Research Prioritization Topic Briefs

PCORI Scientific Program Area:
Addressing Disparities

The Johns Hopkins Evidence Based Practice Center

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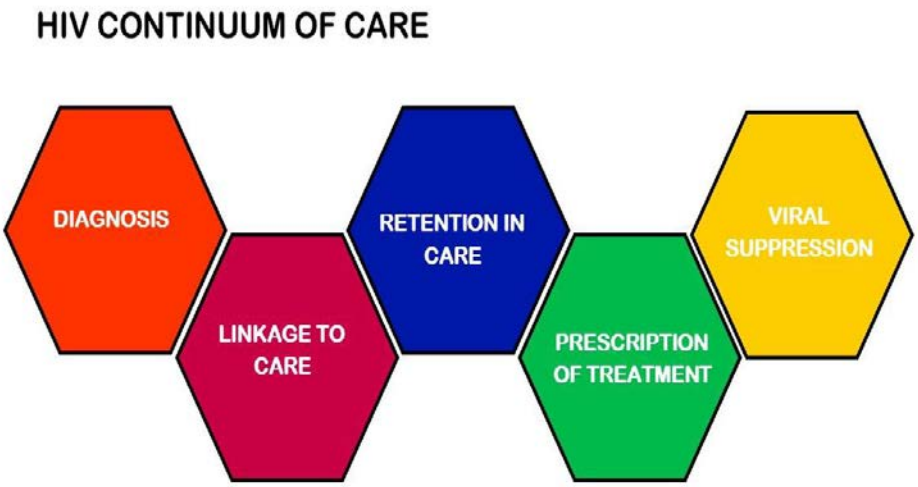
Topic:
Comparative effectiveness of interventions of different models of early detection, identification, treatment and retention to improve outcomes for patients with HIV who are at risk for experiencing disparities

This brief focuses on populations at risk for experiencing disparities, defined by the Addressing Disparities program at PCORI as: racial and ethnic minority groups, low-income groups, residents of rural areas, individuals with special healthcare needs (including individuals with disabilities), patients with low health literacy/ numeracy and/or limited English proficiency, and lesbian, gay, bisexual, or transgender (LGBT) persons, with a focus on men who have sex with men (MSM).

Criteria	Brief Description
Introduction	
Overview and definition of topic	DESCRIPTION OF CONDITION • Since the identification of HIV in 1983, research and treatment efforts have led to significant advances in HIV care and outcomes in the US.[1] o AIDS mortality has decreased over 60% since the introduction of combination antiretroviral therapy.[1] o Average life expectancy from the time of HIV diagnosis increased by 10.5 years in 1996 to 22.5 years in 2005, and is now approaching that of the general population.[1,2] • However, these advances have not reached all populations. For the populations at risk for disparities: o Racial and ethnic minorities, low-income groups and MSM account for higher proportions of incident and prevalent cases of HIV than their overall representation in the US population. o Racial and ethnic minorities and low-income groups have high rates of poor access to care and poor survival. This includes nonwhite subpopulations of MSM.[3-6] o Poor access and outcomes also exist for residents of rural areas and for those with limited English proficiency. (See Gaps section below for details). • Gaps in treatment for populations at risk can occur in different levels of the HIV treatment cascade, also known as the HIV care continuum, which describes the steps of HIV care necessary for effective treatment. The cascade provides a framework to evaluate the steps at which health disparities occur in how health care is provided to patients: [7,8]



- Diagnosis: What percentage of individuals living with HIV are being tested and diagnosed?
- Linkage to care: Of those who get diagnosed, how many are linked or connected to medical care? This is defined by the Centers for Disease Control as at least one HIV-related medical care visit within 3 months of HIV diagnosis.[9]
- Retention in care: Of those who start care, how many are retained? This can be measured in visit constancy, adherence, gaps in follow-up, or missed clinic visits.
- Prescription of treatment: Of those who are in care, how many receive antiretroviral therapy (ART)? This is usually measured as time to initiation of treatment and receipt of appropriate treatment.
- Adherence: Of those who are prescribed treatment, how many are able to adhere to their treatment and continue monitoring? (This is sometimes combined with the next category, as viral suppression is often used as a marker of adherence).
- Viral suppression: Of those who adhere to treatment, how many achieve viral suppression?

- Research shows clear gaps in care for populations at risk for disparities through the cascade [10] (*e.g,.* 28% of African Americans who are diagnosed reach the final step

of viral suppression, compared to 31% of Hispanics and 32% of whites). The Table summarizes evidence on these gaps throughout the continuum for key populations at risk for disparities from the Centers for Disease Control. (See "Gaps in Care" section for more details for populations at risk for disparities)

Characteristic	Total	Diagnosed	Engaged in care	Prescribed ART	Virally suppressed
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%) p value
Race/Ethnicity					
Total population[7]	1,218,000	1,047,480 (86)	487,000 (40)	450,000 (37)	365,000 (30)
African American	535,920 (44)	417,500 (85)	195,159 (40)	178,237 (36)	137,740 (28) 0.55
Hispanic or Latino	243,600 (20)	205,600 (85)	97,169 (40)	90,132 (37)	74,734 (31) 0.91
White	377,000 (31)	362,100 (88)	160,777 (39)	150,675 (37)	129,891 (32) Referent
Other	60,900 (5)	47,600 (84)	25,328 (44)	22,617 (40)	19,399 (34) —
Transmission category					
Male-to-male sexual contact	647,700 (54)	543,900 (84)	246,545 (38)	227,015 (35)	191,190 (30) Referent
Heterosexual contact					
Male	94,200 (8)	76,200 (81)	33,607 (36)	31,848 (34)	25,502 (27) 0.62
Female	209,700 (17)	180,600 (86)	90,989 (43)	83,676 (40)	65,072 (31) 0.70

ART: Antiretroviral Therapy

- Poor outcomes might also occur because of differential effectiveness of clinical treatment options for populations at risk for disparities. Key clinical treatment options for HIV include:
  - Pre-exposure prophylaxis, which involves daily medication for persons at high risk of contracting HIV, can be considered an intervention intended to prevent

	individuals from entering the HIV treatment continuum. The guideline from the US Public Health Service recommends daily oral tenofovir disoproxil fumarate (TDF) and emtricitabine for high-risk MSM.[11] This guideline does not address other populations at risk for disparities. o Early treatment initiation is defined as initiation of antiretroviral therapy (ART) in early asymptomatic HIV infection, as soon as the diagnosis is made, regardless of CD4 count. The current guidelines recommend it for all populations.[12] o Six different first-line treatment options are recommended in the US Department of Health and Human Services guidelines:[13] ▪ Dolutegravir/abacavir/lamivudine (DTG/ABC/3TC) ▪ DTG plus tenofovir disoproxil fumarate/emtricitabine (TDF/FTC) ▪ Elvitegravir/cobicistat/TDF/FTC (EVG/c/TDF/FTC) ▪ Raltegravir (RAL) plus TDF/FTC (AI) ▪ Darunavir/ritonavir (DRV/r) plus TDF/FTC ▪ EVG/c/FTC/TDF/alefanimide (newly added) o Second-line treatment is defined as the change in treatment when first-line treatment has failed. Assessing and managing a patient experiencing failure of ART is complex, and should include extensive evaluation of issues, including adherence and evaluation for resistance.[12] For second-line treatment, the new regimen should include at least two, preferably three, fully active agents. A fully active agent is one that is expected to have uncompromised activity on the basis of the patient's treatment history and drug-resistance testing results and/or the drug's novel mechanism of action. In general, adding a single ART agent to a virologically failing regimen is **not** recommended. For some highly ART-experienced patients, maximal virologic suppression is not possible. In this case, ART should be continued with the goal of partially suppressing the viral load. [12] • The current guidelines used for HIV management in the U.S are: o US Department of Health and Human Services Guidelines for the use of antiretroviral agents in HIV-1-infected adults and adolescents;[12] o The recommendations of the International Antiviral Society-USA 2014 Panel;[14] o The World Health Organization's consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection.[15,16] • None of the key HIV treatment guidelines used in the U.S. mention specific considerations for different clinical treatment approaches to the populations at

	risk for disparities. Populations with special considerations in the guidelines include adolescents, young adults, illicit drug users, women, and older patients.
Relevance to patient-centered outcomes	SYMPTOMS • Symptoms may be related to HIV itself, or to infections that develop as a consequence of immunosuppression and decreased CD4 counts, or to other complications of HIV infection. • Antiretroviral drugs can also cause significant side effects. OTHER PATIENT-CENTERED OUTCOMES • Adverse events from treatment, as well as pill burden • Disability • Morbidity and mortality related to undiagnosed and untreated HIV and other chronic conditions related to HIV infection • Stigma
Burden on Society	
Gaps in care and outcomes for populations at risk for disparities	GENERAL STATISTICS • The Centers for Disease Control and Prevention (CDC) estimates that 1.2 million Americans have HIV and 14% of them are unaware of their infection. Yearly, 17,500 persons die with or from HIV. • The racial/ethnic distribution of persons with HIV in 2015 was: [17] o 44% African Americans o 31% Whites o 21% Hispanics o 2% Asians o 1% Native Americans o 1% Native Hawaiians and other Pacific Islanders • There is a general need for improvement for all people with HIV along the continuum of care. Of the 1.2 million people living with HIV in the U.S. in 2011, only 86% were diagnosed, 40% were linked and retained in care, 37% received antiretroviral therapy, and only 30% were virally suppressed.[7] HIV in African Americans • Although African Americans are only 12% of the total U.S population, they make up 44% of those living with HIV. The incidence of HIV infection among African Americans is approximately 8 times higher than among whites.[18] • The rate of new diagnoses among older African Americans was 12.6 times the rate among older whites, but the rate among younger African Americans was 7.7

	times the rate among younger whites. [18] • Young African American women are the fastest growing group infected with HIV through heterosexual exposure. • African American MSM have an increased risk of testing HIV positive (up to three times) and having undiagnosed HIV infection (up to 6 times) compared with other MSM. [19] • Some research has found less timely initiation of antiretroviral therapy in African American MSM when compared to white MSM (adjusted HR 0.8, 95% CI: 0.7 to 0.9) [20] • African American MSM achieve lower viral suppression than white MSM (16% vs 34%).[21] • Outcomes even after initiation of ART are different for African Americans in some studies. Differences exist in viral suppression at 1 year post-ART initiation, with African Americans achieving only 59.5% compared to 70.9% of white patients and 72.0% of Hispanic patients in one study, potentially partly reflecting adherence and non-AIDS conditions.[22] • African Americans of all socioeconomic status (SES) have higher hospitalization rates[23] and mortality than whites and Hispanics (22.2% vs 6.3% and 5.7% for high SES. or 9.7% vs 1.7% and 2.3% for low SES).[22,24,25] In 2010, African Americans accounted for about half of the HIV deaths in the U.S.[26] HIV in Hispanics (*the literature for this population also includes issues of limited English proficiency*) • The rates of diagnosis are also higher in Hispanics, with a rate 5 times greater than whites in older adults (age greater than or equal to 50 years) (compared to 12.6 times greater in African Americans) and 2.9 times greater in younger adults (compared to 7.7 times greater in African Americans).[18] • A systematic review of delayed diagnosis, treatment and survival among Hispanics looked at literature from 2000 to 2010.[6] o Among 8 studies identified for delayed diagnosis, all but one found a delay, with CDC data showing 57.7% diagnosed late, compared to 53.1% of African Americans and 54.1% of whites. o Hispanic MSM were also diagnosed later than white MSM (24% vs 18% late presentation). o Some of this disparity is related to being foreign-born (potentially related to limited English proficiency), with 40% of those born in the US diagnosed late

	compared to 55% of those born in Mexico. o The review found seven studies addressing delayed linkage to care, all of which found that Hispanics entered clinical care at a later stage.[6] o Only 4 of 10 articles looking at survival found worse rates among Hispanics diagnosed with AIDS compared with whites. o Outcomes after initiation of antiretroviral therapy were similar between Hispanics and whites.[6] HIV in MSM • LGBT and MSM represent 2% of the U.S. population, but they are the population most severely affected by HIV/AIDS. In 2011, 47% of all US deaths due to AIDS were MSM.[17] • 80% of HIV transmission is due to sexual contact (50% homosexual, 30% heterosexual).[26] MSM accounted for 63% of new HIV infections in 2010.[17] • MSM are less likely to have delayed diagnosis overall, but African American and Hispanic MSM may be at particularly high risk of being unaware of their HIV status.[27] • Young African American MSM have had recent increases in HIV incidence (20% increase from 2008 to 2010), compared to declines in other populations.[17] • Early linkage can reach up to 80% and initiation of treatment up to 70% in urban areas for MSM,[28] but these numbers are lower for African American MSM. One study found a rate of only 27%[27] for MSM living in rural areas and MSM in the South. • White MSM are 9% more likely to report ARV treatment than African American MSM.[28] • African American MSM achieve lower viral suppression than white MSM (16% vs 34%).[21] HIV in rural areas • Rural areas have traditionally made up 5-8% of HIV cases in the US, with 68% of these in Southern states – in some locations, rates are almost as high as in urban areas. (ie, the US-Mexico Border (21.1 per 100,000) or the Mississippi Delta (17.3 per 100,000) compared to urban areas (22 per 100.000)).[29] • African Americans represent 50% of rural HIV cases, and MSM 60% of cases in rural areas.[30] • While persons living in rural areas are not at increased risk of contracting the HIV

	virus, [31] there are differences in healthcare access and outcomes. o In rural areas, patients often have increased medical and social barriers to care, including: limited access to providers skilled in HIV care, medications and transportation; lower incomes; and heightened/increased provider and social stigma.[31,32] o Rural patients are more likely than nonrural patients to progress to AIDS within one year of HIV diagnosis.[33] HIV in Low Health Literacy/Numeracy • African Americans with lower educational attainment have higher HIV-related mortality (15 deaths per 100,000 among the most educated African American men vs 117/100000 in the less educated, compared to 1 and 26 in the same categories for whites).[34]
How strongly does this overall societal burden suggest that comparative effectiveness research (CER) on alternative approaches to this problem should be given high priority?	• The societal burden of HIV infection is enormous, with a high percentage of patients in populations at risk for disparities. Disparities for many of these groups are often due to gaps in the HIV treatment continuum and lead to worse outcomes, as described above. • Costs are high: the AIDS Drug Assistance Programs (ADAP), which provides medications and related services for HIV, has a budget in 2015 of $30.4 billion for HIV and AIDS spending; 57% of the budget is planned for care and treatment programs.[35] • Since the HIV epidemic started, 648,459 people have died in the U.S with a diagnosis of AIDS. • The death rate for HIV has been estimated at 6.7 persons per 100,000 per year.[35] • People living with HIV who are untreated or undertreated are more likely to transmit the virus to others, including treatment-resistant HIV. This burden falls more on populations at risk for disparities, such as African Americans and MSM. • Thus, the societal burden is high, warranting high priority for CER on alternative approaches to early detection, identification, and retention to improve outcomes for people with HIV who are at risk for experiencing disparities.
Options for Addressing the Issue	
Based on recent systematic reviews, what is known about	EARLY DETECTION, IDENTIFICATION, TREATMENT INITIATION, LINKAGE TO CARE, AND RETENTION AND ADHERENCE • We identified no systematic reviews addressing health care-related disparities interventions in the HIV treatment continuum.

the relative benefits and harms of the available management options?	• An Agency for Healthcare Research and Quality Evidence-Based Practice Center report on Quality Improvement Interventions to Address Health Disparities in chronic conditions reviewed literature from 1983 to 2011 for interventions to eliminate disparities, and identified no relevant HIV treatment interventions.[36] • The CDC Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention Linkage to, Retention in, and Re-engagement in HIV Care Chapter (updated June 1, 2015)[37] contains several interventions focusing on populations at risk for disparities or reporting data for these populations for retention in care (but found none on linkage to care). This compendium was assembled using a comprehensive and systematic search strategy and article review and included only controlled studies published or accepted for publication in a peer-reviewed journal with outcome data. Retention in Care • **Evidence-based interventions** are those that have been rigorously evaluated in studies using an appropriate comparison group and have been shown to have significant effects.[38] Relevant interventions include: o *Retention through Enhanced Personal Contacts* is an intervention in which a trained interventionist establishes personal relationships with HIV clinic patients and remains in contact at visits and phone calls. Patients can also receive training in personal skills development. Subgroup analyses showed significant positive intervention effects in the African American subgroup for visit constancy at 12 months and in the African American and Hispanic subgroups for visit adherence at 12 months.[37] o A study of *Clinic-based Buprenorphine Treatment* for retention in HIV care included 98% African American patients with opioid dependence. Patients received buprenorphine-naloxone along with regular counseling. Over the 12-month study period, intervention participants had significantly more visits with their primary HIV-care provider than a comparison group (median, 3.5 vs 3 visits, $p<0.05$).[37] • **Evidence-informed interventions** have shown significant positive effects, but did not have a comparison group.[38] o The *Bilingual/Bicultural Care Team* intervention included a Hispanic bilingual nurse practitioner, case manager, and peer educator, providing services such as assessment of adherence barriers, education, home visits, and referrals. A pre-post evaluation of the 43 participants found a significant increase in the mean

	number of scheduled and kept HIV clinic visits (from 2.8 to 5.3, $p < 0.05$).[37] o The *Centralized HIV Services* intervention targets African American and Hispanic youth through a multidisciplinary clinic with adolescent care providers and youth-focused social workers and case managers to teach healthcare navigation skills and facilitate HIV disease management. A significantly greater percentage of intervention participants than non-intervention participants (n=90) had adequate visit constancy compared to the pre-intervention period (56.7% vs. 30.6%, $P < 0.01$).[37] o The *HIV Care Coordination Program* targets persons who are recently diagnosed, at high risk for, or have a history of suboptimal HIV care outcomes through a multicomponent intervention including outreach, case management, navigation, adherence support, and health promotion. Subgroup analyses found significantly positive intervention effects (91.3% vs 73.7%, RR=1.24, CI: 1.21-1.27) for retention in care (defined by appropriate CD4 or viral load testing rates over a 12-month period) from the pre- to the post-intervention period for African Americans, Hispanics, and non-English speakers. [37] o The *Stay Connected* clinic intervention communicated the importance of staying in care through brochures, posters and brief verbal messages. A significantly higher percentage in the intervention phase (52.7% vs 49.3%, adjusted relative improvement 7%, $p<0.001$) kept 2 consecutive visits within 12 months than in the pre-intervention phase in the African American and Hispanic subgroups.[37] o The *STYLE* intervention targeted recently-diagnosed African American and Hispanic MSM. The intervention included outreach, linkage to a physician, and medical-social support including case management and navigation. STYLE participants attended a significantly greater proportion of scheduled HIV medical visits than the pre-STYLE group (80% vs 67%, $p=0.03$).[37] • The CDC Compendium Medication Adherence Chapter[39] found no best-evidence interventions.[40] Good-evidence interventions had at least a non-concurrent comparison arm and met a number of additional criteria. Although some of the 12 included good-evidence interventions had a majority of African American participants, none targeted only populations at risk for disparities and no relevant subgroup analyses were reported.

	CLINICAL TREATMENTS We reviewed recent systematic reviews identified from the DHHS guidelines,[12] Cochrane Collaboration, and Agency for Health Care Research and Quality Evidence-Based Practice Center, and relevant to US populations for evidence on effectiveness of clinical treatment options specifically in populations at risk for disparities or for evidence of differences in effectiveness in these groups. • Pre-exposure prophylaxis: o A systematic review published in 2012 included 6 completed randomized controlled trials (RCTs). Only one study focused on a population at risk for disparities: it included only high-risk men or transgender women who have sex with men. Like studies in more general populations, this study found evidence for effectiveness: emtricitabine and tenofovir disoproxil fumarate reduced HIV transmission by 44% compared to patients who did not receive pre-exposure prophylaxis. Racial/ethnic subgroup analyses were not reported.[41] o One recently-published RCT on safety in MSM is included in the US Public Health Service Guideline, and no significant safety concerns were identified.[11] No systematic reviews for any other phases of treatment described any studies focusing on specific populations at risk for disparities or any differences by populations at risk for disparities, or mentioned the race or ethnic makeup of patients included or sexual orientation. These reviews include all of the following: • Early treatment initiation: o A meta-analysis on early treatment initiation in adults and adolescents, including 24 studies (3 RCTs), published in 2014[42] o A systematic review to define the optimal time for initiation of ART in asymptomatic, HIV-infected, treatment-naive adults, published in 2010, including 2 studies.[43] • Choice of initial ART: o A meta-analysis on efficacy of initial ART published in 2014 including 114 studies.[44] o A meta-analysis of use of integrase inhibitors as first-line therapy or after virological failure, including 12 studies, published in 2013.[45] o A meta-analysis on efficacy and safety of Dolutegravir (single therapy) versus standard recommended triple therapy in antiretroviral-naïve patients, including 31 studies, published in 2014.[46]

	○ A systematic review and meta-analysis on efficacy and safety of initial antiretroviral therapy published in 2015 including 34 studies.[47] • Choice of antiretroviral regimens for patients who fail first-line therapy: ○ A systematic review published in 2010 including one trial and two cohort studies.[42]
What could new research contribute to achieving better patient-centered outcomes?	• The CDC compendium found a high-quality evidence base for targeted populations at risk for disparities only for retention in care. • New research could focus on targeting interventions for diagnosis in health care settings where racial/ethnic minorities and low-income populations are more common and HIV risk is higher, such as emergency departments. • Good-quality interventions are needed to improve early initiation of treatment, linkage to care and adherence to medications for populations at risk for disparities. • New research could examine how interventions to improve outcomes in populations at risk for disparities from other diseases could be applied to HIV. • Research is needed focusing on rural health populations, given specific challenges with access, stigma and providing care for this group. • Given new studies demonstrating the effectiveness of pre-exposure prophylaxis, research to improve initiation and adherence in populations at risk for disparities is warranted. • There is a need to improve recruitment of populations at risk for disparities into clinical trials and to include related subgroup analyses in study reports and systematic reviews.[48,49] Subgroup analyses could be particularly helpful in clinical trials to evaluate whether the effectiveness of antiretroviral therapy is different for different for populations at risk for disparities compared to the general population of patients with HIV.
Have recent innovations made research on this topic especially compelling?	• Recent studies have expanded the knowledge base on how gaps in care for populations at risk for disparities occur across the HIV care continuum and the potential for research to address gaps in care at each step, particularly for African Americans and MSM.[21,50,51] • New approaches to disparities research being applied in other illnesses may be applicable to HIV. These include multilevel interventions, including community-based approaches, and targeting populations that are socioeconomically disadvantaged.[52] • Interventions using mobile health technology may also be promising, especially among youth.[53]

	• Recent evidence on the effectiveness of pre-exposure prophylaxis may be relevant for populations at risk.
What is the pace of other research on this topic (as indicated by recent publications and ongoing trials)?	EARLY DETECTION, IDENTIFICATION, TREATMENT INITIATION, LINKAGE TO CARE, AND RETENTION AND ADHERENCE • We reviewed clinicaltrials.gov for studies that were ongoing or completed within the last 2 years and not yet published, focused on treatment of populations at risk for disparities (or included subgroup analyses for these populations) and elements of HIV care covered in this topic brief and included a health system component. The search terms were: (AIDS OR HIV) AND (disparities OR minorities OR underserved OR MSM OR blacks OR "African Americans" OR Hispanics), conducted on November 5, 2015. • We identified the following relevant studies, classified by type of clinical intervention: Retention in Care • An ongoing randomized controlled trial (RCT) is evaluating the effectiveness of a stigma reduction intervention for African American women with HIV, with a target enrollment of 224, estimated completion date of February 2016, and secondary outcomes including engagement in care (measured by missed HIV-related visits) and HIV viral load, as well as patient-reported outcomes including stigma scores, depression and social support. (NCT01893112) • A completed RCT (September 2014) evaluated a culturally sensitive intervention for retention for Latino MSM, with outcomes of HIV visits, antiretroviral therapy use, adherence and quality of life. (NCT01457066) Across the continuum: • The *Assessing the Engagement of Transgender and Other Gender Minority Youth Across the HIV Continuum of Care* study is an observational mixed-methods study with planned recruitment from June 2015 to June 2016, to evaluate barriers and facilitators for participation in care (NCT02449629). • An RCT is being done for substance-using African American MSM evaluating the impact on both linkage and retention in care through financial incentive and navigation interventions (estimated completion April 2016) (NCT01790360).

	CLINICAL TREATMENTS We reviewed clinicaltrials.gov for studies that were ongoing or completed within the last 2 years and not yet published, focused on populations at risk for disparities (or included subgroup analyses for these populations) and elements of HIV care covered in this topic brief and included a health system component. The search terms were: (AIDS OR HIV) AND (disparities OR minorities OR underserved OR MSM OR blacks OR "African Americans" OR Hispanics, conducted on November 5, 2015. We identified the following relevant studies, classified by type of clinical intervention: • Pre-exposure prophylaxis (all studies in MSM): o An open label trial of once daily oral emtricitabine 200 mg/tenofovir disoproxil fumarate 300 mg with Client Centered Care Coordination for high-risk black MSM had an expected completion date of July 2015 (NCT01808352). o A feasibility study of short-term clinic-based emtricitabine/tenofovir for high-risk MSM is planned to start July 2015 with expected completion date of December 2017 (NCT02495779). o A study in African American MSM is currently conducting ethnographic community-based research to inform a randomized trial at a community-based clinic, with estimated study completion date of July 2017 and enrollment of 200 patients. (NCT02167386) o A randomized trial in high-risk MSM is evaluating if the use of a text-message based adherence intervention (iTAB) improves retention and adherence to pre-exposure prophylaxis compared to standard delivery, with expected completion January 2016 (NCT01761643). • We did not identify any studies that targeted populations at risk for disparities. • We did not identify any studies of first-line therapy or treatment after first-line therapy has failed that focused on or reported planned subgroup analyses for the populations at risk for disparities.
How likely it is that new CER on this topic would provide better information to guide clinical decision making?	• Evidence on how best to improve linkage to care, retention, and adherence could help improve care and outcomes for populations at risk for disparities.

Potential for New Information to Improve Care and Patient-Centered Outcomes	
What are the facilitators and barriers that would affect the implementation of new findings in practice?	FACILITATORS: • There is broad awareness of disparities among HIV treatment programs and providers. • In many areas, high-quality clinical HIV treatment programs exist with resources that could help implement new targeted interventions, and many of these serve a high percentage of populations at risk for disparities (e.g., inner-city clinics with mostly African American patients). BARRIERS: • There is inadequate access to culturally competent services in many rural areas where African American MSM live.[27] • Many areas and clinics have mixed populations, so implementing interventions into usual practice that target only certain populations could be challenging. • Health systems and care are often complex, and it can be challenging to navigate and implement new programs, particularly for populations at risk for disparities.[27] • Wherever there is stigma or perceived stigma, this perpetuates disparities, as these patients may have greater barriers to accessing care and adhering to treatment. [54] Stigma is also a barrier within healthcare: in a recent survey, up to a third of patients reported racial or sexual orientation stigma from health care providers, and 48% reported mistrust of medical establishments.[55] • Other socioeconomic, medical, and societal issues, such as mental health issues, substance abuse, poor-quality housing and housing instability,[56] imprisonment, and lack of social support, may also lead to disparities in accessing care, adherence to treatment, and health outcomes.[57] • Another barrier is the lack of training programs for improving clinical provider technical skills in serving populations disproportionately impacted by low health literacy and HIV infection.[58] • Financial barriers exist for individuals and/or health systems for insurance coverage and/or reimbursement.

How likely is it that the results of new research on this topic would be implemented in practice right away?	• Pre-exposure prophylaxis is already recommended in guidelines for high-risk MSM based on current evidence. • Guidelines do not currently recommend any differences in other treatment regimens for populations at risk for disparities.
Would new information from CER on this topic remain current for several years?	• New information would be valuable for many years because disparities are likely to persist despite new medical developments in HIV care. • At this point, chronic drug therapy is likely to be the standard treatment for patients for many years, as treatments to cure HIV are not on the near horizon.

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