

Security Best Practices for Using R and RStudio in the Introduction to R Workshop

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Introduction

This document outlines security best practices for the proper use of R and RStudio during the Introduction to R Workshop at Ann & Robert H. Lurie Children's Hospital. The purpose of this workshop is to introduce participants to data analysis and statistical modeling using R, while ensuring the protection of confidential information and adhering to regulatory compliance, including HIPAA.

1. Workshop Scope and Data Handling

- 1.1. Participants will learn data analysis and statistical modeling techniques using published, non-sensitive datasets. During the workshop, all datasets provided will be free of confidential information.
- 1.2. Participants are strictly prohibited from using sensitive or confidential patient data for the workshop. Any future use of R and RStudio with confidential data should be done on a locally installed version of the software, ensuring that the data remains within the organization's secure network.

2. Regulatory Compliance

- 2.1. Lurie Children's Hospital adheres to the Health Insurance Portability and Accountability Act (HIPAA) and other relevant regulatory requirements for safeguarding patient data. Participants must be aware of these regulations and avoid any actions that might compromise patient privacy.

3. Data Access

- 3.1. During the workshop, all participants will have equal access to the provided datasets.
- 3.2. After the workshop, if participants decide to use their own data, they should exercise caution and ensure that the data and their use case complies with regulatory requirements and Lurie policies.

4. Security Measures

- 4.1. Lurie Children's maintains a company firewall to protect the network from unauthorized access. Participants will utilize the organization's secure network during the workshop to enhance data protection.

5. Package Management

- 5.1. Participants will use R packages during the workshop. For the duration of the workshop, participants will mainly use packages contained within base R. The exception is [tidyverse](#), a collection of R packages designed for data transformation and visualization supported and maintained by RStudio.
- 5.2. Following the workshop, participants should only download R packages from legitimate and trusted sources. All package downloads should be conducted using an encrypted HTTPS connection from a secure server to ensure the integrity and authenticity of the packages.

6. Device Management

- 6.1. For the workshop, participants will use provided Windows desktop machines. Participants should ensure that these machines are used solely for the workshop's educational purposes and not for personal activities or accessing untrusted websites.

Conclusion

By following these security best practices, participants in the Introduction to R Workshop at Lurie Children's Hospital can gain valuable knowledge about using R as a tool for data analysis and statistical modeling while maintaining the confidentiality and privacy of patient information. Adhering to regulatory requirements and taking necessary precautions will ensure a secure and productive learning experience.