

Libraries advancing health equity: a literature review

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Abstract

Purpose – Progress toward health equity is necessary to reduce health disparities, and health literacy is key to achieving this goal. Because libraries provide access to knowledge and insights about their communities, they are effective partners in advancing health equity and implementing programs to reduce health disparities. A literature review on library programs and activities that focus on promoting health equity was conducted.

Design/methodology/approach – A literature review on library programs and activities concerning health equity and social determinants of health was conducted. Relevant literature was identified from searches of databases, library publications and grey literature.

Findings – The authors found 224 eligible sources and many types of libraries advancing health equity. Libraries frame their role in advancing health equity through external programs in three ways: (1) providing access to high-quality health information, (2) delivering health literacy training and resources and (3) connecting their communities with community health services. Libraries also advance health equity by focusing on internal library operations and providing research services focused on cultural humility and competence as they apply to health care.

Originality/value – This literature review will help the National Library of Medicine (NLM) develop a strategy to support libraries advancing health equity through information made available by programs and activities of NLM and the Network of the National Library of Medicine.

Keywords Public health, Review article, Library programming, Social determinants of health, Health equity, Health information equity

Paper type Literature review

Introduction

Health literacy is inextricably linked with both reducing health disparities and advancing health equity (National Academies of Sciences, Engineering and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Roundtable on Health Literacy, 2021). The US Healthy People 2030 initiative defines health equity as “the attainment of the highest level of health for all people” (Office of Disease Prevention and Health Promotion, n.d) and states that “[a]chieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and health care disparities” (Office of Disease Prevention and Health Promotion, 2022, p. 31).

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The National Library of Medicine (NLM) Office of Engagement and Training (OET) works through libraries and other health information access partners to connect audiences with NLM's products, services and collections. OET emphasizes reaching and engaging populations and communities that are medically underserved and/or experiencing health disparities and the professionals who serve them, which requires a focus on advancing health equity.

Libraries, library staff and information professionals (hereafter referred to as library staff) across the United States are OET's main partners in implementing the programmatic priorities and related activities of NLM and the National Institutes of Health (NIH). NLM, as one of the 27 Institutes and Centers at NIH, is also focused on ending structural racism and advancing racial equity in the biomedical research enterprise through the UNITE initiative ([National Institutes of Health, n.d.](#)). Before UNITE was established, NLM and OET were already increasing their focus on health equity through the Network of the National Library of Medicine (NNLM), the NLM's flagship engagement program. In 2020, a new goal "to advance health equity through information" was added to the NNLM program ([National Institutes of Health, 2020](#)). OET primarily advances health equity through initiatives to improve health literacy and related literacies (e.g. digital literacy, research literacy).

To advance health equity through information, OET began development of a holistic programmatic strategy centered on NLM processes, programs and partnerships. The first step in developing this strategy was a broad literature review of libraries' activities in promoting health equity. [Philbin *et al.* \(2019\)](#) conducted a scoping review of the role of public libraries as partners in public health, specifically examining health-related work conducted by public libraries and using social determinants of health (SDOH) as a framework. This review expands on the work of Philbin and colleagues to include all library types, not just public libraries, and also shifts the focus from libraries supporting population health to advancing health equity.

To provide for a broad review, relevant source information was culled from both published and components of the grey literature. Advancing health equity is not a new role for libraries, as evident from their ongoing efforts to address needs and promote essential literacies in their communities. This literature review incorporates the public health perspective and imperative for advancing health equity underscored by NIH's heightened focus on rooting out systemic bias ([National Institutes of Health, n.d.](#)) and increasing community engagement to address health disparities ([National Institutes of Health, 2022](#)). This study is not intended to be a review of how library programs and activities address SDOH (see Philbin *et al.*'s (2019) scoping review), but rather a review of how the library and public health literature address health equity within a conceptual SDOH structure. The research questions (RQs) we explored are:

- RQ1. In general, how do libraries define health equity? What are the key components, themes or frameworks of health equity that libraries address?
- RQ2. What types of programs or activities are most common in libraries that address health equity?
- RQ3. What types of programs or activities are most common in libraries that address SDOH?
- RQ4. Do certain types of libraries (e.g. public, health sciences, academic, community college, special libraries) do more to advance health equity than others?
- RQ5. What does the public health literature say about the role of libraries in health equity, community health or population health?

Methodology

Sources for this review included peer-reviewed journal articles and selected grey literature, including reports, press releases, magazine articles, newsletters and online information. Eligible sources had to focus on libraries or library staff that specifically address an element of health equity or a SDOH. For example, an article that only tangentially mentioned libraries as partners in advancing health equity was excluded from this review. Relevant sources included those that referred to any of the five SDOH from the Healthy People 2030 initiative ([Office of Disease Prevention and Health Promotion, n.d](#)): economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context.

We conducted the search for eligible sources in two phases. Phase 1 was completed entirely in July 2021, and Phase 2 was conducted from July 2021 through December 2021. We used the search terms listed in [Table 1](#) for all searches and excluded literature not written in English as sources.

In Phase 1, we first searched two major STEM databases—PubMed and Scopus—and library and information science databases—Library, Information Science and Technology Abstracts, Library Literature and Information Science Full Text—for peer-reviewed articles. To extend our search to grey literature, we also performed three Google searches, one limited to .edu sites, one to .gov sites and one to .org sites. We did not limit our Phase 1 searches to specific publication dates.

In Phase 2 we expanded our search to cover a range of library types and activities by hand-searching the following publications: *American Libraries*, *College and Research Libraries*, *Community and Junior College Libraries Section Newsletter*, *Public Libraries*, and *Reference and User Services Quarterly*. In addition, we searched state government websites to locate state reports on health equity in libraries. Due to time constraints associated with hand-searching, we limited our Phase 2 searches to the last five years (2016 through 2021).

Findings

In total, we identified 294 sources that met our eligibility criteria based on their titles and/or abstracts. During the coding phase of our review, we referred to the full-text articles to validate our sources. This process reduced the number of eligible sources to 224 (see Supplementary Materials for a full listing of the sources). Among the five library publications we hand-searched, *American Libraries* produced the most relevant citations with a total of 61 articles. *The Community and Junior College Libraries Section Newsletter* produced 3 eligible sources; *College and Research Libraries*, 0; *Public Libraries*, 40; and

librar*

Social determinants of health

Health equit*

Health inequit*

Health disparit*

Health inequal*

Health equal*

Health care equit*

Health care inequit*

Health care disparit*

Health care inequal*

Health care equal*

Table 1.
Search terms

Reference and User Services Quarterly, 8. Our four database searches produced 90 relevant citations: *PubMed* yielded 50 citations; *Library, Information Science and Technology Abstracts*, 26; *Library Literature and Information Science Full Text*, 12; and *Scopus*, 2. Our three Google searches for grey literature yielded 86 relevant sources, 44 with a .edu domain, 26 with a .org domain and 16 with a .gov domain. Among the .gov sources, annual reports, community health plans or press releases from six states referred to libraries as partners in advancing health equity for their citizens.

Many different types of libraries were represented in the literature, including academic, community college, correctional, health sciences, hospital, law, medical, nursing, public, school, special and tribal libraries. One hundred and ninety-two sources explicitly indicated the type of library associated with activities or programs related to health equity or a SDOH. Mentioned in 119 of these sources (62%), public libraries predominate in addressing health equity and SDOH. The corresponding figures for academic libraries, health sciences libraries and medical libraries were 17% (32) of the publications, 8% (15) of the publications and 6% (11) of the publications, respectively.

NLM and other libraries, including community college, correctional, law, nursing, special and school libraries were mentioned less frequently (i.e. less than 10 times) in the literature. Seven sources referred to partnerships, including collaborations between public-health sciences libraries (three sources) and public-medical libraries (one source); also mentioned was a public-tribal library partnership (one source), a public-academic library partnership (one source) and a public-law library collaboration (one source).

Multiple sources addressed more than one of the five RQs. [Table 2](#) shows the breakdown of sources by question.

The exploration of [RQs 1 and 2](#) focused on libraries that identified health equity as a focus or driving factor of their activities. In investigating, we identified programs and activities that corresponded to SDOH, regardless of whether the articles used the term or framed the work in that way. Our assessment of types of libraries for [RQ4](#) was driven entirely by information provided in the articles. Analysis of [RQ5](#) focused on the subset of articles concentrating on the link between libraries, public health and health equity, which was determined by source of publication (e.g. public health journal) or author’s credentials (e.g. MPH).

Our analysis of the literature revealed seven themes. [Table 3](#) lists the seven themes and the number of corresponding sources reviewed.

Discussion

Libraries did not posit their own definitions of health equity; however, libraries that explicitly defined health equity for their audiences tended to draw on formal definitions from institutions, such as the Centers for Disease Control and Prevention, the World Health Organization, and the Department of Health and Human Services, and initiatives like Healthy People 2030 ([Office of Disease Prevention and Health Promotion, n.d](#)). Most of the literature reviewed focused on how libraries characterize their work advancing health equity, primarily by describing related programs and services.

Theme 1. Advancing health equity by providing access to high-quality health information.

Table 2.
Number of sources
reviewed by research
question (RQ)

RQ	Total # of sources
RQ1 and RQ2	134
RQ3	141
RQ4	192
RQ5	15

Table 3.
Number of sources
reviewed by theme

Theme	Total # of sources
1. Libraries advance health equity by providing access to high-quality health information and deliver health literacy training and resources	43
2. Libraries make it easier for community members to connect with organizations that offer health services or information	26
3. Libraries educate library staff and health-care professionals on the health needs and values of their communities. This information helps them build core competencies and capacities necessary to advance health equity	62
4. Libraries provide stakeholders who study health equity, such as policymakers or academic researchers, with research assistance and information based on evidence-based research	35
5. Within the literature, there are frequent calls for libraries to confront the ways in which they perpetuate health inequity before they engage in activities to advance equity within their communities	15
6. Libraries create programs or services that directly address the various SDOH	141
7. Within the public health literature, libraries are considered uniquely positioned as partners in advancing health equity because they are trusted and popular institutions	15

Libraries framed their work advancing health equity in three major ways: (1) providing access to high-quality health information, (2) delivering health literacy training and resources and (3) serving as a bridge between the community and community health services. Libraries also advance health equity by focusing on internal operations and staff actions, serving as an “everyday setting” (Whitelaw *et al.*, 2017, p. 891) in which to address health equity or SDOH, and offering library research support services on cultural humility and cultural competence in health care. Sources reviewed often included descriptions of programs and activities as examples of libraries’ efforts to advance health equity.

The most common programs and activities associated with libraries that explicitly address health equity focus on advancing health literacy, making community connections, examining and addressing the health information needs of populations experiencing health disparities, or providing research support services on health equity. Libraries excel at providing programs that expand access to high-quality information and improve health literacy. One such program, “Together We Stride,” aims to reduce childhood obesity in rural Hispanic communities by promoting nutritional literacy through comic books for children and nutrition classes for families. In addition, the program offers teacher training to increase children’s media literacy and physical activity (Sawaya, 2019). In addition to hosting quality programs and providing access to health resources, libraries also partner with institutions of higher education on research initiatives. For example, Chicago Public Library, in collaboration with Northwestern University Feinberg School of Medicine health science library staff and medical researchers, developed “Health for All,” an online tool to educate medically underserved populations about clinical trials and the benefits of participating in them (Northwestern University, 2021). In St. Louis, Missouri, academic and public library staff collaborated to establish health information kiosks in branch libraries. The kiosks were well-supplied with print materials on various health-related subjects (Engeszer *et al.*, 2016).

Theme 2. Libraries connect community members with organizations that offer health services or information.

Libraries also effectively facilitate connections between community members and organizations that offer health information or services. For example, programs that partner with public libraries include Pittsburgh’s Connections4Health, which pairs aspiring health

professionals with library patrons who need referrals to programs or services that address SDOH (Sinemus, 2018). There are also services in place whereby correction librarians connect inmates re-entering the community with community resources (Cottrell, 2017). Partnering with various organizations allows libraries to provide services to a range of community members, including students, patients and those transitioning out of prison or jail.

Theme 3. Libraries educate library staff and healthcare professionals.

Library staff and healthcare professionals may not feel prepared to assist community members with health-related issues, even if they interact with them regularly. Thus, educating library staff and healthcare professionals about the health needs and values of their communities is another way in which libraries build health equity core competencies and capacities. The Massachusetts Library System offers library staff a guide on how to engage in health equity work. The guide lists ways to support SDOH, such as planning community wellness and awareness events, hosting programs that support SDOH, and exploring the “Public Library Association Healthy Community Tools for Public Libraries” (Eberle, 2021). Library staff at the University of Pennsylvania developed a training curriculum to help public library staff better address public health issues facing their communities and work more effectively with people who are at increased risk for the public health concern (Morgan *et al.*, 2018). Libraries also advocate for populations experiencing health disparities or raise awareness about health inequities through outreach and events and collaborations with professional library organizations. For example, during International Open Access Week in 2018, library staff at Johns Hopkins University Welch Medical Library participated in a panel discussion on the connection between health equity and open access to research (Welch Medical Library, 2018). Stevens *et al.* (2019) present case studies of health sciences library staff advocating for health equity for LGBTQ+ individuals through outreach to the LGBTQ+ community, education of the broader community and collaboration with professional library organizations.

Theme 4. Libraries provide research support for health equity.

Research support that libraries provide for patrons and stakeholders who are studying health equity, such as policymakers or academic researchers, includes literature and information services, instruction, and tools. Research and instruction library staff at Harvard University’s Countway Library published a blog post with strategies for researching health disparities in PubMed using NLM’s Medical Subject Headings (MeSH) (Harvard Countway Library Research and Instruction Team, 2021). As part of the UNC-Chapel Hill/Shaw University Partnership for the Elimination of Health Disparities, library staff from both universities collaborated to develop a faith-based initiative to educate and train students and facilitate Shaw’s emergence as a research university (Walker *et al.*, 2007). Research guides are another way libraries provide research assistance. Georgia State University’s Law Library’s “Law and Health Equity” research guide on health equity was created to lead stakeholders through national topics and the influence of social disparities in Atlanta (Georgia State University College of Law Library, 2021). Similarly, the University of Texas Medical Branch Moody Medical Library’s “Anti-Racism, Health Equity, and Inclusion” research guide is a compilation of resources on these topics along with some background materials focusing on health sciences education (Moody Medical Library, 2021).

Theme 5. Calls for libraries to confront practices that perpetuate health inequity.

Prevalent in the literature is a call for libraries to confront the ways in which their own institutions perpetuate health inequity before they engage in efforts to advance equity within their communities. Facing this issue begins with assessing the library workforce and, as Ossom-Williamson *et al.* (2021) assert, “act to monitor the ways institutions do not support growth, equity, or the development of Black librarians and other Black library

workers” (p. 147). This begins with the recruiting and educating of future library staff. [Whiteman et al. \(2018\)](#) advocate for diversifying the library sciences training pipeline so that library staff reflect the patrons they serve—and thereby successfully address causes of health inequity in their communities. [Salazar \(2020\)](#) observes that “libraries should take great care in who they hire and how they structure training and development opportunities for public-service staff to ensure they understand their role in advancing and supporting equity” (p. 4). Training within this domain should prepare staff to respectfully and thoughtfully engage with communities who experience health disparities, including an awareness of how trauma impacts the ability to build trustworthy relationships.

Theme 6. Advancing health equity by addressing SDOH.

Sixty-three percent of the eligible sources for this review advance health equity by addressing one or more SDOH. Common activities of library programs that directly tackle SDOH focus on the needs of populations that experience health disparities and support health disparities researchers and curricula. Whereas most of the literature focused on programs and activities in libraries that address SDOH, [Whiteman et al. \(2018\)](#) surveyed Pennsylvania public library directors about the determinants that they address most often. The directors’ responses included employment, nutrition, exercise, social welfare benefits and drug overdoses. Most directors did not feel that their staff were adequately prepared to address these issues, which was also an overall theme found in the analysis of this literature review. The Healthy People 2030 initiative ([Office of Disease Prevention and Health Promotion, n.d](#)) groups SDOH into five domains: economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context. This section is organized according to how libraries address each domain, beginning with the domain most frequently addressed: health care access and quality.

The health care access and quality domain is concerned with access to healthcare services. Library programs and activities that address this domain predominate in the literature. They include curating and expanding health information collections; training consumers to locate reliable health information; connecting patrons with community healthcare professionals, either in the library or by referral; and, of course, hosting programs. This SDOH domain most completely matches [themes 1 and 2](#) for libraries advancing overall health equity. For example, [Mendez et al. \(2019\)](#) describe East Carolina University Joyner Library’s program that provides children of migrant and seasonal workers with Wi-Fi access and tablets in combination with training in locating health information. At the height of the COVID-19 pandemic, health sciences librarians in Orlando, Florida, offered free webinars to the public addressing misinformation about the virus ([Inklebarger, 2021](#)). Other examples of programs and activities mentioned include cancer screenings, hearing and sight screenings, STD screenings, COVID-19 vaccination clinics and blood drives. A unique instance of this is the Indianapolis Public Library partnering with local law enforcement to support efforts to prevent suicides ([Inklebarger, 2019](#)). Additional library resources addressing this domain are blood pressure monitoring stations and physical activity classes.

The economic stability domain is focused on helping people earn a steady income sufficient to meet their health needs. Library programs supporting this domain help patrons seeking employment or provide services specifically for those experiencing homelessness or housing insecurity. For example, Tyler Public Library in Texas hosted a “job fair in a bag” program during the COVID-19 pandemic; patrons could pick up a bag at the library that included items traditionally provided at in-person job fairs, like job openings, interview preparation materials and local business resources ([Rankin, 2021](#)). Other efforts to overcome economic instability include eliminating library late fines and fees, advocating for workplace health equity for library workers, and connecting patrons with reliable legal resources or legal assistance in the community. The Law Librarians of New England (LLNE) group, for example, founded the

LLNE Legal Link website, which connects public librarians with legal information and patron referral options (Dyszlewski *et al.*, 2020). This domain also encompasses library programs that address the nutritional and food needs of their communities. Miller *et al.* (2016) describe a program in Baltimore, Maryland, that partnered with a primary care clinic, community supermarket and public library in order to deliver high-potassium foods to African American community members placed on that diet at the clinic.

The education access and quality domain is centered on providing educational opportunities for children and adolescents and helping them succeed in school. This domain is core to the library and information science profession. In the literature, issues addressed by library programs that focus on health equity include the educational needs of youth; the educational needs of adults, including immigrants; and the unique educational needs of refugees. For example, Ford (2019) describes numerous programs where librarians host reading programs in community spaces their patrons frequent, such as laundromats. At Denver Public Library, staff in the Cultural Inclusivity Department quickly pivoted their in-person English conversation tables attended by immigrants and refugees to the online space (Diaz *et al.*, 2021). Unless they were newly developed or unique, core library services such as reading programs, story times and tutoring did not appear in our sources. For this reason, the education access and quality domain was less widely represented in the literature than we expected.

The focus of the neighborhood and built environment domain is safe, healthy environments. Library staff, activities and programs that focus on this domain influence surrounding neighborhoods by creating inclusive spaces and services. For example, after a location change, the University of Tennessee Medical Center's Preston Medical Library noticed an increase in public health information requests from community members, so they analyzed the zip codes that most requests came from in order to tailor their services to those most in need in the area (Petersen *et al.*, 2020). Libraries' roles serving as communal spaces and information distributors during emergencies, disasters or civil unrest also support this domain. In this manner, this SDOH domain reflects the overall advancing health equity theme of community connections.

The social and community context domain, also explicitly reflecting the overall theme of community connections, is concerned with support for people within communities. Hosting classes and social programs for vulnerable groups, hosting civic engagement activities, and developing programs for residents to come together and propose interventions for neighborhood health issues are library programs and activities that support this domain. For example, the Little Priest Tribal College and Winnebago Public Library on the Winnebago Reservation in Nebraska hired a Tribal aide to create library programming that would forge connections between senior Tribe members (Ford and Hughes, 2017). Another example is from Brooklyn Public Libraries Corrections Library staff, who created a program called TeleStory, a virtual space that connects incarcerated individuals with their families and children for story times and sing-a-longs (Cottrell, 2017).

Theme 7. Libraries as partners in public health.

In the public health literature, libraries are considered uniquely positioned partners in advancing health equity because they are trusted and popular institutions that are safe, accessible and available in practically every community and already serving populations who experience health disparities. For instance, Morgan *et al.* (2016) call libraries "trusted community sentinels" (pg. 24) that have first-hand knowledge of their community's health concerns and can respond by connecting patrons with local resources and services. Similarly, Simon *et al.* (2021) observe that libraries are present in almost all communities, including those in disenfranchised areas where residents are likely experiencing health disparities. The Iowa Department of Public Health also recognizes these unique characteristics of libraries, as evidenced by their *Harnessing the Power of Iowa's Libraries* program to connect community members with services because libraries have "broad reach, touching where people live, learn,

work, and play” (Carver-Kimm, 2020). Beyond local services, Carlson *et al.* (2006) point out that libraries bridge the digital divide by providing patrons vital access to information technology, through public computers, tablets, Wi-Fi and mobile hotspots—resources that would otherwise be unavailable. Although most of these authors are focused on public libraries, Fantus and Newman (2021) suggest several ways that school libraries, through their displays and collections, contribute to a positive educational environment, thereby “fostering students’ experiences of emotional and physical safety in school” (pg. 16). As public health’s focus is population health, the alignment of this theme with the overall advancing health equity theme via community connections is logical.

Limitations

This review has several limitations. First, we chose to restrict our search to two of the largest literature databases. Second, because the topics of health equity and SDOH are multi-faceted, and we did not want to limit our review to a single determinant (e.g. economic stability, built environment), our search terms were broad and likely did not capture all relevant articles. A related limitation is that the health equity work of some libraries is not reflected in the peer-reviewed literature or not published at all (e.g. conference presentations and posters). Although our search of popular library publications and selected grey literature retrieved sources reflective of all types of libraries, certainly not all library activities focused on health equity and SDOH are reflected in this review. A comprehensive review of all online resources was not feasible, so we focused on library websites and government sites for the public health aspect. It is likely that some types of online information (e.g. news sources) may not have been identified and included in this review.

Conclusion

Libraries of all types advance health equity through information by improving health literacy, creating community connections, identifying and responding to health information needs of populations experiencing health disparities, addressing SDOH and providing research support services. An emerging and growing area of interest in the literature regarding libraries and health equity concerns the role and responsibilities of libraries vis-à-vis systemic bias and inequities. Collectively, libraries form a national infrastructure reaching communities throughout the United States and serving as anchors of support for their users. Their prevalence, reputation and status as place (physical and/or virtual) makes libraries an attractive partner in responding to public health challenges in their communities.

The nexus between public health and libraries advancing health equity is the focus of community-based and community-driven activities and services. With health literacy being intrinsically linked with achieving health equity, library programs and activities aimed at improving health literacy levels in their communities are also linked. SDOH are tailored for each community, as are library services. Interest in the public health field to connect with libraries is documented; more libraries’ ability to translate and communicate their work and impact in terms of equity, SDOH, and population health could position them to directly connect with the local and national infrastructure for public health.

Directions for further exploration include building on this work by expanding the literature review to refine the picture of libraries’ impact on advancing health equity. Another beneficial direction would be to join the work of Philbin *et al.* (2019) with these results to understand how libraries’ descriptions of their health equity and population health work align and diverge. Libraries as civic spaces are uniquely and potently positioned to continue to improve health literacy and equity in their communities and serve as strategic partners for public health response and initiatives. The ability to translate library activities and impact effectively and persuasively into the language of public health could open a pathway to new opportunities.

The NLM OET is using the results of this literature review to develop and articulate a program strategy for libraries advancing health equity through information. The strategy will include guidance on how to identify related gaps, challenges and opportunities. This is an ongoing effort with continuous partner engagement to assess our progress and accomplishments. Ultimately, sustainable, complementary partnerships between public health organizations and libraries can be a key factor in eliminating disparities and achieving health equity.

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Supplementary material

The supplementary material for this article can be found in online.

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