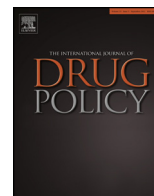




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Research paper

### “Everything that looks good ain’t good!”: Perspectives on urban redevelopment among persons with a history of injection drug use in Baltimore, Maryland

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#### ABSTRACT

**Background:** While urban redevelopment is intended to ameliorate urban decay, some studies demonstrate that it can negatively impact some residents. Few studies have considered its impact on persons with a history of drug use.

**Methods:** A convenience sample of 25 current or former injection drug users from Baltimore, Maryland, enrolled in the AIDS Linked to the Intravenous Experience study, and reporting residence in or bordering a redeveloping neighborhood participated in 1–2 semi-structured in-depth interviews from July, 2011 to February, 2012. Interviews explored personal experiences with redevelopment and perceptions of community-wide impact. Data were analyzed using the constant comparison method.

**Results:** Respondents rarely described urban redevelopment as solely negative or positive. Revitalization and increased security in the redeveloping area were reported as positive consequences. Negative consequences included the lack of redevelopment-related employment opportunities, disruption of social ties, and housing instability among relocated residents. Respondents also said that urban redevelopment led to the displacement of drug markets to adjacent neighborhoods and outlying counties. Residential relocation and displacement of drug markets were reported as beneficial for persons in contemplative and later stages of recovery.

**Conclusion:** These findings support a holistic approach to urban redevelopment that increases access to employment opportunities and affordable housing, and ensures equitable coverage of public services such as law enforcement.

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#### Background

Urban decay, characterized as physical deterioration and abandonment, poses a challenge to the strength and prosperity of inner cities across the United States and continues to be a determinant of poor health outcomes and poor health behaviors (Furr-Holden et al., 2011; Galea, Ahern, Rudenstine, Wallace, & Vlahov, 2005; Holt, Theall, & Rabito, 2012; Latkin, Curry, Hua, & Davey, 2007; Nandi et al., 2010; Schwartz et al., 2011; Vivier et al., 2011), including drug use (Furr-Holden et al., 2011; Latkin et al., 2007). Local governments have attempted to reverse urban decay through urban redevelopment. Urban redevelopment has been defined as

investment in construction and revitalization of physical infrastructure (Davila, 2003; Freeman & Braconi, 2004; Kromer, 2010; Lee, Spain, & Umberson, 1985). It may also incorporate efforts to increase access to quality health care and education, and job training and placement (Kromer, 2010). Through these mechanisms urban redevelopment has been credited with stimulating housing investment, commercial activity, municipal service coverage, and collective efficacy (Freeman & Braconi, 2004; Fullilove, Green, & Fullilove, 1999; Kromer, 2010). However despite these positive implications, urban redevelopment may negatively affect some residents.

Baltimore is one of several U.S. cities with a long history of urban redevelopment. Recent strategies have aimed to combat urban decay and depopulation through various mechanisms. Revitalization of the Baltimore Harbor is considered one of the most successful projects, having increased revenue and promoted tourism. Other strategies have included the revitalization of public housing buildings into mixed-income housing as part of the

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federally funded Housing Opportunities for People Everywhere (Hope) VI program, and development centered on the medical campuses of The University of Maryland and Johns Hopkins University.

Redevelopment in neighborhoods proximal to the Johns Hopkins Medical Institutions (JHMI) in East Baltimore dates back to the 1960s (Gomez & Muntaner, 2005; Hummel, 2008). Previous redevelopment in the area has not been without controversy and has received criticism for displacing residents, exacerbating housing vacancy, instilling greater mistrust of Johns Hopkins in the community, and failing to substantially revitalize the area (Cohen, 2001; Gomez & Muntaner, 2005; Hummel, 2008). In response to these concerns, the East Baltimore Development Inc. (EBDI) was launched in 2003 to spearhead one of the largest redevelopment projects in the country. With financial support from the City of Baltimore, the Annie E. Casey Foundation, Johns Hopkins Institutions and other partners (East Baltimore Development Inc.), the project focuses on redeveloping 88 acres north of JHMI, through commercial development, job training, and construction of mixed-income housing, biotechnology laboratories, and a community school.

Approximately 750 households in the project area were relocated as a result of two primary phases of property acquisition during 2004–2006 and 2007–2009 (East Baltimore Development Inc.). According to 2000 census data, 94.37% of residents in the redeveloping neighborhood were African American, 44% of households were below the poverty line, 49% of residents 16 or older were employed, 32% of residents had a high school diploma or GED, and 30% of residential units were vacant. Public drug markets were also reported as prevalent. According to data compiled by the Baltimore Neighborhoods Indicator Alliance (BNIA), 509 drug-related calls for service per 1000 residents were reported in the neighborhood during 2000, surpassing the median level reported in the city. Sequential epidemics of heroin and cocaine, the primary causes of fatal overdose in Baltimore City (DHMH, 2008), have been reported as occurring in the neighborhood.

A small but important body of research related to the EBDI project has contributed to the literature on the social and health consequences of early stages of urban redevelopment (Bowie, Farfel, & Moran, 2005; Gomez & Muntaner, 2005). These studies have revealed similar consequences as those from other cities (Cao, Hwang, & Xi, 2012; Fullilove, 1996, 2004), including disempowerment and stress. Research on the project has also revealed environmental hazards due to demolition and construction (Bowie et al., 2005; Farfel et al., 2005). However, what is lacking in the literature on the EBDI project, and other studies of urban redevelopment, is an assessment of how urban redevelopment impacts persons with a history of drug use. Research on this topic is limited, despite the striking associations that physical decay has with drug use (Furr-Holden et al., 2011; Latkin et al., 2007), drug market activity (Milam, Furr-Holden, Harrell, Whitaker, & Leaf, 2012), and poor mental health (Galea et al., 2005; Latkin et al., 2007).

In another setting, Brooklyn, New York, findings from a longitudinal ethnographic study of the history of drug markets suggested that urban redevelopment can impact drug users and drug markets (Curtis, 2003). This study reported that revitalization and demolition of abandoned properties in a redeveloping neighborhood, and subsequent gentrification, eliminated locations where drugs were distributed and used. This was described as leading to the displacement of drug markets and drug users to other neighborhoods and causing drug markets to decrease in size and become less visible (Curtis, 2003).

Studies of natural disasters have also demonstrated how environmental changes to neighborhoods can impact drug users and drug markets. For example, research assessing the implications of Hurricane Katrina, in New Orleans, Louisiana, demonstrated that drug users continued their use in the wake of the hurricane, and that drug markets went through several stages of change and

restructuring before, during, and after the disaster (Bennett, Golub, & Dunlap, 2011; Dunlap & Golub, 2011; Dunlap, Graves, & Benoit, 2012). Such research has also demonstrated that demographic changes to New Orleans after the storm altered the ways that drugs are distributed, the diversity of drugs sold, and the demographics of actors participating in drug market activity (Bennett et al., 2011; Dunlap et al., 2012).

Theories about displacement, however, have been countered by some criminologists who have shown that crime displacement may not always result from targeted interventions. Instead they have shown that targeted interventions can reduce crime in both the targeted area and others surrounding it (Weisburd et al., 2006) and suggest that the geography of crime largely depends on how conducive to crime an environment is perceived to be by criminals and the risks of committing the crime (Cornish & Clarke, 1987; Weisburd et al., 2006).

Beyond drug market dynamics, some studies of urban redevelopment suggest that urban redevelopment can impact persons with a history of drug use in other ways. One study reported that the renovation of dilapidated housing as part of an urban redevelopment project allowed some residents to overcome drug addiction, by reducing stress related to living in substandard housing (Fullilove et al., 1999). Similarly, an evaluation of a Hope VI project reported that relocation from distressed public housing improved the mental health of some residents and encouraged some residents to seek recovery for substance abuse (Brooks, Wolk, & Adams, 2003).

At the same time, other studies of urban redevelopment report negative outcomes. Due to the influence that social networks have on drug use, the potential for psychological distress and reduced access to resources through these networks as a result of residential relocation (Cao et al., 2012; Fullilove, 2004) may impact drug use. Likewise, it has been suggested that housing instability, another correlate of drug use, may result when the availability of low-income housing is depleted during urban redevelopment (Davila, 2003; Mirabal, 2009).

In combination, the literature on drug markets and urban redevelopment provide insight on how the two may be linked. However, the primary objectives of most of these studies were not focused on examining the impact of urban redevelopment on persons with a history of drug use, thereby limiting knowledge on the topic. The continued redevelopment in East Baltimore provides an opportunity to add to the literature on urban redevelopment by evaluating how urban redevelopment has affected residents with a history of drug use and drug markets in the area. Such information can lead to a better understanding of how future urban redevelopment strategies can be designed to benefit communities plagued by substance abuse and address poor contextual conditions that serve as determinants of health disparities. The objective of this study is to explore community residents' perspectives on urban decay, the intentions of urban redevelopment, and intermediate consequences of the current urban redevelopment strategy (EBDI) among persons with a history of injection drug use in East Baltimore.

## Methods

### Sample

A convenience sample of persons enrolled in the AIDS Linked to Intravenous Experience (ALIVE) study was invited to participate in this study. Eligible participants were those who reported residence in or immediately proximal to an East Baltimore neighborhood, within the footprint of the current urban redevelopment project (EBDI), for at least 5 years from 1995–2010. Details

on ALIVE have been previously reported (Vlahov et al., 1991). In brief, ALIVE is an ongoing cohort of persons with a history of injection drug use. The study was initiated in 1988 and four additional phases of recruitment have been implemented to account for deaths and losses to follow-up. Recruitment has been done through street outreach and word-of-mouth. Participants enrolled in the study attend semi-annual visits during which information on health, behavior, life events, and locator information are captured in interviews administered by trained interviewers and via Audio Computer Assisted Self Interview (ACASI).

#### Data collection and analysis

Semi-structured in-depth interviews with twenty-five respondents were conducted and analyzed by the first author from July 2011 to February 2012. These interviews explored personal experiences related to the current redevelopment project and perceptions of community-wide impact. Follow-up interviews were conducted with twelve of the respondents to explore topics discussed in previous interviews. An interview guide informed by prior studies was used, but was adapted according to emerging themes. All interviews were digitally recorded and transcribed, except for the initial and follow-up interviews of one respondent. The constant comparison method (Charmaz, 2006) was used to identify themes, and data analysis involved iterative coding. Initially, line-by-line coding was performed on the first ten transcripts. Focused coding was conducted to categorize these initial codes, and categories were compared across interviews of the same respondent and between respondents. Atlas.ti 6.2 was used for data management. Results are presented by major themes.

#### Ethics statement

All respondents provided informed consent to participate. The study was approved by the Johns Hopkins Bloomberg School of Public Health Institutional Review Board.

#### Results

##### Respondent characteristics

The majority of respondents were male (76%), the median age was 54 (range 42–70) and all were African-American. These demographics are consistent with the demographics of the ALIVE cohort. At the time of the initial interview, two respondents resided in the redeveloping neighborhood, seven respondents had experienced residential relocation due to the current redevelopment project, six respondents relocated due to other circumstances, and ten respondents lived in neighborhoods adjacent to the redeveloping area. Six respondents reported active drug use at the time of the interview. None of the respondents were homeowners; most reported renting or residing with a relative or friend. Three respondents reported recent homelessness.

##### Interview findings

This paper focuses on the following themes: (1) perceptions of urban decay (2) the perceived intentions of urban redevelopment in East Baltimore, and (3) perceptions of the consequences of the current urban redevelopment strategy on housing/physical infrastructure, residential relocation, employment, and drug markets in East Baltimore.

#### Perceptions of urban decay and intentions of urban redevelopment in East Baltimore

Because urban decay has been used as rationale to drive urban redevelopment in East Baltimore, it is important to understand what respondents perceived to be the causes of urban decay. Respondents believed that prevalent drug use, unemployment, and urban flight instigated urban decay in East Baltimore. However, some respondents also said that previous urban redevelopment efforts worsened decay by leading to increased housing vacancies. Additionally, some respondents described urban redevelopment as something that was intentionally planned by governmental officials. Many believed that these intentions, in combination with prejudice against low-income African Americans, established a sense of apathy among politicians, which allowed urban decay to fester.

But there was somebody who had their hands in the pot. . . Somebody knew what was going on. Like they say Mayor \_\_\_\_ had downtown after the riots [following the assassination of Martin Luther King], said that this is how Baltimore is going to look. We going to make this this way; buy this and buy that. Johns Hopkins is going to buy this and buy that. And that was fifty years ago. So somebody was planning this thing a long time ago. . . I don't know if they knew what was going to happen with the drug epidemic, with the crack and the heroin thing coming along. But somebody knew something a long time ago and just let ride and let it decay. But just implode on itself. (63 year old male)

The community's awareness of intentions to redevelop the area was also described as fueling apathy among landlords. Some respondents provided examples of deplorable living conditions in the homes demolished as part of urban redevelopment, as one respondent described it: "Yeah, they condemned the house because the toilet fell in the kitchen." Most respondents blamed poor living conditions on apathetic and absent "slumlords", whom many believed to have lost accountability for the upkeep of their homes and care for their tenants, as they waited for their property to be purchased for redevelopment purposes.

I know some guys that was renting them old dumps down there in \_\_\_\_ street around this way. . . . But they ain't paying nothing but cheap rent up here, about 100 dollars a month. So Johns Hopkins paid all these people to move out. The ones that were smart enough to buy them, at a [cheap] price. . . They were inhabitable for living anyway. . . But they had their names on some leases, and Johns Hopkins gave them money for them to move. . . That got a lot of couple of guys on their feet a little bit. That wasn't nothing but a scam. Pay them to get out. . . They kind of made Johns Hopkins buy them out because as long as you got those slums down there you had problems. (64 year old male)

#### Perceived intentions of urban redevelopment in East Baltimore

Many respondents said that urban redevelopment was inevitable, and because of this believed that their concerns were disregarded by politicians, Johns Hopkins, and developers. Many also believed that residents were disempowered and could not stop the redevelopment that was currently happening. While many respondents acknowledged revitalization to be an intention of urban redevelopment, most saw redevelopment as serving the needs of JHMI to expand and transform the residential community of East Baltimore to "East Hopkins". Furthermore urban redevelopment was described as a mechanism for gentrifying and changing

the racial distribution of targeted neighborhoods, and the entire city.

Now they torn down their house in the low income projects and put them out in [Baltimore County] in the same unit and it's like the white man. . . I hate to say it that way, the Caucasian man wants to move back into the city and put the negroes, as they call it, back out there in the county where he used to live at, so that he can walk freely in the city. He can walk to his job. (48 year old male)

#### *Perceptions of the impact of the current urban redevelopment strategy*

Few respondents had opinions on the impact of the current urban redevelopment strategy that were solely good or bad. The consequences are presented below according to the following categories: housing/physical infrastructure, residential relocation, employment, and drug markets.

#### *Housing and physical infrastructure*

Overall, the most frequently reported positive consequence of urban redevelopment was revitalization, which was described as cleaning the clutter and trash in the streets and replacing vacant properties with sound infrastructure and housing. In general revitalization was perceived as positively influencing health: "*When the neighborhood looks better you feel better*". In addition, respondents provided specific examples on how revitalization could prevent risky behavior and ward off haunting memories of addiction.

There ain't nobody going in them [vacant houses]. Doing their drugs or whatever. Go in there and have sex and do whatever they want to do. . . They come out around the back way and do their dirt. By them fixing those houses on \_\_\_\_ street don't have that problem no more. (57 year old female)

I'm glad they [the vacant houses] gone. Because it stirs up memories, bad memories. You walk through some of these neighborhoods. The things that I've done, the things that I've did. Some of this stuff haunts people. To go back and see that it's gone is. . . There's no signs, or nothing left to remind me. . . I don't see all the bad things that happened. I see good things now that they're rebuilding, painting, and looking better. I see that. I don't see the gloom and doom of those neighborhoods that I came up with (64 year old male)

A few respondents also said revitalization benefited the community when community programs were constructed in place of abandoned or dilapidated housing.

I do have to give them this. They do have a lot of drug programs. Because one of their drug programs, which is called \_\_\_\_\_. It benefitted me. I mean it helped me a lot. When I first got clean off of heroin, it was through the comprehensive center for women. . . (57 year old female)

Although several respondents praised revitalization, some recounted the nostalgia felt when visiting the neighborhood and expressed anger and sadness over its transformation. Many also criticized the lack of affordable housing being built and viewed it as evidence that the intent of the current urban redevelopment project was to benefit JHMI staff and students, and gentrify the area. Relocated residents were given a "right to return" (i.e., prioritized as leasers or buyers of new housing), and some respondents, particularly those who never resided within the project footprint,

spoke highly of this proposition. This sentiment was not shared by residents who noticed that rental costs were increasing.

. . . There's a lot of people I know that were looking forward to going back down there. But they doubled and tripled the rent. So they mention it to you. Say: "you want a shot at that?" What the hell can I do with that? And they know you couldn't get back. Put you out in the water and took your paddle. No, you couldn't get back, so you've just got to move on and stay with prayer. (64 year old male relocated resident)

Additional concerns raised by respondents included increasing property taxes, delays in revitalization and demolition of vacant houses, worsening housing vacancies, and inadequate boarding of vacant properties.

. . . They didn't board the house up until about 6, 7 months after we left out. . . And when they boarded it up they took the boards back down because people were staying in it. . . I know some squatters that are in some of them now. . . See what happens like say you were living in the neighborhood, now they know you. They know that you're moving out next month. So when you move out, they see you take your stuff out, or maybe they may help you. They see what you're leaving in it, or they say: "Well don't lock the door I need somewhere to sleep at tonight. . ." (47 year old male, relocated resident)

. . . Yeah they were boarded, but people still can take the boards off and just strip them. Most the windows are bust out up top, they don't board the top windows, so most of them throw bottles through the top windows and start a fire, or some of them go in and use drugs. They go in the back way and open the door, just take a hammer and tear the back door down. (51 year old male)

#### **Residential relocation**

Seven respondents reflected on their experiences of relocation as part of the current redevelopment strategy in East Baltimore. All respondents indicated that they were given guidance on relocation, and that their moving expenses and rent were covered for several years. The majority of respondents remained in the city to be near health care and public transportation. However, it was reported that overall relocation in and out of the city was widespread.

EBDI and The Annie E. Casey Foundation, have reported that the urban redevelopment project has "*relocated families to healthier neighborhoods*" (East Baltimore Development Inc.). Some respondents in this study regarded relocation as providing them with the opportunity to move into better housing and neighborhoods. Some even associated relocation with alcohol or drug cessation amongst themselves or others.

Some people change like me myself, I've changed because I've been out of the neighborhood. Because I wasn't acquired [accustomed] to doing what I used to do, so I had to do something different. And something different was- get a job, work; be a productive citizen. And that's what I try to be now and I feel good about it. (47 year old male, relocated resident)

However, most respondents reported that drug cessation was less likely to occur among those who were not ready to stop, and this was confirmed by active users who did not stop using drugs following relocation. Some also reported that while some drug dealers

relocated to Baltimore County they continued their business in Baltimore City.

Many also criticized the fact that some residents were forced to leave against their will. Additionally, several respondents described how stressful relocation was and how housing instability could result from relocation. Some respondents who relocated reported having to move a second time because they were unable to maintain their living expenses once their relocation allotment expired. One respondent reported moving three times, as the first property where she relocated was demolished for redevelopment purposes and the second went into foreclosure. Among respondents who reported not being able to maintain their rent at the location where they initially relocated, many indicated that they intentionally relocated to these locations while understanding the potential financial implications. The reasons given for this included being rushed into making a decision, being optimistic that they would advance economically, or lacking affordable housing options.

One respondent described how his criminal record limited his options for affordable housing.

My choices were very few. A lot of them ended up with “Section-8s” (subsidized rental housing), something they can stay in for the rest of their life on the program. They helped them to make sure they got them, but a person who had a record, like myself, you weren’t able to get a Section-8. (63 year old male, relocated resident)

Another respondent described how relocation to subsidized housing was also complicated.

The process was very hard. We had to deal with public housing, and dealing with public housing is not so good. They want to know all of your background. When I say your background, everything. . . And it’s a process because you have to stay in shelters, and I never thought that I would experience nothing like that – a shelter – and being around the homeless people and things. But it was very hard for me because I had never been put into that kind of atmosphere before, so I didn’t like it. I stayed there about a month. (42 year old female, relocated resident)

Although none of the respondents linked housing instability with their own drug use, some said that housing instability can push persons “deeper” into addiction to hide the reality they confront. Many respondents also said that some relocated homeowners similarly faced financial challenges maintaining the mortgages on their new homes.

Finally, perceptions of how relocation impacted social ties varied. Some respondents reported little impact on relationships, saying things like, “I basically see who I want to see”, with some respondents who were active drug users reporting that they maintained the relationships that they had with previous drug dealers who were relocated to the County. In contrast, others described changes to their relationships, and reported that social ties had been disrupted and access to support, information, and other resources had been compromised.

It separates people. And then for some people it makes it harder to get to their family, or harder to get to their friends, and takes them further away from their employment. And living in certain communities, it’s like everything is available, everything is convenient, and for those who had to move a little further out, then they need transportation. You have to catch the bus more, or have to have a ride – where at first it was just everything was pretty much in walking distance, or someone was close by that

they could depend on to get transportation from. (54 year old female, relocated resident)

I got friends that done died and I ain’t know they died because they separated so many people. . . It ain’t like you can go outside and say, “Well this person died.” Lost contact with a lot of people, and it’s hard. (51 year old male)

Some respondents also described how residential relocation can distinctly impact special groups. For instance, a few respondents said that inmates released from prison can feel disoriented after returning to East Baltimore and realizing that it has changed. One of these respondents said that when confronted with such changes, “some just can’t cope”. In addition, many described how isolation is more likely to occur among elderly residents who may be less mobile and adaptable. A few respondents reported that their elderly parents or neighbors felt less comfortable relating to their new neighbors and felt physically distant from loved ones.

### Employment

Most respondents believed that the current urban redevelopment strategy had the potential to create jobs in construction and other areas. One respondent viewed the slated construction of biotechnology laboratories in particular with optimism.

I think that [the labs] are progress. . . My grandchildren and them, I am going to lead them into science, tell them that’s where the money is going to be at. (58 year old male)

Many respondents also believed that greater employment opportunities through urban redevelopment would reduce crime and encourage drug cessation. However, despite the perceived potential of urban redevelopment, most respondents rarely heard of employment opportunities being offered to East Baltimore residents, and many viewed this as unfair.

Because I asked them for work and the man will tell you, “Well, we got our crew already. You’re not in our program.” Complete the program to get hired. But a lot of people know how to do a lot of the work that they’re doing in the houses. They just won’t give you the opportunity to work. (52 year old male)

One respondent reported that he participated in an EBDI job training program, but indicated that it did not translate into actual employment. A few other respondents expressed concern that they may be discriminated against because of their age or incarceration record.

### Drug markets

One of the most widely discussed topics about the current urban redevelopment strategy was the impact that it had on changing the geography and dynamics of drug market activity. Prior to redevelopment, drug markets in the neighborhood were described as “open-air” with people from all over Baltimore converging on the neighborhood to purchase drugs at all hours of the day, and security was described as lacking. The demolition of properties and residential relocation due to the EBDI project was described as slowing the activity and eliminating settings where drugs were sold. Additionally, many attributed these changes to an increase in the presence of security, monitoring devices, and stricter police in the redeveloping area. Some reported that these changes coincided with the start of redevelopment. One respondent described how this occurred with one particular drug market.

There used to be a line like you was going in the supermarket or the soup kitchen. Used to be a line all the way down the wall and around the corner, people was buying drugs like that. But the police the feds was in a vacant house filming this. . . And they knocked them all. They used that tape as evidence. . . They got indicted, they went to jail. A lot of them got 15, 25 to life. They got big time. . . You don't see them on the streets down here no more. . . They still selling drugs in the neighborhood but nobody was using no vacant houses no more though. . . Because they were scared. . . Yeah, you don't want to take that chance and go back to what you was doing. You know? That was that. Then that's when we was hearing about John Hopkins buying up all this property and stuff like that. (55 year old male)

The reduction of drug activity in the area was perceived as increasing safety, reducing violence, and "territorial fighting" in the footprint of the redevelopment project. As a result of the increased safety, many respondents noticed more children and elderly persons outside, and many respondents attributed the reduction in drug activity with removing negative role models from the area that would have otherwise had a negative influence on youth. Some also suggested that the allure of making a profit from selling drugs was gone.

You can't sell dope the way they used to sell it and make all that money. The police ain't going to have it no more. (64 year old male)

A few respondents also described how collective efficacy among residents in the redeveloping area was influential in reducing drugs.

My mother and them, they in the neighborhood thing. They said that they cleaned up the neighborhood and pushed the drug addicts and the drug dealers out of the neighborhood. They not going to have to repeat that again. Because she lived 10-15 years of that drug thing. They not going to have that no more. That's how urban renewal. . . Those people start paying 150,000 dollars on these houses, they ain't going to have no drug addicts, no junkies nodding on their steps. . . So they got the law enforcement behind them and just started working together. . . It's a big difference. . . I go past there now and I don't see nobody sitting on those steps. Now maybe four five years ago, you would see everybody, white, black running round selling dope. (64 year old male)

This same respondent indicated that while this sometimes led to the displacement of drug markets, this largely depended on whether there was opposition in destination neighborhoods.

They moved but every time they moved it was, there was opposition for them not to come in there. People don't want those drugs there. Yeah they move from one spot, people get aroused; they move another spot, people get aroused.

Others described a different story and suggested that the displacement of drug markets was more widespread: "*They didn't put them out of business; they just made them relocate like we did*". One of the relocated respondents described this by using his son as an example.

When I first got there [home that he was relocated to]. Now I know my son was dealing some drugs. I tell him, don't bring it to the house. . . So lo and behold, I was across town, trying to get some work in. But anyhow, the neighbor across the street

called and said, "Well the police kicked in your door and locked your son up". (63 year old male, relocated resident)

The displacement of drugs was described as occurring both on a small scale, moving block-to-block, and on a large scale, moving from Baltimore City to Baltimore County. Respondents also described drug markets as becoming less visible and becoming more "underground". Some respondents said that many drug dealers started selling drugs exclusively to people they knew.

Active users reported that the evolving drug market made drugs harder to find, and made the process of procuring drugs inconvenient, but it did not discourage them from using drugs. In general, most reported that changes to the market would help someone cease their drug use if he or she was ready to stop, but active users would adapt to these changes. "*Now you go somewhere they can't see you*", as indicated by a respondent who continued to purchase drugs from a previous dealer who moved to the County, and reported purchasing drugs in bulk to prevent multiple trips.

Respondents who weren't actively using drugs were also doubtful that the displacement of drug markets had much impact on drug users, especially considering that drug users were also relocated.

And you know it's one of those deals where wherever it is you'll go because with me, wherever it was, I was there even if I had to walk there. (57 year old male)

Six blocks down the street from Johns Hopkins, straight down the street! Right there at -----, nothing but drug addicts staying up there selling drugs all day long. I mean you take drugs from one corner all they going to do is go on to another one. . . Here's another thing that got me about relocating people. . . First what they should have did was treat a lot of them. There was a lot of drug addicts down there. . . If you ain't treating them for what their illness is, the same sickness is going right with them. (63 year old male, relocated resident)

The displacement of drug markets was also described as exacerbating conditions in recipient communities in the County and in City neighborhoods nearby.

Since they tore [redeveloping neighborhood] it's peaceful now. You can sit out on your steps; you don't have to worry about people yelling out: "Yo! Over here! Hit me!" It seem like now that they have torn [redeveloping neighborhood] they moved down to [the respondent's housing project], it's like drugs is everywhere, they over there in [multiple housing projects]. . . It's just everywhere, everywhere you turn. Every court you walk in, somebody is dealing something. (46 year old female)

Also important, although increased safety in the footprint of redevelopment was regarded positively by many respondents, a few respondents said the increased security disturbed former residents' freedom to congregate in the area. In addition, many respondents residing outside the footprint of redevelopment contrasted the increased presence of law enforcement in the redeveloping area to their neighborhoods. Police and Johns Hopkins security in the redeveloping area were viewed as protection, while the roles of police in other neighborhoods were mainly associated with homicide investigation, police brutality, and corruption. Many expressed concern over this.

They got security and police and everything patrolling the neighborhood at night. We don't have that up our way. The only

time you see a policeman around there is when he is trying to set somebody up or they investigating a homicide or something. (55 year old male)

## Discussion

This study suggests that intermediate stages of urban redevelopment are associated with a complex combination of positive and negative consequences for persons with a history of drug use. The primary perceived consequences reported were related to housing/physical infrastructure, residential relocation, employment, and drug markets. Seemingly positive features of urban redevelopment were described, but many had unintended negative consequences for some respondents. While revitalization made the neighborhood look better and was perceived as improving health, preventing risk behaviors, and converting dilapidated properties into recovery centers, most of the new housing that was constructed was unaffordable, and few employment opportunities from revitalization were offered to local residents. Similarly the implications of residential relocation varied. Although relocation provided some residents with an opportunity to move to better environments, which encouraged drug cessation among some, it also resulted in housing instability and the disruption of social ties. Furthermore, while urban redevelopment was attributed with reducing drug markets and crime in the redeveloping area, it was described as being displaced elsewhere, and many believed that neither the displacement of drug markets nor residential relocation encouraged cessation among those in pre-contemplative stages of recovery.

The consequences of residential relocation reported in this study are similar to findings from previous research which demonstrates that relocation can cause stress, disrupt social networks, and hinder access to resources (Cao et al., 2012; Cooper et al., 2012; Fullilove, 1996, 2004; Mirabal, 2009). It did not appear that the disruption of social networks had a negative impact on drug use. Instead findings from this study support others which have shown that relocating residents to better neighborhoods can encourage positive health outcomes (Brooks, Wolk, & Adams, 2003; Genberg et al., 2011; Leventhal & Dupere, 2011), including drug cessation (Genberg et al., 2011). The impact of relocation on drug use may be influenced by the extent to which resources provided through social networks are lost when individuals relocate, and the quality of the resources provided through such networks. For instance, if ties to drug-using networks or non-reciprocal social support (Kleit, 2010) are fractured, this may support recovery and drug cessation. Similarly, if relationships with others supportive of drug use are not completely disrupted by relocation, it may be less protective. Some active users in this study reported that despite relocation, they maintained relationships with persons they wanted to remain in contact with, and this included drug supporting networks. Future studies should explore the impact that relocation has on the composition of social networks, and how policy makers can ensure that access to community resources is maintained if relocation is necessary.

Previous studies have also suggested that residential relocation due to urban redevelopment may lead to housing instability, but few have explored the topic in depth. This study suggests that housing instability can result among low-income households following relocation, and suggests that the provision of financial remuneration to compensate residents for moving may not be sustainable over time. As a result, greater effort should be directed towards helping low-income households secure affordable housing that can be maintained overtime. Although housing instability was not linked to personal drug use among respondents in this study, other research has suggested that such a relationship exists (Aidala, Cross, Stall, Harre, & Sumartojo, 2005; Palepu, Marshall, Lai, Wood, & Kerr,

2010). Additionally research has shown that the provision of rental subsidies, which make housing more affordable for low-income households, has the potential to encourage cessation, reduce risky behaviors, such as sex exchange (Dickson-Gomez et al., 2009), and increase stability (Connell, Kaspro, & Rosenheck, 2008).

Urban redevelopment strategies can contribute to the stock of affordable and quality housing and can make “right to return” provisions realistic for low-income residents who may be less likely to reap the benefits of redevelopment when they are relocated. Additionally, consideration of mechanisms that increase access to state tax subsidies or implementation of rent control may prevent residents from being priced out of redeveloping neighborhoods. There is little evidence that such allowances will be made by the redevelopment project studied here. Rent has increased in Baltimore City, and it cannot be discerned whether the increase in the studied area is solely a result of redevelopment. However, access to low-income housing should be strengthened, particularly because low-income housing was common in the area prior to redevelopment. Reports of homeless persons occupying vacant buildings slated for demolition and revitalization in this study also demonstrate the extent to which affordable housing is needed. At the time of writing, the rental housing that has been constructed in the studied area is limited to 154 (1–3 bedroom) rental units that are marketed at \$620–1040 per month, which may be expensive for families living in poverty, and 74 senior citizen housing units.

Similarly, urban redevelopment projects can increase employment opportunities for local residents, particularly when these projects are implemented in areas where unemployment and economic deprivation are high. Economic deprivation has been associated with drug use (Genberg et al., 2011; Nandi et al., 2010) and drug market activity (Wilson, 1996). Illegal income generation has been reported to be prevalent among persons who inject drugs, and many have been found to report a willingness to forgo illegal income generation if offered alternative employment (DeBeck et al., 2011).

Respondents in our study expressed frustration at what they perceived as a lack of employment opportunities stimulated through urban redevelopment. Similar feelings have been expressed in recent resident-led protests against the failure to hire local residents for redevelopment-related jobs in East Baltimore. Between December 2009 and December 2011, only 30% (571/1897) of individuals employed for jobs related to redevelopment in East Baltimore were residents of Baltimore and 17% (325/1897) were residents of East Baltimore (EBDI, December 2011). Additionally, only 23% (\$18.7 million/\$82.4 million) of total contracting related to the redevelopment project has been awarded to locally owned businesses (EBDI, December 2011). Due to the potential that job creation has in redistributing wealth and improving health through multiple mechanisms (Tsui, 2010), increasing employment opportunities for local residents and awarding contracts to local contractors as part of urban redevelopment could help achieve such outcomes. It is also important to pay greater attention to job creation and training in non-construction sectors. Although the footprint of urban redevelopment in East Baltimore is proximal to JHMI, and new laboratories for Johns Hopkins and the Maryland Department of Health and Mental Hygiene (DHMH) are being constructed, to date, employment and training have primarily been in construction (East Baltimore Development Inc., December 2011, March 2012). Innovative means of drawing from the strengths of these anchors are needed. For instance, Johns Hopkins and the DHMH could spearhead the training of residents to become community health workers, laboratory technicians, and public health professionals. This would have the potential to bridge gaps between the health systems and community, strengthen social cohesion, and stimulate the economy (Freudenberg & Tsui, 2011).

Findings from this study are similar to others that have linked increased law enforcement with the displacement of drug markets and drug consumption activities (Small, Kerr, Charette, Schechter, & Spittal, 2006). This study also adds to the literature on how urban redevelopment affects drug markets, an area of research that has been limited to a few studies (Curtis, 2003). The displacement of drug markets reported in this study and others (Curtis, 2003; Small et al., 2006) suggests that disproportionate coverage of security and revitalization may not eliminate drug markets but merely displace them or encourage them to become less visible. Additionally these circumstances may not reduce demand as users will find new means to acquire drugs (Bennett et al., 2011; Csete & Cohen, 2003; Dunlap & Golub, 2011; Dunlap et al., 2012; Small et al., 2006). Other changes to drug markets reported elsewhere (Dunlap et al., 2012) related to the price and diversity of drugs sold, and changing demographics of drug market participants, were not emerging themes in this study. Additionally, changes in drug-related risk behavior and health service utilization due to increased law enforcement and revitalization were not reported in this study. However, these topics deserve future study as previous research demonstrates that police enforcement against drug possession can increase the likelihood of injection-related risk behavior, overdose, and violence (Small et al., 2006; Werb et al., 2008), and hidden drug markets may lead to decreased use of health services (Csete & Cohen, 2003).

Findings from this study must be interpreted in light of several considerations. Because respondents were conveniently sampled from the existing ALIVE cohort, the demographics of respondents recruited for this study were similar to the demographics of the larger cohort. Therefore we did not capture information from individuals who are less likely to participate in ALIVE (e.g., females, young adults, persons of higher socioeconomic status). However it is believed that the demographics of the ALIVE study reflect the general population of persons with a history of injection drug use in Baltimore. Additionally, because the majority of respondents in this study were relatively stable, having reported low prevalence of drug use and homelessness at the time of their interviews, and were recruited based on a cumulative duration of residing in the same neighborhood for five years or more, their perceptions may differ from less stable persons with a history of injection drug use. Further, the study sample was not ethnically diverse, due to the demographic characteristics of the neighborhood of interest (94.37% African American). However, working within the existing study provided accessibility to a population that may not have been reached through other means of recruitment, and, despite the fact that the majority of respondents did not report active drug use and unstable housing at the time they were interviewed, some did report active use and unstable housing during earlier years. Therefore, they were able to reflect on how these life events were impacted by redevelopment.

A formal process of member checking was not conducted, but respondent validation was done throughout data collection. In addition, findings were presented to the ALIVE community advisory board, which includes representatives from the community and persons with a history of drug use. The interpretation of findings was consistent with their expressed understanding of the history and impact of urban redevelopment in East Baltimore. In addition, the first author has remained engaged in community activities, attending EBDI and community group meetings, and has paid careful attention to local media, to enhance understanding of the context of urban redevelopment in East Baltimore.

Additional limitations include the transferability of the findings. Because urban redevelopment strategies vary by context, the findings reported here may not reflect how urban redevelopment elsewhere is experienced or perceived. However, similarities in the findings from this study and previous studies indicate that some implications are similar across diverse contexts

(Cao et al., 2012; Curtis, 2003; Davila, 2003; Fullilove, 2004; Mirabal, 2009). In addition, because the contextual issues discussed here, such as affordable housing and employment, are universal concerns, these findings are applicable to persons without a history of drug use. The current redevelopment strategy has been promoted as a model by stakeholders. Therefore, understanding its impact can inform how other strategies are designed and implemented.

Lastly, the first author's affiliation with Johns Hopkins may have influenced what respondents reported. However, because the first author shares a similar racial/ethnic background as the respondents, we believe that this encouraged respondents to be honest about the racial and historical issues surrounding urban decay and redevelopment. Additionally, many respondents assumed that she had not experienced drug use or conditions of poverty, and it is believed that this assumption encouraged them to discuss these topics in detail. Most respondents appeared to be comfortable and eager to share their experiences and some said the interviews encouraged them to think more about how urban redevelopment has impacted them, and how to advocate for employment and housing opportunities.

## Conclusion

This study provides a perspective on the impact of urban redevelopment from the lens of persons with a history of injection drug use and suggests that despite having a history of drug use, they share similar concerns and experiences related to urban redevelopment as persons who do not report a history of drug use. This study adds to the extant literature on urban redevelopment by providing insight on how urban redevelopment relates to drug markets, law enforcement, housing instability, and employment, and distinguishing between which elements of redevelopment are protective and not protective of drug use. Revitalization and construction of community based organizations, including recovery centers, were identified as factors protective against drug use, and residential relocation and drug market displacement as a result of urban redevelopment were described as supportive of recovery for those who have taken steps to cease their use of drugs. The finding that various consequences of urban redevelopment, including drug market displacement and residential relocation, would be less effective in encouraging cessation among active users suggests that additional mechanisms through which these persons can be reached through community development should be strengthened. Job training and employment, construction of affordable housing, and strengthening access to public services and positive social capital can be such avenues through which active use is discouraged and recovery among persons who have stopped using drugs is sustained.

Urban redevelopment has the potential to impose positive changes to decaying inner city neighborhoods. However, these changes may be limited and less beneficial to low income and marginalized residents if redevelopment occurs using a less holistic approach that fails to address structural conditions that are among the root determinants of disparities in substance use and other health conditions. The growing literature on the implications of urban redevelopment should be considered in future urban planning.

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### Conflict of interest

None of the authors have a conflict of interest to disclose.

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