

## Introduction

Relationship continuity of care (RCOC) refers to the relationship between a patient and a health care professional or team sustained over time. RCOC is associated with reduced frequency of presentation to the emergency department (ED), increased receipt of preventive services, decreased healthcare costs, and increased satisfaction for both patient and clinician. The degree of RCOC for university students and its impact on their health has rarely been studied. The objective of this study is to establish a baseline RCOC for the University of Virginia (UVA) Student Health and Wellness Center (SHWC) patient population, identify factors associated with increased RCOC, and propose literature-supported interventions to increase RCOC at the SHWC.

## Methods

- Study population: All UVA students who received in-person care on 2+ occasions from a physician or nurse practitioner in the medical services clinic at the SHWC during the 2018-2019 academic year.
- Data: Student demographics, clinician characteristics, and visit reasons were obtained / inferred from the Student Health Research Database (SHRD), an IRB-approved de-identified database.
- A quantifiable estimate of RCOC (qRCOC) per visit was calculated as the proportion of a student's total visits that the student had with that visit's provider over the total number of that student's visits.
- R software (Version 4.1.2) was used to calculate qRCOC for the sample population and the differences in qRCOC between sub-populations of interest (ex. graduate vs. undergraduate).

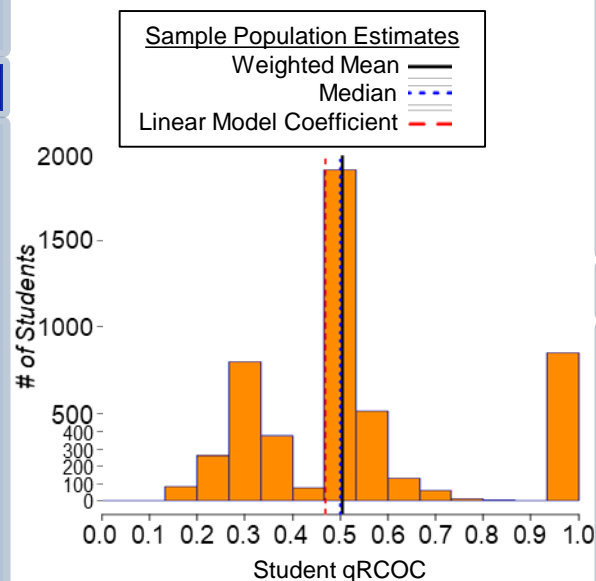
## Results

- The study data consist of 5062 students and 15966 clinic visits.
- Mean qRCOC (weighted by number of visits) = 0.504 (Figure 1)
  - Interpretation: On average, half of a UVA student's clinic visits are with the same clinician
- Demographics: Male gender, Asian & Black race, oldest age range, and graduate/other status are associated with ↑ qRCOC (Figure 2).
- Type of visit reason is associated with qRCOC (Figure 2). Visit types with the highest qRCOC include:
  - Eating disorder
  - Cardiovascular concerns (ex. hypertension, syncope)
  - Transgender care
  - Other psychiatric issues (ex. anxiety, depression)
  - Hematologic complaints (ex. anemia, coagulopathy)

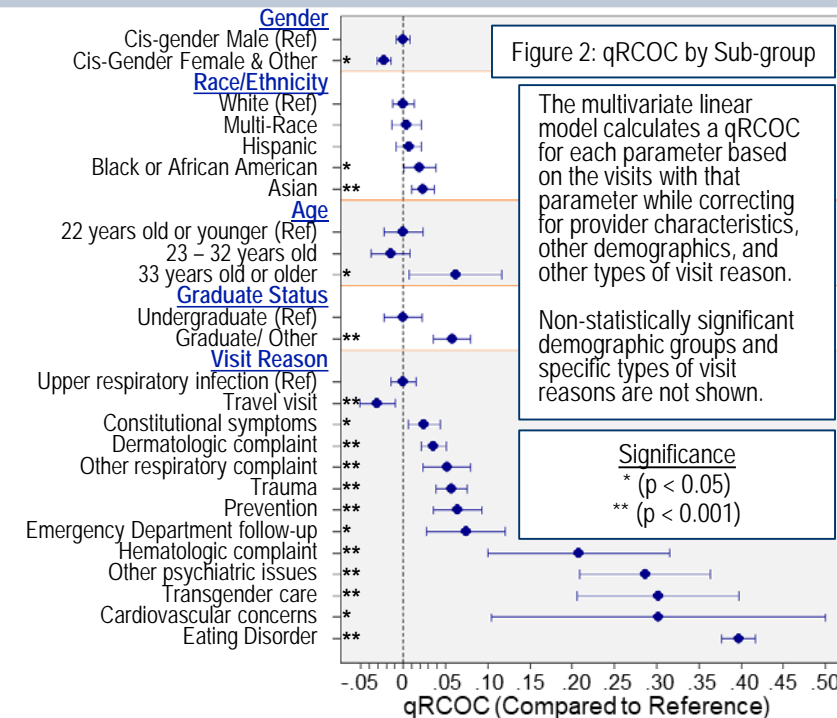
## Demographics and Distribution of qRCOC

Table 1: Demographics	Students
Total N = 5062	N (%)
<b>Gender (Student)</b>	
Cis-gender Male	2114 (41.8%)
Cis-gender Female, Transgender, and Unknown	2948 (58.2%)
<b>Race/Ethnicity (Student)</b>	
White	3134 (61.9%)
Asian	753 (14.9%)
Hispanic	392 (7.7%)
Black or African American	276 (5.5%)
Multi-Race	221 (4.4%)
Other/Unknown	286 (5.7%)
<b>Age (Student)</b>	
22 years old or younger	3888 (76.8%)
23-32 years old	1021 (20.2%)
33 years old or older	87 (1.7%)
Changes over study period	66 (1.3%)
<b>Academic Level (Student)</b>	
Undergraduate	3848 (76.0%)
Graduate/Other	1199 (23.7%)
Changes over study period	15 (0.3%)
<b>Citizenship Status (Student)</b>	
US citizen	4606 (91.0%)
Foreign citizen	456 (9.0%)

Figure 1: Student Continuity Scores



## qRCOC by Demographic and Type of Visit Reason



## Discussion

- Race/Ethnicity:** Our findings support the literature that some races may have ↑ RCOC than White/Caucasian people.
- While the literature suggests no difference in RCOC between males and females, the male students in this population may have ↑ RCOC than female students, although clinical significance is small.
- Visit reasons related to mental health are associated with clinically significant ↑ RCOC. This has not been previously reported.
- Note: This sample population differs from those reviewed in the literature, especially with regard to age and co-morbidities.

## Future Directions

- Expand analysis to the 2019-2020 and 2020-2021 academic years to ↑ sample size and investigate impact of COVID-19 on RCOC
- Possible interventions to improve RCOC:
  - Create formal clinician pairs/teams to improve care distribution
  - Educate patients on clinician availability and benefits of ↑ RCOC
  - Clinicians/schedulers encourage students to keep same clinician
  - Leverage patient portal – ex. display default/last-seen clinician