Integrating HIV Preexposure Prophylaxis (PrEP) Into Routine Preventive Health Care to Avoid Exacerbating Disparities

Sarah K. Calabrese, PhD, Douglas S. Krakower, MD, and Kenneth H. Mayer, MD

More than 3 decades since its emergence in the United States, HIV continues to spread and disproportionately affect socially marginalized groups.

Preexposure prophylaxis (PrEP), a highly effective prevention strategy federally approved since 2012, could fundamentally alter the course of the epidemic. However, PrEP's potential has not been fully realized, in part because health care providers have been slow to adopt PrEP in clinical practice and have been selective in their discussion of PrEP with patients. This nonstandardized approach has constrained PrEP access. PrEP access has not only been inadequate but also inequitable, with several groups in high need showing lower rates of uptake than do their socially privileged counterparts.

Recognizing these early warning signs that current approaches to PrEP implementation could exacerbate existing HIV disparities, we call on health professionals to integrate PrEP into routine preventive health care for adult patients—particularly in primary care, reproductive health, and behavioral health settings. Drawing on the empirical literature, we present 4 arguments for why doing so would improve access and access equity, and we conclude that the benefits clearly outweigh the challenges. (*Am J Public Health*. 2017;107:1883–1889. doi:10.2105/AJPH.2017.304061)

See also Eaton, p. 1862.

The year 2012 was a landmark year in the history of HIV prevention. The US Food and Drug Administration approved the first HIV preexposure prophylactic agent for prescription: tenofovir disoproxil fumarate with emtricitabine (Truvada). This daily oral antiretroviral medication is effective in protecting HIV-negative adults from acquiring HIV[1] and is indicated for those at risk because of sexual behavior, injection practices, or both.[2]

Preexposure prophylaxis (PrEP) is an important addition to the menu of prevention options offered to patients in health care settings because traditional prevention methods, such as condoms, have only partially addressed the HIV epidemic. HIV continues to spread, with transmission accelerated among certain groups in particular (e.g., Black men who have sex with men [MSM][3,4]). Whether used alone or combined with other prevention methods, PrEP confers numerous benefits and few known risks. Many of the benefits are unique to PrEP and cannot be obtained via other forms of protection, including its potential for covert use without a partner's knowledge, allowance of HIV-protected natural conception, dual protection against both sexual and injection risks, and dissociation from the timing of an exposure event (thus avoiding decision-making in the "heat of the moment" or when judgment is impaired by concurrent substance use).

Despite the immense promise of PrEP and the unique advantages it affords, many health care providers, including those aware of this recent prevention innovation, have not discussed PrEP with their patients or prescribed it.[5,6] Providers have reported several barriers to prescribing PrEP, such as difficulty determining eligibility and time demands associated with provision and follow-up monitoring,[5,7] but preliminary evidence suggests that these challenges may be overestimated and are often manageable in practice.[8] The slow adoption of PrEP in clinical practices has contributed to the gap between the number of people who have taken PrEP in the United States, which is around 100 000,[9] and the number at significant risk for HIV and for whom PrEP is indicated, which exceeds 1.2 million.[10] Furthermore, the nonstandardized approaches to PrEP provision in clinical practices that have adopted PrEP may limit PrEP education and access for some individuals more than others,[11] thus promoting inequities.

We argue that PrEP should be discussed with all adult patients as part of routine preventive health care—particularly in primary care, reproductive health, and behavioral health settings—and made available to those who elect to use it unless medically contraindicated. Providing all patients with a basic overview of PrEP ensures that all are aware of its existence, and further education and provision can be tailored to patients' individual preferences and circumstances. Routinizing the discussion and offering of PrEP would improve access to PrEP, thereby curbing HIV spread, and improve access equity for Black MSM and other socially marginalized groups disproportionately affected by HIV, which would help avoid exacerbating existing HIV disparities through PrEP-related clinical practices.

ABOUT THE AUTHORS

Sarah K. Calabrese is with the Department of Psychology, George Washington University, Washington, DC. Douglas S. Krakower and Kenneth H. Mayer are with the Fenway Institute, Boston, MA, and the Division of Infectious Diseases, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston.

Correspondence should be sent to Sarah K. Calabrese, 2125 G Street NW, Washington, DC 20052 (e-mail: skcalabrese@gwu.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

This article was accepted August 3, 2017.

doi: 10.2105/AJPH.2017.304061

CONTEXT AND DEFINITION

According to the 2015 US national HIV/AIDS strategy,

> All Americans deserve scientifically accurate, easy-to-access information about HIV transmission and prevention. This entails providing clear, specific, consistent, and scientifically up-to-date messages about risk and prevention strategies.[12(p4)]

Educating the US public about PrEP and other HIV prevention options is a shared responsibility among government, schools, media, and other entities. However, health care providers can play a particularly pivotal role in disseminating this information because of their medical training and capacity to immediately link individuals to prevention resources and perform associated medical monitoring.

Presently, health care providers' knowledge of PrEP and adoption of PrEP in clinical practice may be perceived as optional and discretionary. This needs to be revised in the face of strong cumulative evidence for PrEP's effectiveness across diverse populations, including MSM, heterosexual men and women, and people who inject drugs.[1] Neglecting to consistently inform patients about PrEP, especially when providing other sexual health services, may be considered suboptimal care. Routine PrEP education and provision would diminish the selection biases and missed opportunities inherent in the present nonstandardized approach.

In the health care system, routinization involves the institutionalization of clinical activities to follow an established pattern with the goal of improving medical decision-making and overall community health.[13] Addressing sex- and drug-related risk behavior and health needs, including HIV prevention, should be considered a health priority for all patients that cuts across medical disciplines. People at risk for HIV have reported diverse preferences for sources of PrEP information and care, including primary care physicians, infectious disease specialists, gynecologists, and psychiatrists,[14,15] and it is incumbent on all health care providers to offer or support access to PrEP resources. Providers, particularly those practicing in primary care, reproductive health, and behavioral health settings, should be prepared to routinely perform nonjudgmental sexual health and substance use assessments and to discuss PrEP as 1 of multiple HIV prevention options available.

To maximize the quality and range of services that providers are able to offer, PrEP should be embedded in a broader, ongoing discussion of sexual and behavioral health that also incorporates sexual history and goals, other sexually transmitted infections, pregnancy, and substance use. Multiple resources are available to support providers in discussing and providing PrEP (e.g., the National LGBT Health Education Center [http://bit.ly/2vlb9UK], the Clinician Consultation Center [http://bit.ly/2gjqj68]), and technology can help minimize the time demands associated with sexual and behavioral health discussions.[16]

Routinization has been an effective strategy to help normalize and promote uptake of other sexual health prevention services. For example, contraception, which was heavily stigmatized in its early days, is now more commonly discussed and offered to female patients of reproductive age regardless of their stated sexual activity and pregnancy risk. In the realm of HIV testing, moving from a client-initiated (often referred to as "voluntary") testing model, according to which HIV testing is performed by patient request, to a provider-initiated model, according to which testing is regularly offered to patients as part of standard medical care, has been shown to extend the reach of this valuable service.[17] Although both contraception and HIV testing still face some implementation difficulties and have not been routinized across all medical settings, the more commonplace provision of these services relative to earlier implementation efforts bodes well for the uptake and normalization of PrEP if integrated as a standard option within preventive health care.

Instituting a routine approach to PrEP education and provision comes with challenges, and various strategies for motivating and regulating such change will need to be explored. Health care providers and administrators will have to be educated about PrEP and perceive value in adopting a routinized approach in their clinical practices. Securing approval and formal endorsement from medical authorities and revising clinical guidance to reflect this recommendation may help promote buy-in. Enhancing the visibility of health care settings that have successfully adopted a routinized model of PrEP education and provision could demonstrate feasibility and help cultivate new norms that encourage similar institutions to follow suit.[6] Linking discussion of PrEP to services that are already being routinely provided in a certain setting, such as HIV testing, is a logical pairing that may facilitate implementation of a routinized approach to PrEP.

Structural initiatives could also be considered as a means of ensuring routine PrEP education; for example, existing state laws that mandate offering HIV testing to patients could be amended to also require PrEP counseling for those who test negative. Although there are certain to be obstacles to routinizing PrEP in preventive care, the potential public health benefits of a more equitable and effective approach to implementing PrEP are substantial, realistic, and worthy of additional investment.

HOW ROUTINIZATION IMPROVES ACCESS AND EQUITY

We draw on the empirical literature to present 4 arguments for integrating PrEP into routine preventive health care, highlighting the mechanisms by which a routinized approach to PrEP discussion and provision would improve access and avoid exacerbating existing HIV disparities (Table 1 provides a summary). Of note, we have anticipated criticisms of this approach involving concerns about cost-effectiveness, provider time constraints, side effects and safety, and impact on other sexually transmitted infections. Appendix A (available as a supplement to the online version of this article at http://www.ajph.org) provides a summary and counterarguments of these anticipated criticisms.

Avoids Missing Potential Candidates

Individuals at risk for HIV are not easily identifiable. HIV risk is unlike many other medical

TABLE 1—Arguments in Favor of Integrating Preexposure Prophylaxis (PrEP) Into Routine Preventive Health Care

Argument	General Premise	Main Points
1. A routinized approach avoids missing potential PrEP candidates	Providers broaching PrEP with all patients would ensure that PrEP information is provided to all who stand to benefit	Because patient risk behavior is not readily observable, providers may have difficulty assessing patients' level of HIV risk If PrEP is only discussed with patients who providers perceive to be at risk, some at-risk patients will not be recognized and will not be informed about PrEP even though they could benefit from it Eligibility criteria put forward by the US Public Health Service and other authorities are not sensitive enough to identify all patients at risk for HIV Absent a routinized approach, decisions about whom to discuss PrEP with will be vulnerable to social biases Providers failing to discuss PrEP with patients who could benefit from its use is particularly concerning because many at-risk patients do not know about PrEP and are not learning about it from other sources
2. A routinized approach helps destigmatize PrEP	Making discussions about PrEP part of routine care would normalize PrEP for patients, providers, and the general public, thereby improving access	Presently, many people see PrEP as a medication for gay men or a sign of promiscuity Present perceptions of PrEP may deter PrEP candidates from seeking PrEP from a provider or initiating PrEP when recommended by a provider Present perceptions of PrEP may interfere with providers' ability to recognize PrEP candidates or make them reluctant to broach the topic for fear of offending patients Changing present perceptions of PrEP among members of the general public could increase support for policies and programs that support access
3. A routinized approach facilitates patient-centered care	Routinization empowers patients to help decide whether PrEP is right for them	Patient-centered care is the preferred approach to service provision in many health professions Routinization alleviates challenges that providers may experience in determining eligibility Providers deciding not to broach the topic of PrEP with a patient is a decision made with incomplete information (e.g., about a patient's sexual history and intentions) Patients have unique insight into their past and future level of risk There is significant benefit and limited risk to discussing PrEP with patients and involving them in the decision-making process
4. A routinized approach transmits knowledge about PrEP to the broader community	Routinely educating patients about PrEP might help inform and engage other members of the community who are in patients' social networks	PrEP awareness in the United States remains low Patients who learn about PrEP from their health care providers can share this information with other people in their social networks Routine PrEP education provides an opportunity for providers to help disseminate accurate information about PrEP and correct misconceptions in the community Increased PrEP education and uptake within a social network may reduce medical mistrust and increase receptivity to PrEP among individuals who do not usually seek medical services

Note. Anticipated criticisms and counterarguments can be accessed in Appendix A (available as a supplement to the online version of this article at http://www.ajph.org).

conditions or health concerns that providers routinely diagnose on the basis of direct observation of symptoms. Although a minority of patients at risk for HIV have clinical signs of recent condomless sex or injection drug use (e.g., pregnancy, other sexually transmitted infections, needle marks) that may cue providers to possible HIV risk, many patients do not. Thus, "diagnosis" of HIV risk relies heavily on secondhand information obtained through patient self-report. Patients may not accurately disclose the extent to which they are consistently using condoms, clean needles, and other methods of protection and whether they consider these methods to be acceptable for multiple reasons, including discomfort with sharing sensitive information and fear of provider judgment. MSM—and Black MSM in particular[18]—may be uncomfortable disclosing their same-sex sexual behavior to providers because of anticipated or internalized heterosexism (i.e., negative attitudes toward sexual minorities). Additionally, if patients are unaware that a provider is conditioning PrEP education and access on their disclosure of relevant risk behavior, they may lack incentive to disclose such behavior.

Even if patients were fully forthcoming about their sexual histories and goals, providers broaching PrEP only with patients they judge to be at substantial risk for HIV is problematic because risk prediction is an imperfect process. The US Public Health Service[2] and other health authorities have published clinical guidelines containing eligibility criteria to help determine HIV risk and PrEP candidacy, but these criteria are not sensitive to all patients who stand to benefit from PrEP. Therefore, if providers use these criteria to identify patients with whom to discuss PrEP, some PrEP candidates will be missed. In 1 longitudinal study,[19] only 65% of Black MSM who seroconverted would have met US Public Health Service criteria for PrEP at the previous study time point.

Notably, 88% of White MSM who seroconverted in this same study would have met criteria.[19] Cross-sectional survey research has revealed a similar disparity, reporting sexually active Black MSM to be less likely than their White and Hispanic counterparts to meet PrEP eligibility criteria.[20] These data raise concern that current clinical criteria may not only miss PrEP candidates, but miss Black PrEP candidates in particular.

Racial disparities in PrEP eligibility according to preestablished criteria may reflect the failure of such criteria to sufficiently capture the social and structural risk factors driving the HIV epidemic in the Black community and driving HIV disparities[19,20]; for example, because people tend to choose sexual partners of the same race and the HIV prevalence among Black MSM is disproportionately high,[3] each condomless sex act with a partner from this partner pool carries higher risk on average.

This network-level risk factor is not accounted for in standard PrEP eligibility criteria. (The US Public Health Service guidelines[2] do encourage clinicians to consider epidemiological context, but this recommendation is not consistently captured in the listed indications for PrEP use commonly referenced as eligibility criteria.) Thus, providers should not rely on preestablished eligibility criteria to determine who should be educated about PrEP, as this could inappropriately disqualify Black MSM and others, amplifying existing HIV disparities. Rather, preestablished criteria should be regarded as useful but not exclusive cues that PrEP might be appropriate. Likewise, when making specific recommendations about PrEP, it is critical that providers consider factors beyond individual-level criteria, including local HIV epidemiology, HIV prevalence within patients' sexual networks (if known), and patients' perceptions of their likelihood of benefiting from PrEP, to avoid inadvertently discouraging PrEP use among patients at risk.

In the absence of a routinized approach to PrEP education, whereby all adult patients receive at least basic information about PrEP, a provider's decision about whether to inform a patient about PrEP is likely to be governed by both perception of the patient's HIV risk and the projected impact of PrEP on the patient's health. Assessment of this impact may include judgments about the patient's likelihood of adhering to a PrEP regimen and the likelihood of using other risk reduction strategies (e.g., condoms) concomitantly as encouraged in PrEP clinical guidance.[2] Previous survey research with medical students suggests that clinical decision-making related to PrEP —including assumptions about patient behavior while taking PrEP and consequent intention to prescribe PrEP to a patient— may be vulnerable to biases related to patient race and sexual orientation.[11,21] For example, when presented with a clinical vignette about a hypothetical MSM patient seeking a prescription for PrEP, medical students judged the patient as being more likely to increase condomless sex if prescribed PrEP when they were told he was Black as opposed to White; anticipated increase in condomless sex was associated with lower intention to prescribe PrEP to the hypothetical patient.[11]

Such social biases are especially problematic because of the current epidemiology of HIV, according to which Blacks, MSM, and Black MSM specifically are disproportionately affected.[3] Failure to routinely educate and offer PrEP to patients allows providers' personal biases— whether conscious or not—to govern patient information and access to PrEP.

Finally, it is worth noting that providers neglecting to raise the topic of PrEP with at-risk patients is of particular concern because many such individuals are still unaware of PrEP[22] and are hence dependent on their providers to introduce the topic. In some communities, awareness may be especially limited among racial and ethnic minority groups in which HIV incidence is disproportionately high.[22] Furthermore, even among PrEP-informed individuals, reliance on patient agency over provider initiative in broaching the topic of PrEP may disadvantage some groups: recent research with MSM in New York City found that Black and Latino MSM were more likely than were other MSM to prefer that their health care provider lead health care decision-making, and that Black and Latino MSM perceived greater challenge in talking about sex with their provider in the process of obtaining PrEP.[23] Other preventive health tools, including seatbelts, bicycle helmets, and condoms, are usually learned about from 1 or more other sources, such as parents, peers, schools, and media. They are also reinforced by other mechanisms (e.g., state laws, peer norms, situational reminders). That these alternative sources of education and reinforcement are largely lacking for PrEP makes it all the more important that this prevention tool be routinely discussed in health care settings to ensure that potential PrEP candidates are not missed.

Helps Destigmatize Preexposure Prophylaxis

According to the World Health Organization's 2016 guidelines on PrEP implementation,

> Broadening PrEP recommendations beyond narrowly defined groups (such as MSM and serodiscordant couples) allows more equitable access, [and] is likely to be less stigmatizing than targeting specific risk groups.[24(p56)]

Routinization of PrEP education and provision in preventive care would facilitate PrEP access by helping normalize its use, fostering greater acceptance among potential candidates, providers, and the broader public.

Presently, PrEP is perceived by many as a medication specific to gay men and an indicator of promiscuity.[25–28] Both associations may discourage PrEP candidates from seeking PrEP, as they may fear being judged or "outed" by providers, peers, and others or wrongly assume that they are ineligible.[14,27,28] Such assumptions may also dissuade them from initiating PrEP when recommended by a provider. Research, public health, and media discourse on PrEP has largely focused on PrEP for MSM because of this population's disproportionate risk for HIV relative to other social groups. An inadvertent consequence of this focus has been cultivation of the perception that PrEP is a medication specific to MSM, which may operate as a deterrent to PrEP use for people at risk for HIV who are not MSM (e.g., women[14,29]) and to MSM who wish to maintain privacy about their same-sex sexual orientation.[25,27]

Early research suggests that Black and Latino MSM perceive greater stigma about PrEP than do their White counterparts in some communities[30] and have

greater concern about people noticing and making assumptions about their PrEP use than do other MSM.[23] Thus, the destigmatization of PrEP is particularly essential for encouraging PrEP access among racial and ethnic minority MSM. Integrating PrEP into routine preventive care by discussing it with all patients and providing it to those who elect to use it would help reframe it as medication appropriate for sexually active individuals irrespective of sexual orientation or partner sex, consistent with its indication.

PrEP stigma affects demand by potential candidates and supply by health care providers. With the current nonroutinized approach, providers who are familiar with stereotypes of PrEP users as gay, exceptionally risky, or both may fail to recognize PrEP candidates who do not fit these preconceptions on the basis of their gender or self-presentation. At the same time, providers may be reluctant to broach the topic of PrEP with patients belonging to stereotyped groups for fear of offending them by insinuating stereotypical assumptions.

In addition to removing PrEP stigma as a barrier to both patients' seeking and providers' prescribing PrEP, routinizing conversations about PrEP would help destigmatize it in the eyes of the general public. This may influence public support for policies and programs that make PrEP affordable for many patients and improve access for racial and sexual minorities in particular.[31]

Facilitates Patient-Centered Care

A patient-centered model of care aligns with the values put forward by the Institute of Medicine,[32] the American Medical Association,[33] and other professional organizations dictating medical codes of conduct. Providers should present PrEP as a preventive option and support patients in making an informed decision about whether it fits with their sexual experiences and goals.

Routinely discussing PrEP with patients could help alleviate the pressure or discomfort providers experience when deciding PrEP eligibility by making it a shared endeavor with their patients. Some providers have anticipated difficulty identifying PrEP candidates to be a potential barrier to PrEP provision, in part because they perceive many providers to lack the skills needed to effectively communicate about sexual health with patients.[7] With discussion of PrEP left to provider discretion, this difficulty could serve as a barrier to even broaching the topic. Providers may feel less intimidated by the prospect of determining a patient's PrEP eligibility if they routinely engage patients in shared decisions about PrEP, similar to contraception decision-making, as opposed to having to decide alone whether to initiate a conversation about PrEP. Patients possess significantly greater insight into their sexual histories and intentions than do their providers, even when they are fully forthcoming in sexual health discussions. Thus, patients can offer complementary expertise to providers' medical knowledge when approaching PrEP decision–making. Failing to broach the topic with a patient constitutes one-sided decision-making on the basis of incomplete data.

If educating patients about PrEP was routinized, providers may be motivated to seek skills-based training on discussing sex with patients and could build competence and confidence in this area by way of experience. Recent survey research suggests that 1 in 4 primary care providers are not comfortable discussing sexual activities with their patients[5] and that clinicians tend to overestimate patients' sensitivity to questions about sexual orientation.[34] Resources are readily available to support providers in communicating about sex with their patients and cultivating a safe environment for patients of diverse backgrounds to disclose personal information (e.g., the CDC sexual history-taking guide [https://www.cdc.gov/std/treatment/sexualhistory.pdf] and the Do Ask, Do Tell toolkit [http://doaskdotell.org]). Routinizing conversations about PrEP could foster an ongoing open dialogue about sexual health, building patient–provider rapport over time and enhancing patients' comfort discussing potentially stigmatizing behavior. This could allow providers to make more informed recommendations about PrEP to patients, help them better address other dimensions of sexual health such as relationship safety and sexual satisfaction, and serve as a gateway to patients accessing other health services.

There is minimal harm in broaching the topic of PrEP with all patients, including those not currently at substantial risk for HIV. Patients are unlikely to initiate PrEP if they perceive no benefit in doing so. A patient who expresses a desire for PrEP is likely to be motivated by perceived HIV risk, irrespective of whether associated behavior has been disclosed. Evidence for greater PrEP interest or willingness among MSM who perceive HIV risk, engage in risk behavior, and report a previous sexually transmitted infection[20,35] suggests a correlation between the decision to use PrEP and need for PrEP. PrEP-seeking patients who perceive themselves to be at risk for HIV despite minimal risk taking, sometimes pejoratively labeled the "worried well," are uncommon; however, even these individuals may derive benefit from PrEP (e.g., reduced anxiety).[36] Discussing PrEP and other aspects of sexual health with patients at low perceived risk or who ultimately decline PrEP is not a wasted effort, as an individual's sexual risk taking often fluctuates over time and PrEP may be a desirable option in the future. Additionally, patients' readiness to initiate PrEP may evolve over time,[37] so it is preferable to introduce PrEP as early as possible regardless of likely uptake at first introduction.

Transmits Knowledge to the Broader Community

Awareness of PrEP has been slow to permeate the US general public, including subgroups at disproportionately high HIV risk. For example, in a study of HIV-uninfected, sexually active Black MSM in Atlanta, Georgia,[38] less than a quarter were aware of PrEP, and no significant increase in awareness occurred between 2012 (before US Food and Drug Administration approval) and 2014, nearly 2 years after US Food and Drug Administration approval. Women at high risk for HIV have expressed anger over not being informed about PrEP sooner[14,29] and concern about their health care providers being uninformed about PrEP.[14] Low awareness and misconceptions about PrEP, including the notion that it is indicated exclusively for MSM, may be corrected by providers, and this knowledge may in turn help remedy unawareness

and misinformation in the community.

Medical mistrust has been identified as a potential deterrent to PrEP uptake, particularly among Black MSM.[39] Individuals with high levels of medical mistrust are unlikely to seek medical services and will consequently lack the opportunity to receive education about PrEP directly from a medical provider. However, education of these individuals' social networks by providers can indirectly raise their awareness about PrEP. Routinization may help erode concerns about the safety and legitimacy of PrEP to the extent that it results in more members of their social networks being informed about PrEP and initiating PrEP use, and this may ultimately increase their receptivity to considering PrEP as a prevention option for themselves.

CONCLUSIONS

It is an ethical imperative for health care providers to offer PrEP to those who might benefit and for other health professionals to implement standards and systems that would support the routine discussion and provision of PrEP in health settings. Although some may have reservations about a routinized approach, we argue that these concerns are outweighed by the numerous benefits PrEP offers (Appendix A). Presently, PrEP education and provision being optional and selective unfairly restricts access for many individuals. Moreover, it systematically disadvantages Black MSM and other populations who stand to benefit the most from PrEP and has the potential to widen HIV disparities. Routinization helps circumvent factors that may limit access for these priority populations, such as provider bias and patient nondisclosure.

Preliminary signs of disproportionately low national PrEP uptake among Blacks versus Whites in general,[40] and among Black MSM versus White MSM in particular,[20] demand immediate action to remedy inequities in PrEP education and access. Making PrEP a standard component of preventive health care for all patients would be a significant step that health professionals could take in this direction. Additionally, professional organizations and other authorities that establish standards of practice should strongly consider endorsing this approach in clinical guidelines and training curricula. Setting the expectation that PrEP should be an integral part of routine preventive care could stimulate more frequent discussions about PrEP, more effective use of PrEP, and more equitable access to PrEP, which could decrease HIV incidence and avoid worsening HIV disparities. AJPH

CONTRIBUTORS

S. K. Calabrese led the conceptualization and writing of this article, with significant input at all stages from D. S. Krakower and K. H. Mayer.

ACKNOWLEDGMENTS

This work was supported by the National Institute of Mental Health (NIMH; awards K01-MH103080 and K23-MH098795 to S. K. C. and D. S. K., respectively). Additional support was provided from the District of Columbia Center for AIDS Research (award P30-AI117870) and the Harvard University Center for AIDS Research (award P30-AI060354), both of which are funded by the National Institutes of Health (NIH). D. S. K. and K. H. M. have conducted research with unrestricted project support from Gilead Sciences, and K. H. M. has conducted research with unrestricted project support from Merck and ViiV Healthcare.

K. H. M. is a senior member of the faculty and advisory board of the National LGBT Health Education Center and an associate editor and contributor to educational materials provided through the organization's Web site, to which readers of this article are referred. S. K. C. and D. S. K. have contributed to these educational materials as well. All 3 authors have received compensation for their efforts in developing or delivering medical education related to preexposure prophylaxis.

Note. The content of this article is solely the responsibility of the authors and does not necessarily represent the official views of the NIMH or the NIH.

HUMAN PARTICIPANT PROTECTION

Institutional review board approval was not needed because this analytic essay does not present an original research study involving human participants.

REFERENCES

1. Fonner VA, Dalglish SL, Kennedy CE, et al. Effectiveness and safety of oral HIV pre-exposure prophylaxis (PrEP) for all populations. *AIDS*. 2016;30(12):1973–1983.

2. US Public Health Service. Preexposure prophylaxis for the prevention of HIV infection in the United States: a clinical practice guideline. 2014. Available at: https://www.cdc.gov/hiv/pdf/prepguidelines2014.pdf. Accessed June 15, 2017.

3. Centers for Disease Control and Prevention. HIV surveillance report: diagnosis of HIV infection in the United States and dependent areas, 2015. 2016. Available at: https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-report-2015-vol-27.pdf. Accessed June 15, 2017.

4. Hess K, Hu X, Lansky A, Mermin J, Hall HI. Estimating the lifetime risk of a diagnosis of HIV infection in the United States. Paper presented at Conference on Retroviruses and Opportunistic Infections; Boston, MA; February 22–25, 2016.

5. Petroll AE, Walsh JL, Owczarzak JL, McAuliffe TL, Bogart LM, Kelly JA. PrEP awareness, familiarity, comfort, and prescribing experience among US primary care providers and HIV specialists. *AIDS Behav*. 2017;21(5):1256–1267.

6. Krakower DS, Mayer KH. The role of healthcare providers in the roll out of preexposure prophylaxis. *Curr Opin HIV AIDS*. 2016;11(1):41–48.

7. Krakower D, Ware N, Mitty JA, Maloney K, Mayer KH. HIV providers' perceived barriers and facilitators to implementing pre-exposure prophylaxis in care settings: a qualitative study. *AIDS Behav*. 2014;18(9):1712–1721.

8. Calabrese SK, Magnus M, Mayer KH, et al. Putting PrEP into practice: lessons learned from early-adopting U.S. providers' firsthand experiences providing HIV pre-exposure prophylaxis and associated care. *PLoS One*. 2016;11(6):e0157324.

9. Mera Giler R, Mangnuson D, Trevor H, Bush S, Rawlings K, McCallister S. Changes in Truvada (TVD) for HIV pre-exposure prophylaxis (PrEP) utilization in the United States: (2012–2016). Paper presented at the 9th International AIDS Society Conference on HIV Science; Paris, France; July 23–26, 2017.

10. Centers for Disease Control and Prevention. Vital signs: estimated percentages and numbers of adults with indications for preexposure prophylaxis to prevent HIV acquisition—United States, 2015. *MMWR Morb Mortal Wkly Rep*. 2015;64(46):1291–1295.

11. Calabrese SK, Earnshaw VA, Underhill K, Hansen NB, Dovidio JF. The impact of patient race on clinical decisions related to prescribing HIV pre-exposure prophylaxis (PrEP): assumptions about sexual risk compensation and implications for access. *AIDS Behav*. 2014;18(2):226–240.

12. White House Office of National AIDS Policy. National HIV/AIDS strategy for the United States: updated to 2020. 2015. Available at: https://www.aids.gov/federal-resources/national-hiv-aids-strategy/nhas-update.pdf. Accessed June 15, 2017.

13. Simon M, McGuire R, Lynch H, et al. The journey toward routinization: triage nursing and the success of an emergency department-based routine HIV testing program. *J Emerg Nurs*. 2016;42(2):183–185.

14. Auerbach JD, Kinsky S, Brown G, Charles V. Knowledge, attitudes, and likelihood of pre-exposure prophylaxis (PrEP) use among US women at risk of acquiring HIV. *AIDS Patient Care STDS*. 2015;29(2):102–110.

15. Underhill K, Morrow KM, Colleran CM, et al. Access to healthcare, HIV/STI testing, and preferred pre-exposure prophylaxis providers among men who have sex with men and men who engage in street-based sex work in the US. *PLoS One*. 2014;9(11):e112425.

16. Jensen RE, Rothrock NE, DeWitt EM, et al. The role of technical advances in the adoption and integration of patient-reported outcomes in clinical care. *Med Care*. 2015;53(2):153–159.

17. Kennedy CE, Fonner VA, Sweat MD, Okero FA, Baggaley R, O'Reilly KR. Provider-initiated HIV testing and counseling in low- and middle-income countries: a systematic review. *AIDS Behav*. 2013;17(5):1571–1590.

18. Bernstein KT, Liu KL, Begier EM, Koblin B, Karpati A, Murrill C. Same-sex attraction disclosure to health care providers among New York City men who have sex with men: implications for HIV testing approaches. *Arch Intern Med*. 2008;168(13):1458–1464.

19. Sullivan PS, Rosenberg ES, Sanchez TH, et al. Explaining racial disparities in HIV incidence in Black and White men who have sex with men in Atlanta, GA: a prospective observational cohort study. *Ann Epidemiol*. 2015;25(6):445–454.

20. Hoots BE, Finlayson T, Nerlander L, Paz-Bailey G. Willingness to take, use of, and indications for pre-exposure prophylaxis among men who have sex with men—20 US Cities, 2014. *Clin Infect Dis*. 2016;63(5):672–677.

21. Calabrese SK, Mayer KH, Krakower DS, et al. Adverse implications of heterosexism for PrEP clinical decision-making and considerations regarding provider education. Paper presented at the 11th International Conference on HIV Treatment and Prevention Adherence. Fort Lauderdale, FL; May 9–11, 2016.

22. Raifman JR, Flynn C, German D. Healthcare provider contact and pre-exposure prophylaxis in Baltimore men who have sex with men. *Am J Prev Med*. 2017;52(1):55–63.

23. Lelutiu-Weinberger C, Golub SA. Enhancing PrEP access for Black and Latino men who have sex with men. *J Acquir Immune Defic Syndr*. 2016;73(5):547–555.

24. World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach—second edition. 2016. Available at: http://www.who.int/hiv/pub/arv/arv-2016/en. Accessed June 15, 2017.

25. Underhill K, Guthrie K, Operario D, Calabrese SK, Colleran C, Mayer KH. A qualitative study of PrEP stigma, pride and predicted community benefits among MSM and male sex workers. Paper presented at the International AIDS Conference (AIDS 2016); Durban, South Africa; July 18–22, 2016.

26. Eaton LA, Kalichman SC, Price D, Finneran S, Allen A, Maksut J. Stigma and conspiracy beliefs related to pre-exposure prophylaxis (PrEP) and interest in using PrEP among Black and White men and transgender women who have sex with men. *AIDS Behav*. 2017;21(5):1236–1246.

27. Garcia J, Parker C, Parker RG, Wilson PA, Philbin M, Hirsch JS. Psychosocial implications of homophobia and HIV stigma in social support networks: insights for high-impact HIV prevention among Black men who have sex with men. *Health Educ Behav*. 2016;43(2):217–225.

28. Mutchler MG, McDavitt B, Ghani MA, Nogg K, Winder TJ, Soto JK. Getting PrEPared for HIV prevention navigation: young Black gay men talk about HIV prevention in the biomedical era. *AIDS Patient Care STDS*. 2015;29(9):490–502.

29. Goparaju L, Experton LS, Praschan NC, Warren-Jeanpiere L, Young MA, Kassaye S. Women want pre-exposure prophylaxis but are advised against it by their HIV-positive counterparts. *J AIDS Clin Res*. 2015;6(11):1–10.

30. Mustanski B. PrEP stigma among YMSM living in Chicago. Paper presented at HIV Research for Prevention (HIVR4P); Chicago, IL; October 17–21, 2016.

31. Calabrese SK, Underhill K, Earnshaw VA, et al. Framing HIV pre-exposure prophylaxis (PrEP) for the general public: how inclusive messaging may prevent prejudice from diminishing public support. *AIDS Behav*. 2016;20(7):1499–1513.

32. Institute of Medicine (US) Committee on Quality of Health Care in America. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academies Press; 2001.

33. American Medical Association. Code of medical ethics. 2016. Available at: http://www.ama-assn.org/sites/default/files/media-browser/code-of-medical-ethics-chapter-1.pdf. Accessed June 15, 2017.

34. Haider AH, Schneider EB, Kodadek LM. Emergency department query for patient-centered approaches to sexual orientation and gender identity: the EQUALITY study. *JAMA Intern Med*. 2017;177(6):819–828.

35. Chan PA, Glynn TR, Oldenburg CE, et al. Implementation of preexposure prophylaxis for human immunodeficiency virus prevention among men who have sex with men at a New England sexually transmitted diseases clinic. *Sex Transm Dis*. 2016;43(11):717–723.

36. Golub S, Radix A, Hilley A, Catalanotti A, Boonrai K, Douglas N. Evidence that PrEP can "do more": synergistic effects on primary care, insurance status, and mental health. Paper presented at the 10th International Conference on HIV Treatment and Prevention Adherence; Miami, FL; June 28–30, 2015.

37. Parsons JT, Rendina HJ, Lassiter JM, Whitfield TH, Starks TJ, Grov C. Uptake of HIV pre-exposure prophylaxis (PrEP) in a national cohort of gay and bisexual men in the United States: the motivational PrEP cascade. *J Acquir Immune Defic Syndr*. 2017;74(3):285–292.

38. Eaton LA, Driffin DD, Bauermeister J, Smith H, Conway-Washington C. Minimal awareness and stalled uptake of pre-exposure prophylaxis (PrEP) among at risk, HIV-negative, Black men who have sex with men. *AIDS Patient Care STDS*. 2015;29(8):423–429.

39. Cahill S, Taylor SW, Elsesser SA, et al. Stigma, medical mistrust, and perceived racism may affect PrEP awareness and uptake in Black compared to White gay and bisexual men in Jackson, Mississippi and Boston, Massachusetts. *AIDS Care*. 2017; Epub ahead of print.

40. Bush S, Magnuson D, Rawlings MK, Hawkins T, McCallister S, Mera Giler R. *Racial Characteristics of FTC/TDF for Pre-exposure Prophylaxis (PrEP) Users in the US*. Boston, MA: ASM Microbe; 2016.