

# Developing a Patient Navigation Program to Improve Engagement in HIV Medical Care and Viral Suppression: A Demonstration Project Protocol

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**Abstract** Individuals diagnosed and living with HIV who are out of care or who have persistent viremia are at risk for poor health outcomes and are estimated to account for two-thirds of all new HIV infections. As part of a six-state demonstration project to improve access to care for hard-to-reach populations, Wisconsin developed an HIV-specific patient navigation program to improve engagement in HIV care and viral suppression for populations at risk for poor HIV care outcomes. Patient navigators worked with individuals who were out of HIV medical care or were at risk of falling out of care over nine months to identify and address barriers to care. This manuscript describes the patient navigation program and rationale, and lessons learned that should be considered by sites developing similar programs.

**Keywords** Navigation · Case management · HIV · Retention · Viral suppression

## Introduction

Almost half of all people living with diagnosed HIV infection in the United States are estimated to have a detectable viral load [1] and are therefore at risk of poor

health outcomes [2] and transmitting the virus to others [3]. Nationally, 92% of people living with HIV (PLWH) who are in HIV medical care are prescribed antiretroviral (ARV) medication, of whom 76% achieve viral suppression [4]. However, when individuals are not engaged in HIV medical care they do not have access to ARVs or the opportunity to achieve viral suppression. Those not engaged in HIV medical care and those with persistent viremia are estimated to account for 67% of all new HIV infections [5]. Therefore, interventions to improve engagement in care and viral suppression are important public health strategies and are essential for reducing HIV transmission and turning the tide against the HIV epidemic.

Research shows that engagement in care, including timely *linkage* to HIV-specific medical services after diagnosis, and *retention* in care (i.e., consistent attendance at HIV clinic visits) is associated with reduced morbidity and mortality among infected individuals, and reduced HIV transmission. Rapid linkage to HIV medical care facilitates early initiation of antiretroviral therapy, which is associated with improved survival and decreased HIV transmission [1, 6]. Positive outcomes associated with retention in care include access to ARVs, viral suppression, improved immune function, reduced healthcare costs associated with hospitalizations and emergency room visits, reduced risky sexual behavior, and improved population survival rates [7]. Clinic-based cohort studies show that retention in care is an independent predictor of all-cause mortality [8, 9].

Despite increased access to health insurance and the availability of low- or no-cost medical care via federal funds such as the Ryan White HIV/AIDS Program, barriers to care persist. Various models have been developed to depict how system- and individual-level barriers interact to affect health behavior and ultimately health outcomes [10, 11]. Unstable housing [12] and inadequate

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transportation [13] can interfere with an individual's ability to consistently access care and treatment. PLWH with substance use disorders and mental illness frequently have lapses in care and subsequently develop virologic failure [14], and health systems can be complex and difficult to navigate for patients with these vulnerabilities.

In order to promote the goals of the National HIV/AIDS Strategy and to address the low proportion of viral suppression reported nationally, the Health Resources and Services Administration (HRSA) funded six state health departments in 2011 through the Special Projects of National Significance Program's Systems Linkages and Access to Care for Populations at High Risk of HIV Infection Initiative (hereafter Systems Linkages Initiative). State health departments in Wisconsin, Louisiana, Massachusetts, New York, North Carolina, and Virginia received funding over four years to develop and evaluate innovative models of care to improve access to and retention in high quality HIV medical care for hard-to-reach populations of PLWH. The primary outcomes were to increase the number of PLWH who: (1) knew their serostatus; (2) were linked to HIV medical care within three months of a new HIV diagnosis; (3) were retained continuously in high-quality HIV medical care; and (4) were virally suppressed. The Systems Linkages Initiative was structured according to the Institute for Healthcare Improvement's Collaborative Learning Model (CLM) [15], in which the first two years were for developing, piloting and refining novel programs, and the second two years were for wider-scale implementation and evaluation. As part of Wisconsin's CLM, four statewide Learning Sessions of over 80 HIV prevention and care partners were held throughout the planning, development, and implementation stages to gather input, provide updates, and identify challenges and successes of the program.

To meet the objectives of the Systems Linkages Initiative, the Wisconsin Division of Public Health (DPH) collaborated with HIV medical clinics and community-based organizations to develop and implement a novel patient navigation program for PLWH. Patient navigation is defined as a "patient-centric healthcare service delivery model" in which patient navigators "take individual patients through the continuum of healthcare as it pertains to their disease, ensuring that any and all barriers to that care are resolved..." [16]. Patient navigation programs demonstrate success in improving health outcomes, especially among vulnerable populations, and may play a role in reducing health disparities [17, 18].

In this manuscript, we describe the development and implementation of Wisconsin's patient navigation program for PLWH. We present the program rationale and description, challenges identified during program

implementation, and lessons learned. The impact of the program on health outcomes will be described separately.

## Methods

### Program Overview

Wisconsin's patient navigation model was designed to provide intensive case management and care coordination services over a nine-month period to help clients identify and overcome barriers to engaging in HIV medical care and achieving viral suppression. The short-term objectives were client attendance at quarterly medical visits over the course of the program and an increase in client independence. The long-term program objectives, consistent with those of the Systems Linkages Initiative, were to increase overall levels of client engagement in HIV medical care and increase the number of individuals living with HIV in Wisconsin who were virally suppressed. In order to meet these objectives, the navigators were responsible for developing and implementing client-centered service plans, facilitating client attendance at HIV medical appointments, teaching clients self-management techniques, and maintaining frequent contact with clients and their care team. After nine months, clients needing longer-term support were discharged to a case manager while more independent clients were discharged to self-management.

### Program Rationale

The rationale for developing a patient navigation program stemmed from the limitations of Wisconsin's case management system to serve individuals with significant barriers to care. Described below are the case management system, the focus population groups, and the rationale for the nine-month program duration.

The Wisconsin DPH has supported HIV-specific case management with state and federal funds since 1992. The case management system in Wisconsin adhered to HRSA's definition of medical case management, which is "the provision of a range of client-centered activities focused on improving health outcomes in support of the HIV care continuum" [19, 20]. In addition to the core service elements of conducting regular assessments, developing service plans, coordinating care, and providing adherence support and advocacy, medical case managers assisted clients in obtaining health insurance, stable housing, and other benefits. Eligibility for case management was based on an acuity assessment, which resulted in an acuity score of 0–3, with level 0 being ineligible for case management and level 3 indicating a high level of need. Case managers

also provided periodic assistance, termed Brief Services, to level 0 clients but were not required to develop a service plan or maintain regular client contact. Minimum contact requirements for case managed clients varied by acuity: level 1 quarterly, level 2 monthly, and level 3 twice per month.

Wisconsin's case management system had clinic-based case managers who practiced within a medical clinic, and community-based case managers who practiced within an agency also employing clinic-based case managers but were not themselves in the clinic, or were at an agency without clinical HIV care. Despite the differences in setting, the overall goal of both clinic- and community-based case managers was to improve health outcomes and monitor their clients' health indicators and adherence to care. In most clinical settings case managers partnered with a medical provider and were expected to be on-site in order to provide Brief Services to patients seen in the clinic each day. Clinic-based case managers also had caseloads of up to 30 clients for whom they provided the full case management services. Given the large number of case managed and Brief Services clients, clinic-based case managers often struggled to serve the highest need clients. Community-based case managers also carried a caseload of about 30 clients, but served less Brief Services clients on a daily basis and had greater flexibility to be out in the field. Case managers in both settings received referrals from HIV testing sites, Partner Services, clinics, and other service providers (e.g., mental health providers).

While federally-funded case management programs demonstrate success in improving engagement in care and viral suppression [21], these health outcomes in Wisconsin were still below national benchmarks; thus additional service models were necessary. We envisioned a patient navigation model that would build upon the successes and infrastructure of the case management system, but that would focus solely on individuals with barriers to engagement in care and viral suppression and would have the necessary flexibility to serve PLWH with the greatest need. We incorporated activities associated with patient navigation or linkage work or that are associated with success in improving outcomes and reducing barriers for PLWH, such as targeting population groups less likely to link or be retained in care, conducting field-based outreach to newly diagnosed or out-of-care people, accompanying clients to HIV medical appointments, "cheering clients on" and motivating clients by providing a high level of emotional support, contacting clients on a frequent basis, anticipating and addressing barriers to care, and teaching clients self-management skills [22–24].

The navigation program focused on populations most likely to delay entry to or lapse from HIV medical care. Multiple analyses of national HIV surveillance data cite

youth (ages 13–24), men who have sex with men (MSM) under age 30, and Black individuals as more likely to delay entry into care, and less likely to be retained in care or virally suppressed, compared to their older counterparts or individuals of other racial and ethnic groups [25–27]. In addition, post-incarcerated PLWH are repeatedly shown to be a particularly vulnerable population with poor HIV care outcomes. Among those who receive HIV care while in prison, continuity of care after release is very low [28, 29]. For individuals receiving HIV care in the community, becoming incarcerated is highly disruptive to continuity of care and is a strong predictor of virologic failure [30, 31]. Therefore, the navigators were placed at agencies in southern Wisconsin at the heart of the HIV epidemic among youth, minorities, and young MSM of color, and where the majority of PLWH are released after being incarcerated.

The duration of the patient navigation program was based on the experience of previous linkage programs and the impact of missed visits on morbidity and mortality. The Antiretroviral Treatment Access Study-1 (ARTAS) is a linkage program in which newly diagnosed individuals receive up to five sessions with a case manager over 90 days to facilitate linkage to HIV medical care [32]. ARTAS participants are more likely than control subjects to have an HIV medical appointment within six-months after enrollment (78 vs 60%). However, while still statistically different, the effect wanes by 12 months after enrollment (64 vs 49%), suggesting the program may not be long or intensive enough for sustained benefits. In another study, the number of HIV medical visits per quarter in the year following ARV initiation is inversely associated with risk of death [8]. Finally, Gilman and colleagues describe successful linkage programs as continuing through the first three medical visits to ensure the client is actively engaged in care [22]. These results, along with HIV treatment guidelines recommending patients be seen every 3–4 months [33], led to a nine-month program duration for Wisconsin's model.

## **Program Content**

### *Program Setting*

The patient navigation pilot phase began in April 2012, when ten navigators were hired by HIV clinics and community-based organizations in southern Wisconsin. Of the five hiring agencies, three were Federally Qualified Health Centers and two were AIDS Service Organizations (ASO); three provided on-site HIV medical care. One of the navigators was hired by an ASO but practiced from the local health department and worked closely with HIV Partner Services staff to facilitate rapid linkage to care for newly diagnosed individuals. During the two-year evaluation

phase, two large university-affiliated infectious disease clinics were added. All but one of the seven final participating agencies also provided medical case management services.

### *Patient Navigators*

The patient navigators were non-medical professionals who received formal training on HIV transmission and disease progression; HIV counseling skills; case management; insurance and related benefits for PLWH; motivational interviewing; and Screening, Brief Intervention, and Referral to Treatment (SBIRT). Professional and educational backgrounds ranged from Bachelor's degrees in non-HIV related fields to Licensed Clinical Social Workers. In addition, some worked previously as case managers in Wisconsin or had HIV testing experience. The navigators were not considered to be peers as HIV status was not part of the recruitment strategy. The number of navigators ranged from eight to ten during the four-year initiative.

### *Client Eligibility*

There were five eligible client types for the navigation program: (1) newly diagnosed with HIV infection during the 90 days prior to referral to the program and at least one complicating factor, such as homelessness, lack of health insurance, or mental health barrier; (2) diagnosed with HIV infection more than 90 days prior but never received HIV medical care, or received pediatric medical care and was transitioning to an adult provider; (3) previously received HIV medical care but had been out of care for at least six months; (4) released from Wisconsin's state prison system; and (5) at risk of falling out of care, defined as having detectable viral load while prescribed antiretroviral therapy, or missing two or more consecutive HIV medical appointments.

### *Referral*

Newly diagnosed, new to care, out of care, and at-risk clients were enrolled in the program through referrals from publicly-funded HIV testing sites, HIV Partner Services programs within local health departments, inpatient hospital units, HIV clinics, and case managers who had clients requiring more intensive services to address barriers to care. There were no required screening criteria in addition to the eligible client types, therefore navigators were responsible for confirming that referred clients met one of the eligible client definitions. Clients not meeting an eligible client type were linked to case management. Due to the number of clients being referred in high volume clinics,

some navigators also assessed acuity and linked lower acuity clients to case management.

Individuals being released from a state prison facility were referred to the program via the inmate case manager at the central clinic that provided HIV medical care to all PLWH within Wisconsin's state prison system. The inmate case manager was a social worker who met with clients within six months of their scheduled release to coordinate the individuals' immediate medical needs upon transitioning to community-based HIV medical care. Typical services included scheduling an initial medical appointment, obtaining two weeks of prescription medications, and enrolling clients in the AIDS Drug Assistance Program. The inmate case manager previously referred incarcerated individuals to case management upon release, but with the new program, offered patient navigation to individuals being released to the patient navigation service area. While patient navigation was primarily a post-release program, navigators were encouraged to develop relationships with prospective clients via letter-writing and collaborate with prison staff to obtain benefits and housing prior to release.

### *Intake and Assessment*

During intake the navigator explained the scope of services and expectations for client participation, and gathered information on the barriers to care to confirm eligibility for the program and begin identifying service plan goals. Participants worked with their navigator to complete a barriers-to-care survey and a comprehensive assessment that covered topics such as employment, finances and assets, insurance, physical and behavioral health, substance use, sexual risk, housing, transportation, and support systems.

### *Service Plan Development and Implementation*

Barriers to engagement in medical care identified by the client or navigator were prioritized and translated into a service plan that defined the specific action steps for the client, navigator, and the care team to address each barrier. Service plan activities varied based on each client's barriers to care, however, all service plans included scheduling HIV medical appointments, preparing clients for medical appointments, attending at least one medical appointment with clients, and coordinating efforts with the clients' care teams. The accomplishments and ongoing barriers documented within the service plan were also used to establish a goal for transition to case management or self-management following discharge from the navigation program, and to develop the associated transition plan.

### *Activity Scope*

Patient navigators conducted many of the same activities as those routinely conducted by case managers, including making and following through with referrals for needed services, helping clients obtain benefits and stable housing, and providing emotional support, health education, and treatment adherence support. However, given that clients of the navigation program faced barriers to engaging in care and were generally higher acuity, these same services were provided at a greater frequency and intensity. In addition, navigators played an important role in monitoring medication adherence and refills, coordinating and providing appointment reminders for both medical and non-medical appointments, attending appointments with clients, and working with clients to develop disease management skills. For example, navigators may have initially made their client's appointments, arranged for transportation, and attended appointments with their client in order to eliminate the immediate barriers to care, but then gradually transitioned these activities to the client. Individuals receiving the navigation service did not also have a medical case manager, therefore the navigator was responsible for working with the care team to ensure all client needs were met.

### *Client Communication*

The patient navigation protocol outlined communication standards for client contact, including face-to-face contacts, encounters in varied settings, and at least one home or community-based visit if the client consented. Client communication was often navigator-initiated and occurred in person or via phone, text, or email. Text messaging was a critical feature of the service, as texting is associated with better self-reported medical adherence among individuals with chronic conditions [34], is associated with positive behavior change [35], and is an important mode of communication, especially among youth [36]. Texts were used to check-in with the client, provide emotional support, and provide general appointment reminders. Texting was not used to communicate health information.

The recommended case load was 15–20 clients per navigator to allow for frequent client contact, comprehensively addressing client needs, being readily available to the client, and for conducting work outside of the office setting. Examples of off-site work included meeting clients in the field or being on-site at a testing agency in the event that a newly diagnosed person was appropriate for a referral to patient navigation. Throughout the program's duration caseloads ranged from 1 to 24 per navigator.

### *Transition Planning and Discharge*

Since the navigation program was focused on addressing barriers that could prevent, or had prevented, engagement in HIV medical care, the program was designed to end once the client had achieved early retention. Early retention was defined as client attendance of three quarterly medical visits with a prescribing provider, or about nine months of program enrollment. As part of discharge planning, transition plans were created for each client. The transition plan documented barriers that were addressed during the navigation program, as well as unresolved issues to be addressed by the client or case manager, depending on the client's discharge plan. For those being transitioned to case management, the navigators facilitated at least two meetings with the client, navigator, and case manager prior to discharge.

## **Results**

Clients were enrolled during the pilot phase from May 2012 through May 2013, and during the evaluation phase from June 2013 through August 2015. Over 540 clients were enrolled during the initiative, with 369 enrolled during the evaluation phase. We report here on implementation challenges and lessons learned that may benefit other jurisdictions developing similar navigation programs. The following challenges were identified via informal conversations; quarterly meetings of the DPH, navigators and their supervisors; activities conducted as part of the CLM; and the result of client interviews described previously [24].

### **Competing Roles**

There was initial role confusion between the patient navigators and case managers due to similarities in function and co-location within agencies. In all but one agency, patient navigation represented the second or third type of case management-like services, depending on whether the agency also offered clinic- and/or community-based case management. Role competition and confusion stemmed from similar core service elements and some daily activities of both service categories, namely comprehensive assessment, and service plan development and implementation (Table 1). This led to uncertainty among referral sites, navigators, and case managers as to which clients should be referred to navigation versus case management. Case managers felt as though they were competing for clients and thus were reluctant to refer their own cases to patient navigators, and some providers referred all their high acuity clients to patient navigation. However, after

**Table 1** Comparison of medical case management and patient navigation services in Wisconsin

Activity	Case management	Patient navigation
Core service elements	Conduct initial assessment Develop service plan, with periodic evaluation Continuously monitor client to assess the efficacy of service plan Regularly assess client's needs and personal support systems Ensure timely and coordinated access to medically appropriate levels of health and support services and continuity of care (primarily in clinical setting) Provide treatment adherence support to ensure readiness for and adherence to complex HIV treatments (primarily in clinical setting) Conduct client-specific advocacy and review utilization of services	
Daily activities	Make and follow-through with referrals for services Assist with obtaining benefits Assist with obtaining stable housing Provide emotional support for higher acuity clients Provide lower degree of HIV health education Monitor laboratory values Provide appointment reminders for medical services	Make and follow-through with referrals for services Assist with obtaining benefits Assist with obtaining stable housing Provide high level of emotional support for all clients Provide high degree of HIV health education Monitor laboratory values, in addition to medication and refill monitoring and coordination Provide appointment reminders for all types of services Attend appointments of varying types with clients Focus on disease self-management
Eligibility criteria	Individuals with acuity levels 1–3	Newly diagnosed, new to care, at risk of falling out of care, out of care, post-incarcerated; sometimes supplemented with acuity score
Referral source	Publicly funded testing sites Partner services Clinic Inmate discharge planner Other service providers Inpatient (some)	Publicly funded testing sites Partner services Clinic Inmate discharge planner Other service providers Inpatient Case managers
Case load	≥30, plus brief services	15–20
Client communication	Acuity-based minimums (1-quarterly, 2-monthly, 3–2×/month) Mostly client-initiated	No minimum requirement, but frequent contact is expected Mostly navigator-initiated Work-sponsored cell phones
Place of service	Office Clinic Inpatient (some)	Office Clinic Inpatient Field (community-based visit, testing sites)
Duration	Indefinite	9 months
Discharge	Self-management (may include brief services)	Case management, self-management (may include brief services)

several years of practice, it was clearer that individuals with barriers to care belonged in patient navigation while clients who had needs but were generally adherent to care were more appropriate for case management. Other key differences that delineated navigation from case management included a smaller case load, a shorter service duration, more frequent client communication, the ability to provide services outside of the office or clinic setting, and

the extra level of care coordination and support beyond medical care (Table 1). As a result of these more intensive services, patient navigation provided a greater level of emotional support to clients, compared to case managers meeting only the minimum contact requirements or who had only need-based contact with their clients. This emotional support was especially important for clients lacking other support systems [24]. Patient navigators were also

provided cell phones as part of the Systems Linkages Initiative, which allowed them to text with clients, and be available to their clients and conduct web-based work while in the field. Most case management programs in Wisconsin did not have work-sponsored cell phones during the initiative, highlighting another key difference between the two services.

There was also role competition between navigators and Partner Services (PS) staff in linking people newly diagnosed with HIV to medical care. PS in Wisconsin involved both partner elicitation and linkage to care and other support services. PS staff often focused on their linkage to care role when first reaching out to assigned cases to increase the person's likelihood of participating in PS. Conversations about linkage to care helped build trust and rapport with clients, which then facilitated discussions about risk behavior and partners. PS staff were concerned that clients already linked to care via patient navigators would be less likely to participate in the PS process. However, only a portion of newly diagnosed individuals worked with a patient navigator, and for those who did, navigators often facilitated clients' connection to HIV Partner Services. In addition, the navigator placed at the local health department was able to help the PS providers better understand the program and was readily available to meet individuals newly diagnosed as part of PS or at the health department's Sexually Transmitted Disease clinic for uninsured and underinsured residents.

### Service Duration

While the patient navigation program was designed to be nine months in duration, half of clients were enrolled beyond that time. Of the 369 evaluated clients, the median duration of enrollment was 9.2 months (range 0.5–30.8 months). Commonly cited reasons for a longer enrollment period included a new disruption in care that prevented discharge, or a need for longer-term intensive services in situations where the agency either did not have a case manager to whom the client could be discharged or did not have a case manager with capacity to provide a similarly intensive service.

### Discharge

Given the frequency of client contact and emotional support provided by the navigator, many clients developed strong relationships with their navigator, making them reluctant to transition out of the program [24]. Despite establishing clear expectations about discharge with clients at the time of intake and having opportunities to build rapport with a case manager prior to discharge, clients still verbalized not wanting to leave the program. Clients

expressed frustration about having to start over with someone else after building rapport and sharing their story with their navigator [37]. Some clients even continued to periodically contact their navigator and receive Brief Services after discharge instead of contacting their case manager.

### Discussion

An HIV-specific patient navigation program aimed at improving engagement in care and viral suppression was successfully developed and implemented in Wisconsin. While role confusion and service overlap contributed to early implementation challenges, the new program served over 540 PLWH in southern Wisconsin. The program was able to provide a level of service not previously offered in Wisconsin, and fostered such a strong emotional connection between the client and their navigator that clients were reluctant to leave the program. In order to avoid the challenges experienced in Wisconsin, the lessons described below should be considered by entities developing similar programs.

### Planning Phase

Front line staff in positions with a role similar to patient navigation or who will interact with the patient navigator should be involved in the development of the navigation position. The statewide Learning Sessions, while a venue for provider input, were not sufficient for working through service details of the new position and their impact on other providers. Jurisdictions should have several one-on-one conversations with providers of HIV prevention and care services, including case managers, to work through the details of how these providers will refer, share, or transition clients to one another, and to define the roles of each service. These conversations should continue throughout the development and implementation of the navigation program to address challenges that arise.

### Practice Setting

While we do not yet know if there are differences in patient outcomes by setting, patient navigation seemed to complement rather than overlap with case management services when the navigator was placed in a clinical setting. Case managers in clinical settings were expected to be on site, serving a large volume of clients on a daily basis, and therefore did not have the scheduling flexibility to meet clients out of the office, attend appointments with clients, or provide the level of frequent contact needed by those experiencing significant barriers to care. Thus patient

navigators filled a service gap and were truly distinct from existing staff. Aside from the obvious differences in eligibility criteria, caseload, and service duration, the distinction between patient navigation and community-based case management was less clear.

### Service Duration

Perhaps the most important decision to be made is whether patient navigation is a short- or long-term program, and if it is to be short-term, the point at which clients should be discharged. Our patient navigation program was meant to be short-term, assisting clients through the difficult period following a new HIV diagnosis or re-entry into medical care, educating clients on how to successfully manage their HIV, and then transitioning them to longer-term case management if necessary. The program duration ensured that clients would be routinely discharged, allowing navigators to continue enrolling clients who needed the service. However, to provide better continuity of care for PLWH, a longer-term program duration could be considered with a more client-centered discharge plan based, for example, on client readiness. Serving clients longer could also alleviate situations in which clients are discharged during a period in which significant barriers still exist, and the case management system to which they are transitioned is unable to provide a similar type of service. On the other hand, serving patients for a longer period of time reduces the availability of the service to others. Adding more navigators to account for a longer service duration has obvious budget and space considerations, and a determination of cost-effectiveness has not been made.

While the final outcome evaluation of Wisconsin's program is not complete, other research has been published on the successful impact of patient navigators on the lives and outcomes of people living with HIV. Irvine et al. describe New York City's Care Coordination Program (CCP), which shares many similar elements to Wisconsin's navigation program, including eligibility criteria and navigator activities. The CCP improves linkage, retention, and viral load suppression in the 12 months following enrollment [38]. Greater improvements are observed among individuals who are newly diagnosed, out of care at least six months, low income, uninsured, unstably housed, and age 44 or younger. Similarly, the role of a navigator in providing emotional support and access to resources, and the difficulties with transition out of a time-limited navigation program are documented in North Carolina [39]. Finally, patient navigation is successful in assisting individuals transitioning from jail back to the community. Koester et al. describe the mechanisms by which patient navigation improves health outcomes for those being released from jail, which include working with clients

outside of the agency setting, accompanying clients to appointments which ultimately leads to greater independence, spending a lot of time with clients, and providing social support [40].

### Conclusion

This article summarizes an HIV-specific patient navigation program successfully implemented in southern Wisconsin and describes implementation challenges and lessons learned. Despite the potential benefits, patient navigation may overlap with existing case management programs, depending on the setting and case management model. Future studies should compare the effectiveness of case management versus patient navigation, determine the cost effectiveness of navigation programs, and further identify program elements associated with successful health outcomes.

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### Compliance with Ethical Standards

**Ethical Considerations** The implementation and evaluation of the patient navigation program does not constitute human subjects research under 45 CFR 46.102 (d) per the University of Wisconsin-Madison Health Sciences Institutional Review Board.

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