



Telehealth & Digital Equity

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Telehealth

- *“Interactive healthcare over distance using telecommunication technology”*
 - Store & Forward (Imaging, EEGs, Echos)
 - Face-to-Face interactive
 - Remote Pt Monitoring
- Applications across Care Continuum
 - Inpatient/Outpatient
 - Asynchronous/Synchronous

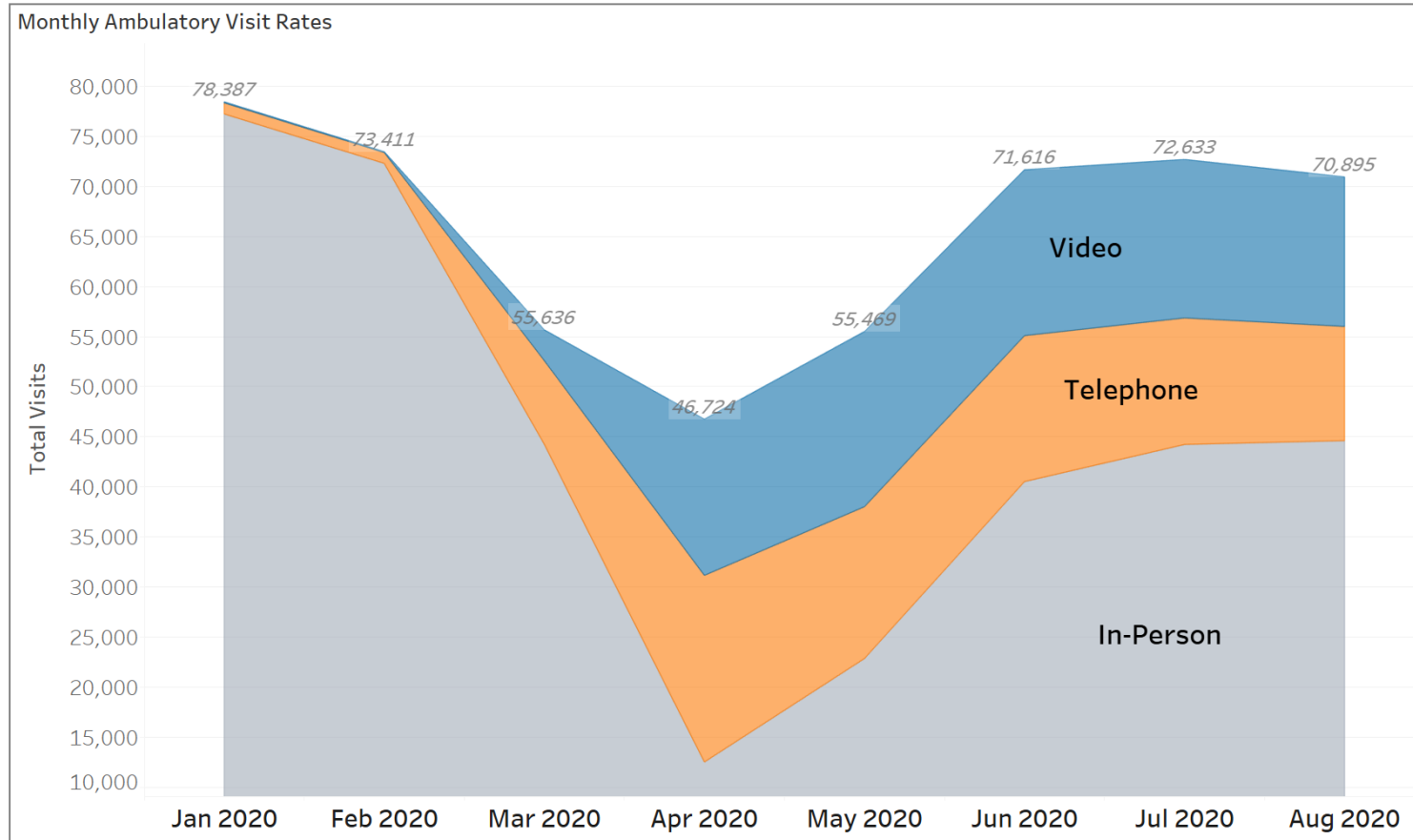


*“Diagnosis By Radio”
Science and Invention February 1925*

Telehealth is about increasing access to care,
regardless of geography & time constraints



SARS-CoV-2 Global Pandemic Impact on Healthcare Delivery Modality

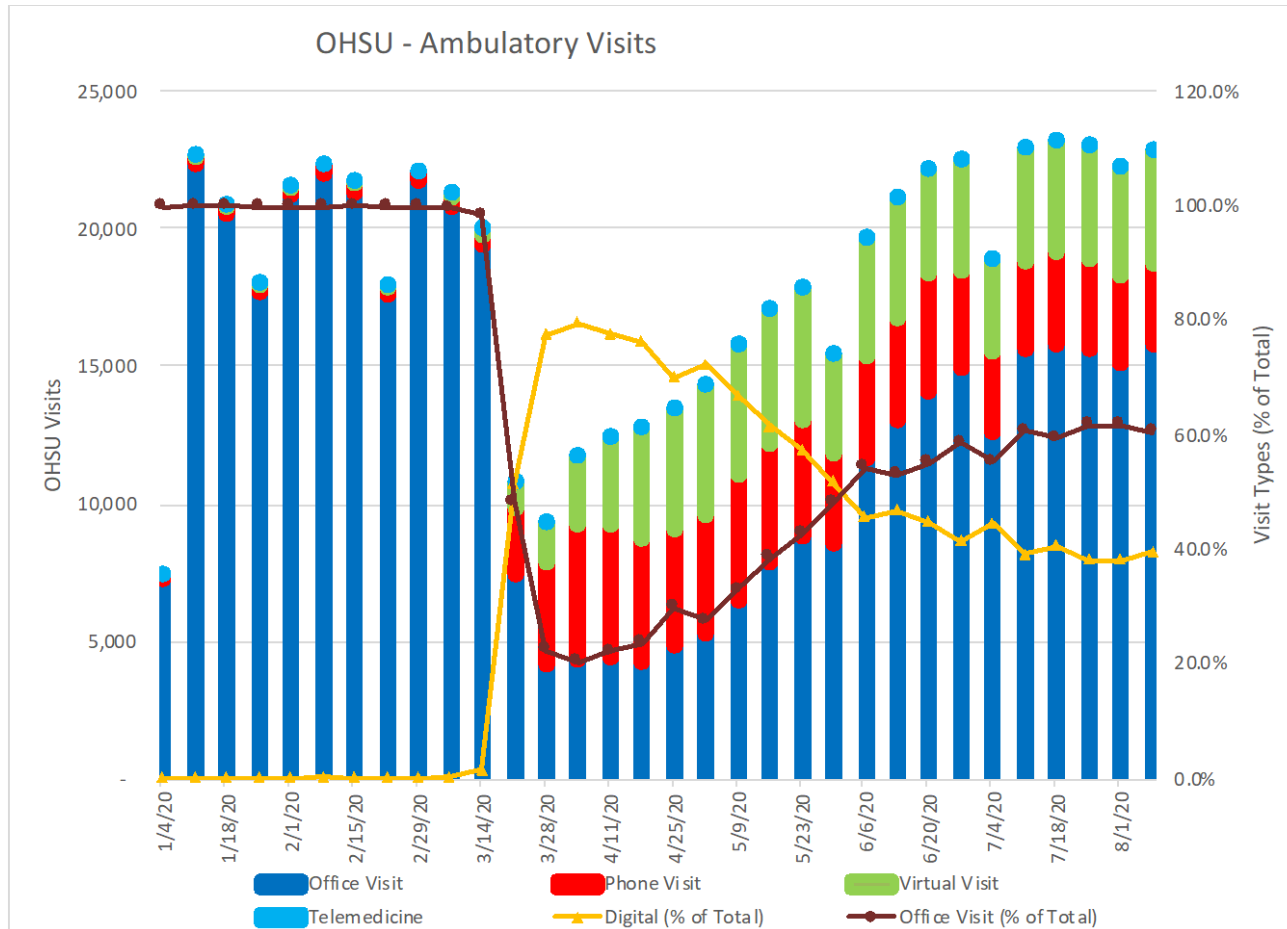


OHSU Ambulatory Visits



SARS-CoV-2 Global Pandemic

Impact on Healthcare Delivery Modality



OHSU Ambulatory Visits



Telehealth → Digital Divide

Telehealth is about increasing access to care,
regardless of geography & time constraints

“The Digital Divide” – term coined by Larry Irving (NTIA)
in 1990s

any uneven distribution in the

- access to
- use of
- impact of

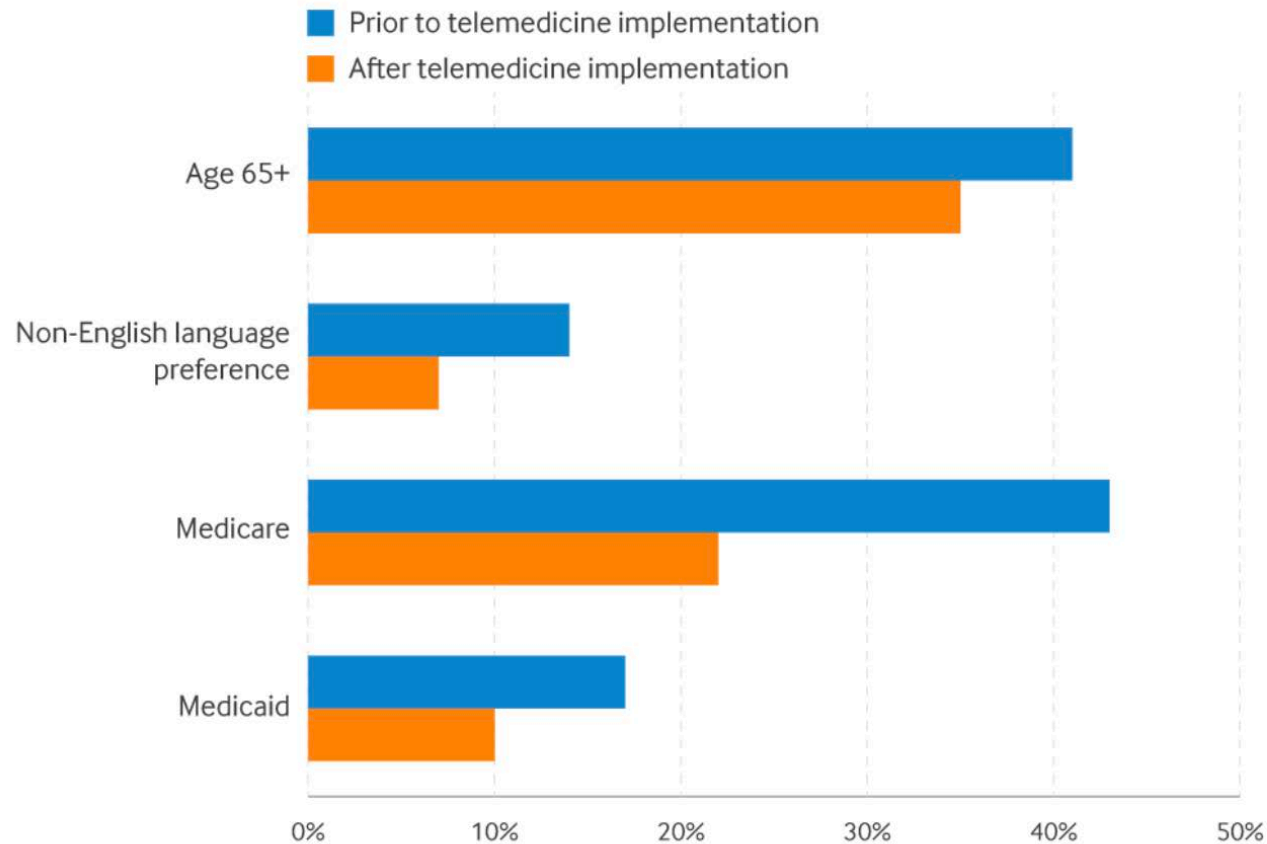
Information and Communication Technologies between any
number of distinct groups... based on social, geographical, or
geopolitical criteria, or otherwise





Patient Visits by Age, Language, and Insurance Before and After Telemedicine Scale-Up

This chart shows the proportion of patient visits seen by age, language preference, and insurance type prior to (2/17–2/28/2020) and after (3/23–4/3/2020) scaled-up telemedicine implementation to address the Covid-19 pandemic at the UCSF General Internal Medicine Primary Care Practice ($P=0.002$ for age ≥ 65 and $P<0.001$ for other comparisons). A significantly smaller proportion of visits after scaled-up telemedicine implementation were with vulnerable patients.

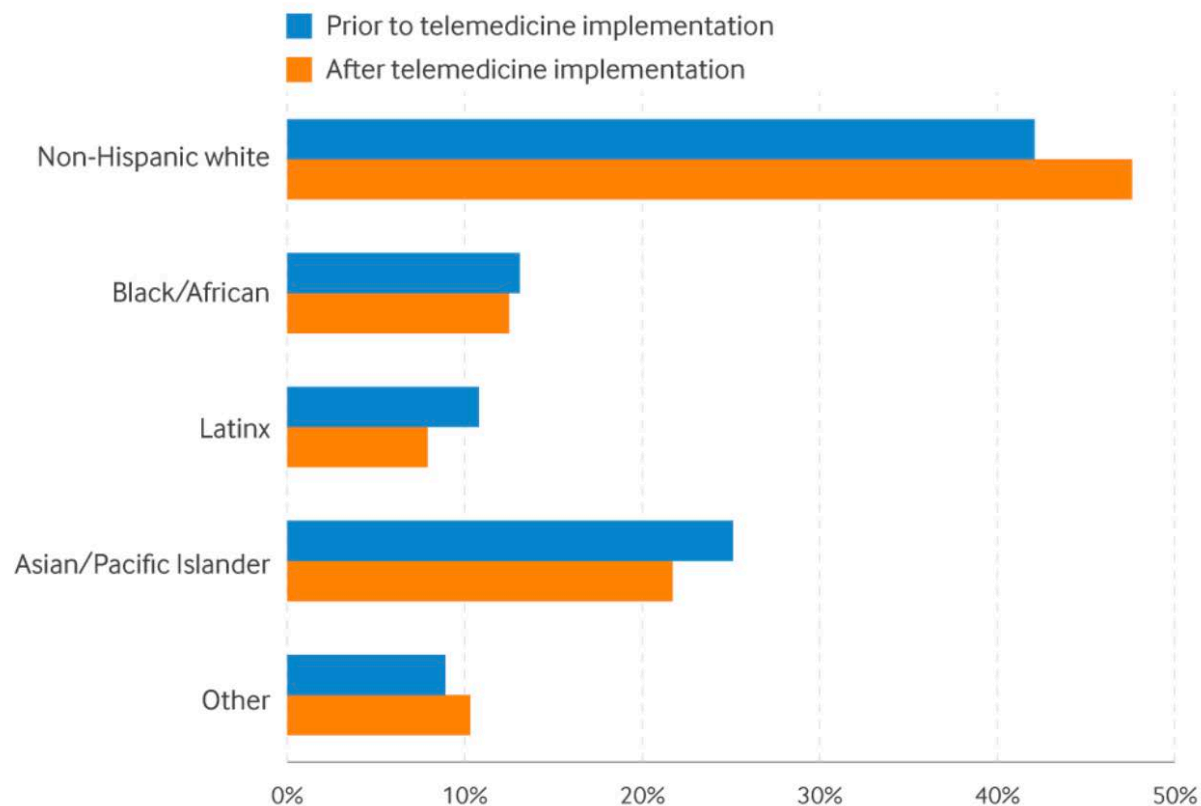


Nouri S, Khoong E, Lyles C, and Karliner L. Addressing Equity in Telemedicine for Chronic Disease Management During the COVID-19 Pandemic. *NEJM Catalyst*. <https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0123>



Patient Visits by Race/Ethnicity Before and After Telemedicine Scale-Up

This chart shows the proportion of patient visits seen by patient race/ethnicity prior to (2/17–2/28/2020) and after (3/23–4/3/2020) scaled-up telemedicine implementation to address the Covid-19 pandemic at the UCSF General Internal Medicine Primary Care Practice (P=0.006 using chi-squared test). A smaller proportion of visits with vulnerable populations occurred after implementation.



Nouri S, Khoong E, Lyles C, and Karliner L. Addressing Equity in Telemedicine for Chronic Disease Management During the COVID-19 Pandemic. *NEJM Catalyst*. <https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0123>

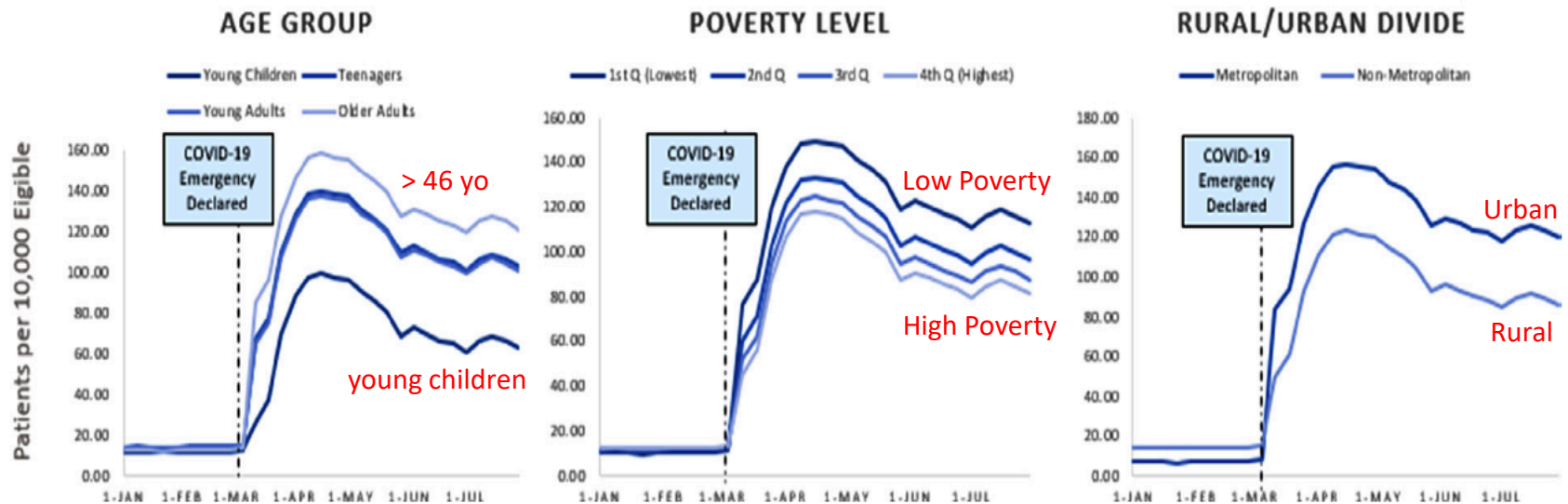


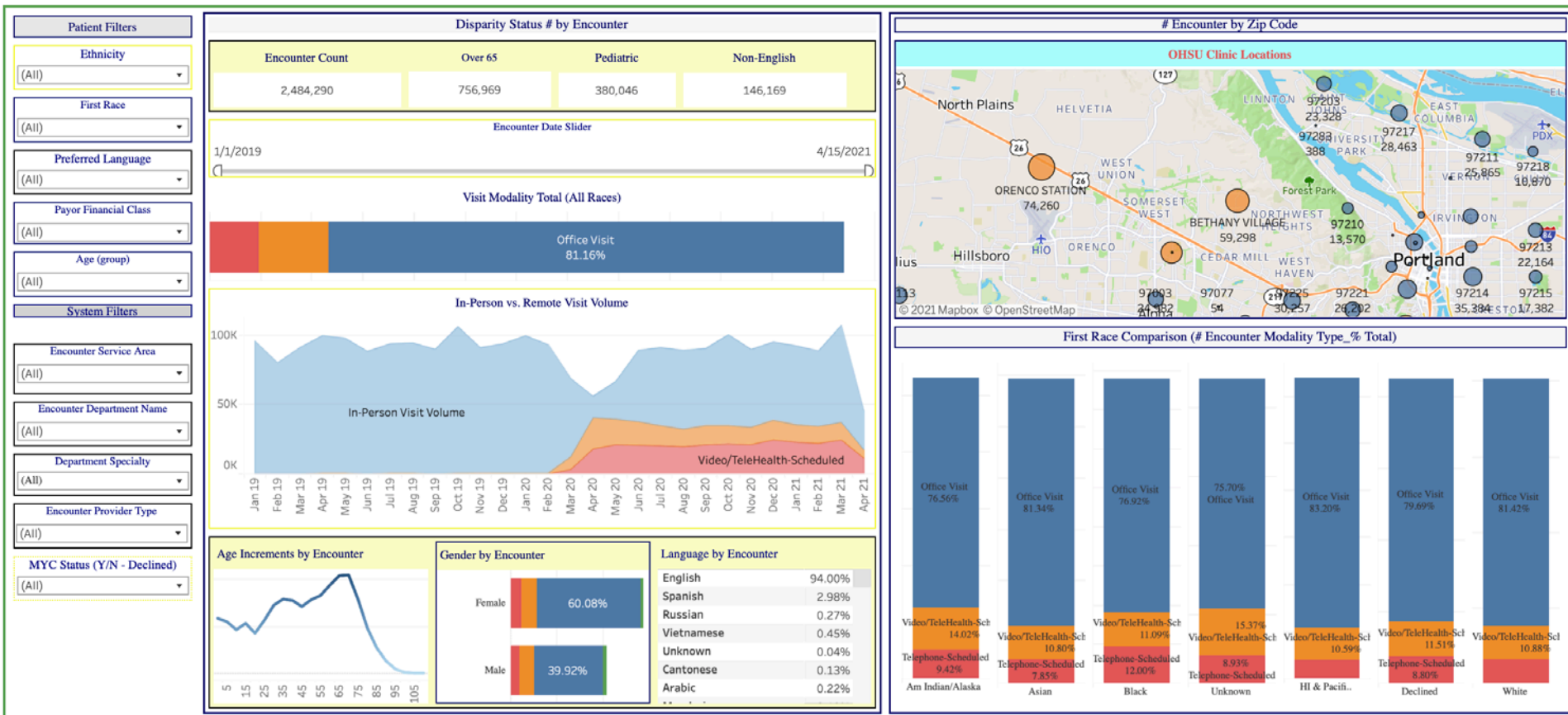
Figure 1. Adjusted rates of telemedicine utilization before versus that after the start of COVID-19 pandemic.

Cantor JH, McBain RK, Pera MF, Bravata DM, Whaley CM, Who Is (and Is Not) Receiving Telemedicine Care During the COVID-19 Pandemic, *American Journal of Preventative Medicine*. <https://doi.org/10.1016/j.amepre.2021.01.030>

OHSU Disparity Analysis

Disparity Analysis at OHSU Health System: Patient Encounter

This dashboard presents patients who have been seen at an OHSU & HMC clinic within since Jan 01, 2019 based on demographics including # patient encounters.

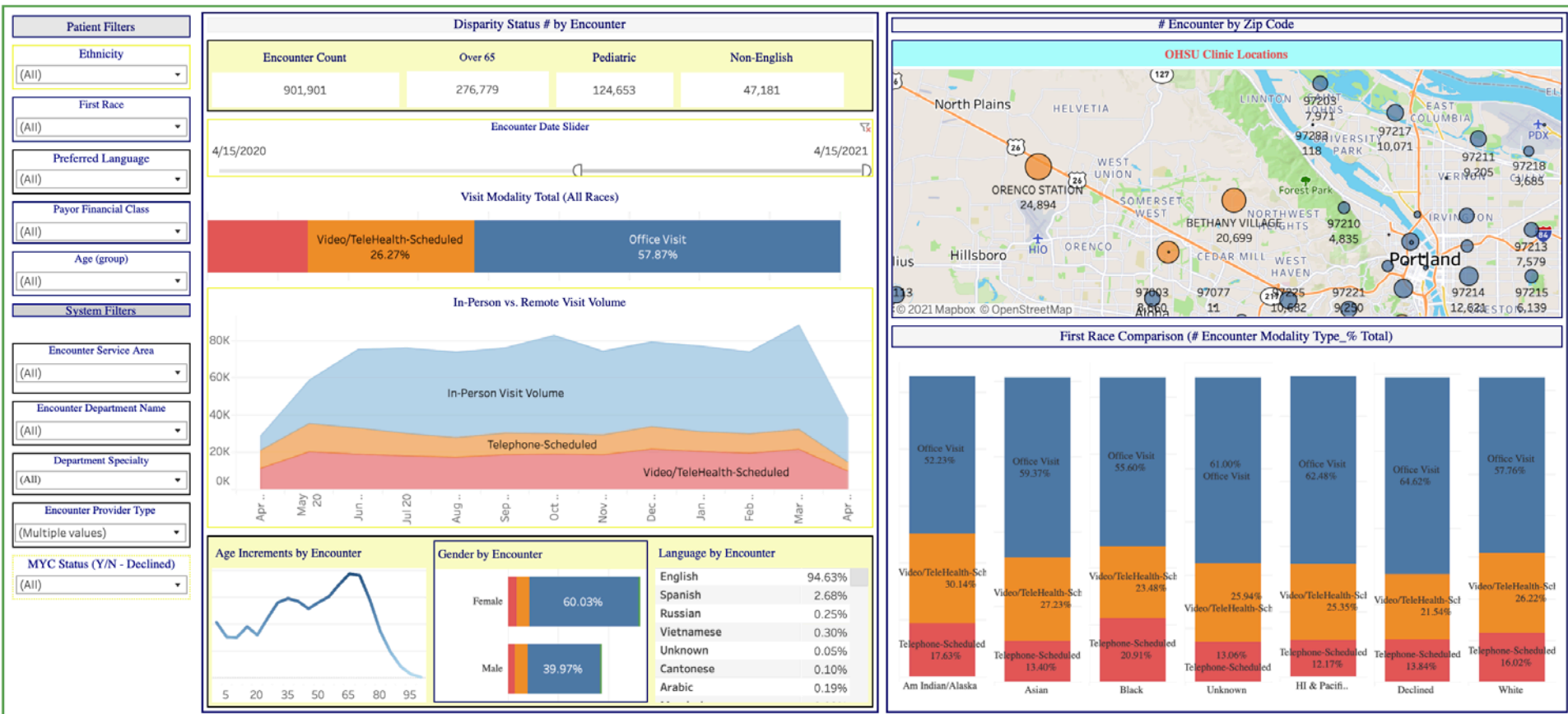


Acknowledgements: Jeffrey Gold MD, Wade Anderson, Lindsay Stutheit, Kindra Jordan

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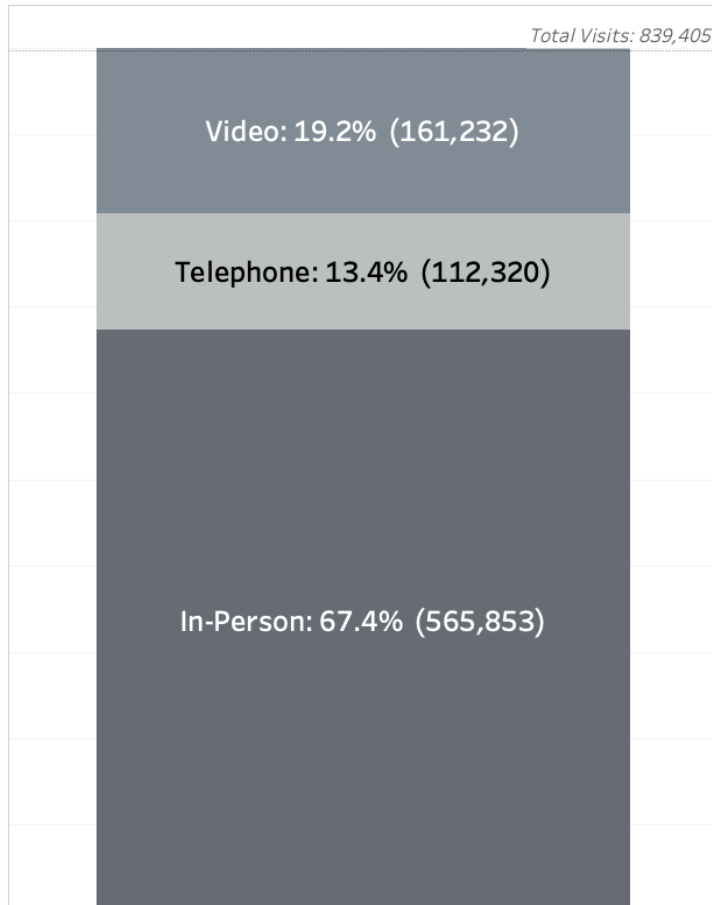


OHSU Disparity Analysis

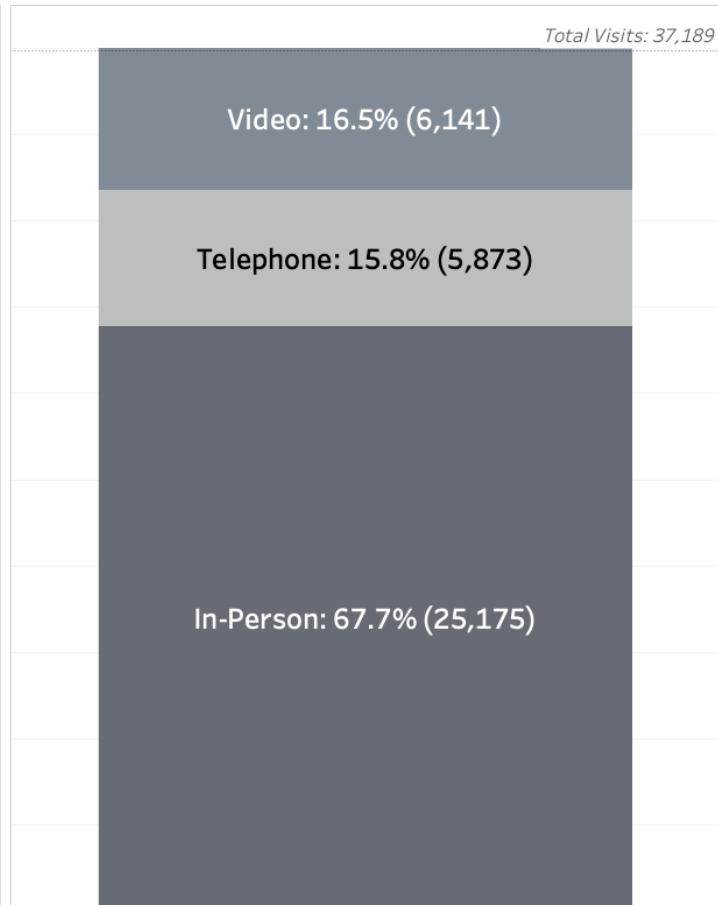
Compare Visit Type Utilization Post-Covid

Dates: 4/15/2020 to 4/15/2021

White Non-Hispanic



Black





OHSU Disparity Analysis

Compare Visit Type Utilization Post-Covid

Dates: 4/15/2020 to 4/15/2021

All

65+ yrs

Total Visits: 1,184,462

Total Visits: 315,761

Video: 18.5% (219,439)

Video: 10.3% (32,593)

Telephone: 13.1% (155,118)

Telephone: 16.4% (51,681)

In-Person: 68.4% (809,905)

In-Person: 73.3% (231,487)



Digital Inclusion

- Identify patients groups at risk
 - Older adults
 - Lower Socioeconomic Status
 - Limited Health Literacy
 - Limited English Proficiency
 - Racial/Ethnic Minorities
- Screen patients for needs
- Remove Health System Barriers
 - Offer video visits to every patient (offer telephone as alternative)
 - Ensure access to interpreters
 - Increase system leader awareness of barriers
 - Create a Digital Resource Guide



Digital Inclusion – 5 elements

1. Connectivity
2. Devices
3. Literacy training
4. Technical support
5. Applications /content to enable and encourage self-sufficiency, participation and collaboration

National Digital Inclusion Alliance - 2015



Digital Health Resource Guide

1. Patient Lacks Video Capable Smart Phone
2. Patient Lacks Personal Computer (PC) Or Laptop
3. Patient Lacks Internet And/Or Wi-fi At Home
4. Patient Has Device And Would Like Training On Digital Literacy

Acknowledgement to Adam Guffey & Hetal Choxi MD



Contact: Joel Cline, at 505.263.6364-143

WILEY-Blackwell



Future Considerations

Improve Screening for Patients in need

Expand Resource Guide statewide

Please share your local resources

Would this Resource Guide be a vision for the new
Oregon Broadband Office?

- Healthcare
- Beyond

