

Calling Your Aunt Bertha for Social Assets: Family Medicine and Social Determinants of Health

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Abstract

Purpose: The sociopolitical determinants of health drive health outcomes and inequities in the United States. Primary care practices are, increasingly, expected by payers and policy makers to assess patients' social needs. Resource referral platforms provide physicians with information and referral systems for community resources. One commonly used platform is Aunt Bertha/Find Help (AB/FH). The American Academy of Family Physicians (AAFP) Neighborhood Navigator (NN) tool allows physicians and laypeople to search for resources using AB/FH. We sought to describe what users were searching for and to identify patterns to inform resource allocation. **Methods:** This was a descriptive study of the AAFP's NN tool. Searches of NN were analyzed to describe what users were searching for. **Results:** From 2018 to April 2022 there were 168 135 searches. The most common searches were for food and housing insecurity (22%, 21%) and health care referral (20.6%) with 22% more searches in the winter than the spring. There was a 119% increase in searches between 2018 and 2022, and a 47% increase in searches during the COVID-19 Pandemic. In the "Health" category the top 20 subcategories accounted for over 77% of searches. **Conclusions:** Family physicians and their patients use NN to search AB/FH for community resources to address adverse social determinants of health (SDOH). As expected, searches increased during the COVID-19 pandemic. This type of analysis may help individual clinicians, practices, and health systems prepare for the most common social needs of their patients. Social resource platforms might serve as a robust measure for primary care practice screening and referral for SDOH.

Keywords

neighborhood navigator, social determinants of health, Aunt Bertha, find help

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Introduction

The sociopolitical determinants of health are increasingly understood as some of the most important drivers of health outcomes and inequities in the United States. Social determinants of health (SDOH) are estimated to account for approximately 80% of health outcomes compared to only 20% for in-person health care.¹ Take some commonly studied SDOH: financial insecurity, housing insecurity, and education. Financial insecurity is associated with adverse health outcomes including shorter life expectancy and higher mortality rates for infants and for the 14 leading causes of death in the U.S.² People experiencing homelessness have higher morbidity, increased usage of acute hospital services, and a life expectancy approximately 12 years shorter than the general US population.³⁻⁵ The gradient between higher levels of education and better health outcomes

is also well established with nearly all health outcomes strongly associated with education.⁶ SDOH are also primary drivers of unacceptable racial health inequities in the U.S. Systems built by structural and interpersonal racism ensure that people of color are much more likely to face negative SDOH due to the racially motivated allocation of sociopolitical resources such as housing, food, and transportation. This is reflected in disparate health outcomes in

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Table 1. Number and Percentage of Searches by Category.

Category	Number of searches	Percentage of searches (%)
Food	36 990	22.0
Housing	35 610	21.2
Health	34 595	20.6
Transit	20 396	12.1
Money	13 103	7.8
Care	10 351	6.2
Goods	6 702	4.0
Legal	3 833	2.3
Work	3 498	2.1
Education	3 057	1.8

the U.S.^{4,6-10,11-13} The COVID-19 pandemic highlighted these disparities, with Black, indigenous, and people of color (BIPOC) communities experiencing higher rates of infection, hospitalization, and death from COVID-19.¹⁴

It is becoming important for primary care clinicians and practices to acquire skills and tools to assess patient needs and identify local community resources to meet these needs. Primary care clinicians are increasingly being asked and required to screen and document patients' social needs. Payer incentives may include documenting patients' social needs in the health record and claims data. Documentation of "Z codes" (ICD-10-CM codes that can be used in any healthcare setting and any type of provider, to report social and economic determinants that affect health and health related outcomes)¹⁵ increased over the COVID-19 pandemic, with primary care clinicians being among the highest utilizers of these codes.¹⁶ Emerging tools to address SDOH in a clinical setting are community resource referral platforms. These platforms generally allow physicians access to a database of information pertaining to community resources that work to address SDOH and may offer a bidirectional referral system to help patients access these resources.¹⁷ When combined with SDOH screening, referral platforms can be powerful tools for addressing social needs in the primary care setting. Studies suggest that the use of resource referral systems and screening interventions may increase the number of referrals to community resources, at least in the short term.^{18,19} Referral platforms may also provide information about broader structural issues that are not confined to the individual, but rather those that unfold within defined communities. For example, information about what resources are most needed in a community can be determined based on search frequency which can then inform resource allocation to those specific needs. In this way, the identification of individual social needs may serve as a proxy for the sociopolitical determinants of health. One of the most popular and commonly used resource referral platforms is Aunt Bertha/Find Help (AB/FH) which has a national user base of over 1.8million people and has resources for every zip code in the United States. Other

notable referral platforms include Charity Tracker (138 000 users), and One Degree (over 30 000 members).

AB/FH was adopted by the American Academy of Family Physicians (AAFP) and branded the "Neighborhood Navigator (NN)" tool in 2018. The AAFP's NN allows both physicians and patients to search for resources in their area using the AB/FH database. NN is therefore not a unique tool but instead an interface for physicians and patients to access the AB/FH database. The purpose of this manuscript is to describe what family physicians and patients throughout the country are searching for and to identify patterns emerging that may inform the direction of policy, funding, continuing education, and resource allocation to most effectively meet the specific needs of our communities.

Methods

This was a descriptive study of the AAFP's NN tool. Using data acquired from the NN Tool, we analyzed searches of AB/FH over the past 4 years to describe what family physicians and patients were searching for. Unfortunately, there was no way to separate searches from patients and physicians so we were unable to analyze the differences in searches between these 2 groups. The project was reviewed and approved by AAFP IRB and no ethical issues were identified. In order to facilitate pre-COVID versus during-COVID analysis we identified March 2020 as the approximate start of the COVID-19 pandemic.

Results

From its inception in 2018 to April 2022 there were a total of 168 135 searches on the AAFP's NN. The most common searches were for food insecurity (22%), housing insecurity (21.2%), and health care referral (20.6%), with those 3 categories making up over 60% of total searches (Table 1). Users also searched for resources to address transportation, financial insecurity, legal issues, education, and services to assist with "care" for example, childcare, physical safety, and support networks. The frequency of these other searches ranged between 12% (transportation) and 1.8% (education) of searches (Table 1). There was a 119% increase in average monthly searches between 2018 and 2022 (Figure 1).

"Health" was the third most searched category and represented a number of important subcategories including mental health care, primary care, dental care, medical supplies, substance abuse counseling, and prescription assistance. The top 20 subcategories accounted for over 77% of the total number of searches in the health category with the other 488 subcategories accounting for the rest. Mental health, primary care, outpatient treatment, and dental care were the top 4 most searched for categories with substance abuse counseling the seventh most common search (Table 2).

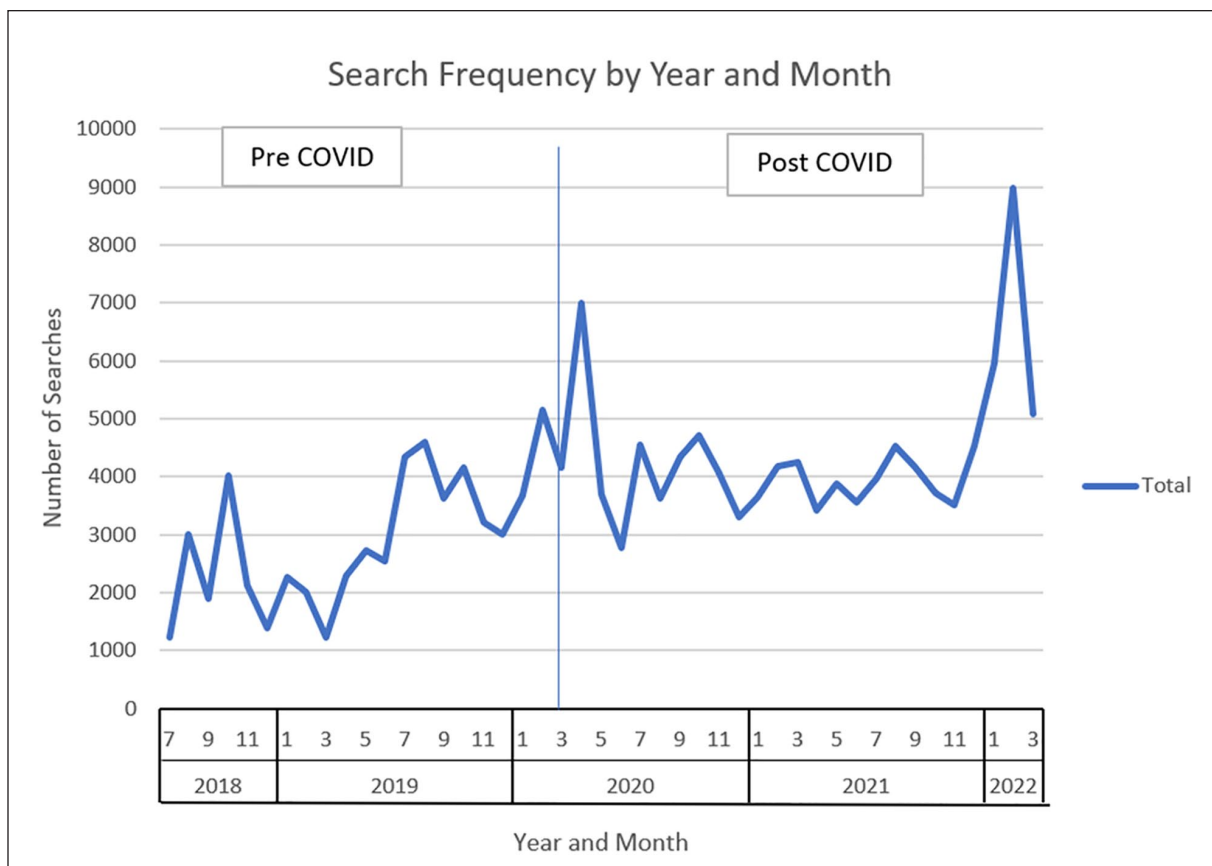


Figure 1. Search frequency over time.

Table 2. Searches by “Health” Subcategory.

Health subcategory	Total number of searches	Percentage of total searches (%)
Mental health care	4545	12.3
Primary care	3916	10.6
Outpatient treatment	2662	7.2
Dental care	2603	7.0
Individual counseling	2234	6.0
Medical supplies	2165	5.9
Substance abuse counseling	1441	3.9
Prescription assistance	1429	3.9
Help pay for health care	1098	3.0
Vision care	808	2.2
Health insurance	750	2.2
Diabetes prevention programs	742	2.0
Counseling	616	1.2
I2-STEP programs	605	1.6
In-home support	597	1.6
Mental health evaluation	579	1.6
Disease management	540	1.5
Detox	473	1.3
Medical care	439	1.2
Residential treatment	436	1.2

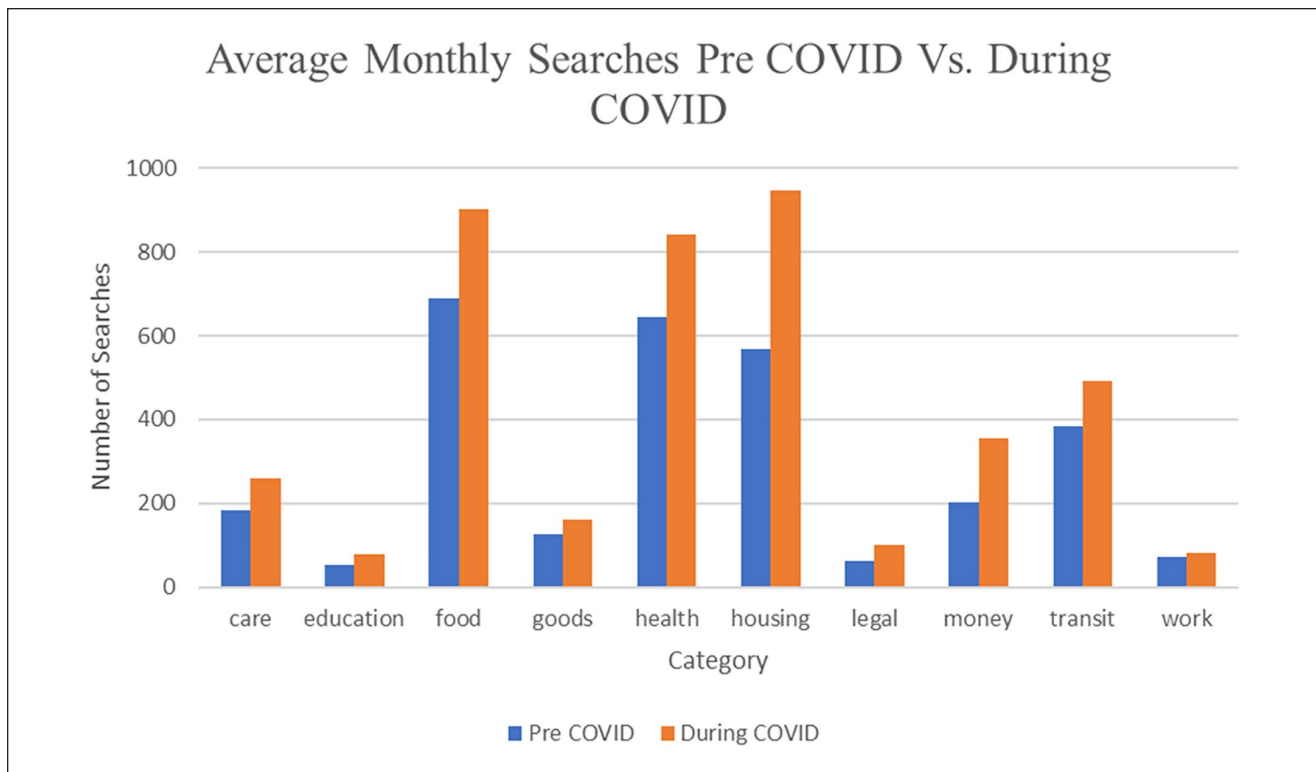


Figure 2. Average monthly searches pre-COVID versus during COVID by category.

Seasonal analysis revealed nearly 28% more searches in the winter than in the spring, with housing increasing 40.5%. Food insecurity was the most commonly search for in 2018 to 2020 but was usurped by searches for housing insecurity and healthcare referrals in 2021 and 2022.

In order to evaluate the impact that COVID-19 had on the use of AAFP's NN tool we used March 2020 as a point in time to separate searches before the COVID-19 Pandemic and searches during the COVID-19 Pandemic. There was a 41% increase in average number of searches per month during the COVID-19 Pandemic from 2983 to 4218. The largest increases were for housing, food, health, and transit, which also corresponded to the categories with the highest number of searches overall. There was a 66% increase in average monthly searches for housing, 30.9% for food, 30.5% for health referral, and 28.5% for transit (Figure 2). Most months had an increase in average number of searches during the pandemic with February, March, and December having the highest percent increases (61.9%, 83.7%, 74.1%, and 77.7%).

Discussion

Primary care physicians and their patients are using the NN tool to search AB/FH for community resources to address adverse SDOH. The 4 most searched for categories (food,

housing, health, and transportation) are predictable considering what we know about the strong correlation between these SDOH categories and health outcomes. The seasonal variation observed with more searches in colder than warmer months was also an expected finding thought to be partially due to increased need for housing assistance during colder months in some areas of the country. As expected, searches during the COVID-19 pandemic increased, likely due to financial and social strain caused by the pandemic. However, the increase in searches could have been due to AAFP dissemination and marketing of the Neighborhood Navigator tool.

In the "Health" category, the top 20 subcategories accounted for the majority of total searches, with the top 4 being mental health care, primary care, outpatient treatment, and dental care. The "Health" category in AB/FH is quite broad and consolidating or removing the subcategories that are utilized the least and focusing on primary healthcare needs could improve the usability and efficiency of the AAFP's NN tool.

As primary care physicians are increasingly expected to screen patients for social needs, refer to community resources, and document in the health record and billing forms, online referral platforms might be an important tool for measuring these activities. Use of online search and referral platforms takes advantage of the local resources

and may be a better predictor of the local and seasonal needs, and primary care engagement with patients in accessing social resources. Search and referral platforms that are embedded in electronic health records may be well poised to serve as primary or adjunct evidence of primary care screening and referral for social resources and potentially identify areas for primary care advocacy and policy change. Further research is needed to determine if increasing access to SDOH resources improves health outcomes in the primary care setting, as there is currently no strong data available to assess this connection. Further research is also necessary to determine how healthcare providers or health systems are using their own resource referral platforms and how this use is similar to or different from the use of the NN tool. Future research could also seek to determine the effect that the use of resource referral platforms in the primary care setting have on health equity.

Several limitations deserve mention. First, NN is available to anyone (physician, staff, patient), but has been marketed to family physicians through AAFP resources, so it is likely to be mostly family physicians and their delegated staff conducting searches. Patient searches enhance our understanding of the needs within communities as well. Unfortunately, there was no way to delineate searches from physicians versus patients in this data so we could not assess if there were differences in searches between these groups of users. Anecdotally, our understanding is that the AAFP Neighborhood Navigator is used primarily by physicians and office staff, not patients. Second, our data set was limited to those accessing the AAFP's NN tool. Electronic health record vendors have begun integrating social service search engines, and AB/FH is a common addition to these platforms. The data does not include those who utilize other AB/FH platforms or those who use different resource platforms altogether.

Conclusion

SDOH are crucial drivers of health outcomes and inequities in the U.S. Primary care clinicians and practices are increasingly expected to identify and address these upstream determinants of health. When combined with SDOH screening in the family medicine clinic, resource referral platforms can provide a manageable and effective way to intervene on adverse SDOH. This brief report shows that primary care physicians throughout the country are increasingly using the AB/FH database to search for community resources to address SDOH in the clinical setting, especially in the wake of the COVID-19 pandemic. More research is needed to determine how use of these social referral platforms impact health outcomes and how effective these tools are at connecting patients with effective resources.

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