

Denver Office of HIV Resources
Case Management Assessment
Denver Department of Environmental Health

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The Denver Office of HIV Resource (DOHR) developed this report as part of their quality management program for fiscal year 2009. The main goal of this report is to give the reader a global understanding of case management as it relates to HIV/AIDS care (both medical and nonmedical) in the Denver Transitional Grant Area (TGA). This report is designed to educate the reader while giving key stakeholders a common vocabulary for discussions on the future of HIV/AIDS case management in the Denver TGA.

In order to accomplish this goal, the report will outline approaches taken by other case management systems serving HIV, other chronic illnesses and other health and social needs. The report will provide a menu of options for the TGA's leadership and case managers to consider for the next steps of a quality improvement process. Several pressing issues will force the TGA case management system to rethink how it has traditionally provided services. These issues include:

- the change of HIV from a terminal to a chronic illness
- the growing number of HIV positive individuals
- higher acuity of participant's needs expected as the HIV population begins to age
- the possibility of future scarcity of resources

In order to give the reader the best starting point for further discussions, the report utilizes a multisource approach. The first source of information comes from an intensive literature review of case management research. This research brings together the best practice models from many fields and areas of expertise within case management. The second source results from a review of case management systems utilized by other TGA, Eligible Metropolitan Areas (EMA) and Ryan White Part B Grantees (Part B). This identifies how others operating under the Health Resources and Services Administration (HRSA) Ryan White HIV/AIDS Program have implemented their system to address the changes in the disease of HIV and in the legislation. The final source is a Case Management Survey of Medical and Nonmedical Case Managers and their clinical and administrative supervisors in the Denver TGA. This survey was designed to identify the strengths of the current case management system and to demonstrate possible areas for future improvements. The survey received 15 response of which seven were from case managers and eight from case manager supervisors. Nine of the respondents were from Medical Case Management agencies while six came from Nonmedical.

State of Case Management

Case management is an ever changing concept that has evolved with the changing needs of service and health care systems. Sowell and Grier (1995) define case management as a "client-focused process that augments and coordinates existing care services" (Chernesky & Grube, 2000, p. 15). In recent years, there has been an influx of interest in case management due to its ability to improve quality and contain cost in the health care system. While this evolution has encountered challenges, it has established concrete definitions and roles for case management while proving the importance of the discipline (Keigher, 2000).

There is a clear parallel between the Denver TGA and what is happening in the case management profession in general. Many health care systems have placed case management at the center of their attempts to increase quality and lower costs. This has created a great deal of attention to finding the best way to position case management in systems of care in order to have the maximum impact. While this has led to as many new questions as answers, it gives the Denver TGA a starting point to follow in its journey to more strategically positioned medical and nonmedical case management services within the Ryan White continuum of care.

Purpose and Roles of Case Managers

This section of the report will examine the purpose and roles of the case manager. Powell and Tahan (2008) found that “Since the 1980s, the case manager’s role has evolved, transforming itself from being an evaluator of health care services to a procurer and negotiator of health, medical, social, legal, and financial services...The role of a case manager has become more sophisticated and active in the care of an individual” (p. 164). The American Case Management Association (AMCA) and others have helped define the general scope of case management services over a wide realm of service functions. For the purposes of this report, these functions have been grouped into seven main areas:

1. **Biopsychosocial Assessment.** Through the utilization of early biopsychosocial assessment tools, the case manager ensures that services are generated in a timely and cost-effective manner.
2. **Access to Care and Services.** By facilitating and coordinating timely and appropriate health services, the case manager assists the participant in achieving an optimal level of wellness and functioning.
3. **Self-Management.** Through health literacy and disease management education, individualized goal setting and self advocacy support the case manager assists the participant to become a full and active participant in their own health care.
4. **Adherence.** Through adherence assessments and screening, coordination of services, psychosocial support, crisis management and education, case managers assist all providers to communicate a consistent adherence message to the participant and assist the participant to adhere to their medical and service treatment plans.
5. **Coordination of Care and Services.** Through facilitation of the organizations providing services and assistance in the sequencing of appropriate health care services in the most cost-effective manner, case managers improve the quality of care in order to promote optimal outcomes for all parties involved. Additionally, they provide quality health care along a continuum, decrease fragmentation of care across many settings, enhance the participant’s quality of life, and help contain costs.
6. **Transition Planning.** Through regular assessment and psychosocial support, case managers ensure that the participant is functioning in society at the most appropriate level, they assist in returning the participant to work (or other meaningful activities, depending on their condition), and they also determine when services, including case management, are no longer needed.
7. **Quality of Care.** Through continual assessment of the participant’s situation and care, case managers ensure they are connected to and adhere to the proper treatment needed, and that the treatment is implemented in an efficient way and avoids duplication of other services the participant is already receiving (Powell & Tahan, 2008).

Working off the above purpose and the premises that “Case managers are required to professionally and legally provide state of the art and ethical services,” (Powell & Tahan, 2008, p. 164) the research identifies nine key roles for case managers:

1. Educator. Given the complexities of our health, medical, and long-term care systems, case managers are able to assess the educational needs of their participants and their family members and educate them in the areas identified. This may include medications, types of treatment, healthy lifestyles (nutrition, fitness, stress management, substance use reduction, etc.), and illness risk-reduction strategies.
2. Coordinator. Through multidisciplinary collaboration efforts, case managers are able to organize service providers so that they meet the needs of their participants and their families.
3. Communicator. Case managers articulate and clearly communicate the needs of their participants to family members, health/medical clinicians, and other service providers so that participants can obtain the needed services and reach their highest level of functioning.
4. Collaborator. Case managers collaborate with numerous health, medical, and social service providers about the needs of their participants.
5. Counselor. Case managers provide psychosocial support and stability to participants while they go through difficult life events and medical situations.
6. Utilization manager. Case managers ensure cost-effective care delivery and use of services. They focus on the continuum of care and the transition of participants from one level of care to another.
7. Transition planner. Case managers plan transitions by examining the participant’s condition, the necessary treatment options, and where the relevant services are available. They then develop a plan of care that includes a discharge or transition plan.
8. Quality manager. Case managers are responsible for improving the quality of care provided by supplying both qualitative and quantitative data on their services and outcomes from other services.
9. Advocate. Case managers ensure that the needs of participants and their families are met by treating them as a priority (Powell & Tahan, 2008; Rizzo & Abrams, 2008; Livneh & Antonak, 2005).

Philosophical Orientation of Case Management

In this section, the report will look at philosophical models of case management. Two models, “participant driven” and “provider driven” are distinguished by who drives the case management process. While these models can be mutually exclusive of each other, they should be viewed as separate ends of a continuum. Most systems fall somewhere in between (Keigher, 2000).

The participant driven model is focused on the participant as an agent for their own interests and needs. This model draws its philosophical orientation from participant focused care in psychology and social work in that the participant’s strengths are utilized to direct services and move the participant forward in their treatment. Participants identify their own needs and are central to the development of their own treatment plans and goals. The linkage with other services is a collaborative effort between the case manager and participant. Keigher (2000)

describes the work of these case managers as focusing “on identifying participant strengths and obstacles to the attainment of goals, developing social networks, freeing the participant from clinical judgment and contempt, and assessing the role of each service system as either a support or an obstacle” (p. 28).

On the other side of the continuum is what is known as “provider driven case management.” These case managers are focused on the cost implications associated with the participant’s treatment. Participants are given a menu of limited choices that are appropriate to their condition as determined by the provider. Work under this model is directed towards identifying the program, making referrals and ensuring adherence to the treatment plan. As the gatekeepers of cost, these case managers work to obtain the maximum benefit to the system by offering the lowest cost alternatives, which ultimately provides the maximum health/social benefits for the participant (Keigher, 2000).

Case management services can also be distinguished by where they are located in the system of care. Case management services can be “within the walls” of an acute care, clinic or hospital setting. Services delivered in these settings are more likely (although by no means exclusively) to be provider driven and work to first organize the participant’s experience within the health system, and then to connect the participant with outside services not provided by the system. These case managers work primarily on the participant’s experience with the provider.

Case management can also be “beyond the walls.” This model is either associated with an outpatient setting, where the continuum of services is limited, or community case management agencies. Beyond the walls case management rarely has all the services needed for the continued health of the participant that the within the wall case management system might; therefore, the focus shifts from the internal management of services to managing community resources. This results in meeting the participant’s unique needs through a variety of providers. This model can both be participant driven, usually associated with a social service functionality, or provider driven, where a large health care system contracts out its case management functions to a community provider (Powell & Tahan, 2008).

To identify where a system or provider falls on both these continuums, the below chart provides a visual way to conceptualize which models are being utilized. It is likely that most case management systems will have components from each of the four models of case management.

	Participant Driven	Provider Driven
Within Walls	I	II
Beyond Walls	III	IV

- I. Participant Driven – Within Walls: The participant’s needs and strengths drive the case management process and referrals and connections are balanced between the provider (usually for medical care) and community (usually for support services). It is dependent on the situation of the participant. The walls define the point of entry more than the type of services.
- II. Participant Driven – Beyond Walls: The participant’s needs and strengths drive the case management process and the case managers balance all aspects of the participant’s care by coordinating community resources. Case managers serve as the bridge between the participant and the available services in the community.
- III. Provider Driven – Within Walls: The provider’s (or system’s) resources and motivation drive the service delivery. The case manager attempts to meet the participant’s need internally first and then looks to the community if the provider does not offer all necessary services to meet the participant’s needs. The system often determines care based on their own available resources, with cost containment and quality being top priorities.
- IV. Provider Driven – Beyond Walls: An agent of the provider (or system) works to ensure that the participant is connected to the provider in a way that improves quality and minimizes cost. The agent looks to meet the participant’s needs within the provider (or system) first before attempting to access outside community referrals (Keigher, 2000).

Case Management and Disease Management

Another key factor in the development of case management is its role in disease management, and more specifically, chronic disease management. Since 1997, large integrated health care systems have been introducing findings demonstrating how case management has improved medical outcomes and substantially reduced cost (Claiborne & Vandenberg, 2001). This research has demonstrated the importance of the case manager to a successful disease care system and the overall health of the participant.

The definition of disease management is: the identification of people with certain health problems and the interventions used to manage their care (Goodwin, 2004). According to the Disease Management Association of America, a disease management program should have:

1. Ways to identify participants who would benefit from care.
2. Evidence-based guidelines for care and medication.
3. Treatment that includes strong coordination between physician(s), case managers and other social service providers.
4. Participant education (may include prevention and behavior modification programs).
5. Quality management programming, including: evaluation of results, patient satisfaction surveys and utilization review.
6. Routine reporting and feedback between the patients and providers (Goodwin, 2004).

There are several driving forces that led to the development of disease management systems. The first is a fragmented care system where different providers from vastly different philosophical orientations are isolated by a lack of communication and failure to establish a common language. This traditional way of service implementation has been shown to generate higher system-wide costs and reduce quality of services (Powell & Tahan, 2008).

The nature of chronic disease is that it yields high costs. These costs are a result of years of intense services required to treat the disease, the impact of the psychological stress created as a result of the disease and its effects, co-morbidities and other factors. All of these issues have motivated systems of care to look for more efficient methods for delivering long-term care. Research demonstrates that poorly coordinated care systems are more likely to increase the usage of higher cost services, such as the emergency room or inpatient care. Additionally, the combination of increasing healthcare costs, a reduction in resources for social services, and a traditional system that is inefficient and fragmented have led to the search for more cost effective methods of delivery care (Powell & Tahan, 2008).

The amount of money saved by implementing disease management systems has been significant enough to have captured the attention of leaders both in the private sector and state and national government officials. One large health care provider saved \$22 million by implementing a case management/disease management system with a 78% reduction in inpatient costs (Claiborne & Vandenberg, 2001). Other studies have demonstrated a 10-30% decrease in costs for patients suffering from chronic diseases (Adomeit & Salfeld, 2001). As health care costs continue to increase, the importance of a strong disease management system becomes even more critical for cost containment and care coordination (Claiborne & Vandenberg, 2001; Adomeit & Salfeld, 2001).

The second reason for an increased focus on case management is its ability to improve the overall quality of care. When traditional chronic disease programs were measured for quality, they performed poorly as a result of their variations in care and their fragmented delivery systems. When case management and other aspects of chronic disease management were implemented, providers began to demonstrate the impact of disease management on both improving the quality of care and lowering the cost (Powell & Tahan, 2008). In the same study mentioned above, the provider also found a 15% improvement in functional status and a 60% decrease in hospitalizations (Claiborne & Vandenberg, 2001). This has also been shown on a

greater scale. For example, another large health system showed a 15% improvement in glycemic levels for diabetic patients (Claiborne & Vandenburg, 2001), and National Jewish Hospital in Denver showed an 86% drop in emergency room visits and a 58% drop in unscheduled doctor's visits upon implementing new disease management systems (Goodwin, 2004).

These findings show the benefits of having a case manager strategically positioned as the coordinator of participant services. In this disease management role, the case manager ensures that the participant is receiving the needed services without duplication and that all aspects of care (primary care, oral health, mental health, substance abuse, housing, financial aid, etc.) are well coordinated to maximize benefits to the participant.

Case Management and HIV/AIDS

This section will look at case management research as it relates specifically to HIV care. The role of the Ryan White funded case management in HIV/AIDS has changed over recent years, if not in function then at least in name. HRSA initially positioned case management as a supportive service to meet the needs of those dying from the disease. Recently, HRSA has attempted to reposition case management as a category to ensure that all services (medical and social) are coordinated within and beyond the Ryan White System of Care (The Ryan White System of Care in the Denver TGA consists of those agencies that receive funding from the Denver Office of HIV Resources, as well as services from other Ryan White Parts such as ADAP and other Part B programs, Part C and D funded clinics.) (U.S. Department of Health and Human Services, 2008).

A review of research reveals that many of the challenges facing the Denver TGA are inherent in the Ryan White System across the United States. One research study concluded:

Because the legislation did not mandate service provision, program models, or case manager qualifications, each locality could design its own services delivery system. HIV/AIDS case management therefore is offered through multiple models, by an array of auspices, in diverse settings, and through programs that vary considerably in the breadth and depth of their components. Consequently, there is little consensus about what HIV/AIDS case management is, and describing HIV/AIDS case management as it is practiced has become a research challenge. (Chernesky & Grube, 2000, p. 243)

To complicate this situation even further, in 2006 the Ryan White HIV/AIDS Treatment Modernization Act removed "case management" as a category and replaced it with two possible options, "medical case management and non-medical case management." The Act also eliminated the client advocacy category (U.S. Department of Health and Human Services, 2008). HRSA explains its definitions and intentions for making this change to be the following:

The current service definition from the HIV/AIDS Bureau (HAB) defines the critical services included in medical case management and the competencies needed by medical case managers. It does not specify or require a terminal degree. The definition takes into account the variety of case management models, settings, and difficult system changes that could occur with a more stringent definition.

Yet, the change is much more than a new name for a set of service activities. To qualify as medical case management, activities must be tied to providing, facilitating, and keeping a client in primary medical care. The requirements include ensuring that medical case managers are part of clinical care teams to help clients navigate medical care. They also include a comprehensive clinical assessment of need that is reassessed and reevaluated periodically. The medical case manager need not be located in the primary care facility, but he or she must work closely and directly with the primary care provider. (U.S. Department of Health and Human Services, 2008, p. 2)

HRSA's defines both kinds of case managers as follows:

Medical case management as a range of client-centered services that link clients with health care, psychosocial, and other services. Coordination and follow-up of medical treatments are components of medical case management. Services ensure timely, coordinated access to medically appropriate levels of health and support services and continuity of care through ongoing assessment of clients' and key family members' needs and personal support systems. Medical case management includes treatment adherence counseling to ensure readiness for and adherence to complex HIV/AIDS regimens. Key activities include:

- (1) initial assessment of service needs;
- (2) development of a comprehensive, individualized service plan;
- (3) coordination of services required to implement the plan;
- (4) client monitoring to assess the efficacy of the plan; and
- (5) periodic reevaluation and adaptation of the plan as necessary over the life of the client. It includes all types of case management, including face-to-face meetings, phone contact, and any other forms of communication.

Nonmedical case management includes advice and assistance in obtaining medical, social, community, legal, financial, and other needed services. Nonmedical case management does not involve coordination and follow-up of medical treatments, as medical case management does. (U.S. Department of Health and Human Services, 2008, p. 2)

While HRSA's category definitions provide flexibility, it requires the grantees to figure out what medical case management really means within their specific continuum of care. The Denver TGA has responded to these changes with new Standards of Care that were implemented soon after the HRSA changes. These standards provide additional structure to both medical case management and nonmedical case management for the Denver TGA.

Since HRSA's definition gives little with regard to specific direction for medical/nonmedical case management system development, the best way to understand HIV/AIDS case management is to examine the different TGAs, EMAs and Part B Programs throughout the country. To do this, the current report will utilize the findings of a national review of HIV/AIDS Standards of Care. The authors visited every EMA, TGA and Part B Grantee and Planning Council Website to assess the standards. The authors were able to review 55 sites from around the country who's Standards of Care were available on the internet. Of

these, 26 of the sites significantly varied from the Denver TGA Standards. This following section will categorize these differences, both by way of the larger trends and the breakdown by specific TGA/EMA and Part B Programs.

The definition of case management within HIV systems of care is greatly varied across the country. Very few sites have adopted the nonmedical case management category, and there are substantial differences in approaches to defining case management in general. While this might seem overwhelming at first, taken in the context of improving the Denver TGA's case management system, it does bring forth a wide variety of options for future conversations. Below is a summary of these findings.

Los Angeles (LA) identifies four levels of case managers. Services are provided depending on the acuity (which will be addressed in more detail later). The first level is called the Medical Case Manager. Medical Case Managers are all nurses, and they focus primarily on the coordination of medical services, health literacy and adherence. Depending on the acuity of the case, Medical Case Managers can have two levels of contact. The first is "intense contact," which requires one face-to-face contact and at least four telephone or service-related contacts per month with the participant. The second level of contact is identified as "intermediate contact," requiring one face-to-face contact every three months, and at least one telephone participant or service-related contact per month (Los Angeles County Commission on HIV: Medical Case Management, 2006).

The second level is called Psychosocial Case Management. These case managers have similar roles to Medical Case Managers in the Denver TGA. In LA, the participant's degree of acuity helps drive the level of services. The levels of acuity for Psychosocial Case Management are identified as *High* for "clients with complex, multiple unmet needs" (Los Angeles County Commission on HIV: Psychosocial Services, 2006, p. 15) and as *Transition* for "clients whose acuity level has not yet been determined or who are transitioning out of case management services" (Los Angeles County Commission on HIV: Psychosocial Services, 2006, p. 15). While specific numbers of contacts are not outlined, it helps organize other critical aspects of service delivery.

LA also has two additional levels of case management for specific populations, Transitional Case Management and Home-Based Case Managers. Transitional Case Management is focused specifically on services to at-risk youth and the incarcerated/recently released populations. Home-Based Case Managers serve the home-based high acuity participants. It appears that the Home-Based Case Managers are similar in function to the Home Health Care Staff in the Denver TGA in that they manage the medical and housekeeping needs of the home bound or mobility restricted participants (Los Angeles County Commission on HIV: Home-Based Services, 2006).

In addition to LA, Oakland and Portland also identify the category of a Nurse Case Manager. In Oakland, a nurse and social worker team up to work together on the most intense cases. In addition, there is a category for Medical Case Managers which describes another type of nurse/social worker team. The difference between the two is that the former is clinic-based and meets with the participants primarily during primary care visits, where the later does case management outside the primary care visit. In addition to the nurse/social worker teams,

Oakland also has what is called Psychosocial Case Management that has similar standards of care to Medical Case Management in the Denver TGA (Office of AIDS Administration, 2006).

Finally, Oakland has Short-term Assistance Case Management for those who only access services twice a year. Both Oakland and New York City (NYC) (NYC follows the New York State Department of Health Standards) have implemented a short-term case management model; NYC calls theirs Supportive Case Management, to manage the increasing number of participants. Both have a more intense level of services for those with higher acuity and have implemented a short-term, less intensive approach as a way to manage ever growing caseloads (New York State Department of Health AIDS Institute, 2006; Office of AIDS Administration, 2006).

In addition to their Nurse Case Managers, Portland has two additional case management levels. The first is a Service Access Specialist (SAS), who is a bachelor level professional and who sees a large number of lower acuity participants. The SAS works with participants “who are assessed as needing service access will have their needs, services provided, and necessary follow-up documented in client charts. Each client will have a brief individualized service plan. Follow-up tasks should include identification of the issue and who (client or SAS) has responsibility. The SAS and client will work together, as needed, for the successful completion of the task/issues identified” (Multnomah County Health Department, 2008, p. 14).

The second level is Case Manager in the Portland system. The Case Manager has a caseload about one third the size of the Service Access Specialist and must have a Masters or Bachelors degree and three years of HIV specific experience. Case Managers do service planning and on-going referral review and management. Case Managers must see their participants every 90 days (Multnomah County Health Department, 2008).

Newark, New Jersey has three levels of case management. The first is Medical Case Management, which is similar to the Medical Case Manager in the Denver TGA. The next level is Case Management, which seems to be a version of what is known as Nonmedical Case Management in the Denver TGA. The final level is Case Management Assistance. These “paraprofessionals” work under the direction of the other two levels and handle less intense or less complicated tasks (Newark EMA HIV Health Services Planning Council, 2008; Newark EMA HIV Health Services Planning Council, 1997).

Miami has a similar paraprofessional level of case management they term Peer Education that works closely with a Medical Case Manager and whose role is similar to the Medical Case Managers in the Denver TGA. The Peer Educator is assigned when a participant requests the service. Peer Educators are HIV+ peers who provide orientation and education about health and social services. Both Newark’s use of Case Management Assistance and Miami’s utilization of Peer Educators might be pointing to a trend where higher trained and more experienced staff manage the treatment planning and service coordination, and other task responsibilities, such as going to a doctor’s appointment or making follow-up phone calls, fall to a paraprofessional. Similar models have been used in health care and educational settings to lower cost while delivering more services (Newark EMA HIV Health Services Planning Council, 2008; Miami-Dade County Office of Grant Coordination’s Ryan White Program, 2009).

Houston, Texas has a unique approach in that they have designated Clinical Case Management for participants with mental health and substance abuse issues. This specialized approach directed at a high risk and high need population is complemented with Medical Case Managers. They work specifically with participants who are newly diagnosed, new to HAART, have CD4 counts <200, VL>100,000 or fluctuating viral loads, have excessively missed appointments, have excessively missed dosages of medications, have a mental illness, substance abuse, opportunistic infection, chronic health problems/injury/pain, viral resistance, or a clinician's referral. Through their standards, it appears that Houston focuses case management resources on specific high needs populations. For those with lower acuity, there is Brief Medical Case Management, which is based on specific crisis or short term need rather than being an open-ended service. This approach also does not require intense treatment planning or contact with the participants (Harris County Public Health and Environmental Services, 2009).

Baltimore utilizes a four level system for their case management services. The highest level is called Intensive Case Management, which works with high acuity participants and requires one face-to-face contact a month. The next step down is called Intermediate or Periodic Case Management. These case managers work with participants that have a less intense level of service coordination. This level requires a face-to-face contact once every three months, and one phone contact in between. "Limit" or "One-Time Case Management" is the next level. This is when the case manager is working in a time-limited capacity around a specific issue. The final step is "Client Advocacy" which focuses on immediate problem solving and advice giving. It is noteworthy that Baltimore and Orange County California have kept the Client Advocacy category even though HRSA eliminated it following the new legislation (Greater Baltimore HIV Health Services Planning Council, 2004).

Florida Part B Case Management has two levels of services. The first level is Supportive Case Management which has the same definition as HRSA's definition of nonmedical case management. In addition to the HRSA definition, Florida also adds that Supportive Case Management does not require a comprehensive needs assessment, plan of care or other key activities required in the next level of case management, Comprehensive Case Management. "The goal of Supportive Case Management is to meet the immediate health and psychosocial needs of the client at their level of readiness in order to restore or sustain client stability, and to establish a supportive relationship that can lead to enrollment in more comprehensive case management services, if needed" (Florida Department of Health Bureau of HIV/AIDS and Hepatitis, 2009, p. 4-4).

Florida's Comprehensive Case Management is defined as "a proactive and inclusive case management model intended to serve individuals with multiple complex psychosocial and health-related needs and their families. This model is designed to serve those who may require a longer, more intensive level of case management" (Florida Department of Health Bureau of HIV/AIDS and Hepatitis, 2009, p. 4-3). The Comprehensive Case Management approach in Florida is similar to Denver's Medical Case Management approach, with the goal being to address needs related to health concerns, entitlements (i.e. Medicaid), housing, nutrition, substance abuse, mental health, and domestic violence (Florida Department of Health Bureau of HIV/AIDS and Hepatitis, 2009).

While Georgia's Case Manager definition is fairly standard, the interesting difference pertains to how the Standards of Care address caseload size.

Caseload size is one of the most important factors affecting job performance. Generally, a caseload of 1:35 is considered an optimum caseload for the reasons stated above, but few case management agencies have caseloads at this level. Limiting caseload below 50 is encouraged, but caseloads are generally 50 or above. When caseloads increase above 50, the nature of the case manager's role may change in the following ways: Interactions with clients can become increasingly reactive rather than proactive; More demanding clients may receive the greatest amount of attention from the case manager; Case managers may not have enough time to develop a suitable rapport with the client; To save time, case managers may do more for clients rather than working with the clients to foster their independence; Less time will be spent on documentation requirements and data collection and reporting; Staff turnover may increase secondary to burnout. (Georgia Department of Community Health, 2009, p. 2-3)

Oregon Part B Program has two types of case management. The first type is Medical Case Management which is provided primarily by nurses who "are responsible for identifying the need for interventions and facilitating the client's access to an appropriate intervention. The nurse will either directly provide the intervention in the form of counseling and/or education and training or will refer the client to an appropriate resource to receive the intervention" (HIV Case Management and Support Services Program, 2009, p 14).

Oregon also offers Psychosocial Case Managers who work in partnership with the nurse Medical Case Managers.

Psychosocial case management is provided by social workers, mental health counselors, health educators and any professional with related health and human service experience. The psychosocial case manager participating on a multidisciplinary team works in partnership with the nurse(s) to assess the needs of the clients, the client's family and support system, develops an individualized client care plan, arranges, coordinates, monitors, evaluates and advocates for a comprehensive package of services to meet the specific client's complex needs. (HIV Case Management and Support Services Program, 2009, p 14)

While the majority of the reviewed sites strongly resembled the medical case management model in the Denver TGA, the above demonstrates how certain TGAs, EMAs and Part B Programs are evolving to meet the chronic nature of HIV and increasing numbers of HIV positive individuals. The Denver Office of HIV Resources did a Standards of Care review of case management in 2007 as the new legislation came into effect. Few, if any, of the above mentioned acuity-based systems were then in place when a review was conducted, and most case management services were more general in nature. Recent changes in case management services give the Denver TGA some interesting options to consider.

HIV Case Management Process

This section will examine the processes associated with case management. The survey of the case management process combines evidence-based models with what other TGAs, EMAs and Part B Programs are doing throughout the country. The purpose of this section of the report is to give the reader a complete understanding of the case management process in order to identify areas that the Denver TGA could consider moving toward for medical and nonmedical case management.

Research demonstrates that most HIV case management participants enter services in perceived or actual crisis (where the participant comes to service with urgent and immediate needs that they believe demand fast action), and most of these crises are not HIV related. Many participants enter into case management services due to pending evictions, utilities being cut off, homelessness, and hunger. These participants are often living marginally successfully before their diagnosis, and both the availability of resources and/or inability to manage their health in the context of other environmental problems brings them into contact with case management services. A smaller group of HIV positive people enter into HIV care supportive services in search for psychosocial support. This group is often recently diagnosed or has come to a point in their care (such as disclosing their status) that has caused them some mental distress (Chernesky & Grube, 2000).

How participants enter and access services helps to define the role of the case manager in the participant's life. This role can be broken down into "crisis management" and "maintenance management." With a stable participant (or one in-between crises), the case manager engages in maintenance management. This involves addressing emerging needs, service coordination, collaboration with care providers and ongoing monitoring.

A majority of participants will move in and out of crisis management throughout their care. The crisis situation is usually not caused by HIV itself, but instead an environmental stressor (such as a financial trigger, difficult housing situation, drug relapse or increased use, or relationship issues). The length of the crisis for participants is often highly varied, as is the length between crises. Additionally, many participants are found to drop out of care between crises and only return when their stress reaches a certain level. This is a challenge for case managers as it limits proactive preventative work or building lasting coping skills and often forces the case manager to become a crisis manager (Chernesky & Grube, 2000). According to the results of the Case Management Survey 41% of Medical Case Managers' time and 39% of Nonmedical Case Managers' time is dedicated to crisis management.

Managing both the crisis and maintenance stages of HIV case management starts with a complete understanding of the medical, psychological and social state of the participant's life. Only after this happens can the case management services strategically work with the participant to develop goals and action steps to improving their conditions. Most importantly, it is critical for the case management system to adequately assess acuity in order to develop system interventions that meet the specific level of needs facing the participants they serve (Chernesky & Grube, 2000).

Biopsychosocial Assessment

Research indicates that participants in HIV case management are highly vulnerable with a “history of complex and multiple life stressors and limited resources for success in coping” (Chernesky & Grube, 2000, p. 247). The average HIV participant, after three months of care, presents with a mean of 7.44 identified needs and a standard deviation of 1.46. In addition to having to meet the demands of managing their HIV care, participants must also address concerns around housing, food and basic necessities, mental illness, substance abuse, and other HIV or non-HIV illnesses. HIV is only one of many issues facing participants in case management services, and often HIV is not the number one presenting problem (Chernesky & Grube, 2000; Claiborne & Vandenburg, 2001).

With complex needs, the case management process must have a strong biopsychosocial assessment at the beginning of the working relationship. A strong assessment has three key components: multiple sources of data, a comprehensive scope, and a determination of appropriateness for service based on the level of service needed (acuity). If these three components are not present, it will be difficult to ensure that the participant is receiving the necessary services (Powell & Tahan, 2008).

While an interview with the participant is a key part of the case management assessment, a complete biopsychosocial assessment solicits information from all the key aspects of the participant’s life. In addition to an interview with the participant, a strong assessment includes input from the primary care provider, providers of other services (including criminal justice professionals) that the participant is receiving, medical and other treatment records, and in situations where employment is a key need, an employer. While the people and informational documents will vary from participant to participant, it is the case manager’s responsibility to ensure they have all the necessary information about a participant and their situation. Only when this is completed can a meaningful service plan be constructed (Powell & Tahan, 2008).

Below shows the results of responses to the following Case Management Survey question, *Please check all individuals you consult with or documents you examine as part of the biopsychosocial assessment (assuming that the participant has the following needs and services):*

Component	Medical	Non-Medical
Primary care physician	71.4%	50.0%
Infectious disease specialist	85.7%	25.0%
Dentist	42.9%	25.0%
Mental health professionals	85.7%	75.0%
Substance abuse professionals	71.4%	100%

Criminal justice professionals (probation officers, etc.)	57.1%	75.0%
Partners	57.1%	25.0%
Family members	57.1%	0%
Employers	28.6%	0%
Medical records	57.1%	50.0%
Dental records	14.3%	25.0%
Mental health/substance abuse treatment records	57.1%	75.0%

Once the proper people and sources of information are identified, the case manager must ask the right questions to elicit answers to key questions. The AMCA identifies the critical areas which the biopsychosocial assessment must address (Powell & Tahan, 2008). These are presented below with responses from the Case Management Survey when asked, *Please check which of the following components your Biopsychosocial Assessment evaluates at intake:*

Component	Medical	Non-Medical
Participant's health demographics and history	85.7%	50.0%
Current medical status	100%	100%
Nutritional status and Food security/access	71.4%	0%
Adjustment to illness	71.4%	25.0%
Health literacy	57.1%	25.0%
Medication assessment	71.4%	75.0%
Financial assessment including health insurance, public benefits, employment, etc	85.7%	100%
Functional assessment and environmental factors	57.1%	0%
Housing Stability	85.7%	100%
Housing Safety	42.9%	0%
Psychosocial assessment, including screening for current, and history of, Mental Health and Substance Use Issues	85.7%	100%

Family and support systems	85.7%	50.0%
Cultural, spiritual and religious characteristics	57.1%	50.0%

Collecting the key information above enables the case manager to identify the actual and potential problems to be addressed to ensure the overall health of the participant. It also provides the case manager with information so they can set the goals of the treatment, identify the necessary interventions and strategies that will need to be incorporated into the service plan of care in order to achieve the goals, and determine the resources needed for addressing these problems. Without a complete assessment, key areas may be overlooked and the care of the participant can suffer (Powell & Tahan, 2008).

The 2008 site visits collected data on whether biopsychosocial assessments are completed on time and in compliance with the Denver Standards of Care. In medical case management, the biopsychosocial assessments were in compliance in 93% of files. Nonmedical case management files were in compliance only 39% of the time.

As part of the biopsychosocial process, successful case management programs have a defined way to determine which people are likely to benefit from a chronic disease management program and, if they are appropriate for services, what level of care an individual needs. Acuity, determined through the biopsychosocial evaluation process, ensures that the program is focusing on individuals who are most in need of case management services. Some individuals are capable and have the support necessary to manage their own disease with the help of specialized professionals (physicians, dentist, etc.). Case management is shown to increase quality and lower cost when it is strategically delivered to those most appropriate for services (Powell & Tahan, 2008).

The AMCA has identified key indicators that determine if case management is necessary for a participant's overall care. While not an HIV specific list, it does put forth key risk factors that often require a higher level of case supervision and management (Powell & Tahan, 2008). An individual may need case management services if they have:

- Complex medical issues or comorbidities
 - Are over 65
 - Have a readmission, or readmission within 15 days
 - Have Alzheimer/dementia
 - Show evidence of noncompliance
 - Have repeated admissions to acute care
 - Have frequent visits to the ER, family physician, or clinic
- Needs for complex and costly services/resources
 - Have been admitted to an extended care facility or sheltered living arrangement
 - Shows need for transitional care or sheltered living environment
 - Is a single or first-time parent
 - Is dependent in activities of daily living; inability to shop for groceries, drive, or cook for self
- Complex psychosocial issues

- Have a history of drug overdoses
- Have a history of chemical dependency
- Have an eating disorder
- Have a chronic mental illness
- Are uncooperative, manipulative, or aggressive behavior
- Have coexisting behavioral and physical conditions
- Lives alone or with someone with a disability
- Is a victim of violent crime
- Have no known social or family support system
- Have a disruptive or obstructive family members or significant other
- Risks for untoward events including legal/ethical concerns
 - Is suspected of child or elder abuse and neglect
 - Is an undocumented immigrants
- Compromised financial situations or absence of health insurance
 - Have a history of or is currently homeless
 - Is existing in a poor or unsafe living environment
 - Have limited or no financial resources
 - Has no or inadequate health insurance (Powell & Tahan, 2008)

Once it is determined that a participant would benefit from case management services, the next step is to determine what level of service best fits their condition. Not all participants will present with the same number or intensity of needs. A strong case management system should have a biopsychosocial assessment in place to determine the level of acuity. When acuity is established, the services should match the identified need (Powell & Tahan, 2008).

During recent years, several TGAs, EMAs and Part B Programs have moved toward a case management system based on acuity. The level of acuity was determined by one of two methods: the first is the utilization of formal acuity assessments; the second approach was through an assessment of the participant's presenting problems. For those using formal assessments, participants were assessed at intake, usually by a professional trained to use a standardized assessment tool. The second approach is a more subjective, though simpler, process that relies on the case manager's or intake professional's interviewing skills to determine the needs of the participant in a variety of areas (Los Angeles County Commission on HIV, 2006; Newark EMA HIV Health Services Planning Council, 2008; Office of AIDS Administration, 2006; HIV Planning and Coordination Health Care Agency, 2008; Multnomah County Health Department, 2008; Harris County Public Health and Environmental Services, Greater Baltimore HIV Health Services Planning Council, 2004; Orlando EMA HIV Health Services Planning Council, 2009; Paterson-Passaic County-Bergen County HIV Health Services Planning Council, 2008).

Regardless of how acuity is determined, the amount and type of services are outlined by the Standards of Care. The acuity score is directly related to the type and/or intensity of services the case manager provides to the participant. The acuity score is, in essence, a statement of the participant's need and then services are provided to address these needs. This helps the case manager prevent over- or underutilization of services. It also aids the case manager in being able to focus on those participants with the highest level of need (Los Angeles County Commission on HIV, 2006; Newark EMA HIV Health Services Planning Council, 2008; Office of AIDS

Administration, 2006; HIV Planning and Coordination Health Care Agency, 2008; Multnomah County Health Department, 2008; Harris County Public Health and Environmental Services, Greater Baltimore HIV Health Services Planning Council, 2004; Orlando EMA HIV Health Services Planning Council, 2009; Paterson-Passaic County-Bergen County HIV Health Services Planning Council, 2008; Kansas Department of Health and Environment, 2002). Acuity is then reassessed over time and the participant's services are adjusted to address the level of assessed need. If acuity is low, many sites have a short-term case management service where someone can receive limited assistance around an issue and then are discharged when acuity drops to a certain level. If they experience a crisis in the future, they may reengage in services (Los Angeles County Commission on HIV, 2006; Newark EMA HIV Health Services Planning Council, 2008; Office of AIDS Administration, 2006; HIV Planning and Coordination Health Care Agency, 2008; Multnomah County Health Department, 2008; Harris County Public Health and Environmental Services, Greater Baltimore HIV Health Services Planning Council, 2004; Orlando EMA HIV Health Services Planning Council, 2009; Paterson-Passaic County-Bergen County HIV Health Services Planning Council, 2008).

Finally, some sites have created formulas driven by the acuity assessment that determine not only level of services but also case load numbers, contact frequency and reassessment intervals. This approach is backed up by research that correlates presenting needs with hours of work required of the case manager. The research shows that all participants are not equal with regard to HIV case management services. Acuity-based caseload systems assign workload based on participant need, rather than the number of participants (Newark EMA HIV Health Services Planning Council, 2008; HIV Planning and Coordination Health Care Agency, 2008). This approach has also been shown to improve the job satisfaction of the case manager (Gimbel et al., 2002). The following is a summary of various approaches based on location and how they assess acuity level.

LA utilizes a standardized *Acuity Assessment Tool* which scales participant's needs in terms of HIV medical care, medication adherence, mental health, social support system, housing, financial, substance abuse, sexual risk behavior, awareness of HIV services, domestic violence and the number of dependents. The scores on each of the above factors are ranked by the case manager and the participant is determined to have *High*, *Medium* or *Low* acuity. Case management services are then assigned based on these findings (Los Angeles County Commission on HIV, 2006).

Newark utilizes a more subjective approach, where the case manager ranks the participant as having *few needs*, *some needs*, *changing needs*, *some symptoms* or *many symptoms*. The acuity or *degree of need* then determines the amount of contact time between the participant and case manager. As a result, caseloads are dependent on the level as well as the total number of participants (Newark EMA HIV Health Services Planning Council, 1997). The chart below is from the Newark Standards of Care.

The following chart depicts the Levels of the Case Management Level System: Consumer Level	Degree of Need	Average Monitoring Time	Consumer/Case Manager Ratio
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Level 1	few needs	1 hr. per month	120: 1
Level 2	some needs	2 hr. per month	50: 1
Level 3	changing needs	3 hr. per month	40: 1
Level 4	some symptoms	4 hr. per month	30: 1
Level 5	many symptoms	6 hr. per month	20: 1

Orange County, California has developed the *Orange County Ryan White Act-Funded Services Case Management Acuity Scale*. This scale is one of the more in-depth assessments found in the Standard's survey. Areas of the assessment include: medical, substance abuse, mental health, support system, transportation, education, legal, basic needs, primary relationships, living situation, financial/benefits, culture, language, and self-determination. Each of these areas is ranked from 1 to 4 according to established criteria for each assessment area. The score then determines whether the participant needs case management services, and if so, what level of services they are to receive (HIV Planning and Coordination Health Care Agency, 2008). The chart below demonstrates how acuity drives services received.

Level of Case Management	General Caseload	Client Acuity Level	Minimum Reassessment Frequency	Minimum Contact Frequency
Basic (Non-Medical)	81-110	Low	6 months	3 months
Moderate (Medical)	51-80	Moderate	3 months	1 month
Intensive (Medical)	30-50	High	2 months	1 month

Portland has a similar system. The participant's level of service needs is assigned based on the *System Acuity Measurement (SAM)* acuity scale. The score of the SAM determines the level of case management (Multnomah County Health Department, 2008). The chart below demonstrates how Portland uses acuity scores.

SAM Score	Level of Case Management
14-28	Service Access: Client needs access to information and possibly initial referral to service(s). Client may need education about services, health issues, medications and other topics.
29-45+	Case Management: Client needs on-going referrals and case manager follow-up; an individualized service plan will be developed with all case management clients. Case manager involvement will be determined by acuity score and client needs. Contact frequency must be sufficient to ensure implementation and ongoing maintenance of the care plan. <u>Minimum</u> contact every 90 days, (telephone or face-to-face) including evaluation of goals, activities and outcomes.

Paterson-Passaic Bergen County utilizes the *Consumer Acuity Rating System (CARS) Assessment* to determine acuity in their case management system. Interestingly, the CARS is usually completed by a non-medical case manager, as many participants in this system have both a medical and non-medical case manager. From the outcome of the CARS, the type and amount of services is determined (Paterson-Passaic County-Bergen County HIV Health Services Planning Council, 2008). This is demonstrated in the chart below.

Level of Service	Type of C.M. Service	Face-to-face Visit Schedule	Weighted CARS Score	Average Hours of Service per Month
I	Basic Monitor	1/6 mo.	0	< or = to 1
II	Intensive Monitored	1/3 mo.	1-17	1.1-1.9
III	Basic Care	1/1 mo.	18-34	2-5
IV	Intensive Care	1/1 mo.	35-51	5.1 and up

In contrast, Orlando, Florida utilizes a different approach to acuity. Participants must have a *non-manageable difficulty*. “In order to receive Case Management Services, the consumer MUST have a non-manageable difficulty, including, but not limited to, one or more of the following: Physical, mental or learning disability; Language problems, other than a need for a translator; Substance abuse; Family associated problems; Severe acuity; Newly diagnosed; New to the Orlando EMA” (Orlando EMA HIV Health Services Planning Council, 2009, p. 2). Once non-manageable difficulty is established, the participant is ranked on the following acuity scale and resulting service level.

Level 1

- Criteria - Seeking education, support, maintaining health, employment, daily living tasks, asymptomatic, with no expressed stress or anxiety
- Response - Three contacts every three months; minimum face-to-face contact annually

Level 2

- Criteria - Symptomatic with limited medical care services, inadequate coping skills, inadequate or dysfunctional support system, emotional difficulty in response to HIV, requires assistance entitlements, multiple needs for any combination of health, mental health, and substance abuse screening/services, intermediate or long range resource planning needed
- Response - Maintain contact bi-monthly; minimum face-to-face contact every 6 months

Level 3

- Criteria - Frequent and severe illness requiring hospitalization and/or multiple ambulatory care visits, no reliable caregiver and unable to care for self, homeless or unsafe living situation, progressive physical or mental deterioration requiring in-home services, acute resource needs, possible child neglect or dependency, unsafe environment for children, minimal or no child care
- Response - Maintain bi-weekly contact; minimum face-to-face contact every 2 months

Level 4

- Criteria - Suicidal thoughts or actions, medical crisis requiring emergency intervention, need for immediate supportive counseling, threatened with immediate loss of vital resources, domestic violence, child abuse or neglect, unattended child, threats of harm against child
- Response - Maintain contact weekly; minimum face-to-face contact every month (Orlando EMA HIV Health Services Planning Council, 2009)

Kansas Part B's program utilizes an acuity system that "is a comprehensive document that addresses all life areas" (Kansas Department of Health and Environment, 2002, p 12). Kansas Case Managers utilize the following Acuity Stage Indicators to determine participant acuity.

Basic Stage 1**17-20 points**

- Case management intake,
- Minimum telephone contact every 3 months to verify address/phone number and to check on the client's current status; and
- Documentation in progress notes.

Basic Stage 2 **21-34 points**

- Initial Assessment;
- Annual re-assessment;
- Minimum contact (telephone or face-to-face) every 3 months; and
- Documentation in progress notes or care plan as indicated.

Intermediate Stage 3 **35-70 points**

- Initial Assessment,
- Minimum 6 month re-assessments;
- Minimum contact (telephone or face-to-face) every 30 days;
- Minimum evaluation of care plan every 30 days; and
- Documentation in progress notes and care plan.

Severe Stage 4 **71-102 points**

- Initial Assessment,
- Minimum 6 month re-assessments;
- Minimum contact (telephone or face-to-face) every 2 weeks;
- Minimum evaluation of care plan every 2 weeks; and
- Documentation in progress notes and care plan (Kansas Department of Health and Environment, 2002, p 15).

Oregon utilizes the *Care Plan Form DHS 8400* as their standardized assessment. The Standards of Care outline Oregon's acuity scale:

“The Acuity Scale is a tool for the case manager/nurse to use, which complements the professional, needs-based Screening and Assessment interviews. The Acuity Scale is intended to provide a framework for documenting important Screening and Assessment elements and for standardizing the key questions that should be asked as part of a professional Screening and Assessment. The Acuity Scale helps provide consistency from client to client and is a tool to assist in an objective assessment of a client's need, thereby minimizing inherent subjective bias. The Acuity Scale translates the Screening and Assessment processes into a level of programmatic support designed to provide the client assistance appropriate to their assessed need and functioning. (HIV Case Management and Support Services Program, 2009, p 23)

The result of the *Care Form DHS 8400* places the participant in one of four levels:

Level 1 **13-22 points**

- Annual face-to-face nursing reassessment and psychosocial rescreening;
- Ongoing nurse consultation as needed;
- Nurse and psychosocial Care Plan developed, appropriate interventions identified and ongoing follow-up provided; and
- Care Plan Form DHS 8400 updated annually.

Level 2 **23-42 points**

- Annual face-to-face nursing reassessment and psychosocial screening;
- Minimum contact (telephone or face-to-face) every 6 months to verify address/phone number and to check on client's current status;
- Ongoing nurse consultation as needed;
- Nurse and psychosocial Care Plan developed, appropriate interventions identified and ongoing follow-up provided;
- Care planning, goals, activities and outcomes documented on the Care Plan; and
- Form DHS 8400 and updated every 6 months.

Level 3 **43-63 points**

- Minimum annual face-to-face nursing reassessment and psychosocial rescreening;
- Minimum contact (telephone or face-to-face) every 30 days;
- Minimum evaluation of goals, activities and outcomes every 30 days;
- Nurse must be consulted on client's care planning goals, activities and outcomes (care plan). A nursing note and signature to show consultation must be in the client's file a minimum of every 90 days;
- Nurse and psychosocial Care Plan developed, appropriate interventions identified and ongoing follow-up provided; and
- Care planning, goals, activities and outcomes documented on the Care Plan Form DHS 8400 and updated every 6 months.

Level 4 **64-84 points**

- Minimum annual face-to-face nursing reassessment and psychosocial rescreening;
- Minimum contact (telephone or face-to-face) every 2 weeks;
- Minimum evaluation of goals, activities and outcomes every 2 weeks;
- Nurse is consulted on client's care planning goals, activities and outcomes (care plan). A nursing note and signature to show consultation must be in the client's file a minimum of every 30 days;
- Nurse and psychosocial Care Plan developed, appropriate interventions identified and ongoing follow-up provided;
- Care planning, goals, activities and outcomes documented on the Care Plan Form DHS 8400 and updated every 6 months.

Minnesota's Part B program has a three tier system of case management. Also considered to be one of the more well developed systems, at the core of this structure is a thorough acuity assessment which assesses participant health status, access to medical care, medical care, mental health, addiction, risk reduction, basic needs, health insurance, financial status, housing, independent activities of daily living, support system, transportation, cultural literacy/language, dependents/children, medication adherence, legal, abuse/violence, cognitive impairment, and frequency of contact. Each of these categories is ranked on a three point system, and then the scores are tallied to determine the tier of case management. The Standards of Care describe (Minnesota Department of Human Services, 2005, p. 5) the tiers as follows:

Tier 3 - High Need/Acuity

Assessment—Reassessment
 Consistent Face-to-Face Visit
 Multiple referrals/follow-up
 Lots of coordination of medical care

Regular communication with medical provider
 Service Plan
 Emotional Support
 Client & Case Manager Initiated

Insurance issues
Culturally Appropriate
CD/ MH issues

Prevention of Positives/Risk Reduction
Monthly Telephone Contact
In-person contact every 2 months

Tier 2 - Maintenance/Advocacy

Episodic Crisis
Prevention/Risk Education
Safety Net service referrals
Client initiated
Verify HIV medical care
Referrals/follow-up

Clients come to case manager
Prevent lapse in care/coverage
Complete CLRS Form
Brief History Progress Note
Quarterly Telephone Contact
In-person contact every 6 months

Tier I - Episodic Intervention

Stable housing, employment
Occasional need for specific services
Prevention education/Risk reduction
Verify access to medical care
Re-assess annually

What makes Minnesota unique is that all the Standards have different requirements, depending on the tier of the participant. While the majority of standards apply to all three tiers, there are distinct requirements, depending on the established acuity. This level of detail gives one of the best defined acuity-based case management system found in the Standards of Care review (Minnesota Department of Human Services, 2005).

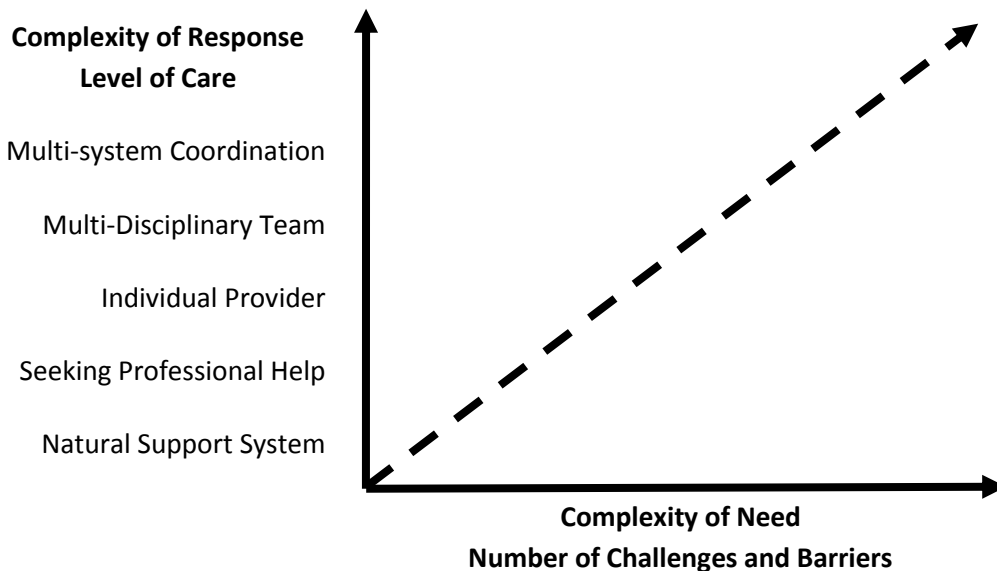
Below are the questions concerning acuity that were asked in the Case Management Survey. All questions were yes/no answers. The percentages below represent the “yes” answers to each of the questions.

Component	Medical	Non-Medical
Does your agency use a standardized acuity assessment?	28.6%	75.0%
Does your agency establish levels of acuity for each participant?	57.1%	50.0%
Does acuity level determine case managers' case load size?	42.9%	0%
Does acuity determine the intensity of services provided (number of contacts per time period, service planning, staffing, etc.)?	57.1%	25.0%
Does your agency do periodic reassessment of a participant's acuity?	57.1%	75.0%

Does your agency have a method to determine when a participant no longer needs your services?	57%	75.0%
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Access to Care and Services

Assessment and acuity levels help to establish the intensity of services the participant needs and also the degree of coordination required from the case management services. Adams and Grieder (2004) demonstrate this need for coordination in a simple graph.



HIV positive individuals have varied levels of complexity in their cases. The first level involves the participant functioning successfully in society and having no problems managing their health care. An increase to the next level indicates that the participant needs a specific service and has the ability to access that service and self-manage adherence. While these individuals need a service, such as mental health or dental, they are able to seek out these services without assistance or need for continued support. As complexity increases, a participant's service needs may be met by a specific provider. The participant is in need of a service, and while the provider offers the participant support and monitoring, there is no need for coordination across services or providers. The next level indicates the need for a multi-disciplinary team approach. These participants require services across several disciplines, and in order for these services to be effective, the participant needs assistance in coordinating service delivery to ensure that all professionals are on the same page and working towards a common goal. The final level indicates that the participant needs services beyond one system of care. This requires case management between different systems of care to ensure that the participant is receiving all the services they require and that there is solid communication and collaboration across systems (Adams & Grieder, 2004).

It is the case manager's role to assess the acuity of the participant, determine if case management services are necessary and, when needed, ensure proper access to services based on the assessment. How the case is initially addressed often determines whether services have their desired impact. Access to care is planned through the development of the case management plan (Powell & Tahan, 2008).

In order to create a strong case management plan, it should be approached as a multi-disciplinary process in which professionals and the participant share responsibility for the implementation. For a system to realize the true benefits of the chronic disease model, care must be delivered in a team approach. The case manager is well positioned to be the coordinator of this team. Their role is to ensure that key information is being communicated across providers and that the overall services are seamless, from the participant's perspective. In addition, the case manager must be "specifically trained to consider diversity issues - that is, ethnicity, race, gender, sexual orientation, age, socioeconomic status, physical and mental conditions, and environmental differences, within cultural, societal, and historical context" (Claiborne & Vandenburg, 2001, p. 221). This role of being the bridge between many different professionals from vastly different philosophical foundations and the participant requires a highly skilled and trained professional who can manage resources and information in an efficient manner (Powell & Tahan, 2008).

In addition to the multi-disciplinary approach, it is equally important that the participant is empowered to be active in their own care management. "The key to providing quality care is the approach that the patient and provider have coresponsibility for the management of the chronic disease based on comprehensive and shared knowledge. Much of the disease management model's success depends on the patient becoming an informed and empowered member of the health care team specifically trained to consider diversity issues - that is, ethnicity, race, gender, sexual orientation, age, socioeconomic status, physical and mental conditions, and environmental differences, within cultural, societal, and historical context" (Claiborne & Vandenburg, 2001, p. 221). In many case management systems, self-management (which the report discusses in detail below) of medical care is a key end goal. Co-responsibility is one of the ways a case manager can assist the participant in learning to manage their own care (Claiborne & Vandenburg, 2001).

Having a multi-disciplinary approach and sharing of responsibility sets the foundation for strong service delivery. The case management plan (i.e. service plan, treatment plan, service linkage plan) is the means for which this is accomplished. Research demonstrates that a well developed plan helps to lower the risks of failing to complete treatment tasks and the delivery of inappropriate care (Powell & Tahan, 2008). According to the ACMA, a strong case management plan should answer the following questions:

- What are the participant's and family's problems that need to be addressed in this episode of care? Are the participant and family in agreement with these problems?
- What are the treatment goals and desired outcomes the health care team must accomplish?
- What are the necessary interventions that would address these problems and goals?
- What timeframe should be established for meeting the goals and outcomes?

- What are the barriers to meeting the goals and the desired outcomes? (Powell & Tahan, 2008)

In addition to answering the above questions, the structure of the case management plan can be designed to ensure that the participant is receiving the needed services and increase participant engagement in the service delivery process. Following the concept of “co-responsibility,” the participant should be considered and treated as an active partner in the case management planning process. This means that the participant must understand the language of their plan and, whenever possible, the plan should be written in first person to represent the participant’s own words (Adams & Grieder, 2002).

Case management plans should have two key components: goals and objectives. Goals help define the global issues that brought the participant into receiving case management services. The case manager should assist the participant to create goals that link their current state to the desired state that would lead to increased self-managed care or elimination for the need for case management services. It is important that the goals are simple, straightforward and concrete so that everyone involved in the case knows when they are accomplished (Adams & Grieder, 2002).

Each goal should have at least one objective. Objectives outline what the participant is working on in order to accomplish their case management goals in a specified time period. Objectives should identify specific actions, be active and concrete, include a measure of success to determine completion, and have a time frame for when completion is expected. Research demonstrates that plans with a few objectives that change on a regular basis helps to build momentum and confidence in the participant (Adams & Grieder, 2002).

As with any human endeavor, a strong and realistic plan of action improves the likelihood for successful outcomes. Approaching access to care through a multi-disciplinary teams and shared responsibility with the participant sets the case management relationship up for long term success and a positive outcome. It also helps to ensure that the participant is connected to the most appropriate services and that they are invested in their care and overall health (Claiborne & Vandenburgh, 2001).

The 2008 site visits evaluated several components of the treatment/service planning process per the Standards of Care. Below are the results of this evaluation.

Standard	Medical	Non-Medical
Current treatment/service plan	49%	7%
Plan updated every 6 months	18%	1%
Objectives are measurable	25%	5%
Includes prevention goal	18%	0%
Progress demonstrated on treatment/service plan	4%	3%

Coordination of Care and Services

Once the assessment and initial connection to services is complete, case management becomes focused on the coordination of service delivery through the implementation of the case management plan. The following section in this report will look at two key points: the implementation and reevaluation of the case management plan and the case manager's role in managing the participant's case, and a related function of service utilization review. Research has shown the importance of these concepts in improving quality and decreasing duplication or ineffective (Powell & Tahan, 2008).

Implementation and coordination of the case management plan requires that the case managers reassess the participant's condition on an ongoing basis. The case manager works with the participant to review the identified problems and whether they have moved toward a state of resolution by determining the status of the treatment goals and objectives. As part of this process, the participant and case manager together determine whether new needs have arisen during the treatment process that require modification in the plan or if there is a change in acuity. New services and updates to the case management plan should happen naturally as the participant works through the plan and as new challenges enter their life (Powell & Tahan, 2008).

According to the AMCA, for effective implementation of the case management plan, case managers should answer the following questions:

- Does the participant have any new needs that must be incorporated into the case management plan?
- Are the participant and health care team in agreement with the plan?
- What is the appropriate timeframe for implementing the treatments and interventions? Is this timeframe appropriate for resolving the identified problems?
- Does the transitional/discharge plan meet the participant's condition and needs?
- Have all the necessary authorizations for treatment and services been obtained?
- Have the barriers to meeting the plan been addressed or resolved?
- Are the activities and outcomes on target?
- Is care progressing according to the case management plan?
- Are treatments occurring per the established timeline?

- Is the participant ready for discharge (based on acuity)?
- Is the participant being cared for in the appropriate level of care (acuity) or setting?
- Are there any issues with reimbursement? Have all required authorizations been obtained?
- Does the case management plan meet the needs and interests of the participant?
- Are there any legal or ethical risks present?
- What modifications in the case management plan are necessary? (Powell & Tahan, 2008)

Reassessment of the case management plan and acuity is a trigger to review the effectiveness of services. Since the goals of case management should be driving the interactions with the participant, goals and objectives should be reviewed and updated on a regular basis. The frequency of the reassessment depends on the intensity of the participant's situation. This also helps to keep the participant and professional focused on the key issues and presenting problems. A regular review will help the case manager identify new issues and assess if the level of acuity is still appropriate (Powell & Tahan, 2008).

One of the key findings about the case management process is the importance of coordination of care through utilization management. Utilization management is when the multi-disciplinary team ensures that the needs of the participant are being met and that services are being provided in a high quality efficient manner (Powell & Tahan, 2008). The AMCA outlines eight goals for utilization management:

1. To ensure effective utilization of health care resources through ongoing monitoring.
2. To determine medical necessity and appropriateness of care.
3. To identify patterns of overutilization, underutilization, and inefficient scheduling of resources.
4. To promote quality participant care and optimal outcomes.
5. To assist in the identification of coordination of care options for members and providers.
6. To facilitate appropriate, safe, timely, and effective discharge to the most appropriate level of care.
7. To provide education concerning the utilization management program to providers and department staff.
8. To identify potential participants in disease management and case management programs. (Powell & Tahan, 2008)

Case managers have become critical to the utilization management process. As the professional that crosses over to all aspects of the participant's care, the case manager is well positioned to lead the utilization process, as they have the most holistic understanding of where the participant is in all aspects of their treatment. In order to achieve the benefits of increased quality and efficiency, a representative from each service must participate in the process. While utilization management does require a certain level of capacity, the investment is realized by improved services and the avoidance of high expenses, such as hospitalizations and emergency room visits (Rizzo & Abrams, 2000).

As with all aspects of care, it is critical that the participant is included in this process. It can be powerful for the participant to hear from professionals how they are doing in their

treatment. Seeing the participant as a key member of the team can lead to empowerment and increase investment in their care (Claiborne & Vandenburg, 2001).

While case managers in other care systems have become the natural leader of the utilization management process, the process of how HIV case management has evolved presents challenges for implementing this into the TGAs, EMAs and Part B Programs process. Research shows constraints inherent to HIV case management. “Case management activities are shaped as much by constraints of clients, programs, and environments as by the nature of HIV/AIDS. These constraints include those from the agency itself, the program structure, caseload size, client functioning, and, as noted earlier, the cooperation of network providers, not merely the availability of providers” (Chernesky & Grube, 2000, p. 251).

Though the case manager may be best positioned to coordinate services and providers, they also have to work within the realities of the system. This is a greater challenge, as they are often the lowest paid and least educated people involved in the service delivery system. It is an enormous amount of responsibility for a bachelor or high school trained professional to manage services provided by medical doctors, dentists, psychiatrist, psychologist and other highly trained professionals. Most HIV care systems do not provide case managers the training or status to be successful in this role (Rizzo & Abrams, 2008).

Even with the above mentioned reality, many TGAs, EMAs and Part B Programs have implemented a case review system as part of their case management programs. These sites have started to mandate multidisciplinary case reviews where all the service agencies involved in the case meet periodically with the participant to ensure all needs are being met and eliminate duplications of services. These reviews are central to the treatment planning process mirroring the utilization management approach implemented by other case management systems and outlined above. Below is a presentation from the standards of TGAs, EMAs and Part B Programs who have moved to this model and an explanation of how it works within their systems (Office of AIDS Administration, 2006; New York State Department of Health AIDS Institute, 2006; Harris County Public Health and Environmental Services, 2009).

Oakland case managers hold “annual interdisciplinary case conferences” to ensure proper coordination of care. According to the Oakland Standards of Care, “During case conferencing a review of the service plan and an evaluation of the services the client is receiving should be reviewed, as well as the client’s current status (coordinating care, trouble shooting, problems with maintaining the client in care, bringing into care” (Office of AIDS Administration, 2006, p. 7). These are official functions of the EMA and the standards state that “Memorandums of Understanding or other standardized agreements may be necessary to ensure participant by the multidisciplinary team” (Office of AIDS Administration, 2006, p. 7).

New York City’s Standards of Care state that “Case conferencing is a formal, planned, and structured event separate from regular contacts. The goal of case conferencing is to provide holistic, coordinated, and integrated services across providers, and to reduce duplication. Case conferences are usually interdisciplinary, and include one or multiple internal and external providers and, if possible and appropriate, the client and family members/close supports” (New York State Department of Health AIDS Institute, 2006, p. 4 - 18). In addition, New York

requires that the highest level of acuity participants should have a case conference every six months.

Houston also requires case conferences as part of their process. Their standards of care outline that “Case conferences must at a minimum include the clinical case manager and medical manager and occur at least every three (3) months for the duration of Clinical Case Management services” (Harris County Public Health and Environmental Services, 2009, p. 12). This again speaks to their highest acuity participants with a goal of coordinating medical services with the other services the participant is receiving.

Florida Part B’s Standards has both Case Coordination and Case Conferencing. Case Coordination “includes communication, information sharing, and collaboration, and occurs regularly with case management and other staff serving the client within and between agencies in the community. Coordination activities may include directly arranging access; reducing barriers to obtaining services; establishing linkages; and other activities recorded in progress notes” (Florida Department of Health Bureau of HIV/AIDS and Hepatitis, 2009, p. 9-1). In contrast,

Case conferencing is a more formal, planned, and structured event separate from regular contacts. The goal is to provide holistic, coordinated, and integrated services across providers, and reduce duplication. Case conferences are usually interdisciplinary, and include one or multiple internal and external providers and, if possible and appropriate, the client and family members or designated care giver(s). Case conferences can be used to identify or clarify issues regarding a client status, needs, and goals; to review activities including progress and barriers towards goals; or to resolve conflicts or strategize solutions. Case conferences may be face-to-face or by phone, held at routine intervals or during significant changes. (Florida Department of Health Bureau of HIV/AIDS and Hepatitis, 2009, p. 9-1)

While a few sites have started to implement a utilization management approach, the fact that only four were found across the country demonstrates the difficulty in transitioning existing HIV case management models into true chronic disease management models. Asking professionals to meet about high acuity participants on a periodic basis takes up a large amount of time and energy that may not exist within the current system. While professional time is a difficult obstacle to overcome, this needs to be balanced with the fact that service utilization has been shown to increase overall quality of services, the health of the participant, and efficiency of service delivery (Powell & Tahan, 2008).

Several questions were asked on the Case Management Survey concerning utilization management’s role in Denver TGA case management. The following chart lists the components assessed between the medical and nonmedical case management services provided.

Component		Medical	Non-Medical
On average, how often do case managers at your agency meet with other professionals involved in the participant's care (professionals in the same room discussing the participant's needs)?	3 – Once a quarter	85.7%	100%
	2 – Once every six months	14.3%	0%
	1 - Once a year	0%	0%
	0 - Never	0%	0%
Communication necessary for the coordination of services occurs on a regular basis between all professionals involved in the participant's care.	6 – Strongly agree	28.6%	66.7%
	5 – Agree	57.1%	0%
	4 – Moderately agree	0%	0%
	3 – Moderately disagree	14.3%	33.3%
	2 – Disagree	0%	0%
	1 - Strongly disagree	0%	0%
Collaboration necessary for the coordination of services occurs on a regular basis between all professionals involved in the participant's care.	6 – Strongly agree	42.9%	66.7%
	5 – Agree	28.6%	0%
	4 – Moderately agree	28.6%	33.3%
	3 – Moderately disagree	0%	0%
	2 – Disagree	0%	0%
	1 - Strongly disagree	0%	0%
Services in the continuum of care are seamless (implemented in a coordinated method).	6 – Strongly agree	28.6%	0%
	5 – Agree	28.6%	33.3%
	4 – Moderately agree	14.3%	0%
	3 – Moderately disagree	0%	66.7%
	2 – Disagree	28.6%	0%
	1 - Strongly disagree	0%	0%

Retention in Care and Services

In chronic disease care, one of the most costly and detrimental issues is when a participant exits care before they are ready to self-manage all aspects of their condition. Often times, due to the supportive nature of the case management relationship, a participant will stay connected to their case manager even after they drop out of medical care or other services. The case manager is the one member of the treatment team with the capacity to reconnect participants to the system of care and help resolve any conflicts that might have arisen between the participant and professional. A physician or dentist cannot go to the participant's house or find them in the community; but this is a critical role for the case manager to fill and a proven way for the system of care to increase adherence and, therefore, improve both quality and cost effectiveness (Claiborne & Vandenburg, 2001).

Retention in care happens long before a participant exits care prematurely. Utilizing acuity based systems ensures that the case management process is focusing the right level of services to match the participants' needs. It is typical that participants with multiple and challenging presenting problems, such as mental health, substance abuse, homelessness or other social or psychological issues, are those who fall out of care. Acuity based systems assist the case manager to focus the most attention on these participants proactively, and focus less time and energy on those participants who are able and in a position to better manage their own care and services (Claiborne & Vandenburg, 2001).

In addition, utilization management is a proactive methodology serving to increase retention. Many issues leading to premature exits from care may be identified by one professional in the multi-disciplinary team; however, if the professionals on the case do not meet regularly, these issues may not be brought to the attention of the professionals who could handle conflicts, mental health and substance abuse issues, or social problems that make retention difficult. If positioned as the overall coordinator of participant's services delivery, case management has been proven to be an effective tool in improving the overall health of the participant (Rizzo & Abrams, 2008; Claiborne & Vandenburg, 2001; Goodwin, 2004).

Critical Components of HIV Case Management

Certain factors in case management delivery are proven to increase the level of physical and mental health of the participant. To achieve these results, a case management system must ensure that their case managers are trained and focusing in on the important issues of self-management, adherence and resource knowledge. In this section, the report will examine key components of a successful chronic disease/HIV case management program.

Self-Management

Self-management is the participant's ability to partner with health care providers "to management the symptoms, treatment, and lifestyle behavior changes, as well as the psychical and psycho-social concerns, that are a part of living with chronic disease" (Rukeyser, 2008, p. 9). Research has demonstrated that self-management is a critical element in determining appropriate decision making and behaviors that lead to improved health outcomes. These outcomes are realized when the participant and professional create a partnership in the participant's care and

where responsibility is gradually shifted to the participant as their ability to manage their own care increases (Rukeyser, 2008).

Self-management programs have been proven to improve health outcomes in a variety of chronic diseases, including diabetes, asthma, chronic arthritis, and congestive heart failure. “Improvements have been reported in patient self-efficacy, health outcomes, and quality-of-life among patients with chronic diseases. Some programs have also proven effective in reducing health care costs and emergency room visits, and in improving adherence and chronic disease self-monitoring, medication and treatment regimens” (Rukeyser, 2008, p. 9).

One of the key components of a self-management program is to understand the course of the disease and the evidence-based approaches needed for successful treatment. All the professionals within a chronic disease model must be experts on the specific of the disease, treatments, medication side effects, prevention components, and health management. Standards of Care and evidence models should guide services and the case manager’s coordination of those services. In addition, it is the case manager’s responsibility to ensure that these services are delivered without duplication and in a cost effective manner (Powell & Tahan, 2008).

Participant education is another critical component of the disease management system. An uneducated participant is more likely to be unhealthy and will need higher cost services. Participant education has been shown to increase quality through successful treatment implementation and lower cost by decreasing emergency room and inpatient visits. The better informed the participant is about their condition, the lower their level of anxiety. The sooner the case manager can help a participant understand their disease, the less chance they enter a denial response leading to poor adherence and dangerous behaviors. In addition, the better understanding the participant has of the reality of their situations the less chance they have of becoming depressed as a result of their diagnosis (Powell & Tahan, 2008).

One of the key aspects of participant education is health literacy. The American Medical Association (1999) found that poor health literacy is “a stronger predictor of a person’s health than age, income, employment status, educational level and race” (p. 552). In addition, “It is estimated that ninety million people in the United States, nearly half the population, have difficulty understanding and using health information” (Carruth & Carruth, 2008, p. 63). Health literacy can mean the difference between a healthy participant and one presenting themselves in the emergency room (Mullahy, 2009). Results of poor health literacy include:

- Discontinued use of prescribed medication when symptoms lessen
- Changes in the dosage, frequency or time of day a medication is taken
- Taking someone else’s medication for a perceived common symptom (Mullahy, 2009)

With the pressures and time restraints often placed on physicians and other medical professionals, managing health literacy becomes an important role of case managers. This reinforces the need for the case manager to be well trained on, and familiar with, the latest medical terminology and medical treatments, as well as have the ability to effectively teach health literacy to participants. While all professionals involved with the participant should continuously evaluate and train on health literacy, the case manager is best positioned to take the time and give the attention to ensure that this is done regularly (Mullahy, 2009).

The Case Management Survey asked several questions around self-management and health literacy.

Component		Medical	Non-Medical
Does your agency have a standardized methodology for assessing a participant's level of health literacy?	2 - Yes	16.7%	33.0%
	1 - No	83.3%	66.7%
Does your agency provide formal training for case managers on how to assess health literacy?	2 - Yes	16.7%	66.7%
	1 - No	83.3%	33.3%
How often do your agency's case managers assess health literacy?	3 - Every participant is assessed and reassessed periodically	50.0%	66.7%
	2 - Assessed when case manager believes there might be a problem	50.0%	0%
	1 - Not a part of the case management process	0%	33.3%

Adherence

Another key component of a successful disease management system is a focus on treatment adherence. The literature demonstrates the effectiveness of the utilization of self-management principles, such as behavioral contracting, skills training, self-monitoring, prompts and reminders, self-efficacy enhancement, and social support. Non-adherence is a significant issue relevant to chronic disease treatment success. In one study of those receiving treatment for a chronic disease, it was found that 79% of the participants relapsed to previous negative lifestyle choices that directly impacted their diagnosis, and 50% dropped out of treatment within one year. Falling back into old/harmful patterns of behavior lowers the quality of care a system can provide and participants end up utilizing higher level of services due to the resulting crisis (Rizzo & Abrams, 2008).

Research also defines a critical role for the case manager when it comes to the issue of adherence. The implementation of psychosocial support interventions is shown to increase overall treatment adherence. In their role, case managers are positioned to be a primary support professional in the care system. While coordination and implementation of services are critical, of equal importance is their ability to provide psychosocial support to the participant. Though psychosocial support may not be as simple to measure a CD4 count or inpatient visits, research shows that it can be the difference in the overall health of the participant (Rizzo & Abrams, 2008).

When researchers compare traditional systems of care with those of case managers offering psychosocial support, the findings demonstrate the importance of the case manager's role (Rizzo & Abrams, 2008; Claiborne & Vandenburg, 2001). Psychosocial support has been shown to:

- Reduce cholesterol levels
- Facilitate weight loss
- Lower resting heart rate
- Decrease morbidity rates
- Decrease mortality rates
- Decrease depression
- Decrease chronic pain syndrome
- Decreased stress
- Increased participant satisfaction
- Lower costs
- Increase quality of life (Rizzo & Abrams, 2008; Claiborne & Vandenburg, 2001)

Research also demonstrates the power of psychosocial support related to HIV care. Findings show that depression increases the symptoms of HIV infection by causing a decline in CD4 count and increasing the risk of mortality. Stressful life events and a lack of social support have been linked to increasing one's chance for developing AIDS. Client focused psychosocial interventions have been shown to decrease depressed mood and reduce other negative health factors. Furthermore, those in psychosocial support services have demonstrated lower levels of anxiety, anger, total mood disturbance and stress after their HIV medical treatment (Rizzo & Abrams, 2008).

The explanation for the above results demonstrates the power and role of psychosocial support in chronic disease care. Many research studies conclude that these outcomes are due to the ability of case managers and other psychosocial support professionals to increase medical compliance and treatment adherence through the strategic implementation of psychosocial support programs. It is this area where the case manager can have the most impact if they are properly trained in health literacy, adherence monitoring and counseling skills (Rizzo & Abrams, 2008).

Research also shows how to best utilize psychosocial support in a case management system. The first key component of a psychosocial support role is to assist the participant in exploring the personal meaning of the chronic illness. Especially when the disease, such as HIV, carries a societal stigma, it is important for the participant to be able to talk about the feelings associated with their condition (Powell & Tahan, 2008). It is critical that the participant comes to accept their situation in order to increase adherence and decrease the possibility of depression. Unfortunately, depression has been shown to "precipitate or attenuate pain and other psychical symptoms, amplify side effects of medication and lead patients to neglect diet and nutrition" (Claiborne & Vandenburg, 2001, p. 222).

The psychological response to a chronic diagnosis can be powerful. If the participant reacts with denial and depression adherence will suffer and medical outcomes will be

unsuccessful. While coordination and utilization management are key to providing high quality services, the psychosocial support role helps adherence to the treatment. In order to realize this, case managers need to have the skills to support the participant and assess when depression or anxiety are putting them at risk for nonadherence (Livneh & Antonak, 2005).

Another key component is teaching adaptive coping skills for successful community functioning. A chronic disease adds a great deal of stress to the social interactions of the participant as they learn to live with the disease. Case managers can assist participants by helping them acquire new coping skills to face a wide range of stressful situations in physical, social, education, and vocational settings (Livneh & Antonak, 2005).

Group experiences should be another key component of any psychosocial support program. Connecting with others who have shared experiences and anxieties allow participants to acquire greater insight to their condition and how it will impact their lives. Group support helps eliminate isolation, denial and depression while giving the participant hope for the future. Participants who see others living a high quality of life with a chronic disease are more likely to do the things necessary to stay healthy in their own life (Powell & Tahan, 2008).

Adherence was also assessed as part of the Case Management Survey. Results are shown below.

Component		Medical	Non-Medical
Does your agency have a standardized methodology for assessing a participant's adherence to medical and other treatments?	2 - Yes	33.3%	100%
	1 - No	66.7%	0%
Does your agency provide formal training for case managers on how to assess adherence to medical and other treatments?	2 - Yes	33.3%	66.7%
	1 - No	66.7%	33.3%
On average, how often do case managers at your agency assess for adherence to medical and other treatments?	5 - Every contact	50.0%	100%
	4 - Once a month	33.3%	0%
	3 - Once a quarter	0%	0%
	2 - Once every six months	16.7%	0%
	1 - Once a year	0%	0%
	0 - Never	0%	0%
What is the importance of psychosocial	3 - It is one of the most	83.3%	100%

support in the case management process?	important components of the case management relationship		
	2 - It is of secondary importance compared to other tasks in the case management relationship	16.7%	0%
	1 - It has no importance in the case management relationship	0%	0%

Resource Knowledge

The case manager must be aware of the resources available, both within the system of care and in other social and medical systems. Most participants enter into case management services with a lack of knowledge about the services in the care system or larger community. It is the role of the case manager to provide this expertise and help customize services based on the specific needs of the participant. While resource knowledge and providing referrals may appear to be a straight forward process, in reality, there are many variables which may influence the scope of services the participant is offered through case management (Harley & Rainey, 2003).

Jenkins and Laditka (2000) demonstrated that when resources are plentiful there is less collaboration, creativity and flexibility among service providers. When providers can offer a number of services in house or within a closed system, case management can easily become provider-based and within-wall focused service. In contrast, when resources are low, collaboration and creativity dramatically increase. There are two possible exceptions to collaboration in low resource scenarios. The first is that some agencies will approach scarcity by taking a competitive stance instead of a collaborative one. The second involves “exclusivity networking” where a few key agencies partner only with each other. This results in a limited number of resource and service options for the case manager and participant. Both scenarios limit diversity and creativity needed to provide quality services (Harley & Rainey, 2003).

The existence of bounded provider networks is another key research finding on HIV case management. Bounded provider networks describe the case managers’ connections with resources, both internal to their agencies and to the overall care and social support systems. The research shows that these networks were created by past successful experiences of the case managers connecting participants to providers in an efficient way. A case manager’s bound provider network is often based on relationships with other professionals who were easy to work with and provided the needed service in a timely manner (Harley & Rainey, 2003).

Further, the networks are often specific to the case manager’s experience. A participant experience upon entering case management services differs depending on their specific case manager’s network. Even case managers working for the same agency could have vastly different networks. While a relationship-based approach to referrals makes the case manager’s

life simpler, it can limit the options available to the participant, as one bad experience with a provider might result in the case manager no longer attempting to utilize that service (Chernesky & Grube, 2000).

It is important that the case management system have a way to educate the case manager about services within the TGA, but also in other systems of care and services. It is easy to fill a case manager's day with participant appointments and organizational meetings; it is more difficult to find time for researching and networking with new resources and learning about other systems of care. The recent increase in funding in the Denver TGA has brought many great new services into the TGA; but if research is correct this same positive aspect may be preventing case managers from learning and accessing systems of care that are not as known in the HIV community.

The Case Management Survey asked two questions concerning resource knowledge and referrals, shown below.

Component		Medical	Non-Medical
At your agency, what is the primary way referrals are made from case management to other services?	The agency has a structured way of determining which providers are best for addressing specific needs and acuity of needs.	28.6%	33.3%
	The agency refers internally first and then externally if services are not offered internally.	42.9%	0%
	Case managers refer to providers they have had success working with in the past.	0%	33.3%
	The participant's specific needs and desires fully determine where referrals are made.	28.6%	33.3%
What is the primary way case managers learn about resources in the community?	Learn from other case managers or staff in the agency.	57.1%	33.3%

Learn from training and resources offered through the agency.	14.3%	0%
Learn from networking and resources offered through DOHR/ Planning Council	28.6%	33.3%

Training

Case management training is necessary to establish a solid knowledge base for all case managers. A handful of sites have formalized their training programs to address the need for highly skilled and qualified professionals. By incorporating the research results, a strong case management training program can be established to ensure case managers have the skill set needed to manage complex cases and crisis situations.

The first important skill set needed to be a successful case manager is an ability to assess and reassess participant acuity. With more and more TGAs, EMAs and Part B Programs moving to a chronic disease model with acuity at its core, the case manager must be able to determine initial acuity and then reassess periodically. In order for an acuity system to work across different providers, the system must implement it with a high level of consistency so that an assessment of acuity is based on the implementation of a tool and not the skill set of the case manager (Powell & Tahan, 2008).

The next important skill set needed for successful case management is the ability to create and implementing a treatment plan. Three sets of specific skills need to be utilized in order to be able to provide successful treatment planning services. First, the case manager must understand and be able to implement the counseling and clinical skills needed to conceptualize the participant's needs and work with the participant to create a plan for services. Not only does the case manager need to have solid counseling skills to turn the biopsychosocial assessment into an action plan; they also need to be skilled in engaging the participant to participate in the process and "buy into" the planning process. Given that much of the success is reliant on the participant, it is necessary for them to be motivated and want to take action. It is a skill to know how to engage even the most difficult participants (Powell & Tahan, 2008).

Having the knowledge and ability to identify and refer participants to the needed services is also important. It is extremely inefficient and ineffective for every case manager to establish their own knowledge of the service environment. It also takes more effort and time than is often available for the case manager. Having a common knowledge of the resources can help overcome this problem, and can provide more consistent care. This requires the system to develop resource databases and networking opportunities in order for the case manager to learn and connect with the services critical to the health and well-being of their participants (Harley & Rainey, 2003).

Also important is being able to facilitate the utilization management process. Managing a multi-disciplinary team can be a difficult task. If a case management system is going to realize the quality and efficiency benefits of utilization management, they must give the case managers training and support around this role. Putting a group of professionals in a room to talk about a case does not work without strong structure and facilitation (Rizzo & Abrams, 2000).

Another key component to strong case management skills is the ability to assess and develop a participant's health literacy. As one of the critical indicators to overall health, health literacy is central to any case manager's work. In order to ensure that the participant is properly adhering to their prescribed treatment, the case manager must help them understand HIV, how the disease is impacting them and how the participant's behavior is impacting their overall health. The first step in teaching health literacy is become highly knowledgeable in HIV. If the case manager does not possess a mastery of HIV terminology and an understanding of the disease and its progression and treatment, they cannot help others manage their care effectively (Ad Hoc Committee on Health Literacy for the Council on Scientific Affairs, American Medical Association, 1999).

Lastly, the clinical ability to offer psychosocial support to the participant is critical to effective case management. The case manager is positioned to provide counseling to participants in collaboration or in lieu of a therapist. In many care systems, this role along with the ability to clinically conceptualize a case demands a graduate education. While this is not the case in the majority of TGAs, EMAs and Part B Programs, it does not eliminate the need for case managers to have the ability to understand complex psychological diagnosis or substance abuse issues (Livneh & Antonak, 2005).

To address the above needs, some TGAs, EMAs and Part B Programs have taken two approaches. The first is to require specific qualifications for those providing case management services. For case managers, a bachelor degree (usually in the area of social services or nursing) is the typical requirement. Often times, this educational requirement can be replaced by several years of HIV/AIDS specific experience (Georgia Department of Community Health, 2009; Kansas Department of Health, 2002; Minnesota Department of Human Services, 2005; HIV Case Management and Support Services Program, 2009). In addition, more sites have implemented minimum educational requirements for case management supervisors (see Supervision section below).

The second approach is the development of case manager certification programs to support their case managers and ensure that participants are receiving a high level of service. This is another relatively new national trend that many TGAs, EMAs and Part B Programs are requiring, a standardized level of training for their case management professionals.

The Standards of Care survey identified several sites that have implemented Case Manager Certification Programs. Detroit, Newark, Los Angeles, Kansas, Oregon, Minnesota, and Houston are all requiring case managers to go through a certification process. While these programs differ between sites, their end goal is to ensure that all case managers have a baseline and common understanding of HIV, psychosocial interventions (including health literacy and adherence) and resources in the community (Los Angeles County Commission on HIV, 2006; Newark EMA HIV Health Services Planning Council, 1997; Harris County Public Health and

Environmental Services, 2009; Southeastern Michigan HIV/AIDS Council, 2007; Kansas Department of Health, 2002; Minnesota Department of Human Services, 2005; HIV Case Management and Support Services Program, 2009; Wisconsin AIDS/HIV Program, 2003).

A few certifications have distinguishing features. Newark's program has different levels of certification for different positions (EMA HIV Health Services Planning Council, 1997). The higher the acuity the case manager is dealing with, the higher the level of certification is required. Kansas' certification program has an online training component (Kansas Department of Health, 2002). Minnesota has implemented both mandatory core training and the requirement to have the case manager document 12 hours of continuing education provided by the Minnesota Department of Human Services (Minnesota Department of Human Services, 2005).

Several questions concerning training were asked in the Case Management Survey and are shown below.

Component		Medical	Non-Medical
Have you received/provided training in the following subject areas – Diversity	Race and Culture	100%	100%
	Sexual Orientation	80%	100%
	Transgender Issues	60%	100%
	Working with participants experiencing poverty, homelessness, criminal justice involvement, sex workers, and other marginal populations	60%	100%
Have you received training in the following subject areas – Case Management	Overview of Ryan What Programs in Colorado	40.0%	50.0%
	Ryan White Standards of Care	60.0%	100%
	Ethics and Boundaries	100%	100%
	Confidentiality/HIPAA	80.0%	50.0%
	Public benefit programs	60.0%	50.0%
	Linkage to medical care	60.0%	100%

	Housing resources, HOPWA	20.0%	0%
	Immigration issues	60.0%	0%
	Criminal justice systems	20.0%	100%
	Teaching/supporting medical self management	40.0%	0%
	Teaching/supporting health literacy	40.0%	0%
	HIV stigma and discrimination	80%	100%
Have you received/provided training in the following subject areas – Case Management Skills	Fundamental skills	100%	100%
	Motivational Interviewing	100%	100%
	Assessment	80.0%	100%
	Documentation	80.0%	100%
	Managing conflict, escalation and difficult participants	80.0%	100%
	Secondary trauma	100%	100%
	Burnout	80.0%	100%
Have you received/provided training in the following subject areas – Emotional Health, Mental Health and Substance Abuse	Understanding HIV and substance abuse	80.0%	100%
	Understanding HIV and mental health	80.0%	100%
	Strategies for working with participants with co-occurring mental health and/or substance abuse issues	80.0%	100%

Is there a minimum level of education and/or years of experience required to be hired as a case manager at your agency	2 – Yes	40.0%	50.0%
	1 - No	60.0%	50.0%

Supervision

In addition to certification, LA, Boston, New York City, Portland, Baltimore, Florida, Minnesota and Ohio are now requiring a higher level of education and experience to supervise case managers. These sites have recognized that the work of case management requires a clinical aspect of supervision and requires that the supervisor have, at minimum, a master's degree in social work or a related discipline. In addition, some sites have also required documentation that the supervisor and case manager discuss every participant involved in the agency program, either annually or every six months. This conversation must be then documented in the case file (Los Angeles County Commission on HIV, 2006; Boston Public Health Commission HIV/AIDS Services Division, 2009; New York State Department of Health AIDS Institute, 2006; Greater Baltimore HIV Health Services Planning Council, 2004). The research demonstrates that supervision which is psychologically supportive and focuses on skill building increases the job satisfaction of case managers (Gimbel et al., 2002).

Los Angeles requires supervision for their Psychosocial and Transitional Case Managers. "Client-care related supervision will be provided for all case managers at a minimum of four hours per month. Such client-care related supervision may be conducted in individual or group/multidisciplinary team case conference formats. Supervision will be provided by a Master's level mental health professional (social work, counseling, nursing with specialized mental health training, psychology, or doctoral candidate in any of these fields) with case management experience and appropriate professional credentials. Programs will ensure that each active client is discussed at a minimum of one time per six-month period" (Los Angeles County Commission on HIV, 2006, p. 31).

Boston's Standards of Care state that "Staff receive at least one hour of administrative supervision per month, and when required, at least one hour of clinical supervision per month. Administrative and clinical supervision is conducted by separate individuals" (Boston Public Health Commission HIV/AIDS Services Division, 2009, p. 11). Additionally, there is a specific Standard of Care that addresses case reviews occurring between the case manager and supervisor. The "Case management supervisor conducts a file review every six months to ensure that client files meet standards" (Boston Public Health Commission HIV/AIDS Services Division, 2009, p.26). File reviews are a great way to ensure both clinical and supervision are happening on a regular basis.

New York City has "preferred qualifications" for Case Management Supervisors that includes a "Masters degree in Health or Human Services, one year of supervisory experience and one year of case management experience" (New York State Department of Health AIDS Institute, 2006, p. 5-4). They also, however, "may hold a Bachelor's degree in Health or Human Services, and have two years of supervisory experience and two years of case management experience" (New York State Department of Health AIDS Institute, 2006, p. 5-4).

Portland Case Manager Supervisors must have a Masters of Social Work (MSW) or equivalent, with a LCSW being the highly preferred level of education, they must meet case manager qualifications and have three years of paid social service experience (including two years supervisory experience)” (Multnomah County Health Department, 2008, p. 13). Whereas Baltimore states that “Case-management services are provided directly by, or under the supervision of, or in consultation with, a licensed social worker and/or registered nurse case manager” (Greater Baltimore HIV Health Services Planning Council, 2004, p. 1).

In Florida, Case Management Supervisors “Must have related experience in providing case management services; have time to routinely review and approve case management records to facilitate case management duties; provide routine support and supervision to the case manager; provide interim staff for vacancies and staff on leave; and supervisory experience is preferred but not required" (Florida Department of Health Bureau of HIV/AIDS and Hepatitis, 2009, p. 2-1).

Minnesota outlines two types of supervision in their Case Management Standards of Care. The first is “Routine Supervision,” which “supplies each case manager with regular, formal supervision by a qualified person, at least once a month. A person hired to be a case manager supervisor” (Minnesota Department of Human Services. 2005, p. 15-16). This supervision is provided by a supervisor with a minimum of an undergraduate degree with three years experience in general case management or two year of HIV specific case management experience. The Routine Supervisors monitor the administrative tasks of the programs case management services and monitors the services plans (Minnesota Department of Human Services, 2005).

The second type of supervision in Minnesota is Clinical Supervision. Clinical Supervision is delivered in “either in a group supervision setting (at least once a month) or in a one-to-one setting (at least quarterly). Clinical supervision will be provided by a licensed mental health professional with a graduate degree in one of the behavioral sciences or related fields” (Minnesota Department of Human Services. 2005, p. 16).

Ohio’s Part B’s program also distinguishes between Administrative and Clinical Supervision. Agencies “must provide on-site supervision on two hours per week average for each full time case manager and one hour per week average for each part time case manager... individual supervision is defined as ‘face-to-face contact between a supervisor and an individual supervisee in a private session wherein the supervisor and supervisee deal with problems unique to the practice of that supervisee.’ Group supervision is defined as ‘face-to-face contact between a supervisor and a small group (not to exceed six supervisees) in a private session wherein practice problems are dealt with that are similar in nature and complexity to all supervisees in the group”” (Ohio Department of Health, 2008, p. 8). The Ohio standards go on to detail both clinical and administrative supervision:

Clinical supervision should address the following:

- Clinical skill development
- Use of theories/interventions
- The helping relationship and delivery of clinical services to clients
- Case presentation

- Understanding and identification of transference/counter transference
- Continuing education
- Identification and referral to community resources
- Emotional support of case manager with regard to client-related issues
- Crisis interventions
- Clinical Documentation

Administrative supervision should address the following:

- Documentation
- Punctuality
- Relationships with colleagues
- Job performance
- Reliability
- Continuing education/ professional growth opportunities
- Emotional support to case manager in relation to job performance, organizational issues (Ohio Department of Health, 2008, p. 8)

HIV case management may not be as “professional” as case managers in other systems of care who require graduate degrees in social work or nursing; however, if the findings of the standards assessment are any indication, many TGAs, EMAs and Part B Programs are moving in that direction. While these requirements might never fully take hold in the HIV work, supervision requirements and certification are concrete steps being taken to ensure a high quality of service across the system.

The Case Management Survey evaluated the supervision currently happening in the Denver TGA. Results are shown below.

Component		Medical	Non-Medical
How often do case managers in your agency receive clinical supervision from a master’s level, or above, clinician?	6 – Once a week	0%	0%
	5 – Once every two weeks	40.0%	0%
	4 – Once a month	40.0%	0%
	3 – Once every three months	0%	50%
	2 – Once every six months	0%	0%
	1 – Only when a case warrants consultation	20.0%	0%

	0 – Never	0%	50.0%
How is clinical supervision offered (check all that apply)?	Individual	80.0%	50.0%
	Group	60.0%	100%
How often are participants' cases formally discussed with at least a case manager and supervisor?	6 – All participants are reviewed annually	20.0%	0%
	5 – All participants are reviewed bi-annually	0.0%	0%
	4 - All participants are reviewed quarterly	20.0%	50.0%
	3 – Selected participants are reviewed annually	0.0%	0%
	2 – Selected participants are reviewed bi-annually	0.0%	0%
	1 – Selected participants are reviewed quarterly	20.0%	50.0%
	0 – Case reviews are not conducted	40.0%	0%

Quality Management and Case Management

While chronic disease management within the larger healthcare setting has been given the resources necessary to develop evidence-based best practices, the lack of formal case management structure has made this more elusive in HIV case management. HIV case management has developed in a dispersed and de-centralized way to meet the local needs of rural and urban settings, diverse populations, and disparate local resources and service networks. This puts a great deal of importance on individual TGAs, EMAs, States and agencies to develop their own quality management systems (Chernesky & Grube, 2000). Quality management takes a certain level of expertise, capacity and motivation but the results ensure that participants are getting the best care possible.

HRSA has placed emphasis on the development of quality programs for many years through Special Projects of National Significance (SPNS) grants targeting the development of best practices, Quality Collaborative Demonstration Projects, and local quality initiatives funded with the jurisdiction's Quality Management dollars. HRSA currently allows for 5% of the total

TGA award to be dedicated to Quality Management activities (US Department of Health and Human Services, Part A Manual, n.d.).

HRSA has also provided numerous supports to assist TGAs and EMAs to implement quality improvement programs. Many of these resources are listed in the bibliography of this report. Additionally, HRSA has contracted with the National Quality Center (NQC) which offers a searchable database of quality resources, a series of online trainings available for free, in person institutes for Training of Quality Leaders and Training of Trainers, and monthly quality webinars to increase quality improvement capacity (National Quality Center, Quality Academy Website, n.d.). In this section, the report will 1) summarize HRSA's general expectations for quality improvement programs; 2) review national quality management programs implemented by other Ryan White Grantees who focus on case management; and 3) discuss the Denver TGA's current quality management program.

HIV AIDS Bureau (HAB) Quality Management Expectations

Quality management and quality improvement programs have been highly supported by HRSA and the HIV/AIDS Bureau (HAB). HAB has outlined their expectations for all Ryan White Services, including case management programs, in their Quality Management Technical Assistance Manual. They have also contracted with the NQC to provide numerous tools, trainings and technical assistance to support the implementation of quality improvement programs. This report will not review all of the comprehensive information provided by HAB about quality improvement. Instead, this report will provide a quick summary of quality program expectations and then focus on key quality improvement strategies taking place nationally (National Quality Center, Quality Academy Website, n.d.).

HAB expects quality management programs to have the following key characteristics:

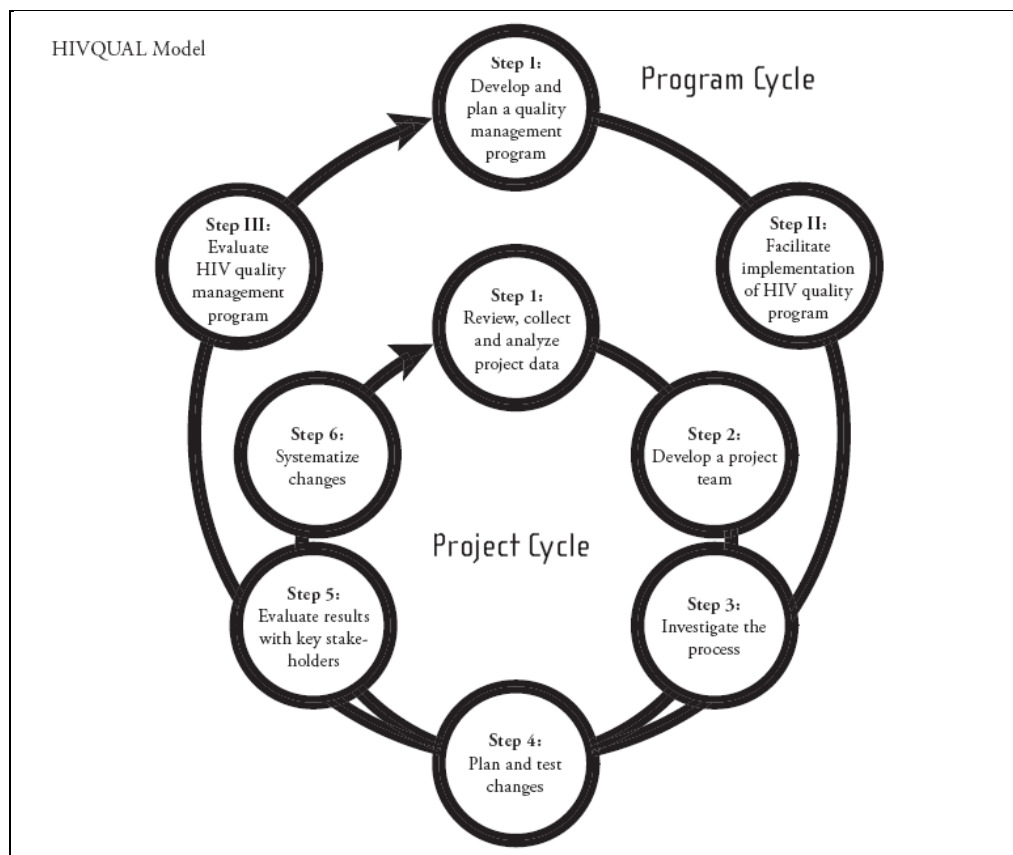
1. Be a systematic process with identified leadership, accountability, and dedicated resources available to the program;
2. Use data and measurable outcomes to determine progress toward relevant, evidenced based benchmarks;
3. Focus on linkages, efficiencies and provider, and client expectation in addressing outcome improvement;
4. Be a continuous process that is adaptive to change and that fits within the framework of other programmatic quality assurance and quality improvement activities (i.e., Joint Commission on the Accreditation of Hospitals Organization (JCAHO), Medicaid, and other HRSA Programs); and
5. Ensure that data collected are fed back into the quality improvement process to assure that goals are accomplished and that they are concurrent with improved outcomes. (National Quality Center, 2008, p. 5)

HRSA has also outlined their expectations for the following key elements in a Quality Management Program:

1. A written Quality Plan
2. Quality infrastructure/quality committee

3. Performance measures and baseline data
4. Annual goals
5. Participation of stakeholders
6. Capacity building: education on quality improvement concepts, performance measurement, analysis tools, and technical assistance
7. Prioritize and develop specific improvement projects/teams
8. Process to assess and evaluate findings
9. Clear process for sharing information
10. Evaluation of the Quality Plan implementation. (National Quality Center, 2006)

HAB requires that all Ryan White Grantees have a quality management program which includes the above elements. The New York Department of Health AIDS Institute and the Health Resources and Services Administration HIV/AIDS Bureau developed the following model to assist with the implementation of these requirements.



HIVQual Model (New York State Department of Health AIDS Institute, 2006, p.21)

The HIVQual Model illustrates the two layered process of quality management. There are two circles, one depicting a systemic approach and infrastructure for quality management, the second internal circle depicting project level improvement processes. Case management may fit on both levels of a quality management program, but from the review of Ryan White Grantors' quality programs across the nation, case management quality improvement often becomes one main focus for project level improvement. Project level improvement processes can be systemic

in nature and/or localized to an organization. A review of the literature found that Case Management Improvement processes nation-wide fell within both local and systemic approaches (New York State Department of Health AIDS Institute, 2006).

National Quality Management Programs for Case Management

As a part of the review of national standards of care, the authors examined available Ryan White Grantee Quality Management Plans to look for information about quality programs implemented on the local level as well as systemically in a jurisdiction and/or collaboratively between sites. Twenty Five sites, both Part A and B, identified quality expectations either in a plan, described on their website, or in standards of care. These quality plans varied greatly. The most common elements included: 1) quality assurance practices, 2) capacity building/training, 3) performance measurement/outcome measurement processes, and 4) quality improvement initiatives.

Quality Assurance

Quality assurance practices were the most commonly present element in the Quality Management Plans reviewed. Twenty one (21) out of 25 sites identified quality assurance practices that are required of individual agencies, and around half of the sites (11) identified systemic quality assurance practices, including annual site visits and chart review processes based on Standards of Care (Greater Baltimore HIV Health Services Planning Council, 2004; Harris County Public Health and Environmental Services, 2009; Kansas Department of Health and Environment, 2002; Maine Ryan White Part B Program, 2008; Miami-Dade County Office of Grant Coordination's Ryan White Program, 2009; New York State Department of Health AIDS Institute, 2009; Oregon Department of Human Services Public Health Division, 2009; Orlando EMA HIV Health Services Planning Council, 2009; West Palm Beach Eligible Metropolitan Area (EMA) Ryan White Part A Grantee Office, May 2007).

Capacity Building

Capacity building and system-wide training were also widely implemented nationwide. Many of the sites provide system-wide training as a part of improving quality of service delivery, but only nine sites specifically identified providing training on how to conduct and implement quality improvement practices, which is one element recommended by HRSA to improve and implement quality management programs. Some programs have implemented their own quality training programs, but many are utilizing the NQC online and in person resources (Georgia Department of Human Resources, 2008; Indianapolis Transitional Grant Area Ryan White Part A, 2008; Maine Ryan White Part B Program, 2008; Miami-Dade County Office of Grant Coordination's Ryan White Program, 2009; Missouri Ryan White Title II, 2006; New York State Department of Health AIDS Institute, 2009; Oregon Department of Human Services Public Health Division, 2009; West Palm Beach Eligible Metropolitan Area (EMA) Ryan White Part A Grantee Office, May 2007; National Quality Center, 2006).

Performance Measurement

Although the process to implement quality programs across the nation is varied, there is now quite a bit of information available about performance measurement within case management. Quality improvement is integrally linked to performance measurement. Measuring performance directs where to put quality improvement efforts, as shown in the HIVQual Model, Project Cycle Step 1 (New York State Department of Health AIDS Institute, 2006, p. 21). Continued measurement shows if progress is made and if there were any unintended consequences of the changes. Performance measurement, sometimes called outcome measurement, was utilized by most sites on a very basic level. As stated in the quality assurance section above, 21 sites had case management Standard of Care indicators in place to monitor the minimal expectation for service provisioning. Only 13 had system-wide quality measures identified to assess the intended outcome or goal of services which were monitored and used to plan for improvement projects (Dallas, Maine, Miami-Dade, Missouri, New Mexico, New York, Oakland, Ohio, Oregon, South Carolina, and West Palm Beach, Wisconsin).

The method of collecting data on the quality measures also varied. Several used centralized databases to collect data on all participants served. Some used quarterly client level spreadsheet reporting tools. Others used quarterly aggregate reports. Several used external monitors and randomized sampling methodology to collect outcome data. Three sites noted that they were waiting for the HAB Case Management Performance Measures to be finalized before adopting measures locally (Dallas County Health and Human Services, 2008; Maine Ryan White Part B Program, 2008; Miami-Dade County Office of Grant Coordination's Ryan White Program, 2009; Missouri Ryan White Title II, 2006; New York State Department of Health AIDS Institute, 2009; Office of AIDS Administration, 2006; Ohio Department of Health, 2008; Oregon Department of Human Services Public Health Division, 2009; Department of Health and Environmental Control, 2008; Texas Department of State Health Services; West Palm Beach Eligible Metropolitan Area (EMA) Ryan White Part A Grantee Office, May 2007; Wisconsin AIDS/HIV Program, 2003).

Following is a list of performance measures or indicators that are being used to measure and improve quality in HIV case management programs across the country. The measures have been organized so that sites are grouped together when they utilize similar, although not always exact, measures:

Area of Focus	Measure	Source
Care Plan	% of HIV-infected medical case management clients who had medical case management care plan developed and/or updated two or more times in the measurement year.	HAB HIV Performance measures: Medical Case Management: Care Plan; HIVQUAL Project Case Management Indicator Definitions; Indianapolis TGA; Maine; Miami-Dade; South Carolina; Wisconsin Division of Public Health; Denver TGA
Visits	% of HIV-infected medical case management clients who had two or more medical visits in an HIV care setting in the measurement	HAB HIV Performance measures: Medical Case Management: Medical Visits; HIVQUAL Project Case Management Indicator Definitions;

	year.	HUD HIVAIDS Housing; Washington; Wisconsin; Miami-Dade; Denver TGA
Assessment	% of clients who had a complete psychosocial assessment performed every six months (at intake and then again in conjunction with service plan updates).	HIVQUAL Project Case Management Indicator Definitions; Georgia; South Carolina; Indianapolis TGA; Oregon; Wisconsin; Miami-Dade; Denver TGA
HIV Knowledge	% of clients who were screened for HIV knowledge every 6 months and all of the following components should be documented in the client's record: <u>a) Importance of CD4 count/viral load monitoring</u> <u>b) Transmission risks/factors</u> <u>c) Importance of regular medical care</u> <u>d) Assessment of patient understanding of HIV information</u>	HIVQUAL Project Case Management Indicator Definitions; South Carolina
Adherence	Percentage of clients with HIV infection on ARVs who were assessed and counseled for adherence two or more times in the measurement year.	HAB HIV Performance Measures, Group 2 ; HIVQUAL Project Case Management Indicator Definitions; Oregon; Washington
Insurance	% of clients who have medical insurance or access to public resources (CICP, ADAP, etc.)	HUD HIVAIDS Housing; Washington
Labs	Percentage of clients who had two or more CD4/T-cell counts performed during the previous 12 months.	Oregon; Wisconsin; Indianapolis TGA; Denver TGA Case Management Measure during the IHI/HAB Collaborative Demonstration Project. HAB HIV Performance Measures, Group 2 (Targeting Medical providers, not Case Management)
Assessment-MH	Percentage of new clients with HIV infection who have had a mental health screening	HAB HIV Performance Measures, Group 3; Indianapolis TGA
Assessment-SA	Percentage of new clients with HIV infection who have been screened for substance use (alcohol & drugs) in the measurement year	HAB HIV Performance Measures, Group 3

Collaboration	% of clients who have a current ROI for medical provider within the last 6 months.	Oregon; Process measure used to measure if steps are in place to facilitate communication between Case Management and Primary Care. Denver TGA Case Management Measure during the IHI/HAB Collaborative Demonstration Project.
HAART	Percentage of clients with AIDS who are on HAART.	Wisconsin Division of Public Health; Indianapolis TGA; HAB CM outcome measures for consideration
Pregnant Women	Percentage of pregnant women with HIV who were prescribed antiretroviral therapy.	Wisconsin Division of Public Health
Referral	Case management progress notes and CARE Assist event records document all referrals and follow-up to referrals.	Maine; Oregon; Wisconsin Division of Public Health (in development)
Visits-Retention	Percent of patients who are retained in medical care in the measurement year.	HAB CM outcome measures for consideration; Oregon; Maine; Miami-Dade County
Slow disease progression & Improve quality of Life	Percent of clients demonstrating improved quality of life	Maine; Oregon
Access to Case Management	The percent of clients who get into case management within 30 days according to the CM standards after the “first contact” with the case management system	Missouri
Access to Primary Care	The percentage of clients served who receive an initial HIV/AIDS medical evaluation within two weeks of completing intake.	Miami-Dade County
Payer of last resort	The percent of case management enrollees recertified for case management eligibility criteria at least annually.	Georgia; Missouri; Oregon
Data Accuracy	Increase in the overall average for criteria that measure accuracy and completeness of data compared to the client paper file.	Oregon
Self Sufficiency	Improved self sufficiency (details of measure not found)	Ohio
Access to Services	Improved access to services (details of measure not found)	Ohio

Satisfaction	Increased satisfaction of clients receiving case management services	Miami-Dade County
Benefits	Unduplicated number of clients screened for and enrolled in or formally denied for benefit program --Medicaid (all), Medicare, VA, Food Stamps, WIC, HUD Section 8, and other services in the community	Miami-Dade County
% in CM	Percent of persons living with HIV/AIDS in HIV case management	Oregon
Prevention	Increase in the % of clients who receive risk reduction education or referral to PCRS or Prevention with Positives messages	Oakland TGA; Indianapolis TGA

Quality Improvement Projects

Information on specific quality improvement projects was difficult to glean from the quality management plans reviewed. This information was sometimes included in the Quality Management Plan, other times there were supplemental reports available online documenting quality improvement projects. Twenty (20) sites identified requirements for local organizations to have quality improvement programs in place, 11 of which also included systemic and collaborative quality improvement programs facilitated within the jurisdiction (Greater Baltimore HIV Health Services Planning Council, 2004; Georgia Department of Human Resources, 2008; Harris County Public Health and Environmental Services, 2009; Indianapolis Transitional Grant Area Ryan White Part A, 2008; Miami-Dade County Office of Grant Coordination's Ryan White Program, 2009; Missouri Ryan White Title II, 2006; New York State Department of Health AIDS Institute, 2009; Oregon Department of Human Services Public Health Division, 2009; Department of Health and Environmental Control, 2008; Texas Department of State Health Services).

There were several quality initiatives that warrant additional comment. First, four grantees, Maine, Ohio, Oregon and West Palm Beach, have implemented a system-wide, standardized case management client satisfaction survey. These surveys are administered by local agencies, but results are gathered and analyzed by the grantee quality staff. Aggregate data on the results are used for systemic quality improvement projects, and site specific data is used by the grantee with the local agency for site specific quality improvement efforts (Maine Ryan White Part B Program, 2008; Ohio Department of Health, 2008; Oregon Department of Human Services Public Health Division, 2009; West Palm Beach Eligible Metropolitan Area (EMA) Ryan White Part A Grantee Office, May 2007).

A Second notable accomplishment is that five Grantees have implemented quality management programs as a collaborative process with their local Planning Councils or other area

Ryan White Grantees. Many sites name their Planning Councils or other Grantees as resources in their plan, but Houston, Indianapolis, Missouri, Oregon, and West Palm Beach appear to have implemented a collaborative plan or process (Harris County Public Health and Environmental Services, 2009; Indianapolis Transitional Grant Area Ryan White Part A, 2008; Missouri Ryan White Title II, 2006; Oregon Department of Human Services Public Health Division, 2009; West Palm Beach Eligible Metropolitan Area (EMA) Ryan White Part A Grantee Office, May 2007).

Here is a chart of other quality improvement projects that have been implemented, are currently in process, or are being evaluated as possible projects to be implemented:

Quality Improvement Projects	Jurisdiction
Improve CM documentation of health indicators (cd4, etc);	Greater Baltimore HIV Health Services Planning Council, 2004
Implement CM system based on "levels" of need and/or standardize an acuity assessment system;	Greater Baltimore HIV Health Services Planning Council, 2004; Los Angeles County Commission on HIV, 2006
Implement CM certification program	Greater Baltimore HIV Health Services Planning Council, 2004; Los Angeles County Commission on HIV, 2006; Wisconsin AIDS/HIV Program, 2003
Conduct a CM service utilization review/study. Documented that supplementing medical services with CM substantially improved health outcomes (400-600%).	Suffolk University Center For Public Management, 2006, p. 24
Standardize CM services through implementation of system wide standards of care.	Georgia Department of Human Resources, 2008; Maine Ryan White Part B Program, 2008
Implement system wide monitoring of standards of care.	West Palm Beach Eligible Metropolitan Area (EMA) Ryan White Part A Grantee Office, May 2007
Identify system wide CM quality measures	Georgia Department of Human Resources, 2008; Los Angeles County Commission on HIV, 2006; Wisconsin AIDS/HIV Program, 2003
Improve self-advocacy skills of consumers through education	Harris County Public Health and Environmental Services, 2009
Implement system wide client satisfaction survey and integrate results into QI program	Maine Ryan White Part B Program, 2008; Ohio Department of Health, 2008; Oregon Department of Human Services Public Health Division, 2009; West Palm Beach Eligible Metropolitan Area (EMA) Ryan White Part A Grantee Office, May 2007
Convene MCM taskforce to plan and implement QI projects	Oregon Department of Human Services Public Health Division, 2009

Increase quality management capacity among service providers by encouraging the use of National Quality Center resources.	Wisconsin AIDS/HIV Program, 2003
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Quality Management in the Denver TGA

An overarching review of quality management in the Denver TGA is not within the scope of this report, but a good tool for evaluating quality management programs is provided by HRSA and the NQC in their *NQC Part A Quality Assessment Tool* (National Quality Center, 2006). This report will focus on Quality Management specific to Case management services.

Quality management and improvement programs were evaluated at each organization as a part of the 2008 Denver Office of HIV Resources site visit. The site visit assessment showed a clear gap between medical providers and others in their understanding and implementation of quality initiatives. About a third of service providers had established quality management programs. Denver's medical providers scored highly and clearly documented established quality improvement programs both linked to larger hospital initiatives as well as specific HIV/AIDS quality improvement projects. Another third of the providers had minimal quality infrastructure, limited mostly to quality assurance practices and participant satisfaction surveys, with no process for managing improvement projects. The last third had no quality structures in place at all. For case management providers (both nonmedical and medical), 50% had minimal quality programs and the other 50% had no quality management in place.

The Denver Office of HIV Resources has some systemic processes in place to support quality programming in case management. Compared to the survey of quality programs nationally, the Denver TGA has many similarities to the other quality programs studied.

Quality Assurance

The Denver TGA has a well established Systemic Quality Assurance program in place. It includes:

- *A process to establish and revise the standards:* A review and revision of the Case Management Standards of Care takes place annually with the participation of all funded providers within the Metro Denver AIDS Services Coalition. In fiscal year 2007, this included a full review of national standards, to assure that the TGA remains cognizant of national best practices. DOHR includes the Standards of Care in the contracts with each funded organization.
- *A process to monitor the standards:* DOHR uses these Standards of Care to review the services provided at each site. This site visit review is completed annually. DOHR documents both the degree of compliance to the standards of care at each organization, and the progress of the TGA in meeting the standards as a whole.
- *A process to make improvement:* DOHR utilizes the result of the site visits to create improvement plans for each organization. DOHR monitors the progress organizations make on these improvement plans. To encourage improvement on a system level, DOHR offers technical assistance and training to individual organizations and to all contractors.

Capacity Building

The Denver TGA was chosen to participate in the national Institute for Health Care Improvement and HAB Quality Improvement Demonstration Project from 2002-2004. This program targeted improvement efforts specifically for primary care and case management services. The following describes the goals of this project:

The long-range goals of this Demonstration Project are to maximize the length and quality of life for patients with HIV disease and satisfy patient and caregiver needs and expectations. These goals will be achieved by implementing a system-wide model of care, which focuses on ensuring the delivery of evidence-based clinical care within a context of culturally and linguistically competent and appropriate services, with strong support for self-management. The following actions are inherent in these long-range goals:

- Improve access to and retention in care and services for those who know their status and are in care;
- Improve access to and retention in care and services for those who know their status and are not in care;
- Facilitate with appropriate partners increased numbers of those who know their HIV status at an earlier stage in the disease process;
- Test Collaborative Learning, The Chronic Care Model and The Improvement Model as a method to apply quality management within the Title I programs; and
- Test how Title I grantees, lead administrative agencies, and planning councils can facilitate improvement in their primary care and case management providers, and in their own work (U.S. Department of Health & Human Services, 2004, p. 17).

Based on the site visit review of the quality management programs at each organization, many of the lessons learned during this demonstration project can be seen in the implementation of quality efforts at individual agencies in the TGA, particularly at the organizations that participated in the national demonstration project. The spread of the tools, methods, and concepts were not in evidence at most of the organizations that did not participate in this national demonstration project.

Performance Measurement

The Denver TGA incorporated quality measures into the Standards of Care in 2005 and were substantially revised in 2007, and was a direct result of both new requirements articulated by HRSA and the quality initiative stemming from the IHI/HAB collaborative demonstration project. Although these quality measures were evaluated by some local organizations for their own quality programs, they were not evaluated systemically until the 2008-2009 Site Visits. During the site visits, these quality measures were evaluated using a review of a randomly selected sample of participant files/charts. Results of these quality measures were used by DOHR with individual sites to continue improvement within their organization, and each organization will be re-evaluated for improvement in 2009-2010.

Quality Improvement

Like many of the national quality programs, the Denver TGA's quality improvement efforts have been focused on measuring quality assurance using system wide standards of care and improving compliance to the standards at individual organizations. Some individual service providers have taken on substantial quality improvement projects, including some case management and primary care service provider collaborations that were initiated during the IHI/HAB Demonstration Project, although these were not implemented systemically across case management providers. This report, along with the existing quality assurance program, represents the first step in the HIVQual Model project improvement cycle (New York State Department of Health AIDS Institute, 2006) and will provide a good foundation for future quality improvement projects.

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