

Financial, Food, and Housing Insecurity Due to Coronavirus Disease 2019 Among At-Risk People With Human Immunodeficiency Virus in a Nonurban Ryan White HIV/AIDS Program Clinic

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Coronavirus disease 2019 negatively impacts social determinants of health that contribute to disparities for people with human immunodeficiency virus (HIV). Insecurity of food, housing, and employment increased significantly in April 2020 among patients with lower incomes at a Ryan White HIV/AIDS program clinic in the Southern United States.

Keywords. COVID-19; food insecurity; people with HIV; Ryan White HIV/AIDS program; social determinants of health.

The coronavirus disease 2019 (COVID-19) pandemic disproportionately affects black and Latinx minority groups, people living in the Southern United States, and lower income areas [1, 2]. These same populations also experience higher rates of human immunodeficiency virus (HIV) infections [3, 4]. Coronavirus disease 2019 has disrupted healthcare access, impacted the economy, and led to record unemployment [5, 6]. These ripple effects of COVID-19 are likely to disrupt the HIV care continuum and worsen health outcomes for people with HIV (PWH) [7–11]. Poverty, food insecurity, unequal access to healthcare, lack of education, stigma, and racism are social determinants of health known to influence health disparities in PWH [4, 12, 13]. People with HIV with unmet needs are less likely to remain engaged with care, especially when the unmet needs are subsistence needs such as housing, food, and financial needs [14]. During a crisis with such widespread and far-reaching impact as COVID-19, the level of need is expected

to rise substantially, with a concurrent decline in ability to access services. Human immunodeficiency virus clinics, especially Ryan White HIV/AIDS Program (RWHAP) clinics, must respond to meet these needs quickly through existing mechanisms.

The University of Virginia RWHAP clinic, located in the nonurban Southeastern United States, serves a population of over 850 PWH. The clinic population is 48% white and 43% black (Supplemental Table). Forty-one percent have incomes below the federal poverty level (FPL), and 53% are age 50 years or older, placing them at risk for complications from COVID-19 infection based on age [15]. Our clinic responded to the COVID-19 pandemic in the third week of March 2020 by replacing most in-office visits for routine care with telehealth or phone visits. Clinic visits were prioritized for those out of care, those new to or newly engaged in care, and those not virally suppressed, similar to the approach of other clinics [7]. Due to institutional guidance related to social distancing in the workplace, our case management staff largely shifted to telework.

Although our local region has avoided being overwhelmed by COVID-19 hospitalizations and mortality, many clinic patients worked in industries quickly impacted by layoffs related to state-mandated shutdowns to slow spread of COVID-19. We conducted a proactive rapid needs assessment for the most vulnerable PWH in our clinic and to respond to escalating needs for support services during the initial weeks of the pandemic in April 2020.

METHODS

Identifying Resources for the Intervention and Response

Developing an intervention to identify and respond to patient needs required a coordinated clinic response. As clinic visits shifted primarily to telehealth, both medical and nonmedical case managers, supported by RWHAP, shifted from in-person visits to remote contact as well. Virtual contact, both medical care and case management, was facilitated by a tailored mobile platform to support engagement with care that is used by approximately two thirds of patients in our clinic. The platform, smartphone, and mobile service are supported by the clinic for eligible patients [16, 17]. The clinic medical director, clinic grants manager, and lead case manager identified available resources for patient support, including RWHAP resources, and they also appealed to the community for donations to the clinic to support the small number of clients without up-to-date RWHAP eligibility. We used existing processes to meet identified needs, such as responding to emergency housing needs. However, we modified some processes such as food delivery. Support to reduce

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food insecurity continued to include grocery store gift cards, but we also initiated provision of food boxes to support clients' sheltering in place. The food boxes, built by RWHAP nutritionists to provide 2 weeks of balanced meals for the household, were delivered directly to patients' residences by clinic staff.

Identifying and Screening Patients at Risk for Financial, Food, and Housing Insecurity

We aimed to identify and respond to patient needs rapidly in the setting of the pandemic. Based on available personnel resources, we recognized that screening all patients immediately was impractical, and we needed to prioritize patients at increased risk for financial impacts due to COVID-19. Patients targeted for rapid needs assessment screening had (1) income under 100% FPL or (2) were currently or previously assigned case management services, both measures that could be rapidly identified for all clinic patients. Patients are screened for enrollment in medical case management, using Virginia Ryan White program standards, at the first clinic visit and every 6 months. A provider or staff member can also refer a patient for medical case management at any time. A rapid screening tool was developed for inclusion in the electronic medical record to evaluate COVID-19-related needs. Case managers attempted to contact all "increased risk" patients during the 6-week period from mid-March through the end of April.

Tracking Support Services Provided by Clinic

We tracked changes in emergency financial assistance for housing costs and food bank/home delivered meals services provided by the clinic during April 2020. We compared services provided in April 2020 to the monthly average over the preceding 12 months (March 2019 to February 2020), excluding March 2020 as the pandemic's effects began partway through the month. The clinic uses CAREWare (<https://hab.hrsa.gov/program-grants-management/careware>) as its information system for data on clients and client-level services. Emergency financial assistance for housing costs and food bank/home delivered meals included food cards, food boxes, emergency housing, and emergency utilities support. We did not differentiate services received in response to completing the COVID-19 screening tool from services received as part of standard clinic care.

Primary Outcome Measures

The variables used to assess financial, housing, and food insecurity included the following: change in employment among patients at risk based on self-report; financial assistance provided for housing costs including rent and utilities; and food support provided through gift cards or delivery of food boxes.

Patient Consent Statement

This study was deemed quality improvement/nonhuman subject research by the University of Virginia Institutional Review Board and written patient consent was not required.

RESULTS

Impact of Coronavirus Disease 2019 on Employment Among Those at Risk for Financial Insecurity

Five hundred patients (58% of the clinic population) met the criteria for increased risk of financial impacts due to COVID-19 and were targeted for screening. Case management encounters were documented for 170 patients, representing 34% of prioritized patients and 20% of the clinic's total population ([Supplemental Table](#)). Of the 170 patients, 53.5% were men, 58.8% were black, and 61.2% reported incomes below the 100% FPL. Specific vulnerable populations, including women, black patients, and patients below the FPL, were contacted. Women comprised 42.9% of contacted patients, and only 33.6% of prioritized patients ($P = .043$).

Among the 170 patients who underwent screening, 83 (49%) were employed before pandemic, 69 (41%) were not employed, and 18 (11%) did not have employment status recorded ([Table 1](#)). Fifty-seven (69%) of the 83 employed patients reported change in employment due to COVID-19. Among those affected, 74% lost their jobs and 26% reported decreased hours. The most common industries among those affected were restaurant/food services (35%) and retail (14%). Employed patients who did not experience changes in employment most commonly worked in healthcare-associated settings (32%) or grocery stores (12%).

Change in Emergency Financial Assistance for Housing Costs and Food Bank/Home Delivered Meals Support Services

Food bank/home delivered meals support was the most commonly provided form of support ([Figure 1](#)). Support for food services increased 66% during April 2020, from 131 average monthly services to 218 services. Emergency financial assistance for housing costs increased from an average of 23 services per month to 39 services in April 2020, a 69% increase in services provided.

DISCUSSION

This snapshot from a nonurban clinic shows a substantial and immediate impact of COVID-19 on key social determinants of health among the PWH served. Among a group of patients suspected to be at high risk for financial insecurity, the vast majority of those employed lost wages or became unemployed due to COVID-19. These employment impacts were pronounced and happened quickly, despite our region experiencing a relatively low rate of COVID-19 illness and mortality. The availability of funds for services such as emergency financial assistance for housing costs and food bank/home delivered meals through RWHAP was essential for quick response. Targeted

Table 1. Impact of COVID-19 Pandemic on Employment Among Patients at a Ryan White HIV/AIDS Program Clinic Who Completed a Needs Assessment

Description of Employment	Participants Completing Needs Assessment	
	N	%
Employment Status Before COVID-19 Pandemic (N = 170)		
Employed	83	48.8%
Not employed	69	40.6%
Not Identified	18	10.6%
Employed Before COVID-19 Pandemic (N = 83)		
Employment Impacted by COVID-19		
Yes	57	68.7%
No	25	30.1%
Not Specified	1	1.2%
Extent of Change in Employment Due to COVID-19 Pandemic		
Unemployment	42	73.7%
Decrease in Hours	15	26.3%
Industry, by COVID-19-Associated Impact		
Work Impacted by COVID-19		
Restaurant/Food Services	20	35.1%
Retail	8	14.0%
Personal Services	4	7.0%
Manufacturing	4	7.0%
Healthcare	2	3.5%
Grocery Store	1	1.8%
Other ^a	11	19.3%
Not Specified	7	12.3%
Work Not Impacted by COVID-19		
Healthcare	8	32.0%
Grocery Store	3	12.0%
Retail	2	8.0%
University-employed	2	8.0%
Restaurant/Food Services	2	8.0%
Personal Services	2	8.0%
Manufacturing	2	8.0%
Other ^a	4	16.0%
Not Employed Before COVID-19 Pandemic (N = 69)		
Source of Income		
Disability	39	56.5%
None, was looking for work before COVID-19	12	17.4%
Social Security/Retirement	13	18.8%
Other	3	4.3%
Not specified	2	2.9%

Abbreviations: COVID-19, coronavirus disease 2019.

^a“Other” refers to industries where total N < 3 across all patients, regardless of change in work.

Part D funds (for women, infants, children, and youth) and associated staff may have facilitated contact to and support of a relatively high proportion of women. The subsequent release of additional funds through the CARES Act [18] in mid-April provided additional needed support.

Adhering to the requirements of funding through RWHAP, including client maintenance of RWHAP eligibility as well as documentation that RWHAP is a payor of last resort, is more

challenging in the midst of the COVID-19 epidemic due to limitation of in-person contact to allow for signatures and exchange of documents. These pandemic-related barriers to continued care coincide with substantial increases in need for services. In our context, the ability to accept self-attestation to complete eligibility was important. Clinic provision of phones and cell service facilitated uninterrupted contact to some degree. However, alternative methods to meet eligibility requirements, such as electronic signature, providing home delivery with signature, and self-attestation must be further developed. Continued advocacy efforts aimed at policy and practice changes to reduce documentation required to receive services during the COVID-19 pandemic and postpandemic are needed.

Food insecurity is already prevalent among our patients, and there was a dramatic rise in need for support services during April 2020. Among PWH, food insecurity is associated with worse health outcomes [12, 13, 19]. Providing support services for PWH improves access to care and engagement in care [20–22]. We note that, through modification of our food support services, we augmented home delivery of tailored food boxes to ensure that our most vulnerable patients could shelter in place. The RWHAP support for nutritionists affiliated with our clinic was essential for provision of expertise about recommended content of food boxes, tailored for comorbid conditions such as diabetes, which are increasingly prevalent in our aging population.

Our findings have clear limitations, including the use of a single site, because the impacts of COVID-19 may differ by location. For the purposes of this brief report, we have focused on the impact of COVID-19 on specific, measurable parameters, and we acknowledge that COVID-19 has impacted many facets of patients’ lives such as mental health, substance use, access to healthcare for chronic and acute concerns, and ability to reach pharmacies to pick up medications. Due to practical constraints, we aimed to contact the most vulnerable patients, who we suspected would be more likely to experience impacts on employment; therefore, our findings on employment cannot be generalized to the entire population of PWH. However, the results confirm we targeted an appropriate population at risk of financial insecurity. Nonetheless, we were unable to reach many of the most vulnerable patients to complete a needs assessment. Despite dedicated staff time, reaching patients by phone, text, or through our clinic’s mobile platform in a timely manner is challenging. Continued attention to enhancing communication strategies for the most vulnerable clients is needed, and the lack of access to stable communication raises concerns about the potential for ongoing unmet needs among vulnerable PWH.

CONCLUSIONS

Given the ongoing pandemic, prolonged social distancing, and loss of income seen by so many of our patients, we anticipate increased needs will continue over the coming months and

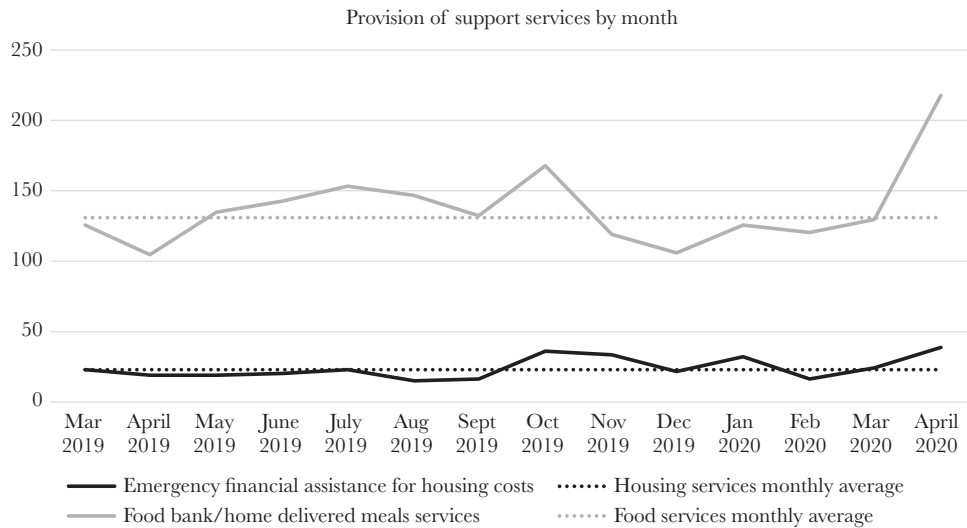


Figure 1. Provision of emergency financial assistance for housing costs and food bank/home delivered meals services by month in a Ryan White HIV/AIDS Program clinic in the Southeastern United States. Solid lines demonstrate the number of services provided in each category, by month. Dotted lines demonstrate the monthly average over the 12-month period preceding wide-scale impact of the COVID-19 pandemic (March 2019 to February 2020).

will recur with second or third waves of COVID-19 infections. In the setting of a large-scale crisis, preparation facilitates response. After Hurricane Katrina, clinics caring for PWH were encouraged to create clinic disaster plans, tailored for the clinic's patients, and addressing anticipated needs [23]. Our RWHAP clinic recognized that our patients would be highly vulnerable to the immediate economic impacts of the COVID-19 pandemic and developed a plan to rapidly and proactively assess unmet needs and to address those needs within the means of available clinic support. We used pre-existing information technology systems, including CAREWare, to identify patients at highest risk, track assessments, and provide real-time data for larger-scale needs assessments. As the pandemic and its effects continue, RWHAP clinics should consider development of strategies to conduct ongoing assessments that ensure identification, documentation, and management of persistent or emerging needs as well as timely identification of potential gaps in funding. Adhering to the current biannual screening strategy may be too infrequent given rapidly changing needs.

Supplementary Data

Supplementary materials are available at *Open Forum Infectious Diseases online*. Consisting of data provided by the authors to benefit the reader, the posted materials are not copyedited and are the sole responsibility of the authors, so questions or comments should be addressed to the corresponding author.

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