

How Data from the Institute of Museum and Library Services Describe Ways Public Libraries Provide Health and Wellness Information Services

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Abstract

Objective: This article describes how funding from the Institute of Museum and Library Services (IMLS) provided resources for state and public libraries to deliver health information to their patrons. **Methods:** Three IMLS publicly available data collections were used: State Library Administrative Agency Survey data; State Program Report system; and the Awarded Grants Search portal. Data about health related projects from these two administrative data sources for 36 competitive award projects since 2015 and 143 projects supported via the formula-funded Grants to States Program between 2015-2018 (inclusive) were included. Descriptive statistics about projects with a health and wellness focus were presented within the context of others supported by Grants to States. **Results:** Competitive projects supported public libraries' health resources and built librarians' skills to facilitate patron access to health information. The Grants to States program supported 143 projects associated with health undertaken by 29 states plus Puerto Rico between 2015 and 2018. The IMLS \$14.4 million investment during this period leveraged an additional \$5 million from state and local sources to support health information projects in public libraries. Finally, data from the State Library Administrative Agency Survey showed that in addition to projects that relied on IMLS Grants to States funds, 29 state libraries provided program assistance in health literacy to the public libraries in their jurisdictions in 2018. **Conclusions:** The findings point to a need to determine whether there are ways to collect additional information via IMLS's data systems to further support state and public libraries in meeting patron health information needs. The lessons learned in the analyses in this article offer useful food-for-thought about how IMLS might work with our data stakeholders to continue to modify each of these data sources to describe the role of libraries in an increasingly complex information landscape.

Introduction

As community anchor institutions, libraries are trusted sources of information.¹ Libraries provide access to both online and print resources, technology to access information, and library professionals trained to assist patrons in navigating the sea of information. In addition to answering individual questions posed by patrons, libraries also offer programs to facilitate patrons' lifelong learning and access to quality information about many topics, including health and wellness. Currently, during the coronavirus pandemic, it is even more important for library patrons to access high quality health information from trusted sources.

Internet access, information literacy, and digital literacy are common themes in the research about the public's access to valid and reliable health information, which has been exacerbated during the recent pandemic according to panelists in a [Roundtable on Health Literacy](#) hosted by the National Academies in August 2020. Research has shown persistent disparities in how

different groups of people seek health information, with the elderly, people, those in rural areas, and those who are economically disadvantaged less likely than others to access health information online.²⁻⁴ Libraries can serve an important role in bridging this digital divide by facilitating public access to the Internet. For example, across the country, public libraries make more than 300,000 computers available for patron use and provide WiFi access for those using their own devices. In 2018 more than 240 million sessions were logged on public-access Internet computers and over 426 million WiFi sessions were provided by public libraries.⁵

The [Institute of Museum and Library Services](#) (IMLS) has supported grant programs to expand library computer resources to address the persistent digital divide,^{6,7} to enable libraries to provide health-related programming,⁸ and to build information resources to facilitate libraries' support for community health.⁹ Since March 2020, during the coronavirus pandemic, IMLS has also provided broad support to address the health-related concerns of libraries and museums to continue to meet public needs via the [REopening Archives, Libraries and Museums](#) project.

Using IMLS's Library Services and Technology Act (LSTA, also known as Grants to States) funds, three state libraries ([Arizona](#), [Oklahoma](#), and [Pennsylvania](#)) have specific Five-Year Plan goals to improve health literacy in their states via projects at public libraries. The diverse projects reflect each state's specific needs. For example, Oklahoma cited troubling state public health statistics to motivate resource development, capacity building, and educational projects for libraries to provide Oklahomans tools to improve their health. A project in Arizona purchased a mobile cooking cart and curriculum to educate children and teens about preparing healthy meals, which is consistent with that state's five-year plan goal of supporting libraries to engage with their communities for health literacy, among other learning goals. Finally, PA Forward is a Pennsylvania state library project that provides training to library staff to learn how to apply five literacy types (including health) to their programs and resources offered to local patrons.

In this article, we describe IMLS mechanisms that have supported libraries' health programming via formula-based grants made to state library agencies (i.e., the Grants to States program) and through various discretionary grant programs since 2015. Then we describe IMLS publicly available data to provide both a general description of health programming and to demonstrate the capabilities of these data as a resource to libraries and health care professionals interested in learning about health programs at libraries. Finally, we close with a short discussion of IMLS's on-going role in facilitating health-related programming at public libraries and additional data that could be useful in understanding how public libraries serve patrons' health information needs, with reference to the coronavirus pandemic.

IMLS Grant Programs that Support Health Information Access at Libraries

Grants to States Program

Using a population-based formula, more than \$150 million is distributed among the State Library Administrative Agencies (hereafter, called state libraries) every year. State libraries are official agencies charged by law with the extension and development of library services located in each of the 50 states and the District of Columbia; the Territories (Guam, American Samoa, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands); and the Freely Associated States (Federated States of Micronesia, Republic of Palau, and the Republic of the Marshall Islands).

Each year, about 1,500 Grants to States projects support the purposes and priorities outlined in the LSTA. State libraries may use the funds to support statewide initiatives and services, and they may also distribute them through competitive subawards to, or cooperative agreements with, public, academic, research, school, or special libraries or consortia. Matching funds required of the states reflect that libraries are a shared investment.

Each state submits a five-year library plan with various projects supported by a combination of LSTA funds and state/local matching funds. Since 2015, \$14.4 million in LSTA funds leveraged an additional \$5 million from state and local sources to support health projects at libraries. Since that time, these projects have added health resources to America's libraries including nearly 42,000 print items and over 600 electronic or audio-visual materials. These funds also supported more than 4,100 program sessions, almost 45,000 consultations, and the completion of three program evaluations so that libraries can learn how to improve health programming for their patrons.

Nationally Competitive Award Programs for Libraries

In addition to the Grants to States program, IMLS has offered a host of nationally competitive funding opportunities. Awardees have used these funds to provide support for libraries' health-related programming at various points in time. These include:

- *Accelerating Promising Practices for Small Libraries*, started in 2019, supports projects that strengthen the ability of small and rural libraries and archives to serve their communities.
- *The Laura Bush 21st Century Librarian Program*, launched in 2003, supports the development of a diverse workforce of library professionals to better meet the changing learning and information needs of the American public.¹⁰
- *National Leadership Grants for Libraries* support projects that enhance the quality of library and archive services nationwide by advancing theory and practice.
- *Native American Basic Grants* support existing library operations and maintain core library services for tribal communities, while projects supported by *Native American / Native Hawaiian Enhancement Grants* may improve existing library services or implement new library services for tribal communities.
- *Sparks! Ignition Grants for Libraries*, awarded from 2011 to 2016, were small grants that supported the deployment, testing, and evaluation of promising and groundbreaking new tools, products, services, or organizational practices of libraries and archives.

IMLS Data Resources

We used survey data collected by IMLS to provide contextual information about public libraries and the role of state libraries in supporting health literacy programming at the libraries in their states. More detailed information about programs supported by IMLS funds that address health-related issues was obtained from two IMLS administrative data systems available to the public, which support search and download capabilities.

Survey Data

IMLS conducts two surveys of libraries: the Public Libraries Survey; and the State Library Administrative Agency (SLAA) survey. For this article, we performed analyses about state library program assistance for health literacy programs (among several other types of literacy) using the SLAA survey data. The Public Libraries Survey does not provide information about the topics of programs offered by public libraries.

Starting in 1994, the SLAA survey gathers data about the official agency responsible for extension and development of public library services in each state and the District of Columbia (often referred to as the state library). In addition to their critical role in assessing, planning, and coordinating library services and resources, SLAAs may provide important reference and information services to the state government; administer the state library or serve as the state archives; operate libraries for the blind and physically handicapped; and support the State Center for the Book. Data about the SLAA services provided to libraries within its jurisdiction are included in the survey along with information such as staffing, income, expenditures, and governance.¹¹

Administrative Data

The [IMLS Awarded Grants Search](#) provides a way for the public to access general information about projects funded by IMLS. For example, for this article, we merely entered the search term “health” as a keyword to generate a list of projects. While this is not meant to be a comprehensive look at all projects related to the full range of health issues, it provides a useful first set of projects to gain an understanding of the approaches taken by libraries and library researchers and how health information programming is supported by IMLS. Other users could search on a larger number of health-related terms to cast a wider net or on specific terms or within a specific program area to limit their search.

Finally, the [IMLS State Program Report \(SPR\) system](#) is a comprehensive, highly detailed collection of data provided annually by the state libraries that administer the LSTA funds awarded via the IMLS Grants to States program (described in more detail, below).¹² Each LSTA coordinator enters data about how LSTA funds support programming that meets needs as defined by the state library. Data includes information about the purposes of the programming, its intended audience, the types of expenditures necessary to support the program, program outputs and, as appropriate, evaluation findings.

Since the majority of data we present is from the complex SPR system, additional explanation is necessary to understand how one may extract and understand its information. The system was developed as a collaborative project between state LSTA coordinators and IMLS to facilitate information access needed to assess progress of states in meeting state library five-year plan goals and inform conversations about how LSTA funds produced outcomes important to the state.

Every year LSTA coordinators enter data about each project and its associated activities in the SPR system by selecting one of 14 choices for the project intent, which are aggregated within six “focal area” categories associated with more general library goals (see Figure 1 for a crosswalk of intents and focal areas). The system also provides flexibility to “drill down” into each intent to better understand the subjects of each project. LSTA coordinators can select up to two of 38 possible subjects for each intent (see Figure 2 for a list of subjects). In other words, the SPR

system retains the common narrative grant reporting features, while providing state LSTA coordinators with ways to “tag” content to facilitate later retrieval and analysis. As such, the SPR system provides both a high level of transparency about state programming supported by LSTA funds awarded by IMLS and a way to explore projects in other states to benchmark, share resources, etc.

Figure 1. Crosswalk: SPR Intents to Focal Areas







14 Intents (User chooses)	6 Focal Areas
<ul style="list-style-type: none"> • Improve the library workforce. • Improve library's physical and technology infrastructure. • Improve library operations. 	 <p>Institutional Capacity <i>Add, improve or update a library function or operation in order to further its effectiveness.</i></p>
<ul style="list-style-type: none"> • Improve users' ability to discover information resources. • Improve users' ability to obtain and/or use information resources. 	 <p>Information Access <i>Improve access to information.</i></p>
<ul style="list-style-type: none"> • Improve users' formal education. • Improve users' general knowledge and skills. 	 <p>Lifelong Learning <i>Improve users' knowledge or abilities beyond basic access to information.</i></p>
<ul style="list-style-type: none"> • Improve users' ability to apply information that furthers their personal, family or household finances. • Improve users' ability to apply information that furthers their personal or family health & wellness. • Improve users' ability to apply information that furthers their parenting and family skills. 	 <p>Human Services <i>Improve users' ability to apply information that furthers their personal, family or household circumstances.</i></p>
<ul style="list-style-type: none"> • Improve users' ability to use resources and apply information for employment support. • Improve users' ability to use and apply business resources. 	 <p>Employment & Economic Development <i>Improve users' ability to apply information that furthers the status of their jobs and/or business.</i></p>
<ul style="list-style-type: none"> • Improve users' ability to participate in their community. • Improve users' ability to converse in community conversations around topics of concern. 	 <p>Civic Engagement <i>Improve user engagement through their library that furthers the common or community good.</i></p>

Figure 2. 38 SPR System Subject Choices

- Arts, Culture & Humanities
- Business & Finance
 - Employment
 - Personal Finance
 - Small Business
- Civic Affairs
 - Community concerns
 - Government
- Education
 - After-school activities
 - Curriculum support
- Environment
- General (select only for electronic databases or other data sources)
- Health & Wellness
 - Parenting & family skills
 - Personal/Family health & wellness
- History
- Languages
- Science, Technology, Engineering, & Math (STEM)
- Literacy
 - Adult literacy
 - Digital literacy
 - Early literacy
 - Reading program (not summer)
 - Summer reading program
- Library Infrastructure & Capacity
 - Broadband adoption
 - Buildings & facilities
 - Certification
 - Collection development & management
 - Continuing education & staff development
 - Disaster preparedness
 - Library skills
 - Outreach & partnerships
 - Programming & event planning
 - Research & statistics
 - Systems & technologies
- Other

For this article, SPR projects were identified as being associated with health and wellness in two ways. First, if any subjects for the project were either “Health & Wellness” or “Personal/Family health & wellness” the project was flagged as related to health. Second, projects were also flagged if any of the project intents included “Improve users’ ability to apply information that furthers their personal or family health & wellness.” This latter method was also used to flag activities as related to health and wellness.

Once the LSTA coordinator enters data about a project in the SPR, they can enter more detailed information about activities associated with the project. Most projects (70 percent) have one or two activities, with 25 percent reporting on three to five and 5 percent reporting more than six activities. Activity details include information about the intent of the activity (Figure 2), the intended audience, outputs (e.g., number of program sessions, number of items purchased), and optional information about the partners involved in the activity.

Findings

Nationally Competitive Awards by IMLS Support Health-Related Programming in Various Ways

Consistent with the themes raised in the August 2020 National Academies Roundtable on Health Literacy, IMLS competitive awards that referenced health in their online short descriptions since 2015 have taken various approaches to enhancing libraries’ capacity to provide health information. Table 1 provides general information about the themes/approaches of 36 IMLS competitive awards to libraries and library researchers for health-related programs, assessment, or research. The health-related projects in Table 1 represented 2.3 percent of the 1,575 competitive awards for libraries in the Awarded Grants Search portal since 2015.

Over the past decade the number of programs of any type offered by public libraries has increased from 3.4 million offered in 2008 to 5.4 million in 2017.¹³ This transition to more programming, combined with the proliferation of electronic resources has sparked interest in professional development for librarians to meet the public’s changing information needs, including in health areas. Grants awarded within the Laura Bush 21st Century Librarian program, National Leadership Grants, and Sparks! Ignition Grants for Libraries all funded projects that

included professional development for library professionals to deliver health-related programming. In some cases, funding was for projects to enhance connections between library professionals and medical researchers or providers' use of more advanced library health literature resources.

Table 1 also shows that several of the 12 grants in the Native American Basic and Native American / Native Hawaiian Enhancement programs have sought to develop collections, resources, and programming to serve tribal communities' health needs. Other IMLS competitive grant programs funded projects that facilitated library partnerships with health providers and/or community health advocates, connected health issues to disaster preparedness, or focused on issues specific to the health needs of patrons in rural areas.

Table 1. Competitive Awards that Referenced "Health" in Project Abstracts, 2015-2020

Grant Program	Awards made 2015-2020	Number of health projects	Themes / Approaches
National Leadership Grants	259	13	Varied: Training for librarians (including medical librarians) to provide programming for patrons, including medical professionals (7 projects); Development of patron resources (7 projects, 3 of which focused on medical/health workers); Health partners (4 projects); Health issues in rural areas (3 projects); Disaster preparedness (2 projects)
Native American Basic and Native American/ Native Hawaiian Enhancement Grants	1,235	12	Increase resources and services at libraries to provide health information to communities. Two projects connected digital and health literacy themes.
Laura Bush 21 st Century Librarian Grants	178	7	Professional development for library staff to deliver health literacy programming or to provide information services to medical/health professionals (6 projects). Two projects also included research about library health programming to inform practice.
Sparks! Ignition Grants for Libraries	36	2	Curriculum/resource development for medical librarians and patrons
Accelerating Promising Practices for Small Libraries	45	2	Digital literacy and health literacy as connected themes (1 project); Oral history collection development to destigmatize mental health treatment (1 project)

TOTAL	1,575	36	
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Source: Analysis of information using the IMLS Awarded Grants Search tool:

<https://www.imls.gov/grants/awarded-grants>.

The IMLS Grants to States Program Stimulated Public Library Health Programming

This section focuses on information about the 143 SPR projects and their associated 230 activities for which either an intent or, in the case of projects, a subject associated with health and wellness was specified by the jurisdiction's LSTA coordinator.

Overall, since 2015, 29 states and Puerto Rico have used a portion of their LSTA funds to support health projects in their jurisdictions. As shown in Table 2, the number of projects and activities focused on health and wellness was relatively small, representing 2.5 percent of all projects included in the SPR. Proportionately more health and wellness projects supported with LSTA funds were flagged by LSTA coordinators as "exemplary", with this gap becoming more pronounced in 2018 when 41 percent of health and wellness versus nine percent of all others were identified as exemplary by the state, making it easier for others to locate promising practices in health programming.

Budget information is reported in the next two panels of Table 2. The overall yearly investment in health and wellness projects increased from \$3.6 million in 2015 to \$4.6 million in 2018, with health and wellness projects representing just over one percent of the total IMLS Grants to States allotments during this period. The total IMLS \$14.4 million investment during this four-year period leveraged an additional \$5 million from state and local sources to support health information projects in public libraries. Median budgets for health and wellness projects as compared to all others from 2015-2018 are shown in the next panel of Table 2. Budgets for health and wellness projects increased more rapidly (185 percent) during the period from 2015 to 2018 than did those for all LSTA-supported projects (52 percent).

The final panel of Table 2, shows that most (62 percent) of health and wellness projects supported with IMLS LSTA funds provided to the state were carried out at public libraries with just over one-fourth implemented by the state library. In contrast, non-health projects were nearly equally likely to be implemented at a public library (42 percent) as at the state library (40 percent).

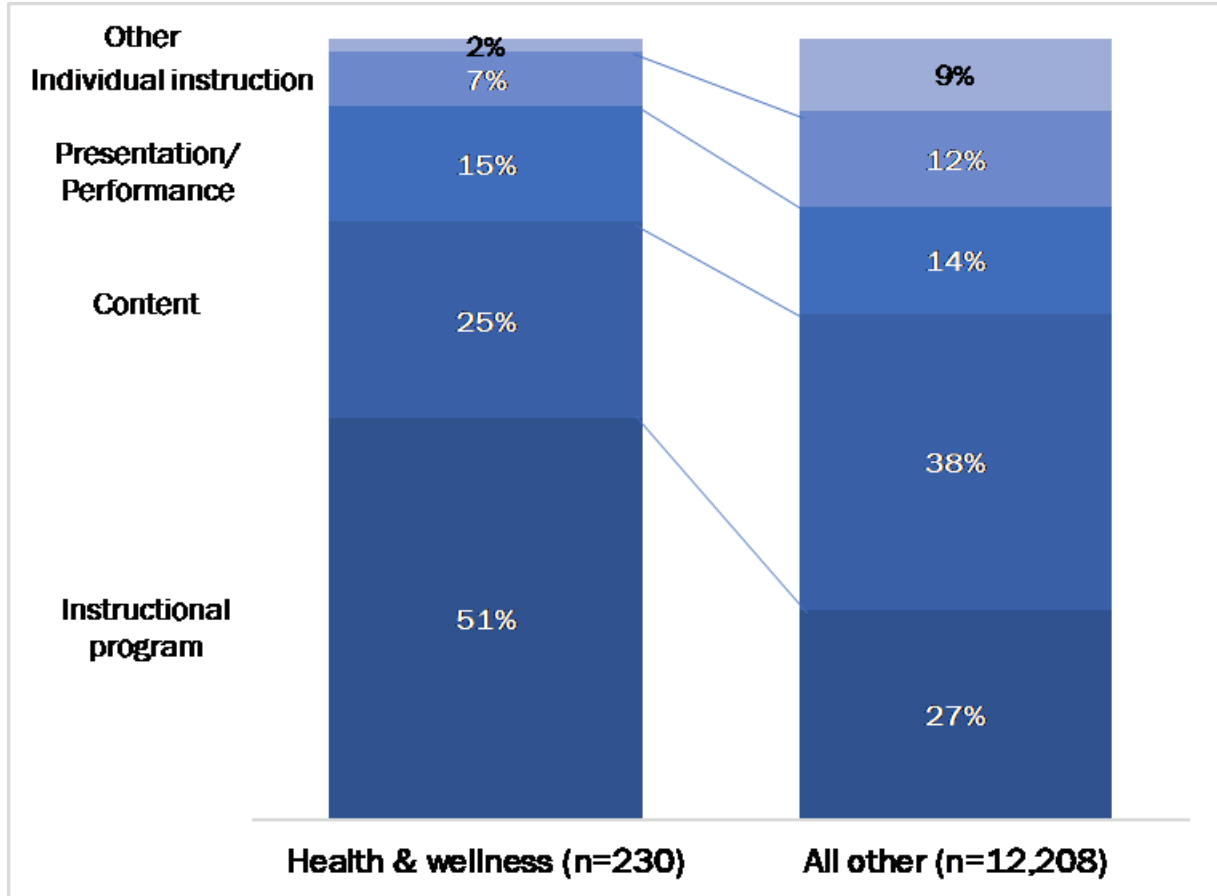
Table 2. Overview Health & Wellness Projects Reported in SPR, 2015-2018

		2015	2016	2017	2018	Total
Number of states that reported a health & wellness project		20*	20*	19	13	30
Projects	All projects	1,557	1,459	1,369	1,339	5,724
	Health & wellness (#)	42	37	37	27	143
	Health & wellness (%)	2.7%	2.5%	2.7%	2.0%	2.5%
Activities	All activities	3,283	3,179	3,040	2,936	12,438
	Health & wellness (#)	73	59	75	23	230
	Health & wellness (%)	2.2%	1.9%	2.5%	0.8%	1.8%
Exemplary projects (%)	All other	8.0%	6.3%	8.0%	9.4%	7.9%
	Health & wellness	23.8%	24.3%	21.6%	40.7%	26.6%
Budgets (in \$1,000)**						
Total	All projects	\$385,221	\$397,484	\$406,871	\$418,001	\$1,607,578
	Health & wellness	\$3,627	\$5,935	\$5,259	\$4,600	\$19,421
LSTA Funds	All projects	\$149,356	\$150,142	\$151,061	\$155,847	\$606,406
	Health & wellness	\$2,674	\$4,524	\$3,789	\$3,430	\$14,417
Percent of budgets spent on health & wellness projects						
	Total Budget	0.9%	1.5%	1.3%	1.1%	1.2%
	LSTA	1.8%	3.0%	2.5%	2.2%	2.4%
Median Project Budgets**						
Non-Health & wellness	Total	\$27,930	\$36,298	\$35,130	\$42,322	\$35,000
	LSTA	\$18,708	\$25,000	\$24,079	\$27,333	\$23,560
	State/Local	\$9,222	\$11,298	\$11,051	\$14,989	\$11,440
	% LSTA	67.0%	68.9%	68.5%	64.6%	67.3%
Health & wellness	Total	\$23,273	\$50,919	\$38,070	\$66,226	\$35,947
	LSTA	\$11,575	\$34,540	\$20,000	\$34,291	\$24,613
	State/Local	\$11,698	\$16,379	\$18,070	\$31,935	\$11,334
	% LSTA	49.7%	67.8%	52.5%	51.8%	68.5%
Type of library that administered projects						
Non-health & wellness	Public library	44.8%	43.2%	40.3%	40.9%	42.4%
	State library	39.6%	39.1%	40.0%	42.2%	40.2%
	All other*	15.6%	17.7%	19.7%	16.9%	17.4%
Health & wellness	Public library	69.0%	54.1%	59.5%	63.0%	61.5%
	State library	23.8%	29.7%	21.6%	29.6%	25.9%
	All other*	7.1%	16.2%	18.9%	7.4%	12.6%
*Includes Puerto Rico.						
**These financial data have not been adjusted for inflation and are as-reported in the SPR system. To put this in perspective, the U.S. Bureau of Labor Statistics online inflation calculator indicates that \$1 in 2015 is equivalent to \$1.06 in 2018. (https://www.bls.gov/data/inflation_calculator.htm)						

Turning now to look at the details about 230 activities (combining all four years) with a health and wellness intent, Figure 3 compares the mix of activity types for health and wellness intents compared to all other activities. Just over half of health and wellness activities were instructional programs compared to 27 percent of all other activities. Health and wellness activities were also

less likely than others to be associated with content (e.g., acquisition, lending collection items, description of digital items, or preservation). Finally, health and wellness programs were less likely to involve individual or other forms of instruction than were all other programs.

Figure 3. Mix of Activity Types, All Activities Combined (2015-2018) by Activity Intent



Note: Other includes planning, evaluation, and procurement activities.

State Libraries Support Health Literacy Programs: SLAA Data

Besides LSTA funds, state libraries invest their own dollars to support programs, including those in the areas of health, information, and digital literacy. As noted earlier, researchers have indicated these three types of literacy are inter-related.

The SLAA survey asks whether the state library provides program assistance for various types of literacy programming at public libraries. Table 3 shows that at least two-thirds of state libraries reported they supported literacy programming in public libraries since 2014. Over this period, there was also increased prevalence of state library support for health, digital, and information literacy. In particular, the number of state libraries that provided support for health literacy programming at public libraries increased from 23 to 25 in 2016 and finally to 29 in 2018. There were also more state libraries supporting digital and information literacy programs during the same period.

Table 3. Number of State Libraries that Supported Each Type of Literacy Program, 2014-2018

	2014	2016	2018
Literacy programming of any type	35	34	36
Digital	23	33	34
Information	25	29	32
Health	23	25	29

SLAA survey respondents include the 50 states and the District of Columbia.

Summary

IMLS funded projects that focus on health-related topics represented about 2.3 percent of IMLS competitive awards and 2.5 percent of Grants to States projects since 2015. This article has provided an overview of how library stakeholders interested in health topics might use the IMLS SPR and Awarded Grants Search systems to learn about these efforts to facilitate libraries' role in serving the public's need for high quality and reliable health information. As described here, IMLS has supported efforts aimed at developing library professionals' skills in delivering programming and curating information resources about health for patrons, including those with more specialized medical knowledge needs. Support provided by the Grants to States program leverages state and local funds to deliver health programming to patrons and to develop the capacity of libraries to meet the diverse health needs of their communities. The SPR system also facilitates national information sharing to enable health and wellness project development to build upon a background of context-specific knowledge.

The findings in this article also point to a need to determine whether there are ways to collect additional information via IMLS's data systems to further support state and public libraries in meeting patron health information needs. For example, while the SPR system provides some insights into the types of partners libraries collaborate with to deliver programming, the Public Libraries Survey does not collect information on partnerships. Such partnerships, especially with local health provider organizations and advocacy groups, are likely to be more important in understanding how libraries serve as community anchors to meet public health needs. Additionally, the SLAA survey asks whether state libraries provide health literacy program assistance to libraries (among other types of literacies) but does not include details about the nature of that support nor the extent to which the state library might partner with state departments of health.

At the current time, in the midst of the coronavirus pandemic, many public libraries have had to restrict access to their physical facilities, but have taken steps to provide phone and email support for patrons, curbside pick-up of physical materials, expanded electronic resources, and increased Internet access for patrons.¹ IMLS CARES Act funding provided special additional allotments in the Grants to States program totaling \$30 million. Over the next two reporting cycles, the SPR system will provide transparency about these expenditures and a means to determine if, as a result of these circumstances, more health and wellness projects and activities are reported in the coming years.

Additional IMLS CARES Act funds were made available via competitive grant programs, including one focused on providing resources to Native American and Native Hawaiian institutions. Reporting about the use of these funds over the coming years will provide additional

information about how libraries collaborated with other organizations in their communities to mitigate the impacts of the current health crisis. It should be noted that we found the competitive awards projects in this article using only “health” as a search term. Those interested in more specific health topics can use additional terms to cast a wider net to identify potential ideas via the IMLS Awarded Grants Search. Additionally, new pandemic-related questions added to the 2020 SLAA survey (to be fielded in 2021), we will have other data points to understand how the pandemic affected state libraries.

Finally, this article integrated information separately from three different data sources to paint a picture of how federal funds from IMLS support state and public libraries in developing and delivering health information to their patrons. The public library role in serving as a reliable source of health information and as an access point for telehealth may be an emerging area of focus for public libraries in the midst of the coronavirus pandemic. The lessons learned in the topical analyses, such as those about health described in this article, offer useful food-for-thought about how IMLS might work with our data stakeholders to continue to modify each of these data sources, plus the Public Libraries Survey, to describe the role of libraries in an increasingly complex health information landscape.

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