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Towards More Efficient Service for Clients, Using HMIS System: Managerial Audit of Community Technology Alliance

Mohua Chatterjee
San Jose State University

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Towards More Efficient Service for Clients, Using HMIS System:

Managerial Audit of Community Technology Alliance

by
Mohua Chatterjee

A Thesis Quality Research Paper
Submitted in Partial Fulfillment of the
Requirements for the
Masters Degree in

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Prof. Frances EDWARDS, Ph.D.

The Graduate School

San Jose State University

2015

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INTRODUCTION

Homeless people receive services from a variety of service providers that are funded from a number of federal sources. In order to ensure that homeless individuals and families are properly counted and their service needs are recorded, the US Department of Housing and Urban Development (HUD) has mandated the use of a data collection tool called the Homeless Management Information System (HMIS). The Homeless Emergency Assistance and Rapid Transitioning to Housing (HEARTH) Act of 2009 required that all communities have an HMIS with the capacity to collect unduplicated counts of individuals and families experiencing homelessness. (US Department of Housing & Urban Development, 2013)

The Community Technology Alliance (CTA) of Santa Clara County offers the technical support to homeless services providers for the operation of the mandated HMIS (CTA, 2013b). However, CTA is aware that the client agencies could benefit from the HMIS tool more than they are. The purpose of this research was to understand the barriers to more effective use of HMIS, including issues related to CTA's clients and its own organizational structure. The recommendations were developed through practical experience within the organization and extensive qualitative research.

Software Support and Report Systems

The collection of HMIS data relies on a software support system. Initially CTA was using Service Point, a product of Bowman Systems. This product allows for the collection and integration of information about the services being received by homeless people so that it can be reported to HUD as part of the conditions for receiving federal funding for homeless service programs. Since a single client may be getting services from a number of agencies over the course of a federal fiscal year, this centralized data collection is essential to understanding the

value of the programs and their outcomes, and to avoid counting a single person more than once, regardless of how many services he accesses.

CTA is the gatekeeper of all the data entered into HMIS for the service areas where it has contracts. CTA helps collect, report, analyze, and share this data with its partners. Partners often use this data to make strategic decisions. These service data are used by the federal government to understand more about homelessness and the impact of federal funding. (CTA, 2015) HMIS collects demographic and service usage data about the homeless individuals, the program, and the impact of the programs on their lives. CTA never directly collects data from the homeless individuals, but their partners do. The partners use intake forms integrated with a web based software system called Service Point. A screen shot of the paper index form is Attachment C at the end of the paper. A flowchart of the data entry process is shown in Figure 1.

Figure 1: Flow chart of data entry process for Service Point

If there is a match then the client's record is updated in the system. When a new client is added, client information is added during a one-on-one interview with the case worker. Client

information in the system includes name, Social Security Number, date of birth (DOB), veteran status, primary race, and ethnicity.

Internal research shows that HUD discourages partial entries about clients. HUD gives an option for partial entry, however null or partial values are not considered as valid entries during data submission to HUD. Hence name and DOB data quality is of paramount importance while entering data. HUD data standards often change from time to time, depending on the type of homeless population they want to focus on. According to a CTA program manager's perspective, chronically homeless people and homeless veterans have been in the forefront of Congress's policy priority in past years.

Screen shots of parts of the forms used in the Intake process are provided in Attachment D at the end of the paper. One such form is Helpdesk. This is a form embedded under CTA under each county's service webpage. Using the form a partner agency can leave the contact details and a brief message about the nature of a problem they want a solution for related to HMIS. An email confirmation is sent to the client agency who needed help, and a new case is automatically created for the client in CTA. CTA staff picks up that case and contacts the client to provide the update, and close the case once the problem is solved. Resetting of a password for HMIS login, adding to a list serve, and other forms of technical assistance for project entry or a change in structure request are the most common Helpdesk requests.

Another form found in Attachment C is the Advanced Reporting Tool (ART) report. Some of the partner agencies need to buy an ART license from CTA to run their own reports that are readily available through ART. Partner agencies can run 9 types of reports. A list of ART reports is provided in Attachment D at the end of the paper (Types of ART Gallery Reports)

. Data collected and maintained in HMIS are used to generate

- The Annual Housing Inventory Count (HIC)
- Homeless Point-in-Time Counts (PIT)
- The Annual Homeless Assessment Report (AHAR)

HIC collects information about all the beds and units in each Continuum of Care (COC) HMIS. It is categorized by provider types. PIT collects counts of sheltered and unsheltered people experiencing homelessness on a single night. Counts are provided by the types of household, individuals, and families, and are often divided into subsets of the types, for example, homeless veterans.

AHAR is a report sent to the U.S. Congress on the extent and nature of homelessness in America. The report is prepared by HUD, and it provides a nationwide estimate of the demographic characteristics of the homeless population, its service use patterns, and the capacity to house homeless people. This report is primarily based on HMIS data. (HUDX, 2015)

The advantage of using a universal/standardized system is the data can be shared across all agencies in the COC. For example, Client A accesses an overnight shelter where his HMIS ID is being created by a case manager. The next day he visits another nonprofit/public agency to get a particular service, then to another one to get food, and maybe another to get a bus pass. There is no way to determine whether or not these services are being accessed by the same person unless all of these service agencies have a way to track them to the same Client A. That is the role of HMIS in homeless service delivery.

It takes special skill and expertise to migrate client data from a “homegrown” (unique, locally-created database) system, which is inherently a system without multiple location access or shareable across different agencies across the COC. Internal research shows that agencies in the same COC generally choose human service software, such as ServicePoint, ETO, or Clarity,

to be used and shared across the community. Partner agencies which share data about clients have verbal or written agreements among themselves to make community-wide sharing possible. The human service software market is very limited, and Bowman Systems, the parent company for Service Point, has the highest market share. (Techrouler, 2015)

Internal research has shown that one ongoing challenge for CTA and its client agencies is the constant change of data collection requirements from HUD. For example, the HUD 2014 *HMIS Data Standards Manual* was issued in May, 2014, and by August there was a new edition with significant changes in “Project Setup Guidance Type – Project Type and Site Information”. This included five new elements and a change to the required element chart. (US Department of Housing and Urban Development, 2014). Such changes require modification of reporting elements in the HMIS, meaning that clients have to learn new standards of data entry to obtain accurate reports from the HMIS support software, whoever the vendor may be.

There is a difference between output and outcome of a program. Output is often the quantitative measurement of the resource used in a type of service, which is easily measured. However, measuring outcomes, which is generally required by federal agencies, is often not unidimensional or linear. The Self Sufficiency Matrix (SSM) is a tool in HMIS often used by the agency staff to measure a client’s self-sufficiency on different parameters, like ability to obtain adequate food or adequate shelter, and this data can be used to show the effectiveness of the program in meeting clients’ needs, or the outcome of the effort. Agencies providing case management used SSM in HMIS in Santa Clara County. SSM is integrated with Service Point software. Partner agencies of CTA can use SSM while using HMIS to fulfill their program funding requirements to show changes in outcomes for clients.

Another outcome measurement tool is Service Prioritization Decision Assistance Tool (SPDAT). It helps in deciding the level of intervention required to resolve individual or family homelessness. It was developed by a company called Orgcode. In 2013, Orgcode partnered with Community Solutions to merge this prescreen tool with their product called Vulnerability Index, creating a different program for measuring program outcomes called VISPDAT. (100Khomes, n.d.)

Clarity and ETO are two software platforms that support the new VISPDAT approach to data collection for HMIS. CTA has issued an RFP for a new software platform that better integrates these evaluation matrices, as well as provides an option for partner agencies to generate reports on their own.

Bitfocus is an agency that uses another human service software called Clarity to customize COC's HMIS needs. According to CTA and other community partners' recommendations, Clarity provides more user friendly features than Service Point. They also believed Bitfocus would be able to handle community data and provide better service than Bowman Systems. Refer to the Glossary at the end of the paper for additional technical information terms.

History of Homeless Programs

The CTA was founded in 1991 as a direct response to a homeless task force that identified the need for greater collaboration and communication in the delivery of services to the homeless and at-risk population in Santa Clara County. The goal of the technological partnership was to build new programs that were easy to use, efficient, and accurate. CTA's first project was Community Voicemail. This service provided clients a static contact number to receive messages from

potential employers, landlords, and case managers. There was also a shelter bed hotline. Both of these programs still operate. (CTAa, 2013).

In 2000, a Congressional mandate was passed that required a special solution to facilitate the new role of HUD in the delivery of services to the homeless. The mandate specified that all communities receiving HUD funding shall report an unduplicated count of the clients served. HUD also required the implementation of the HMIS by 2004 to continue with their funding. CTA was assigned to help with the local implementation of HMIS by the Santa Clara County Collaborative on Affordable Housing and Homeless Issues (SCCAHHI). In the next six years CTA assisted other Bay Area counties with their HMIS implementation. It also received national recognition by 2008 for its efforts. CTA presently manages and supports several Bay Area counties with their HMIS implementation and service. (CTA, 2013).

The role of CTA has been rapidly changing, especially with bigger communities like Santa Clara County. CTA used to be the HMIS lead, but in an Agency Administrators Meeting, jointly held by the County of Santa Clara and CTA, it was announced that CTA's position will be shifting from grantee to contractor. CTA received grants from HUD for helping in HMIS implementation for its partner agencies; it also helped other agencies in application for funding through Notice Of Funding Availability (NOFA). This change was brought about after a year-long discussion with various partners and stakeholders. (Agency Administrators' meeting Communication, January 8, 2015)

CTA used Service Point, a web-based software product created by Bowman Systems, to provide service to all its partners. As CTA was the HMIS lead, it had to deal with Bowman Systems and the challenges that arose in producing regular reports on community benchmarks. Client agencies understood the limitation faced by CTA employees, but they were not sure about

the precise limitations of the software. They often demanded reports which were not possible to produce, which caused some friction between CTA and some of its clients.

It was agreed upon by CTA and the County of Santa Clara that CTA will continue to provide HMIS technical infrastructure and HMIS technical assistance to its homeless services programs. (Agency Administrators' meeting PowerPoint, Jan 8, 2015). CTA released a Request For Proposal (RFP) on February 6, 2015. The purpose of the RFP was to secure software as service for Santa Clara County COC's HMIS needs. CTA was in collaboration with the COC, and wanted to select a service solution for reporting, data integration, HMIS and data collection, and select technical services, and a support plan to address program defects and enhancements. (Community Technology Alliance, 2015). According to CTA records there were 71,958 active clients in the COC. The scope of current County HMIS is given below.

Fig 2: Scope of Current County HMIS

Scope of Current County HMIS	
No. of new Service Point Licenses	132
No. of Active Users	543
No. of Active Agencies	43
No. of Service Projects	430
No. of Service Transactions	826,156
No. of Project Enrollments	84,220
No. of Active Clients	71,958

Source: CTA/RFP, 2015

In response to the 2015 RFP a new vendor was chosen from a pool of software vendors in March. The evaluation criteria included minimum threshold criteria such as experience, regulatory compliance, security, and privacy

Fig 3: Evaluation Criteria and point break down

Evaluation Criteria	Point Breakdown
Experience	5
Regulatory Compliance	10
User Experience	15
Security and Privacy	10
Data Sharing, Import and Export	15
Performance Measurement, Data Analysis and Reporting	25
Support, Training and Customer Service	15
Alignment with Local Policies, Priorities and Strategic Plan	5

Source: CTA/RFP, 2015

A Nevada based software vendor called Bitfocus was selected as the top respondent, and a contract is pending. Bitfocus's services are based on a software product called Clarity, which has more flexibility and usability than the current software. However, the timeline offered by the county for transition to a new software platform was too short, according to CTA employees who had experience in a similar type of transition in larger communities like Philadelphia. Before any announcement about a contract for software, Jen Padgett, the CEO of CTA, informed CTA staff on April 7, 2015 that CTA will discontinue the Santa Clara County HMIS project as of June 30 (Personal Communication, April 7, 2015).

CTA's relationship with Monterey and San Benito counties has been stable, and additional agencies want to be part of the HMIS user group. The organizational structure and its vision are slightly different from Santa Clara County. Their group is called Lead Me Home (LMH), and it was founded on a new vision of a system that focused on stabilizing the existing tenancies to prevent homelessness, rehousing people before they enter shelter and linking people to the appropriate community supports. It aimed to use housing opportunity as a vehicle to link

families and individuals with employment or income programs. (Lead Me Home, 2010)

Providing integrated wraparound services to facilitate residential stability was one priority for LMH. System level service integration allows people and information to move easily between programs and services. System integration strategies include common data management systems that facilitate interagency information sharing, referrals and case management, and also allows for system-wide data collection and analysis. (LMH,2010, Priority 2 section).

According to Bob Russell (2015, personal communication), who directly coordinates with the CTA's partner agencies in Santa Cruz, the relationship is more informal and is undergoing rapid changes every quarter. Ten years ago, the Santa Cruz County community created an ambitious plan, "Santa Cruz Countywide Plan to End Homelessness". The 10-year plan shifted the community focus from the emergency shelter system to permanent housing with appropriate supportive services as a longer-term solution to homelessness. The first six years of plan were going very well, until the recession raised the Santa Cruz County poverty rate. Homelessness is a lagging indicator, which does not immediately show up after a fiscal downturn, as some people do not immediately lose housing as a result of a recession.

The 10- year Plan lead to strengthening of community capacity to plan and integrate with the homeless housing and service system. A HUD compliant countywide COC was established, eventually including the annual funding application process, and information and data collection about the services initiated. Since 2000, more than \$20 million in HUD COC funding have been secured, and over the years the funding shifted from transitional housing to permanent supportive housing. A major data implementation initiative was undertaken, including a biennial Point-in-Time census, a survey of homeless population, and a Homeless Management Information System (HMIS) to provide standardized case management tools and data reports for participating

homeless assistance providers. The Santa Cruz community will continue to work with CTA as VISPDAT has been rolled out and they want to use that matrix for their outcome analysis, instead of the Self-Sufficiency matrix used by the Service Point software in the past. (Russell, 2015, personal communication) .

CTA has also successfully migrated a homegrown HMIS systems to a universal system, such as Service Point, Clarity or ETO, in big and small communities. HMIS implementation and its migration from a home-based system to universal system have been in demand in homeless agencies across the US. CTA has successfully migrated HMIS to a universal system in smaller counties like Contra Costa in the East Bay and larger communities like Philadelphia. This model is different from the full service model of Santa Clara County, and it has been financially viable in the past.

LITERATURE REVIEW

The Literature review is divided under two sections

- The nature of the social problem and its effect on public resources
- Homeless data management and HMIS

The Nature of Social Problem and Its Effect on Public Resources

Health problems associated with homelessness have been documented in many studies and records. Increased rates of infectious diseases as well as chronic medical conditions, such as community acquired pneumonia, tuberculosis, and HIV, have been noted. Cardiovascular disease and chronic obstructive lung disease are also common among the homeless population. Nearly 40% of homeless individuals are reported to have some type of chronic health problem. Psychotic disorders are common, ranging from 10% to 13% of the homeless population. Additionally, individuals lacking stable housing are more likely to use the emergency room as their regular source of care. (Schanzer, Dominguez, Shrout & Caton, 2007)

For decades since the recession of 1981-82 in the United States, and the closure of state mental hospitals by many states (Thomas, 1998), homelessness has remained a significant social problem being addressed in the public policy arena. The homeless population constitutes a diverse group of people from various ethnic communities, single adults, families with children, unaccompanied youths, and individuals with severe mental health and substance abuse problems. (Wong, Park & Nemon, 2006) In recent times, homelessness has been viewed as a problem which has further ramifications than simply perceived inequality in society. An existing homeless population is expensive for the government. According to Culhane, Matraux & Park (2011), chronic homelessness is associated with an increased rate of admission to inpatient

healthcare and correctional facilities, relative to the same person being placed in supported housing. In their study, Culhane, et al. (2011) examine families' use of behavioral and health hospitalization and foster care placement prior to, during, and after shelter use. He compared families based on shelter pattern and type of housing exit. He identified homeless families following three types of patterns in four jurisdictions:

- a. A temporary shelter user group accounted for 75% of the population, who stay relatively briefly and exit with low likelihood of return.
- b. A group that has an “episodic pattern of shelter use”, comprising 5% of the population. Their stay is generally short but repeated.
- c. The remaining 20% of the population have a single but sustained stay in an emergency or transitional shelter. Their stays range from six months to 1.6 years depending on the jurisdiction. (Culhane et al, 2011)

It was observed, contrary to the popular belief, that “episodic” shelter users have a consistently greater rate of inpatient mental health and substance abuse treatment histories, and they also have a higher rate of foster care placement of their children. However, it was unclear if there was any benefit for longer stays. The rates of demand for service go down during shelter stays, but it does not remain the same once those families exit, regardless of their length of stay. The study was limited to use of medical service reimbursed by Medicaid; it did not include the costs associated with involvement with the criminal justice system. Children also could be part of homeless families, and they were not considered for the study. The results may vary in case of chronically homeless adults who do not have a family. (Culhane et al., 2011)

Several causal models of homelessness have integrated both individual and community-level factors. These models have asserted that homelessness results from a convergence of

factors at multiple levels: characteristics and experiences of individuals and households, as well as the conditions of the communities they lived in and their effects on them. Few studies have addressed the role of individual-level characteristics and behaviors involved in causal processes of homelessness for both families and single adults relative to the community-level factors. Housing cost and unemployment rates are considered as community-level factors, which are often considered to play a bigger role in causal process of homelessness for an individual or a family living in that community. There is not much progress in that field as there is a gap between research and available data, as acquiring good quality data about individual characteristics of individuals or families is still a challenge. Although homeless single adults outnumber persons in homeless families, each group represents a significant type of homeless population that has different needs for service.

Gaps in understanding the homeless population and their patterns of using service persist, despite federal intervention and efforts. (Fargo, Munle, Byrne, Montgomery & Culhane, 2013). In a previous definition of homelessness, the term “episode” was never defined and it created confusion in identifying the chronically homeless people from presently homelessness people who are not homeless for an extended period of time. Recognizing this limitation, HUD has recently proposed a new definition of “homeless” that revised the criteria for an episode of homelessness in order to identify individuals with longest histories of homelessness. This will help in allocating resources in the community to address the problem of chronic homelessness. The current HUD definition requires that an individual “either (have) been continuously homeless for a year or more or (have) had at least four episodes of the homelessness in the past three years”. The proposed HUD definition requires a continuous episode of homelessness of one year or more, or four or more episodes of homelessness over a three year period with a

cumulative duration of at least 365 days. A study was conducted by using administrative data from the emergency shelter system in a large U.S. city covering the period from 2009 to December 31, 2012. These data included all entry and exits from shelters serving single adults. These data were used to estimate the number of persons who would be identified as chronically homeless under current and proposed definitions and two other alternative definitions proposed during a special session of definition of chronic homelessness. The findings also suggested that proposed new definitions of chronic homelessness are preferable to current ones, as they performed better in identifying a chronically homeless person. This will help to identify the heaviest users of shelter under the definition of episodic homelessness. (Byrne & Culhane, 2015)

Culhane and Metraux (2008) have compared the present services to the homeless population to arranging deck chairs on the sinking Titanic. Policy approaches like these replace a larger social welfare system that is actually needed by a handful of people in the society. COC policies have tried to coordinate a parallel social welfare system to help the homeless population. They are eligible for these benefits if, and only if, they lose housing. As a result mainstream social welfare services have started to ignore their clients' housing problems, which limits the effectiveness of those services as a result. Interventions to reduce homelessness should be redirected from providing shelter alone to providing potential interventions that optimize housing stability in the future rather than providing segmented solutions.

Homelessness Data Management and HMIS

Knowledge about the characteristics of homelessness was much more limited before the implementation of the HMIS. The McKinney-Vento Homeless Assistance Act was the beginning of a new era in measuring the problem and designing a viable solution for the homelessness

problem at a national level. The concept of COC was introduced for the first time through this program.

The purpose of creation of the COC by HUD was to encourage collaboration among service providers at the local level. From 1988 to 1993 the annual Notice of Funding Availability (NOFA) asked each service provider to submit an application, but from 1994 onwards each community was required to submit a single comprehensive application instead of a separate one for each agency.

As mentioned in HUD (2009) documents, the purpose of COC was twofold: “Develop a long-term strategic plan and manage a year-long planning effort that addresses the identified needs of homeless individuals and households; the availability and accessibility of existing housing and services; the opportunities for linkage with mainstream housing and service resources” (p. 13) and to prepare the consolidated application for competitive grants (as cited in Kunkel, 2011.)

These grants provide resources for communities to build and maintain transitional and permanent housing, HMIS networks, and supportive service programs. Within the grant contracts, COCs are able to sub-grant the housing and services to meet the needs of their communities according to listed eligible activities. HUD also requires several reports of aggregate numbers from the COC. These numbers are used to track trends in national homelessness, identify COCs that need technical assistance and report to Congress. Each COC is asked to complete a Point-in-Time count, Annual Performance Report, Housing Inventory Chart, Grant Inventory Worksheet, Annual Homeless Assessment Report to Congress, and program-specific reports as necessary. (Kunkel, 2011)

HUD also collaborated with local communities to build a system of data to track the homeless and usage of service by homeless population in 2001, as the Congress thought it was necessary to build a system to collect data about homeless individuals and their usage of services. This data collection, organization, and storage system is the HMIS, which is being mandated by the federal government to be used by COCs to get federal grants.

HMIS is different from the previous efforts to collect data about the homeless population. Instead of sampling only certain communities, or counting the homeless on a particular night, COCs gather information from all homeless assistance providers on all homeless individuals who use any of the services. According to the Executive Director of Tarrant County Homeless Coalition, Cindy J. Crain, although there are several large HMIS providers, it is up to each COC to either develop or contract out for their system. Every HMIS must include the universal data requirements prescribed by HUD, such as social security number, birthdate, race, gender, and veteran status. Specific programs require other data elements, such as income and sources, non-cash benefits, physical disability, and chronic health conditions. This information is reported to HUD at an aggregate level so that no personal identifying information is included. However, victims of domestic violence are not included in HMIS. (Kunkel, 2011)

Byre & Culhane opined in 2010 that HMIS will be more useful in 2014 because the new healthcare reform legislation passed in March 2010 will expand Medicaid benefits to cover low-income adults without dependents. Under such provisions a person who is not eligible for Supplemental Security Income (SSI) will become eligible for Medicaid coverage. In order to reduce the cost of health care, different state and federal government agencies need a collaborative structure of permanent, supported housing which facilitates Medicaid reimbursement. In order to end chronic homelessness multiple agencies need to partner up to

provide services. It is beneficial for both the beneficiary and the community as a whole. (Byrne & Culhane, 2010) In order to maintain such a complicated structure of benefits, a localized system that tracks all the benefits, such as HMIS, will be extremely beneficial.

The large number of cases in the HMIS database makes the data well suited for statistical analysis for further research on the problem of homelessness. However, HMIS data has its limitations. For example, it does not include persons living on the streets who have never entered a shelter. Poulin, Metraux and Culhane (2008) have examined the different phases of HMIS from the time of its development. The challenges to using the HMIS data were realized during the generation of the AHAR report. For example, there are shelters within jurisdictions that did not participate in HMIS. This results in an undercount of shelter residents, and underestimates the size of the homeless population in a community.

Advantages and Disadvantages of Using HMIS

The Homeless Emergency Assistance and Rapid Transitioning to Housing (HEARTH) Act of 2009 expanded care to people experiencing homelessness by giving communities more freedom in allocating their resources based on their ability to produce measurable results. (Kunkel, 2011)

HUD requires the use of HMIS to generate reports by COC providers. These reports generally consist of aggregate numbers which are used to track the national trend in homelessness and identify specific needs of COC providers. However, the present system of reporting is still not adequate or comprehensive enough to make predictions about the needs for services by the homeless population. There is a dearth of quality data about the homeless population and its needs. There are a number of reasons for that. As the system is relatively new, it is not being accepted by all the COC providers who have been serving the homeless population from view of social welfare for the needy.

HMIS is being extensively used by service providers to fulfill HUD requirements. The usage of the HMIS system in an organization is often dependent on the organizational culture. In a pilot study, Cronley and Patterson (2010) examined organization culture and sociotechnical theories, and how they suggest the goodness of fit between organizations and technology, which is critical to the successful implementation and use. HUD is pushing for implementation of HMIS in all parts of COC, but it might not be that helpful and could turn out to be a waste of resources. This study also confirmed that technology use in a human service organization is not a single step process but a conglomeration of and complex interaction between technology, individuals, and organization. (Cronley & Patterson, 2010) HMIS is being used nationally in response to a Congressional mandate. Federal dollars are being spent too, but most of the shelters are not using these systems to their full capacity. In a case study it was observed that there are intervention points, and that better customization of HMIS for daily shelter operation would make a better use of resources. HMIS has been developed by private vendors and often it is not used to its fullest capacity, as stakeholders often view the HMIS as fulfilling someone else's need rather than their organization's need. The study recommended charting a middle path between existing process flow of information and HMIS in order to make better use of resources. (Cronley & Patterson, 2010).

The governance of COC is not homogenous or uniform across the country. Some COCs are governed by a nonprofit, others by government entities, or quasi-governmental public agencies, while others may be a loose affiliation of providers. The governance structure often influences how the community eventually applies for NOFA. One community is different than the other, their needs and way of collecting data are different. The HMIS mandate wanted to overlook these differences and wanted to collect the data and measure its performance

irrespective of COC characteristic, and this was viewed as problematic from the start by the community partners and homelessness advocates. The structure of the HMIS database made it possible to share the database across the agencies. These databases were mostly online, web-based products provided by large technology vendors. They were often predesigned and built according to HUD data standards, which raised privacy concerns among the partner agencies serving domestic violence victims.

HUD had to change its policies to accommodate the concerns of domestic violence providers and advocates. The most common method of data collection for domestic violence victims is to use an alternative database, which is located at the facility. The program often provides aggregate data to the local COC for the purpose of data collection. This is an example of how the HMIS mandate has affected and created difficulties for the local communities. HUD has changed to accommodate the needs of local communities and accepted an alternative solution for success. (Robinson, 2015)

Nonprofits in the Bay Area that provide services to the homeless population differ in their access to technology for collecting the mandated data. Some of them have limited resources, and bigger nonprofits employing more than 50 people can allocate more resources for technology than the smaller ones that have fewer than 5 employees. Often these bigger organizations are local chapters of international organizations that can allocate more resources for technology. For example, Sacred Heart and Catholic Charities, which are spread across the world, also provide various services to the homeless population across California.

Access to computers has become a necessity for daily life, and access to computerized data collection systems is not considered optional for most case managers. HMIS relies on a digital technology where the user should have moderate knowledge of how to navigate the

system. The concept of the digital divide has come to mean the gap differentiating the technology haves and have-nots, as well as the difference between those who can use computers effectively and those who cannot. There have been interventions from public, private and nonprofit sectors. As a part of the Broadband Data Improvement Act, the U.S. Census Bureau began asking questions about computer and internet use in the 2013 American Community Survey (ACS). The report provides household and individual level information on computer and internet use in United States. The findings are based on data collected in the 2013 ACS, which included three relevant questions.

- a. Does anyone in the household own or use a desktop computer, a handheld computer, or any other type of computer.
- b. Does anyone in the household connect to the internet from their household, with or without subscription.
- c. Households which indicated connecting via subscription were asked to identify the type of internet service used. (File & Ryan, 2014)

As shown in Figure 4, in 2013, 83.8 % of U.S households owned computers, 78.5 % of all households reported to have owned a desktop or laptop computer and 63.6 % owned a handheld computer. Household computer ownership was most common in relatively young householders, in households with Asian or White householder, in households with high incomes, in metropolitan areas, and also in homes where householders have higher level of education.

Figure 4: Percentage of Households with Computers and Internet Use

Source: File & Ryan, 2014

According to the ACS, household computer ownership is higher than household internet use.

However, both followed similar patterns across demographic groups. For example, computer ownership and Internet usage were common in households where the family members were relatively younger; it significantly dropped as the age increased. 92.5% of homes with a family

member aged 35-44 had a computer compared to 65.1% of homes with a family member aged 65 or older. Similarly 82.5% of homes with a household member 35 to 44 had reported internet usage, whereas households with members of age 65 or older reported 58.3%. A similar difference was observed for race and Hispanic origin groups. In 2013, 75.8% of homes with black family members and 79.7% of Hispanic households have reported computer ownership, compared to 85.4% of white households and 92.5% with an Asian householder. Households with low income and education level also reported low computer usage and internet usage. (File & Ryan, 2014)

Research showed that often faith-based, small nonprofit homeless service providers and local agencies were run by generalists who may come from those minority ethnic groups or age groups where computer or internet usage is low. Hence, employees who come from these backgrounds, or are less educated, are already at a disadvantage in collecting computer-based data. They will need more training to improve basic computer skills to effectively use web-based HMIS systems. Unfortunately, HUD and the software vendors often assume that the employee is savvy enough to operate the software and to generate moderately complicated reports using the Service Point system.

Another study related to multilevel organization effects also points to the futility of using a technological solution without looking at the context of implementation and the organizational structure of the service agency. Social service agencies often face challenges, such as lack of resources in all forms, including but not limited to funding and preexisting technical knowledge. HMIS is a technology driven modern system which intends to minimize paperwork or double-count, and makes it possible for different agencies to collaborate and offer maximum benefit to clients and stakeholders. It should be remembered that a complex information management

project such as HMIS suffers from a cyclical downturn pattern, if not managed effectively. This paper presented tactics and strategy to deal with the challenges faced by organizations while implementing a multiagency project like HMIS. (Gutierrez & Fridman, 2005)

Other Issues

The United Kingdom and France have something equivalent to “housing rights” which has brought homelessness to the forefront of European Union policy discourse. In the US there are city ordinances which prohibit individuals from sleeping in public places. Ordinances like these have resulted in the eviction of homeless people who have no place to go. It eventually led to rights like “rights to shelter”, as well as the most expensive shelter system in New York City. Building shelters for homeless people and providing service to them has been more expensive in the past than providing people with affordable housing, which has been in short supply since 2005. (Byrne & Culhane, 2011) In a qualitative study conducted in 2003 in the UK, eight homeless people were interviewed about their experiences and health and social services. Some of them blamed themselves for being in the situation; some of them avoided help, as they did not want to be labeled. They were referring to the stigma attached to homelessness and the way the system labeled them if they needed help. More often than not, these kinds of labels and putting them in boxes drove people away from the system designed to help them. (Avades & Ogden, 2011)

Unfortunately, there is a dearth of similar studies in US. The US has different laws than the UK, and the homeless population is still treated as a group of correlative data, without much of a human face. Very recently the *New York Times* has run a few narrative stories about the life of homeless people living in different parts of the city. (Elliott, 2013) The *San Jose Mercury*

News has featured the plight of the long term homeless in an article about The Jungle, which it calls the largest urban homeless encampment. (Newman, 2013)

HMIS can track the number of homeless people and their usage of services. It is helpful in providing a bigger sample for further statistical analysis of data, which can be used in future policy research on the homeless. However, HMIS can only get data when the client comes to the agency providing services, not before that. HMIS is a tool to better manage and track the problem of homelessness, not to create impediments to the same goal. Private organizations or nonprofits that want to provide service to organizations caring for the homeless population have to keep in mind that the customization is required for the software to be effective, and knowledge about an organization is of paramount importance in creating an HMIS solution, as there is no “one size fits all” for the organization providing COC.

The complexity of the social problem makes it harder to determine which data is important and how it can be used. There are lots of internal barriers to collecting data in nonprofits. Among individuals who found it difficult to collect raw data about the programs, one-third of respondents cited that they lack the technology or knowledge to track information on either program participation or client outcomes.

Organizations’ budget size influences their ability to collect data. More than two-thirds of the programs who had trouble collecting program data had budgets under \$1 million, and more than half had budgets under \$500,000 . Collection of data or its analysis is not typically a high priority for the nonprofit agencies, as they are often busy with the core program delivery. For example, the agencies providing services to the homeless population focus more on case management than on inputting data about them. Twenty-one percent of the respondents reported that making time for data based activities was their biggest challenge. For smaller nonprofits

there are many priorities and limited hours in the day. Often there is no clear delineation of measurement duties in people's job responsibilities, making it tricky to carve out the time for data entry. Oddly enough, some of the nonprofits care more about the individuals and are often scared of numbers, thinking they will get into trouble if the numbers do not come out the way they think that they should.

Twenty-three percent of those who reported data to be a challenge said technology was one of the biggest barriers to tracking good data. Challenges to technology were ascribed to lack of a reliable database, low ease-of-use, and out of date technologies. Investment in technology is often viewed as an extra cost to the program, which takes away the resources from the core service delivery program. In reality technology can substantially decrease the time in data entry, (NTEN,2012) thereby reducing administrative costs. The goal of HMIS was to integrate all the homeless service data across the COC, so that the case managers do not have to do double entry for individuals accessing services in different places.

Collection of data has been an expensive pursuit in the past. However, "big data" technology might change the way data about homelessness is managed. Erroneous figures and corrupted data elements have always been a barrier. It was treated as a problem rather than accepting error as an unavoidable consequence of collecting data. Data quality was more important than the quantity of data collected on a certain variable or parameter. Statisticians, scientists, and often data managers obsessed about the accuracy of data because of the dearth of information collected. (Mayer- Schonberger & Cukier, 2013) Conventional sampling analysts worked very hard to reduce error rates when collecting samples, and made sure they checked for biases before arriving at and publishing their results. Moving into the world of big data will require a change in thinking about the merits of exactitude. Obsession for precise measurement is

a remnant of information-deprived pre-omniscient search engine era where collection of information was expensive and time consuming. (Mayer-Schonberger & Cukier, 2013)

A very successful commercial venture which uses big data is Price Stat. It was founded by two Massachusetts Institute of Technology (MIT) economists, Alberto Cavallo and Roberto Rigobon. They used the big data alternative to calculate the trends in inflation. Their programs compile data from the web every day covering millions of products sold by hundreds of retailers across 70 countries. It was originated in MIT as a project to find an alternative real time solution for prediction of the inflation rate from the Consumer Price Index. (Mayer- Schonberger & Cukier, 2013.) The price of collecting these massive amount of data was fractional when compared to the resources spent by the Bureau of Labor Statistics (BLS).

BLS employs hundreds of staff and spends approximately \$250 million a year to collect data about 80,000 items from 90 cities across the nation. The data produced by the BLS is accurate for the price, however by the time the numbers get published it is already a few weeks old. Unlike the BLS data, Price Stat data was almost real time, as the collection of data involves very little human intervention and less collection time, and could possibly be published as soon as it is acquired. (Mayer- Schonberger & Cukier, 2013).

There will also be a change in the concept of how a database will operate in the future. The old concept of database was hierarchical, which was efficient, but it could only provide precise answers to queries submitted. The downside to this type of technology is that if a new index was required it took a significant amount of time to accumulate the new data.

The most common language for accessing database queries is called SQL (Standard Query Language). The new database language is called noSQL. It does not require a preset record structure to work. The only downside to this technology is that it requires more processing

and increased storage cost. In the past couple of years there has been a plunge in storage cost and an increase in processing speed. If the present trend continues there will be a significant decrease in cost of storage technology, which can be viably used in building human service sector software. Hence, it could be of great use to nonprofit sectors that collect human service data.

Hadoop is an example of an open sourced software and it is very good at processing large quantities of data. Its output is not as precise as that of the relational databases, but it is capable of producing a string of correlation in a fractional processing time. This quality in emerging technology can be particularly helpful for solving social science problems among other things. In the past the policy makers wanted to investigate the reason behind a social problem such as homelessness. In reality, though, social problems result from a multitude of problems rather than a particular one. Modern data science might be able to find those associative factors, and it might lead to significant improvement as various intervention points can be discovered. This could eventually lead to the solving of various social problems in the future. (Mayer- Schonberger & Cukier, 2013)

METHODOLOGY

CTA leadership sensed that their services to their clients were not achieving the desired results, and feedback had suggested that the problem was complex, including issues like data collection, report creation and responsiveness of CTA to inquiries. A better understanding of client needs and perceived deficiencies was needed to determine what processes to change and how to improve relationships between CTA and the clients. The purpose of this research was to understand the barriers to more effective use of HMIS, including issues related to CTA's clients and its own organizational structure.

Past CTA surveys that attempted to gauge customer satisfaction with its services failed to ask open ended questions, and Yes or No questions were not necessarily helpful in understanding how to improve future service. This research aimed to discover those problems in detail, so that the CTA can make some necessary changes to their service structure for their future clients and stakeholders.

A Managerial Audit was conducted on three CTA service areas: Santa Clara County, Monterey/San Benito Counties, and Santa Cruz County. Tables 1, 2, and 3 show the detailed list of clients of CTA in these three counties. The problem being evaluated was how to improve CTA's service delivery to its clients.

Table 1: CTA Partner Agencies in Santa Clara County

Santa Clara County Partners	
Abode Services	Momentum for Mental Health
Bill Wilson Center	New Directions
Career Advantage Retraining Program	Pathway Society
Cathedral of Faith	Peninsula Healthcare Connection
Catholic Charities	Project Hired
Charities Housing	Sacred Heart Community Service
City Team Ministries	Salvation Army
Community Solutions	SCC Department Alcohol and Drug Services
Community Services Agency Mountain View	SCC Department of Mental Health
Community Technology Alliance	SCC Social Services Agency
Downtown Streets Team	Superior Court
EHC LifeBuilders	South County Housing
Faith in Action	St. Joseph Family Center
Family and Children Services	Sunnyvale Community Services
Family Supportive Housing	Teen Challenge
Gilroy Compassion Center	The Health Trust
Goodwill	The Housing Trust
Homeless Veterans Emergency Housing Facility	Valley Homeless Healthcare Program
Hope for Outdoor People	Victory Outreach
Housing Authority of the County of Santa Clara	West Valley Community Services
InnVision Shelter Network	

Source: Burkhead, J. (2013, September 20). Personal communication

Table 2: CTA Partner Agencies in Monterey/San Benito Counties

Monterey/San Benito County Agencies	
Monterey County Behavioral Health	Interim, Inc
Central Coast AIDS Services (CCHAS)	Pueblo del Mar Recovery Community
Community Human Services	Shelter Outreach Plus
Franciscan Workers of Junipero Serra	The Salvation Army
Housing Authority of Monterey County	Veterans Transition Center
Housing Resource Center	Homeless Coalition of San Benito County

Source: Burkhead, J. (2013, September 20). Personal Communication

Table 3: CTA Partner Agencies in Santa Cruz County

Santa Cruz Partners	
Community Action Board of Santa Cruz County (CAB)	Housing Authority of Santa Cruz County
County Office of Education (COE)	Pajaro Valley Shelter Services(PVSS)
Families in Transition (FIT)	Pajaro Rescue Mission / Teen Challenge Monterey Bay (PRM)
Front St. Inc.	Salvation Army - Watsonville
Homeless Persons Health Project (HPHP)	Santa Cruz Community Counseling Center(SCCCC)
Homeless Services Center (HSC)	Housing Authority of Santa Cruz County

Source: Burkhead, J. (2013, September 20). Personal Communication.

In the CTA, there is an assigned program manager for each county who oversees the project and answers questions related to service delivery issues. The program manager keeps in touch with the client during the time the solution is provided. He/she facilitates with the different members of the program that the CTA is serving. As shown in Figure 5 , the service hierarchy is two tiered. The assigned CTA manager for each county coordinates with his/her respective organizations that in turn provide direct service to the homeless population.

Figure 5: CTA HMIS Partner Counties and Agencies Service Hierarchy

In order to locate the exact nature of the problem, a survey was created that involved stakeholders from both levels of service provision. The need for two-tier evaluation was important to understand the differences in perception between the CTA supervisors and the client organizations, and to test whether there was a correlation between the specific CTA supervisor and client satisfaction. The survey was also designed to include the “participant-observer approach” to get a firsthand view of the organization. A review of organizational structure and operating procedure can also point to the fact that organizational structure is the root of the problem. This method is called an “interactive managerial audit.” These two supplemental processes were used to strengthen the managerial audit. (Sylvia & Sylvia, 2012)

First Tier Survey of Clients

The first level of the survey covered questions about the full range of CTA services, and personal interviews were conducted with CTA program managers to find out about the programs in detail. Topics covered in the questions related to:

- a. Size of the organization and type of clients it serves
- b. In what capacity the HMIS system is used by these clients
- c. For how long has the system been implemented
- d. Whether the current system implementation is working for them
- e. Whether these organizations are able to use services provided by CTA to its fullest capacity?
- f. If not, why not?

The complete surveys are found in Attachments B, C and D.

An online survey of CTA clients was conducted via email using Survey Monkey (<https://www.surveymonkey.com/>), and shown in Attachment B. The clients of the CTA were asked to rate the services in Likert scales, on a scale of 1-5. (Likert scales are ordinal level scales that are often used in social science surveys to measure responses.) Survey questions were sent to the 64 agencies in three counties served by CTA as listed above, to be answered by the person dealing with HMIS management of the organization. They were asked to rate the quality of service that CTA provides in the field of HMIS, on a scale of 1-5, with 1 being “Strongly dissatisfied with the service delivery model provided by CTA” and 5 being “Very Satisfied with HMIS service delivery model provided by CTA.”

In the second stage of the survey, contacts were made with the clients who have rated CTA’s service delivery as 1, 2 or 3. Later on, due to the dearth of survey responses, all the agencies who responded to the First Tier survey were asked to complete a questionnaire via phone or email, as shown in Attachment D.

Management staff members of those organizations were interviewed in detail about

1. Organizational structure and the manpower related to HMIS work
2. Recent changes in organization
  - a. Leadership change
  - b. Administrative change
  - c. Attitude in using technology.

A comparative study of the types of organization that rated CTA's service as 3 or below was conducted to reach a conclusion. A recommendation was offered based on analysis for improving the CTA service delivery model. This will be used for all other organizations that plan to implement the HMIS systems in the future.

CTA managers were also surveyed about the HMIS service program. The questions they were asked are found in Attachment C

FINDINGS

A survey of CTA client agencies was administered between March 2014 and November 2014 using Survey Monkey (survey building website). The questions are found in Attachment B. The survey link was sent to 42 partner agencies in Santa Clara County, 13 partner agencies in Monterey and San Benito Counties and 13 in Santa Cruz County as shown in Table 1, 2 and 3 above. This was followed by a survey of 5 CTA staff using a similar instrument. There were 31 agencies that replied to the client survey, all of the CTA staff who were given questionnaires provided at least some information.

After these surveys were reviewed a second tier survey was conducted to obtain more details about the clients' answers, since there was considerable deviation between the client view of CTA's HMIS services and the CTA program managers' views. Only seven clients agreed to

participate in the second tier survey, but their responses are illuminating, demonstrating some of the areas of misunderstanding that require clarification, and other areas for improvement. Several notable findings about client capabilities and federal agency expectations were revealed.

First Tier Survey

In Santa Clara County 47.6% (20) of the partner agencies responded to the survey. Out of the 20 responses, 95% (19) answered all the questions. Out of 13 agencies in Monterey and San Benito County, 46.2% (6) of them responded. In Santa Cruz County, the response rate was 38.5%, with 5 out of 13 responding.

Client Surveys

Q1 Is the HMIS software provided by CTA the primary record system for tracking client services and outcomes for your agency?

Answer Choices	%	#
Yes	38.71	12
No	58.06	18
Decline to state	3.23	1
Total		31

Agencies often use other record systems, depending on the funder requirements, especially agencies that do not depend solely on HUD funding. Questions 2 and 3 were related to the number of employees and program managers.

Innvision Shelter Network has the highest number of employees (150) and Charities Housing has one. Table 4 gives the complete list of agencies and their numbers of employees.

Table 4: Number of Employees Providing Direct Services

Name of the Agency	Number of Employees Providing direct services	Special Scenarios
The Health Trust	50	
Bill Wilson Center	100	
West Valley CS	11	
Family Supportive Housing	4	
Victory Outreach	1	
Veteran's center Santa Cruz	15	
Sacred Heart	41	24 use them regularly
Front Street	8	
Coalition of Homeless Service provider	77	Across the agencies
Center for Training and Careers	16	
City team	7	
Charities Housing	1	
Teen Force	5	
Valley Homeless Healthcare Program	25	
San Benito County Health and Human Services	14	
InnVision Shelter Network	150	
Santa Cruz Housing Authority	42	
Housing Resource Center Monterey County (HRCMC)	4	Or 6
CSA Mountain view	15	
Fit Santa Cruz	7	
Homeless Veterans Emergency Housing Facility	9	
Central Coast HIV/AIDS Services (CCHAS)	6	
Housing Authority of the County of Monterey (HACM)	50	
Sant Clara County DMH	4	
St Joseph's Family Cente	4	
Goodwill Institute	18	
Sacred Heart CS	50	

Salvation Army (Monterey)	6	
Career Advantage and Retraining Center	6	
Housing Authority (Santa Cruz)	15	

Some of the partner agencies work with volunteers, and not all the HMIS users have program level administrator access to the computer systems that they use. Hence, knowing the number of program managers was important to understand the organizational structure of the agency. Innvision Shelter Network has the highest number of program managers; however their employee and program manager ratio is not very high. Table 5 provides a detail breakup of the program manger per program surveyed.

Table 5: Number of Program Managers in Each Program

Name of the Agency	Number of Program Managers
The Health Trust	20
Bill Wilson Center	14
West Valley CS	6
Family Supportive Housing	2
Victory Outreach	1
Veteran's center Santa Cruz	8
Sacred Heart	17
Front Street	1
Coalition of Homeless Service provider	20
Center for Training and Careers	2
City team	5
Charities Housing	1
Teen Force	2
Valley Homeless Healthcare Program	1

San Benito County Health and Human Services	1
InnVision Shelter Network	20
Santa Cruz Housing Authority	6
Housing Resource Center Monterey County (HRCMC)	3
CSA Mountain view	3
Fit Santa Cruz	1
Homeless Veterans Emergency Housing Facility	2
Central Coast HIV/AIDs Services (CCHAS)	4
Housing Authority of the County of Monterey (HACM)	11
Sant Clara County DMH	3
St Joseph's Family Center	1
Goodwill Institute	4
Sacred Heart CS	13
Salvation Army (Monterey)	3
Career Advantage and Retraining Center	1
Housing Authority (Santa Cruz)	1

Q4 Why does your agency use the HMIS software provided by CTA? (Check all that apply)

Answered: 31 Skipped: 0

Answer Choices	Responses	
To comply with funders' requirement (SHP, ESG, S+C, SSVF)	80.65%	25
Because it is less expensive than maintaining our own client database for the agency/program	9.68%	3
Because it improves our agency's efficiency in service delivery (through access to shared client info and/or SkanPoint)	32.26%	10
Because we want to participate in community-wide impact measurement	74.19%	23
Because CTA offers custom configuration and support to meet my agency's unique needs	22.58%	7
Decline to State	0.00%	0
Total Respondents: 31		

HMIS is used by 80.65% of the agencies. Only 9.68% of the partner agencies found that to be a less expensive option.

CTA conducts most of its tech support via help desk. Partner agencies reach help desk through various mediums. Twenty-nine out of 31 agencies used help desk in one form or other.

Q5 Have you or any of your agency's employees contacted CTA's Help Desk to request support with HMIS?

Answer Choices	Responses	
Yes	93.55%	29
No	6.45%	2
Decline to State	0.00%	0
Total		31

The help desk is accessed via phone, help desk email, CTA's website, direct email to program managers or other forms of personal communication. The statistics are apparent in the next question.

Q6 How does your agency access CTA's HMIS Help Desk Support?

Answer Choices	Responses	
Phone	68.97%	20
Help Desk Email (HelpDesk@CTAgroup.org)	62.07%	18
CTA's website	17.24%	5
Direct email to a CTA staff member	55.17%	16
Other form of personal contact	17.24%	5
Decline to state	0.00%	0
Total Respondents: 29		

CTA program managers prefer that their partners reach them via help desk email, but in reality partners like to pick up the phone more rather than submit help desk requests.

Q7 How would you rate CTA's response time, in handling Help Desk requests on a scale of 1 to 5? (1=Slowest service; 5=Fastest service)

1	2	3	4	5	Total
0.00% 0	6.90% 2	17.24% 5	51.72% 15	24.14% 7	29

51.72% of the respondents thought CTA's help desk request was fast enough, and rated it as 4 and only 6.90% thought it was close to poor and rated it as 2.

Partner agencies make help desk request for various reasons, such as requests for custom report, resetting of password, and request to be added to a particular list serve. Custom reports are worked on by a team of report writers, and password reset is often done over the phone or Salesforce case management software.

CTA maintains several listserves for various stakeholders. These listserve requests are often sent through the help desk. It automatically creates a case in Salesforce, which is picked up by a volunteer or employee of CTA. A CTA employee or volunteer closes the case after the work is done, which automatically sends an email to the person who made this request.

Q8 How would you rate CTA's communication in handling Help Desk requests on a scale of 1 to 5? (1=Poor communication; 5=Excellent communication)

Answered: 29 Skipped: 2

1	2	3	4	5	Total
0.00% 0	3.45% 1	31.03% 9	41.38% 12	24.14% 7	29

Out of 29 respondents, 7 of them thought CTA has excellent communication in handling a helpdesk request, and only 1 of them thought CTA's communication is borderline poor. Other ratings are in between.

Q9 Have you or any of your employees received HMIS training from CTA in the past 12 months?

All of the respondents received training in one way or the other.

Q10 Please indicate your opinion about the following statement: "My agency's employees and I have received adequate training from CTA to use the HMIS system in a way that meets the needs of our clients and our agency."

CTA partners typically receive training, usually on two instances.

- a. When an agency starts its new project with CTA all the users receive new user training

- b. If there is any change in HUD rules, CTA employees schedule training with the partners who will need to use those updates for project entries.

Q11 Do you or any of your agency's employees use custom Advanced Reporting Tool (ART) reports developed by CTA?

Answer Choices	Responses	
Yes	70.97%	22
No	22.58%	7
Decline to State	6.45%	2
Total		31

CTA employees often prepare custom reports for the partners. They are often part of the contract that they have under deliverables, or separately billed depending on the requirement. These reports are typically grant reports for the partners' funders. These reports are highly technical in nature and require special technology skills. More often than not the partner agencies are not aware of the parameters they should use. They work with CTA program managers on agreed-upon standards, and reports are built within a given timeline. There is a disagreement about how the reports should look and how it looks in reality.

Q12 Do the custom reports created by CTA that are used by your agency work as desired? (1=Reports don't work at all as desired; 5=Reports work exactly as desired)

1	2	3	4	5	Total
0.00%	25.00%	45.00%	20.00%	10.00%	
0	5	9	4	2	20

CTA partners had issues in the past about how useful the reports turned out to be. Reports are built on service data offered by the partner agencies. According to CTA report writers, web based software is not always able to support the report requests.

Q13 What is the total dollar value of the grants and other funding you have received this fiscal year as result of using data from HMIS in your application or in reports to your funders and donors?

Sacred Heart secured \$1.5 million in grants for using HMIS related services. There are agencies, such as Housing Resource Center Monterey County (HRCMC), that need HMIS for Supportive Services for Veteran Families (SSVF) grants. Table 6 shows details of grant amounts secured as a result of using data from HMIS or reports for their funders and donors.

Table 6: Dollar Value of Grants and Other Funding Received from Using Data from HMIS

Agency #	Responses(Amount of Grant)	Date
1	\$0.00	11/5/2014 13:50
2	unknown	10/30/2014 21:59
3	\$84,105	10/24/2014 9:31
4	\$2,000,000	5/22/2014 10:41
5	I do not have access to that information.	5/21/2014 15:51
6	\$72,500	5/15/2014 12:11
7	25,000	5/15/2014 11:58
8	0	5/1/2014 14:34
9	N/A	5/1/2014 14:32
10	0	4/30/2014 10:02
11	only 1 grant--SSVF--requires the use of HMIS	4/29/2014 10:40
12	\$618,788	4/24/2014 7:02
13	\$558,000	4/22/2014 11:18
14	\$367,000	4/22/2014 11:16
15	It is hard to say? Indirectly, it helps with our HUD renewal applications, which puts our agency over 500k.	4/21/2014 10:47
16	\$444,000	4/17/2014 10:21
17	\$1.5 million	4/16/2014 9:14
18	\$130,951	4/10/2014 16:18
19	201,500	4/9/2014 10:48

CTA often creates custom configurations for its partner agencies. UPLIFT is a good example of a custom configuration.

Q14 Has CTA created a custom configuration (program-specific questions, program-specific workflow, or app that imports/exports to HMIS) for your agency?

Answer Choices	Responses
Yes	32.14% 9
No	57.14% 16
Decline to State	10.71% 3
Total	28

9 respondents use some form of custom configuration.

**Q15 Does the custom configuration created for your agency work as desired?
(1=Configuration doesn't work at all as desired; 5=Configuration works exactly as desired)**

1	2	3	4	5	Total
0.00% 0	20.00% 2	30.00% 3	40.00% 4	10.00% 1	10

Only 1 out of 10 thought custom configuration worked well.

Q16 Which of the following most closely describes how you and your organization view CTA? (choose all that apply)

CTA has been partnering for a long time with these organizations in these three counties, yet the partner agencies' understanding of CTA's structure and role is now very clear.

Answer Choices	Responses	
Nonprofit	53.33%	16
Contractor	26.67%	8
Technology support provider	53.33%	16
Partner	40.00%	12
Collector of low-income/homeless data	30.00%	9
Leader in low income/homeless data collection and analysis	10.00%	3
Total Respondents: 30		

Another follow up question was asked about the impact of CTA, and answers given by the partners were as varied as the size of the agencies. CTA was lauded for its extreme helpfulness and community partnership. Table 7 shows the detailed record of testimonials.

Table 7: Testimonial about CTA's Impact

Agency #	Responses	Date
1	His been so helpful to assist people in the area of the uplift people in our program	5/28/2014 10:08
2	This is my first year working with CTA. I have been very pleased with all aspects of the work and services that they provide	5/22/2014 10:42
3	It's complicated. The Coalition is the lead agency for our HMIS activities with multiple agencies accessing data. I would have to think about this and get back to you	5/15/2014 12:12

4	CTA has been very responsive to our training needs and questions we've had before. They are very professional and proactive. It has been a pleasure to work with CTA	4/30/2014 10:04
5	HMIS has allowed our agency to have a database, even though we do not have a dedicated IT person on staff	4/22/2014 11:23
6	The product itself is useful, although we have had some glitches over the entirety of our usage. CTA staff very responsive and supportive whenever it comes to securing accurate reports, fixing the said glitches	4/21/2014 10:48
7	CTA is a strong partner in our work to fight poverty and homelessness in Santa Clara County. Their support and creativity has enabled us to improve our services, making them more efficient and people friendly	4/16/2014 9:16
8	Gives us as a community to ability to share data, track results and aids in collaborative work to benefit clients	4/9/2014 10:50

CTA Side Survey

CTA program managers were asked to answer a few questions about the same agencies that answered and rated CTA, focusing on four services:

1. CTA's response time
2. Training
3. Custom Reports
4. Custom configurations

CTA program managers generally do not build specialized custom reports, however they gather the requirements for reports from the agencies and communicate to report writers. They also maintain day to day communication with the agencies.

Santa Cruz County

The CTA program manager (PM) for Santa Cruz was asked to rate the following agencies (First tier survey respondents from Santa Cruz) on April 25, 2014. Attachment C displays the CTA side questionnaire. The same questionnaire was then administered to the same five agencies whose responses are given below. Tables below show the comparison between the CTA staff and the client agency staff rating of specified services.

Table 8: Veteran Resource Center

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Veteran Resource center	
HMIS primary Software	YES	YES
CTA's response time ratings	4	optimum
Custom Reporting Tool rating	Strongly Agree	No training
Custom Configuration Rating	4	5
Adequate Training	Strongly Agree	No training

Veteran Resource Center uses help desk, user support training, and custom configuration offered by CTA. According to the program manager of Santa Cruz the client prefers to contact via phone rather than email.

Table 9 : Front Street

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Front St	
HMIS primary Software	No (tracks only one program)	Don't know
CTA's response time ratings	5	optimum time
Custom Reporting Tool rating	5	Never uses Custom Report
Custom Configuration Rating		
Adequate Training	Strongly Agree	Agree(Highest rating)

Please note: The ratings were slightly different for the agency and PM rating. The agency predominantly used help desk and user support training.

Table 10: Santa Cruz Homeless Service Center (HSC)

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Santa Cruz HSC	
HMIS primary Software	YES	Don't know
CTA's response time ratings	5	optimum
Custom Reporting Tool rating	2	5
Custom Configuration Rating	Declined to state	5
Adequate Training	Agree(not highest rating)	5

Please note HSC Agree=4 in training. The agency's frequent help desk requests are generally related to reports, program workflow questions, data clean up, and password resets.

The ratings were different from the perspective of the client agent, which stated that the reports do not work very well and rated it as 2.

Table 11: Santa Cruz Housing Authority

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Santa Cruz Housing Authority	
HMIS primary Software	No (Access database)	Don't know
CTA's response time ratings	2	optimum
Custom Reporting Tool rating	2	5
Custom Configuration Rating		
Adequate Training	Agree(not highest rating)	

CTA's staff reported that SCHA uses HMIS to comply with the funder's requirement.

Table 12: FIT Santa Cruz

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	FIT	
HMIS primary Software	No	Don't know
CTA's response time ratings	5	optimum time
Custom Reporting Tool rating	3	Never uses Custom Report
Custom Configuration Rating	Skipped the sec	5

Adequate Training	Agree(not highest rating)	Was not trained at all

Monterey and San Benito County (MOSBE)

In Monterey and San Benito County, the private nonprofits and public organizations have created a coalition to address the complex issues of homelessness. The partner agencies are shown in the tables below.

The CTA program manager (PM) for Monterey and San Benito was asked to rate the following agencies.

Table 13: San Benito County Health and Human Services (HHS)

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	San Benito County HHS	
HMIS primary Software	Yes	Don't Know
CTA's response time ratings	4	
Custom Reporting Tool rating		
Custom Configuration Rating	3	Declined to state
Adequate Training	Strongly Agree	

Please note the agency predominantly used phone and email to contact help desk. They do not use custom reporting function. No further explanation was given about custom configuration as according to the PM, HHS never used custom configuration.

Table 14: Salvation Army

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Salvation Army	
HMIS primary Software	No	No
CTA's response time ratings	3	Declined to state
Custom Reporting Tool rating		
Custom Configuration Rating		
Adequate Training	Agree(not the highest rating)	Declined to state

According to CTA's program manager for MOSBE CTA's HMIS, the client uses HMIS for bare minimum, just to fulfill the funder requirement and participate in community wide impact measurement. It uses SkanPoint internally, which increases the agency's efficiency to provide service.

Table 15: Central Coast HIV/AIDS Service (CCHAS)

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	CCHAS	
HMIS primary Software	Yes	No
CTA's response time ratings	4	
Custom Reporting Tool rating	3	4
Custom Configuration Rating		
Adequate Training	Strongly Agree	Agree(highest rating)

Table 16: Housing Resource Center Monterey County (HRCMC) and Housing Authority of County of Monterey (HACM)

The Monterey Housing Authority of the County of Monterey works

with different agencies, so it was decided that surveys would be sent to the Executive Director and the Board Secretary of the Housing Authority and to a staff from coalition of homeless service providers to obtain responses to CTA's services. Thus there are two sets of answers.

Table 16 (1): Responder 1

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	HRCMC	
HMIS primary Software	No	
CTA's response time ratings	4	
Custom Reporting Tool rating	3	
Custom Configuration Rating	No custom configuration	4
Adequate Training	Agree(not the highest rating)	Declined to state

Table 16 (2): Responder 2

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	CCHAS	
HMIS primary Software	Yes	No
CTA's response time ratings	4	
Custom Reporting Tool rating	3	4
Custom Configuration Rating		
Adequate Training	Strongly Agree	Agree(highest rating)

Santa Clara County

The HMIS of Santa Clara was started in 2004, to date over 650 staff members have been trained in HMIS system. (CTA, 2015) It is one of the earliest communities to use HMIS from its formative years, and the county has had several managers for the program. This community has nonprofits with more than 100 full time employees, as well public agencies with two employees. Research shows that agencies with few employees often have low technology skills and more often than not they are most impacted when there is a change in HUD technical standards.

One CTA program manager and HMIS specialist had managed Santa Clara County since 2004. Santa Clara PM was asked the CTA side survey questions and was asked to rate the following agencies.

Table 17: Victory Outreach

Partner Rating	CTA PM rating
Victory Outreach	
Yes	Don't Know(Uses for UPLIFT)
4	N/A
Respondent Skipped the Q	N/A
Respondent Skipped the Q	N/A
Agree(Not the highest rating)	N/A

According to the CTA staff member, Victory Outreach used HMIS to be part of the Universal Pass for Life Improvement from Transportation (UPLIFT) program run by Santa Clara County. They are very small and very low tech agency, and they accessed CTA's user support training and help desk via phone.

Table 18: Career Advantage and Retraining Center (CARC)

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Career Advantage center	CTA 1
HMIS primary Software	Yes	Yes
CTA's response time ratings	3	Optimum
Custom Reporting Tool rating	4	Never use Custom Report
Custom Configuration Rating	N/A	N/A
Adequate Training	Agree(Not the highest rating)	

This agency used HMIS to comply with the funder request, they use Skanpoint, and they also thought it was less expensive for them to use CTA's HMIS than maintaining their own database. They have used help desk and user support training in the past. Their frequent help desk needs involve ART reports, APRs and UPLIFT reports. The CTA staff member believed that CTA delivers the highest level of service to CARC for help desk requests, as the agency maintains a personal relationship with CTA, which reduces their waiting time.

Table 19: Santa Clara County Department of Mental Health (DMH)

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	SCC-DMH	CTA 1
HMIS primary Software	Yes	No(Housing program and UPLIFT)
CTA's response time ratings	2	N/A
Custom Reporting Tool rating	3	N/A
Custom Configuration Rating	2	N/A
Adequate Training	Do not Agree or Disagree	N/A

This agency never used CTA's HMIS for County's Mental Health Services. It has also some UPLIFT use.

Table 20: Valley Homeless Healthcare Program (VHHP)-

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	VHHP	CTA 1
HMIS primary Software	No	No(uses for UPLIFT)
CTA's response time ratings	5	N/A
Custom Reporting Tool rating	N/A	N/A
Custom Configuration Rating	N/A	N/A
Adequate Training	Strongly Agree	

According to CTA staff, VHHP uses county's Health and Hospital System data base as their primary record system for client tracking. The agency used HMIS for its housing program VHHP medical respite, as well as UPLIFT.

Table 21: City Team

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	City Team	CTA 1
HMIS primary Software	Yes	No(uses HMIS for Local ES&TH)
CTA's response time ratings	4	N/A
Custom Reporting Tool rating	5	N/A
Custom Configuration Rating	4	N/A
Adequate Training	Agree(Not the highest rating)	N/A

According to CTA staff, City Team only used HMIS for local emergency Shelters and Transitional housing.

Table 22: Santa Clara Valley Health & Hospital System

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	SCVHHS	CTA 1
HMIS primary Software	No	No
CTA's response time ratings	3	N/A
Custom Reporting Tool rating	Respondent Skipped the Q	N/A
Custom Configuration Rating	Respondent Skipped the Q	N/A
Adequate Training	Agree(Not the highest rating)	No training

According to CTA staff they have their own system, and only Valley Homeless Healthcare uses HMIS for any client tracking. CTA was viewed as a collector of low income data.

Program manager CTA 2 was asked to answer the same set of questions as other program managers. CTA 2 had been with CTA for more than a year during the time the survey was conducted.

Table 23: Goodwill Institute

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Goodwill Institute	CTA 2
HMIS primary Software	No(HMIS used for VA and 1000 OP)	Yes
CTA's response time ratings	Respondent Skipped the Q	Optimum
Custom Reporting Tool rating	3	No Custom reports
Custom Configuration Rating	Respondent Skipped the Q	No Custom configuration
Adequate Training	Agree(Not the highest rating)	

The agency used help desk to reset password and for UPLIFT use.

Table 24: St Joseph's Family Center

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	St. Josephs Family Center	CTA 2
HMIS primary Software	No	Yes
CTA's response time ratings	4	Optimal
Custom Reporting Tool rating	N/A	N/A
Custom Configuration Rating		
Adequate Training	Agree(Not the highest rating)	5

Table 25: Teen Force

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Teen Force	CTA 2
HMIS primary Software	No	Yes
CTA's response time ratings	Respondent Skipped the Q	Optimal
Custom Reporting Tool rating	Respondent Skipped the Q	5
Custom Configuration Rating	N/A	N/A
Adequate Training	Agree(Not the highest rating)	No training

Table 26: CSA Mountain View

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	CSA- Mountainview	CTA 2
HMIS primary Software	YES	No
CTA's response time ratings	4	Skipped the answer
Custom Reporting Tool rating	2	Do not use Custom report
Custom Configuration Rating	Declined to state	
Adequate Training	Agree(Not the highest rating)	Skipped the answer

CSA its discontinued service with CTA after July 1, 2014.

According to all program managers of CTA, project needs in Santa Clara County were more demanding than in Santa Cruz or Monterey and San Benito Counties. The task of HMIS lead in Santa Clara County was heavier than in the other two service areas, the program managers working on those two service areas often had to manage a few projects in Santa Clara County, depending on the project need.

Table 27: Homeless Veterans Emergency Housing Facility (HVEHF)

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	HVEHF	CTA 3
HMIS primary Software	Yes	Don't know
CTA's response time ratings	5	optimal
Custom Reporting Tool rating	Declined to state	
Custom Configuration Rating	Declined to state	
Adequate Training	Agree(Not the highest rating)	No training

No official training was provided to this agency by CTA, but according to this agency they received less than adequate training.

Table28: Inn Vision Shelter Network

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Inn Vision Shelter Network	CTA3
HMIS primary Software	No	No
CTA's response time ratings	4	optimal
Custom Reporting Tool rating	4	5
Custom Configuration Rating	Declined to state	5
Adequate Training	Neither agree/disagree	Agree(highest rating)

Table 29: Charities Housing

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Charities Housing	CTA4
HMIS primary Software	No	Yes
CTA's response time ratings	5	
Custom Reporting Tool rating	Skipped the question	5
Custom Configuration Rating	N/A	N/A
Adequate Training	Strongly Agree	Agree

CTA 4 used to be a program manager for San Benito County, but he often divided his time between San Benito county partners and Santa Clara. He was asked to complete the CTA side survey for Santa Clara County's Charities Housing.

Table 30: Center for Training and Careers

Comparative Analysis	Partner Rating	CTA PM rating
Name of the Agency	Center for Training and Careers	CTA5
HMIS primary Software	No	No
CTA's response time ratings	3	Optimal
Custom Reporting Tool rating	Skipped the question	
Custom Configuration Rating	3	No configuration
Adequate Training	Disagree	No training

Table 31(1): Sacred Heart

Comparative Analysis	Partner Rating: SH 1	CTA PM rating
Name of the Agency	Sacred Heart(ES)	CTA6
HMIS primary Software	Yes	YES
CTA's response time ratings	4	Less than optimal
Custom Reporting Tool rating	2	3
Custom Configuration Rating	3	3
Adequate Training	Agree(Not the highest rating)	Neither agree/disagree

Table 31(2): Sacred Heart

Comparative Analysis	Partner Rating SH2	CTA PM rating
Name of the Agency	Sacred Heart	CTA6
HMIS primary Software	No	YES
CTA's response time ratings	4	Less than optimal
Custom Reporting Tool rating		3
Custom Configuration Rating	5	3
Adequate Training	Agree(Not the highest rating)	Neither agree/disagree

Sacred Heart has been CTA's partner for a very long time. It is a faith based national organization which serves the homeless population. They have a moderate presence in Santa Clara County. They often requested CTA to make custom configurations for their services. Their needs were more technical solution oriented than simple help desk requests to reset passwords. Sacred Heart Emergency Service (ES) department uses CTA's custom configuration for the HMIS. Hence the scores by the technical manager (SH 1) as well as program manager (SH 2) were simultaneously compared with the CTA Salesforce administrator. Sacred Heart's HMIS was integrated with Salesforce software, along with Service Point functionality.

Second Tier Survey

The first tier survey revealed many areas of disagreement and misinformation between the CTA staff and the client agency staff. Client-side surveys painted a different picture than what the CTA perceived as a real problem in service delivery. All 31 respondents were invited to participate in a second tier interview that was designed to elicit more detailed information with

the goal of improving customer service to the clients. Two survey participants requested to answer by e-mail and five requested telephone interviews. The other 24 agencies did not reply to the request for an interview after three or more attempts to contact them. The survey was conducted in English, which may have been a barrier for some smaller agencies. Research showed that some smaller agencies had trouble understanding the HMIS challenges, or did not have the manpower to analyze the problems faced by them in using CTA's HMIS. Some of the smaller agencies only used CTA's HMIS for a limited time or purpose. One of the CTA program managers speculated that they probably knew there was a problem, but were not ready to talk about it.

Training

Current CTA clients were asked 22 questions on four different topics as shown in Attachment C. The first section dealt with training.

Table 32 displays the responses from the seven agencies that participated.

Table 32: HMIS Training Survey Responses

Training	Agency1	Agency2	Agency3	Agency 4	Agency 5	Agency 6	Agency 7
Training	HACM	Sacred Heart(Technology Manger)	Sacred Heart(ES service PM)	CSA-Mountainview	Santa Cruz County	SCZ- HSC	Adult Education
Preferred Forms of training	Classroom preferred, Okay with Web form	Classroom preferred, Okay with Web form	Individual user level training	Onsite training	Did not get a chance for training	Individual User level Training	Focus group training
Agency satisfied with CTA's training	Yes	Yes		Inadequate training	Used screen shots	Adequate Training	Inadequate training
Ideal interval for training	Whenever there is any Change to HUD standard	Administrative or report every quarter or twice a year					when there is change
Information about the upcoming training	Email/ information in website	Email/ information in website	Email/ information in website	Email/ information in website		Email/ information in website	Email/ information in website
Topic to be covered	Trainings related to reports			Trainings related to reports			Trainings related to reports
Agency have a specialized work flow	No	Yes	Yes	No	They only use HMIS in winter	No	No
Who teaches specialized work flow	N/A	Technology manager	Technology manager	N/A			staff

Most of the agencies preferred hands-on classroom or one-to-one training, however they are open to web-based forms of training or screenshots if one-to-one training is not available.

Smaller agencies were not too happy with the training CTA provided for the HMIS. Smaller agencies did not have a specialized work flow. They often used the Service Point to fulfill their HMIS data entry requirements.

Reports

CTA report writers used SQL to generate custom made reports, and often integrated reports with ART, which can be accessed via partners' Service Point login. The interface was not very easy for most people despite the available information shared in CTA's website. Most clients had difficulty navigating the report software, especially if they were not digital natives.

Table 33: HMIS Reports Survey Responses

Reports	Agency 1	Agency 2	Agency 3	Agency 4	Agency 5	Agency 6	Agency 7
Agency Name	HACM	Sacred heart	Sacred heart	CSA-Mountainview	Santa Cruz County	SCZ- HSC	Adult Education
Type of training received to run APR	Adequate	Adequate	Adequate	Inadequate		Not adequate to run ART	Inadequate
Measurement of program outcomes	Differs between output and outcome	Differs between output and outcome	Differs between output and outcome				
Whether CTA understands data needs	Yes	Yes	Yes	No- Grant reports were not delivered on time		Not really	Not sure whether CTA understands data needs

The ART mentioned above is part of Service Point, which can be used by agencies who have an ART license to run them, whereas, custom reports are special reports generated by CTA using advanced report writing tools, such as SQL. They collect data from the agency and use that data to build those reports. The requirement is generally gathered by program managers and conveyed to report writers. Different agencies have various data, and reports are built based on that.

Communication and Service

CTA did not have a service level agreement with its partners. Priority of service provided to CTA clients is often the result of negotiation between CTA employees and the partner agencies, which changes from time to time. CTA did not have a formal service agreement with its partners where details of service expectation were written down. No details about how many hours of service will be provided at what rate was ever negotiated. Often the new agencies got bigger, and their need for service increased, so since there was no written limit for service, CTA just used its resources to provide service to its partners.

The communication section of the second tier survey was added to measure the expectations and challenges that grew from that lack of a formal service agreement.

Table 34: HMIS Communication and Service Survey Responses

Communication and Service	Agency 1	Agency 2	Agency 3	Agency 4	Agency 5	Agency 6	Agency 7
Agency Name	HACM	Sacred heart	Sacred heart	CSA- Mountainview	Santa Cruz County	SCZ- HSC	Adult Education)
Level of Communication and service expected	Verbal agreement	Verbal agreement	Verbal agreement	Verbal agreement	Verbal agreement	Verbal agreement	Verbal agreement
Any written documents	No	No	No	No	No	No	No
MOU	NO	NO	NO	NO	NO	NO	NO

Technology Plan

The goal of asking these questions was to determine the organizational difference in usage of technology. It also was aimed at understanding how technically employees of the client agencies are savvy.

Table 35: HMIS Technology Survey Responses

Technology Plan	Agency 1	Agency 2	Agency 3	Agency 4	Agency 5	Agency 6	Agency 7
Agency Name	HACM	Sacred heart	Sacred heart	CSA-Mountainview	Santa Cruz County	SCZ- HSC	Adult Education
Comprehensive Technology Plan	No	No	No	No		No	No
# of user employees using HMIS		Essential Service department uses HMIS the most					
# of Admin employees using HMIS			4-6 People				1
Employees tested on minimum tech skill level	No	No	No	Employees have degree not a tech degree		No	Employees have degree not a tech degree
Criteria for tech skills	On job training	On job training	run by mostly Volunteers	On job training			On job training
Mandated Training before data entry	Basic training	Basic training	Shadow data entry operators	Basic training			Basic training
Additional Comments	Agency has separate data system as HMIS is not adequate			The agency has discontinued its service with CTA. HMIS is cumbersome	Not much detail was available	Reports were neither user friendly nor suitable to give a clear picture of the program	CTA's training and HUD change of standard cumbersome as there is inadequate staff

There was a concern about the low response rate by Santa Clara County partners. Internal organizational research showed that the target population for the second tier survey had language barriers to answering a long survey which needed clear understanding of the work of CTA's HMIS. According to CTA management staff, interviewing the program management analyst of UPLIFT was the only work-around to know about the issues faced by smaller nonprofits which have limited ability to give feedback. The program management analyst of UPLIFT worked with 33 agencies. She thought HMIS was clumsy and was not user friendly, and causes lot of hardship for the agencies she works with. She also was concerned that the system did not give her the needed access, and the training offered by CTA was too technical and fast for people like her who possess marginal technical skills. She also wanted individual reports for each agency, which were not available under the present service CTA offers. (Personal Communication, January 15, 2014)

One CTA program manager has trained more than 300 people in Santa Clara County on behalf of CTA. He asks questions to the trainees to find out about their technical knowledge. He mentioned that typically only 10%-15% of them have previous experience of using HMIS. Most of the agencies use HMIS for regular data entry reporting, and services-only agencies use the ShelterPoint feature.

There is no agreed upon standard, neither is there any written contract about the prerequisites of the trainings. Hence the trainings are often conducted at different levels, which makes it hard for the trainer to conduct the training at a fast pace. He has broken down the training into two days, with three hours for each session. It used to be four hours of training in a single day, but it was really cumbersome and not helpful for people who almost fumbled with a web browser. He stated that at least 70% of the new users are unaware of how a web based

system works. They also do not understand how service providers work with HMIS. They have absolutely no idea about NOFA, APR, or Data Quality and its importance for NOFA. According to another CTA staff member, the agencies should provide minimum process training to their employees before sending them to CTA for technical training. He also mentioned the importance of open culture and maintaining service mentality of a nonprofit while conducting these training sessions. (Personal Communication, March 15, 2014)

ANALYSIS

The findings of this research indicate that most of the client agencies have a problem with HMIS report generation and training offered by the CTA. However, the problems faced by the three service areas that were studied for this research are different in nature. Santa Cruz, Monterey and San Benito Counties are smaller, low-tech communities with limited needs for custom HMIS configurations. They are moderately happy with their data quality and the service CTA provides. The problem with the report is often tied to the operation of the Service Point software, which has become unpredictable and often acts differently each time HUD changes its standards. It breaks whenever there is an update.

Even with the HMIS challenges Santa Cruz, Monterey, and San Benito Counties are still manageable for creating accurate reports because most of the agencies are limited to simple data entry in the HMIS database. They often maintain a different database to track clients for other projects. These two service areas are not advanced to the point of integrating the whole service structure for homeless people. There is not much digital divide among the users, as most of the users are low tech and do not need complicated custom reports or configuration.

Oddly enough, there is some confusion about the role of CTA when it comes to accepting HMIS as the primary record keeping system for client tracking and outcome analysis. It is still manageable because they have one project manager assigned for each county, who often uses information on a need-to-know basis to build custom reports when required. However, none of these three counties had any written contract with CTA about the service expectation. These might be a problem in the future if the number of homeless people increases in those counties and there is a larger volume of data. Entering data in HMIS is not usually difficult, but

generating reports with that data is where the problem starts. As mentioned earlier in the nonprofit survey, nonprofit employees are often people oriented and do not understand numbers very well. They get worried when their work is not reflected in numbers. Reports are based on numbers, and often report writers cannot make them look good if the data that was entered by the agency is not good.

Santa Clara County is entirely different when it comes to the digital divide between its partners. There are bigger agencies, like Sacred Heart or Innvision Shelter Network, who can afford to allocate resources for technology. They do not have much problem with CTA's training or technical help desk requests. More often than not these agencies have more than one database to track clients for different projects.

Interagency conflicts often affect the rating of the customer service in CTA. CTA has a help desk function which does not assign a case to a particular project manager in Santa Clara County. Some CTA program managers have been encouraging partners to use the help desk when there is a problem, however partners preferred to use the phone to contact a particular project manager, and often demanded service, showing urgency. CTA did not have any service level agreement for the types of jobs they are supposed to perform. A service level agreement makes it easier to prioritize work. For example, a password reset is more urgent than a list serve request, or bed inventory count report. CTA monitors that case in Salesforce CRM software, and it shows how many days the cases are in a queue. However, the software did not enforce any time limit within which the cases need to be solved.

CTA also lacks adequate resources to meet the client demands for HMIS services and support. They recruit volunteers from time to time, but a volunteer's time is often not used well,

as there is no one to teach them what to do. CTA has been focusing on writing down easy tasks, such as how to reset a password, clean up data of certain category, or add people to a list serve. There was no Standard Operating Procedure (SOP) for most of the routine tasks performed by CTA employees. These routine tasks constitute 40% of the help desk requests.

Research showed that smaller communities have fewer resources to spend on technical skills, and they often have workers who have been in the job for a while who did not get a chance for updating their technical skills in the same pace as the HUD standards or technical requirements changed, which results in bad data. Often CTA spends its resources in cleaning up data. Data clean up often involves reentering data on behalf of an agency. For example, a case worker erroneously entered the client's date of birth that is ten years less than his real age. In a homeless shelter for single adults, unaccompanied youth are not allowed. Maybe they are not housing any, but due to wrong data entry, an adult will appear as an unaccompanied youth. Things gets even murkier when genders are switched or race is mixed up. This is unacceptable to HUD and many errors like these will disqualify an agency from being a HUD grantee. This will affect an agency's Annual Performance Report (APR) and eventually this will affect the COC, when they apply for NOFA as a community. Cleaning up the data is important, but with limited resources, it becomes difficult. In addition, the Service Point software does not reflect the changes in data immediately. Changes in data show up the next day or day after, which may also effect HMIS reports.

HUD expects all the agencies, regardless of their resources, to have good data. It presupposes technical expertise from small nonprofits that are just progressing to case management software. HUD keeps changing data standards, and often homeless definitions, as new research shows up, as described in the 2015 HMIS documentation case above. (US

Department of Housing and Urban Development, 2014) HUD should be aware of the great digital divide among agencies. Nonprofits are not market-driven entities, rather they are mission-driven organizations trying to help the poor and needy for a long time before the HEARTH Act was passed. Measuring services used by homeless people has been a challenging task in the past because data entry quality is reliant on a case manager's knowledge of the community or the nature of homelessness. For example, the income field is the most problematic, according to the program manager for Santa Clara County. People rarely tell the truth, or often mistakenly believe their income is more than what makes them eligible for assistance. This will be counted as an error to HUD. She gave an example of a client who had apparently had an income of \$14,000/month. It was obviously an error by the case worker, who did not quite understand the difference between the annual income and monthly income, and also inputted the income from alimony in multiple places (personal Communication, 03/15/2014). Unintentional errors like these can eliminate the community's chances for HUD funding. Santa Clara County is allocating resources for building a community where nonprofits have to work little harder to maintain good data. Nonprofits need help to be adept in using web based software, to know about the common errors, and to recognize how data affects their reports, which they often use for funding.

Finally, CTA is a small organization. It has limited resources, and few volunteers which CTA does not manage very well. In an effort to satisfy clients they may over promise and under deliver needed services, mostly through a lack of written service level agreements. The reduction of CTA's service areas starting in the coming fiscal year may permit them to provide better services to smaller and more focused organizations.

To enhance the services it provides to its remaining clients CTA needs to make some changes in its service delivery model. First, CTA should seek ways to enter correct data with less

effort. With mobile technology and improvement of big data, it may soon be possible and easy for CTA to manage data with more accuracy. CTA has successfully worked in short term projects where the community needs help with homeless policy knowledge, as well as to get started with new HMIS projects. These projects are planned well, and planning made the implementation successful.

Recommendation

The mission statement of CTA is “Data doing good”. It is often viewed as a collector of low income data by partner agencies, apart from being a technology partner. It is a unique organization that acts as a bridge between non-tech-savvy nonprofits to HUD, which did not properly evaluate the impact of the digital divide on the small non-profit organizations providing crucial services to homeless people. The digital divide is decreasing. More and more organizations are catching up with the technical knowledge they did not have. CTA has helped the smaller communities with homeless policy knowledge and helped in filing applications for NOFA. CTA can help smaller communities with this expertise and experience that might not be possible for bigger data companies like Google. CTA has partnered with Google to distribute phones to homeless and low-income people. It has also built apps for using in Point In Time (PIT) by partnering with Santa Clara University students. All of these technologies could be used by HMIS providers, as mobile technologies are getting popular and giving more internet access to people.

Based upon the research, the following are the recommendations to CTA to provide more efficient service for clients.

Establish a detailed written contract at beginning of a new project

Developing a written contract with the client at the beginning of a project which approximately sets the expectation of service from the client is helpful. It was observed from research that there is a disconnect at the level of expectation. CTA ratings of customer service offered and received have rarely been the same for the CTA program manager and the client agency manager. It was also discovered after talking to management staff that there was an unwritten promise to deliver service, however no one was clear what it was. CTA has made some changes to the culture of community trust and made a detailed list of expectations while implementing HMIS in Contra Costa County. It worked well and the community is one of the happy customers of CTA. This model should be replicated in all its service areas.

Implement HMIS projects in smaller communities

CTA is a small organization and it has limited resources. The company has an open culture with a service mentality. Companies like these survive well in smaller communities where nonprofits and public agencies are more hands-on, have fewer rules and have less bureaucratic decisions to make. CTA likes to view itself as a tech nonprofit that does not handle local politics very well, and advocacy is not its first priority. CTA offers technology and policy help, but it lacks political finesse, which caused a problem with one large client. Hence CTA would be better off implementing HMIS in smaller communities where they are still using a homegrown system and did not migrate into a universal web based system like Service Point. Being one of the pioneers of implementation to universal system, CTA has experience in data migration which is one-of-a-kind and can be used by other communities who really need it.

Develop a volunteer pool and volunteer management system

CTA loves its volunteers and they love them back. This is possible due to the open culture prevalent in CTA. However, CTA cannot make the best use of volunteers as they often do not have enough work that they can immediately delegate. Volunteering in CTA can give a college student the needed work experience for a future social services job. CTA could use its niche in the social services marketplace as international nonprofits such as KIVA have done. KIVA facilitates loans to the working poor, and offer fellowships to willing college graduates to work pro bono. It is a strategy that benefits the company and helps the student gain knowledge about micro finance, which is not widely practiced, and there is not much opportunity to learn it unless a student can get into one of the very few organizations which deals with such loans. (KIVA, 2005-2015)

CTA could use the same strategy for HMIS knowledge. CTA can also use volunteers to train partners who need help with basic technology skills. However, they have to develop both a volunteer intake system and a schedule of useful work for the volunteers to do. Training materials for volunteer orientation are needed, as well as programmed texts and PowerPoint shows for volunteers to use with the small non-profits for technology training. Like KIVA, CTA could be an entry point for new social service professionals, making an additional and long term contribution to the community while enhancing its service delivery capacity.

Encourage partners to have a Technology plan and a Data Quality plan

It was observed from the research that none of the nonprofits or government agencies that are currently working with CTA have a technology plan, yet they are expected to catch up with the work which requires moderate understanding of how a web browser works or how case

management software works. It is the root of most problems and is reflected in user training challenges. CTA should encourage its partner agencies to test the HMIS user personnel for a minimum skill level. CTA should also encourage the agencies to teach their users basic knowledge about program management and HUD standards, and what it means for data quality. Most of the case workers manage cases in siloes and do not want to worry about the data quality. This needs to change, and CTA should take steps to make that possible. CTA offers video lectures on its websites, but they cannot enforce the requirement to watch them unless they get support from the partner agency that uses the HMIS system.

Based on its expertise CTA should develop model technology plans and model data quality plans that small non-profits could adopt with CTA assistance. Enhancing in-house capability to produce accurate data would enable CTA to produce better products for the required reports.

Invest in new technology or partner with big tech companies to collect data

CTA has been helping communities collect data for number of years. They had the resources to conduct basic analysis and generate reports. However, with the emergence of new technologies, collection of data does not have to be as cumbersome or labor intensive. Mobile4all is a good example of disruptive technology to offer social mobility to homeless and low income people. It is not too farfetched to think of an app, which can be embedded with consent of the homeless client, who decides to use the phone and a variety of social services during a particular time period. These data can be collected and seamlessly transferred to the HMIS system, with the consent of the phone user. Scanning is a lot less complicated than filling out complicated intake forms. It will get easier as the Internet of Things (IOT) becomes more developed. IOT is about

connecting devices over the internet and letting the device communicate between the application and users.

CTA has been investing its resources in new report technology. Tableau will be faster and more beneficial for HMIS partners if reports could be built on real time, unlike SQL based reports. These new non-SQL reports are designed to be dynamic and will not break if one parameter changes.

CTA should recruit or reskill more report writers who are adept in data analytics. Previously the report writers used SQL in writing reports. It involved using standardized data query which was cumbersome and had to be changed if one thing got changed. With the emergence of user friendly data analytic software such as Tableau, real time data analysis and presentation is easier. CTA and Santa Clara COC have been shifting from SQL based report writing to more current forms of analytics. Data analytics has been breaking new barriers everyday as data becomes easily available. Report writing still needs special technical statistical and analytical skills, which is in short supply. CTA has been working with contractors who have special reporting skills to keep the cost low. It is a good strategy, as the demand for custom reports is often highest during a particular time of the year, related to fiscal years and reporting cycles.

CTA should join the advocacy to change HUD policies

CTA has done some great work in the past, but it has been reluctant to join the advocacy to change the HUD policies on homeless data collection and reporting. Policies are made by regulators, but the elected officials who pass the budgets for the bureaucracy are often influenced by advocates for constructive change. CTA is aware of the problems and hardships that the small

nonprofits go through. They can take this knowledge to Congress, which writes the laws that govern HUD policies, often based on arcane research. While there are strict limits on non-profit lobbying placed by the Internal Revenue Service, CTA could share information with locally elected officials as advocates for their constituents, who are both the homeless population and the non-profit partners. While the HMIS data is crucial for the appropriate allocation of scarce federal resources, the reports to support the decisions should be easier to create with current computing capabilities.

Conclusion

CTA management realized that there has been a disconnect between the service CTA's HMIS is expected to offer and what they are offering. Initially the idea of a managerial audit was not viewed positively by employees or partners, but this audit was conducted to improve the efficiency of HMIS offered by CTA. This research is aimed at making the organization perform better.

The findings in this research show that CTA will be more efficient in its HMIS service if it could improve its training, leading to better data collection and reporting. The problems in training and report generation cannot only be ascribed to the lack of customer service or expertise from CTA's side. The data it has to work with is generated by the non-profit partners. The size of the partner agencies, their capability to collect accurate data, and the technical skills of their employees have a role to play in successful report creation.

HMIS has been problematic from the beginning; it was trying to measure a social problem which has been unsolvable for several decades. Every community is different and the nature of homelessness is different in different communities, but HUD was trying to devise a one

size fits all solution for all of them. It was exacerbated when they tried to enforce data standards and tied grants to them without offering any general assistance to the small non-profits that were expected to comply. Nonprofits have been scrambling to meet HUD standards, but the standards are moving so fast that it is hard to keep up. As HUD seeks to better understand the causes of long term homelessness and address them, it needs reliable data regarding the outputs and outcomes of the currently funded programs. This requires the use of big data and the development of skilled partners. Just counting homeless population once a year will not be enough to solve this problem.

CTA's HMIS is a great system for smaller nonprofits which cannot afford to have their own system. It has been working well for smaller communities who are either self-sufficient and are not tied to HUD grants, or that can collect usable data for HMIS input. The problem starts, however, when HUD data standards have to be applied and it points to a bigger problem in the program. Most of the programs do not collect data according to HUD standards; they either collect more data or less. Often their definition of homelessness is broader than HUD's standards.

Nonprofits providing services to the homeless population have not changed as fast as the technology is changing. CTA has helped nonprofits in the past to manage their data and migrate them to HMIS to meet federal standards. It would be prudent for CTA to introduce the new world of data science to smaller nonprofits where they can be a passive receiver of technology, and influence the policymakers to use newer technology where less human intervention is required for data collection. For example, scanning cannot go wrong but a manual data entry might. Apps are more user friendly than web-based systems where data can be input differently by different people. Homelessness is not caused by a single reason but it is often associated with

multitude of reasons that are described by different streams of data. The new data science is good with that.

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GLOSSARY

Annual progress report (APR)	A standard Federal reporting form used by the U.S. Department of Housing and Urban Development for CoC homeless grant programs.
Application Software	Computer programs designed to accomplish specific tasks or transactions. HMISs are application software.
Client computer	The equipment that the end user utilizes to access the HMIS, also called a workstation. Most often referred to as a desktop personal computer, it is normally connected to a server to access information.
Client-level data	Data about an individual HMIS client.
Database	A collection of information organized so that a computer program can quickly select desired pieces of data. An electronic filing system is an example of database.
Database applications	A class of computer programs (DBMS) that manage large amounts of data.
Data conversion/migration	The process of moving data from one data system to another.
End user	The participating agency staff person who will be using the HMIS to enter and/or extract data.
Real-time	Pertaining to the current moment. Technology that allows a user to receive data during the actual time that it is entered into the system.
Request for proposal (RFP)	A process used to solicit applications to provide a particular service or product.
Standard operating procedures (SOPs)	Standard methods for conducting tasks or processes, documented to ensure consistency among all participants.
Structured query language (SQL)	A database language used to manipulate relational databases. SQL was adopted as an industry standard in 1986
Two-tier/three-tier	Client/server architecture in which the user interface runs on the client computer and the database is stored on the server. The actual processing can occur on either the client or the server computer. Newer client/server architecture, known as three-tier, introduces a middle tier where the processing occurs.
Unique client identifier (ID)	A code associated with a single individual that can be used

	to create an unduplicated client count, but which cannot be used to identify that individual.
Tableau	Tableau is business intelligence software that allows anyone to easily connect to data, then visualize and create interactive, sharable dashboards. It's easy enough that any Excel user can learn it, but powerful enough to satisfy even the most complex analytical problems. Securely sharing your findings with others only takes seconds.

Source HUD.GOV/ Glossary. n.d. and Tableau, 2003-2015

Attachment A:

Screen shots of HMIS Standardized Intake form CTA Website

Santa Clara County HMIS Standardized Intake (I500)

This form is designed to be completed by a service provider while interviewing a client.
A separate Standardized Intake form should be completed for each member of the household.

HMIS #:
CM Name:
Project Entry Date:

Household Information Is client: ☐ Single Adult ☐ Adult in Household ☐ Child

If check Single Adult	Go to Client Profile
If checked Adult in Household	Are you the Head of Household (HoH)? ☐ Yes ☐ No
	If no, name of HoH:
	How many adults in household?:
	How many children in household?:
If checked Child	Name of HoH:
If you are in a household, what is your relationship to the HoH?	☐ Self (head of household) ☐ Head of household's child ☐ Head of household's spouse or partner ☐ Other relation to head of household) ☐ Other: non-relation member

Client Profile

First Name	Middle
Last Name	
Social Security Number	
U.S. Military Veteran	☐ Yes ☐ Client Doesn't Know ☐ No ☐ Client Refused

Client Demographics

Date of Birth	
Gender	☐ Female ☐ Other ☐ Male ☐ Client Doesn't Know ☐ Transgender Male to Female ☐ Client Refused ☐ Transgender Female to Male
If Other,	
Ethnicity: ☐ Non-Hispanic/Non-Latino ☐ Hispanic/Latino ☐ Client Doesn't Know ☐ Client Refused	Race: ☐ American Indian or Alaska Native ☐ Asian ☐ Black or African American ☐ Native Hawaiian or Other Pacific Islander ☐ White ☐ Client Doesn't Know ☐ Client Refused

Contact Information and Address Prior to Project Entry

Street Address	
City	
State	Zip
If no longer living here, when did you leave?	/ /
Phone	
Email	

Residence Prior to Project Entry

Type of Residence	☐ Emergency Shelter, including hotel or motel paid for with emergency shelter voucher ☐ Foster care home or foster care group home ☐ Hospital or other residential non-psychiatric medical facility ☐ Hotel or motel paid for without emergency shelter voucher ☐ Jail, prison or juvenile facility ☐ Long term care facility or nursing home ☐ Owned by client, no ongoing housing subsidy ☐ Permanent housing for formerly homeless persons (such as: CoC; HUD legacy; HOPWA) ☐ Place not meant for habitation (e.g., a vehicle, an abandoned building, bus/train/subway station/airport/or anywhere outside) ☐ Psychiatric hospital or other psychiatric facility ☐ Rental by client, no ongoing subsidy ☐ Rental by client with VASH subsidy ☐ Rental by client with GPD TIP subsidy ☐ Rental by client, with other ongoing subsidy ☐ Residential project or halfway house with no homeless criteria ☐ Safe Haven ☐ Staying or living in a family member's room, apartment or house ☐ Staying or living in a friend's room, apartment or house ☐ Substance abuse treatment facility or detox center ☐ Transitional housing with homeless persons (including homeless youth) ☐ Other ☐ Client doesn't know ☐ Client refused	
If Other,		
Length of Stay	☐ One day or less ☐ Two days to one week ☐ More than one week, but less than one month ☐ One to three months	☐ More than three months, but less than one year ☐ One year or longer ☐ Client Doesn't Know ☐ Client Refused

Housing Status

☐ Category 1: Homeless ☐ Category 2: At imminent risk of losing housing ☐ Category 3: Homeless only under other federal statutes ☐ Category 4: Fleeing domestic violence	☐ At risk of homelessness ☐ Stably housed ☐ Client Doesn't Know ☐ Client Refused

Length of Time on Street, in an Emergency Shelter, or Safe Haven

Continuously homeless for at least one year	☐ Yes ☐ No	☐ Client Doesn't Know ☐ Client Refused
Number of times the client has been homeless in the past three years	☐ 0 ☐ 1 ☐ 2 ☐ 3	☐ 4 or more ☐ Client Doesn't Know ☐ Client Refused
If 4 or more, Total number of months homeless in the past three years	_____	☐ Client Doesn't Know ☐ Client Refused
Number of months continuously homeless prior to project entry	_____	
Status Documented <i>Is there documentation to verify?</i>	☐ Yes ☐ No	

Employment

Currently Employed	☐ Yes ☐ No	☐ Client Doesn't Know ☐ Client Refused
If Employed, hours worked in a week		
If Employed, Tenure	☐ Permanent ☐ Temporary ☐ Seasonal	☐ Client Doesn't Know ☐ Client Refused
If Employed, looking for additional works or hours	☐ Yes ☐ No	☐ Client Doesn't Know ☐ Client Refused
If unemployed, looking for work	☐ Yes ☐ No	☐ Client Doesn't Know ☐ Client Refused

Income and Benefits Information

Receiving Income from any source?	☐ Yes ☐ No	☐ Client Doesn't Know ☐ Client Refused
Total Monthly Income		
<i>If not receiving a source below, please put 0</i>		
☐ Earned Income \$ _____ ☐ Alimony or Other Spousal Support \$ _____ ☐ Child Support \$ _____ ☐ General Assistance \$ _____ ☐ Pension or other retirement income \$ _____ ☐ Private Disability \$ _____ ☐ Retirement Income from Soc. Sec. \$ _____	☐ SSDI \$ _____ ☐ SSI \$ _____ ☐ TANF \$ _____ ☐ Unemployment Insurance \$ _____ ☐ VA Service Connected Disability \$ _____ ☐ VA Non-Service Connected Disability \$ _____ ☐ Workers Compensation \$ _____ ☐ Other \$ _____, Specify, _____	

Receiving Non-cash benefit from any source?		☐ Yes	☐ Client Doesn't Know
		☐ No	☐ Client Refused
<i>If not receiving a source below, please put 0</i>			
☐ Section 8, or other ongoing rent assist. \$ _____ ☐ Special Supp. Nutrition for WIC \$ _____ ☐ SNAP (Food Stamps) \$ _____ ☐ TANF Child Care \$ _____		☐ TANF Transportation \$ _____ ☐ Other TANF-Funded Services \$ _____ ☐ Temporary Rental Assistance \$ _____ ☐ Other Source \$ _____, Specify _____	

Health Insurance

Covered by Health Insurance?		☐ Yes	☐ Client Doesn't Know
		☐ No	☐ Client Refused
Medicaid ☐ Yes ☐ No Medicare ☐ Yes ☐ No State Children's Health Insurance ☐ Yes ☐ No VA Medical Services ☐ Yes ☐ No	Employer Provided Health Insurance ☐ Yes ☐ No Health insurance through COBRA ☐ Yes ☐ No Private Pay health insurance ☐ Yes ☐ No State Health Insurance for Adults ☐ Yes ☐ No		

Disabilities

Disability of Long Duration?		☐ Yes	☐ Client Doesn't Know
		☐ No	☐ Client Refused
<i>If yes, please complete the following for each disability type</i>			
Physical Disability ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused	Expected to be of long-continued and indefinite duration and substantially impairs ability to live independently?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Documentation of the disability and severity on file?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Currently receiving services/treatment for this disability?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
Developmental Disability ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused	Expected to substantially impair ability to live independently?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Documentation of the disability and severity on file?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Currently receiving services/treatment for this disability?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
Chronic Health Condition ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused	Expected to substantially impair ability to live independently?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Documentation of the disability and severity on file?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Currently receiving services/treatment for this disability?		☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused

Disabilities, Cont.

HIV/AIDS ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused	Expected to substantially impair ability to live independently? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Documentation of the disability and severity on file? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Currently receiving services/treatment for this disability? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
Mental Health Problem ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused	Expected to be of long-continued and indefinite duration and substantially impairs ability to live independently? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Documentation of the disability and severity on file? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Currently receiving services/treatment for this disability? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
Substance Abuse ☐ No ☐ Alcohol Abuse ☐ Drug Abuse ☐ Alcohol & Drug Abuse ☐ Client Doesn't Know ☐ Client Refused	Expected to be of long-continued and indefinite duration and substantially impairs ability to live independently? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Documentation of the disability and severity on file? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused
	Currently receiving services/treatment for this disability? ☐ Yes ☐ No ☐ Client Doesn't Know ☐ Client Refused

Domestic Violence Situation

Are you currently or have you ever been in a relationship where you were physically &/or emotionally hurt, threatened or made to feel afraid? If yes, when did experience occur	☐ Yes ☐ Client Doesn't Know ☐ No ☐ Client Refused
	☐ Within past three months ☐ Three months to less than six months ago ☐ Six months to less than one year ago ☐ One year or more ago ☐ Client doesn't know ☐ Client refused

I (Adult client or Head of Household) certify that the information I have provided here is true/correct to the best of my knowledge.

 Print Name of Client

 Signature of Client

 Date

 Print Name of Intake Worker

 Signature of Intake Worker

 Date

Screen shots of HMIS Standardized Intake form in Service Point

Adding a New Client

Enter as much client information as possible. In this screenshot, the following client information was collected:

Name
Name Data Quality
Social Security Number
Social Security Data Quality
US Military Veteran?

Date of Birth
DOB Data Quality
Gender
Primary Race
Ethnicity

Note
Client doesn't know?
Select 'Client doesn't know'
Client refuses to answer?
Select 'Client refused'

Client Search

Please Search the System before adding a New Client.

Items in Italics are for Data Entry ONLY and will not be used for Search Results.

NAME	First	Middle	Last	Suffix
Name Data Quality	Full Name Reported			
Alias				
Social Security Number	123 - 45 - 6789			
Social Security Number Data Quality	Full SSN Reported (HUD)			
U.S. Military Veteran?	Yes (HUD)			
Exact Match	☒			
Search ACTIVE Clients	☒			
Search INACTIVE / DELETED Clients	☐			
Search ALL Clients	☐			

Search   Clear   Add New Client With This Information   Add Anonymous Client

Ready to add new client?

- Click Add New Client With This Information (black arrow)
- Pop up window appears. Select Add Client Only
- Page refreshes to client's Summary page

Add New Client With This Information greyed out? (not able to add client)

- You did not search for this client before trying to enter as a new client
- Click Search to see if client is in HMIS
- Client not in HMIS? Add New Client With This Information should no longer be greyed out

Standard Intake (2014)

Section 4: Income

Income from Any Source * -Select- G

Monthly Income - Cash Benefits

Monthly Amount Source of cash benefits * Start Date * End Date

Add View Gross Income

HUD Verification

What is HUD Verification?

Triangle is red:
one or more
data fields missing data

Triangle is green:
no missing data

Income from Any Source (blue arrow):

If select Yes must add income source and amount to Monthly Income-Cash Benefits (green arrow)

If select No do not enter data in Monthly Income-Cash Benefits

Adding Data to Monthly Income-Cash Benefits: click HUD Verification (black arrow)

HUD Verification: Monthly Income - Cash Benefits for 10/06/2014

Per Source of cash benefits, the current records for Monthly Income - Cash benefits as of 10/06/2014 are displayed below. Any previous records for Monthly Income - Cash Benefits not overlapping as of this date are not displayed. In the event that multiple records exist per Source of cash benefits as of 10/06/2014, records containing "Yes" values will be displayed and take precedence for reporting purposes.

Source of cash benefits	Currently receiving income source?			
	Yes	No	Data Not Collected	Incomplete
Earned Income (HUD)	☐	☐	☐	☒
Alimony or Other Spousal Support (HUD)	☐	☐	☐	☒
Child Support (HUD)	☐	☐	☐	☒
General Assistance (HUD)	☐	☐	☐	☒
Pension or retirement income from another job (HUD)	☐	☐	☐	☒
Private Disability Insurance (HUD)	☐	☐	☐	☒
Retirement Income From Social Security (HUD)	☐	☐	☐	☒
SSI (HUD)	☐	☐	☐	☒
SSE (HUD)	☐	☐	☐	☒
TANF (HUD)	☐	☐	☐	☒
Unemployment Insurance (HUD)	☐	☐	☐	☒
VIA Service Connected Disability Compensation (HUD)	☐	☐	☐	☒
VIA Non-Service Connected Disability Pension (HUD)	☐	☐	☐	☒
Worker's Compensation (HUD)	☐	☐	☐	☒
Other (HUD)	☐	☐	☐	☒

Save Save & Exit Exit

Select Yes for each Income Source client is currently receiving

A pop-up window appears when Yes is selected:

- **Monthly Amount:** enter amount
- **Start Date:** default to today's date
- **End Date:** leave blank
- **Click Save & Exit**
- Repeat above if Yes selected for other Income Source

For all other Income Sources: select No

Click Save & Exit when done

HUD Verification changes to

HUD Verification

Standard Intake (2014)

Section 5: Non-Cash Benefits

What is HUD Verification?

Triangle is red:
one or more
data fields missing data

Triangle is green:
no missing data

Cash benefit from any source (blue arrow):

If select Yes must add data to Non-Cash Benefits (green arrow)

If select No do not enter data in Non-Cash

Benefits (green arrow)

Adding Data to Non-Cash Benefits: click **HUD Verification** (black arrow)

Non-cash benefit source	Currently receiving benefit?			
	Yes	No	Data Not Collected	Incomplete
Section 8, public housing, or other ongoing rental assistance (HUD)	☐	☐	☐	☒
Special Supplemental Nutrition Program for WIC (HUD)	☐	☐	☐	☒
Supplemental Nutrition Assistance Program (food stamps) (HUD)	☐	☐	☐	☒
TANF Child Care Services (HUD)	☐	☐	☐	☒
TANF Transportation Services (HUD)	☐	☐	☐	☒
Other TANF-funded services (HUD)	☐	☐	☐	☒
Temporary rental assistance (HUD)	☐	☐	☐	☒
Other Source (HUD)	☐	☐	☐	☒

Select Yes for each Non-Cash benefit client is currently receiving. Select No for all other benefits

A pop-up window appears when Yes is selected

Click Save & Exit when done

HUD Verification changes to

Standard Intake (2014)

Section 6: Health Insurance

What is HUD Verification?

Triangle is red:
one or more
data fields missing data

Triangle is green:
no missing data

Covered by Health Insurance (blue arrow):

If select Yes must add data to Health Insurance (green arrow)

If select No do not enter data in Health Insurance (green arrow)

Adding Data to Health Insurance: click HUD Verification (black arrow)

Health Insurance Type	Covered?			
	Yes	No	Data Not Collected	Incomplete
MEDICAID	☐	☐	☐	☐
MEDICARE	☐	☐	☐	☐
State Children's Health Insurance Program	☐	☐	☐	☐
Veteran's Administration (VA) Medical Services	☐	☐	☐	☐
Employer - Provided Health Insurance	☐	☐	☐	☐
Health Insurance obtained through COBRA	☐	☐	☐	☐
Private Pay Health Insurance	☐	☐	☐	☐
State Health Insurance for Adults	☐	☐	☐	☐

Select Yes for each Health Insurance Type client is currently receiving.

If select No: a pop-up window appears. Click Save. Pop-up window closes.

Once Yes or No has been selected for each type: click Save & Exit.

HUD Verification changes to

HUD Verification

Standard Intake (2014)

Section 7: Disability

What is HUD Verification?

Triangle is red:
one or more
data fields missing data

Triangle is green:
no missing data

Disability of long duration? (blue arrow):

If select Yes must add data to Disability Type (green arrow)

If select No do not enter data in Disability Type (green arrow)

Adding Data to Disability Type: click **HUD Verification** (black arrow)

Select **Yes**, **No**, **Client Doesn't Know** or **Client Refused** for each disability type client self-reports.

If select Yes: a pop-up window appears. Select best match for each question. Click Save.

Note: do not answer PATH questions unless you are a PATH program.

Once each Disability Type has been answered: click **Save & Exit**.

HUD Verification changes to

HUD Verification

Types of ART Gallery Reports

Assigned Number	Name of Report	Description of Report
01	Data quality	
	Data Completeness Report card	By agency or project
	Data completeness report card	HUD organization
02	Funding Reports	
4-625	HUD COC APR	Extracts data from APR
4-0631	COC APR Detail	A companion ART report to 625 provide data quality details
5	CDBG (new clients)	Facilitates the extraction of data for new CDBG clients for a specified quarter (3 month date range).
5	City Services (with zip of 1st contact)	Facilitates the extraction of data for City Services report based on zip code of first contact.
5	City Services (with LP zip)	Facilitates the extraction

		of data for City Services report based on zip code of last permanent address.
5	United Way (with current zip)	Facilitates the extraction of data for United Way report based on current zip code.
5	United Way (with zip of 1st contact)	Facilitates the extraction of data for City Services report based on zip code of first contact.
03	Agency Admin	
6-0123	Service Point User	This report details the last login date of HMIS users.
04	Program management	
7- 323	Program Demographics Report	This report provides statistics on clients served during the given reporting period. Most HUD data elements are detailed in a summary report
7	Annual Update Report	List clients (by HMIS #) and the date of their last annual assessment. The report also details when the next review is due.
05	SSOM (Matrix)	
8	Self Sufficiency Performance Outcome	Compares the initial Matrix score with the most recent Matrix score.
8	All Points of Measurement for a Program	Lists clients (HMIS #, Last Name, First Name) by Provider, along with the Matrix type, the date Matrix was completed.
08	Shelters	
9	Shelter Recidivism	This report details the extent of shelter recidivism after a program is designed to prevent it.
09	System Admin	
10-0121	Users by Provider	List HMIS users by name, email address, access level and Provider.
10-0122	Art License Management Report	Lists users with an ART license type, allocation status and assignment

		status.

(Art Gallery Report, n.d.)

Attachment B:

Client Side Survey Questions (First tier)- Sent to CTA's Partners Via SurveyMonkey.

Q1. Is the HMIS software provided by CTA the primary record system for tracking client services and outcomes for your agency?

- Yes
- No
- Decline to State
If No Please Explain

Q2. How many employees in your agency provide direct services to clients?

Number of Employees-----

Q3. How many program managers and program/department directors does your agency have?

Number of program managers and program department directors -----

4. Why does your agency use the HMIS software provided by CTA? (Check all that apply)

- To comply with funders' requirement (SHP, ESG, S+C, SSVF)
- Because it is less expensive than maintaining our own client database for the agency/program
- Because it improves our agency's efficiency in service delivery (through access to shared client info and/or SkanPoint)
- Because we want to participate in community-wide impact measurement
- Because CTA offers custom configuration and support to meet my agency's unique needs
- Decline to State
- Other (please specify)

5. Have you or any of your agency's employees contacted CTA's Help Desk to request support with HMIS?

- Yes
- No
- Decline to say

6. How does your agency access CTA's HMIS Help Desk Support?

- Phone

- Help Desk Email (Help_desk@CTAgroup.org)
- CTA's website
- Direct email to a CTA staff member
- Other form of personal contact
- Decline to state

7. How would you rate CTA's response time, in handling Help Desk requests on a scale of 1 to 5? (1=Slowest service; 5=Fastest service)

8. How would you rate CTA's communication in handling Help Desk requests on a scale of 1 to 5? (1=Poor communication; 5=Excellent communication)

9. Have you or any of your employees received HMIS training from CTA in the past 12 months?

- Yes
- No
- Decline to State

10. Please indicate your opinion about the following statement: "My agency's employees and I have received adequate training from CTA to use the HMIS system in a way that meets the needs of our clients and our agency."

- Strongly disagree
- Disagree
- Do not agree or disagree
- Agree
- Strongly Agree

11. Do you or any of your agency's employees use custom Advanced Reporting Tool (ART) reports developed by CTA?

- Yes
- No
- Decline to State

12. Do the custom reports created by CTA that are used by your agency work as desired? (1=Reports don't work at all as desired; 5=Reports work exactly as desired)

13. What is the total dollar value of the grants and other funding you have received this fiscal year as result of using data from HMIS in your application or in reports to your funders and donors?

14. Has CTA created a custom configuration (program-specific questions, program-specific workflow, or app that imports/exports to HMIS) for your agency?

15. Does the custom configuration created for your agency work as desired? (1=Configuration doesn't work at all as desired; 5=Configuration works exactly as desired)

16. Which of the following most closely describes how you and your organization view CTA? (Choose all that apply)

- Nonprofit
- Contractor
- Technology support provider
- Partner
- Collector of low-income/homeless data
- Leader in low income/homeless data collection and analysis

17. To help us convey CTA's impact to our future partners and funders, would you be willing to provide a testimonial about how CTA's products and services have helped you, your agency, or someone you know personally?

18. Testimonial about CTA's impact (in your words)

Attachment C:

CTA Side Survey questionnaire (Sent to CTA program managers)

Q1. Is the HMIS software provided by CTA the primary record system for tracking client services and outcomes for your agency?

- Yes
- No
- Decline to State
If No Please Explain

Q2. Why does your agency use the HMIS software provided by CTA? (Check all that apply)

- To comply with funders' requirement (SHP, ESG, S+C, SSVF)
- Because it is less expensive than maintaining our own client database for the agency/program
- Because it improves our agency's efficiency in service delivery (through access to shared client info and/SkanPoint)
- Because we want to participate in community-wide impact measurement
- Because CTA offers custom configuration and support to meet my agency's unique needs
- Decline to State
- Other (please specify)

Q3. Elements of CTA service used by the client to run their HMIS service?

- ☐ Help Desk
- ☐ User Support training
- ☐ Custom reporting
- ☐ Custom configuration

Q4. The client uses the following for help desk

- ☐ Phone
- ☐ Email
- ☐ Other form of personal Contact
- ☐ Webpage

Q5. What are the frequent help desk needs of the agency

Q6 State your opinion about the statement that “CTA’s Help Desk response time is optimum under

present condition

- Do not agree
- Slightly disagree
- Do not agree or disagree
- Slightly Agree
- Agree

Q7. This partner agency uses CTA's custom reporting services

- ☐ Frequently
- ☐ Occasionally
- ☐ Never

8. Do the custom reports created by CTA that are used by your agency work as desired?

(1=Reports don't work at all as desired; 5=Reports work exactly as desired)

Q9. Have you or any of your employees received HMIS training from CTA in the past 12 months?

Q10. Please indicate your opinion about the following statement: "My agency's employees and I have received adequate training from CTA to use the HMIS system in a way that meets the needs of our clients and our agency."

- Strongly disagree
- Disagree
- Do not agree or disagree
- Agree
- Strongly Agree

Q11. Has CTA created a custom configuration (program-specific questions, program-specific workflow, or app that imports/exports to HMIS) for your agency?

Q12 Does the custom configuration created for your agency work as desired? (1=Configuration doesn't work at all as desired; 5=Configuration works exactly as desired)

13. Which of the following most closely describes how you and your organization view CTA? (Choose all that apply)

- Nonprofit
- Contractor
- Technology support provider
- Partner
- Collector of low-income/homeless data
- Leader in low income/homeless data collection and analysis

14. If applicable, name an additional service the client could use to adequately fulfill its required needs?

- ☐ Custom reporting
- ☐ Custom Assessment
- ☐ Custom configuration
- ☐ Don't know

Other (please specify)

Attachment D:

Second Tier Survey

Training

1. What forms of training do you like the most?
2. How happy are you with the present form of training provided by CTA?
3. What would be an ideal interval for your user level training?
4. How do you know about the upcoming training session held by CTA?
5. What do you like to be covered under training?
6. Does your agency have a specialized workflow?
7. Who teaches that specialized workflow? Does that employee have to have special technical qualification?

Reports

1. What kind of training does your organization receive to run APR reports?
2. How do you measure your program outcome?
3. Do you think CTA totally understand your data needs?
4. If not why not?
5. Can you tell me about your data needs?
6. Do you have a formal data quality plan?
  - a. What is the procedure for that?
  - b. What is your data quality goal?
  - c. What is your frequency of data input
    - II. Specify the number of days weeks
  - d. What is your acceptable range of missing data?

Communication and Service

1. What is the level of communication and service you expect from CTA?
2. What is the foundation of expectation?
3. When your agency first joined was your level of expectation written down in words?

Technology Plan

1. Do you have comprehensive technology plan?
2. How many employees of your organization use the HMIS system on user level?
3. How many employees of your organization use the HMIS system on admin level?
4. Do you test for minimum technical skill level?
5. What would be the criteria?

6. Does your data entry worker go through training before going live?