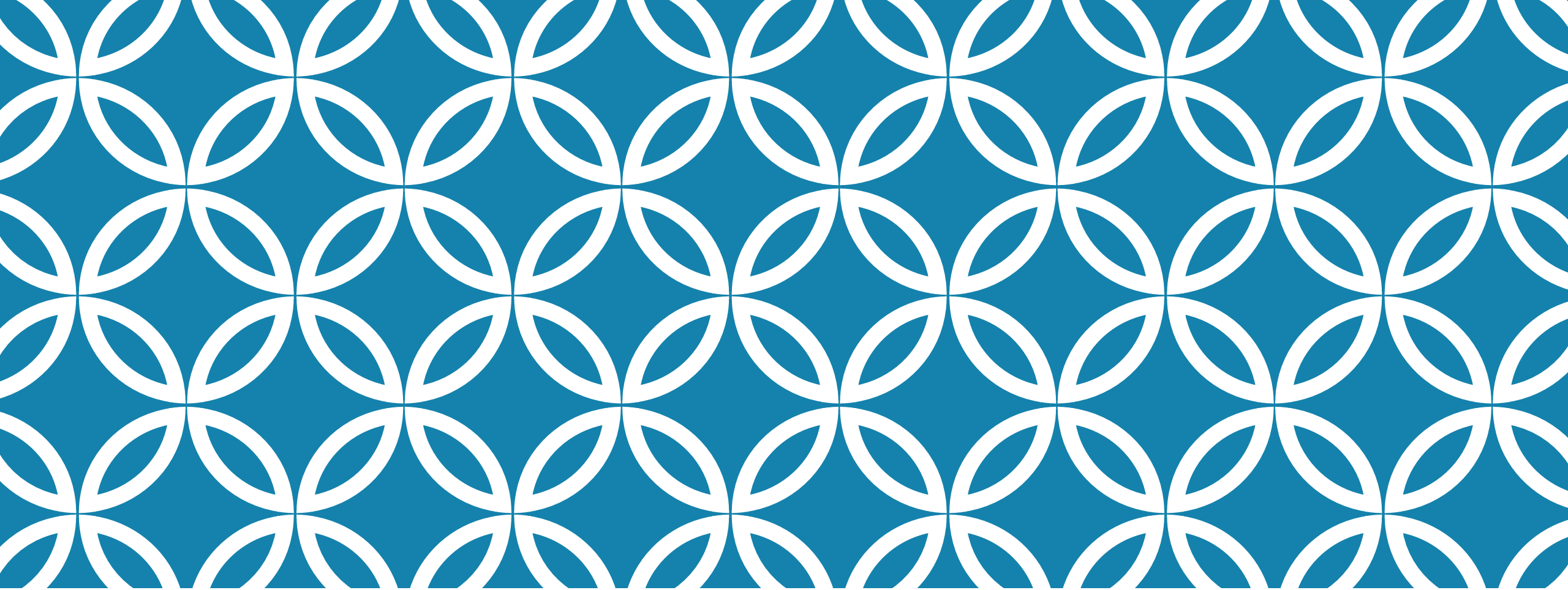


Introduction to R Workshop

Amrom Obstfeld
MD PhD

Course Introduction

Goals and Objectives

- Advocate for the use of R as a means of improving reproducibility in clinical data analysis
- Demonstrate how R is used to perform analyses of laboratory operational data
- Establish a basis of understanding in the 'tidy' approach to data analysis within the framework of R

Session	Instructor
Instructor Introductions, Introduction to technology	Amrom Obstfeld
Introduction to R and RStudio	Joe Rudolf
Reproducible Reporting	Joe Rudolf
Data Visualization	Stephan Kadauke
Data Transformation	Amrom Obstfeld
Group and Summarize	Patrick Mathias
Advanced Reporting	Patrick Mathias

Who are we?

Joseph Rudolf

Assistant Professor, Department of Pathology, University of Utah Medical School

Medical Director, Automated Core Laboratory, ARUP Laboratories

Patrick Mathias

Assistant Professor, Department of Laboratory Medicine and Pathology

University of Washington School of Medicine

Associate Medical Director, Laboratory Medicine and Pathology Informatics

Stephan Kadauke

Assistant Professor of Clinical Pathology and Laboratory Medicine

University of Pennsylvania Perelman School of Medicine

Assistant Director of the Cell and Gene Therapy Laboratory

Children's Hospital of Philadelphia

Amrom Obstfeld

Assistant Professor of Clinical Pathology and Laboratory Medicine

University of Pennsylvania Perelman School of Medicine

Director of Pathology Informatics

Children's Hospital of Philadelphia

Workshop Workflow

Sessions

Loading Data to Create a Dataframe

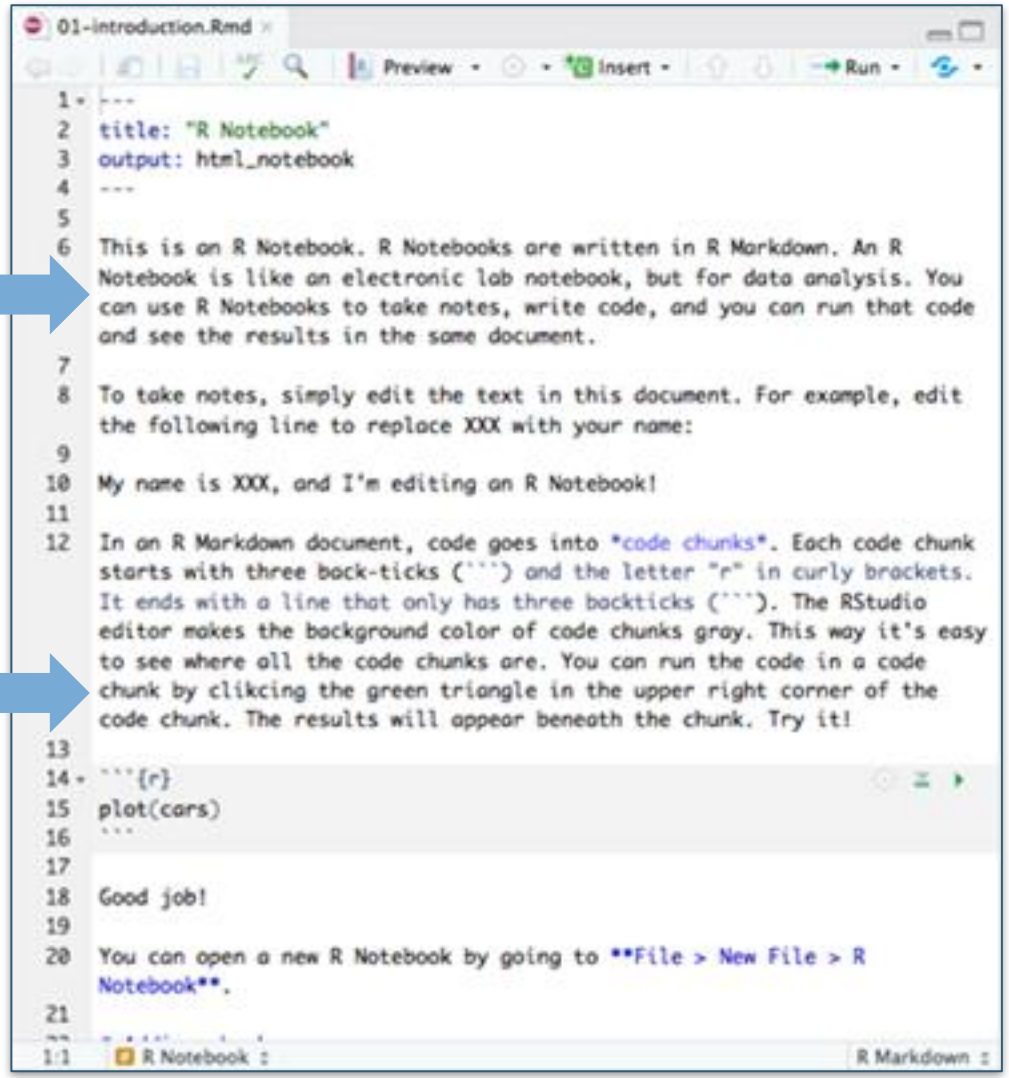
```
data_frame <- read_csv("file_name")
```

Your Turn

Introduce yourself to your neighbors

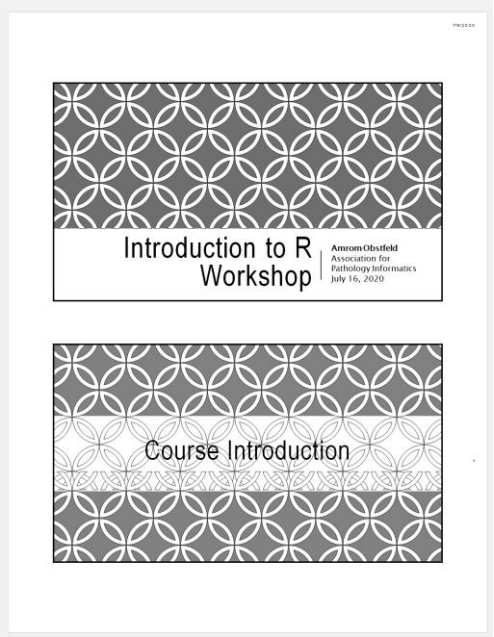
- Who are you?
- Where are you from?
- What do you do with data?
- Have you ever used R?

3:00



Workshop Coursebook

- Print out of all slides
- Appendix
  - Cheat sheets
  - Useful resources



Who are you?

Your Turn

Introduce yourself to your breakout roommates

Who are you?
Where are you from?
Why are you here?
Have you ever used R?

Final Tips

- The best way to learn to code is by doing
- Practice is key!