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Report from the Field: Researching Interlibrary Loan/Document Delivery Usage by Health Sciences Libraries during the COVID-19 Pandemic

During the spring of 2020, a number of health sciences library personnel who continued to provide Interlibrary Loan (ILL)/Document Delivery (DD) during the COVID-19 (COVID) pandemic anecdotally noticed an increase in the volume of requests. These were presumed to be from peer libraries that were unable to access their print collections, and few seemed specific to COVID-information needs. This raised the question, “What are libraries doing about providing requested materials in this resource sharing environment, especially when requests cannot be filled through ILL/ DD?” This report introduces a multi-institutional research effort by health sciences library staff that is being planned to understand the demand for, and efforts to supply, content from library print and online collections, as well as third-party providers, during COVID. The purpose of this report is to describe the research-in-progress and encourage additional research into maintaining access to information during extraordinary conditions. The expectation is that the results of such research efforts may provide insight on how libraries can adapt their ILL/DD services and workflows during emergencies, license and share resources in the future.

Keywords: interlibrary loan; document delivery; health sciences libraries; hospital libraries; COVID-19; pandemic; print collections

Introduction

COVID-19 (COVID), a novel strain of coronavirus which causes significant medical complications and death, was first identified in December 2019 before growing to become a global pandemic in the early spring of 2020 (Centers for Disease Control and Prevention, 2020; World Health Organization, 2020). To help prevent the spread of the virus via physical

contact, libraries of all types across the world closed their doors, restricting access to their physical collections and facilities, though the timing of these closures varied.

During the first six months of the pandemic, the role of health science libraries (HSL) in North America remained to facilitate access to needed medical and health information, including, but not only about COVID. The pandemic posed significant challenges for libraries aiming to provide consistent, reliable access to information for their users. Beginning in March 2020, many HSLs in the United States, particularly academic libraries not located within a health care facility, temporarily closed their locations for variable and unspecified lengths of time. Library staff started working remotely and adapted their interlibrary loan (ILL)/document delivery (DD) services. The details of services, policies and workflow varied depending on accessibility to their print collections and the closures of resource sharing partner libraries. With the nature of HSLs, many hospital libraries reported remaining open during emergencies. Anecdotally, health sciences librarians were physically on campus, working in their library and/or were redistributed within their hospitals to perform other tasks which affected ILL services.

Discussing practices during the pandemic was not unique to HSL. On August 27, 2020, a webinar “Has the Pandemic Changed the Future of Resource Sharing?” (ExLibris North America, 2020) provided information from multiple academic libraries about how they handled resource sharing activities. For example, library staff could manage a patron’s expectations by suggesting that instead of requesting an entire book to be mailed, they may have a better chance of having their request filled if they requested a particular chapter of the book which could be delivered digitally.

Although HSL librarians have published about services and instruction during COVID (Mi et al., 2020), they have not specifically addressed ILL and DD services for their users. The dialogue about ILL and DD impacts of COVID was primarily conducted through posts on health sciences library discussion lists such as MEDLIB-L and the Directors email list for the Association of Academic Health Sciences Libraries (AAHSL), asking questions about service limitations and workarounds, such as, “What are you doing about articles that you can't get through ILL at this time?” or, “What are other academic health sciences resource libraries doing about filling ILL requests?” These provoked further questions about the increase in requests seen by HSLs that remained open, such as “Was more health and science content needed during COVID? Was it a shift across the system that fewer libraries met the same information needs? Or perhaps it was both?” To address these and similar questions, a group of librarians and a library student worker came together with the objective of capturing information on the ILL and DD activities and associated collection access issues of HSLs during the pandemic and sharing it with the community.

Inter-institutional research takes a team!

In May 2020, the President-Elect of the Medical Library Association (MLA), Kris Alpi, University Librarian at Oregon Health & Science University (OHSU), invited interested members of MLA’s Resource Sharing and Research Caucuses and AAHSL to join the project. There were three participation options: become a member of the research team, share questions for consideration by the research team, and/or share data on your operations when requested. From 17 interested discussants, a 12-member multidisciplinary research team formed in mid-June 2020. The team represents eleven health sciences libraries, including

various sizes of academic health sciences centers as well as regional and national hospital systems. It covers a broad geography from Oregon in the northwest to Florida in the southeast, with several in New York and New Jersey, and represents diverse responses to pandemic restrictions, which varied substantially across the United States. Members work in access services/resource sharing; research services, instructional services, and administration. Individual research experience varied, but this multi-institutional large, time-sensitive collaboration is a learning opportunity for all.

Key organizations of interest in this research are the National Library of Medicine (NLM) and the Network of the National Library of Medicine (NNLM). NLM runs DOCLINE, the system used by many HSLs for ILL activities, and is a major lender to HSLs. NNLM members include all types of libraries who provide health information: hospital, academic, health care association, community college, public, and school. NLM was also receiving inquiries about access to print collections at HSL, and on April 3, 2020, DOCLINE released the new “Print Resources Available” filter to help address questions about which libraries still had access to their print collections (Tamase, 2020).

Considering sources of data about HSL ILL during the pandemic, the majority of HSL participate in DOCLINE, and some also participate in OCLC. DOCLINE uses Journal Holdings and library policies/partnerships to route requests for articles primarily from health and life science journals, although there is also a Monograph/AV/Non-SERHOLD journal request option. Comparing DOCLINE data from the pandemic period with prior year data is limited by the March 4, 2019 release data of DOCLINE 6.0, which made borrowing and lending records prior to that date unavailable. Thus, comparisons would need to start with

March 4, 2020 rather than the standard calendar year reporting automatically provided by the system. This ultimately affects the timeframe for our study, as we wanted to compare data from the COVID pandemic time period with data from 2019 for the same time period. We are working with NLM and a selection of individual libraries to obtain DOCLINE data from NLM reports for these specific date ranges.

Research questions, teams, and team coordination

At the MLA Research Caucus April 2020 meeting, several librarians stated they observed that, during the beginning weeks of the pandemic, institutions continued to fill ILL requests from their print collections. There was a discussion regarding the possible impact of having ILL services temporarily ceased due to staff working remotely and the lack of access to print collections. Kris Alpi announced the launch of a new research project that would characterize the items requested in print format during a specific period. In addition, the research would reflect if these materials are available digitally or not, whether the need to scan print journals is a result of no digital copy being available and/or the cost/licensing restrictions on the digital content. She encouraged members to suggest questions and invited them to join the team. The research was introduced originally introduced as a “Print Collection Usage Study.” Subsequent dialogue among the team and questions from librarians with predominantly digital collections shifted the focus to studying ILL/DD more broadly. Through collaboration, the team developed three research questions with associated sub-

questions. The first question is “How did COVID quarantine/library closures affect ILL/DD usage?” with more specific questions on “How did the volume of lending shift?” and “Did the subject matter of materials change?” The second question is “How can we characterize local collection usage during closures?” with two sub-questions, “What did we scan from our print collections, both for our own clients (DD) and ILL partners that may not be captured in DOCLINE?” and “What about the materials requested that were not able to be filled?” The third question is “What were the decision making and workflow adjustments and what can we learn from these?” with the more specific questions being “How did libraries decide to access their own print collections or purchase digital content?” and “What were the local experiences and workflows handling requests and materials?”

The design of this study includes multiple phases of data collection tied to the three research questions outlined above and each led by sub-groups within the research team. The sub-groups include the Secondary Data Analysis team, the Primary Data Collection and Analysis team, and the Survey team; all of whom coordinate with the Project Coordinator. The Secondary Data Analysis team’s role is to address the first question by gathering and analyzing aggregated ILL borrowing data from network systems with permission from participating libraries and collaborating with systems to compare local data with national trends. The second question, as well as elements of the first if data that cannot be obtained from network systems, is being addressed by the Primary Data Collection and Analysis team,

which will gather and analyze de-identified aggregations of local borrowing and/or lending data among participant libraries. The Primary Data Collection team can gather and analyze local DD data. The Survey team planned a workforce survey to be completed anonymously by one person per library, containing both multiple selection questions and open-ended questions directed towards resource sharing staff and/or administration.

A follow-up analysis of the data from any of the teams could address further questions, such as, were there any changes in Borrowing, Lending and DD at a local level during this time? What would be the contributing factors to any changes at a local level? For the materials requested and filled, which materials are available digitally or in print? What access or pricing constraints did libraries encounter? What are the relationships between subject areas, cost and electronic availability?

Sub-group team leaders handle the remote coordination necessitated by a geographically diverse team across three U.S. time zones. We use Google Drive to store, share, and collaborate on planning documents, rough drafts, and copies of necessary forms. OHSU's implementation of Box cloud based storage will be used for raw data that requires secure hosting. Through study-wide contributions such as reviewing presentations and publications, the workforce survey, and protocols, the team becomes familiar with all aspects of the research. While each sub-group works to collect and analyze different data, they are interdependent, as every group's data ultimately influences and informs the other groups' work. Methods of communication used are email and web chat as well as Doodle polls for scheduling between sub-group members as well as for the whole team. Each sub-group communicates and works internally before contacting the Project Coordinator to discuss

progress and next steps. Thus far, the communication among team members has been efficient and effective through the use of the tools mentioned above. We have also continued to keep our stakeholder groups up to date on our progress such as a short update at the MLA Research Caucus meeting on January 27, 2021.

Questions and Teams are Interdependent

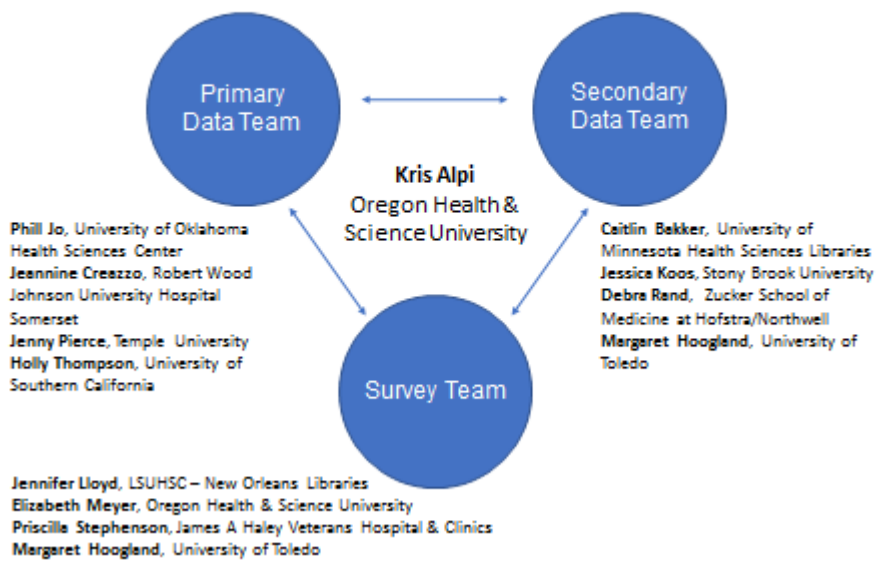


Figure 1. Alpi, K., Meyer, E. (2020, September 11).

Participant Data Privacy and Quality

Research integrity oversight is coordinated at OHSU, which is providing librarian researcher registration and online training, as well as review for these projects. The OHSU Institutional Review Board (IRB) will review all elements of the research that involve gathering information from individuals or organizations. This included pursuing a determination about whether gathering aggregated de-identified data from existing ILL

systems would constitute human subjects research and having the survey research plan and instrument reviewed prior to dissemination. Human subjects research involves a researcher who "obtains information... through intervention or interaction with the individual, and uses, studies, or analyzes the information" or "obtains, uses, studies, analyzes, or generates identifiable private information" (Protection of Human Subjects, 2018). In our context, gathering data from people through surveys or interviews, or using ILL/DD request data that include identifiable patron information associated with the item could be considered human subjects research. In this case, the team chose to focus on aggregated borrowing and lending information that had already had all of the individual requestor information removed, treating the requested item title/year of publication as the unit of investigation. That left the requesting library as the research participant and they were determined not to be human subjects.

Librarians are understandably protective of patron privacy, and as a result, each team has discussed data privacy issues. For example, the workforce survey was designed to be anonymous. This limits the detail of its demographic questions about institution type and location because a combination of these might identify the library. As human subjects research, the survey was reviewed and designated as exempt, category 2. Category 2 represents research involving the use of educational tests, survey procedures, interview procedures or observation of public behavior where recorded information cannot readily identify the subject (National Institutes of Health, 2019). The Secondary Data team is obtaining signed institutional participation agreements to release system-aggregated data. The

primary data team is determining whether automated reports have sufficient data so that custom reports and associated cleaning/de-identification can be limited.

While collecting data, the team is vigilant about participant engagement and data quality, as well. There is a lot of COVID-related research going on across many types of libraries, and the team was concerned that survey fatigue would negatively affect the number of responding libraries. COVID-related surveys have become relatively commonplace, with scales and studies emerging to describe psychosocial impact (Arpaci et al., 2020; Ellis et al., 2020; Ahorsu et al., 2020), and specific behaviors such as sleep patterns, food and alcohol consumption, and compliance with public health recommendations (Brizi & Biraglia, 2021; Duffy, 2020). The team attempted to acknowledge and address survey fatigue by specifically inviting the target audience of health sciences library staff. Through testing the survey before sending it out, the team can provide sufficient background information in the survey's description and promotion, including the length and average time to complete the survey, as well as ensuring the survey asks relevant questions. While we did not find specific studies to guide us in preventing survey fatigue in the context of COVID, we suspect the number and variety of surveys being distributed may be a significant challenge to participation of library staff in COVID-related research.

Conclusion

The first stage of data collection officially began with the distribution of the IRB-approved workforce survey to HSL beginning on January 6, 2021. The survey remained open for responses for one month after distribution, closing on February 7. The survey instrument is available upon request to others who may wish to study ILL/DD in their region or at other

types of libraries. Planning for data collection and analysis for both the primary and secondary data analysis groups are underway. As we learn more from the first stages of the research, we continue to refine our research questions which include the effect of library closures and service limitations on sharing patterns, whether quantity, subject matter and age of materials requested and filled during this time varied from the previous year, whether or not materials scanned were available digitally, and the associations among availability, licensing, pricing or other constraints.

We are interested in what other libraries or organizations may be planning for their own assessment or research. Other types of libraries who have similar questions could adapt the research protocol and survey questions. We are sharing our plan in the hopes that it will inspire sharing by anyone else pursuing research on this resource sharing during COVID. We anticipate our findings could inform and enhance emergency preparedness planning, future resource sharing, budgeting, evidence-based collection development, and digitization prioritization. The presumed implications of this research vary by audience. Findings across libraries may be actionable for policy, service or workflow changes within ILL/DD systems. Consortia or individual libraries may find information valuable for benchmarking, to advocate for changes in their service or pricing models, and/or for staffing workflows. Most broadly, anything the research shows about significant gaps in the availability and accessibility of print journals during this pandemic will provide information and impetus to those who own or steward the content to consider all possible avenues to making this content digitally available in the near future.

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References

- Ahorsu, D.K., Lin, C., Imani, V. et al. (2020). The Fear of COVID-19 Scale: Development and Initial Validation. *International Journal of Mental Health Addiction*.
<https://doi.org/10.1007/s11469-020-00270-8>
- Alpi, K., Meyer, E. (2020, September 11). Questions and Teams are Interdependent [Illustration]. In *Interlibrary Loan/Document Delivery Usage by Health Sciences Libraries During the COVID-19 Pandemic*. Northwest Interlibrary Loan & Resource Sharing Conference.
- Arpaci, I., Karata, K., Balolu, M. (2020). The development and initial tests for the psychometric properties of the COVID-19 Phobia Scale (C19P-S). *Personality and Individual Differences*, 164. doi: <https://dx.doi.org/10.1016/j.paid.2020.110108>
- Brizi, A., Biraglia, A. (2021). "Do I have enough food?" How need for cognitive closure and gender impact stockpiling and food waste during the COVID-19 pandemic: A cross-national study in India and the United States of America. *Personality and Individual Differences*, 168. doi: <https://doi.org/10.1016/j.paid.2020.110396>
- Centers for Disease Control and Prevention (2020, August 5). *National Notifiable Diseases Surveillance System*. Retrieved from
<https://wwwn.cdc.gov/nndss/conditions/coronavirus-disease-2019-covid-19/case-definition/2020/08/05/>
- Duffy, B. (2020, April 9). *Life under lockdown: Coronavirus in the UK*. London, England: King's College London, the Policy Institute. Retrieved from
<https://www.kcl.ac.uk/policy-institute/assets/coronavirus-in-the-uk.pdf>
- Ellis, W.E., Dumas, T.M., Forbes, L.M. (2020). Physically isolated but socially connected:

Psychological adjustment and stress among adolescents during the initial COVID-19 crisis. *Canadian Journal of Behavioural Science*, 52(3), 177-187. doi:

<https://dx.doi.org/10.1037/cbs0000215>

Ex Libris North America. (2020, August 31). *Has the Pandemic Changed the Future of Resource Sharing?* [Video]. YouTube. <https://youtu.be/n91ht4XuPCo>

<https://page.exlibrisgroup.com/rapidill-post-pandemic-panel>

Mi, Misa & Zhang, Yingting & Wu, Lin & Wu, Wendy. (2020). Four health science librarians' experiences: How they responded to the COVID-19 pandemic crisis. *College & Research Libraries News*. 81(7). 330-334.

<https://doi.org/10.5860/crln.81.7.330>

National Institutes of Health (2019, March 21). *Exempt Human Subjects Research* Retrieved from https://grants.nih.gov/sites/default/files/exemption_infographic_v7_508c-3-21-19.pdf

Protection of Human Subjects, 45 C.F.R. § 46.102 (2018).

Tamase, M. (2020, April 3). DOCLINE Update: New “Print Resources Available” Filter Now Available! *Newsbits*. Retrieved from <https://news.nlm.gov/psr-newsbits/docline-print-resources-available-filter/>

World Health Organization (2020, November 1). *WHO Coronavirus Disease (COVID-19) Dashboard*. Retrieved from <https://covid19.who.int/>