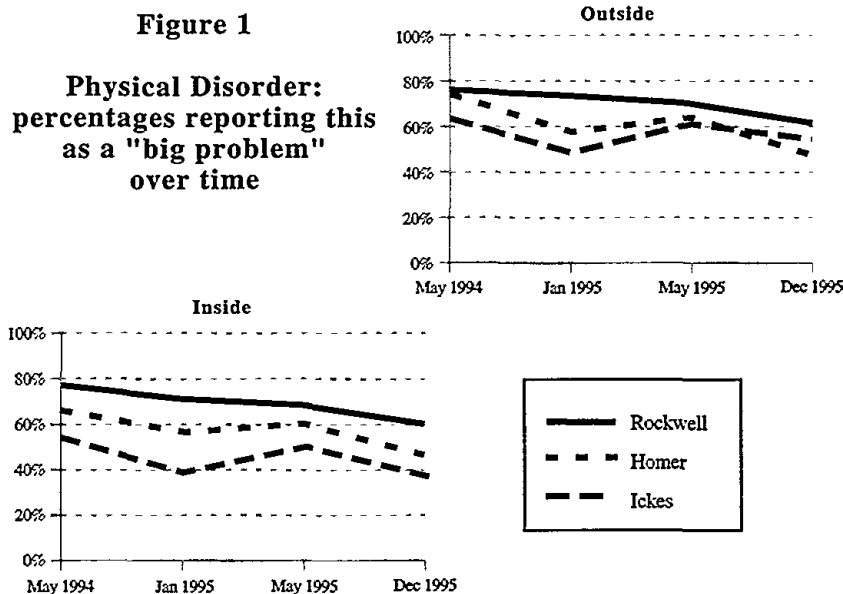
Figure 1

Physical Disorder: percentages reporting this as a "big problem" over time

Table 4.   Mixed-Effects Regression Analysis on Outcome Measures

Scale	Rockwell		Horner		Ickes	
	Adjusted Mean Wave 1[c]	Slope (WAVE)[d]	Adjusted Mean Wave 1[c]	Slope (WAVE)[d]	Adjusted Mean Wave 1[c]	Slope (WAVE)[d]
Physical Disorder Inside[b]	2.27	−.27**	2.32	−.04	1.53	−.04
Physical Disorder Outside[a]	2.12	−.27**	2.20	−.13**	1.46	−.00
Social Disorder Inside[a]	1.68	−.09**	2.04	−.09**	1.27	−.09**
Social Disorder Outside[a]	2.02	−.12**	2.12	−.11**	1.53	−.05
Violence Inside[a]	2.04	−.15**	2.10	−.05*	1.46	−.10**
Violence Outside[b]	2.11	−.15**	2.11	−.04*	1.62	−.10**
Victimization[b]	.17	−.09**	.84	−.11**	.03	−.02
Fear of Crime Inside[b]	1.61	−.17**	1.63	−.08**	1.44	−.10**
Fear of Crime Outside[b]	2.62	−.14**	2.48	−.12**	1.61	−.07*

Note: Equation includes controls for age over 35, being a CHA resident for more than five years, and gender (female).

[a] Only one random effect (the constant term) was included in the model.
[b] Two random effects (the constant term and the wave variable) were included in the model.
[c] N=514 for most analyses.
[d] Slope indicates direction and significance of change across waves.
* P < 0.05; ** P < 0.01

Rockwell residents reported the greatest overall changes in physical disorder. The proportion of respondents saying that graffiti, trash, and broken light bulbs were "big problems" declined steadily from May 1994 to December 1995. Our fieldwork suggests that this dramatic improvement was due to the efforts of the private management company that assumed responsibility for the development in May 1994. The reduction in physical disorder in Rockwell was the most significant change we documented in this development. As one key informant noted:

> It's better. They just don't have enough residents. We got. . .almost like a half-empty building, but it's cleaner, it stay cleaner. . . The janitors, they come, clean it, mop it down, sweep it, re-bulb it, re-light it up if the bulbs is out.

Horner was in the worst physical condition in May 1994: The buildings had deteriorated so far that CHA officials felt it was no longer cost-effective to maintain them (interview with CHA executive director and chairman, December 13, 1994). Indeed, as shown in Table 4, residents' reports of problems with physical disorder inside the buildings increased for a time and never fell below the May 1994 levels. (In all four surveys, as shown in Figure 1, over 70 percent of the Horner respondents thought that indicators of physical

disorder were a "big problem" in their building.) In contrast, physical disorder outside decreased consistently over time, most likely because of the massive redevelopment effort that began in spring 1995. (As Figure 1 illustrates, a wave-by-wave comparison of the results shows that most of the improvement occurred between May and December 1995.)

Ickes residents' perceptions of problems with physical disorder changed little during the study period (see Table 4 and Figure 1). Except for poor lighting in the building interiors, Ickes respondents reported less severe problems with physical disorder than did those at Horner and Rockwell. Respondents reported little variation in the quality of maintenance across survey waves.
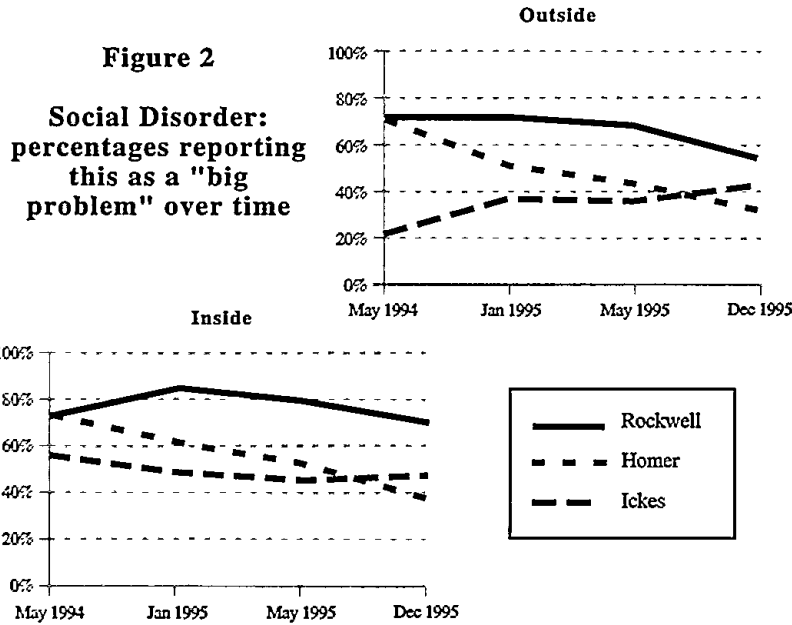
Social Disorder

Virtually all of the ADI interventions were intended to reduce problems with drug sales and use. In each resident survey, we asked respondents about the severity of problems with social disorder inside and outside their buildings, including groups of people hanging out; *young people controlling the building*,[22] drug sales, and drug use. We used the term "young people controlling the building" as a proxy for gang dominance: That is, gang members blocking off entryways, screening people who came into the building, intimidating other residents, and, in some cases, taking over apartments to use for their drug business.

In May 1994, residents from all of the developments reported serious problems with drug use and sales; in Rockwell and Horner, a majority also reported major problems with loiterers and people "controlling" the buildings. Residents from all three developments reported some improvements over time (see Table 4 and Figure 2).

In Rockwell, several of the ADI interventions designed to reduce social disorder, including the security guards, tenant patrols, and CADRE center, were relatively unsuccessful. Despite the problems with implementation, however, the proportion of respondents reporting major problems with social disorder both inside and outside decreased from about 75 percent in May 1994 to about 50 percent in December 1995 (see Figure 2). The situation in Rockwell was complicated by the fact that subanalyses showed that respondents from a resident-managed building reported much greater improvements than those from the other two sample buildings.

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[22] Because the interviews were generally conducted in the hallway, we used the phrase *young people controlling the building* to avoid the need to ask respondents directly about gang activity. Our pretesting of the instrument and the in-depth interviews showed that respondents interpreted the question as we intended.

Figure 2

Social Disorder: percentages reporting this as a "big problem" over time

Outside

Inside

	Rockwell
	Homer
	Ickes

Further, even though residents perceived some improvement during this period, Rockwell still experienced serious problems with drug trafficking, substance abuse, and (particularly) gang members controlling entryways;

> Yeah, I'd say (drug dealing) is less outside of the building, 'cause it's all really just inside the building right in that little lobby. . . .The drug dealers are in the lobby, so I guess the users are everywhere else. They come from everywhere, I guess.

In Horner, the proportion of residents reporting major problems with social disorder inside and outside their buildings decreased from about 80 percent in May 1994 to about 65 percent in December 1995 (Figure 2). As in Rockwell, drug trafficking and use remained serious problems. Further, residents reported increasing problems with gang control of the buildings over time.

In Ickes, only social disorder inside the buildings declined significantly (Table 4), while perceptions of problems with social disorder outside appeared to fluctuate seasonally (Figure 2). Because Ickes was dominated by a single gang, it was not affected by turf battles; thus the impact of the drug trade (especially on children), not gang activity, was the greatest concern for Ickes residents:

> . . .Their mama done got the money, but the dope man got it all. . . They should be in my shoes where they can see it every day-a child running nasty and dirty, holding their pants up, playing with one hand and holding their pants with another because mama had time to get the drugs, but she didn't have time to wash him up and put some clothes on and make him look decent. She didn't have time to feed him.
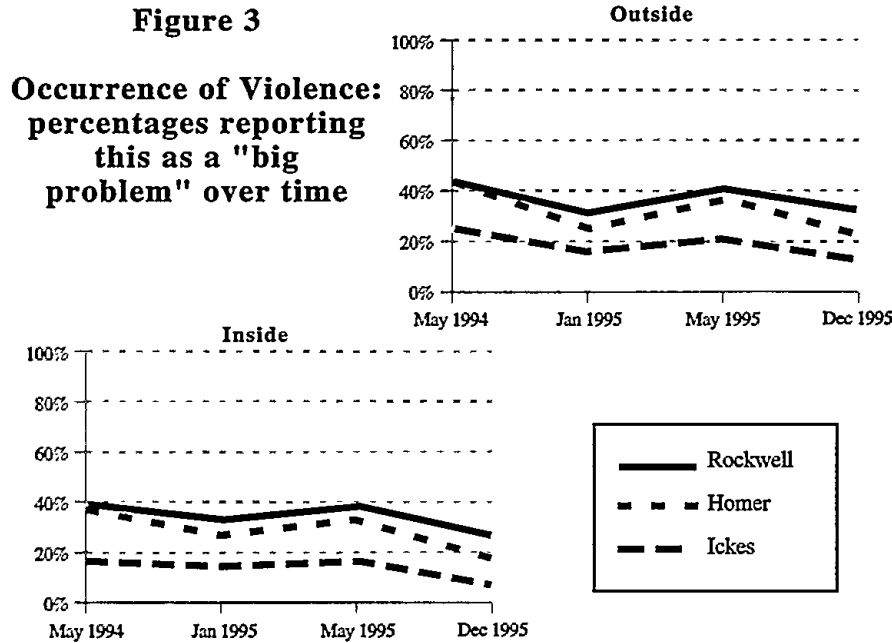
Violent Crime

At each survey wave, we also asked respondents about the severity of an array of problems with violent crime, including shootings and violence, rape or other sexual attacks, and assaults and robberies. We hypothesized that ADI interventions would reduce the levels of reported violence. Although all three developments experienced serous physical disorder and drug-related crime, Rockwell and Horner suffered much more severe problems with gang violence from the start. Multiple gangs contested for control of buildings and open spaces in both of these developments, making them into virtual war zones. As noted above, Ickes was spared these "turf wars" because a single gang controlled the development. Indeed, Ickes was home to a unique phenomenon: "neutrons," or drug dealers with no gang affiliation.

In addition to these differences across sites, Rockwell and Horner each contained a sample building that differed dramatically from the others in the study. In one building at Horner, the violence was so extreme that the residents, as a means of protection, formed a pact with gang members who lived there. That building was located in the Horner Extension, a few blocks west of the other buildings in the sample, and had been involved in a gang war with a neighboring building for some time; in May 1994, 40 percent of the residents said that a bullet had been shot into their apartment in the previous 12 months. In Rockwell, the building housing the resident management corporation (RMC) was not gang-affiliated, primarily because of the RMC leaders' efforts to keep drug dealers out of their building. Residents of this building consistently reported far fewer problems with violent crime than did other Rockwell buildings.

Residents from all three developments reported some reduction in problems with violent crime over time (Figure 3). In Rockwell, residents reported significant decreases both inside and outside their buildings (Table 4). However, subanalyses showed that the resident-managed building improved much more than the other buildings (see Popkin et al. 1996).

Horner residents also reported a significant decrease in shootings and violence both inside and outside their building (Table 4). Our fieldwork indicated that this change was almost entirely attributable to improvements in the situation in the Horner Extension building. The gang war had abated there by May 1995, after the redevelopment began. This reduction was by far the most significant improvement we documented in Horner, one due to building closings rather than explicit anti-crime efforts.

Figure 3

Occurrence of Violence: percentages reporting this as a "big problem" over time

Although Ickes residents consistently reported less violent crime than did residents from Rockwell and Horner, they also perceived some improvements over time (Table 4). Our key informants attributed the lower level of violence to a variety of factors including better community organization, the long-term effects of the sweeps, and, perhaps most significant, the efforts of local community leaders, who negotiated with gang leaders to control the level of conflict and to protect school children from the violence and drug trafficking. However, toward the end of the study, the key informants indicated an increase in problems; they spoke of a burgeoning turf battle between gang members and a group of "neutrons" who had formed their own organization.

Victimization and Fear

We asked residents whether they or anyone in their household had been the victim of any of an array of crimes. The risks of living in a "war zone" were obvious: In May 1994, approximately 50 percent of the respondents from Rockwell and Horner said that they or a member of their household had been the victim of a crime in the past year; the figure for Ickes was 28 percent. As shown in Table 4, reported victimization declined significantly in both Rockwell and Horner over time. In Rockwell, this change reflected the gradual decrease in violent crime (particularly in the RMC building) from May 1994 to December 1995; in Horner, the change was due almost entirely to the reduction in violence in the Horner Extension building. Levels of reported victimization in Ickes remained stable throughout the study period.

We also asked respondents about their fear of crime both inside and outside their buildings. All three of the developments were intimidating places, with dark halls and stairwells, and the ever-present danger of being caught in a shootout. Particularly in Rockwell and Horner, however, many residents apparently had been numbed by the constant violence. The levels of fear they reported were lower than might have been expected: 50 percent or fewer said they felt "very unsafe." Like the perceptions of violent crime, levels of reported fear declined significantly in all three developments (Table 4).

Despite the significant changes observed in Rockwell and Horner and the smaller improvements in Ickes, the survey figures probably represented a substantial underestimate of the actual level of victimization. Residents were generally reluctant to report crime, fearing retaliation from their neighbors. One resident from Rockwell Gardens poignantly described the emotional costs of "minding your own business":

> ...When you in the projects, you do a lot of things, you see a lot of things, but you know you don't wanna say nothing because it can get you hurt...but it be on your conscience, and it drives me crazy when I can't say nothing... I see this little boy, he's about 12 years old. He's shooting, I see him shooting at the others (kids). And I'm looking at this, and I know his mother and everything. Everybody telling me, "No, don't say nothing, don't tell his mother." And now he's dead, the little boy is dead now, and it made me feel if I had a told his mother, maybe he'd still be here.

CHANGES AFTER DECEMBER 1995

If this project had ended with the last round of surveys in December 1995, we probably would have ended this article on a cautiously optimistic note. Our findings suggested that, even in the fact of tremendous odds, the CHA's efforts produced notable and statistically significant reductions in crime and disorder, particularly in Rockwell Gardens. Yet although these results indicated positive change, CHA residents had long endured extraordinary levels of social disorder, and what appeared to them to be an improved situation would likely still be viewed by outsiders as an extreme problem. Even with the somewhat better conditions, none of these developments could be regarded as "good" places to live; Rockwell and Horner remained quite dangerous. Further, qualitative research and subanalyses indicated that much of the improvement we documented in both Rockwell and Horner was limited to a single building in each development.

Follow-Up Research in 1996

Subsequent research documented just how fragile many of these changes were, and how vulnerable to changes in gang turf conflicts. We continued to conduct in-depth interviews and ethnographic observations through the summer of 1996. In addition, as part of a survey of a larger sample of CHA residents conducted for HUD, we held another round of surveys in our three sample developments (Popkin el al. 1998).[23] This follow-up research revealed that some of the biggest improvements we had documented between May 1994 and December 1995 had disappeared rapidly.

Physical disorder. The 1996 survey indicated that the least change occurred in residents' perceptions of problems with physical disorder. In Horner, perceptions of problems inside remained extremely high, but perceptions of problems outside declined (from 55 percent to 40 percent), likely as a result of the ongoing revitalization effort. In Rockwell, the situation was more complex. Residents of the RMC building continued to report improvements, while conditions in the other two buildings appeared to be getting somewhat worse (e.g., complaints about graffiti increased from 54 to 65 percent.) Ickes residents reported virtually no changes from December 1995 to December 1996.

Social disorder. In contrast, Ickes residents' perceptions of problems with social disorder increased dramatically between December 1995 and December 1996. The percentage of respondents reporting "big problems" inside in late 1996 increased by about 20 percentage points from December 1995 (rising from 40 percent to nearly 60 percent). Reports of major problems with social disorder *outside* in Ickes rose from 55 percent to 68 percent. Most surprising, these figures for Ickes *exceeded* those for the other two developments. Reports of problems with social disorder in Horner remained high; in Rockwell, they remained low in the RMC building, but increased slightly in the other two sample buildings.

Violent Crime. The same trends were apparent when we looked at residents' perceptions of problems with violent crime in late 1996: dramatic increases in reports of major problems in Ickes, smaller increases in Rockwell, and little change in Horner. In Ickes, three times as many residents (from about 12 percent to 36 percent) reported major problems with one indicator, shootings and violence

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[23] In this survey we included all of the nine sample buildings and used the same methodology as in our earlier research. The sample size for the 1996 survey was 396 (the decrease was due to the decline in population in Horner); the response rate was 71 percent.

inside in December 1996 as in December 1995; the figures for *outside* were similar. This change placed Ickes on a par with the other two developments. In Rockwell, the percentage of residents reporting problems in the RMC building remained low, while the proportion from the other two sample buildings reporting problems with shootings and violence rose from 41 percent to 59 percent.

Reasons for Deteriorating Conditions

Our qualitative research suggested some reasons for the dramatic deterioration of conditions in Ickes and the continuing problems in Horner and Rockwell. Two factors appear to be most important: a new outbreak of gang turf battles in CHA developments, and changes in housing authority policy. The outbreak of gang violence was precipitated by a major crackdown on gang leaders, as well as by the redevelopment of several CHA properties.

In 1995 the federal government targeted one of Chicago's largest gangs, the Gangster Disciples (GDs). This action resulted in indictments of 38 GD members on federal drug conspiracy and other charges.[24] The GDs controlled parts of many CHA developments and dominated Ickes: The prosecution of many of the gang's leaders weakened the GDs and led to battles between different factions for control. Further, other gangs (and, at Ickes, the "neutrons") took advantage of this turmoil to move in on GD territory.

In Rockwell Gardens, where conditions apparently had improved so dramatically between May 1994 and late 1995, the effects of the renewed gang war were apparent early on. Our key informants told us in December 1995 that the gang peace had broken and that shooting had increased; most still hoped that this conflict was only a temporary "flare-up." In February 1996, however, when we conducted our last round of in-depth interviews, gang members controlled the entrances to almost all of the buildings; only the RMC building seemed immune. Although our respondents had endured years of violence, they found the brutality of this gang war especially intimidating. In one incident reported by many respondents, gang members chased down a member of a rival gang, shot him in the back, and shot at the ambulance that came to his aid. The project ethnographer continued to observe Rockwell through the summer of 1996, and reported that the level of gang violence and intimidation remained extremely high throughout most of the development. In theory, the substantial (and apparently sustained) improvements in management and physical disorder should also

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24 The trial of its leader, Larry Hoover, began in March 1997 and lasted several months. Most of the key leaders were convicted in May 1997 ("Hoover & 6 Others Convicted" May 10, 1997).

have led to a sustained decrease in crime. In Rockwell, however, the gangs were so pervasive that their behavior influenced the quality of life much more strongly than did any of the CHA's efforts.

Conditions in the developments, particularly Horner and Ickes, also were affected directly by changes in CHA policies. Toward the end of our research, conditions in Horner were affected by a massive redevelopment effort, initiated as the result of a class-action lawsuit (Henry Horner Mothers Guild 1995). The new CHA administration pressed ahead with the redevelopment in the spring and summer of 1995: Three buildings were demolished and two others were closed; residents were relocated from these buildings-some temporarily and others permanently-to scattered-site units; and by the winter of 1996, ground had been broken in Horner for the first set of new townhomes. The city also undertook a major cleanup effort in the neighborhood (including repaving streets, planting trees, and cleaning up vacant lots) in preparation for the Democratic National Convention, which was held in the nearby United Center in the summer of 1996. In addition, the city designated Horner and the surrounding neighborhood as part of one of its three Empowerment Zones.

The Horner redevelopment reflected a change in both HUD and CHA policy. HUD was placing increasing emphasis on redeveloping and/or demolishing the worst public housing properties; the HOPE VI program provided funds for redevelopment, while new federal regulations required housing authorities to demolish properties where the costs of repairs exceeded the cost of replacement. As a result, the new CHA administration shifted its emphasis to closing and demolishing its worst properties.

Although demolition may well be the ultimate solution to the CHA's problems, it created turmoil in the short run. Scattered demolitions and building closings disrupted key gang territories, causing new conflicts and raising fears among residents that they might be left homeless. At the same time, HUD pressured the CHA to cut its security costs; this step led to the near elimination of the contract guards and to redeployment of the CHASF.

Because of these changes, residents report increasingly negative perceptions of the quality of life in their developments. In Horner, where we are conducting ongoing research, the redevelopment has become mired in controversy. The CHA has constructed 56 new townhomes on the site; about 20 are occupied by Horner residents. Meanwhile the gang violence persists-according to both residents and the press-particularly on the west side of the development, where only one building is still legally occupied, and at least one vacant building has been taken over by the gangs.

Ickes has been hurt by the weakening of the Gangster Disciples, by budget costs that led to the removal of the CHASF, and by closings of buildings in the nearby Robert Taylor development. In December 1995 our key informants noticed a decline in maintenance, as janitors were shifted to other developments in the CHA's effort to distribute resources more equitably. When we returned to Ickes in the fall of 1996, the guard booths had been boarded up, and the security drastically reduced. As noted above, turf battles had broken out between the gang that controlled the development (a branch of the Gangster Disciples) and the "neutrons." Further, once the security was removed, gangs from Robert Taylor who were being displaced by building closings reportedly moved into the development. Although our observations suggested that Ickes may still have been objectively less dangerous than either Horner or Rockwell, residents who responded to our surveys believed that conditions had deteriorated dramatically, and they were frightened by the changes they perceived.

IMPLICATIONS FOR RESEARCH AND POLICY

These findings suggest that addressing the problems of severely distressed public housing is a daunting task. Gangs dominated the social world of CHA's developments, influencing the level of drug trafficking and violence more strongly than either the police or the housing authority management. The CHA experienced some successes with its ADI, but most of these occurred in Ickes, where the problems were less extreme. There the CHA was able to capitalize on a relatively high level of social cohesion and effective resident leadership. Even in Ickes, however, maintaining order required substantial resources, including better security and improved janitorial service. When the new CHA administration was forced to make drastic budget cuts and to shift resources to demolition, the agency could no longer sustain this higher level of service, and conditions rapidly began to deteriorate.

Our findings also indicate the importance of care in implementing any anti-crime efforts. On paper at least, between 1994 and 1996, the CHA operated a model program that was both comprehensive and collaborative. The program eventually incorporated the strategies thought to be most effective in reducing crime, including both situational crime prevention and community policing. Often, however, these efforts were not implemented well; even when they were managed properly, ineffective follow-up and rapid changes in strategy undermined their effects. For example, the original strategy for sweeps involved a collaboration between CHA

management, security, law enforcement, and social service providers. This promising strategy was abandoned relatively quickly, however, because of legal remedies and financial constraints, and the sweeps became primarily a law-enforcement strategy. The situational crime prevention measures installed after the sweeps (security doors, guard booth, turnstiles) were not maintained: Sometimes they ultimately benefitted the gangs and drug dealers rather than the security guards.

Further, the ADI interventions were intended to exclude "outsiders." Yet many of the people causing problems-selling drugs, using drugs, vandalizing buildings, and committing violent crimes-were not outsiders but neighbors, relatives, partners, and friends of the witnesses or victims of these crimes. Residents did not view the gang members who dominated the developments as strangers, but rather as "the boys" or "the gangbangers," whom they knew. Thus the relationship between the criminals and other CHA residents was complex, recalling the old *Pogo* adage "We have met the enemy, and they is us." Controlling crime also entailed risk of possible retaliation and the potential loss of relationships. Therefore a strategy based on excluding outsiders was unlikely to be effective (Keyes 1992; Merry 1981). Residents who joined any effort to organize against crime placed themselves at risk.

The CHA and the police found it difficult to combat the activities of the gangs and drug dealers, particularly in Horner and Rockwell. All evidence indicated that the gangs were well armed and had considerable economic resources. In the CHA's developments, a seemingly endless supply of willing recruits was available to replace members who were arrested or killed. Because of the building design and the large number of vacant units, criminals also had easy access to hiding places, where they could conceal their activities from police. Further, police and prosecutorial action against the gangs had mixed effects at best: Although effective against the leader, these strategies apparently had the unintended consequence of creating a power vacuum that led to increased turmoil in the CHA's developments.

In the end, the demolition of the worst developments may be the only realistic strategy for the CHA; it certainly receives much political support. At least in the short run, however, our follow-up research indicates that this strategy is actually worsening conditions in CHA housing by disrupting key gang territories and creating escalating tension and insecurity. Further, it is not clear

whether demolition will ultimately improve the lives of current residents. Much of the housing may not be replaced because of political resistance to building new units;[25] instead many residents may receive Section 8 vouchers for use in the private market. The low-income rental market in Chicago is currently saturated; thus it will be difficult for these residents to find units. Even in a less tight market, finding landlords to accept these residents would be problematic, both because of the stigma associated with CHA residents and because many have criminal histories or other problems that make them less than ideal tenants. Finally, the CHA hopes to make any revitalized developments into "mixed-income" communities, reserving a number of units for tenants with higher incomes (but still below the city's median income); this may make for a healthier community, but it reduces the number of units available for very low-income tenants. Thus, some residents' fears that the attempt to revitalize CHA's developments will leave them homeless or displaced may be prophetic.

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25 Because of a consent decree in *Gautreaux*, the CHA is required to build any replacement housing in integrated neighborhoods. In certain cases, the CHA has obtained waivers to rebuild some units on the sites where older CHA buildings have been demolished; this is allowed only for sites in neighborhoods where the CHA can offer evidence of revitalization.

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