Wave the Yellow Flag: Why We Should Prioritize Routine Human Immunodeficiency Virus and Sexually Transmitted Infection Care Now

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To fight the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), many agencies and nations have relied on an ancient public health measure: quarantine. The practice of separating individuals or groups exposed to an infection to prevent transmission dates back to Biblical times [1]. Derived from the word “quaranta,” Italian for 40, quarantine was a 40-day period during which incoming ships separated themselves before entering a new region. This process prevented the introduction of a contagious infection, such as Black Death, in the event the crew had departed from a port city with endemic bubonic plague [2]. For centuries, ships used a black or yellow flag to indicate a need to quarantine due to Black Death or yellow fever, respectively. Over time, the meaning evolved; today, a plain yellow flag communicates that “my vessel is healthy, and I request routine operations” [3].

Seven hundred years after Venetian ships flew primitive black flags, quarantine remains one of the most successful public health measures. Following the arrival of SARS-CoV-2, many nonessential businesses closed their doors to protect their clients from coronavirus disease 2019 (COVID-19). At that time, details of the virus were unknown, including the most effective routes (eg, contact, droplets) and settings for infection transmission. Yet, COVID-19 was quickly spreading across the globe leaving horrific rates of illness, hospitalizations, and death in its wake. To protect patients and staff, some HIV and sexual health clinics limited business operations or provided services only virtually [4, 5]. In essence, they opted for a population-level quarantine—effectively waving the black flag by selecting this blunt yet powerful tool [4, 5].

In this edition of The Journal of Infectious Diseases, Jenness and colleagues weighed the outcomes of pandemic-related clinical service disruptions and sexual behavior changes, in terms of both human immunodeficiency virus (HIV) and bacterial sexually transmitted infections (STIs) [6]. Using an epidemic model, the authors simulate HIV and STI outcomes of the pandemic in a hypothetical cohort of men who have sex with men (MSM) in Atlanta, Georgia. This model evaluated both disruptions in health service delivery (eg, limited business operations for HIV treatment, prevention, and STI services) and so-called “sexual distancing,” the tendency to decrease sexual activity due to concerns about COVID-19 infection. The authors projected outcomes over 5 years, representing 2019 to 2024, including a pre–COVID-19 interval (12 months), the COVID-19 pandemic (ranging from 3 to 18 months), and a post–COVID-19 interval (the remainder of the 5 years).

The results are instructive: The benefit of a community-level reduction in sexual activity offsets the costs of HIV and STI service disruptions related to COVID-19, but only to a point. Reduced sexual partnerships and frequency cancel out the negative implications of clinic closures and service interruptions when both decline by 50% for 18 months. This scenario leads to a net reduction in HIV and STIs by approximately 230 and 24,000 cases, respectively, over 5 years. However, if this community of MSM returns to usual sexual risk behaviors before clinics resume routine services, the impact in terms of additional HIV and STI cases would be devastating. If sexual distancing ends after 3 months but clinical service disruption lasts for 18 months, MSM in Atlanta would acquire an additional 900
HIV infections and 58 000 STIs over 5 years. And when service disruption far outlasts sexual distancing, the subsequent increase in STI incidence may last 5 years or longer. In other words, months-long clinical disruptions may precipitate a multiyear STI outbreak among MSM in Atlanta. Similarly, limiting HIV services for months may jeopardize years of progress toward ending HIV in Atlanta and beyond.

As the pandemic rages on, these latter theoretical scenarios may well become our reality. Many regions remain in or have reentered phased restrictions, with the possibility of continued HIV or STI clinic service disruption [7]. Early in the pandemic, STI clinics had to reduce services because limited public health resources were diverted to the pandemic. Among STI programs surveyed in March 2020, 57% reported that at least part of their staff had been reassigned from STI work in order to focus on COVID-19, 62% could not maintain their HIV and syphilis caseloads, and 66% of clinics reported decreased sexual health screening and testing [7]. With record-breaking 2021 COVID-19 numbers across the country, continued, widespread disruption in HIV/STI services is very possible. Meanwhile, there is real concern that sexual distancing is not a durable response to the pandemic. Studies among MSM from early in 2020 demonstrated a reduction in sexual risk—taking behaviors [4, 8]. Yet, “quarantine fatigue,” a relaxation of social distancing practices, likely carries over to sexual distancing. Long-term sexual behavior data are limited, but one study of MSM in the South demonstrates significant decreases in the number of sexual partners and sex acts from February to April 2020, followed by a significant increase from April to June 2020 [5]. Last, recent data show that gonorrhea and syphilis cases starting in June of 2020 had already rebounded to above what was preliminarily reported in 2019; although there is likely a backlog from underreporting earlier in 2020, it is quite possible that elevated, prepandemic rates of STIs are still present, and even rising, today [9].

This study underscores why we should prioritize HIV and sexual healthcare now. In the early pandemic, we accepted the risks that were known (eg, the costs of limited HIV care) and rejected the risks of COVID, many of which were unknown. Some clinics limited routine access to treatment for vulnerable patients (eg, HIV and related comorbidities) intentionally because these same patients were likely vulnerable to severe COVID-19 infections, hospitalization, and death [4, 5]. Likewise, many of our staff, including those from racial/ethnic minority backgrounds, emerged as high risk for both infection and death early in the pandemic [10, 11]. Furthermore, it was unclear how to preserve personal protective equipment (PPE) for frontline COVID-19 workers. For these reasons, a limited business model for HIV and STI care was appropriate at that time.

But we now have insight into ways to protect patients, staff, and PPE supplies [12]. By screening patients, limiting face-to-face encounters, and requiring masks, we have seen many medical clinics reopen safely and stay open. Many health systems have rapidly scaled up telemedicine platforms, which decompresses crowded clinics without interrupting care. Other innovations include at-home testing programs, mail-order condom distribution, partnerships with pharmacies and other commercial entities, and express visits with self-collection of specimens [13]. Although COVID-19 transmissions continue in some settings, with technology and adherence to public health measures, many clinics have found ways to continue operations while remaining safe for both patients and staff.

So where does this leave us as the United States battles a precipitous third COVID-19 wave and vaccine scale-up is slow, especially for young people? To flatten the curve of subsequent STI and HIV epidemics, we must act now. We must think “outside the box” to implement nontraditional yet patient-centered care. We can turn to the Centers for Disease Control and Prevention’s “Dear Colleague Letters,” a series released since the start of COVID-19 that outlines ways to provide HIV/STI prevention and treatment services effectively during the pandemic. These letters offer guidance, for example, on best practices in the event of STI testing shortages, provision of 90-day preexposure prophylaxis prescriptions, and appropriate use of expedited partner therapy, STI syndromic management, and at-home HIV testing [14, 15]. We must also respond to our patients’ needs, particularly our most vulnerable patients. For those who prefer virtual encounters, we can arrange telemedicine and laboratory services by appointment to avoid overcrowding. But for others with limited resources or from rural settings, who may not have access to a mobile phone or wireless capacity, we should accommodate and care for them in person. We must prioritize patients with psychosocial needs, substance use, and housing or food insecurity for in-person care. Staff in quarantine can assist remotely by scheduling and counseling patients who have missed visits or fallen out of care altogether. Staff can also remotely counsel patients who may be struggling with job loss, emotional stress, or other pandemic-related challenges. Finally, we can offer nonjudgmental support for patients for whom sexual distancing is not a realistic goal and discuss practices that promote sexual health but reduce risk of both SARS-CoV-2 and HIV/STI transmission [16].

From California to Alabama, hospitals are full and turning away ambulances due to limited resources. Some cities have begun restricting usual business operations, and we can expect that some clinics will follow either due to infection concerns, staff shortages, or both. But, as clinicians who serve patients in need of HIV and STI care, we must continue tailored, innovative approaches to safe patient care. Failure to do so will lead to long-term setbacks to the Ending the HIV Epidemic Initiative and public health.
Even as COVID-19 is surging, it's time for HIV and STI clinics—both physical and virtual—to wave the yellow flag and request a return to routine operations.

**Notes**

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