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NOTES FROM THE FIELD

Physical Distancing in COVID-19 May Exacerbate Experiences of Social Isolation among People Living with HIV

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Since late 2019, pandemic coronavirus disease (COVID-19) has spread rapidly across the globe [1]. In response, the United States Centers for Disease Control and Prevention and other health organizations have advocated for both voluntary and enforced control measures. Among basic public health recommendations, social distancing measures have been recommended, involving avoiding social gatherings with ten or more people, keeping a physical distance of at least 2 m, and cancelling non-essential in-person activities [2, 3]. More extreme measures have since been implemented, including statewide "shelter-in-place" or "stay-at-home" orders [4, 5]. Residents are allowed to leave their houses for essential services (e.g. grocery stores, pharmacies) but are otherwise expected to remain at home [4]. At the time of writing this Note, nearly all U.S. states have some form of stay-at-home order in place [6].

The influence of these restrictions on physical connection, while necessary, may have an unforeseen impact on the well-being of the entire population. Such quarantine measures have never before occurred at this scale, and many individuals may be finding themselves unprepared to cope with the circumstances. Individuals may experience unfamiliar challenges in receiving social support, as they are not able to gather in person. It is thus likely that rates of social isolation and loneliness will increase dramatically during the COVID-19 outbreak.

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Social isolation, or disconnectedness at the individual level, can be quantified objectively by measuring level of engagement with peers [7, 8]. Loneliness, on the other hand, is a subjective experience relating to one's perceived (versus actual) degree of social connectedness [9]. It is thus possible for someone to experience loneliness while also reporting high levels of social engagement. Both social isolation and loneliness have been found to have notable impacts on health within the general population. Specifically, previous research has highlighted that social isolation is comparable to well-established risk factors for mortality, such as smoking and high blood pressure [10–12].

We have discussed that people living with HIV (PLHIV) are at greater risk of experiencing social isolation [13]. It has been suggested that this is primarily due to both experienced and perceived stigma inhibiting the formation of social networks [14, 15]. This has been shown to occur through mechanisms such as fear of rejection and concealment of HIV status, or the use of social isolation as a coping mechanism to avoid HIV disclosure [14, 16]. PLHIV may have experienced the loss of social network members in the early years of the HIV epidemic [17], further heightening potential vulnerability to experiencing isolation.

As a matter of example, we have examined data from the Longitudinal Investigation into Supportive and Ancillary Health Services (LISA) Study (2007–2010), regarding the extent of social isolation among PLHIV [18, 19]. Social isolation was measured using latent class analysis. Our analytical sample included 936 LISA respondents. Five indicators of social isolation were employed to fully capture this construct: *How many people live with you?; Are you in a relationship?; Who do you count on for support and friendship?; Who is the most reliable to count on for support and friendship?*; and *I've been satisfied with how socially active I am*. We identified three classes of social isolation: (1) Socially Connected (SC), (2) Minimally Isolated (MI), and (3) Socially Isolated (SI). The SC class (N = 340, 36.3%) included PLHIV who: were likely to live with at least one

other person, in a relationship, had someone reliable to count on for support and friendship, or reported being 'socially satisfied.' The MI group (N = 508, 54.3%) was composed of PLHIV who reported: living alone, not engaged in any type of relationship, not socially satisfied, or not having someone reliable to count on for support and friendship. Lastly, the SI class (N = 88, 9.4%) included individuals likely to live alone, not in a relationship, not socially satisfied, or did not have someone to count on for support and friendship. When considering those included in both the minimally and socially isolated classes, 63.7% (N = 596) experienced some degree of social isolation in the LISA Study.

Given the prevalence of social isolation that we identified among PLHIV, it is particularly relevant to consider the impacts of the COVID-19 outbreak within this population. As previously noted, older adults living with HIV have restricted social networks due to both HIV-related stigma and ageism [17]. The aging population is also most susceptible to severe health effects of COVID-19 [2]. Therefore, due to the various shelter-in-place and physical distancing measures, it is likely that this disease is resulting in more social isolation, and in greater severity, than previously experienced among PLHIV. In addition, many AIDS service organizations and other community-based organizations, which can provide opportunities for socializing to combat isolation and loneliness among PLHIV, have been required to limit non-essential programming [20]. While this is absolutely necessary for limiting COVID-19 cases, it seems evident that actions taken to curb spread of this respiratory virus will, in fact, exacerbate isolation-related vulnerabilities among PLHIV. However, it has yet to be seen how these vulnerabilities will play out.

Notably, our recent research has further highlighted the impact of loneliness on health status. Among participants with poor self-rated physical health, of whom 42% are living with HIV, 87% experienced loneliness. This is in comparison to those who reported good physical health, of which 27% are living with HIV, and where 59% experienced loneliness [21]. This study provides further support for the notion that social isolation and loneliness can have a tangible impact on the health of an individual.

Social distancing measures are necessary to reduce the number of COVID-19 cases. However, the long-term impacts of this and related measures must also be considered in terms of their effects on the health of PLHIV. While many schools and companies have transitioned to functioning online, community based organizations may lack the capacity to do so. Given that these organizations help support socializing needs of PLHIV, it would be beneficial to provide increased funding at this time to support the establishment of online programming or telemedicine projects, for example. As previous research has shown that programs targeting loneliness are most beneficial when those affected are involved in the implementation and conceptualization of the projects [9], it is imperative that PLHIV are included when discussing needed programming. Further, individuals marginalized by socio-structural inequities may not have access to materials required for online participation. Therefore, it is necessary to also focus on evaluating mental health of PLHIV, during and after the COVID-19 control measures, to better understand and address loneliness in this population.

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