

# **Homeless Management Information Systems: Implementation Guide**

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Commissioned under a subcontract with  
Aspen Systems Corporation, Rockville, MD 20850,  
in partnership with the U.S. Department of Housing and Urban Development  
Contract, C-OPC-21201, Task Order 4

September 2002

## Acknowledgments

This guide was written by Brooke Spellman, Michelle Kahan, Oscar Gutierrez, Michelle Hayes, Tatjana Meschede, Julia Tripp, Donna Haig Friedman, Marc Lind, and Sarah Nichols—all of the Center for Social Policy (CSP), McCormack Institute of Public Affairs, University of Massachusetts Boston. Many others contributed to this guide by sharing their homeless management information systems experiences, sample documents, and case studies and offering comments and feedback on the material throughout its development, including Cynthia Hernan and Cheryl Anne Forster, Aspen Systems Corporation; Michael Roanhouse, U.S. Department of Housing and Urban Development; members of the CSPTech Consumer Advisory Committee (David Smith, Dave Brasseur, Wanda Jones, Rob Weigle, Andre Brown, Sean Cambell, Cheryl Daggert, and Crystal Walker); CSPTech project staff (David Canavan, Jennifer Raymond, Bill Silvestri, Philip Mugo, and Jason Wilson); Georgia Conti, Seattle, Washington; and other Aspen Systems Corporation National HMIS project Technical Assistance trainers (e.g., Alisa West Cahill, Community Council of Central Oklahoma; J. Stephen Cleghorn, The Community Partnership for the Prevention of Homelessness; Ernesto Cruz Feliciano, Consultant; Loren Hoffmann, State of Wisconsin Department of Administration Division of Housing and Intergovernmental Relations; Julie Hovden, State of Wisconsin Department of Administration Division of Housing and Intergovernmental Relations; Stacy Jones, The Homeless Coalition, Chattanooga, Tennessee; Jeff Kerrigan, Training and Development Associates; Kimberly McCollim, City of Spokane, Washington; Kay Melancon, Consultant; Ann Oliva, The Community Partnership for the Prevention of Homelessness; Barbara Ritter, City of Spokane, Washington; Elena Rush, Spartanburg County, South Carolina; Jim Schmidt, The Homeless Coalition, Chattanooga, Tennessee; June Shapiro, City of Spokane; Matt White, Consultant). Staff at Aspen Systems Corporation edited this guide.

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## **Introduction**

Information is critical to making informed decisions in any field. Until now, the data to support informed decisions for homeless populations have not been strong or accurate because service providers across jurisdictions have lacked compatible tracking capabilities. This situation has begun to change. For the most part, homeless management information systems (HMISs), which provide a means to collect and analyze information over time, are a relatively new concept. By gathering and analyzing solid data on the individuals and families who use homeless service systems, communities and the Nation can work to end this crisis.

An HMIS is a tool that communities can use to collect ongoing data on homeless persons who use service programs. Without an HMIS, most communities have no consistent means to identify service needs, barriers to accessing services, and program-, region-, and system-wide results. Advocates and planners are forced to rely on point-in-time census counts to estimate the size of local homeless populations. Although this approach is useful for gathering a one-time unduplicated count of homeless individuals and families, it is vulnerable to seasonal fluctuations. Snapshot counts also tend to over-represent those with the most chronic problems while under-representing those facing time-limited situational crises.<sup>1</sup>

Using longitudinal data, communities can track service and demand trends. These data are critical to accurately calculate the size and needs of the homeless population as well as the outcomes of specific interventions and programs. Policymakers, agency directors, homeless program consumers, and advocates require this information for service and systems planning and advocacy.

## **Congressional Direction**

In 2001 Congress directed the U.S. Department of Housing and Urban Development (HUD) to collect unduplicated data on the extent of homelessness at the local level (H.R. Report 106-988; Senate Report 106-410). The House report states:

...local jurisdictions should be collecting an array of data on homelessness in order to prevent duplicate counting of homeless persons, and to analyze their patterns of use of assistance, including how they enter and exit the homeless assistance system and the effectiveness of the systems. HUD is directed to take the lead in working with communities toward this end, and to analyze jurisdictional data within three years. Implementation and operation of management information systems (MIS), and collection and analysis of MIS data, have been made eligible uses of Supportive Housing Program funds.

## **HUD's Plan of Action**

To accomplish this directive by 2004, HUD entered into a technical assistance (TA) contract with Aspen Systems Corporation (Aspen) to assist communities with HMIS implementation. The Center for Social Policy (CSP) at the McCormack Institute, University of Massachusetts Boston, under subcontract to

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<sup>1</sup> For more detail on this topic, see Culhane, D., Metraux, S., Raphael, S. (2000). *The Prevalence of Homelessness in 1998: Results from the Analysis of Administrative Data in Nine US Jurisdictions*. Center for Mental Health Policy and Services Research, University of Pennsylvania.

Aspen, developed this implementation guide based on more than 5 years of practical and research experience managing a statewide HMIS for Massachusetts and consulting with other jurisdictions on HMIS issues. In addition, Aspen offers a number of TA activities nationally to help communities fulfill this mandate, including general HMIS trainings and individualized TA sessions in conjunction with HUD field offices and headquarters.

As communities work to meet the directive at a local level, HUD will continue to clarify specific objectives and requirements about data standards, system scope, and other important HMIS policy issues.

## **Overview of the Guide**

This guide, based upon the collective knowledge of CSP and many localities across the country, presents a set of steps to implementing an HMIS—from planning through implementation. Although some areas of the country are just beginning the planning process, others have had a system in place for many years—well before the congressional directive. These communities began this process in search of accurate information with the goal of meeting consumers’ needs and, ultimately, ending homelessness.

HMIS implementation presents an opportunity to re-examine how homeless services are provided in a local community and to make informed decisions and develop appropriate action steps. However, HMISs will more than automate existing processes. They will allow community stakeholders to build new alliances, to strengthen services, meet consumer needs in a more streamlined manner, and obtain information to guide future planning. This guide attempts to help communities think about how an HMIS can meet the congressional direction and address other community objectives.

The guide frames the task of implementing an HMIS from a community’s perspective—*community* is the broad sense of city, county, region, or State. An HMIS can be implemented to cover a jurisdiction of any size. A common vision and shared commitment to the process is all that is needed. In fact, throughout the guide, smaller jurisdictions are urged to seek local and regional partners to discuss HMIS implementation jointly. Many of the issues described may appear overwhelming or costly to a small locality. Despite some increased logistical (and perhaps, political) challenges, by forming an HMIS partnership with others, these costs can be shared and cross-jurisdictional goals can be accomplished.

Readers can judge how the suggested steps will work in their communities. In several steps, alternative models are highlighted to illustrate different approaches that may be equally or more successful given the community context. The guide provides useful resource material from which communities can pick and choose, collapse or expand steps to fit their needs.

The Implementation Guide is designed in a step-by-step format beginning with an overview (Concepts and Components of HMIS), which defines an HMIS, describes the benefits in relation to functional options, and introduces privacy, security, and consumer involvement issues.



## EIGHT STEPS TO HMIS SUCCESS

### Step 1: **Planning**

### Step 2: **Programmatic Decisions**

### Step 3: **Technical Decisions**

### Step 4: **Selecting Software**

### Step 5: **Funding**

### Step 6: **Management and Implementation Strategies**

### Step 7: **Operating Procedures and Protocols**

### Step 8: **Using the Data**

- ◆ “Step One: Planning” explains the *whys*, *whos*, and *hows* of planning and developing consensus on the HMIS vision.
- ◆ “Step Two: Designing the System—Programmatic Decisions” outlines critical decisions about how the HMIS will function within the community and discusses possible outcomes of these decisions.
- ◆ “Step Three: Designing the System—Technical Decisions” explains design options. The step guides the development of a system-design requirements document that will combine technical decisions with the programmatic decisions from Step Two. This step also explains how a community can assess their existing technical infrastructure to determine their future technical needs.
- ◆ “Step Four: Selecting Software” proposes a methodology for a community to select an appropriate HMIS software package using the information compiled in the system-design requirements document.
- ◆ “Step Five: Funding an HMIS” discusses the major cost items to be considered in an HMIS budget, including planning, implementing, and operating costs. This step also considers the implication of design decisions on costs and potential revenue options.
- ◆ “Step Six: Implementing the System—Management and Implementation Strategies” describes system management models for HMIS implementation and operation, implementation strategies, and the key phases of the implementation process.
- ◆ “Step Seven: Implementing the System—Operating Procedures and Protocols” builds on the system management discussion in Step Six and indicates the standard operating procedures and data accuracy protocols that need to be developed prior to system operation.
- ◆ “Step Eight: Using the HMIS Data” provides insight into data analysis opportunities of an HMIS and reviews data coverage, cleaning, and release issues.

Throughout this document, suggested exercises and examples guide system design and community decisionmaking. References to supporting materials are imbedded in the text and listed again at the end of each step. Many of the documents are available from HUD's HMIS Web site: <http://www.hud.gov/offices/cpd/homeless/hmis/index.cfm>. The appendix includes a glossary of terms, sample documents, and supporting materials that are not available on the Web site.

# Concepts and Components of HMIS

What is a *homeless management information system (HMIS)*? This step defines and describes the purpose and components of HMISs and discusses issues of particular concern, including privacy and security, consumer involvement, and the importance of vision.

## What is a *Homeless Management Information System*?

HMISs are computerized data collection tools designed to capture client-level information over time on the characteristics and service needs of men, women, and children experiencing homelessness.<sup>2</sup> An HMIS may be an off-the-shelf product, a vendor-developed database application, or a community's homegrown software system. It is not a set of stand-alone program-specific databases designed to capture only information about clients served in one particular program. An HMIS is designed to aggregate client-level data to generate an unduplicated count of clients served within a community's system of homeless services—often referred to as the Continuum of Care (CoC).<sup>3</sup> HMISs can also be statewide or regional possibly including several CoCs. For those included in an unduplicated count, the HMIS can provide data on client characteristics and service utilization.

## Purpose, Goals, and Benefits

The primary purpose of an HMIS is to gather and aggregate data on homelessness at local and national levels to accurately describe the scope of the problem and the effectiveness of efforts to ameliorate it. Beyond data collection, HMIS provides significant opportunities to improve access to and delivery of services for people experiencing homelessness and to strengthen community planning and resource allocation. Many communities have recognized that manual data collection efforts are limited and may result in flawed decisionmaking. Consequently, communities use a variety of models of HMIS planning and implementation. The national HMIS initiative (introduced through the congressional directive of 2001) reflects a nationwide interest both in understanding homelessness and in using longitudinal client-level information to improve local and Federal response efforts.

Within a specific community, HMIS can provide important benefits at the consumer, program, and system levels. Homeless program consumers indirectly benefit from service improvements derived from system analysis and directly gain through streamlined referrals, coordinated case management, and benefits eligibility. HMIS offers front-line homeless service program staff tools for faster, more effective client services through improved referrals, interagency case management, and service coordination. Agency administrators can better manage operational information through access to a variety of agency, program, and client-level reports. Policymakers and advocates benefit from access to system-wide data describing the extent and nature of homelessness and a greater understanding of service usage, effectiveness, and gaps. This information can be used to target limited resources and inform community

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<sup>2</sup> This definition has been developed by University of Massachusetts for the purposes of this technical assistance contract, and has been approved and adopted by HUD.

<sup>3</sup> *Continuum of Care (CoC)* is a HUD term used to define a coordinated approach at the local level to delivering services to persons who are homeless. A CoC generally includes a full range of emergency, transitional, and permanent housing and service resources to address the various needs of homeless persons.

planning and policy decisions. Regional and statewide HMIS implementations offer an opportunity to achieve all of these service coordination and policy benefits across even greater geographic areas.

## **Components**

An HMIS is composed of modules that provide a variety of functions and track different types and levels of client and service information. Basic HMIS components include client intake, case management, service tracking, information and referral (I&R), and a report generation tool.<sup>4</sup> HMISs can also contain modules whose scope is broader than homelessness. Each component offers different benefits and some may be more relevant than others, depending on the community's specific information needs. As a community formalizes its goals (Step One), stakeholders should select the appropriate mix of features to best achieve its vision.

### Client intake

A client intake system captures information about people served at the point of entry into shelters or other homeless assistance programs. Common data elements collected can include name, social security number, gender, age, and bed assignment. All client information is associated with a unique identifier that can be used to create an unduplicated count of homeless persons served in a particular area. Information from the client intake module can be aggregated to characterize typical individuals and families who access community homeless services.

### Case management

A case management module builds on client intake and provides a way to track information electronically throughout the process of client service provision. Case management data elements include information learned through case manager interactions with clients, such as needs assessments, history, program participation, and service plan goals. Data can be updated and supplemented while the case manager works with the client. Information collected in the case management module can be used to determine client needs and program use and to measure and evaluate program outcomes. Collectively, these data can be used to inform program design and to provide a compelling case to boards, funders, and other stakeholders about program and system effectiveness.

Some HMIS case management modules can be structured to facilitate interagency coordination. This function allows case managers from different programs, who are working with the same client, to share client-level information. This sharing can decrease duplicative intake and assessment for clients, improve interagency service coordination, support case management allocation, and prevent conflicting case management plans for clients in multiple programs. However, interagency information sharing and/or interagency case management must be paired with strong privacy and security measures to protect confidential client information.

### Service tracking

Service tracking modules serve as companions to the case management module. While the case management module tracks client information, the service tracking module records information about

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<sup>4</sup> These components, with the exception of the I&R module, which is optional, are considered the standard elements for an HMIS that would be able to generate the data required by the congressional directive.

services delivered to a client by a provider. Depending on the HMIS application, these two modules can be distinct or seamlessly integrated. This function also allows a provider the ability to plan, schedule, and follow up on the delivery of services. Service tracking can be beneficial for agencies that want to accumulate information about services delivered by different programs or staff members. For example, *Agency A* has a case manager who provides 10 client intakes, 5 needs assessments, and 15 counseling service hours in a specific week. A service tracking module allows the agency to log that workload by the specific case manager and link each service unit to a particular client record and/or a specific funding source.

Tracking services and/or comparing that information with the case management module can generate service utilization patterns, provide an understanding of the percentage of clients who use multiple services, and assess service needs and gaps in delivery.

### Information and referral

I&R commonly contains an electronic database of available resources for a particular area, including shelter, food pantries, health services, and educational programs. Implementation of this module requires the development and maintenance of an electronic resource directory. These modules are most effective when available on a Web site or in a real-time format so that users can always access the most current information. Although an I&R module can be used as a stand-alone program, when linked with intake or case management modules, it can be used to match client needs with available community services. Some real-time I&R modules facilitate online referrals, submit electronic applications on behalf of clients, determine availability of resources, and, in a few cases, reserve a specific resource—such as a shelter bed—for a particular client.

### Benefits eligibility

A benefits eligibility tool can be paired with an I&R to find services and maximize benefits to address client needs. Some of these tools even include an application and the means to submit it. Both I&R and benefits eligibility tools provide clients with immediate information and access to important income, housing, and supportive service resources. The benefits eligibility tool can also stand alone if it is preformatted with entitlement program eligibility and application information (e.g., social security, Medicaid, Food Stamps, veterans benefits, and other mainstream resources.)

### Report generation tool

The reporting function is one of the most compelling benefits to new HMIS users because it can save time and increase accuracy of reports on community homelessness and homeless services to funders and local stakeholders. A report generation tool can aggregate, filter, and report information. Reports can be generated at the individual client, program, agency, and community levels (see Step Eight for more information on reports). Some HMIS reporting modules come programmed with standard homeless funding reports, such as the HUD Annual Progress Report (APR).

## **Privacy and Security Issues**

Despite the clear benefits of an HMIS, risks to consumers must be understood prior to embarking on the planning and implementation process. Instituting comprehensive privacy and security mechanisms from the onset can mitigate these risks.

### Why care about privacy and security?

During the case management process, clients share a great deal of personal information to help case managers provide the most appropriate referrals and professional guidance. That information is recorded in an HMIS for future case management reference, reporting and analytical purposes. Although the intent of an HMIS is to provide benefits to clients, once stored in the database, this information is potentially accessible to many people who could use it inappropriately. With this in mind, it is important to consider that:

- ◆ Web-based systems are created to optimize accessibility and technology. However, the use of Web-based servers entails greater risk than the use of paper-generated or decentralized electronic record-keeping systems.
- ◆ Most shelters report a high level of turnover among staff, contributing to the likelihood of inadequate training and ineffective enforcement of security policies and standards.
- ◆ Most security breaches are by people who are authorized to use the system.
- ◆ Particularly in cases of domestic violence, the consequences of lapses in client security can be grave.

For these reasons, an HMIS should always be secured with limitations to how the information can be accessed, shared, modified, or used. It is critical to develop both formal procedures to govern the behavior of pertinent staff and technical solutions to protect privacy and security. Recommendations on the issues to consider and privacy/security mechanisms are provided throughout this guide, particularly in Step Two—Programmatic Decisions (privacy protection policy issues), Step Three—Technical Decisions (technical security measures), Step Four—Selecting Software, and Step Seven—Operating Procedures and Protocols.

### **Importance of Consumer Involvement**

One of the best ways to ensure that a system protects consumers and meets their needs is to involve them in the planning, implementation, and operations processes. Providing informational forums to the broader consumer community helps them understand the benefits, protections, and risks of HMIS. Consumers can suggest ways to improve HMIS service delivery and design client-sensitive interview questions, privacy protections, and system explanations. Consumer involvement can also provide valuable learning experiences that may lead to additional professional and personal development opportunities.

Informed consumers make great goodwill ambassadors. Their shared knowledge helps to diminish suspicion, resistance, and fear of the system. Involvement in the planning and implementation process may change consumers from naysayers to advocates, and their input can help to develop a well-designed system.

**Community Example #1:** Massachusetts has a history of consumer involvement in the implementation process. When Massachusetts first implemented its HMIS, consumers participated in the process of creating privacy protection and informed-consent procedures. As programs began using the system, consumers designed and delivered training workshops for case managers. These year-round workshops focused on sensitivity training and privacy protections. Today, several consumer representatives hold official seats on the steering committee. These representatives also convene a consumer advisory group that reviews system policies and procedures, offers consumer involvement training to community agencies, and disseminates information on the HMIS to other local consumers and providers. Consumers have also represented the project nationally, helping other communities engage consumers to enhance data collection and analysis.

## **Importance of Vision**

To design a successful HMIS, a community must thoughtfully approach planning, implementation, and operation. The next step focuses on the visioning process. A community's vision guides all software and policy decisions. Although it is tempting to rush immediately into choosing and purchasing a software product, communities should follow the process of developing a shared vision and considering related design issues before selecting a product. An HMIS is a substantial investment that requires serious commitment from its partners. Sound planning can ensure stakeholder buy-in and that the system provides the most benefits to all, contributing to operational success.