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A Paradigm Shift in Housing and Homeless Services: Applying the Population and High-Risk Framework to Preventing Homelessness

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Abstract: Prevention is critical in any effort to end homelessness. Unfortunately, the practice of homelessness prevention is still in its infancy and there is little science base for its implementation. Risk factors for homelessness have been identified at multiple levels: the individual, institutional, and societal levels. Addressing all three in prevention practice is necessary. The population/high-risk framework is the most appropriate framework for conceptualizing how to design programs and policies to prevent homelessness because it draws attention to the need for direct intervention among those at most risk, and also for modifying the overall context. This review of the literature and technical reports points to a number of strategies that demonstrate preliminary effectiveness or are in need of rigorous evaluations. Reductions in homelessness as a result of targeted, high-risk approaches alone are achievable, but will be short-lived unless low-cost and affordable housing and income are addressed at the population level. Simultaneous implementation and evaluation of both population and high-risk prevention strategies will bring us closer to reaching our goal of ending homelessness.

Keywords: Context, high-risk, homelessness, housing, intervention, policy, population, prevention, structural.

INTRODUCTION

Prevention is critical in any effort to end homelessness. The past three decades of homeless services have focused resources primarily on managing and treating homelessness by providing crisis services to people once they become homeless. More recent policy and program development has emphasized ending chronic homelessness, focusing on the estimated 10-20 percent of people who have very long or recurrent spells of homelessness. However, homelessness is not simply a temporary emergency or a problem of those few who experience extended time without their own home; it is an entrenched phenomenon in the modern world, not only in the United States, but in other developed nations as well.

The current U.S. housing and economic crisis [1-3] brings the need for homeless prevention to the fore. This crisis could lead to thousands of households losing their homes to foreclosure and many more to face financial struggles as a result of rising unemployment. Given the increasing number of people experiencing housing loss and homelessness and the opportunity created by the $1.5 billion included in the 2008 American Recovery and Reinvestment Act for homelessness prevention, diversion and re-housing activities, we are at a critical moment for a paradigm shift in housing and homeless policies to take place.

Unfortunately, the practice of homelessness prevention is still in its infancy and there is little science base for its implementation.[1] There is no consensus among experts in the field on what the most appropriate approaches are for preventing homelessness. Furthermore, few methodologically rigorous evaluations of homeless prevention programs have been conducted. Most evaluations lack an adequate control group or are not randomized, have no or limited follow-up, and rely on descriptive case studies. Results from these studies can be misconstrued and misunderstood as prevention because they presume perfect success rates for anyone receiving services (i.e., that 100% of people who received the intervention would have been homeless had they not received the intervention). Additionally, well-executed cost-benefit studies that can establish marginal cost savings of prevention programs are rarely performed. With funding sources increasingly expecting the implementation of best practices and evidence-based programming, more effort must be taken to develop sound program models and execute state-of-the-art evaluations.

Current circumstances in the housing and financial markets have created a critical opportunity to bring prevention of housing loss to the foreground. In this paper I will argue for the adoption of a prevention-oriented approach to homeless services by employing the population/high-risk prevention framework. First, I will outline why preventing homelessness is important and timely. Second, I will describe the science of prevention as it applies to homelessness using the social epidemiological population/high-risk prevention framework. Third, I will review selected population and high-risk prevention interventions that have been applied to the problems of housing and homelessness. Finally, I will provide recommendations for clinical practice, program development, policy and research.

WHY PREVENT HOMELESSNESS?

The extent of the crisis of homelessness makes prevention urgently important. According to current

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[1] See [78, 79] for early volumes of prevention strategies; see [51, 118] for reviews.

estimates, there were approximately 672,000 sheltered and unsheltered people experiencing homelessness in the United States in January 2007 [4]. Early research has shown that approximately three to seven percent of adults have had a significant homeless experience during their lifetime [5]. More recent research estimated that the lifetime prevalence of homelessness in the U.S. is 6.2 percent [6]. The number of homeless families continues to rise since the 1980s, and families currently represent approximately 40 percent of the homeless population [4, 7, 8]. Burt and colleagues [9] estimate that 10 percent of poor families experience homelessness annually, resulting in 1.3 million children living in shelters or on the streets.

An extensive list of negative health and social consequences are associated with homelessness [10-13], making preventing its onset and duration a critical goal for the health and well-being of individuals and communities. Research suggests that homeless experiences can exacerbate existing illnesses, impede recovery, and provoke new illnesses [10, 12, 14-16]. Mortality among clients served by Health Care for the Homeless projects in 19 cities was estimated as 3.1 times that of the general U.S. population [16], and in New York City age-adjusted mortality rates of homeless individuals were four times those of the general U.S. population and two to three times those of the general population in New York City [10]. Compared to poor, housed children, homeless children have worse health, more developmental delays, more anxiety, depression and behavior problems, poorer school attendance and performance, and other negative conditions [17, 18]. O'Flaherty [19] infers that "a community with a history of more homelessness in the past is likely to be a community with more disabilities in the present, and so is likely to experience more homelessness in the future." Breaking the cycle of homelessness can help foster healthy individuals and communities.

The financial costs of homelessness are also sobering. The U.S. federal government spends $1.9 billion every year on dedicated homeless services, and that is not counting the funding that assists homeless families and individuals from mainstream programs, such as Medicaid, TANF, or mainstream housing programs [20] or resources provided by private, non-profit and faith-based organizations. Thus, the burden of managing homelessness is not only borne by homeless service providers, but also other mainstream and social service providers. People who are homeless are more likely to access costly health care services [21, 22] and spend more time in jail or prisons [11, 23]. Furthermore, emergency shelters too often serve as long-term housing, which costs HUD's Emergency Shelter Grants program over $8,000 more than the average annual cost of a federal Section 8 housing subsidy [24].

WHY SHIFT TO A PREVENTION FOCUS NOW?

With decades of research on the individual, social and economic costs associated with homelessness, there have been several recent initiatives that focus on ending it. For example, between 2001 and 2007, the U.S. Department of Health and Human Services (DHHS) convened a Homeless Policy Academy Initiative, in partnership with the U.S. Departments of Housing and Urban Development (HUD), Veterans Affairs, Labor, and Education. The Initiative was designed to help state and local policymakers improve access to mainstream services for people experiencing homelessness. In 2000, the National Alliance to End Homelessness (NAEH), a nonpartisan organization committed to preventing and ending homeless in the U.S., released a comprehensive *Ten-Year Plan to End Homelessness* to address the challenges that local jurisdictions face. In just a few years, over 300 localities have drafted plans to end homelessness [25]. Although the large majority of 10-year plans focus on ending chronic homelessness, their initial success at putting homelessness back on the agenda of local policymakers has created a unique opportunity to draw attention to prevention.

Preventing homelessness is also timely with respect to federal, state, and local emergency response procedures to both natural and unnatural disasters. For example, in 2005, Hurricane Katrina displaced over 600,000 individuals across the Gulf Coast in the month following the storm and destroyed nearly 228,000 homes in New Orleans, Louisiana [26]. The slow-to-develop plans to rebuild affordable housing units and provide people with housing subsidies have been grossly inadequate. One of the consequences of this event has been the refocusing of national attention on the affordable housing crisis, the burden of which is disproportionately borne by low-income and minority communities, and its role in creating homelessness.

Moreover, the recent housing crisis is wreaking havoc on more then just the stock market, the housing market, and our economy: thousands of individuals and families face foreclosure and increasing material hardship. A recent U.S. Conference of Mayors report indicated that U.S. cities are reporting significant increases in homelessness as a result of the foreclosure crisis, and that many of them are homeless for the first time after losing their home [27]. CNN reports that authorities in Santa Barbara, California, have made 12 gated parking lots available to families living in their cars – the first such program in the U.S. [28].

As foreclosures and general housing instability are expected to rise, programs that help prevent individuals and families from losing their homes and facing homelessness are imperative. In February 2009, Congress passed the nearly $800 billion American Recovery and Reinvestment Act, which includes $1.5 billion for homelessness prevention and re-housing for households who are homeless or at risk of homelessness. This critical funding could provide the opportunity to transform housing and homeless assistance from a treatment-focused agenda to a prevention-focused one.

EMPIRICAL STUDIES IDENTIFYING RISK FACTORS FOR HOMELESSNESS

Prevention science is based on the notion that risk and protective factors that are empirically derived can predict the likelihood of outcomes. Over two decades of research on the risk factors associated with homelessness has uncovered a range of points to intervene—precursors to the development of prevention programs. Common to all studies is the fact that people experiencing homelessness live in extreme poverty. Numerous forces that contribute to increases in poverty play a role in the existence of and increase in

homelessness. People who are on the losing end of these fundamental forces—for example, unemployed people, people with no assets, or people with physical, mental or developmental disabilities—are then vulnerable to experiencing homelessness. However, as not all persons living in poverty experience homelessness [9, 29, 30], many studies have attempted to understand the factors that increase the risk of homelessness among poor persons.

These empirical studies largely focused on identifying characteristics at three different levels: (1) the individual level: single individuals or families who are currently homeless, formerly homeless or at-risk of homelessness; (2) the institutional level: community institutions or facilities that can be public or private and that provide either formal or informal services to people who are homeless or at-risk of homelessness; and (3) the social level: the characteristics of larger social systems, which include social, economic, political and cultural forces.

Table **1** contains a summary of risk factors for homelessness in the U.S. at the individual, institutional and social levels. Importantly, homeless episodes result from a combination of factors that accumulate over the lifecourse: Individual vulnerabilities, taken within the context of institutional experiences and the social environment, contribute greatly to the complexity of the problem of homelessness, particularly when it comes to predicting who is most likely to become homeless in the first place [31]. In fact, it may be the conjunction that counts; in other words, being the wrong person in the wrong place at the wrong time [32]. A concerted effort is needed to prevent homelessness before it occurs by addressing root causes in the general social environment. Additionally, preventing homelessness among identified high-risk groups, such as persons with mental health, substance abuse or trauma histories, require targeted interventions that go beyond what is done to improve the social environment for the general population. Addressing these multiple levels from a prevention-oriented approach, rather than a crisis management and rehabilitative treatment approach, requires a comprehensive conceptualization of prevention that addresses the fundamental contextual and individual causes of homelessness.

OVERVIEW OF CONCEPTUAL PREVENTION FRAMEWORKS

Preventing homelessness requires an appropriate framework to guide the development of prevention

Table 1. Summary of Empirically Identified Risk Factors for Homelessness

Individual Risk Factors	Selected Empirical Sources*
Education and work experience history	Caton *et al*., 2005; North *et al*., 1998; Phinney *et al*., 2007
Lack of social support	Caton *et al*., 2000; Caton *et al*., 1994; Kingree *et al*., 1999; Pickett-Schenk *et al*., 2007
Mental health	Folsom *et al*., 2005; Kuhn & Culhane, 1998; North *et al*., 1998; Susser *et al*., 1991
Minority status	Bassuk *et al*., 1997; Folsom *et al*., 2005; Shinn *et al*., 1998
Physical health, including HIV status	Culhane *et al*., 2001; Phinney *et al*., 2007
Recent eviction	Bassuk *et al*., 1997; Bassuk *et al*., 1998; Lehmann *et al*., 2007
Recently doubled-up with another household	Bassuk, 1990; Weitzman & Knickman, 1991
Substance abuse	Bassuk *et al*., 1998; Caton *et al*., 2005; Drake *et al*., 1991; Early, 2005; Embry *et al*., 2000
Trauma history or history of abuse	Bassuk *et al*., 1996; Browne & Bassuk, 1997; Burt *et al*., 1999; Herman *et al*., 1997; Zlotnick *et al*., 2007
Veteran status	Rosenheck *et al*., 1999
Risk Factors Associated with Institutions	**Selected Empirical Sources***
Arrest history	Caton *et al*., 2005; Herman *et al*., 1997; Park *et al*., 2005
Out of home placement as a child	Bassuk *et al*., 1997; Caton *et al*., 1994; Koegel *et al*., 1995; Park *et al*., 2005
Recent mental health hospitalization	Bassuk *et al*., 1997; Bassuk *et al*., 1998
Societal or Environmental Risk Factors	**Selected Empirical Sources***
Crowding	Culhane *et al*., 1996; Lehmann *et al*., 2007; Shinn *et al*., 1998
Decline in low-cost, subsidized, or affordable housing / high rent-to-income ratios	Crane *et al*., 2005; Culhane *et al*., 1996; Dolbeare, 1996; Early, 2005; Elliot & Krivo, 1991; Kasinitz, 1984; Koegel *et al*., 1996; Lee *et al*., 2003; Wright & Lam, 1987
Decreasing living wages and changing labor market	Burt, 1992; Glomm & John, 2002; Honig & Filer, 1993
Increasing income inequality	O'Flaherty, 1995; Quigley *et al*., 2001; Shinn, 2007
Local poverty rate	Ji, 2006
Public policy regulations	Burt, 1992; Honig & Filer, 1993; Norris *et al*., 2003
Rent stabilization regulations	Grimes & Chressanthis, 1997; Quigley, 1990

* This citation list is not a complete review of the literature; it represents recent empirical investigations into risk factors for homelessness.

strategies. A review of the literature on the science of prevention across a broad range of disciplines, including medicine, public health, addiction research, and violence and crime, uncovered several frameworks, three of which appear to be most commonly used to guide practice: (1) primary, secondary and tertiary prevention, which has its origins in public health and the prevention of chronic illnesses; (2) universal, selected and indicated prevention, developed by the Institute of Medicine (IOM) to expand on the former framework [33, 34]; and (3) population and high-risk prevention, promoted in social epidemiology [35]. These three do not exhaust the range of frameworks [36-39] and they have been combined or adapted depending on the condition, state, or phenomenon to be prevented. It is important to note that these approaches were originally developed to address physical and mental ills, not necessarily social ills, such as homelessness.

The traditional public health framework for primary, secondary and tertiary prevention has its origins in a volume released by the Commission for Chronic Illness in 1957, which distinguished prevention from a temporal standpoint. The U.S. Preventive Services Task Force distinguishes between the three in the following way:

- Primary prevention is used to prevent the onset of a targeted condition (i.e., prevent new cases);
- Secondary prevention is used to identify and treat asymptomatic persons who have already developed risk factors but in whom the condition is not clinically apparent; this includes detecting the condition soon after it occurs and taking steps to eliminate it;
- Tertiary prevention is used to minimize the harmful effects of an existing condition [40].

This approach is most often used in the field of preventive medicine and mental health [41-44], substance use [45, 46], and general behavioral science literature [47, 48]. It has been employed with respect to homelessness prevention [49], where primary prevention programs target housed people before they become homeless, secondary prevention programs target people in the very early stages of their homeless episode (e.g., when they seek shelter), and tertiary prevention targets people who have been homeless for some time in order to mitigate the negative effects of homelessness (e.g., preventing chronic homelessness among those who are currently homeless).

The IOM framework also identifies three types of prevention—universal, selected and indicated—but is largely concerned with the target population of the program or intervention rather than the temporal state of a disease or condition. The three types are defined in the following ways:

- Universal prevention programs are intended for the entire population;
- Selected prevention programs target people who are at risk because of membership in some group, such as gender, age group, race, or occupation;
- Indicated prevention programs target people who are at risk due to an assessed individual characteristic, such as mental illness, blood pressure level, or neighborhood of residence.

This framework is found most in the mental health literature [33, 34]. It was employed in the review of homelessness prevention programs for the 1998 Symposium on Homelessness Research [50, 51]. As an example, the authors reviewed a universal program that intends to increase affordable housing options for the entire population; a selected intervention that provides means-tested housing subsidies to a portion of the low-income population; and an indicated program that targets people at imminent risk of eviction.

The social epidemiological conceptualization of population and high-risk prevention proposed by Geoffrey Rose [35, 52] is concerned with causes of the outcome of interest. This framework has implications for whether prevention programs reduce the incidence and prevalence of the problem by addressing population-level causes (i.e., population prevention), or whether they will help the people most likely to experience the problem given current circumstances by addressing targeted, individual-level risk factors (i.e., high-risk prevention).

Under this framework, prevention strategies must clarify whether they are intended to mitigate or eliminate population risk factors identified *between* populations or individual risk factors identified *within* a population, or both. In the case of homelessness, if a "cause" is ubiquitously experienced throughout the population – for example, lack of affordable housing – current methodology will not detect it as a risk factor in a single population. Such a ubiquitous cause will only be detected if populations with different levels of affordable housing shortages are compared. On the other hand, if the "cause" is experienced by particular individuals within the general population – for example, substance use – current methodology can identify that particular cause if it is explored within a population. Both "causes" require different prevention strategies: population prevention seeks to ameliorate or eliminate risk factors that are ubiquitous within a population (i.e., affordable housing) and high-risk prevention strategies seek to address risk factors that are particular to a sub-population (i.e., substance use). Table **2** briefly compares the three frameworks described here.

THE POPULATION/HIGH-RISK FRAMEWORK: A CONCEPTUAL FRAMEWORK FOR PREVENTING HOMELESSNESS

The population/high-risk framework is the most appropriate framework for conceptualizing how to design programs and policies to prevent homelessness because it draws attention to the need for direct intervention among those at most risk, and also for modifying the overall context.[2] While the primary/secondary/tertiary and

[2] For a more in-depth take on homelessness prevention, see [54]. The authors make the distinction between structural versus individual-level homelessness prevention strategies within the context of universalist versus particularist policy making. Structural strategies are akin to Rose's population strategies: those that address the population incidence and prevalence rates. They can be intended to benefit the general population or high-risk groups, but nonetheless contribute to a change in structural determinants. Individual-level strategies do not change structural determinants and can be applied universally to the general population (e.g., education in all high schools to teach money management skills) or to high-risk subgroups (e.g., providing rent arrears to households with eviction notices).

Table 2. Brief Comparison of Prevention Frameworks

	Prevention framework		
	Primary/Secondary/Tertiary Prevention	**Universal/Selected/Indicated Prevention**	**Population/High-Risk Prevention**
Goal	Prevent new individual cases and prevent worsening of condition among cases	Prevent cases among indicated individuals and in selected populations, and prevent incidence in the general population	Prevent cases among high-risk populations and prevent incidence in the general population
Temporality	Can be applied to prevent new cases, as well as to mitigate the harm among current cases	Focuses efforts on preventing new cases	Focuses efforts on preventing new cases
Target population	Individuals with risk factors for the condition and who currently have or have suffered from the condition	Entire population; high-risk populations; high-risk individuals	Entire population; high-risk populations
What distinguishes this framework from the others	Focus is on the timing of interventions	Focus is on the target population	Focus is on the context and causes of the preventable condition

universal/selected/indicated prevention frameworks address important aspects of prevention, only the population/high-risk approach focuses on identifying and targeting the causes of homelessness at multiple levels. It allows us to address factors in a population that are ubiquitous, such as the limited availability of affordable housing, as well as factors that are associated with individual cases of homelessness, such as substance use. And rather than focusing on just the timing of prevention (i.e., primary/secondary/tertiary prevention) or the target population for prevention programs (i.e., universal/selected/indicated prevention), this framework concentrates on identifying and eliminating the causes of homelessness for society as a whole *and* for the most vulnerable subpopulations. Importantly, the population/high-risk framework does not imply that programs and communities must choose *between* prevention across the population or prevention among high-risk groups. Instead, applying both prongs of this approach *simultaneously* can maximize the overall reach and effectiveness of prevention programs. The challenge to applying this prevention approach rests in balancing the strengths and weaknesses associated with both population and high-risk strategies.

Population-level prevention strategies face two major challenges to preventing homelessness: (1) ensuring the "prevention paradox" does not undermine efforts to prevent homelessness among vulnerable populations; and (2) addressing the challenges associated with the political reality of limited resources for prevention efforts. Rose defined the prevention paradox as "a preventive measure which brings much benefit to the population [but] offers little to each participating individual" [53]. This would occur if prevention activities are diffused throughout the population in such a way that they do not do enough to help the most vulnerable individuals. For example, although the fundamental causes of homelessness, such as lack of affordable housing, are relevant to all persons, other causes may also be relevant to vulnerable subgroups. It is likely that, because of their disabilities, persons with mental illness will require both affordable housing *and* special services in order to prevent homelessness or to remain stably housed.

The second problem with implementing population strategies is that resources for preventing homelessness are limited. If spread too thinly across the entire population, these strategies may not have a significant or detectable impact on the rate of homelessness. To get results at the population level would require a substantial investment of currently unavailable resources. Given the political constraints which limit resources, high-risk strategies – as opposed to population strategies – could offer a more cost-effective approach to prevention by concentrating resources where the need and benefit are likely to be greatest [52].

High-risk prevention strategies also pose two major challenges: (1) challenges that arise with identifying the "right" people to whom interventions should be targeted; and (2) the challenge of distributing scarce resources to indicated people while holding the overall social environment constant (i.e., the challenge of "queue jumping") [51]). High-risk prevention strategies are predicated on being able to identify an appropriate target population based on empirically-derived risk factors of individual cases of homelessness. In general, the problem of targeting is controlled by the fact that only a small proportion of the general population will ever become homeless [5, 6]. Predicting who will fall into this category is contingent on multiple, identifiable, and unique risk factors, and current screening tests are not sensitive enough to pick up the heterogeneous complexities associated with homelessness [51, 54].

Recent studies show that our current methods for identifying who is most likely to experience homelessness have been largely insensitive in predicting who will become homeless in the future [55, 56].[3] The evidence suggests that resources for preventing homelessness are inevitably spent on some households that would not have become homeless even without the intervention—an admirable and ethical expense, perhaps, but nonetheless not homelessness prevention. Perhaps more troubling, an even larger proportion of potential homeless households are missed.

[3] These are problems with all screening tests: when the sensitivity (i.e., the probability of correctly identifying all those who become homeless from a particular population) of a test increases, the specificity (i.e., the probability of correctly identifying all those who will *not* become homeless from that population) will decrease.

Households that did not request shelter at the time of the studies may have been at risk of entering at some future time, so these predictive studies likely overestimate the chance for successful prevention [54].

The second challenge to implementing high-risk prevention programs is that they introduce the problem of "queue jumping" [51], which occurs because current constraints within the social environment, such as the stock of affordable housing or income support programs for the poor, are held constant. This problem, which has been likened to a game of musical chairs [57], implies that reallocation of resources among different groups at risk of homelessness is unlikely to affect overall prevalence, and instead will only help some people manage their state of homelessness a little better than someone else [51, 58]. In other words, wherever there are more people than there are affordable, livable housing units, there will always be people left without a home when the music stops. Programs that do not address the overall context or the social and environmental causes of homelessness will have a difficult time trying to prevent new cases of homelessness among another vulnerable, but not-yet-homeless, population.

Applying the population/high-risk framework highlights the tension that can arise if both prongs of the approach are not taken seriously or simultaneously. Population strategies are critical for reducing the overall incidence of homelessness and changing the population's overall risk exposure. With population prevention interventions, the challenges of targeting, signaling out particular groups for treatment, and queue jumping are removed. Population prevention interventions do not require any determination of eligibility, thus avoiding the introduction of additional levels of bureaucracy or incentivizing homelessness when ensuring access to scarce services and resources. Also, problems of "fairness" are mitigated.

However, to achieve the prevention of homelessness among people who are most vulnerable, high-risk strategies can help ensure these groups receive the supportive services they need to remain stably housed. This can be achieved by targeting both the institutions that have been associated with the creation and perpetuation of homelessness, as well as the individuals who have identifiable risk factors for homelessness. These high-risk strategies are most capable of targeting limited resources to the overrepresented subpopulations of the homeless who often require special services to maintain housing stability. However, even the most promising high-risk strategies are contingent on the availability of adequate affordable housing and income, which will require population-level approaches.

POPULATION STRATEGIES FOR PREVENTING HOMELESSNESS: EXAMPLES FROM THE LITERATURE

Population prevention strategies target the causes of homelessness that are ubiquitous in the population—lack of sufficient low-cost or affordable[4] housing and insufficient income—and for this reason show the most promise at reducing the overall incidence of homelessness in a population (i.e., preventing the onset of homelessness). The broad and wide-reaching goals of population approaches, however, make them more expensive, cumbersome and difficult to implement and evaluate. Reviews of homelessness prevention efforts have indicated that strategies which address these common causes have not been a policy or research priority, and therefore, few evidence-based interventions have been developed or evaluated [49, 51]. The limited literature offers three population-level strategies to address homelessness prevention: (1) strategies to increase the supply of low-cost housing through development, preservation or regulatory efforts; (2) strategies to increase the demand for housing through subsidized housing programs; and (3) strategies that address income support programs. Each will be discussed in turn.

Supply-Side Strategies

Advocates, researchers, and consumers alike have argued that increasing the supply of low-cost housing is the most appropriate way to prevent homelessness before it actually happens [9, 51, 59, 60]. This strategy holds the most promise for changing the structure of the housing market in a universal manner because it will increase affordable units available to the entire population of low and moderate-income households[5]. If the supply is increased, then the problem with queue jumping can be solved and the game of musical chairs avoided: more affordable units mean less competition among households for a scarce and limited resource.

Examples of such supply-side housing policies include local housing trust funds [61], the recently instituted National Housing Trust Fund, the federal Low Income Housing Tax Credit (LIHTC) program, the federal HOME program, and other local grants or low-interest loans for nonprofit organizations that build or rehabilitate low-cost rental housing. Katz and colleagues [62] review a number of these affordable housing programs. Despite increasingly widespread implementation of a variety of such strategies, no research has investigated their association with preventing homelessness. Reducing the regulatory barriers associated with the supply of low-cost housing could also lower the incidence of homelessness. For example, Raphael [63] shows a positive relationship between regulation and homelessness. This suggests that changes to local zoning and land use policies – with appropriate housing quality standards maintained – could prevent homelessness at a population level.

Demand-Side Strategies

In their review of homelessness prevention, Shinn, Baumohl, and Hopper [51] pointed to housing subsidies as an evidence-based method for preventing and ending homelessness among recipients. Such strategies increase the demand for low-cost rental housing by assisting households below certain income criteria with paying for housing costs. These subsidies can be project-based (e.g., public housing) or tenant-based (e.g., Housing Choice Voucher [HCV] or Section 8). Studies have shown that receipt of subsidized housing can prevent recurrent episodes of homelessness [64-

[4] Housing is considered affordable if a household pays no more than 30 percent of their income on housing costs.

[5] The term *households* is used when there is no relevant or clearly stated distinction between single adults or families as the household unit.

70] and allow families to avoid seeking shelter in the first place [71]. A New York City study found that receipt of housing subsidy was the only significant predictor of formerly homeless families staying housed [71]. A recent controlled experiment of HUD's Housing Choice Voucher program found a substantial reduction in homelessness among virtually all types of families who received a demonstration voucher, coupled with an increase in independent housing[6] and a decrease in doubled-up situations [64].[7] This suggests that housing vouchers eliminated much of the homelessness that families receiving welfare would have faced without the subsidy.

Recent housing market studies also contribute to the evidence of subsidies' effects on homelessness. Three econometric studies which modeled housing subsidy programs using empirical cross-sectional data all found evidence of reduced homelessness with the implementation of subsidies [72-74]. For example, by combining empirical data from the Survey of Income and Program Participation with the National Survey of Homeless Assistance Providers and Clients, Early [72] estimated that between 3.8-5.0 percent of households receiving subsidies would have been homeless in the absence of a housing subsidy.

Despite this encouraging evidence, the reality is that there is not enough federal funding to assist all households that need it. Research has shown that only one-quarter to one-third of families receiving public assistance, Supplemental Security Income or Temporary Assistance for Needy Families also receive any kind of housing assistance [75, 76]. Furthermore, while housing subsidies do allow poor people to compete in the housing market, they work efficiently to prevent homelessness only if the affordable housing stock is sufficiently expanded to incorporate the number of subsidies issued.

Income Support Strategies

A final population strategy is to target income support programs. It is theorized that more relaxed or inclusive eligibility requirements for these types of programs could prevent homelessness among those receiving assistance [51, 77-79]. Research carried out on the effect of the 1996 welfare reforms[8] on housing stability and homelessness suggests that receiving welfare payments could promote stability and prevent homelessness [80-82]. Research by Norris and colleagues [83] on Supplemental Security Income as a homeless prevention strategy among individuals with substance use disorders provides evidence for current safety net programs serving as de facto homeless prevention strategies.

[6] Independent housing refers to housing where individuals live in their own home or apartment without any on-site social or health-related services.

[7] The evaluation distinguished between two different categories of homelessness: (1) families living on the streets or in shelters at baseline, and (2) families who lived with or among friends, relatives, or others at baseline. The vouchers reduced homelessness in this second category from 18 percent to 12 percent, a statistically significant impact [64].

[8] Specifically, referring to the Personal Responsibility and Work Opportunity Reconciliation Act [PRWORA], passed in 1996, replaced the Aid to Families with Dependent Children [AFDC] program with the Temporary Assistance for Needy Families [TANF] block grants to states.

High-Risk Strategies for Preventing Homelessness: Examples from the Literature

Prevention strategies that target unique high-risk populations and the institutions and communities that serve them are an integral part of overall homelessness prevention programs and have been recommended by both researchers [49, 51] and advocates [59]. Many of these strategies have been implemented and evaluated to a much greater extent than population prevention strategies. As a result, the evidence base for some of the most innovative and effective high-risk prevention interventions is mounting [49, 84-86].

High-risk prevention strategies that address the prevention of first-time, recurrent, or chronic homelessness among vulnerable subpopulations include: (1) emergency prevention strategies that target people at imminent risk of eviction or homelessness; (2) systems prevention strategies that target the institutions that at-risk populations are most likely to come into contact with prior to becoming homeless, such as jails/prisons, health care facilities, the foster care system, or the military; and (3) housing and service-based strategies that target vulnerable subpopulations.

Emergency Prevention Strategies

Despite their limitations related to efficient targeting and sustainability of services, emergency prevention efforts do manage to help a small percentage of households that would have become homeless remain housed. These strategies generally include programs that provide short-term financial assistance; landlord-tenant mediation and legal services; rapid exit screening and rapid re-housing; and targeting prevention efforts in neighborhoods where a disproportionate number of people experience homelessness.

Several communities have implemented a combination of these services; however, few have been evaluated making it difficult to determine their reach and effectiveness. One recent evaluation of prevention efforts in Massachusetts demonstrated positive outcomes of short-term financial assistance programs: three Massachusetts homelessness prevention programs – the Homelessness Prevention Initiative, Residential Assistance to Families in Transition (RAFT) and RAFT Plus – found that between 63 and 91 percent of households served reported being stably housed at 12 month follow-up [84].

Another emergency prevention program that has been adequately evaluated was a landlord-tenant mediation strategy targeting tenants with mental illness, substance abuse or other co-occurring disorders [49]. Evaluators report that this Tenancy Preservation Program has preserved housing for up to 85 percent of those tenants facing eviction. This program's impact was further validated by comparing the housing outcomes of similar people with mental illness who were waitlisted but did not receive mediation services, indicating that the proportion of people who became homeless during follow-up was cut by at least one-third [49].

Rapid exit screening strategies ensure that people just entering shelter leave quickly and remain housed. In Hennepin County, Minnesota, families who seek shelter go through a screening process to assess housing barriers and to triage them into tailored prevention services. Evaluators of this program report that only 12 percent of families who

were rapidly exited from shelter returned to shelter within 12 months [49]. Working under a similar philosophy of rapid service provision, rapid re-housing efforts operate under the "housing first" philosophy: permanently house a homeless household quickly rather require it to go through a series of shelter and services steps that comprise a standard "continuum-of-care," which often left people in emergency and transitional shelters for months or years.

Finally, place-based prevention strategies target emergency prevention efforts in neighborhoods where a disproportionate number of people seeking shelter come from [87]. For example, the New York City HomeBase program has reported 93% of the 7,400 households served by the program over an 18-month pilot period did not enter a shelter [88]. An evaluation of the citywide program is underway.

Systems Prevention Strategies

Research has shown that many homeless and at-risk people move repeatedly through mainstream systems and institutions, such as jails and prisons, state psychiatric hospitals, drug treatment programs, foster care, and homeless shelters [89-91]. This link has encouraged the development of prevention strategies that target this "institutional circuit" which serves as de facto shelter in place of stable living situations [92]. The most widely cited way to target this circuit is through discharge planning efforts, now broadly referred to as "systems prevention" interventions.

The main goal of discharge planning in the context of homelessness prevention is to ensure that people who are transitioning out of an institution are not discharged into a homeless shelter, the street, or any other place not meant for human habitation, and that their placements are stable enough to prevent future homelessness. In 1994 the Interagency Council on Homelessness (ICH) identified inadequate discharge planning from mainstream systems as a significant factor contributing to homelessness among persons with mental illness, substance use, or co-occurring disorders [93]. Since then, systems prevention strategies to prevent chronic and recurrent homelessness have been a priority at the federal, state and local levels [59, 94]. These programs target people being discharged from jails, prisons, hospitals and other health care institutions, foster care, or the military.

However, there are few studies that evaluate such strategies. Shinn and colleagues [51] were skeptical of these high-risk strategies for preventing homelessness, stating that although concentrating efforts on improving discharge planning makes sense on logical grounds, empirical evidence of their efficacy is lacking, particularly in the long-term. A 2005 analysis of the evaluability of currently implemented discharge planning programs with respect to homelessness prevention [95] also came to similar conclusions.

Housing and Service-Based Strategies that Target High-Risk Subpopulations

There are additional housing and service-based strategies that target subpopulations with particular risk factors for homelessness. These strategies generally include supportive housing programs; supportive service interventions; targeted housing subsidies; and access to benefits programs. The unique situations of vulnerable subpopulations require special services to address their multiple and complex needs. With such heterogeneity among people experiencing homelessness, the programs these populations require are also varied. Not only are there variations in the meaning of services, there is no commonly accepted service template, making it difficult to determine what works best for which subpopulation.

Supportive housing—subsidized housing with on- or off-site supportive services attached—can contribute to the overall reduction in homelessness for high risk groups. In a review of supportive housing interventions for persons with mental illness, Rog [86] points out that the evidence base on supportive housing, while growing, is not robust. This is largely due to the methodological limitations of many studies, as well as to the lack of fidelity to the supportive housing model during implementation. Consequently, studies have been unable to distinguish which features of which housing model make the most significant difference in resident outcomes [86]. There is little evidence that *transitional* (i.e., time-limited subsidy) supportive housing programs prevent homelessness or improve housing stability [96-98]. There is stronger evidence that *permanent* (i.e., no time limit on subsidy) supportive housing improves residential stability [99-101] and reduces shelter use [102], even among chronically homeless adults with severe mental illness and substance use disorders [68, 96, 103-105]. Furthermore, there is evidence that low-demand housing (i.e., housing that is not contingent on sobriety or treatment adherence; as opposed to high-demand housing which is contingent on sobriety and treatment adherence) is effective at helping clients preserve tenancy [103, 105].

Supportive services can help individuals and families retain housing. However, there is limited empirical evidence or consensus around which services work best for which subpopulations. In some housing programs, standard case management is offered to clients, which has been found to improve residential stability [70, 106-108]. Other programs have employed one of two evidence-based service interventions: critical time intervention (CTI) [85, 109, 110] and assertive community treatment (ACT) [111-113]. Determining when and how to implement or adapt such services, and deciding which services are most appropriate for prevention goals, is an area that is in critical need of rigorous research.

Housing subsidies are a proven strategy for preventing homelessness [51]. Because subsidies that broadly serve poor and low-income individuals and families e.g., Section 8 or public housing) are so scarce, many targeted subsidy programs have emerged. These targeted subsidies are more likely to steer resources to those who would likely be homeless had they not received the subsidy. One such innovation in programming is a shallow rent subsidy program to prevent homelessness [114]. "Shallow" is used to distinguish these subsidies from traditional "deep" subsidies (e.g., Section 8). Such shallow subsidies provide limited payments based on household size and do not guarantee housing affordability per se, leaving its recipients subsidized, but rent burdened. Researchers report extremely favorable results from a quasi-experimental longitudinal evaluation of a shallow rent program for persons with HIV or AIDS,

indicating that 96 percent of the households who received shallow subsidies were still housed in a rental unit after two years of follow-up, compared to only 10 percent of those who were eligible for such subsidies but were not enrolled to receive them [114]. Expansion of such a strategy to the general low-income population would constitute a population-level approach.

With or without a housing subsidy, having an income is essential to maintaining housing. Removing barriers to obtaining income among high-risk subpopulations could prevent housing loss or homelessness. Programs such as the SSI/SSDI Outreach, Access and Recovery (SOAR) program help homeless people navigate the SSI/SSDI application process, with the goals of increasing overall application volume, increasing approval rates on initial determinations, and decreasing the time to initial decision [115]. A preliminary evaluation of 16 programs reported an average allowance rate on SSI applications (i.e., percent approved on initial application) of 62 percent and an average of 96 days to initial decision [116], as compared to the national success rate on all SSI applicants of 37 percent and a national average time to initial decision of 120 days [117].

FUTURE DIRECTIONS FOR CLINICAL PRACTICE, PROGRAM DEVELOPMENT, POLICY, AND RESEARCH

To end homelessness and mitigate the effects of the current U.S. affordable housing and economic crisis, current practice must expand from strategies that focus on managing and treating homeless individuals and families to strategies for preventing the occurrence of homelessness in the first place. This shift in priorities will fundamentally change the way services, programs, and systems operate. The adoption of the population/high-risk framework for prevention to inform program design, implementation and evaluation is critical to facilitating this shift because it recognizes that both targeted strategies to address the needs of subpopulations that are at highest risk of homelessness, and population strategies to address the fundamental causes of homelessness in the society in general, are needed to prevent homelessness and help people maintain stable housing.

FUTURE DIRECTIONS FOR PRACTICE AND PROGRAM DEVELOPMENT

Local programs should expand to include prevention activities. This will be difficult; but communities can, for example, apply for direct prevention funding under the Homelessness Prevention and Rapid Re-Housing Program of the 2008 American Recovery and Reinvestment Act or reallocate funds they currently receive through the federal Emergency Shelter Grant program to support a transition toward prevention. Several housing and service-based strategies (e.g., subsidized housing, supportive housing) have been found to be effective in preventing recurrent and chronic homelessness and should be adapted to various target populations and widely implemented. Transitions in people's lives are critical junctures for targeting prevention activities; these efforts should be directed to the various institutions associated with episodes of homelessness including jails/prisons, health care facilities, foster care, and the military.

Local communities can implement place-based prevention programs in neighborhoods that generate significant cases of homelessness. Coupled with services integration, such community-wide strategies for preventing homelessness should include emergency prevention strategies, such as rapid re-housing. Mainstream social service agencies can strategize ways to prevent homelessness and evictions using federal and local funds that will relieve some of the burden on the homeless service delivery system. Finally, programs must recognize that people experiencing homelessness are not a homogenous population. Vulnerable subpopulations have multiple and complex needs, and programs must tailor their services to meet the needs of these subpopulations.

FUTURE DIRECTIONS FOR POLICY AND FUNDING PRIORITIES

Policy makers can make an important impact on homeless prevention efforts by supporting affordable housing and income generating policies. Supporting such population prevention strategies should not compromise funding for high-risk strategies, but rather complement them. Policy priorities should include:

- Expanding mainstream housing opportunities, such as the Housing Choice Voucher program;
- Relaxing limits on mainstream funding that can be used for homeless prevention efforts;
- Reducing barriers or creating more inclusive eligibility requirements for income support programs;
- Raising revenues or fees for housing trust funds that promise new-build affordable housing for low-income households;
- Reducing regulatory barriers in local jurisdictions and ensure that they permit the building of low-cost or affordable housing;
- Exploring shallow rent subsidy programs that could stretch scarce subsidy dollars;
- Expanding permanent supportive housing programs;
- Ensuring that flexible wrap-around services are funded for at-risk and homeless households;
- Expand funding for rigorous evaluation of prevention programs.

FUTURE DIRECTIONS FOR RESEARCH

Research on preventing homelessness is in a nascent stage. Prevention programs and policies that have already been implemented must be evaluated, if not by using randomly controlled studies, then by employing rigorous quasi-experimental designs whenever possible. Longitudinal studies that follow people over time are feasible and will help demonstrate the effectiveness of housing and prevention interventions. Evaluating existing emergency and systems prevention programs would be a good place to start because many state and local ten-year plans to end homelessness are implementing such strategies. Research priorities should include:

- Evaluating programs across sites, finding ways to improve methods to compare programs that may have

similar approaches but implement interventions differently;

- Using more rigorous experimental or quasi-experimental design studies, including longitudinal analyses;
- Employing multilevel studies that investigate factors at both the population and individual levels;
- Identifying what types of individuals and families in what types of housing markets need what types of housing subsidies and supportive services;
- Exploring the effectiveness of short-term or shallow rental assistance as a prevention tool, especially for families;
- Including housing status as a variable in non-housing focused studies or evaluations;
- Evaluating different supportive housing models for their effectiveness among various high-risk subpopulations;
- Conducting cost analyses of mainstream benefit programs and homeless prevention programs.

SUMMARY

The adoption of the population/high-risk framework can effectively guide the design, funding, implementation and evaluation of homelessness prevention efforts because it addresses the needs of individuals and subpopulations most vulnerable to homelessness, while recognizing that a modification in the overall context is also necessary. Population strategies, which remove problems with inefficiency of targeting, stigmatization, and queue jumping, have the greatest potential to reduce the overall incidence and prevalence of homelessness. High-risk strategies that address the prevention paradox associated with population-level strategies, and show promise in preventing recurrent or chronic homelessness among vulnerable subpopulations, are also critical. Reductions in homelessness as a result of targeted, high-risk approaches alone are achievable, but will be short-lived unless affordable housing and income are addressed at the population level. Simultaneous implementation and evaluation of both population and high-risk prevention strategies will bring us closer to reaching our goal of ending homelessness.

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Received: August 20, 2009 Revised: September 20, 2009 Accepted: September 28, 2009

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