Formative Evaluation of

The AIDS Foundation of Chicago's

Treatment Coordinator Pilot Program

Submitted to the AIDS Foundation of Chicago

By

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May, 2009

ABSTRACT

This is a report of the formative evaluation of the of the AIDS Foundation of Chicago's (AFC) treatment coordinator pilot project. For this project, AFC integrated the treatment coordinator position into 7 pilot agencies existing micosystems of care. The goal of the treatment coordinator position is to create a seamlessly coordinated HIV/AIDS system integrating case management and clinical services, leading to improved individual level indicators and quality of life for clients.

The pilot began in September of 2008 and lasted for six months. We based our conclusions and recommendations on a variety of data sources including field observations, site visits, interviews, and one focus group.

Overall we found:

- Agencies decisions to implement either an internal or external model of treatment coordination depended on a variety of factors.
- There was a significant commonality of primary tasks and objectives of the treatment coordinator position at all of the pilot agencies.
- Four key factors affected the implementation of the treatment coordinator position: (1) organization of services, (2) size of the agency, (3) infrastructure of the agency, (4) and agency culture.
- The ability of the treatment coordinator to create interpersonal strategies and new innovative systems to navigate the barriers related to these factors was key to successful implementation.
- The analytical ability to critically evaluate information from various sources and to provide recommendations to appropriate departments is the most important skill for a treatment coordinator to posses.
- The treatment coordinator position is likely to have more of an impact in larger agencies and agencies with externally case managed clients.

The detailed report begins with a brief overview of the treatment coordinator pilot project and our research methodology. We then describe findings in 3 key areas and end with a discussion and our recommendations for the AFC's continuation of treatment coordination implementation throughout the system.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

TABLE OF FIGURES

EXECUTIVE SUMMARY

The Project

This is a report of the formative evaluation of the of the AIDS Foundation of Chicago's (AFC) treatment coordinator pilot project conducted by researchers from Loyola University Chicago's Center for Urban Research and Learning (CURL). For this project, AFC integrated the treatment coordinator position into 7 pilot agencies existing micosystems of care (i.e., the existing care delivery system for those agencies). The goal of the treatment coordinator position is to create a seamlessly coordinated HIV/AIDS system integrating case management and clinical services, leading to improved individual level indicators and quality of life for clients.

The treatment coordinator pilot began in September of 2008 and lasted for six months. AFC designed the pilot to allow a significant level of flexibility for participating agencies. AFC used this "bottom-up" approach to implementation so that the pilot agencies would be able to assist in defining medical case management and operationalizing the position within their agencies, as well as across the system.

Methodology

The evaluation had three primary objectives:
1. describe the initial design and subsequent implementation of the treatment coordinator within each of the pilot agencies (i.e., develop agency and system level logic models);
2. evaluate how and to what degree do community, organizational, program, and provider level factors impact the program model development and implementation;
3. offer recommendations about how to improve the implementation of the treatment coordinator position in agencies with varying characteristics to improve chances of the intervention effectiveness.

Conclusions and recommendations are based on a variety of data sources including review of all background materials, field observations, site visits, interviews, and one focus group.

Key Findings

- *Two models of treatment coordination.* Two models of treatment coordination developed during the pilot. Four of the agencies implemented an *internal model* of treatment coordination and three implemented an *external model* of treatment coordination. The decisions made to employ a specific model depended on a variety of factors related to the agencies' needs and microsystems of care.

- *Commonality between pilot agencies implementations.* There was a significant commonality of primary tasks and objectives of the treatment coordinator position between the pilot agencies. Understanding the responsibilities and daily activities of each agency's treatment coordinator(s) allowed us to develop a common definition of treatment coordination as well as identify common goals and

activities of treatment coordinators; **treatment coordination is a process leading to enhanced communication between case managers and clinical staff.**

- *Four main factors affected the implementation.* There were a number of factors that affected the implementation of the treatment coordinator postion and how treatment coordinators carried out their tasks. These factors fall under four general categories:
  1. Organization of services
  2. Size of the agency
  3. Infrasturcture of the agency
  4. Culture of the agency

  The ability of the treatment coordinator to create interpersonal strategies and new innovative systems to navigate the barriers related to these factors was key successful implementation.

- *Larger agencies and agencies with external models of treatment coordination might benefit the most.* Overall, size of the agency and organization of services appeared to have the most influence on the implementation of the treatment coordinator position. Agencies that were large and/or had clients with external case managers had the most complicated communication and information systems and the most barriers to overcoming them. This meant that the treatment coordinator position was more difficult to implement in these agencies. These difficulties in implementation point to the importance of treatment coordinators for larger agencies and agencies with external case managers because treatment coordiantor is likely to have a greater impact in agencies with more barriers to communication and the collection of information.

- *Integrating and translating data.* The key function of the treatment coordinator is integrating and translating data and communicating new understandings of individual clients to providers and case managers. Hence, it is important for treatment coordinators to posses both the education and experience to be able to critically evaluatate both clinical and psychosocial information and provide feedback.

Recommendations

Issues to Follow in the Two Agencies Selected to Continue Treatment Coordination

Activities after the Pilot

AFC selected two agencies to continue funding treatment coordinator positions at. This is an opportunity to better understand the implementation of the position in greater depth.

- *Possible best practices.* There are a number of troubleshooting and implementation activities that need to be better understood:

- o Networking with other agencies to understand their approaches to implementation
- o Creating/Implementing forms to simplify treatment coordinator work
- o Developing new protocols to document treatment coordination activities
- o Hosting events for external case managers to help build relationships
- o Conducting a detailed and organized roll-out process to introduce the treatment coordinator position
- o Conducting site visits to external case management sites to educate and build relationships
- o Creating a detailed supervision process that tracks treatment coordinator activities

A better understanding of these activities and their affects on implementation might help AFC to develop them as possible best practices.

- *Understanding treatment coordinators interactions with case managers and providers.* A better understanding of the interactions treatment coordinators have with case managers and providers should be the next process evaluation goal for the treatment coordinator position.

Recommendations for Future Treatment Coordination Site Selection and Implementation Assistance

- *Three principles for treatment coordinator site selection.* Three principles to help guide AFC when selecting sites appropriate for the implementation of the treatment coordinator position in the future were identified:
  1. The agency must demonstrate a *high level of institutional support.*
  2. The agency must present a well structured plan for how treatment coordination will have a *significant degree of impact.*
  3. The agency must demonstrate that it has a *stable infrastructure* to support treatment coordination activities.

- *AFC's treatment coordinator job description needs to be revised.* Revision of the job descriptions should take into consideration the fact that smaller agencies and/or agencies with internal models of case management might benefit from a treatment coordinator who possesses less education, while larger agencies and/or agencies with external models of case management might benefit from slightly more education and experience.

- *AFC definitions and procedures regarding case management need to be more concrete.* Concrete definitions for future implementations are an intended product of this pilot, and they should be used to limit confusion in future implementations. Definitions for medical case management, what makes a client appropriate for treatment coordination, and what departments are supposed to make decisions regarding appropriate level of care are needed.

- *The data abstraction forms and process should be seamless.* AFC should identify and reduce redundancies in information required for forms (e.g. the medical eligibility form) and tasks carried out in the data abstraction process and utilize technology that can help reduce tasks.

- *AFC should allow larger agencies more planning and time to implement the treatment coordinator position.* Larger agencies required more detailed planning and took more time to implement the position. This should be taken into consideration when evaluating future treatment coordinator sites implementation plans.

- *Do not require agencies to implement both internal and external treatment coordination*. Not one of the agencies that had both types of case managers implemented the position in this way. As long as agencies can provide sufficient rational, the decision to use either an internal model, external model, or a combined model should rest with them.

- *AFC should continue to hold regular treatment coordinator meetings.* Agencies considered these meetings to be essential to them for staying on top of new information, networking, and troubleshooting problems as they arose.

Conclusions

Treatment coordination is not a "one size fits all position". While the tasks and objectives were similar across the 7 pilot agencies, the processes that treatment coordinators carried out and the barriers to implementation they faced depended on a variety of factors. The design of the pilot allowed agencies to implement the treatment coordinator position in response to the unique factors present in their organization, while still providing strong enough direction so that commonalities developed.

The significant time and energy it took to overcome barriers during the pilot point to the need that agencies have for treatment coordinators. Treatment coordinators navigate complicated microsystems of care, helping to find information that is often hidden and translate its meaning across specialized departments that do not have the time or the resources to do it themselves. This means that the treatment coordinator position might have more impact in agencies that have the more barriers to the collection of information and communication (i.e., larger agencies and/or agencies with external case managers). Regardless of which types of agencies might benefit the most, all of the agencies involved in the pilot recognized the benefits of having a treatment coordinator on staff and voiced their desire to continue the position beyond the pilot phase.

DETAILED PROJECT REPORT

INTRODUCTION

This report discusses the results of the formative evaluation of the AIDS Foundation of Chicago's (AFC) pilot project to implement treatment coordinator positions within 7 amblatory agencies that provide HIV/AIDS care. The treatment coordinator position was instituted as a component of AFC's new case management model. This model was designed in response to new trends in HIV/AIDS case management that place a stronger focus on medical care. The primary goal of the treatment coordination aspect of this model, once established, is to create a seamlessly coordinated HIV/AIDS system integrating case management and clinical services, leading to improved individual level HIV/AIDS quality of care and outcome indicators as well as quality of life for clients. AFC's role in the pilot has been to provide the financial, technical, and educational resources and general operating guidelines for the new treatment coordinator positions. The role of the pilot agencies has been to implement the treatment coordinator position within their agencies and help to define it across the system, while adhering to AFC guidelines (a full logic model of the pilot program is represented in Appendix A).

AFC partnered with Loyola University Chicago's Center for Urban Research and Learning (CURL) in August of 2008 to conduct a formative evaluation of the pilot, which ran from September 2008 through March 2009. The purpose of this evaluation was to to help document and understand issues arising out of the initial implementation of the new position in order to provide feedback for the improvement of the model and implementation of the treatment coordinator position at future sites. In addition to this,

AFC also requested CURL to provide preliminary feedback and recommendations concering implementation based on its observations. The primary objectives of the evaluation were to:

4. describe the initial design and subsequent implementation of the treatment coordinator within each of the pilot agencies;

5. evaluate how and to what degree do community, organizational, program, and provider level factors impact the program model development and implementation;

6. offer recommendations about how to improve the implementation of the treatment coordinator position in agencies with varying characteristics to improve chances of the intervention effectiveness.

Background: Development of AFC's New Model of Case Management Services

The treatment coordinator position was planned as part of AFC's new model of case management, which "emphasizes treatment and appointment adherence, facilitates active participation in primary medical care and other core clinical services, and monitors health outcomes with the goal of supporting clients as they become partners in their own care".[1] This new model of services was designed in response to new trends in HIV/AIDS case management as facilitated by the Health Resources and Services Administration (HRSA), who have identified "case management as a 'core clinical service' that

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[1] AIDS Foundation of Chicago. (2008). Request for proposals for treatment coordinators: Ryan White HIV/AIDS Treatment Modernization Act Parts A and B.

facilitates linkage to and maintenance of primary medical care services".[2] Proposed

changes to the already existing system of case management included:

- Moving towards a *chronic disease mangement model* (as opposed to an emergency response model) emphasizing the integration of clients' clinical service plans with case management activies.

- Placing an emphasis on *treatment coordination* as the route of systematic communication between medical providers and case managers.

- Establishing a *medical model of case management* (as opposed to the current social service, client driven model) that requires clients to participate in monitoring Public Health Standards and HRSA guidelines.

- Identifying newly diagnosed clients appropriate for *early intervention programming* with a period of intensive or medical case management.

- Reprioritizing the goals of case mangement to focus on *client self management* in their HIV care, in addition to client stability.

The new case management system consists of two pre-existing positions, medical case managers and supportive services case managers, as well as the new treatment coordinator position. The treatment coordinator position is designed to bridge medical providers and case managers through a systematic form of communication with the goal of creating more holistic and comprehensive services plans that integrate both clincal and psychosocial information.

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[2] Ibid.

While AFC did establish certain guidelines for the position, it also designed the pilot to allow a significant level of flexibility for participating agencies. The reason for this decision was a lack of federal guidelines for medical case management[3] and the relative absence of any previous attempt at integrating treatment coordination models in HIV/AIDS care systems that AFC could use as a guide. AFC used this "bottom-up" approach to program implementation so that the pilot agencies would be able to assist in defining medical case management and operationalizing the position within their agencies, as well as across the system.

Pilot Project Participants

AFC purposefully selected 7 agencies for this pilot through a request for proposal (RFP) process. This selection process was designed so that AFC could gain an understanding of the implementation of the treatment coordinator position as well as how treatment coordination worked in a variety of agencies with unique sets of characteristics. AFC used four selection criteria in making their decisions. Agencies were selected based on:

1. the volume of HIV positive clients obtaining services on-site;

2. their capacity to carry out the key objectives of the pilot;

3. the expected value that would be added to their service delivery model with the addition of the treatment coordinator position; and

4. the degree to which they represented the range of characteristics common in the Chicago HIV/AIDS system—agency characteristics included agency type

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[3] As mentioned above, the driving force behind the development of the position were new federal mandates developed by HRSA. While these guidelines stated that HIV/AIDS care needed to integrate medical case management into their models, it did not define which clients were appropriate for medical case management or how these services should be implemented.

(community-based, community clinic, or county hospital), location
(urban/suburban), size, integration of services (i.e., type of case management[4]—
internal, external, or both), and medical and case management record format
(electronic or paper).

Table 1 summarizes the characteristics of each of the 7 pilot agencies AFC selected.

Table 1:
Descriptive Characteristics of 7 Agencies Selected by AFC to Participate in the Treatment Coordinator Pilot†

Agency	Type	Location	Size‡	Case management	Has electronic records*
1	Community-based	North Chicago	Large	Internal & External	Yes
2	County Clinic	South Chicago	Large	Internal & External	Yes
3	Community-based	South Suburban	Small	External	No
4	Community-based	West & North Suburban	Small	Internal	No
5	County Hospital	South Chicago	Large	Internal & External	Yes
6	County Clinic	West Chicago	Medium	Internal & External	No
7	County Hospital	South Chicago	Large	Internal	Yes

†All agencies offer primary medical care on site.
‡Size was measured by the number of employees in the agency (small < 50 employees; medium > 50 < 100 employees; large > 100 employees).
*Records can be either medical, case management, or both.

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[4] *Internal case* management refers to case management provided by the agency, while *external case management* refers to case management provided by an outside agency.

METHODOLOGY

As mentioned previously, AFC designed the pilot with a flexibility to allow participating agencies to assist in the development of the position. Formative research designs are particularly helpful during the development and implementation stages of new and innovative interventions for which there is little or no previous knowledge.[5] Formative evaluations are helpul in this respect because they provide a detailed description of an intervention, assist in recognizing discrepancies between the original implemenation plan and its operationalization, help identify unanticipated influences on implementation efforts, and provide feedback for design improvement.[6]

Research Questions

Our evaluation focused on treatement coordination processes that occurred during the pilot, with a special focus on implementation. The research was guided by the following questions:

1. What is the implementation plan of each of the seven pilot agencies (inputs, activities, outputs, and outcomes)?

2. How did implementation occur system-wide and within each of the 7 pilot agencies?

   a. What work do treatment coordinators carry out that makes treatment coordination happen?

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[5] see van den Akker, J. J. H. (1999). Principles and methods of development research. In J. J. H. van den Akker (ED.), *Design approaches and tools in education and training* (pp. 1-14). New York: Springer.
[6] see Stetler, C. B., Legro, M. W., Wallace, C. M., Bowman, C., Guihan, M., Hagedorn, H., Kimmel, B., Sharp, N. D., & Smith, J. L. (2006). The role of formative evaluation in implementation research and the QUERI experience. *Journal of General Internal Medicine*, 21: 1525-1497.

b. To what extent have the original pilot agencies implementaiton plans been realized?

3. What are the barriers and facilitating factors for implementation of the treatment coordinator position?

Research Methods

We employed a multi-method approach in this study. Data were extracted from a review of all background materials associated with model development (i.e., each agencys' program proposal); observations made during attendance at 7 monthly treatment coordinator implementation meetings hosted by AFC; and one round of 7 site visits conducted at the front end of the pilot, one round of 7 phone interviews conducted in the middle of the pilot, and one focus group conducted with treatment coordination program staff and supervisors at the end of the pilot. From these data we were able to understand the treatment coordinator position as it existed within each of the pilot agencies and its connection to the larger case management system. Our research methods allowed us to propose logic models at both the agency and system levels. Triangulation of methods increased the validity of our findings as well as gave us richer data for analysis.[7]

The Development of the Combined Logic Model

Through reviews of the pilot agencies' program proposals and data collected during site visits and interviews, we constructed basic logic models representing each individual agency's implementation plan and program design for the treatment coordinator position. This was a continuous process in which we shared preliminary logic models and requested feedback from evaluation participants to ensure that the models

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[7] see Patton, M. Q. (2003). *Qualitative Research and Evaluation Methods*. Thousand Oaks, CA: Sage

reflected their agencies as closely as possible.[8] By comparing the different components of each agency's logic model, we were able to develop a final logic model representing all of the agencies (Appendix B). To create this representation, we first identified the components that were standard across each of the pilot agencies.[9] Second, we looked at the components that were not standard across the models in order to understand why. Recognizing that these differences were primarily due to the type of treatment coordination model implemented (i.e., whether the treatment coordinator worked with case mangers internal or external to the agency) and the size of the agencies, we integrated the components into the model and indicated these differences. Finally, we integrated components that were inconsistent across the models due to variations in structure, resources, and/or culture and indicated these differences in the model.

IMPLEMENTATION ACROSS THE 7 PILOT AGENCIES

The agency's each identified the number of treatment coordinators they needed and the qualifications they were requiring for the position (e.g., Licensed Practicing/Registered Nurse, Licensed Social Worker, Licensed Practicing Clinician, and/or Master of Public Health) in their program proposals to AFC.[10] These staffing plans were generally followed, however, minor modifications were made when agencies decided to hire treatment coordinators with other credentials who they deemed were qualified during the interviewing process (Table 2 represents the final staffing decisions of the pilot agencies).[11]

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[8] We used this same process to develop the pilot logic model represented in Appendix A.

[9] In some cases agencies had components that were similar, but used different phrasing to describe them, e.g., quality assurance vs. quality control. We combined these similar components to simplify the model.

[10] AFC had set minimum qualifications for agencies to follow as a guide for the RFP process.

[11] The numbers representing the agencies in Table 2 correspond with Table 1.

Table 2:
Treatment Coordinator Staffing at each of the 7 Pilot Agencies

Agency	Number of Treatment Coordinators	Education of Treatment Coordinators
1	1	1 Master of Public Health
2	4	1 Master of Public Health, 1 Social Worker, & 2 Registered Nurses
3	2[†]	1 Master of Psychology & 1 Registered Nurse [‡]
4	2[†]	2 Registered Nurses
5	1	Social Worker
6	2[†]	1 Pharmacist & 1 Social Worker
7	2[†]	1 Nurse Practitioner & 1 Medical Doctor[‡]

[†]Treatment coordinator positions in these agencies were part-time.
[‡]Position was added and/or filled mid-way through the pilot, after site visits and interviews were completed.

The implementation plan for each agency depended on the organization of the agency's microsystem of care (i.e., the care delivery system for that agency). While four of the agencies dealt with both internal and external case managers, the rest had only one or the other (see Table 1). Of the agencies with both internal and external case management, two chose to implement the treatment coordinator position with only internally case managed clients and two decided to implement it only with externally case managed clients. None of the agencies implemented the treatment coordinator position with both internally and externally case managed clients. What developed from this process were two models of treatment coordination, with four of the agencies implementing an internal model and three implementing an external model of treatment coordination. The diagram in Figure 1 represents how each of the pilot agencies implemented the treatment coordinator position in relation to their microsystem of care provision (i.e., whether the treatment coordinator was intended interact with internal or

external case management) and how each of the agencies is embedded within the larger

AIDS/HIV information and communication system managed by AFC.[12]

Figure 1:
System Level Flow of Communication†
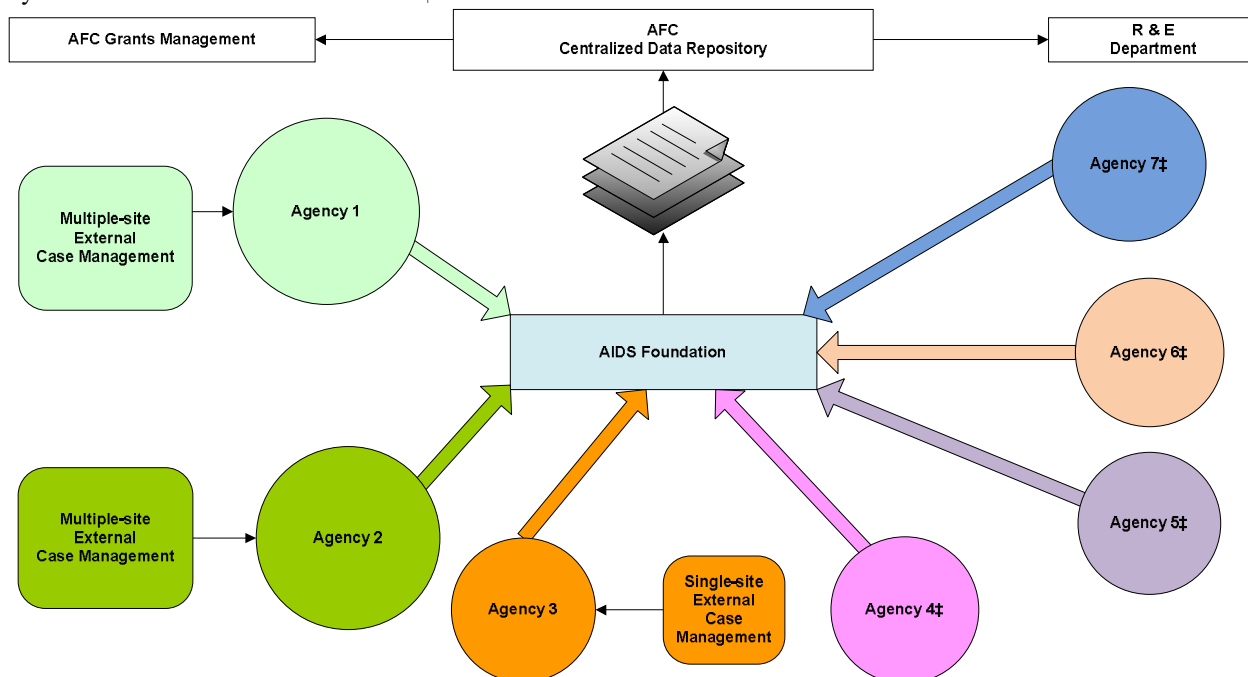
† All agencies have internal medical providers

‡ Provides internal case management that is part of treatment coordination pilot

The logic model in Appendix B is a combined representation of the 7 pilot

agencies implementation plans. Using this model as a guide, we identified 5 primary

tasks and 6 objectives of the treatment coordinator through our analysis of site visit,

interview, and focus group data. These tasks and objectives were similar across the pilot

agencies.

We recognized *5 primary tasks* of a treatment coordinator through our analysis.

These tasks are:

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[12] The numbers representing the agencies in Figure 2 correspond with Tables 1 and 2.

1. Building and maintaining stronger relationships

2. Data collection

3. Data management

4. Problem recognition

5. Education and translation of information (helping staff to understand what information from other departments means for their work and how to incorporate it in their treatment plans).

When reading the combined logic model represented in Appendix B from left to right, it can be seen that each of the *treatment coordinator activities* (not including hiring, training, and supervision of the treatment coordinator) correspond to one of these *5 primary tasks* of a treatment coordinator (see Table 3).

Table 3:
Five Primary Tasks of Treatment Coordinators and their Corresponding Activities

Task	Activity represented on logic model
1. Building and maintaining stronger relationships	Introduce treatment coordinator role to internal staff, external agencies[†], and/or to clients
	Establish and maintain relationships with staff essential to carrying out treatment coordination[‡]
2. Data collection	Develop protocols and routines for data collection/abstraction[13] and reporting[‡]
	Data collection/abstraction activity
3. Data management	Develop protocols and routines for sharing information
	Establish and maintain baseline of clients appropriate for treatment coordination
	Manage data and report clinical indicators to AFC
4. Problem recognition	Identify client level problems and agency level trends
5. Education and translation	Communicate immediate needs between clinical and case management
	Education and translation of medical information for case managers and/or psychosocial information for providers

[†] Applies only to external models of treatment coordination
[‡] Observed more in and/or more time consuming task for larger agencies.

We identified *6 objectives* of the treatment coordinator position that each of the five tasks are carried out to accomplish:

1. the development of *stronger relationships* between providers and case managers,

2. improvement and maintenance of the *capacity of the agency* and the larger HIV/AIDS system,

3. development and maintenance of *consistent information* between and within agencies

4. *enhanced/seamless care* within agencies,

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[13] Data abstraction refers to the process by which treatment coordinators obtain HRSA required indicators and other information requested by AFC from health records and other relevant data sources.

5. development and maintenance of *consistency of care* between agencies (applied only to external models of case management), and

6. *quality assurance* within agencies.

All but one output (immediate positive changes in client behavior) and one short-term goal (sustained positive changes in client behavior) represented in Appendix B map onto these *6 objectives* (see Table 4).[14]

As Tables 3 and 4 show, not all of the tasks and objectives apply to both internal and external models of treatment coordination. In an external model, when building and maintaining relationships, treatment coordinators have to carry out the additional activity of introducing their role to external agencies (see Table 3). Additionally, treatment coordinators in external models must ensure consistency of information and care between agencies as well as within their own (see Table 4).

Size of the agency is an additional factor that has a significant effect on the work agencies carry out. Building and maintaining stronger relationships and data collection were more time consuming in larger agencies due to their corresponding activities (see Table 3).

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[14] While connected to the tasks and objectives of treatment coordinators, the long-term goals represented in the last column of the logic model represented in Appendix B are more systematic/macro in nature. The impact of the tasks and objectives of treatment coordination on long term goals was beyond the scope of the pilot.

Table 4:
6 Objectives of Treatment Coordinators and Corresponding Outputs and Outcomes

Objective	Component of logic model	Corresponding section on logic model
Stronger relationships	Frequent contact between treatment coordinator and staff essential to carrying out treatment coordination	Output
	Enhanced communication of information between providers and case managers	Output
Capacity of agency	Case management work capacity increases	Output
	Greater capacity for agency	Shot-term outcome
Consistent information	Consistency of information between agencies[†]	Output
	Consistency of information within agencies	Output
Seamless care within agency	Clients placed on appropriate level of case management	Output
	Client level problems are addressed by [internal] case management and providers	
	Enhanced/Seamless care within agencies	Short-term outcome
	Improved service delivery model within agency	Short-term outcome
	Working model of medical case management within agency	Short-term outcome
Consistency of care between agencies[†]	Clients placed on appropriate level of case management	Output
	Client level problems are addressed by [external] case management and [internal] providers[†]	Output
	Consistency of care between agencies[†]	Short-term outcome
Quality assurance	Establish appropriate quality assurance goals/guidelines	Output
	Proper allocation of agency resources	Output
	Better informed/educated case managers and providers	Short-term outcome
	Quality assurance goals met	Short-term outcome
	Improved HRSA defined client level clinical indicators	Short-term outcome

[†] Applies only to external models of treatment coordination

Information Gathering and Communication: The Primary Work of Treatment Coordinators

Gathering client care information, largely in the form of abstraction from charts, and communication of that information are the primary work activities treatment coordinators carried out during the pilot. Treatment coordinators communicated mostly psychosocial information to providers, medical information to case managers, and HRSA defined HIV/AIDS clinical indicators to AFC. Information gathering and communication hold importance for different reasons: gathering information was the activity that treatment coordinators spent the most time on, while communication of information related to client care was considered by treatment coordinators to be the most important task they carried out.

Developing an understanding of the responsibilities and daily activities of each agency's treatment coordinator(s) allowed us to develop a common definition of treatment coordination; **treatment coordination is a process leading to enhanced communication between case managers and clinical staff**.

Modes of Information Gathering and Communication: Information Processing versus Information Management

The focus group identified the importance of simultaneously gathering information and communicating with case managers and medical providers. The reason given for this was that "sometimes case managers have a need for something immediately…they are not on the same [work] cycle that we [treatment coordinators] are". This means that treatment coordinators have to take advantage of every opportunity to collect data and relay information that was offered to them. We found that there were

two modes of information gathering and communication employed by treatment

coordinators: information management and information processing (Figures 2 & 3).

Figure 2:
Display of Information Management as Mode of Passive Treatment Coordinator Communication
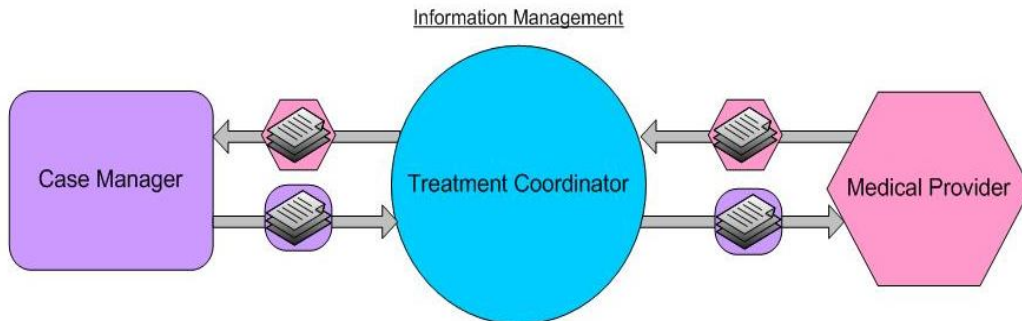
Figure 3:
Display of Information Processing as Mode of Active Treatment Coordinator Communication
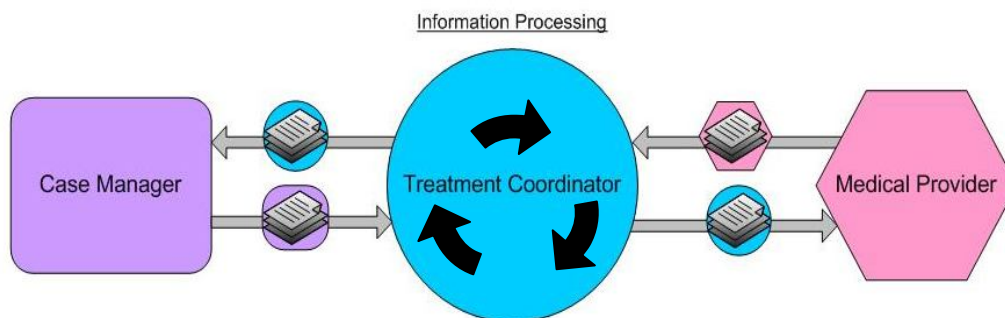
In information management mode of communication (Figure 2), the treatment

coordinator collects medical and case management data and information from relevant

sources (see section on data below for clarification on data sources), and then acts as a

repository and/or conduit for the information. Information is then provided to providers

or case managers because of protocols (e.g., forms that treatment coordinators must

complete) that have been set up for the information transfer or because one of the two

other parties, case managers or providers, requests the information. This is a passive

mode of communication, with the information the treatment coordinator provides simply being relayed or reproduced for the other parities.

Figure 3 depicts the information processing mode of information gathering and communication. In this mode the treatment coordinator collects the data in the same way as in information management. The difference between this mode and the previous one is that in the next step the treatment coordinator critically looks over the information provided from both sources of data to form an interpretive synthesis. The treatment coordinator then recognizes problems and formulates plans of action before communicating the information to providers or case managers. Information processing is more active than information management because the treatment coordinator alters the data in some way before passing it on to the other two parties.

Neither of these modes is restricted to a specific type of agency. Information processing and information management are used by treatment coordinators at each of the pilot agencies, and often happen simultaneously.

Data Abstraction

Although the primary sources of data were similar across the 7 pilot agencies, the format of the data varied, which influenced the type of activities in which treatment coordinators engaged to gather information. The primary sources of data were:

- Medical records

- Verbal discussions with other staff (internal and external)

- Agency meetings/clinicals/staffings

Agencies varied with regard to the type of medical records: five of the agencies had electronic records and two had paper. All of the five agencies with electronic records kept all medical information in this format, except for one agency where the use of electronic medical record keeping depended on the individual provider's preference. While some psychosocial information was kept in electronic records, all five agencies kept separate paper case management records.

Communication

Methods of communication varied across the pilot agencies. These differences were due to four factors: model of treatment coordination, agency size, available communications technology, and other roles held by treatment coordinators.

1. *Model of Treatment Coordination.* Whether an agency had an internal or external model of case management had a profound effect on how communication between treatment coordinators and case managers happened. Treatment coordinators who worked with external case managers communicated with them through phone, fax, and scheduled site visits. In contrast, most communications with internal case managers were carried out through internal memos, emails, staff meetings, informal conversations, and/or chart documentation (notes and "flags"). Additionally, external models of treatment coordination made it more likely for case managers to use treatment coordinators to help them relay information and fill out forms (most notably the medical eligibility form[15]), which were outside of the intended scope of treatment coordination activities and responsibilities AFC had originally intended (AFC had not intended for treatment

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[15] The medical eligibility form is a document that AFC requires all case management staff to fill out for funding purposes. The form documents HIV status of the client.

coordinators to complete routine forms for case managers). The reason given for this by treatment coordinators was that external case managers had always experienced difficulties with this task due to a lack of designated personnel in provider agencies. This meant that case manager requests would often get lost in the system and took a long time to resolve. Treatment coordinators became point people in external-model organizations for expediting these requests.

2. *Agency Size*. The size of the agency structured opportunities for and methods employed in conversation. Smaller agencies had more opportunities for informal conversations since treatment coordinators, case managers, and providers ran across each other through the course of their daily work. Conversely, larger agencies had to make use of more formal means of communication and communication protocols such as phone calls, chart documentation, and staff meetings and/or clinicals.

3. *Communications technology available*. Not all agencies had the same communications technology available. For example, only four of the agencies had electronic medical records that could be used to communicate with providers, and case managers in some cases. Additionally, one of the agencies had a secure internal email system that the treatment coordinator made frequent use of. The other three agencies were limited to verbal and/or paper communication with providers, which, it was recognized, could lead to the loss of messages.

4. *Other Treatment Coordinator Roles*. One agency organized the position in such a way that treatment coordinators were part-time and were also part-time nurses at the agency. In most cases this meant that communication of information did not

need to occur, since the nurses could address problematic clinical issues in the medical clinic that they had identified as a treatment coordinator.

Type and Scope of Information Communicated

The types of information communicated between treatment coordinators and case managers, providers, and other departments were identified by treatment coordinators and supervisors. Listed below are 11 categories of information reported. The first six categories were reported by all agencies; the final five were only reported by some.

1. *Clinical indicators*—HRSA required clinical indicators

2. *General status of the client*—treatment coordinator communication to providers about client status and number of contacts that they have had with case managers when the client has not been seen by medical staff as frequently as recommended

3. *Client change in status*—any changes in client status, such as higher viral loads or a client need for hospitalization

4. *Appointment adherence*—verifying appointment information and ensuring appropriate staff were aware of missed appointments

5. *Labs and tests*—identifying missed or recommended labs and tests and reminding providers to carry them out

6. *Behavioral and psychosocial issues*—identifying and communicating consistent patterns of missed appointments, substance abuse and mental health issues, violence, housing status, financial status, and transportation issues (one agency stated that this was more important than reporting client indicators)

7. *Inconsistencies between external providers and agencies*— for the agencies that served external providers and/or case managers, recognizing and reporting when

external providers and/or case management agencies have conflicting policies and/or protocols or have not carried out services (one agency had all labs completed by outside providers)

8. *Preventative and regular care—*reporting when clients were not receiving preventative and regular care outside of tests and labs, e.g., inoculations

9. *Insurance—*changes in insurance benefits such as reporting when clients had private insurance or if insurance discontinues payment for medications

10. *Doctor's orders—*making sure doctors orders are followed through

11. *Demographics—*making sure that demographics are updated and correct

The Treatment Coordinator Learning Curve

Treatment coordinators and supervisors reported that the day-to-day activities of the position were not difficult to learn, and that the greatest challenge was establishing work routines. However, the following factors were identified which increased the length of time it took for treatment coordinators to learn what they needed to carry out the job effectively:

- *Learning AFC policies and procedures for abstracting and reporting data* was identified as a challenge across agencies. A lack of concrete definitions and constant changes to AFC procedures and instruments (largely the data abstraction tool) led to treatment coordinators having to learn and re-learn new ways to carry out the same task multiple times. One interviewee pointed out that it was hard to estimate how long it takes a treatment coordinator to learn the job because of all of the pilot effects that extended the learning period for her staff.

- *Learning agency policies, procedures, and systems* was a significant task for new hires (as opposed to staff moving from a previous position in the agency) in four agencies and for one seasoned staff person in a fifth agency that was undergoing a merger. Specific issues that were brought up in these interviews included learning electronic medical records systems, learning how charts were organized, and learning where information is kept. One interviewee commented that agency specific learning was more intensive than learning AFC policies and procedures for her.

- *Medical terminology* was brought up in three of the interviews. Treatment coordinators who did not have previous experience with medical terminology had to learn this information on the job. Two treatment coordinators learned by asking their co-workers, while another agency required one of four treatment coordinators without this experience or training to take an online university course.

Required Skills, Credentials, and Experience Level for Treatment Coordinators

Despite the differences in treatment coordinator skills, credentials, and experiences across the pilot agencies (see Table 2), several were identified that universally helped carry out required activities:

- *Critical thinking skills* were considered to be the most essential skills for carrying out treatment coordination by six of the agencies. It was recognized that treatment coordinators needed to be able to understand how different types of data spoke to one another and react appropriately while being confident enough in their decisions to second guess other care providers. This points to the importance of

the information processing mode of information gathering and communication to the treatment coordinator position (see Figure 3).

- *Clinical* (recognized by six agencies)*, HIV/AIDS* (recognized by five agencies)*, and case management* (recognized by four of the agencies) *knowledge and experience* were recognized as the most important criteria for a treatment coordinator to possess; however, it was recognized that sufficient experience in any one of these areas could make up for a deficit in the other two. The reason these three criteria were thought to be important was that they give a potential treatment coordinator the base-line knowledge that they need to understand medical systems, terminology, and treatment.

- *Communication skills* were considered to be important by five agencies because the treatment coordinator needs to be "diplomatic", work as part of a team, and provide both verbal and written feedback to other staff.

- *Organizational skills* were deemed necessary by four agencies for being able to understand where information is located and for completing tasks on time.

- *Adaptability* was considered to be an important quality for a treatment coordinator by two of the agencies; however, this trait was only discussed in conjunction with the frequent changes that took place through the pilot.

- *Computer skills* were recognized as important by two of the agencies with electronic medical records as being important to the position.

EXTENT OF IMPLEMENTATION IN THE 7 PILOT AGENCIES

As previously mentioned, four of the agencies had clients who received case management services internally or externally, but none of them implemented the

treatment coordinator position to work with both types of case managers. One of these agencies requested the implementation of an external model of treatment coordination and one requested the implementation of an internal model in their original proposals; however, the other two agencies originally proposed implementation of a combined model of treatment coordination and changed their models midway through the pilot.

Of the two agencies that changed their models, one decided to move to an external model and one decided to move to an internal model. The agency that decided to implement an external model was large in size. The treatment coordinator at this agency proposed this focus on external case management activities based on two factors: (1) she felt that, given the timeline of the pilot, she would be unable to effectively carry out treatment coordination in a combined model and (2) she felt the internal case managers at the agency already had good working relationships with medical providers, which negated the need for internal treatment coordination. The agency that decided to move to an internal model was medium in size. The reason for this decision was also based on treatment coordinator recommendations. These recommendations were based on: (1) similarly perceived time limitations as the agency previously discussed and (2) problems associated with a recent move to a new location that the agency had made. It was recognized by the agency that because of this move a number of internally case managed clients were falling out of care (largely due to transportation issues). The treatment coordinators decided that this issue was significant enough to warrant a focus of treatment coordination on internal case management activities. Other than these two agencies, there were no other significant changes to the implementation plan by the pilot agencies.

By the end of the observation period, all of the agencies met the goals of the pilot in that they implemented processes, protocols, and routines for data collection and management as well as developed relationships with staff necessary to carrying out treatment coordination activities. However, additional potential challenges were being identified by the end of the pilot. While all agencies were effectively carrying out information management activities (see Figure 2) by the end of the observation period, treatment coordinators were only beginning to engage in information processing (see Figure 3). This was largely due to the longer than expected time it took agencies to integrate the treatment coordinator into current systems of care.

Preliminary Effects of the Implementation

Treatment coordinators all voiced that it was too early in the implementation process to see any of the goals of treatment coordinator position fully realized. However, they did point to a number of observations they felt reflected preliminary results of the process. The first set of these observations pertained to the effects of treatment coordination for case managers. Treatment coordinators perceived that:

- *More work was being completed on time* by case managers and that case managers were able to *handle a higher volume of work* since treatment coordinators were assisting them. The treatment coordinators assisted case managers by completing forms, primarily the medical eligibility form, and facilitating/navigating the communication barriers between departments/agencies that often delayed completion of forms in a timely manner. Regarding this, treatment coordinators pointed out that case managers generally faced more barriers to completing these tasks (e.g., time constraints, weaker relationships

with other staff; less knowledge of where to find medical information), particularly case managers in an external model or in large agencies.

- *Case management was able to provide feedback to providers* through the treatment coordinator, something that interview and focus group participants stated was rarely possible and/or done prior to the pilot. This was more apparent in external models and in larger agencies that had significant barriers to communication between case managers and providers.

A second set of observations were focused on the effect that the treatment coordinator was having on information and the communication process:

- *Greater consistency between agencies in an external model* was demonstrated at one agency where treatment coordinators discovered that one of their external case management agencies, a provider of substance abuse services, had a list of medications that were banned because they considered them to be counterproductive to the addiction recovery process. This was a significant problem considering that providers had been providing medications to patients that were then disposed of at the other agency.

- *Client information inconsistencies between data bases were recognized and corrected* when treatment coordinators established their baselines and carried out abstractions. This occurred in all agencies, but was discussed in greater depth in larger agencies. It is possible that this depth of discussion reflects a greater number of inconsistencies in larger agencies due to more complicated systems of care.

The final set of observations had to do with the treatment coordinators impact on service provision and client behaviors:

- *Enhancements in services* were perceived—treatment coordinators stated that problems such as missed labs, tests, and appointments were being caught that might otherwise have been overlooked.

- *Reductions in staff splitting* between providers and case managers was recognized as a very important outcome for urban agencies that provided transportation or transportation reimbursement to clients because it prevented the diversion of limited funds to clients who were not using them appropriately. In addition to this, one treatment coordinator perceived a change in client behavior, stating that more clients were attending scheduled appointments as a result of more intensive follow up.

- *The tracking down and reengagement of clients* was identified by two agencies employing an internal model, one suburban and one urban, as a result of the treatment coordination process. This was recognized slightly more than half-way through the pilot. Between these agencies, they discussed the reengagement of three clients. This was recognized as a particularly important outcome at the final treatment coordination meeting as the estimated cost savings re-engaging one client is equal to or greater than the annual salary of one treatment coordinator.

- *Identifying clients in need of case management services who were not receiving them* was discussed during an interview with a small suburban agency employing an internal model.

LESSONS LEARNED FROM THE IMPLEMENTATION: BARRIERS AND FACILITATING FACTORS

While there were only two broad models of treatment coordination, significant differences between the agencies existed. Issues such as agency size, structure, capacity, culture, and urban versus suburban location all had effects on the implementation of the position. The 7 pilot agencies recognized that there were both pilot effects and agency level effects that influenced the implementation of the treatment coordinators within their agencies, but indicated that the pilot effects were stronger. Below are descriptions of the barriers and facilitating factors that had the most impact on the implementation of the treatment coordinator position.

Barriers to the Implementation

Problems with the pilot:

- Agencies had *difficulty hiring* for the position based on what were considered broadly defined job descriptions. Some agencies thought social workers were under qualified due to the lack of medical knowledge. Although nurses were thought to be the most qualified of applicants for the position, it was stated during treatment coordination meetings that the low pay and focus on data abstraction made the treatment coordinator job undesirable to most nurses. Difficulties related to the part-time nature of the job in some agencies and the possibility that the time limited funding for the position also led to hiring difficulties. Finally, the higher educational requirements for the position required by the AFC were thought to impose limits on hiring. For instance, one program manager from a smaller agencies stated that the demands of the position in her agency only required

someone with a bachelor's degree or high school diploma and she was not able to higher many capable applicants.

- The treatment coordinators often discussed frustration with the *lack of concrete definitions and procedures related to case management* provided by AFC. Treatment coordinators were often confused with the definition of medical case management, which clients were the responsibility of treatment coordination, and who should decide the level of case management a client should receive (e.g., supportive, medical, or intensive).

- *AFC data collection tools and procedures* were cited by all participants as the largest factor affecting data collection. The problems caused by frequent changes made to the abstraction tool and procedures for abstraction were discussed by all participants. Additionally, three agencies recognized that the procedures developed by AFC had too many steps and/or collected the same information already reported in other forms (e.g., medical eligibility form). AFC did take measures to reduce redundancies in information. However, this often lead to further changes in the abstraction tool and procedures.

- The *delayed implementation of* AFC's *new data tracking and storage system* had significant effects on the data collection process. AFC expected to have this technology operational before the pilot began, however, it was still not operational by the end of the pilot. This system was supposed to simplify the data collection process. Had it been implemented before the pilot, the data collection and abstraction tools and procedures might have been easier to develop and implement.

In addition to pilot effects, there were a number of barriers at the agency level that hindered implementation of the treatment coordinator position:

- *Data systems were often inconsistent within agencies,* making it difficult to locate information and establish a baseline of clients appropriate for treatment coordination: information contained in different departments was often found to be contradictory, protocols for recording information varied by department, and electronic records technology varied by department or provider preference.

- *Problems with infrastructure/technology* were experienced by a number of agencies. For instance, one agency was going through a change to a new electronic medical records system, another agency had problems implementing AFC's data abstraction sheet due to outdated computer software that would not read it, while treatment coordinators at a third agency recognized its lack of electronic medical records as a factor extending the time it took them to abstract data. In addition to this, there were specific problems with electronic and paper medical records that were discussed in detail.

  o *Electronic medical records* were often identified as a tool that facilitated the data collection/abstraction process. However, the focus group and two of the interviews brought to light some problems with electronic medical records that created barriers to data collection. During the focus group, the agencies with electronic medical records reported that they often encounter problems because the system went down or they had difficulty accessing computers. Additionally, one agency pointed out that electronic systems place limits on

what information can be entered into a file (this agency had a system that was described as being more appropriate for inpatient hospital records). A second agency pointed out that older records, or those records that were entered when the electronic medical record was new, were often not standardized due to lack of effective protocols and procedures when the system was first implemented.

- o *Paper medical and case management records* were often seen as a barrier for a variety of reasons. In larger agencies, paper records are often hard to locate because they are kept in different places, checked out of the medical records department by other staff, or lost. All agencies with paper charts recognize that having multiple charts for one patient made finding information more difficult and that charts were often poorly organized and/or missing information.

- *Difficulties in forming relationships* between the treatment coordinator(s) and staff in other departments and or agencies (most often medical records and external providers and case managers) were seen as problem. While it was recognized that it was generally easy to overcome most of the difficulties forming relationships with most staff, forming constructive relationships with medical records was considered difficult for all five of the agencies with such a department (all of these were larger agencies) except for one.

- *Physician preferences and behaviors* were an issue in three agencies. In one agency, doctors were able to use either electronic or paper charts depending on their individual preferences. The treatment coordinator at this agency had to be

aware of which doctors used which method in order to locate data. In the other agency, doctors would often take walk-in appointments from patients who were visiting the agency for other reasons and would not record the appointment in the proper logs. This made it look as if clients were missing appointments when they were not. Physician handwriting was an additional problem recognized by one agency, where they often had to request help from physician's assistants to help decipher notes.

- *Time constraints* on data collection were recognized by two of the agencies. One agency recognized that time was a problem for their treatment coordinators who had other obligations because only one-half of their position was funded as a treatment coordinator. Another agency stated that agency policies and procedures for obtaining client charts often placed time constraints on them—treatment coordinators at this agency had to place requests for charts with medical records three days in advance.

- One agency experienced an *institutional merger* with another agency. This meant that they had to carry out the pilot after a recent physical move and while integrating their model of care into system that was significantly different from their previous one.

- *Lack of institutional support* was experienced by one treatment coordinator who did not received appropriate supervision and was never given a copy of the agency's original treatment coordinator proposal or implementation plan to work from.

- A *culture not conducive to communication* was a barrier for one treatment coordinator who had to navigate high levels of bureaucracy/separation between departments.

- Understanding *medical abbreviations* was a barrier to data collection for one treatment coordinator who was in the process of learning medical terminology.

Facilitating Factors of the Implementation

A number of factors based on the size, structure, infrastructure, and/or culture of the agency helped facilitate implementation:

- *Smaller agencies* demonstrated easier communication between departments necessary for the treatment coordinator to carry out job functions.

- The *organization of services* at three of the agencies was thought to be particularly useful for treatment coordination. Data abstraction and communication was easier in agencies that organized their services so there was strong integration between medical staff and case mangers (e.g., employing part-time medical staff as part-time treatment coordinators and/or having case management and medical services both provided in-house).

- Three agencies had *previous experience with treatment coordinator-like* positions, and they were able to develop implementation plans based on this experience.

- Some treatment coordinators felt that their *agency infrastructure* was well-suited for treatment coordination. Having electronic medical records or forms that allowed for the easy access and organization of data (e.g., flow sheets) were considered to be particularly helpful by treatment coordinators in these agencies. Also, having the appropriate communications technology (e.g., secured email that

allows staff to send medical information) allowed for easier communication with staff for a treatment coordinator at one large agency.

- A *supportive environment* with staff and management that are helpful and accommodating was thought to be important at one agency where the treatment coordinator was given a lot of autonomy to define the position as she felt was best and at another agency where the clinical staff was willing to take time to educate the treatment coordinator regarding medical related information.

Facilitating Factors of Implementation Planning

As discussed, the implementation of the treatment coordinator position within each of the pilot agencies was shaped in part by various agency level factors. While the outcomes of the implementation might not be fully visible, some of the activities carried out as part of the planning process were considered to be particularly helpful during implementation. The activities outlined below occurred at either one of the two larger agencies:

- The first agency, using an external model, *hosted an educational event* for external case managers. This agency's treatment coordinator invited external case managers into the agency and presented an educational training. The purpose of the event was to build relationships with the case managers, and not to educate them on the role of the treatment coordinator. Therefore, the educational topic chosen was something the treatment coordinator thought the case managers would find interesting and useful, this was not a training on the treatment coordinator position.

- The second agency designed a *large roll-out process* aimed at introducing the role of the treatment coordinator and new case management policies and procedures to its entire staff and client population. Turn out at this event was reported to be high. The agency used food incentives to ensure staff attendance, implementing a process that ensured staff would have to go through all of a number of stations explaining the treatment coordinator before receiving their free meal.

- The same agency also *conducted site visits* to external case management agencies. The purpose of this was to ensure that the case managers understood the treatment coordinator role and to set up processes and protocols between themselves and these agencies. It was reported that these visits helped to minimize confusion among external case managers.

- Finally, this agency had a very *detailed supervision process* for the treatment coordinators. This process involved the completion of daily work log sheets that were reviewed at weekly meetings with the program coordinator. This way the agency was able to obtain detailed accounts of the activities carried out by treatment coordinators and the time it took to complete them.

During our first round of site visits, these two agencies discussed implementation planning the most. This might have been necessary since these agencies were the largest taking part in the pilot. When discussing implementation at all of the other pilot agencies except one, it was generally stated that the integration of the treatment coordinator was not very difficult to carry out and that the position was easily integrated into the already existing model of care. The one pilot agency that did discuss implementation planning to

a significant degree attempted to copy elements of the "roll-out process" discussed above, but had less success. The reason for this lowered success might be due to barriers that existed within the agency's structure and culture: it was more bureaucratic and demonstrated less institutional support than the agency that originally carried out this activity.

The Treatment Coordinator Meeting: An Additional Facilitating Factor at the System Level

All of the facilitating factors above were at the agency level. However an additional system level factor was identified by all participants during the focus group. *The monthly treatment coordinator meetings* were implemented as part of the pilot process and convened by the AIDS Foundation. Treatment coordinators stated that they found the meetings provided a useful support network because they allowed for a free exchange of information related to the implementation process. Agencies agreed that this proved useful for developing processes and protocols and troubleshooting problems.

Troubleshooting the Barriers

We found a number of ways that treatment coordinators and/or agencies overcame problems that developed during the implementation:

- *Networking with other pilot agencies* was used by two of the treatment coordinators who were new hires (as opposed to transitioning from another position) to their agencies. These treatment coordinators found this approach useful for setting up processes and protocols. One of the treatment coordinators even redesigned their original treatment coordinator model after visiting another agency. In addition, all of the treatment coordinators recognized that the

knowledge and advice shared through networking at the treatment coordinator

meetings helped them to troubleshoot implementation barriers.

- *Changing the program model* was a midstream approach taken by two of the

  agencies that had originally submitted proposals for the treatment coordinator to

  work with both externally and internally case managed clients. These decisions

  were made based on a combination of time constraints inherent in the pilot and

  agency-level factors.[16]

- *Developing new procedures.* Creating/implementing forms to simplify work was a

  tactic for overcoming data abstraction barriers and allowing better tracking of

  treatment coordinator work and outcomes discussed by treatment coordinators

  from four of the agencies. Treatment coordinators created or put into use

  underutilized forms that increased productivity such as care provision flow sheets,

  treatment coordination intervention tracking forms, and electronic copies of

  existing forms. The creation/implementation of forms to help organize and collect

  data was discussed largely by agencies that were medium or large in size.

  However, one small agency did discuss the creation/implementation of a form to

  record updates to care provision.

- *New protocols* were developed by the largest agency to help document treatment

  coordinator activities. Treatment coordinators kept detailed logs of their daily

  work which were used during supervision with the program director. Based on the

  information gained from the logs, the program director was then able to identify

  the most important tasks for treatment coordinators to carry out and estimate how

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[16] see page 27 for the details behind these decisions.

long it took to carry each of them out. Based on the results of the log process, the
director was also looking to implement a separate treatment coordination
documentation section in patient charts.

- *Hiring additional treatment coordinator staff* beyond what was proposed in the
  original implementation plan was a tactic used by one of the larger agencies that
  employed an internal model of treatment coordination. The addition of the second
  treatment coordinator was carried out to help overcome institutional barriers to
  data collection and set up processes and protocols to move the treatment
  coordination position past the point of only working on data abstraction.

DISCUSSION OF FINDINGS

Understanding the responsibilities and daily activities of each agency's treatment
coordinator(s) allowed us to develop a common definition of treatment coordination as
well as identify common goals and activities of treatment coordinators; **treatment
coordination is a process leading to enhanced communication between case
managers and clinical staff**.

After developing and reviewing the pilot agencies' initial program models, we
found that treatment coordinators carry out 5 primary tasks:

1. Building and maintaining relationships

2. Data collection

3. Data management

4. Problem recognition

5. Education and translation (helping staff to understand what information from other departments means for their work and how to incorporate it in their treatment plans)

We also found 6 main objectives that agencies have for the treatment coordinator position:

1. the development of *stronger relationships* between providers and case managers,

2. improvement and maintenance *capacity of agencies* and the system,

3. development and maintenance of *consistent information* between and within agencies

4. *enhanced/seamless care* within agencies,

5. development and maintenance of *consistency of care* between agencies (applied only to external models of case management), and

6. *quality assurance* within agencies.

The tasks and the objectives of the treatment coordinator were similar across the pilot agencies, however, the processes related to these tasks and objectives were not. Throughout this report we have pointed to a number of factors that affect the design and implementation of the treatment coordinator postion and how treatment coordinators carry out their tasks. These majority of these factors can be united under four general categories:

1. Organization of services—e.g., internal or external case management, type of care provided on-site and schedule for providing care

2. Size of the agency

3. Infrasturcture of the agency—i.e., record keeping and communications technology and proceedures

4. Culture of the agency—e.g., whether the agency is supportive or not and whether the agency allows for informal communication between departments

While it was thought that location of the pilot agencies (urban or suburban) would also have an influential effect on the treatment coordinator position, we did not notice this factor to be as relevant as the others.

The agency level barriers encountered in the implementation process demonstrate difficulties integrating the treatment coorinator position into already existing microsystems of care. While failures to sufficiently recognize and/or overcome these barriers during the pilot might seem like a problem in implementation planning, it actualy demonstrates the necessity for the treatment coordinator position to navigate confusing and complicated information systems. Related to this, it was the larger agencies that required the most implementation planning and that took the most time realizing a number of the objectives of the tretment coordinator position (most notably the information processing mode of information gathering and communication), which demonstrate the even greater necessity for treatment coordinators within larger agencies that have more confusing and complicated information systems than smaller agencies.

The treatment coordinator does more than simply manage data. Our analysis demonstrates that the key function of the treatment coordinator is integrating and translating those data and communicating new understandings of individual clients to

providers and case managers (see Figure 3). Hence, it is important for treatment coordinators to posses both the education and experience to be able to critically evaluatate both clinical and psychosocial information and provide feedback. While this function is important, one agency suggested that the high educational requirements AFC placed on the position might not be necessary by stating that she felt as though someone with limited education and experience could carry function effectively as a treatment coordinator. However, this is a small agency where it is possible for providers and case managers to informally interact. Additionally, treatment coordinators in this agency are able to easily elicit and discuss information with providers in order to gain their perspective and insite, rather than having to rely on their own. It is possible that the information processing function might not be as important in agencies that demonstrate these characteristics.

Overall, size of the agency and organization of services appeared to have the most influence on the implementation of the treatment coordinator position. Agencies that were large and/or had clients with external case managers had the most complicated communication and information systems and the most barriers to overcoming them. This meant that the treatment coordinator position was more difficult to implement in these agencies because treatment coordiantors had to take more time to build relationships with staff essential to carrying out their jobs and locate and organize existing information. While these difficulties in implementation prolonged implementation, they also point to the importance of treatment coordinators for larger agencies and agencies with external case managers since the treatment coordiantor is likely to have a greater impact in agencies with more barriers to communication and the collection of information.

RECOMMENDATIONS

Formative evaluations are generally carried out during the development of a program/intervention. This type of evaluation does not seek to prove effectiveness, but is used to provide preliminary feedback, which can be used for program/intervention improvement. For this reason, it is important to keep in mind that the logic behind the following recommendations is based on the interpretation of preliminary data, not outcomes. In addition to preliminary recommendations, the documentation of the pilot process can be used to make future connections between specific aspects of the implementation within the 7 pilot agencies and outcomes as they are realized (i.e., help understand how fidelity to different aspects of the implementation within different agencies and the system as a whole affect outcomes).

Recommendations Based on Barriers and Facilitating Factors

A number of our recommendations come from an analysis of the barriers and facilitating factors of the implementation of the treatment coordinator position and the approaches agencies took to troubleshoot problems. These recommendations might be useful in designing future implementation processes and guidelines for agencies:

- *The treatment coordinator job description needs to be revised*. Smaller agencies and/or agencies with internal models of case management might benefit from a treatment coordinator who possesses less education. The overlap between departments and greater ease of more informal interaction between staff in these agencies might allow medical providers to have a more holistic view of their clients, thus eliminating or reducing the need for treatment coordinators to provide them with psychosocial information. Larger agencies and/or agencies

with external models of case management might benefit from slightly more education and experience because a treatment coordinator might have to use more critical thinking skills to connect information obtained from different departments that do not normally communicate with one anther and make appropriate recommendations.

- *AFC definitions and procedures regarding case management need to be more concrete*. Concrete definitions for future implementations are an intended product of this pilot, and they should be used to limit confusion in future implementations. Definitions for medical case management, what makes a client appropriate for treatment coordination, and what departments are supposed to make decisions regarding appropriate level of care are needed. The combined logic model (Appendix B) should be used in conjunction with other findings to develop strong operational definitions and treatment coordinator and agency goals that are specific, measurable, attainable, realistic, and timely (SMART).

- *The data abstraction forms and process should be seamless.* AFC should identify and reduce redundancies in information required for forms (e.g. the medical eligibility form) and tasks carried out in the data abstraction process. Technology that can help reduce tasks should also be utilized when possible. One way to do this is to create electronic copies of forms can be used to easily transfer information to/populate other forms requesting similar information (a number of agencies were already doing this on their own).

- *AFC should allow larger agencies more planning and time to implement the treatment coordinator position.* Larger agencies required more detailed planning

and took more time to implement the position. Because of this, at the beginning of the pilot it appeared as though the treatment coordinator only carried out information management (see Figure 2). However, it became apparent at the end of the evaluation that these agencies actually had more implementation barriers to overcome due to their size. These barriers meant that it took longer for treatment coordinators to implement the information processing mode of information gathering and communication (see Figure 3). Because of the significant amount of barriers, the communication process in these agencies might benefit even more from treatment coordinators than smaller agencies.

- *Do* *not* *require agencies to implement both internal and external treatment coordination*. Not one of the agencies that had both types of case managers (internal and external) implemented the position in this way because they either (1) felt that they did not have enough time or resources in the pilot to do so or (2) understood that their agency did not need both types of treatment coordination. Two of the agencies that made this decision were the ones that AFC decided to continue funding the position at after the end of the pilot. This demonstrates that as long as agencies can provide sufficient rational, the decision to use either an internal model, external model, or a combined model should rest with them.

- *AFC should continue to hold regular treatment coordinator meetings.* Agencies considered these meetings to be essential to them for staying on top of new information, networking, and troubleshooting problems as they arose.

Principles for Treatment Coordinator Site Selection

Based on the agency barriers to and facilitating factors of implementation, 3 principles to help guide AFC when selecting sites appropriate for the implementation of the treatment coordinator position in the future were identified:

1. The agency must demonstrate a *high level of institutional support,* i.e., administrative buy-in, capacity to create policies for review, the ability to provide adequate levels of supervision for the treatment coordinator, and language where memorandums of understanding are specific) for treatment coordination, or a well articulated plan to build support.

2. The agency must present a well structured plan for how treatment coordination will have a *significant degree of impact* by describing institutional barriers to communication, how a treatment coordinator can help to eliminate these barriers, and why other methods will not be as effective. This might mean restricting funding the implementation of the treatment coordinator position to larger agencies or agencies that are proposing implementation of an external model or an internal-external model since they face the most barriers to communication and the collection of information.

3. The agency must demonstrate that it has a *stable infrastructure* to support treatment coordination activities, e.g., that the technology is sufficient and not in the process of changing and that the agency is not going through or expecting considerable restructuring.

Issues to Follow in the Two Agencies Selected to Continue Treatment Coordination Activities

As previously mentioned, AFC selected two agencies to continue funding the treatment coordinator position at past the end of the pilot (both were larger agencies with external models of case management). The continuance of the position at these organizations is an opportunity to gain a better understanding of the implementation of the position and the treatment coordination process.

Possible Best Practices

There are a number of activities the pilot agencies completed that might be looked to as possible best practices:

- Troubleshooting activities
  - Networking with other agencies to understand their approaches to implementation
  - Creating/Implementing forms to simplify treatment coordinator work
  - Developing new protocols to document treatment coordination activities
- Implementation planning activities
  - Hosting events for external case managers to help build relationships
  - Conducting a detailed and organized roll-out process to introduce the treatment coordinator position
  - Conducting site visits to external case management sites to educate and build relationships
  - Creating a detailed supervision process that tracks treatment coordinator activities

All of these activities were carried out to some extent in the two agencies selected to continue treatment coordination. A better understanding of these activities might help AFC to develop them for use by future agencies selected for the implementation of the treatment coordinator position.

Understanding the Interactions between Treatment Coordinators and Case Managers and Providers

A better understanding of the interactions treatment coordinators have with case managers and providers is necessary to truly understand the communication and information exchange processes inherent in the model. This evaluation looked at these interactions from the point of view of the treatment coordinator, but these interactions need to be understood from the point of view of case managers and providers as well. AFC is continuing to fund treatment coordinator positions in two agencies past the pilot phase. This is an opportunity to better understand communication patters and the effects that the treatment coordinator position has on case management and clinical care.

CONCLUSION

In conclusion, treatment coordination is not a "one size fits all position". While the tasks and objectives of treatment coordinators were similar across the 7 pilot agencies, the processes that they carried out in their daily work depended on a variety of factors. Additionally, while there were a number of universal barriers to the implementation of the treatment coordinator position, there were also a number of agency specific ones. In all of the agenies, these barriers posed significant hurdles to the implementation of the treatment coordinator position. However, pilot agencies were

innovative in finding ways to overcome problems at the agency level and flexible enough to adapt to changes at the system level. While these barriers took significant time and energy to overcome during the pilot, they also point to the need that agencies have for treatment coordinators who navigate complicated microsystems of care, helping to find information that is often hidden and translate its meaning across specialized departments. It also means that the treatment coordinator position might have more impact in larger agencies and/or agencies that have clients with externally case managed clients because they often face the most hurdles to communication and have the most confusing information systems. Regardless of which types of agencies might benefit the most, all of the agencies involved in the pilot recognized the benefits of having a treatment coordinator on staff and voiced their desire to continue the position beyond the pilot phase.

APPENDICIES

Appendix A:
AIDS Foundation of Chicago
Treatment Coordinator Pilot Logic Model

Inputs	Activities	Outputs (6 months to 1 year)	Short-term Outcomes (1 to 3 years)	Impact/Long-term Outcomes (2 to 4 years+)

AFC

- Develop program design, RFP, policies and procedures, and instruments
- Provide trainings to Case Management and Treatment Coordinators
- Quality Management of case management system
- Collect data from agencies

- Definitions of what medical case management is are developed
- Identify models for bridging gap between clinical services and case management
- Centralized data repository

- AFC Learns how to manage system
- Select and implement models for bridging gap between clinical services and case management
- Proper allocation of funding to agencies based on data

Seamless coordinated system integrating case management and clinical services

Pilot Agencies

- Defined treatment coordinator position function in agency
- Implement and monitor treatment coordinator position
- Develop internal treatment coordination policies and procedures

Treatment Coordinators

- Establish baseline of case managed clients
- Facilitate treatment coordination of medically case managed clients
- Provide implementation feedback to AFC
- Collect and report clinical indicators

- Procedures for gathering data within agencies
- Regular data collection and communication
- Best practices in data collection and communication are identified

Demonstration of how data impacts outcomes

Case Managers*

- Complete psychosocial assessments
- Provide psychosocial documentation
- Determine appropriate level of case management for clients
- Develop psychosocial treatment plans

- Understanding of what medical case management is
- Standardized communication system implemented
- Seamless data collection system implemented
- Case management system managed in relation to the clinical system
- Consistent information across the system

Medical Providers*

- Complete clinical assessments
- Provide clinical documentation
- Develop clinical treatment plans

Procedures developed for communicating information between providers and case management

HIV/AIDS community has improved client-level clinical indicators and quality of life

Chicago Department of Public Health

- Conduct clinical chart audits
- Develop clinician reporting requirements
- Quality management of clinical system

*May be either on-site or off-site

Appendix B:
Combined Treatment Coordinator Logic Model
for the 7 Pilot Agencies

Inputs	Treatment Coordinator Activities	Outputs (6 months to 1 year)	Short-term Outcomes (1 to 3 years)	Impact/Long-term Outcomes (2 to 4 years+)

Inputs

- TC program funding

Internal Agency Staff
- Treatment Coordinator/s
- Treatment Coordinator Program Supervisor
- Case Managers*
- Providers
- Pharmacist*
- Medical records staff‡

External Agency Staff†
- Case Managers
- Providers*

Internal agency meetings†
- Staffing
- Clinics
- IDT meetings
- Individual meetings between staff (formal and informal)

Communications Technology
- Telephone
- Fax
- Secured email*

Records*
- Paper medical records
- Paper CM records
- Electronic medical records
- Electronic CM records

Treatment Coordinator Activities

- Hiring and Training of Treatment Coordinator/s
- Participate in regular supervision with Program Supervisor
- Introduce Treatment coordinator role‡
  - To internal staff
  - To external agencies†
  - To clients*
- Establish and maintain relationships with staff essential to carrying out job‡
- Develop protocols and routines for sharing information‡
- Communicate immediate needs between clinical and case management
- Establish and maintain baseline of clients appropriate for Treatment Coordination
- Develop protocols and routines for data collection/ abstraction & reporting
- Data collection/abstraction
- Manage data and report clinical indicators to AFC
- Identify
  - Client level problems
  - Agency level trends
- Education and translation
  - Medical information for case managers
  - Psychosocial information for providers

Outputs (6 months to 1 year)

- Treatment Coordinator Goals and objective defined/redefined
- Frequent contact between Treatment Coordinator and staff essential to carry out job
- Consistency of information between agencies†
- Consistency of information within agency
- Enhanced communication of information between providers and case managers
- Case management work capacity increases
- Establish appropriate quality assurance goals/ guidelines
- Proper allocation of agency resources
- Clients placed on appropriate level of case management
- Client level problems are addressed by case management and providers
- Immediate positive changes in client behavior
- Better informed/educated case managers and providers

Short-term Outcomes (1 to 3 years)

- Data and information reflecting importance of Treatment Coordinator
- Continuation of Treatment Coordinator funding
- Consistency of care between agencies†
- Enhanced/Seamless care within agencies
- Improved service deliver model within agency
- Greater capacity for agency
- Quality assurance goals met
- Working model of medical case management in agency
- Sustained positive changes in client behavior
- Improved HRSA defined client level clinical indicators

Impact/Long-term Outcomes (2 to 4 years+)

- Seamless coordinated system integrating case management and clinical services
- Improved relationship with community*
- Culture of system is changed
- HIV/AIDS community has improved client-level clinical indicators and quality of life
- Demonstration of how data impacts outcomes and understanding of how agency compares with rest of system

Key

† Applies to external models only

‡ Observed more in and/or more time consuming task for larger agencies

* Not observed in all agencies due to variations in structure, resources, and/or culture

[red box] More important during implementation stages

[blue box] Exists in all agencies to some extent