



Incidence and Prevalence of Homeless and Runaway Youth

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1. INTRODUCTION

1.1 Study Background and Goals

Homeless, runaway, and throwaway youth (HRTY) constitute a high-risk population that urgently requires the attention of policy makers (Robertson, 1991; Russell, 1995; Solarz, 1988). Although little is known about this population, studies suggest that compared with their domiciled peers, HRTY are at significantly greater risk for medical problems and health-compromising behaviors that include HIV and other sexually transmitted and infectious diseases; substance abuse; psychotic behavior, depression, and suicide attempts; prostitution; and trauma (Russell, 1995; Greene, Ringwalt, Kelly, Iachan, & Cohen, 1995; Greenblatt & Robertson, 1993; Kipke et al., 1995; Robertson, 1989; Robertson et al., 1989; Rotheram-Borus et al., 1992; Sherman, 1992; Yates et al., 1988; Greene et al., 1999; Greene & Ringwalt, 1996). Furthermore, service providers report that the population appears to be increasing in size, with a trend toward clients who are more troubled and have multiple problems (Slesnick et al., 2000)

To plan programs and interventions for these young people, public health professionals and social workers need accurate information on the size and characteristics of the HRTY population. However, there is little empirical evidence about the prevalence or incidence of homelessness or of becoming a runaway or a throwaway, largely because of the challenges inherent in studying this population: contradictory definitions of what constitutes homeless, runaway, and throwaway experiences; an absence of standardized methodology for sampling HRTY; and an over-reliance on data from shelters and agencies. Such challenges likely lead to inaccurate conclusions about the size and characteristics of the population (Robertson, 1991; Russell, 1995; Greene et al., 1995; Robertson et al., 1989; Yates et al., 1988; Burt, 1992; Culhane et al., 1994; Ringwalt et al., 1998). Available estimates of the number of HRTY are highly problematic, and the actual numbers remain unknown. The number of the nation's youth who run away from home, are forced to leave their home, or who experience homelessness in the course of a year may be well over one million (Ringwalt, Greene, Robertson, McPheeters, 1998; U.S. Department of Justice, 2002). Despite their large numbers, HRTY are an understudied and undercounted population. Carefully collected data on this population are rare and findings can be inconsistent, largely because sample sizes tend to be small. The result is an incomplete understanding of the characteristics, lifestyles, problems, and needs of homeless youth.

Estimating the size of a mobile and changing HRTY population is clearly difficult (Link et al., 1995). Most methods for developing such estimates are problematic for many reasons (Robertson, 1991; Burt, 1992; Link et al., 1995; US GAO, 1989). HRTY are largely a "hidden" population because of their high residential mobility, diffusion throughout communities, and movement into and out of domiciles, public institutions, and the streets. Also, many HRTY

avoid contact with shelters, medical services, and the police—service providers who might otherwise be able to suggest their numbers (Robertson, 1991; Horn, 1990; Burt, 1992; Robertson & Clark, 1995). They also tend to congregate in locations inaccessible to traditional survey methodologies (e.g., on the streets or in abandoned buildings) and are often visually indistinguishable from youth in general, are reluctant to admit to homelessness or being runaway, and avoid interviewers whom they may mistake for victimizers or representatives of the police or social services. Nonetheless, existing evidence does suggest that HRTY constitute a growing population (Hagedorn & Ekegren, 2002; Rew, 2002).

Estimates of HRTY populations are generally based on point prevalence methods (Greene et al., 1995; Burt, 1992; Culhane, 1994; Ringwalt et al., 1998; Dennis et al., 1999), which estimate the number and characteristics of individuals who are homeless or runaway at a given point in time, such as a typical day. Although useful as guides to daily demand for services, such estimates tend to be biased toward describing individuals with longer periods of homelessness (Rossi, 1994). Because homelessness and runaway experiences among youth is much more episodic than chronic (Robertson, 1991; Institute of Medicine, 1977), estimates of average duration are biased upward, and estimates of annual prevalence and incidence are biased downward (Link et al., 1994). Furthermore, estimates derived from survey data, especially data based on shelter or other service populations; tend to underestimate the extent of the problem because they undercount “hidden” HRTY (Culhane et al., 1994; Link et al., 1994; Applebaum, 1986).

In an effort to address these and other issues as part of developing options for estimating the incidence and prevalence of homelessness and running away among adolescents, the ACF/ASPE has contracted with RTI to conduct a project entitled “Incidence and Prevalence of Homeless and Runaway Youth” under Contract No. 282-98-0022.

The overall purpose of this study is to develop options for estimating the incidence and prevalence of runaway, throwaway, homeless, and street experiences among youth. Specific issues that RTI was asked to address include the following:

- What strategies can be employed to estimate the incidence and prevalence of homelessness among adolescent youth? What are the definitional issues that need to be taken into account? What would be effective strategies to determine the frequency, duration, and other details of each type of experience such as cause, place of temporary residence, services needed and services accessed? To what extent is it feasible to measure key risk factors in the context of estimating incidence and prevalence?
- What strategies may be employed to determine variation in the prevalence of homelessness for youth by gender, race, family socioeconomic status, family structure, or residence in an urban, suburban, or rural area?

- What are the strengths and weaknesses of each of the potential sampling methods? What statistical techniques can be adopted to compensate for weaknesses inherent in the different survey methodologies?
- What existing surveys could be used as a basis for additional work to investigate the incidence and prevalence of homeless youths? What would be the relative strengths and weakness of surveys of households, juvenile facilities, returned runaways, police records, or social welfare professionals specializing in adolescents?
- How extensive in scope and intensive in time and effort would various approaches be? Have there been any reliable efforts in the past that could be replicated? What were the results of previous efforts?

1.2 Organization of the Report

This report presents the results of our research initiatives. This document contains three substantive chapters:

- **Chapter 2: Discussion of Key Issues.** This chapter presents a discussion of each of the key issues in conducting incidence and prevalence studies of runaway and homeless youth. Issues covered include defining the target population; types of estimates, designs, sampling, and data collection methodology; assessing precision; and identifying types of questions that would need to be asked of respondents.
- **Chapter 3: Key Decision Factors.** This section provides a discussion of options for estimating the prevalence and incidence of runaway and homeless youth, along with a matrix of design options.
- **Chapter 4: Selected Design Options.** This section provides a more detailed discussion of four selected design options that vary by inclusiveness, precision, and cost. RTI will also provide “ballpark” cost estimates for carrying out each of the designs.

2. DISCUSSION OF KEY ISSUES

This chapter presents a discussion of each of the key methodological issues in conducting incidence and prevalence studies of runaway and homeless youth. Issues covered include defining the target population, types of estimates, types of designs, types of sampling, types of data collection methodology, assessing precision, and identifying types of questions that would need to be asked of respondents.

Note, however, that *the* most important step in designing research is to clearly articulate the primary and secondary goals of the study, the intended use of the data, and the level of funding available to conduct such a study. These guiding principles will dictate the overall design of a study.

2.1 Definitional Issues

Various terms have been used to describe youth who live unaccompanied by their families: runaway, homeless, throwaway, pushouts, street kids, and “squeegee kids” (i.e., kids who wash car windows for income). The definitions of these terms are nebulous and their boundaries indistinct (Adams, Gullotta, & Clancy, 1985; Low & Cranshaw, 1985; Shane, 1991). This lack of definitional clarity has a direct impact on the ability to estimate numbers of such youth. Without clear definitions, it is impossible to determine which—or whether all—youth in these circumstances have been counted.

This section summarizes definitions that researchers have used to categorize unaccompanied youth. A spreadsheet displaying exact definitions used in recently published studies (i.e., since 1999) is provided in Appendix A.

2.1.1 Runaway Experiences

The term *runaway* is generally the most consistently defined term used to categorize unaccompanied youth: usually defined as those who leave home of their own volition without the consent of their caregiver. Two recent examples are the National Incidence Studies of Missing, Abducted, Runaway, and Thrownaway Children (NISMART II) and the Youth with Runaway, Throwaway and Homeless Experiences Study conducted for the Administration for Children, Youth, and Families (ACYF). The NISMART II study defined a runaway youth as one who leaves home without permission and stays away overnight; a child aged 14 or younger (or older and mentally incompetent) who is away from home, chooses not to come home when expected to, and stays away overnight; or a child aged 15 or older who is away from home, chooses not to come home, and stays away two nights (U.S. Department of Justice, 2002). The

ACYF study defined runaways as those who spent at least one night away from home before the age of 18 when

- they left home even though their parent or someone who helped raise them did not give them permission to go or want them to go;
- they left home with permission but did not return home when expected; or
- they left an institutional setting without permission and stayed away overnight (Greene et al., 1995).

Similar definitions have been used in many other studies (Kurtz, Kurtz, & Jarvis, 1991; Windle, 1989; Ennett, Bailey, & Federman, 1999).

2.1.2 Throwaway Experiences

The premise behind definitions of throwaway youth is that the parents of such youth have induced them to leave against their will and made no effort to find them once they left home (Adams, Gullotta, & Clancy, 1985; Finkelhor et al., 1990; Hier, Korboot, & Schweitzer, 1990). Again the NISMART II and ACYF studies provide recent examples. The NISMART II study defined a throwaway youth as one who is (1) asked or told to leave home by a parent or other household adult, no adequate alternative care is arranged for the child by a household adult, and the child is out of the house overnight; or (2) away from home and prevented from returning by a parent or other household adult, no adequate alternative care is arranged for the child by a household adult, and the child is out of the house overnight (U.S. Department of Justice, 2002). In the ACYF study, Greene et al. (1995) defined youth with throwaway experiences as those who spent at least one night living away from home before they turned 18:

- when their parent or someone who helped raise them knew they were leaving but did not care whether they left or not or
- because they were told to leave.

2.1.3 Homeless Experiences

Homeless youth are usually defined as those who are unaccompanied by their families and lack stable housing, such as those living on the street, in shelters, or in unstable residences with friends or acquaintances (e.g., Kipke et al., 1997). The U.S. government defines a homeless youth as an individual between the ages of 16 and 21 for whom it is not possible to live in a safe environment with a relative and who has no other safe alternative living arrangement (Missing Exploited, and Runaway Children Protection Act, P.L. 106-71, Section 387, 2000). To operationalize broad definitions such as this, researchers have sought to identify the specific high-risk locations where homeless youth might be found. Typical classification schemes

categorize homeless youth as those who spend the night in a “formal [youth or adult] shelter,” an “improvised shelter” (e.g., abandoned buildings, vehicles, public places, or other unconventional dwelling places), or “on the streets” (Ensign, 2000; Clatts & Davis, 1999; McCarthy & Hagan, 1992; Robertson, Koegel, & Ferguson, 1989). Other classifications also include youth who reported spending the night walking the streets, “hanging out” in all-night restaurants and fast-food shops, and sleeping under bridges, in bus and train stations, in “squats” (e.g., abandoned buildings), in cars, on rooftops, in parks, and in hotels (Greene et al., 1995; McCarthy & Hagan, 1992).

Some studies have added precise time dimensions to definitional criteria. For example, Noell et al. (2001) included youth who had not spent more than 1 month with their parents or guardians in the past 6 months and/or those who were not living with parents or guardians (even temporarily) in the past 30 days. Lifson & Halcon (2001) characterized homeless youth as those who lacked shelter for at least 2 weeks in the past year.

2.1.4 Street Experiences

Policy makers and researchers have recently begun to use terms such as “street youth,” “street involved youth,” or “street active youth” to refer to those who reside in high-risk, nontraditional locations, such as under bridges or in squats. The U.S. government defines street youth as those who run away or who are indefinitely or intermittently homeless, and spend a significant amount of time on the street or in other areas that increase their risk for sexual abuse, sexual exploitation, prostitution, or drug abuse (Missing Exploited, and Runaway Children Protection Act, P.L. 106-71, Section 387, 2000). In other studies, definitions of street youth relate to the types of places in which they sought shelter. For example, Moon et al. (2001) defined street youth as those who stayed on the street, in a park or a car, or another transient domicile for at least 2 days in the past 30 days. Still, other definitions of street youth center on the types of activities they engage in, such as involvement in the sex or drug trade or panhandling, in conjunction with a lack of stable housing (Auerswald & Eyre, 2002).

2.1.5 Definitional Overlap

Increasingly the distinctions between the various terms and definitions seem arbitrary. Some researchers have concluded that homeless youth should be considered a concept that is interchangeable with runaway and throwaway youth. Efforts to place youth in mutually exclusive categories (e.g., “runaway,” “throwaway,” or “homeless”) without examining their behaviors within the full range of youth experiences are increasingly seen as limited.

The issue of what constitutes—and differentiates—the various domains of runaway, throwaway, and homeless experiences is sometimes difficult to articulate. Also of potential confusion is the degree to which these domains overlap conceptually. The first two of these

concepts describe the conditions under which youth *leave* home, and whether they depart voluntarily or under duress; the third concerns where the youth who has *left* home spends the night. For example, some youth may be characterized as both runaway and throwaway. That is, they may have left home without permission—but after receiving explicit or implicit messages from their family that they were unwelcome. On the other hand, some youth may be homeless but neither runaway nor throwaway. For example, they may spend the night without adult supervision and in locations that leave them vulnerable either to the elements or to exploitation, but because their family disintegrated around them, they may have had no family to leave (either voluntarily or otherwise).

2.2 Types of Estimates

Two key types of population estimates are used to measure the frequency of the occurrence of certain behaviors or outcomes:

1. Prevalence – defined as the *total* number of cases of an outcome in a population group as of a specified time interval.
2. Incidence - defined as the number of *new* cases of an outcome in population group within a specified time interval.

Prevalence and incidence estimates can provide important and unique information about a population of interest. Research questions specific to a given study dictate the selection of the appropriate population estimate. Specifically, if the purpose of the research is to determine the *number* of HRTY needing services at a given time and to, thereby, determine levels of funding, then prevalence estimates would be of most use because they would provide an estimate of the total number of HRTY during a given time period. If the purpose of the research is to determine *risk factors* for becoming homeless or running away, and thereby, plan/evaluate intervention programs, an incidence study would be of most use. An incidence study would estimate the probability of running away or becoming homeless during a specific time period and would allow investigators to determine whether the probability of becoming homeless or runaway varies in different populations or in relation to suspected etiologic factors (Dorn, 1951).

In addition, two different measures can be used to estimate prevalence and incidence: point and period estimates. Point estimates are defined as the number of HRTY *at a given point of time*, such as on a particular day or week. Period estimates are defined as the number of HRTY *at any time during a specified period*, such as in the past month or year.

Many existing estimates of homeless populations are based on point estimates (Burt & Cohen, 1989; U.S. Bureau of Census, 1992). Although useful as guides to daily demand for services, such estimates tend to be biased toward describing individuals with longer periods of

homelessness (Rossi, 1994). Homelessness, runaway, and throwaway experiences among youth is much more episodic than chronic (Robertson, 1991; Institute of Medicine, 1977), meaning that youth tend to cycle in and out of the population rather than remaining in it for long periods of time. Thus, when point estimates are used to measure the size of the HRTY population, estimates of average duration are biased upward, and estimates of annual prevalence and incidence are biased downward (Link et al., 1994).

Period estimates of the number and characteristics of HRTY are also available (Ringwalt et al., 1998; Link et al., 1994). Period prevalence estimates are particularly important for planning purposes because they are more likely to include individuals who experience short-term episodes of homelessness (Burt, 1992; Rossi, 1994).

2.3 Types of Designs

Two commonly used study designs are the *cross-sectional* and *prospective* design. In cross-sectional studies, respondents are interviewed at *one point* in time, and are asked about a variety of behaviors or risk factors (e.g., predictor variables) hypothesized to be associated with a particular outcome, and the outcome itself is measured. In a prospective study (also called a cohort or longitudinal study), respondents are interviewed *multiple times* to monitor the development of outcomes hypothesized to be related to particular predictor variables.

The type of estimate (e.g., prevalence or incidence) deemed appropriate for a given study drives the decision to use a cross-sectional or prospective study design. In general, cross-sectional studies are better suited for estimating the prevalence because data are collected once; thus temporal changes in predictor or outcome variables cannot be measured. To assess the prevalence of HRTY, respondents could be asked if they are currently homeless, runaway, or throwaway, as well as about factors hypothesized to be associated with these outcomes. It is also possible to gather trend data using repeated cross-sectional surveys, with data from each data collection wave regarded as comparable because the same population is studied during each time period. However, because respondents from survey-to-survey will most certainly vary, data can be reported only at the aggregate level. Thus, the etiology of particular outcomes or causal relationships between dependent and independent variables cannot be evaluated.

Although a rigorous incidence rate cannot be generated from cross-sectional data, recency of particular events or occurrences can be determined. For example, respondents could be asked if they became homeless in the past month, and whether this is their first homeless experience. In this way, one could determine what proportion of the population is experiencing homelessness for the first time.

Prospective designs, in contrast, are better suited for incidence studies because the occurrence of an outcome can be monitored repeatedly within a specified time interval. For a prospective study of HRTY, a defined group of respondents would be asked about their homeless, runaway, or throwaway experiences as well as questions pertaining to factors known or postulated to be associated with this outcome at Time 1. During follow-up interviews (Time 2, etc.), these same respondents would be asked similar questions to determine incident “cases” of homeless, runaway, or throwaway experiences, and how factors identified at Time 1 are associated with these experiences at Time 2.

Both cross-sectional and prospective study designs have inherent advantages and disadvantages (see *Table 2.1*). The major advantages of cross-sectional studies are that they are less expensive and time-consuming. A significant limitation, however, is that temporality (and thus, causality) between predictor and outcome variables cannot be established. On the other hand, one of the main advantages of prospective studies is that temporal associations between predictor and outcome variables can be enumerated as well as the direction of the association (risk vs. protective). A major limitation of prospective designs is that they are costly to conduct. It is extremely expensive to carry out multiple waves of data collection with any population, but the costs of tracking the HRTY population at a national level would be high. A second disadvantage is that the number of respondents at each successive wave of data collection generally decreases due to attrition. Given the transient nature of HRTY, the attrition rate in a prospective study would likely be very high.

Table 2.1 Summary of the Advantages and Disadvantages of Cross-Sectional and Prospective Study Designs

Study Type	Advantages	Disadvantages
Cross-sectional	<ul style="list-style-type: none"> • Inexpensive • Easy to conduct • Time efficient 	<ul style="list-style-type: none"> • Potential for recall bias • Cannot establish temporality or causality
Prospective	<ul style="list-style-type: none"> • Temporality, and thus causality, can be determined • The potential for recall bias is minimized • Recurrent outcomes can be measured • Multiple outcomes and mediating pathways can be studied 	<ul style="list-style-type: none"> • Expensive • Time consuming • Participant attrition

2.4 Sampling Frames

Another challenge to obtaining accurate estimates of the HRTY population is that they can be found in a multitude of locations (e.g., shelters, streets, and the homes to which they have

returned). Therefore, determining and developing sampling frames is extremely difficult. In fact, no single sampling frame would provide complete coverage of the HRTY population. Several potential sampling frames are described below, along with advantages and disadvantages associated with each. A summary table of this information is provided in *Table 2.2*.

2.4.1 Service Providers

Service providers are one potential source for obtaining estimates of the size of the HRTY population. Service providers have an intimate knowledge of the number of HRTY they serve each year, and the kinds of problems these youth are facing. Service providers can either be surveyed to obtain information on the number of HRTY served, and/or their administrative data can be abstracted.

In *NISMART I and II*, service providers were tapped to provide two different types of information. First, secondary analysis of data from the National Incidence Study (NIS) of Child Abuse and Neglect was conducted to estimate the number of throwaway youth. The NIS study surveyed a nationally representative sample of local child protective services, police, juvenile court and probation, social services, welfare, and medical professionals to identify cases of child abuse. The neglect cases included several types of mistreatment by parents, such as refusing to take custody of their children, abandoning their children, or forcing children out of the home without making alternate plans for supervision. NISMART researchers analyzed this information to obtain estimates of the number of throwaway children. Second, researchers surveyed youth residential facilities and institutions (e.g., group homes, shelters, and other juvenile custody facilities). In NISMART I, Finkelhor et al. (1990) estimated from service providers that 14,500 youth were identified as throwaways. For information on the NISMART residential survey, please see Section 2.4.5.

Similar frames have been used in studies estimating the number of homeless adults and families. Metraux et al. (2001) used data collected from administrative records of providers of homeless services (e.g., shelters or transitional housing beds) to estimate the size of the homeless population. These data were collected through management information systems, and organized into a standardized format that enabled cross-site comparisons. The data included the total number of unduplicated individuals and families (i.e., one or more adults and children) using the service, and the bed-nights used in 1998.

The main advantage to contacting service providers for information about HRTY is that the surveys can be conducted quickly and in a cost-effective manner because many of the difficulties inherent in contacting HRTY themselves can be avoided. Although a sample frame of those who provide services to HRTY does not currently exist, such a list could be generated by contacting government agencies, runaway switchboards (hotlines), and others who come in

Table 2.2 Summary of the Advantages and Disadvantages of Different Types of Sampling Frames

Frame	Example Study(ies)	Advantages	Disadvantages
Service provider	<ul style="list-style-type: none"> • National Incidence Studies of Missing, Abducted, Runaway, and Thrownaway Children (NISMART) • U.S. Department of Housing and Urban Development (1984) • Metraux et al. (2001) 	<ul style="list-style-type: none"> • Inexpensive • Can be conducted on a repeated basis to update estimate • Can be conducted over different geographical areas • Does not require youth self-report • Can provide unduplicated counts of service use if unique identifiers are included 	<ul style="list-style-type: none"> • Population limited to RTHY who use the service(s) covered in the database • Not possible to develop a complete sampling frame • Enumeration is dependent on characteristics of the local service systems (e.g., time limits on shelter use, capacity limitations) • Risks double-counting individuals unless a unique identifier is included
Household surveys	<ul style="list-style-type: none"> • Greene, Ringwalt, Kelly, Iachan, & Cohen (1995) • National Incidence Studies of Missing, Abducted, Runaway, and Thrownaway Children (NISMART) • National Statistical Survey on Runaway Youth (Opinion Research Center, 1976) • Phelan & Link (1999) • Link, Susser, Stueve, Phelan, Moore, & Struening (1994) 	<ul style="list-style-type: none"> • Convenient • Can be nationally representative • Enable examination of how people enter and exit homelessness • Permit inclusion of individuals with short durations of homelessness • If done by telephone, may get more candid answers than in-person interviews • Population-based • Enable statistical extrapolation to larger populations 	<ul style="list-style-type: none"> • Retrospective • Self-report of youth or parents • If talking to youth, only includes those that have returned home • If talking to adults, issues of veracity and accuracy must be considered • Do not include individuals who are still homeless, or those who have run away from group quarters or residential facilities • If conducted by telephone, households without phones are not represented • Not informative about needs or trends in service use

(continued)

Table 2.2 (continued)

Frame	Example Study(ies)	Advantages	Disadvantages
Service users		<ul style="list-style-type: none"> • Relatively easy to develop sampling frame • Convenient • Can be nationally representative 	<ul style="list-style-type: none"> • Self-report of youth • Includes only those using services (excludes youth who have returned home or who are on the streets) • In-person interviews are relatively expensive
Street locations		<ul style="list-style-type: none"> • Provide estimates of the population that are at greatest risk and in greatest need • Can be nationally representative 	<ul style="list-style-type: none"> • Difficult to locate and identify street youth • Expensive • Street youth may be less likely to participate

contact with HRTY. Once the frame was constructed, a representative sample could be drawn to represent all service providers.

Four major disadvantages are associated with surveying service providers. First, it would be almost impossible to eliminate duplication. Some youth may seek services from a number of different service providers and possibly in multiple geographic locations. In addition, some youth may use the same service provider but under different names. Therefore, estimates across service sites and even within a service site could include multiple enumeration of youth. Second, some HRTY do not seek services, so this segment of the population would be omitted from the count. Third, since youth who use services might differ from those who do not, any data gathered on associated characteristics of youth might be systematically biased toward youth seeking services. Finally, although agencies specifically charged with serving HRTY likely do keep extensive records on the number of youth served, other agencies likely do not. HRTY who seek services only from those other agencies would be excluded from estimates.

2.4.2 Household Samples

Although it might seem contradictory, another potential sampling frame is households. In a household survey, researchers could determine the number of adolescents who are

- away from home at the time of the interview;
- currently at home who had previous homeless, runaway, or throwaway experiences; or
- who are not a member of the host family but are residing in the household because they are homeless or had run away or were thrown out of their own home.

In household samples, sometimes the adolescents themselves are the survey respondents, and in some cases adult caretakers are asked about the adolescents' behaviors. These types of surveys can be conducted either by telephone or in person.

One recent attempt to estimate the number of runaway and homeless youth used this type of approach. Ringwalt et al. (1998) conducted secondary analysis of data from the Youth Risk Behavior Survey (YRBS), sponsored by the Centers for Disease Control and Prevention (CDC). In the YRBS survey, personal, audio taped interviews were conducted in the year following October 1992 with a representative household sample of 6,496 adolescents aged 12 to 17. Altogether 8% of the youth reported that within the past 12 months they had spent at least one night in one of the following locations: a youth or adult shelter (3%), a public place (2%), an abandoned building (1%), outside (2%), underground (<1%), or with a stranger (1%). Disaggregation of results by gender revealed that males were much more likely than females to report homeless episodes.

Another major study to estimate the number of runaway youth, NISMART, also used this methodology. A household survey was conducted to enumerate the number of “missing” youth in the United States (Finkelhor et al., 1990). Interviews were conducted with caretakers about the “missing” experiences of youth in their households. The caretakers were asked screening questions to determine whether any children in their households fit the “missing” categories used in the study. They also were asked about basic demographic information and about their respective family situations. The NISMART I survey consisted of a telephone survey of 10,367 households concerning 20,138 children; it estimated that 446,700 youth had run away from households. In NISMART II, the sample size has been increased to 16,000 households concerning 30,000 children (see Section 2.4.6).

Other studies have used telephone surveys to conduct household research. The Justice Department conducted telephone surveys with 10,367 households in 1988/1989. Findings indicate that an estimated 500,000 youth under age 18 become runaways or throwaways each year (Barden, 1990). The National Opinion Research Center conducted a study of a national sample of households in the mid-1970s and estimated that 519,000 to 635,000 youth ran away from home in 1975 (Brennan, Huizinga, & Elliot, 1979).

Telephone surveys have also been used to estimate the prevalence of homeless adults. Link et al. (1994) used a random-digit dialing technique to contact more than 1,500 adults about their past experiences with homelessness. Respondents were asked whether they ever had been homeless. Those who answered affirmatively were asked about the lifetime duration of their homelessness, whether they were homeless in the past 5 years (i.e., 1985 to 1990), and where they slept while they were homeless (e.g., outside, in a shelter, or at a friend’s home).

Using household samples has several advantages. First, a nationally representative sample of homes can be determined. Because the sample can be drawn in a way that enables statistical extrapolation, these population surveys potentially are the best way to determine incidence and prevalence. Second, the sample is population based (as opposed to service based), so it can generate estimates that go beyond the official counts supplied by shelters or clinics. It includes individuals who have experienced short durations of being away from home (as have the majority of HRTY), who are less likely to be sampled during their homelessness episode. Because some respondents are no longer homeless, it enables examination of how people enter and exit episodes of homelessness.

Despite these advantages, sampling from households poses serious limitations that must be considered. If the adult caregiver of an HRTY is the respondent for the survey, the limitations relate to the caregiver’s candor. Adult caretakers may not be completely knowledgeable or truthful about the child’s behavior or motivations, especially in the case of throwaway children whom the adult has abandoned or has asked to leave the home. Specifically, parents may not

admit that they threw their child out of the home. Household studies in which the youth themselves are the respondents also have limitations. First, the youth would have to have returned home to be interviewed, such youth are a self-selected group that likely will not be representative of the entire population of HRTY. For example, they may be less likely to have experienced long episodes of being away from home, and they may have a less negative home environment than HRTY who do not return. In addition, the report about the HRT episode is a retrospective self-report, leaving it open to mistakes and untruths.

Perhaps most important, household samples exclude critical populations. For example, households without telephones are not included in telephone surveys, and although this represents a small proportion of the U.S. household population, it is important that they not be summarily excluded from studies to enumerate HRTY. In addition, in a household survey, youth who have run away from residential facilities (such as juvenile detention centers or mental institutions) would not be accounted for. Because these youth are more likely to experience homeless episodes than those living in a conventional household, an important segment of the HRTY population may be missed by using a household sample.

2.4.3 Service Users

Another potential sampling frame for estimating the number of HRTY is obtaining information from youth who use services such as homeless shelters, soup kitchens, and health clinics. Because it is widely recognized that many HRTY do not utilize such services, a proportion of the population would be excluded from this sample. In addition, a survey of service users would exclude youth who have had previous runaway, throwaway, or homeless experiences but have returned home. For these reasons, estimates based solely on the service using population would be artificially low. Another limitation of sampling from the service population is that it generally accesses chronic (as opposed to episodic) instances of HRTY; most episodes of short duration (such as youth who run away to a friend's house for a few days) do not involve the use of services. As a result, use of this sampling frame would tend to overestimate the average duration of an episode of homelessness. To date, the service user population has not been used as a sole sampling frame in studies to determine the incidence or prevalence of HRTY, but it sometimes is included as a component of a larger study measuring incidence/prevalence. Because the service population is perhaps the most convenient way to sample HRTY, it often is used in studies of characteristics or risk factors of HRTY.

2.4.4 Street Locations

Another sampling frame to consider is street locations where HRTY are likely to congregate and spend much of their time. Likely street locations include bus stations, train stations, prostitution strolls, hustler bars, abandoned buildings, and public parks. This approach poses considerable challenges, however. It can be very difficult to locate street youth and to

identify them as HRTY. The number of potential locations makes data collection difficult and potentially expensive. Street youth may be suspicious of adults and officials, and therefore less likely to participate in data collection. In addition, many HRTY never have street experiences (Greene, Ennett, & Ringwalt, 1999); thus an overall estimate based solely on a street sample would not provide complete coverage of the HRTY population. Anecdotal evidence also suggests that some youth pose as runaways, though they may have safe and stable homes. Research studies are needed to determine how widespread this phenomenon is before its impact on enumerating the runaway population can be elucidated. For these reasons, the street population has not previously been used as a sampling frame in studies determining the incidence or prevalence of HRTY; however, it is often used in studies examining the characteristics or risk factors of HRTY.

2.4.5 Residential Facilities

Many youth at risk for entering the HRTY population come from institutional settings, such as group foster homes, mental institutions, or detention centers. These youth are important to consider when developing a sampling frame because they are more likely to have experienced homelessness than youth in the general population. In the NISMART studies, researchers sampled residential facilities and interviewed staff about youth who had run away during the preceding year. In NISMART I, Finkelhor et al. (1990) estimated that 12,800 youth ran away from residential facilities in the year prior to the survey; for estimates from NISMART II, please see Section 2.4.6.

Three main challenges are associated with using residential facilities as a sampling frame for HRTY. First, because there is no complete listing of juvenile residential facilities in the United States, it is difficult or impossible to obtain a true national sample. Second, qualifying youth may not be identified within the system as homeless, runaway, or throwaway. Third, facility administration would probably be very reluctant to allow interviews to be conducted in these facilities. Finally, some facilities are quite large, and institution officials may not know the youth well enough to provide data of optimal quality.

2.4.6 Multiframe, Unified Estimates

To date, only one study has attempted to develop unified estimates of the prevalence of runaway and throwaway youth from multiple sampling frames. The NISMART studies have combined estimates from household surveys of adults, household surveys of youth, and surveys of residential facilities. NISMART II combined data from three different surveys to obtain overall estimates of runaway or throwaway youth: the National Household Survey of Adult Caretakers, the National Household Survey of Youth, and the Juvenile Facilities Study (U.S. Department of Justice, 2002). Adults participating in the caretaker survey were asked a series of screening questions to determine if the identified youth experienced a runaway or throwaway

episode. If they answered any of these questions affirmatively, adults and youth were eligible to participate in an in-depth follow-up interview to explore these episodes further. In the third study, juvenile facilities, such as group homes and youth detention centers, were surveyed to obtain runaway or throwaway information about youth in their charge. Combined results from NISMART II indicate that an estimated 1.7 million youth had a runaway or throwaway experience in 1999.

2.5 Data Collection Modes

Selecting a data collection mode is also an important component to designing studies of HRTY. Data collection mode is closely related to sample frame issues in that certain types of modes would not be appropriate for certain types of frames. The sections below discuss various data collection modes, appropriate types of frames, and advantages and disadvantages of each.

2.5.1 Mail Surveys

Mail surveys are conducted by mailing a paper questionnaire to potential respondents. In studies designed to estimate the number of HRTY, this type of data collection would be best suited to surveying service providers or program administrators.

Mail surveys offer several *advantages* over other survey modes:

- Relatively inexpensive to administer
- Required minimal staff and facilities
- No opportunity for interviewer bias
- Greater perceived anonymity by respondents may lead to more truthful answers
- Provide access to a widely dispersed sample
- More time for respondents to give thoughtful answers, look up records, or consult with others

There are also *disadvantages* to mail surveys:

- Low response rates
- Require longer lead time to complete data collection
- More difficult to obtain and analyze responses to open-ended questions
- No control over who actually completes the survey
- Possible for respondents to selectively skip answers

2.5.2 Web-Based Surveys

A relatively new data collection technique, web-based surveys are carried out by programming the questionnaire, loading the program onto an Internet site, and then having respondents log onto the site to complete the questionnaire. Like mail surveys, web-based surveys would be most applicable to HRTY studies involving service providers or program administrators.

In part, this methodology evolved to counteract some of the limitations inherent in mail surveys. The *advantages* of web-based surveys are similar to those for mail surveys; however, some features are unique to web-based survey technology:

- Data can be collected quickly.
- The novelty of responding to a web-based survey may stimulate response rates.
- The survey can be easily modified.

Web-based surveys also have some unique *disadvantages*:

- Security and confidentiality can be breached.
- There is the potential for respondent bias (i.e., technically savvy persons may be more likely to respond than those who are not technically savvy).

2.5.3 Telephone Surveys

Telephone surveys can be administered through a paper and pencil format (i.e., interviewers ask respondents questions and write their answers on hard copies of questionnaires) or through computer-assisted telephone interviewing (CATI). For CATI surveys, questions are programmed into a computer, and interviewers record answers to questions in a computerized data file. In studies of HRTY, this type of data collection mode would be appropriate for surveys with service providers, program administrators, or parents of HRTY, as well as for retrospective studies with youth who were previously HRT but are currently housed.

Compared with other survey modes, telephone surveys offer a number of *advantages*:

- They are more timely and generate higher response rates than mail surveys.
- They provide access to a widely dispersed sample.
- A longer, more complex questionnaire can be used.
- Interviewers can probe for more information or inconsistent responses.

CATI surveys have two additional main benefits: (1) they can be customized to provide prompts based on previous answers and to use complicated skip patterns and (2) the potential for missing data is reduced.

The main *disadvantages* to telephone surveys are the following:

- They omit persons who do not have a telephone.
- They can be costly to conduct (particularly, CATI surveys).
- There is a potential for interviewer bias.
- Given the increasing volume of telemarketing calls, it is becoming increasingly hard to obtain acceptable response rates in telephone surveys.

2.5.4 Face-to-Face Field Surveys

The final mode of data collection is the face-to-face survey interview. Personal interviews can be conducted effectively with HRTY, parents of HRTY, service providers, and program administrators. They can be conducted in several different ways:

- Paper and pencil interview (PAPI) – Interviewers ask questions directly to respondents, or respondents self-administer a survey and enter their answers on hard copies of the instrument.
- Computer Assisted Personal Interview (CAPI) – Interviewers ask questions directly to respondents from a computer-based questionnaire and enter their answers directly into the computer.
- Audio Computer-Assisted Self-Interviewing (ACASI) – Respondents use headphones connected to a laptop computer to listen to questions that have been digitally recorded and then key their responses directly into the computer.

These methodologies share several advantages and disadvantages (see *Table 2.3*). As shown in the Table, CAPI and ACASI do offer some distinct advantages over PAPI, including simultaneous data collection and entry, skip patterns, prompts, and probes can be programmed directly into the computer, thereby reducing errors.

2.5.5 Capitalizing on Existing Surveys

Although the primary data collection methods discussed above offer distinct advantages, adding targeted questions to existing surveys conducted by other researchers (i.e., “piggy backing”) can be an effective and efficient means of obtaining data. It is less time consuming because others develop the majority of the instrument, collect the data, and enter them into and maintain a database. Because others are responsible for these activities, less labor is required of

those who piggy back onto existing surveys. Such an undertaking would require only the development of the set of questions on HRTY experiences to be included on the instrument, selecting the survey on which to piggy back, and negotiating inclusion of the additional items; there may also be some costs associated with any additional data collection or data processing that result from the addition of the questions. The primary disadvantage of adding questions to an existing survey is that researchers who piggy back on existing surveys have limited input as to how the study is conducted.

Table 2.3 Advantages and Disadvantages of Interviewer or Self-Administered Interviews

	Interviewer-Administered		Self-Administered	
	PAPI	CAPI	PAPI	ACASI
Advantages				
Good for surveying people with poor reading, writing, or visual skills.	X	X		X
Interviewer/computer can probe for additional information.	X	X		X
Respondents can ask for clarification of survey items.	X	X	X	X
Interviewers can build rapport with respondents, which may positively impact validity of answers.	X	X		
Suitable for surveying hard-to-reach populations.	X	X	X	X
Skip patterns, prompts, and probes can be programmed directly into the computer, thereby reducing errors.		X		X
Reduces item nonresponse.	X	X		X
Data collection and entry occur simultaneously.		X		X
Enhanced reporting of some sensitive behaviors.			X	X
Disadvantages				
Costly and time consuming.	X	X	X	X
Inconsistent responses cannot be cross-checked.			X	
Potential for interviewer bias.	X	X		

2.6 Sample Size and Precision

The determination of the appropriate sample size for a study requires consideration of two main factors: precision and cost. Precision refers to how close an estimate is expected to be to the true value of a given parameter. If independent samples are taken repeatedly from the same population, and a confidence interval is calculated for each sample, then a certain percentage (confidence level) of the intervals will include the unknown population parameter (e.g., the number of HRTY). The confidence interval is often symmetric around the sample estimate of the population parameter for projections (e.g., the number of runaway and homeless youth) but not for proportions (e.g., the percentage of runaway and homeless youth that sleep in shelters). The width of the confidence interval is calculated using the standard error of the sample estimate and the confidence level. A higher confidence level (say, 99 percent) results in a wider confidence interval than the confidence interval with a lower confidence level (say, 95 percent). Also, the width of the confidence interval is directly proportional to the standard error of the sample estimate. The size of the expected standard error of a sample estimate is affected by the sample design and the sample size. At a given confidence level, a wide confidence interval provides low precision whereas a narrow confidence interval provides high precision.

Precision and costs must be carefully weighed against each other. Precision can generally be increased by increasing sample size and by increasing the number of locations where interviews would be conducted. Increasing sample size, however, has a direct impact on costs.

2.7 Instrumentation Issues

Another issue in estimating HRTY is instrumentation. The types of questions that would need to be asked to estimate the number of HRTY will depend on the type of estimate, type of design, and type of frame(s) selected.

2.7.1 Service Provider Instrumentation

A survey of service providers would be relatively simple to construct. The instrument would need to include questions on the number of HRTY served in a specified time period. Providers would be asked to provide estimates both for the total number served and for various subgroups of particular interest (i.e., demographic characteristics, shelter/street experiences, number of repeat service users).

2.7.2 Youth Instrumentation

The types of questions that would need to be asked of youth would be much more inclusive. Questions would need to be specifically designed to determine the various locations

youth have spent the night. These types of questions will allow researchers to determine and account for the fact that youth can be found in multiple sampling frames. The questions that would be needed fall into three categories: current status; HRTY history; and demographics. *Table 2.4* lists some example questions in their specific category.

Table 2.4 Example Questions Needed in Surveys of Youth

Topic	Frame	Questions
Current Status	Service Users Street	In what type of place are you currently staying? Someone else’s house, apartment, or room Your own home, apartment, or room (includes foster care) Place of business Emergency shelter Institution, detox, hospital Car, bus, van, or other vehicle Hotel or motel Transportation site Abandoned building Emergency shelter Program offering permanent housing for homeless people Paid room by a voucher Outside Detention center, jail Other _____
	Household Service User Street	In what geographic region do you currently reside? City and State How long have you lived in this area? Days, months, years
	Household Service User Street	Do you live with someone else? If so, who? Do you presently support yourself financially?

(continued)

Table 2.4 (continued)

Topic	Frame	Questions
<p>Homeless and Throwaway History</p>	<p>Household Service User Street</p>	<p>In which of the following places have you stayed in the past year?</p> <ul style="list-style-type: none"> Someone else’s house, apartment, or room Your own home, apartment, or room, includes foster care Place of business Emergency shelter Institution, detox, hospital Car, bus, van, or other vehicle Hotel or motel Transportation site Abandoned building Emergency shelter Program offering permanent housing for homeless people Paid room by a voucher Outside Detention center, jail Other _____ <p>Have you ever lived in foster care? How long ago? For how long?</p> <p>Have you ever been in juvenile detention? How long ago? For how long?</p> <p>Have you ever been in prison/jail? How long ago? For how long?</p>
	<p>Household Service Users Street</p>	<p>Before you became run away/became homeless this/last time, had you run away/been homeless before?</p>
	<p>Service Users Street</p>	<p>When was the last time you had a permanent place to live? (Days, weeks, months, years)</p> <p>Where was that? City, state</p> <p>What was the reason you had to leave your <u>last</u> permanent residence? Please check all that apply</p> <ul style="list-style-type: none"> Unemployment Unable to pay rent/mortgage Eviction/foreclosure Moved to seek work Divorce Family member illness Paycheck/welfare check not adequate

(continued)

Table 2.4 (continued)

Topic	Frame	Questions
		Alcohol/substance abuse Family rejection/asked or told to leave Paycheck/welfare late Domestic violence Fire/flood/natural disaster No public assistance Other How long, in total, have you lived away from your parents/guardian?
	Household Service Users Street	What is the longest amount of time you have lived away from your parents/guardian?
	Household Service Users Street	On how many occasions have you run away from home/ been homeless?
	Household Service Users Street	Why were/are you living away from your parents or guardian? Run away Thrown out/told to leave Left home after age 18 Recently released from detention center Recently released from prison Parents incarcerated Parents homeless Parents moved Other_____
Demographic Questions	Household Shelter Street	Gender Race/ethnicity Age Where were you born? City, state Markers to enable identification of duplicates (e.g., mother's maiden name, birthdate)

Because surveys of HRTY are expensive and studies show that it is generally possible to engage HRTY in interviews for 30 to 45 minutes, a multitude of other questions could also be included on a youth instrument. Data could be gathered on a variety of risk factors and behaviors, such as abuse and neglect, mental health problems, substance use, HIV status, and risk.

2.7.3 Parent Instrumentation

The types of questions that would need to be asked of parents would have to be designed to tactfully determine if their children have run away or been out of the home, and if they or their family have been homeless. *Table 2.5* lists some example questions that could be included in a survey of parents.

Table 2.5 Example Questions Needed in Surveys of Parents

Questions
In what geographic region do you currently reside? City and state
How long have you lived in this area? Days, months, years
<p>Do you have any children who have run away in the past year?</p> <p style="padding-left: 20px;">If <i>yes</i>, how many times did your child run away in the past year?</p> <p style="padding-left: 20px;">If only once, how long did your child stay away from home?</p> <p style="padding-left: 20px;">If more than once, how long was the most recent time away from home?</p> <p style="padding-left: 20px;">If more than once, what is the longest time your child stayed away from home?</p> <p style="padding-left: 20px;">Is your child currently at home?</p>
<p>Have you been homeless in the past year?</p> <p style="padding-left: 20px;">If <i>yes</i>, were your children with you while you were homeless?</p> <p style="padding-left: 40px;">If <i>no</i>, where were your children while you were homeless?</p> <p style="padding-left: 20px;">If <i>yes</i>, how many times have you been homeless in the past year?</p> <p style="padding-left: 20px;">If only once, how long did your child stay away from home?</p> <p style="padding-left: 20px;">If more than once, how long was the most recent time away from home?</p> <p style="padding-left: 20px;">If more than once, what is the longest time your child stayed away from home?</p>
<p>Have you asked your child to leave home in the past year? If <i>yes</i>,</p> <p style="padding-left: 20px;">Did your child actually leave home?</p> <p style="padding-left: 20px;">Why did you ask your child to leave home?</p> <p style="padding-left: 20px;">Has your child returned home?</p> <p style="padding-left: 20px;">How many times did you ask your child to leave in the past year?</p>
<p>In the past year, have any children stayed with you because they ran away, were homeless, or were thrown out by their parents/guardians? IF YES,</p> <p style="padding-left: 20px;">How many such youth have stayed with you?</p> <p style="padding-left: 20px;">How long did they stay with you?</p> <p style="padding-left: 20px;">Do you currently have someone staying with you?</p>
Gender of child
Race/ethnicity of child
Age of child
Markers to enable identification of duplicates (e.g., mothers maiden name, birthdate)

2.8 Summary

Designing studies to estimate the number of HRTY is a challenging endeavor. Issues such as deciding on the type of estimates and designs can be resolved relatively easily once the goals of a study are clearly defined. However, other issues are not so easily resolved: (1) lack of standardized definitions of the population, (2) that a single sampling frame will only count a segment of the population, (3) that using multiple sampling frames can result in duplication, and (4) that locating and interviewing certain segments of the population can be difficult and expensive. These fundamental difficulties contribute to the lack of information on the number of HRTY in the United States. Indeed, estimating the number of HRTY is so difficult and expensive that, to date, no study has attempted to estimate the *entire* population of HRTY. Instead, studies have focused on estimating particular segments such as runaways or throwaways. In the next chapter, we provide key decision factors for estimating the entire population as well as particular subsets.

3. Key Decision Factors

As discussed in Chapter 2, several interconnected issues must be addressed when planning studies to estimate the incidence and prevalence of homelessness among youth. Three key decision points will guide the resolution of each issue: (1) the exact research questions that need to be addressed, (2) which segments of the population should be included, and (3) the amount of funding available to conduct the research. Responses to these key decision points will form the basic design of the study.

3.1 Research Questions

The first key decision point concerns the primary research questions that must be addressed in the study; these questions will guide the selection of type of design and type of estimates. The legislative request for the current study from the Senate Appropriations Committee as part of the Labor/HHS/Education FY 2002 Appropriations bill reads as follows:

Runaway youth – The Committee is concerned with reports that runaway, throwaway, homeless, and street experiences among youth are increasing. The Committee is also troubled that the exact nature of these problems is not well defined because national statistics on the number, characteristics, and circumstances of this population are not tabulated. The Committee instructs the Secretary, acting through the Assistant Secretary of Planning and Evaluation, to prepare and submit by September 30, 2002 a plan for developing estimates of the incidences of runaway, throwaway, homeless and street experiences among youth, as well as a plan for regularly monitoring incidence trends.

Based on this request, it appears that the government's primary questions are how many youth have HRT experiences and whether these numbers are increasing over time.

The most efficient and cost-effective design to address these questions would be a cross-sectional design administered at regular intervals (e.g., every 5 or 10 years). Prevalence (both period and point) and "pseudo" incidence measures can be collected with this type of design. Because the legislative request determines the primary research questions to be (a) estimating the number of HRTY and (b) monitoring trends over time, the remainder of this report focuses on cross-sectional designs.

However, if determining causality or true incidence for becoming a HRTY is of paramount importance, then a prospective design would be needed; such a design would be extremely costly and difficult to administer. Although prevalence and rigorous incidence measures could be determined from this methodology, it would not be an appropriate method for monitoring trend data beyond the included population. That is, a prospective study of a group of

individuals could provide information about how that group changes over time (e.g., are HRTY likely to become homeless adults?), but it could not shed light on trends among adolescents over time (e.g., are there more HRTY now than there were 10 years ago?).

3.2 Coverage

The second key decision point concerns the amount of coverage needed. Because HRTY can be found in many locations, studies could be designed to estimate the entire population or to estimate particular segments of the population. Studies designed to estimate the total population would need to include estimates of youth from as many points of contact (i.e., sampling frames) as possible, including

- youth in shelters,
- youth on the streets,
- youth who have had previous HRT experiences but have returned home, and
- youth who have had previous HRT experiences but currently are in juvenile facilities or other state placements.

A study using multiple sampling frames is the only design that will provide a complete estimate of the total population. Note, however, that this type of design would be costly, with costs increasing directly with the addition of each sampling frame.

Because of the high costs associated with obtaining estimates of the total population, it might be more desirable to focus instead on estimating a certain *segment* of the HRTY population. For example, a study might focus on determining the number of HRTY in most immediate need of services. Such a study might focus on youth who are residing in street or shelter locations. Another option would be to estimate the size of the HRTY population by periodically surveying youth in households about their previous experiences with being HRT.

3.3 Costs

The final key decision point concerns the practical issue of costs. Conducting studies of HRTY are costly. In a cross-sectional study, the primary determinant of cost is the number of sampling frames to be included; the greater the coverage of the population (i.e., the greater the number of sampling frames), the more costly will be the study. One method for controlling costs would be to focus on obtaining estimates for a single segment or for selected segments of the HRTY population, such as HRTY who are in most immediate need of services and/or HRTY who have received services.

4. SELECTED DESIGN OPTIONS

Clearly, there is a multitude of possible design options for estimating the incidence and prevalence of HRTY. *Table 4.1* provides a matrix of possible design options. The matrix summarizes the key decision points discussed in Chapter 3. Estimates could be derived from conducting secondary analysis (for all frames except shelter and street), and primary data collection could be conducted for all frame types.

It would be difficult, however, to discuss details on study designs for all of the possible options. Therefore, RTI and ASPE have selected four options to discuss in greater detail. The remainder of this chapter focuses on the four selected design options. For each option, we present

- a description of the methodology,
- the population of youth that would be captured,
- the research questions addressed,
- the associated advantages and disadvantages, and
- a ballpark estimate of the related costs.

4.1 Option A – Capitalizing on Existing Surveys

One option for estimating the incidence and prevalence of HRTY is to capitalize on existing surveys. Existing surveys could be used in two ways: (1) by adding items on homeless and runaway experiences to surveys that have yet to be conducted, and (2) by conducting secondary analyses of extant datasets that included items on homeless and runaway experiences.

4.1.1 Adding Items to Existing Surveys

Ideally, it would be best to add items to ongoing surveys so that trend data could be obtained. The types of questions that would need to be added include locations other than the youth's home where the youth have spent the night in the past year. These locations should include youth shelters; adult shelters; street locations; with strangers; and with friends or family, when they did not have permission from their parents/guardians. The questions could also include questions on whether they had run away or been thrown out of their home in the past year.

Table 4.1 Matrix of Design Options

Frames	Research Question	Coverage	Relative Costs*
<ul style="list-style-type: none"> Household – youth 	How many former HRTY have returned home?	<ul style="list-style-type: none"> Youth with HRT experiences who have returned home 	\$ - secondary analysis \$\$\$ - primary data collection
<ul style="list-style-type: none"> Household – parents 	What is the number of runaway and throwaway youth based on parental reports?	<ul style="list-style-type: none"> Youth with HRT experiences who have returned home and those still absent from home. 	\$ - secondary analysis \$\$\$- primary data collection
<ul style="list-style-type: none"> Service providers 	What is the number of HRTY who have used services?	<ul style="list-style-type: none"> HRTY who have utilized services 	\$ - secondary analysis \$\$ - primary data collection
<ul style="list-style-type: none"> Juvenile justice facilities – youth or facility directors 	How many former HRTY are in youth facilities?	<ul style="list-style-type: none"> Youth with HRT experiences in juvenile justice settings 	\$ - secondary analysis \$\$- primary data collection
<ul style="list-style-type: none"> Shelter youth 	How many HRTY are in shelters?	<ul style="list-style-type: none"> Youth with HRT experiences in shelters 	\$\$\$ - primary data collection
<ul style="list-style-type: none"> Street youth 	How many HRTY are on the streets?	<ul style="list-style-type: none"> Youth with HRT experience on the streets 	\$\$\$ - primary data collection

* Relative cost is indicated on a three-point scale, with “\$\$\$” being the most expensive and “\$” being the relatively least expensive option.

The four surveys that offer the most promise are (1) the Youth Risk Behavior Survey, (2) Monitoring the Future, (3) the National Survey on Drug Use and Health, and (4) the National Health Interview Survey. The likelihood of being able to include questions on each of these surveys is relatively unknown. The authors of this report do know that each of these studies are bombarded with similar requests to include additional questions. It is likely that negotiations to include questions on an on-going basis to any of these instruments would likely require a significant amount of negotiation between funding agencies. A brief description of each of these surveys follows:

- Youth Risk Behavior Surveillance System (YRBSS).** YRBSS is a school-based study designed to assess the prevalence, age at initiation, and trends over time of a variety of health risk behaviors. YRBSS is conducted nationally every 2 years (the next data collection will occur in 2003), and the data represent students in grades 9 to 12. Information on YRBSS is available at http://www.cdc.gov/nccdphp/dash/yrebs/about_yrbss.htm.

- **Monitoring the Future (MTF)**. The purpose of MTF is to measure changes in youth's behaviors, attitudes, and values. MTF is an annual survey of approximately 50,000 students in Grades 8, 10, and 12 in public and private schools. In addition to the main data collection, a randomly selected sample from each senior class is surveyed every other year, providing a subset of longitudinal data. Information on MTF is available at <http://monitoringthefuture.org/>.
- **National Survey of Drug Use and Health (NSDUH)**. NSDUH (formerly the National Household Survey on Drug Abuse) is an annual survey of residents of households, noninstitutional group quarters, and civilians living on military bases. This survey is conducted via personal interview. Adolescents are included as part of the sample, with approximately 23,000 youth aged 12 to 17 being interviewed each year. For more information, see <http://www.samhsa.gov/oas/nhsda.htm>.
- **National Health Interview Survey (NHIS)**. NHIS monitors the health of the noninstitutionalized civilian U.S. population and is also conducted via personal interview. The survey includes questions about health behaviors such as limitations on activities, injuries, health insurance, access to and utilization of health care, health behaviors, immunizations, and AIDS. The survey is conducted continuously throughout the year. Youth are not interviewed directly in this survey; however, an adult in the household reports information for a randomly selected child under age 18 in the household. Information on NHIS can be found at <http://www.cdc.gov/nchs/about/major/nhis/hisdesgn.htm>.

4.1.2 Secondary Analysis of Extant Datasets

Another option would be to analyze data on homeless and runaway experiences from an extant dataset. Although few previously conducted national studies have included questions on homeless and runaway experiences, two datasets have potential.

The National Longitudinal Study of Adolescent Health (AddHealth). AddHealth is a nationally representative school-based survey of health and health-related behaviors among adolescents. Participants were interviewed about different behaviors, contexts (schools, neighborhoods, and communities) and relationships (families, peer groups, best friends, romantic and sexual partners) in their lives.

Data have been collected three times from the same respondents. The initial data collection was conducted when adolescents were in Grades 7 through 12. A second interview took place 1 year later, when students were approximately 13 to 19 years old. A third interview was conducted approximately 6 years later, when the respondents were about 19 to 25 years old. Wave III data collection was completed in April 2002.

Questions about living away from home are included in each data collection wave of AddHealth. In Wave I and II, respondents are asked how often in the past 12 months they ran away from home. In the Wave III data collection, respondents were asked if they had ever run

away from home, if they had ever been homeless for a week or longer, if they had ever been in a homeless shelter, and whether their parents had ever ordered them to move out.

Because of the longitudinal design of AddHealth, analysis could be conducted to examine changes in runaway behavior over time. It also is possible to determine demographic, situational, and behavioral characteristics of youth who have had a HRTY experience. A limitation of utilizing the AddHealth data to explore the incidence and prevalence of HRTY experiences is that it is a school-based survey and thus may exclude a proportion of youth who are not in school. Because most episodes of homelessness are short-lived, however, the majority of youth with an HRTY experience should be included in the sample. Another potential limitation is that only “running away” was assessed at Waves I and II, so involuntary absences from home (being thrownaway or homeless) cannot be assessed.

Housing and Urban Development (HUD) – Count the Homeless by 2004. Under a recent federal mandate, all agencies that receive HUD funding must implement a MIS system that will provide up-duplicated counts of homeless clients by the year 2004. This project is still in the early stages but offers potential for counting HRTY in the near future. In addition to simply providing a count, the MIS system will likely include some limited information on the background and problems of the clients. For example, the MIS system may include entrance and exit information. The ACYF currently has a member on the expert panel for this project, and, therefore, will be able to apprise the agency of forthcoming decisions and the appropriateness of use of this dataset for estimating the incidence and prevalence of HRTY. There is one important disadvantage to note about using this dataset. Because agencies that do not use HUD funds are not under any mandate to implement such a MIS system, individuals who receive services only from non-HUD agencies would be excluded from the counts. In addition, as with any survey of service providers, estimates from the HUD project would exclude youth who do not seek services.

4.1.3 Advantages and Disadvantages of Option A

There are advantages and disadvantages to either adding items to ongoing surveys or conducting analysis of extant datasets as a means of determining the incidence and prevalence of HRT experiences. The major advantages are as follows:

- **Cost-effectiveness.** Although adding a question to an existing survey is much less expensive than creating an entirely new survey, there are costs associated with this option. The costs associated with this type of study would involve the development of questions to be included on the instrument, negotiation with the study’s funding agency for inclusion of the questions, and analysis of the data. It is likely that the study’s funding agency also might request funding to cover the costs of any additional data entry programming associated with the additional

questions and any additional data collection costs (i.e., additional time for interviewers or printing of any additional pages in the questionnaire).

- **Collection of Trend Data.** Trend data can be collected and monitored if the selected survey is administered on a periodic basis. The funding agency of the selected survey could be asked to include the set of items on HRT experiences for a set number of years. If, for example, the selected survey is administered every 2 years, then updated estimates of the incidence and prevalence of HRTY could be developed every 2 years.
- **Wealth of Information.** Because the potential survey would likely also include a wealth of items on other characteristics (e.g., drug use, suicide attempts, health), analysis could go well beyond just the development of estimates of prevalence and incidence. For example, it would be possible to examine correlates of homeless and runaway experiences. Again, if the selected survey is administered periodically, it would enable the examination of changes in correlates over time.

This type of design option, however, has several disadvantages:

- **Difficulty Obtaining Access.** The administrators of many potential questionnaires will be reluctant to add items to already lengthy instruments. Addition of new items often requires deletion of existing items on the survey. Because of trend monitoring and the fact that most existing items are supported by vocal interest groups, replacement can be difficult.
- **Incomplete Estimate.** If the potential surveys are school or household based, any estimates of HRTY derived from these estimates would not represent a full count of the population. Instead, they would represent a count of the number of youth who are currently housed who had previous HRT experiences. If the data are obtained from a MIS system, they would exclude individuals not utilizing the services and those using services at locations that do not use a MIS system.
- **No Control of Research Design.** All decisions on sampling and data collection methodology would be made by the study's funding agency. These decisions must be kept in mind when selecting a dataset, because certain risk factors for becoming an HRTY mean that different sampling designs will yield different estimates of incidence and prevalence. For example, HRTY have a relatively high rate of school dropout, so school-based studies are likely to miss many youth who currently are HRTY; similarly, household-based surveys are likely to under-represent long-term HRTY.

4.1.4 Cost Estimates

As mentioned above, studies of this type would be relatively cost efficient when compared to novel data collections. The activities and estimated costs for each of the suboptions presented in this section are provided in *Table 4.2*. It should be noted that the funding agency of the selected survey might require the reimbursement of any costs associated with the addition of

the HRT experience questions. This could include revisions to the instrument to include the items, programming costs associated with data entry, data collection costs associated with increased length of survey, and programming costs associated with data editing. Costs for these activities are likely to vary substantially depending on the survey. Therefore, no attempt has been made to estimate this part of cost. The successful negotiation for inclusion of HRT experience questions, however, will likely hinge on financial coverage for the change in scope of work for the original study.

Table 4.2 Tasks and Estimated Costs for Option A

Suboption	Tasks	Estimated Costs (\$)*
Adding items to ongoing surveys	Negotiate inclusion of items	5 – 10 K
	Develop set of items	10 K
	Analysis/reporting	75 – 100 K
		Total: ¹ 90 – 120 K
Secondary analysis of extant dataset	Obtain dataset	5 K
	Analysis and reporting	75 – 100 K
		Total: 80 – 105 K

* Dollar amounts are in thousands unless otherwise specified.

¹ Does not include costs that might be incurred by the contractor for the original study (i.e. inserting questions into instrument, revising programming, and any additional data collection costs.

4.2 Option B – Shelter Youth Survey + Option A

The second option that RTI was asked to detail is a design that includes a survey of shelter youth, in addition to the activities outlined under Option A. Under this design, we would be able to adjust any estimates derived from the secondary analysis to include estimates of the number of shelter youth.

4.2.1 Sample Design of Shelter Youth Survey

Multistage sampling techniques could be used to select shelters and youth within shelters. The first stage would involve the selection of areas of the country or primary sampling units (PSUs), and the second stage would involve the selection of shelters within PSUs. The sampling process is described below.

First-Stage Sampling. The first stage of sampling would involve dividing the country into county groupings that are labeled as PSUs. PSUs would then be randomly sampled. Ideally, the PSUs selected for the shelter survey would be the same as those selected for the first stage of the secondary analysis study; however, this is not necessary.

Second-Stage Sampling. The second stage of sampling would then involve the selection of shelters within the PSUs. The first step would be construction of a sampling frame in the selected PSUs. A sample frame could be obtained from several sources:

- The National Runaway Switchboard (NRS) – The NRS operates a hotline that HRTY can call if they are in need of advice or services. Therefore, it maintains a list of shelters to which staff can refer youth. The NRS list probably would represent the most up-to-date and comprehensive list of shelters available. Because the NRS is funded in part by the FYSB, it is likely that the NRS would make the list of shelters available if a study was being funded through the ACF. The NRS updates the referral list on a yearly basis.
- National Directory of Children, Youth, and Family Services – This directory contains a listing of all agencies (including youth shelters) serving children, youth, and families at the national, state, and local level. This directory is updated on a yearly basis and currently can be purchased for \$150.
- Directory of Agencies Serving Homeless, Runaway, and Throwaway Youth – This directory is currently under development by RTI for the Center for Mental Health Services (CMHS) and will contain a listing of all agencies serving HRTY in 2002. This directory will be published on the CMHS website upon completion (i.e., in mid 2003). It is unknown when or if CMHS will update the directory.

Any one of these individual lists could be used as a sampling frame, or all of the lists could be obtained and merged to ensure complete coverage. We would then recommend that the frame be divided into the strata of interest (i.e., region, shelter size) and that a proportional number of shelters within each strata be selected.

Third-Stage Sampling. Because some shelters are very large, it might be necessary to sample among youth in the large shelters. This would help to control data collection costs and would prevent the number of interviews in large shelters from dwarfing those conducted in small shelters. If needed, systematic samples of youth in large shelters could be conducted.

4.2.2 Methodology of Shelter Youth Survey

In-person surveys of shelter youth would be conducted within the sampled shelters. The survey should include detailed questions on the history of the youth's homeless and runaway experiences. Obtaining these data would allow the research team to adjust the numbers derived from the secondary analysis to include those youth who are currently away from home and in shelters. The information needed for the adjustment would be the number of shelter youth who have not been at home (if a household sample is used for the secondary analysis) or who have not been in school (if a school-based sample is used for the secondary analysis) in the preceding year.

In addition to the questions on history of homeless and runaway experiences, youth could be asked a host of questions on other risk behaviors. Using questions from the secondary analysis survey would facilitate comparisons between the datasets. Analysis could be conducted to determine if youth who have returned home have different sets of risk behaviors than youth in shelters who had not been home in the past year.

4.2.3 Advantages and Disadvantages of Option B

The major advantage of Option B is that estimates derived from this design would provide greater representation of the total HRTY population than just Option A. Estimates would include youth with past-year HRTY experiences who were currently housed as well as youth who were currently HRTY and in youth shelters. Another advantage is that the shelter survey could ask youth questions about a variety of issues other than just history of homeless and runaway experiences. The use of similar questions on the shelter survey and the secondary analysis survey could facilitate comparisons between youth who have returned home and those currently in shelters.

Option B, however, has several disadvantages as well. Estimates derived from this option would still not represent a full count of the population. Instead, they would represent a count of the number of youth who are currently housed who had previous HRT experiences, and those currently sheltered. Youth currently on the streets would be excluded from the count. Note, too, that Option B would be significantly more costly than Option A.

4.2.4 Cost Estimates for Option B

The activities and estimated costs for Option B are provided in *Table 4.3*.

Table 4.3 Tasks and Estimated Costs for Option B

Suboption	Tasks	Estimated Costs (\$)*
Secondary analysis	See Table 4.1	80 – 115 K
Shelter survey	Sampling	40 K
	Questionnaire development	40 K
	Data collection	800 K
	Data processing	200 K
	Data analysis/reporting	200 K
		Total: 1.36 – 1.4 million

* Dollar amounts are in thousands unless otherwise specified.

4.3 Option C – Street Youth Survey + Option A

The third option that RTI was asked to detail is a design that includes a survey of street youth, in addition to the activities outlined under Option A. Under this design, we would be able to adjust any estimates derived from the secondary analysis to include estimates of the number of street youth.

4.3.1 Sample Design of Street Youth Survey

Multistage sampling techniques would be used. The first stage would involve the selection of areas of the country or PSUs, and the second stage would involve the selection of areas within PSUs. The sampling process is described below.

First-Stage Sampling. The first stage of sampling would involve dividing the country into county groupings that are labeled as PSUs. PSUs would then be randomly sampled. Ideally, the PSUs selected for the shelter survey would be the same as those selected for the first stage of the secondary analysis study; however, this is not necessary.

Second-Stage Sampling. The second stage of sampling would then involve the selection of areas within the PSUs. The first step would be dividing the PSU into small (such as several city blocks), mutually exclusive areas. For each area, we would obtain from local shelters and other agencies serving HRTY an estimate of the number of street youth per area. A random sample of areas would be selected in proportion to expected number of street youth present.

Third-Stage Sampling. The third stage of sample selection would involve the selection of youth. We would recommend selecting days of the week and times when street youth are most likely to be found. This information could be obtained easily from local service providers. We then recommend selecting days and times. Within the blocks of time that interviewers would be on the streets conducting interviews, we recommend conducting as many interviews as possible with eligible youth. This would help to control data collection.

4.3.2 Methodology of Street Youth Survey

Within the selected areas and blocks of time, in-person surveys of street youth would be conducted. The survey should include detailed questions on the history of their homeless and runaway experiences. Obtaining these data would allow the research team to adjust the numbers derived from the secondary analysis to include those youth who are currently away from home and on the streets. The information needed for the adjustment would be the number of street youth who have not been at home (if a household sample is used for the secondary analysis) or who have not been in school (if a school-based sample is used for the secondary analysis) in the preceding year.

In addition to the questions on history of homeless and runaway experiences, youth could be asked a host of questions on other risk behaviors. Using questions from the secondary analysis survey would facilitate comparisons between the datasets. Analysis could be conducted to determine if youth who have returned home have different sets of risk behaviors than youth on the streets who had not been home in the past year.

4.3.3 Advantages and Disadvantages of Option C

The major advantage of Option C is that estimates derived from this design would provide greater representation of the total HRTY population than Option a alone. Estimates would include youth with past year HRTY experiences who were currently housed as well as youth who were currently HRTY and on the streets. Another advantage is that the street survey could ask youth questions about a variety of issues other than just history of homeless and runaway experiences. The use of similar questions on the street survey and the secondary analysis survey could facilitate comparisons between youth who have returned home and those currently on the streets.

Option C, however, also has several disadvantages. Estimates derived from this option would still not represent a full count of the population. Instead, they would represent a count of the number of youth who are currently housed who had previous HRT experiences, and those currently on the streets. Youth currently in shelters would be excluded from the count. Note, too, that Option C would be significantly more costly than Option A.

4.3.4 Cost Estimates for Option C

The activities and estimated costs for Option C are provided in *Table 4.4*.

Table 4.4 Tasks and Estimated Costs for Option C

Suboption	Tasks	Estimated Costs (\$)*
Secondary analysis	See Table 4.1	80 – 115 K
Street survey	Sampling	40 K
	Questionnaire development	40 K
	Data collection	800 K
	Data processing	200 K
	Data analysis/reporting	200 K
		Total: @1.4 million

* Dollar amounts are in thousands unless otherwise specified.

4.4 Option D – Shelter and Street Youth Survey + Option A

The final option that RTI was asked to detail is a design that includes a survey of both shelter and street youth, in addition to the activities outlined under Option A. Under this design, we would be able to adjust any estimates derived from the secondary analysis to include estimates of the number of shelter and street youth.

4.4.1 Sample Design of Option D

Sampling procedures would be similar to those presented in Options B and C.

First-Stage Sampling. The first stage of sampling would involve dividing the country into county groupings that are labeled as PSUs, which would then be randomly sampled. Ideally, the PSUs selected for the shelter/street survey would be the same as those selected for the first stage of the secondary analysis study, but this is not necessary.

Second-Stage Sampling. The second stage of sampling would then involve the selection of shelters and service areas within the PSUs. Construction of the sampling frame would consist of obtaining lists of shelters serving HRTY as noted in Section 4.2.5 and lists of locations where street youth are likely to be found as noted in Section 4.3.5.

Third-Stage Sampling. The third stage of sampling would involve the selection of youth as outlined in Sections 4.2.5 and 4.3.5.

4.4.2 Methodology of Option D

The methodology would be identical to that discussed in Sections 4.2.6 and 4.3.6.

4.4.3 Advantages and Disadvantages of Option D

Of the four options that have been outlined in this chapter, Option D would provide the greatest representation of the total HRTY population. Estimates would include youth with past-year HRTY experiences who were currently housed as well as youth who were currently HRTY *and* in youth shelters and on the streets. Another advantage is that the shelter and street surveys could ask youth questions about a variety of issues other than just history of homeless and runaway experiences. The use of similar questions on the shelter/street surveys and the secondary analysis survey could facilitate comparisons between youth who have returned home and those currently in shelters and on the streets.

Nevertheless, Option D also has several disadvantages. Even though estimates derived from this option would be the most representative of the four options presented here, the estimates still would not represent a full count of the population. Youth in residential facilities

(e.g., juvenile detention, psychiatric hospitals, treatment centers, group foster care homes) with previous HRTY experiences would be excluded from the count. It is also important to note that Option D is the most costly option presented.

4.4.4 Cost Estimates for Option D

The activities and estimated costs for Option D are provided in *Table 4.5*.

Table 4.5 Tasks and Estimated Costs for Option D

Suboption	Tasks	Estimated Costs (\$)*
Secondary analysis	See Table 4.1	80 – 115 K
Shelter/street survey	Sampling	50 K
	Questionnaire development	40 K
	Data collection	1 million
	Data processing	300 K
	Data analysis/reporting	200 K
		Total: @1.7 million

* Dollar amounts are in thousands unless otherwise specified.

4.5 Summary

In this chapter, four options for estimating the incidence and prevalence of runaway and homeless youth have been outlined. The options have ranged from the most inclusive and therefore the most expensive to the least inclusive and therefore least expensive. Selection of an option will depend on the amount of funds available and the amount of coverage needed.

As a final note, we would like to recommend an alternative option that would facilitate the collection of trend data on HRTY and help to keep costs to a minimum. First, we recommend adding questions on HRT experiences to an ongoing survey not just once or twice, but on an ongoing basis. This will provide the government with regular cost-effective estimates of HRTY. Second, we recommend that surveys of shelter and street youth be completed every 10 years. This will provide the government with the means to adjust the estimates derived from the secondary analysis data both in the years when the shelter and street surveys are conducted and during the intervening years. This combination of options over various years would facilitate the development of estimates that are as complete as possible, in the most cost-effective way possible, and over as many years as possible.

Appendix A

Authors/Year	Title	Journal	Target Population	Definition of Homelessness
Adlaf, E.M. (1999)	A cluster-analytic study of substance problems and mental health among street youths	<i>American Journal of Drug and Alcohol Abuse</i> , 25(4), 639-660	Street youth	To be considered a street youth, participants must have used at least one social service facility directed towards this population during their lifetime or must of met 3 of the 4 following conditions: (1) left school before completing high school, (2) lived away from family/guardian for at least 2 days during the past year, (3) run away or been thrown out of their home at least once, and (4) been homeless at least once during their lifetime.
Auerswald, C.L. & Eyre, S.L. (2002)	Youth homelessness in San Francisco: A life cycle approach	<i>Social Science & Medicine</i> , 54, 1497-1512	Transient, street youth	Youth engaged in activities that suggested they were transient or part of the street economy.
Berti, L.C., Zylbert, S., & Rolnitsky, L. (2001)	Comparison of health status of children using a school-based health center for comprehensive care	<i>Journal of Pediatric Health Care</i> , 15(5), 244-250	Homeless children	Homeless children were those who reported living in a homeless shelter.
Booth, R.E., Zhang, Y., & Kwiatkowski, C.F. (1999)	The challenge of changing drug and sex risk behaviors of runaway and homeless adolescents	<i>Child Abuse & Neglect</i> , 23(12), 1295-1306	Homeless, runaway adolescents	Adolescents had to be on the streets for a minimum of 3 months without more than 2 weeks in the homes of immediate family (e.g., parents, siblings), and from families who were not homeless themselves.
Clatts, M.C. & Davis, W.R. (1999)	A demographic and behavioral profile of homeless youth in New York City: Implications for AIDS outreach and prevention	<i>Medical Anthropology Quarterly</i> , 13(3), 365-374	Homeless youth	Chronically homeless youth were those who lived in a squat or sleeping in a subway car of train tunnel, in the park, or in an abandoned building.
De Rosa, C.J., Montgomery, S.B., Kipke, M.D., Iverson, E., Ma, J.L., & Unger, J.B. (1999)	Service utilization among homeless and runaway youth in Los Angeles, California: Rates and reasons	<i>Journal of Adolescent Health</i> , 24 (6), 449-458	Homeless, runaway youth	Phase I: Undefined. Phase II: Self-reported homelessness.
De Rosa, K.J., Montgomery, S.B., Hyde, J., Iverson, E. & Kipke, M.D. (2001)	HIV risk behavior and HIV testing: A comparison of rates and associated factors among homeless and runaway adolescents in two cities	<i>AIDS Education and Prevention</i> , 13(2), 131-148	Homeless, runaway youth	Living on the streets without their families for 2 or more consecutive months, integrated into the street economy, or both.
Embry, L.E., Vander Stoep, A., Evens, C., Ryan, K.D., & Pollock, A. (2000)	Risk factors for homelessness in adolescents released from psychiatric residential treatment	<i>Journal of the American Academy of Child and Adolescent Psychiatry</i> , 39(10), 1293-1299	Homeless youth	Youths were considered to have had a homeless episode if he or she (1) indicated having been "homeless" or "on the streets" in response to a question asking for a description of each place of residence since the prior interview or (2) responded positively when asked whether he or she had lived in a shelter since the prior interview.

English, N.D. & English, L.M. (1999)	A proactive approach to youth who run	<i>Child Abuse & Neglect</i> , 23(7), 693-698	Runaway youth	Youth who run are considered to be those who run from their caregivers.
Ennett, S.T., Bailey, S.L., & Federman, E.B. (1999)	Social network characteristics associated with risky behaviors among runaway and homeless youth	<i>Journal of Health and Social Behavior</i> , 40, 63-78	Homeless, runaway youth	Homeless youths were those who spent the night before the study interview with a stranger or in a shelter, public place, hotel room rented with friends because they had no place else to go, or other place not intended as a domicile. Runway youths were those who were under 18 and spent the previous night away from home without permission from parents/guardians.
Ensign, J. (2000)	Reproductive health of homeless adolescent women in Seattle, Washington, USA	<i>Women & Health</i> , 31, 133-151	Homeless female youth	Any woman reporting to have lived in emergency shelters, on the streets, in cars, under bridges, or doubled up with friends or lovers.
Ensign, J. (2001)	The health of shelter-based foster youth	<i>Public Health Nursing</i> , 18(1), 19-23	Shelter-based foster youth	All Department of Social Service youth staying at 2 emergency shelters.
Ensign, J. & Panke, A. (2002)	Barriers and bridges to care: Voices of homeless female adolescent youth in Seattle, Washington, USA	<i>Journal of Advanced Nursing</i> , 27(2), 166-172	Homeless youth	Self reported current homelessness or homelessness during the past 12 months.
Klein, J.D., Woods, A.H., Wilson, K.M., Prospero, M., Greene, J., & Ringwalt, C. (2000)	Homeless and runaway youths' access to health care	<i>Journal of Adolescent Health</i> , 27 (5), 331-339	Homeless, runaway youth	Shelter youth: Youths from federally and non-federally funded shelters who spent at least one night in a shelter without permission from a parent or guardian. Street youth: Youth who spent at least one night away from home without permission from a parent or guardian in an improvised shelter, on the street, or in the home of a stranger.
Lifson, A.R. & Halcon, L.L. (2001)	Substance abuse and high-risk needle-related behaviors among homeless youth in Minneapolis: Implications for prevention	<i>Journal of Urban Health</i> , 78(4), 690-698	Homeless youth	Lacking shelter for at least 2 weeks in the past year.
MacKellar, D.A., Valleroy, L.A., Hoffman, J.P., Glebatis, D., LaLota, M., McFarland, W., Westerholm, J., & Janssen, R.S. (2000)	Gender differences in sexual behaviors and factors associated with nonuse of condoms among homeless and runaway youths	<i>AIDS Education and Prevention</i> , 12(6), 477-491	Homeless, runaway youth	Non-shelter and shelter youth were eligible if they had not been sheltered for greater than 14 days prior to the date of the survey interview.
MacLean, M.G., Paradise, M.J., & Cauce, A.M. (1999)	Substance use and psychological adjustment in homeless adolescents: A test of three models	<i>American Journal of Community Psychology</i> , 27(3), 405-427	Homeless adolescents	Lack of a stable residence.

Menke, E.M. (2000)	Comparison of the stressors and coping behaviors of homeless, previously homeless, and never homeless poor children	<i>Issues in Mental Health Nursing</i> , 21, 691-710	Homeless children	Children were considered currently homeless if they were living with one's mother in a shelter or transitional housing for the homeless, in a low-cost hotel/motel paid for by a homeless agency, or on the street.
Moon, M.W., Binson, D., Page-Shafter, K., & Diaz, R. (2001)	Correlates of HIV risk in a random sample of street youths in San Francisco	<i>Journal of the Association of Nurses in AIDS Care</i> , 12(6), 18-27	Street youth	Having stayed on the street, in a park, in a car, or other transient domicile for at least 2 days during the past 30 days.
Noell, J., Rohde, P., Ochs, L., Yovanoff, P., Alter, M.J., Schmid, S., Bullard, J., & Black, C. (2000)	Incidence and prevalence of Chlamydia, herpes, and viral hepatitis in a homeless adolescent population	<i>Sexually Transmitted Diseases</i> , 28(1), 4-10	Homeless youth	Not spending more than a total of 1 month with parents/guardians in the past 6 months, not living with parents/guardians, even temporarily, in the last 30 days, and not having a stable domicile
Noell, J., Rohde, P., Seeley, J., & Ochs, L. (2001)	Childhood sexual abuse, adolescent sexual coercion and sexually transmitted infection acquisition among homeless female adolescents	<i>Child Abuse & Neglect</i> , 25, 137-148	Homeless female adolescents	Not spending more than a total of 1 month with parents/guardians in the past 6 months, not living with parents/guardians, even temporarily, in the last 30 days, and not having a stable domicile
Noell, J.W. & Ochs, L.M. (2001)	Relationship of sexual orientation to substance use, suicidal ideation, suicide attempts, and other factors in a population of homeless adolescents	<i>Journal of Adolescent Health</i> , 29(1), 31-36	Homeless youth	Not spending more than a total of 1 month with parents/guardians in the past 6 months, not living with parents/guardians, even temporarily, in the last 30 days, and not having a stable domicile.
Ochnio, J.J., Patrick, D., Ho, M., Talling, D.N., & Dobson, S.R. (2001)	Past infection with hepatitis A among Vancouver street youth, injection drug users, and men who have sex with men: Implications for vaccination programs	<i>Canadian Medical Association Journal</i> , 165(3), 293-297	Street active youth	Street youth were considered those who attended a street outreach clinic that predominantly served street youth.
Pollio, D.E., Thompson, S.J., & North, C.S. (2000)	Agency-based tracking of difficult-to-follow populations: Runaway and homeless youth programs in St. Louis, Missouri	<i>Community Mental Health Journal</i> , 36(3), 247-258	Homeless, runaway youth	Youth under 18 years of age absenting themselves from their homes or places of legal residence without parental or legal guardian approval.
Rew, L. (2002)	Relationship of sexual abuse, connectedness, and loneliness to perceived well-being in homeless youth	<i>Journal of the Society of Pediatric Nurses</i> , 7(2), 51-63	Homeless, runaway youth	Individuals aged 12 to 23 who had run away from home or had declared themselves homeless and lived on the streets.
Rew, L., Chambers, K.B. & Kulkarni, S. (2002)	Planning a sexual health promotion intervention with homeless adolescents	<i>Nursing Research</i> , 51(3), 168-174	Homeless youth	Youth were considered homeless if they sought health and social services from a street outreach program.

Rew, L., Taylor-Seehafer, M., Thomas, N.Y., & Yockey, R.D. (2001)	Correlates of resilience in homeless adolescents	<i>Journal of Nursing Scholarship</i> , 33(1), 33-40	Homeless youth	Homeless youth were defined as those who received health and social services from a community street-outreach program.
Rohde, P., Noell, J., & Ochs, L. (1999)	IQ scores among homeless older adolescents: Characteristics of intellectual performance and associations with psychosocial functioning	<i>Journal of Adolescence</i> , 22, 319-328	Homeless older adolescents	Not spending more than a total of 1 month with parents/guardians in the past 6 months, not living with parents/guardians, even temporarily, in the last 30 days, and not having a stable domicile
Rohde, P., Noell, J., Ochs, L., & Seeley, J.R. (2001)	Depression, suicidal ideation, and STD-related risk in homeless older adolescents	<i>Journal of Adolescence</i> , 24, 447-460	Homeless older adolescents	Not spending more than a total of 1 month with parents/guardians in the past 6 months, not living with parents/guardians, even temporarily, in the last 30 days, and not having a stable domicile
Roy, A., Haley, N., Leclerc, P., Cedras, L., Bedard, L. & Allard, R. (2002)	Seroprevalence and risk factors for hepatitis A among Montreal street youth	<i>Canadian Journal of Public Health</i> , 93(1), 52-53	Street active youth	Youth were considered street active if they had either been without a place to sleep more than once or had regularly used the services of the Montreal street youth agencies during the past year.
Roy, A., Haley, N., Lemire, N., Boivin, J.-F., Leclerc, P., & Vincelette, J. (1999)	Hepatitis B virus infection among street youths in Montreal	<i>Canadian Medical Association Journal</i> , 161(6), 689-693	Street active youth	Youth were considered street active if they had either been without a place to sleep more than once or had regularly used the services of the Montreal street youth agencies during the past year.
Roy, A., Haley, N., Lemire, N., Leclerc, P., Boivin, J.-F., & Vincelette, J. (2001)	Risk factors for hepatitis C virus infection among street youth	<i>Canadian Medical Association Journal</i> , 165(5), 557-560	Street active youth	Youth were considered street active if they had either been without a place to sleep more than once or had regularly used the services of the Montreal street youth agencies during the past year.
Ryan, K.D., Kilmer, R.P., Cauce, A.M., Watanabe, H., & Hoyt, D.R. (2000)	Psychological consequences of child maltreatment in homeless adolescents: Untangling the unique effects of maltreatment and family environment	<i>Child Abuse & Neglect</i> , 24(3), 333-352	Homeless adolescents	Lacking a stable residence or a viable home to return to and not being in the custody of the state.
Strike, C., Myers, T., Calzavara, L., & Haubrich, D. (2001)	Sexual coercion among young street-involved adults: Perpetrator's and victim's perspectives	<i>Violence and Victims</i> , 16(5), 537-551	Street involved adults	Youths and young adults were considered "street involved" if they experienced instances of homelessness, lived in shelters, and/or participated in the sex or drug trade.
Tyler, K.A., Hoyt, D.R., Whitbeck, L.B., & Cauce, A.M. (2001)	The effects of high-risk environments on the sexual victimization of homeless and runaway youth	<i>Violence and Victims</i> , 16(4), 441-455	Homeless, runaway youth	Lack of a stable residence, did not have a viable home to return to, or were not in state custody.

Wagner, L.S., Carlin, L.,
Cauce, A.M., & Tenner, A.
(2001)

A snapshot of homeless youth in
Seattle: Their characteristics,
behaviors and beliefs about HIV
protective strategies

*Journal of Community
Health*, 26(3), 219-232

Homeless youth

Homeless youth were considered those who hung out in
youth centers and on the streets.

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