

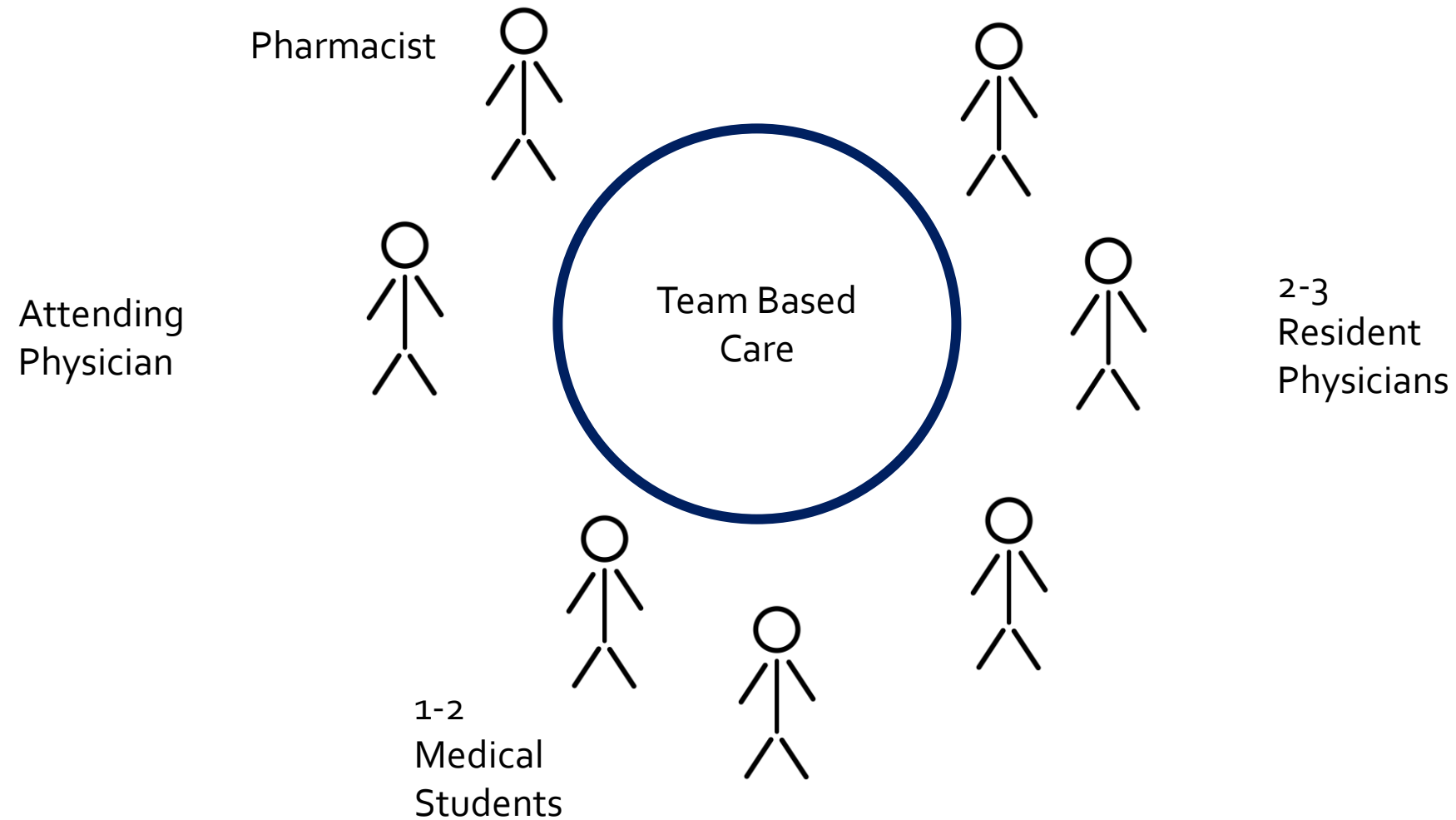
USING AN API TO ENHANCE EHR DATA

Victoria Valencia MPH

@ValueVictoria

Dell Medical School

Team Based Morning Rounds



Electronic Health Care Record Data

- EHRs are build for billing, not data analysis
 - Many data in notes
- Team level care in academic settings
 - Attribution is very difficult!

Accurate

Team
Based

Timely

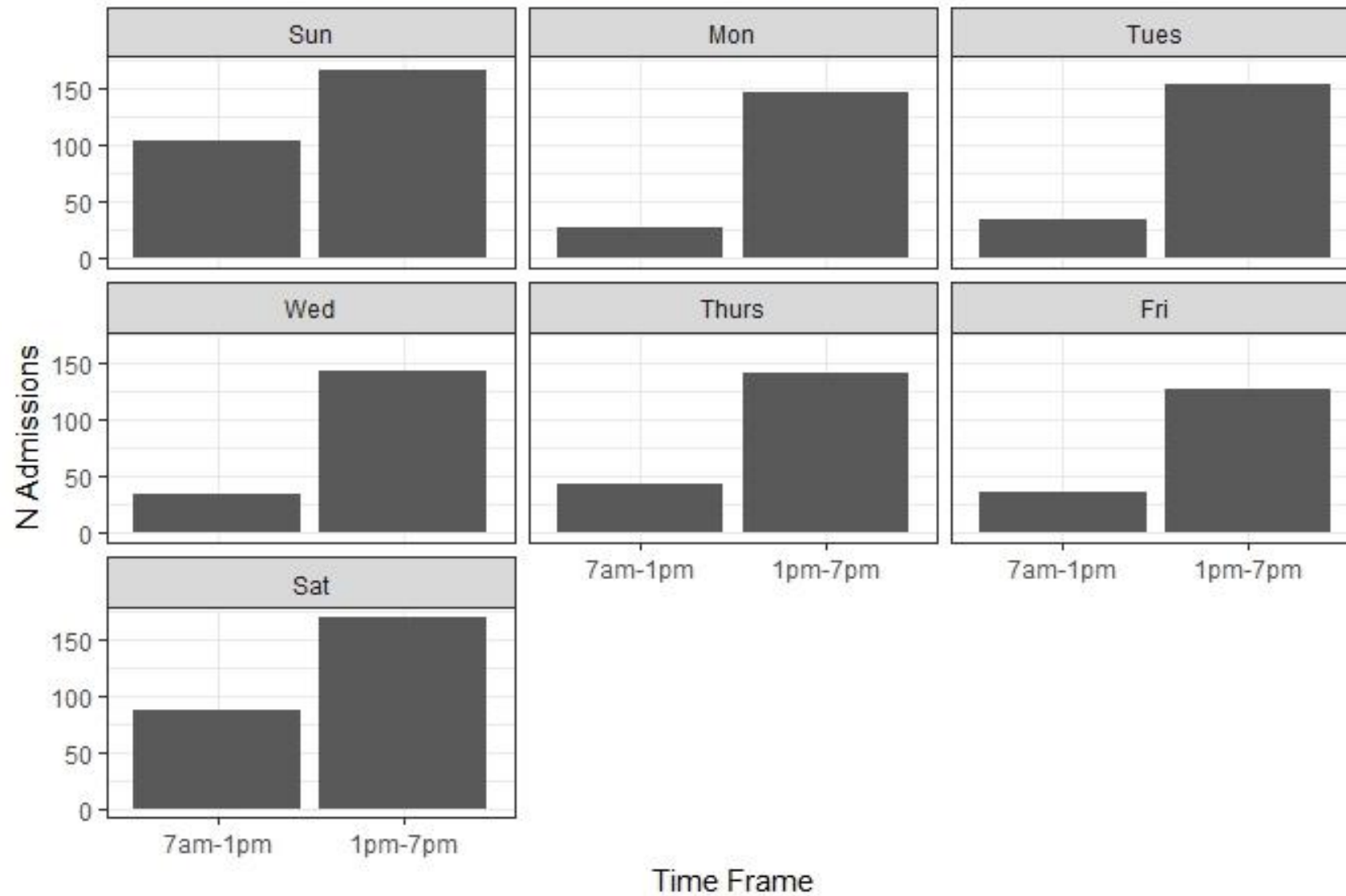
Clear

Writing Admission Orders

- Takes time!
 - Patient history
 - Physical exam
 - Medication history
 - Occur throughout the day
- Different times of the day are busy for different reasons
 - 8am-noon: Team rounding and seeing patients
 - Noon – noon conference education for resident physician
 - 1-4pm: Writing orders, notes, seeing patients, **admissions**
 - 4-7pm: seeing patients, wrap up, consults, discharges

Admissions to Teams Jan-Jun 2018

Please note: some team assignments missing



Amion-Scheduling software

 [Login](#)

Logins this hour: 24993

[Scheduling](#)[Messaging](#)[Help](#)[Order](#)

Amion Physician Scheduling

See why over 200,000 providers trust their schedules to Amion...

Groups Plan time off, create schedules, trade shifts, page staff, and more! For [residents](#), [attendings](#) and other medical providers.

Enterprises Standardize an entire hospital into a single on-call list with paging, last-minute updates & much more!

Top Ten Amion features you might not be using! #1 - Use [Online Editing](#) to make simple assignment changes from anywhere - even your phone!...

Help index

E=Enterprise **A=Attendings** **R=Residents**

Search

1. Introduction

A. General information

[amion intro video](#) ▶
[amion mobile app video](#) ▶
[newsletter sign up](#)
[free trial](#)
[groups vs. enterprises](#) ▶
[overviews](#)
[new in amion](#)
[partners](#)
[video library](#)
[why choose amion?](#)

B. Demos

[attendings](#) **A** ▶
[enterprises](#) **E** ▶
[residents](#) **R** ▶

C. Licensing

[how do i pay?](#)
[privacy](#)

[footnotes, add/remove](#)
[holidays, add/remove](#)
[meetings](#)
[minimum staffing requirements](#) **R**
[notifications](#)
[pick up open shifts](#) **A**
[resident vacation requests](#) **R** ▶
[submit hours worked](#) **A**
[special requests setup](#) **A** ▶
[shift times, change mid-year](#)
[shift times, set](#)
[staff, add/remove](#) **A**
[staffing links](#)
[staff photos](#) **R**
[swap shifts setup](#) **A** ▶

C. Rules & tools

[alter ego](#)
[automated scheduling](#)
[autoscheduler](#)

[subsets](#) ▶
[tallies, limit access](#) **A**

3. Using Schedules

A. Paging

[paging/messaging setup](#)
[preventing pager abuse](#)
[secure messaging faq](#)
[tigertext setup](#)

B. Reports

[amion analytics](#)
[duty hours](#) **R**
[export data](#)
[printing schedules](#)
[programming interface \(api\)](#)
[resident highlight & tally](#) **R**
[tally \(statistic\) reports](#)
[who's away](#) **A**
[who's on vacation](#) **R**

Assignments for 6-20-12 (as of Jun 20 16:34 2012 eastern time)

Field 1 - 3: Staff name, unique ID, backup ID

Field 4 - 6: Assignment name, unique ID, backup ID

Field 7 - 8: Date and time of assignment (GMT-5 1)

"Simmons, G",38,2,"Call",53,6,6-20-15,1700,2200

"Poon, E",31,4,"Backup",54,7,6-20-15,1700,2300

Add the parameters "Day=", "Month=" and/or "Year=" to specify the dates the data feed should return. The URL:

<http://www.amion.com/cgi-bin/ocs?Lo=az1&Rpt=619&Month=6&Year=2016>

would give you all the assignments for June 2015. Add "Day=" to specify a specific day, as in:

<http://www.amion.com/cgi-bin/ocs?Lo=az1&Rpt=619&Day=5&Month=6&Year=2016>

Add the word **tabs** after the report number to receive tab-delimited data instead of the quote-comma format shown above:

<http://www.amion.com/cgi-bin/ocs?Lo=az1&Rpt=619tabs>

Add a single '-' after Rpt=619tabs to suppress the headers altogether. Add two '-' signs to get a single row of field names, as in:

https ://www .amion. com/cgi-bin/ocs?
Lo=yedoc+path&Month=4&Year=2018&Rpt=619tabs

(The spaces in the URL keep mail systems from redirecting the URL to a malware-scanning service.)

Report 619 is one commonly used report but there are many others. Contact us if you need additional fields or if you'd like the data in a different format.

Go to R – script for calling API

Admit to orders raw data

One row = one admit

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	CURRENT_MED_SERV	PT_TYPE	ORD_DT	ORD_DT	ORDER_D	ORDER_P	ORDER_P	SUPV_MD	ORDER_SIGNED_BY				
2	3W MICU	Medicine	IP ICU	3/9/2018		Admit to							
3	5N DSM-5	Medicine	IP Private	3/9/2018		Admit to							
4	5N DSM-5	Medicine	IP ICU	3/9/2018		Admit to							
5	5S DSM-5	Medicine	IP Private	3/6/2018		Admit to							
6	6N DSM-6	Medicine	IP Private	3/6/2018		Admit to							
7	7S DSM-7	Medicine	IP ICU	3/8/2018		Admit to							
8	EDAC DSM	Medicine	IP Private	#####		Admit to							
9	2E SICU D	Medicine	IP ICU	#####		Admit to							
10	3E MICU C	Medicine	IP ICU	#####		Admit to							
11	3E MICU C	Medicine	IP Private	#####		Admit to							
12	3E MICU C	Medicine	IP ICU	2/1/2018		Admit to							
13	3E MICU C	Medicine	IP Private	#####		Admit to							
14	3E MICU C	Medicine	IP Private	#####		Admit to							
15	3E MICU C	Medicine	IP Private	4/6/2018		Admit to							
16	3E MICU C	Medicine	IP Private	6/7/2018		Admit to							
17	3W MICU	Medicine	IP ICU	#####		Admit to							



Keys for merge:
Attending name
Date of admit



Application Programming
Interface (API)



Daily schedule data

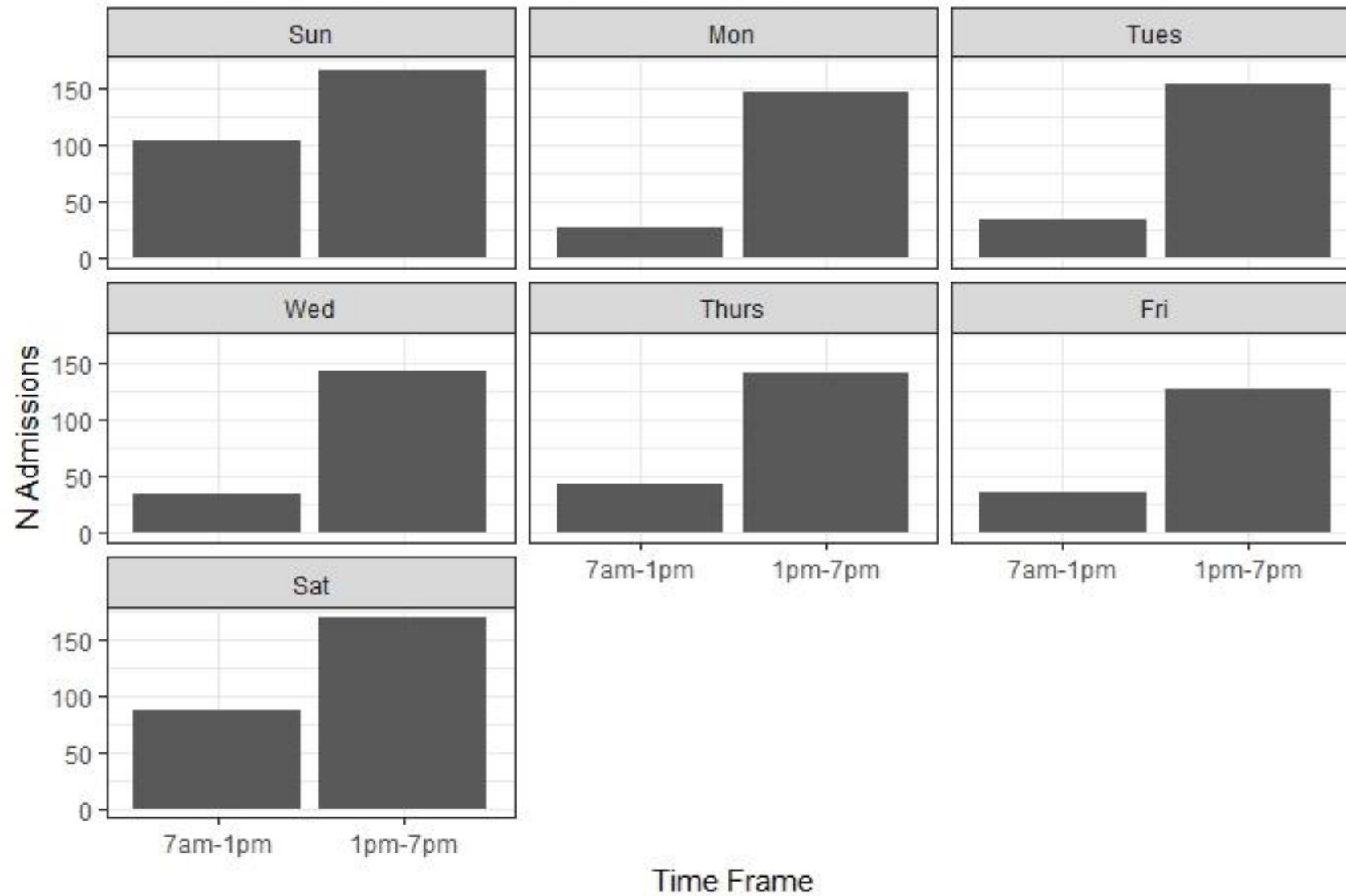


Team level admit to
orders data



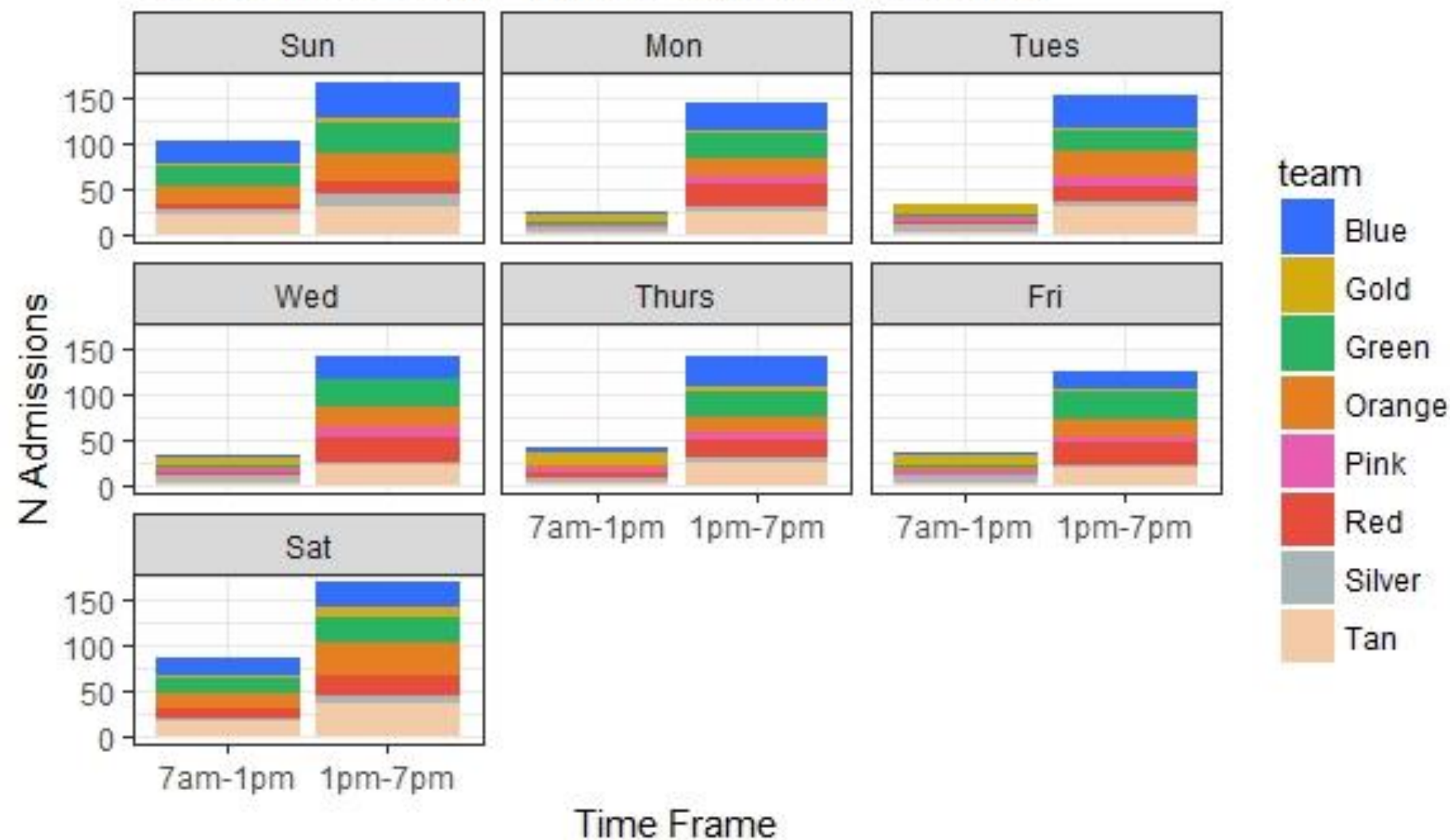
Admissions to Teams Jan-Jun 2018

Please note: some team assignments missing



Admissions to Teams Jan-Jun 2018

Please note: some team assignments missing



Conclusions

- Alternate data sources can aid in more accurate attribution of complex data
- Application Programming Interfaces (API) are great tools for pulling data sources from the web into R
- Important to match data delivery to care delivery (how data will be used)