



*Evidence Summary*

**A Pilot to Initiate Research Data Management Services Within Academic Libraries Helps Librarians to Learn About, Engage With, and Enhance Skills Within Their Research Communities**

**A Review of:**

Read, K. B, Koos, J., Miller, R. S., Miller, C. F., Phillips, G. A., Scheinfeld, L., & Surkis, A. (2019). A model for initiating research data management services at academic libraries. *Journal of the Medical Library Association*, 107(3), 432–441. <https://doi.org/10.5195/jmla.2019.545>

**Reviewed by:**

Joanne M. Muellenbach  
Library Director and Associate Professor  
California Health Sciences University  
Clovis, California, United States of America  
Email: [jmuellenbach@chsu.edu](mailto:jmuellenbach@chsu.edu)

**Received:** 11 Nov. 2020

**Accepted:** 5 Jan. 2021

© 2021 Muellenbach. This is an Open Access article distributed under the terms of the Creative Commons-Attribution-Noncommercial-Share Alike License 4.0 International (<http://creativecommons.org/licenses/by-nc-sa/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly attributed, not used for commercial purposes, and, if transformed, the resulting work is redistributed under the same or similar license to this one.

DOI: 10.18438/eblip29879

---

**Abstract**

**Objectives** – To initiate or expand research data management (RDM) services within the participating libraries serving health sciences populations.

**Design** – Case report.

**Setting** – Six institutions consisting of three academic health sciences and three university libraries within the National Network of Libraries of Medicine Middle Atlantic Region in the United States of America.

**Subjects** – Between two and eight librarians participated from each institution, for a total of twenty-six librarian participants.

**Methods** – Pre-pilot phone interviews were conducted and included open-ended questions about RDM services, the library’s motivation for participating, and their degree of institutional commitment. To deepen their understanding of RDM, the participants were required to complete eight educational modules that included text, videos, and quizzes. The participating institutions received data interview questions to connect with their research community to be better informed

about their attitudes, language, and practices. The participants also received a Teaching Toolkit, complete with slides, a script, and an attendee evaluation form. The participants were provided with a data series, consisting of branded classes for teaching over a designated period with instructors from within and outside of the library. Collaboration with library partners was encouraged as was the use of a focused marketing plan. In fact, a major component of the pilot was the expert support, provided through biweekly meetings that included marketing tips and presentations on such topics as clinical research data management and data visualization. Finally, post-pilot program interviews were conducted, and the open-ended questions covered the pilot program as a whole and its individual components.

**Main Results** – Of the six participating institutions, five institutions rated the RDM educational modules very positively. Conducting data interviews was valuable for all six institutions because it allowed the librarians to meet with researchers, build relationships, and use what they learned to develop RDM services for the future. The Teaching Toolkit was rated positively by the six institutions, especially for its adaptability, the time saved over developing the content from scratch, and its usability. Finally, the two institutions that held the data series courses stated that the series succeeded in further marketing the RDM services developed by the library.

**Conclusion** – The pilot project met its objectives: the librarians at the participating institutions completed the educational modules, administered the data interviews, and taught an RDM foundations class based on the Teaching Toolkit. In addition, a data series was hosted at two institutions. The components of the pilot project had the intended results at each institution, and the classes were reviewed favorably. Based on the pilot participants' positive outcomes, the authors are certain that the freely available program materials would achieve success elsewhere.

## Commentary

RDM training provides individuals with the ability to review data, build on other researchers' results, and reproduce their experiments. Librarians have an opportunity to provide support in this area and to expand RDM services within the biomedical research community. This study builds on a curriculum that was designed by and for librarians to train researchers, as well as an online course developed by Harvard University librarians (Martin & Goldman, 2017, 2019). This study's program is unique in that it provides in-depth librarian training and a customizable Teaching Toolkit for delivering RDM training institution wide.

Application of "The CAT: a generic critical appraisal tool" (Perryman, 2014) found the study to be concise and well organized, with links to detailed supplementary materials, including the well-designed pre- and post-pilot interview questions. The authors have in-depth knowledge about RDM services, as evidenced by the fact that their project received support from the National Network of Libraries of Medicine (NNLM), and more than ten peer-reviewed papers on this topic are included in their reference list. The project provided the librarian cohort with customizable materials and, importantly, the expert mentoring needed to launch their own RDM services, and this resulted in positive ratings by the pilot participants.

One potential weakness of this study is that the pilot project relied on expert librarian mentors from just one institution, and this time commitment is not sustainable. Perhaps a future initiative could involve a community of data librarian mentors that could be available via chat, email, phone, a Slack channel, and web conferencing. The lead author is already working to address this issue as the coauthor of a commentary that describes a rationale to create the Medical Library Association (MLA) Data Services Competency to further data and open science skills development (Federer et al., 2020). The authors also highlighted that an MLA Data Special Interest Group has been developed, as well as NNLM RDM class

cohorts. In addition, librarians from smaller libraries could partner with instructors from outside the library and thereby expand course offerings. This would also serve to enhance interprofessional education initiatives, provide opportunities for teaching, and strengthen the program overall.

The authors succeeded in providing a cohort of librarians with RDM training and a customizable Toolkit for initiating and enhancing RDM services within their institutions, and this report makes a significant contribution to the literature. This implies that the institutions of this librarian cohort must provide resources to help foster their development as RDM experts. Given that the study was published in 2019, expanding the original Toolkit to include the RDM materials from librarians that were tailored to the needs of their institutions would benefit future librarian participants from a wide variety of institutional settings and ensure that the materials are up to date. In addition, since RDM principles and practices are the same worldwide, future studies may wish to focus on researchers from different countries, disciplines, ethnic groups, and settings who receive this training and demonstrate its value in furthering research productivity.

## References

- Federer, L., Foster, E. D., Glusker, A., Henderson, M., Read, K., & Zhao, S. (2020). The Medical Library Association data services competency: A framework for data science and open science skills development. *Journal of the Medical Library Association*, 108(2), 304–309. <https://doi.org/10.5195%2Fjmla.2020.909>
- Martin, E., & Goldman, J. (2019). *Best practices for biomedical research data management*. Canvas Network. <https://www.canvas.net/browse/harvard-medical/courses/biomed-research-data-mgmt>
- Martin, E., & Goldman, J. (2017). *New England collaborative data management curriculum*. Lamar Soutter Library. <https://library.umassmed.edu/resources/necdmc/index>
- Perryman, C., & Rathbun-Grubb, S. (2014). *The CAT: A generic critical appraisal tool*. <https://www.jotform.us/cp1757/TheCat>