Comparing alcohol screening and alcohol use disorder assessments completed at virtual and in-person primary care visits

Dane Patey[1], Katherine Bradley MD MPH[2], Malia Oliver[2], Kevin Hallgren PhD[3]
[1]University of Washington School of Medicine
[2]Kaiser Permanente Washington Health Research Institute
[3]University of Washington Department Psychiatry and Behavioral Sciences

UW Medicine
UW SCHOOL OF MEDICINE

MedStAR

BACKGROUND

The prevalence of lifetime Alcohol Use Disorder (AUD) among adults in the United States is 29.1%, representing over 68 million people in both rural and urban populations[1]. Of those who are diagnosed with AUD, as few as 7.8% may be receiving treatment[2].

Most people utilize primary care services. Screening for high-risk drinking in primary care and assessing AUD symptoms when patients screen positive for high-risk drinking can potentially increase detection, diagnosis, and treatment of AUD.

The COVID-19 pandemic necessitated a rapid transition to virtual care, including virtual primary visits, virtual screening for unhealthy or high-risk drinking, and virtual assessment of AUD symptoms.

The aim of this study is to characterize rates of alcohol screening, assessment of AUD symptoms, and diagnosis of AUD for patients who attended virtual and in-person primary care visits during the time when virtual care alcohol-related screening and assessment processes were established at a large primary care organization in western Washington.

METHODS

Study Design

Cross Sectional study with electronic health record (EHR) data from Kaiser Permanente (KP) Washington.

Study Sample

KP Washington patients with visits between Sept 2020 and July 2021, where the patient was 18+ years old and had not already completed an alcohol screening within the past year.
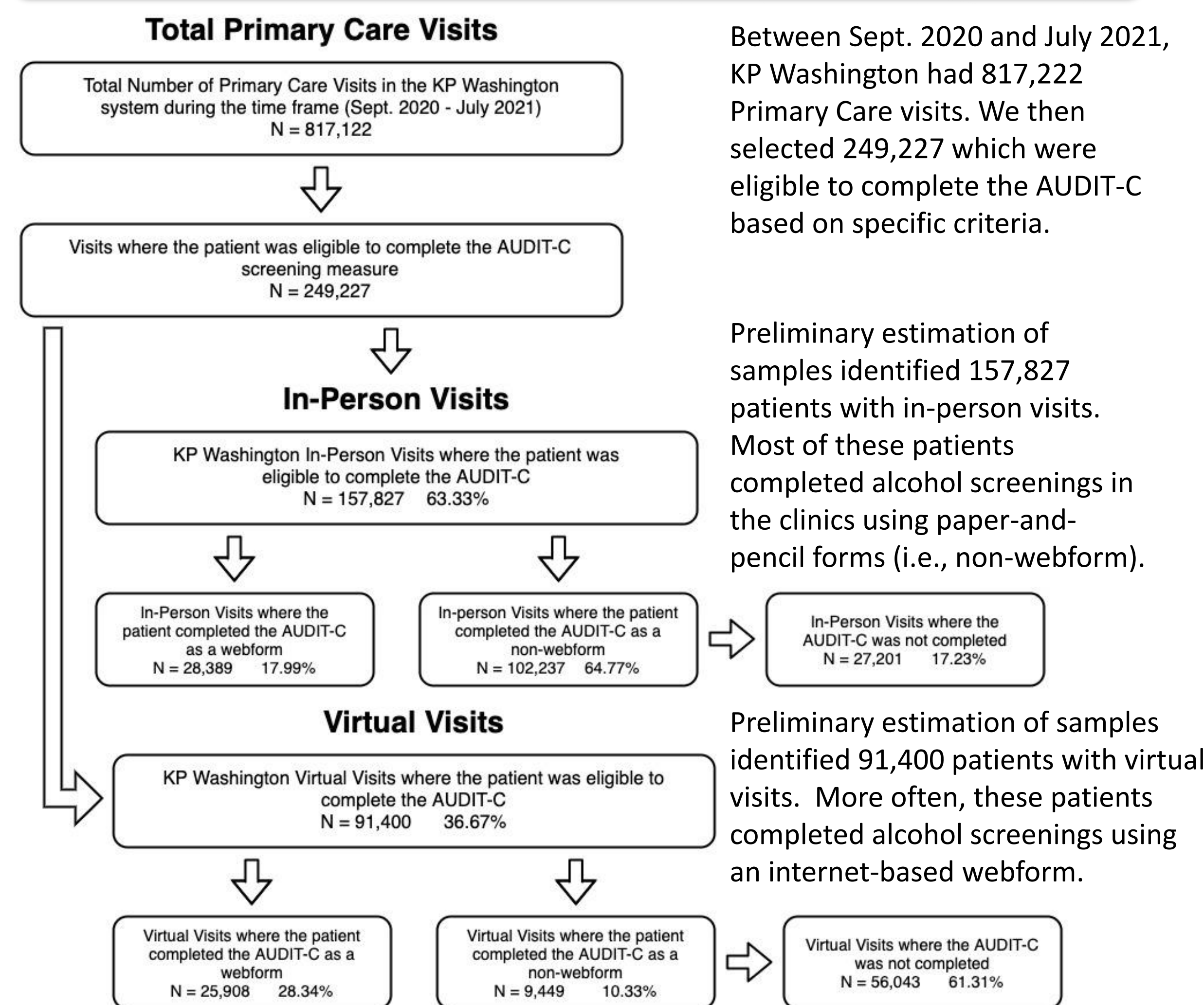
Measures

Visits completed by telehealth or in-person, AUDIT-C alcohol screens completed virtually or in-person, Alcohol Symptom Checklists (ASC) completed virtually or in-person, and a new diagnosis of AUD made by a provider at the visit linked with the AUDIT-C or ASC.

Analysis Plan

A flow diagram is being developed to characterize the number and percentage of patients who completed the following steps at virtual and in-person primary care visits: (1) eligible to complete alcohol screening, (2) completed alcohol screening, (3) high-risk drinking reported on alcohol screening, (4) completed Alcohol Symptom Checklist, (5) reported 2+ AUD symptoms on Alcohol Symptom Checklist, and (6) diagnosed with AUD by a healthcare provider.

PRELIMINARY RESULTS

Total Primary Care Visits

Total Number of Primary Care Visits in the KP Washington system during the time frame (Sept. 2020 - July 2021)
N = 817,122

Visits where the patient was eligible to complete the AUDIT-C screening measure
N = 249,227

In-Person Visits

KP Washington In-Person Visits where the patient was eligible to complete the AUDIT-C
N = 157,827   63.33%

In-Person Visits where the patient completed the AUDIT-C as a webform
N = 28,389   17.99%

In-person Visits where the patient completed the AUDIT-C as a non-webform
N = 102,237   64.77%

In-Person Visits where the AUDIT-C was not completed
N = 27,201   17.23%

Virtual Visits

KP Washington Virtual Visits where the patient was eligible to complete the AUDIT-C
N = 91,400   36.67%

Virtual Visits where the patient completed the AUDIT-C as a webform
N = 25,908   28.34%

Virtual Visits where the patient completed the AUDIT-C as a non-webform
N = 9,449   10.33%

Virtual Visits where the AUDIT-C was not completed
N = 56,043   61.31%

Between Sept. 2020 and July 2021, KP Washington had 817,222 Primary Care visits. We then selected 249,227 which were eligible to complete the AUDIT-C based on specific criteria.

Preliminary estimation of samples identified 157,827 patients with in-person visits. Most of these patients completed alcohol screenings in the clinics using paper-and-pencil forms (i.e., non-webform).

Preliminary estimation of samples identified 91,400 patients with virtual visits. More often, these patients completed alcohol screenings using an internet-based webform.

RESULTS FORTHCOMING

Planned analyses will identify the number and percentage of patients who obtained the following outcomes, both for in-person and virtual visits:

	Visit Type			
	In-Person Visit		Virtual Visit	
Screened Positive for high-risk drinking	n/N	(%)	n/N	(%)
Completed the ASC	n/N	(%)	n/N	(%)
Had 2+ symptoms on the ASC	n/N	(%)	n/N	(%)
Confirmed AUD diagnosis	n/N	(%)	n/N	(%)
Screening Setting				
AUDIT-C screen in person	n/N	(%)	n/N	(%)
AUDIT-C screen via webform	n/N	(%)	n/N	(%)
AUDIT-C screen not completed	n/N	(%)	n/N	(%)

These outcomes will also be characterized within the four combinations of visit type and screening modality:
1. In-person visits with in-person screening
2. In-person visits with webform screening
3. Virtual visits with in-person screening
4. Virtual visits with webform screening.

DISCUSSION

Once analyses are completed, this research will help identify whether and where potential gaps exist in the cascade of screening for high-risk drinking, assessing AUD symptoms, and diagnosing AUD, both for telehealth visits and in-person visits.

The project draws strength from the large sample size and the data is taken from real world population-based sample giving the study high external validity. Additionally, the AUDIT-C is a widely used screening measure and there is an urgent need for research on telehealth-delivered AUD care.

Limitations in this study arise from the sample being confined to Washington State and the population might not be generalizable to more rural populations. Reasons for differences between virtual and in-person visits might not be readily apparent.

CONCLUSIONS

If gaps in care are identified, virtual and in-person screening and assessment procedures can be modified to improve alcohol- and AUD-related services for primary care patients.

ACKNOWLEDGEMENTS

REFERENCES

[1]Grant BF, Goldstein RB, Saha TD, Chou SP, Jung J, Zhang H, Pickering RP, Ruan WJ, Smith SM, Huang B, Hasin DS. Epidemiology of DSM-5 Alcohol Use Disorder: Results From the National Epidemiologic Survey on Alcohol and Related Conditions III. JAMA Psychiatry. 2015 Aug;72(8):757-66. doi: 10.1001/jamapsychiatry.2015.0584. PMID: 26039070; PMCID: PMC5240584.

[2]Hallgren KA, Witwer E, West I, Baldwin LM, Donovan D, Stuvek B, Keppel GA, Mollis B, Stephens KA. Prevalence of documented alcohol and opioid use disorder diagnoses and treatments in a regional primary care practice-based research network. J Subst Abuse Treat. 2020 Mar;110:18-27. doi: 10.1016/j.jsat.2019.11.008. Epub 2019 Nov 16. PMID: 31952624; PMCID: PMC7255441.

QR Scan for a virtual copy