

The Disparity of Telemedicine Adoption During the COVID-19 Pandemic

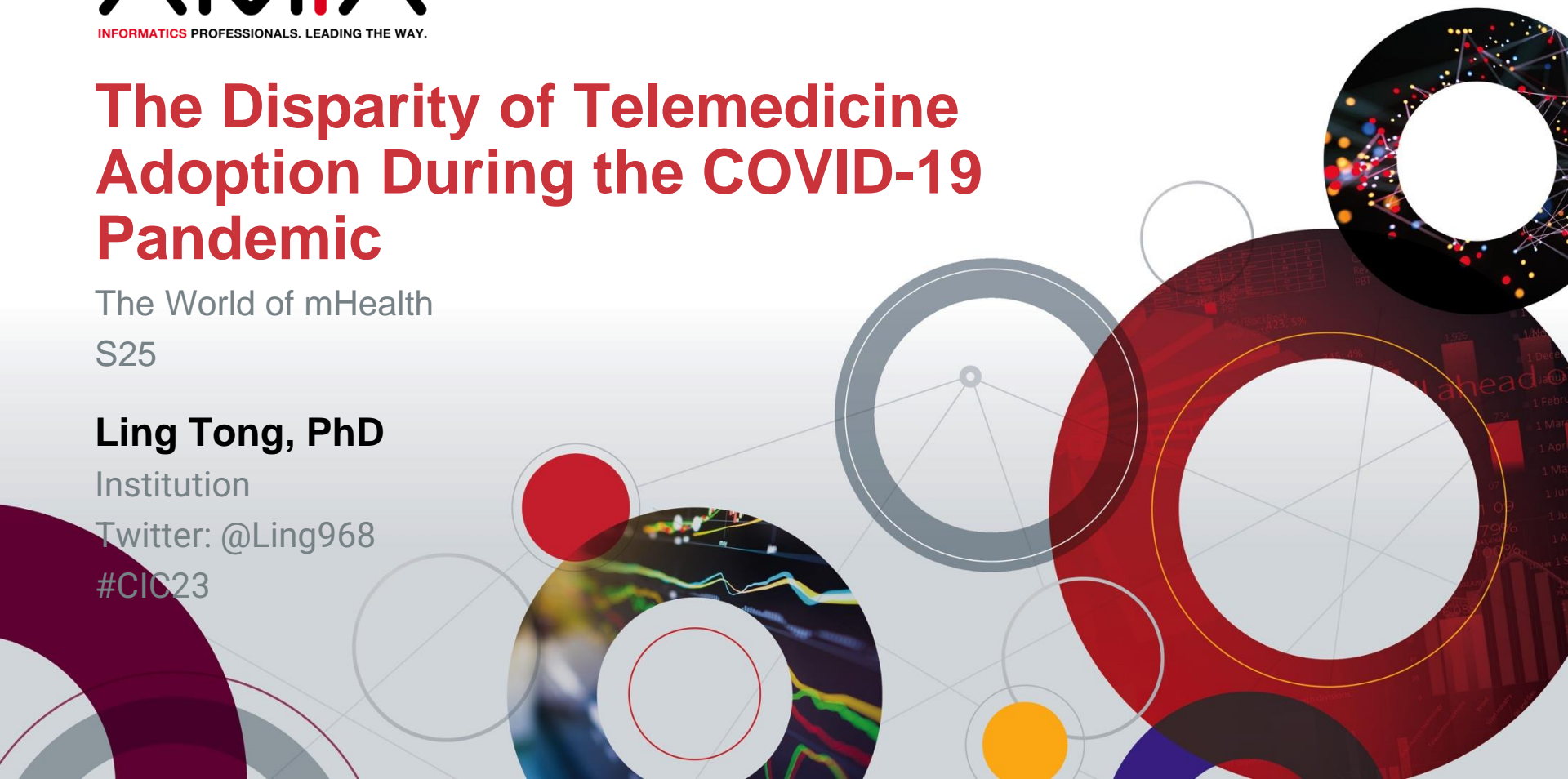
The World of mHealth
S25

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Disclosure

I have no relevant relationships with commercial interests to disclose.

Learning Objectives

After participating in this session, the learner should be better able to:

- Understand the digital divide
- Learn the gap between in-person and telemedicine care
- Examine healthcare disparity from a social determinant standpoint

- Telemedicine adoption rises under COVID-19 Pandemic.
- Telemedicine benefits:
 - Lower Cost
 - Efficiency, no need to visit in person
- Telemedicine was designed to expand the care.
- Does it really work for all populations?

Question

- What factors affect Telemedicine adoption?
- How to improve the care coverage?
- Observation: Racial minority and non-English speakers

Hypothesis

- Patients who are older are less likely to use telemedicine services
- Patients who are not insured
- Patient with lower income
- Patient living in rural area
- Patient who do not speak English...

Data Source

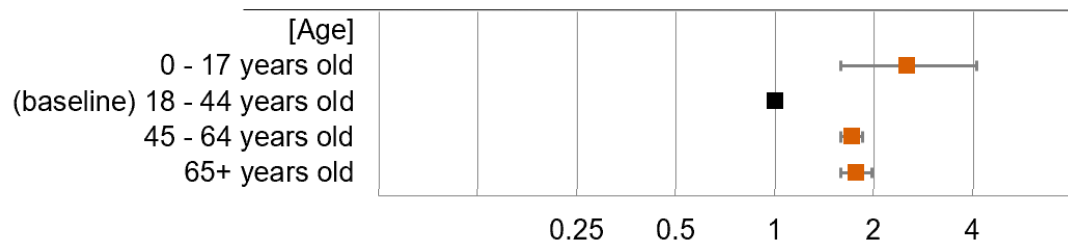
- Retrospective cohort study
- Froedtert hospital, Wisconsin
- Clinical Translational Science Institute,
- Time range: March 2020 – March 2022
- 2.3M patients

Social determinant factors

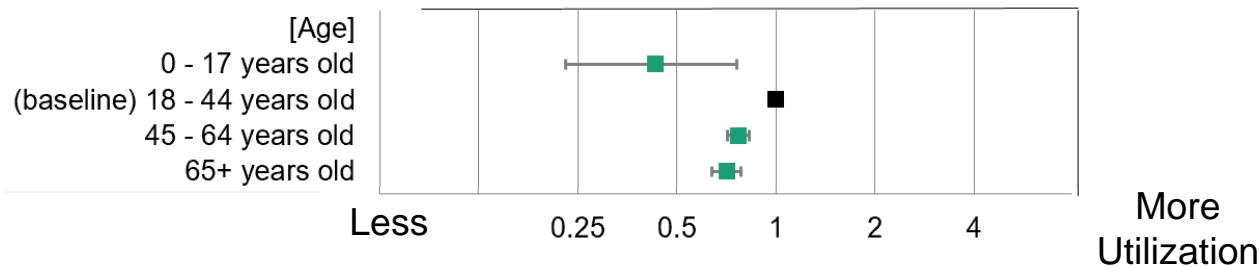
Social and Economic Factors	Data Source
Sex	Electronic Health Records
Race	Electronic Health Records
Age	Electronic Health Records
Ethnicity	Electronic Health Records
Insurance Status	Electronic Health Records
Language (English/Non-English)	Electronic Health Records
Area Deprivation Index	U.S. Census Bureau data
Rural-Urban Continuum Codes	U.S. Census Bureau data

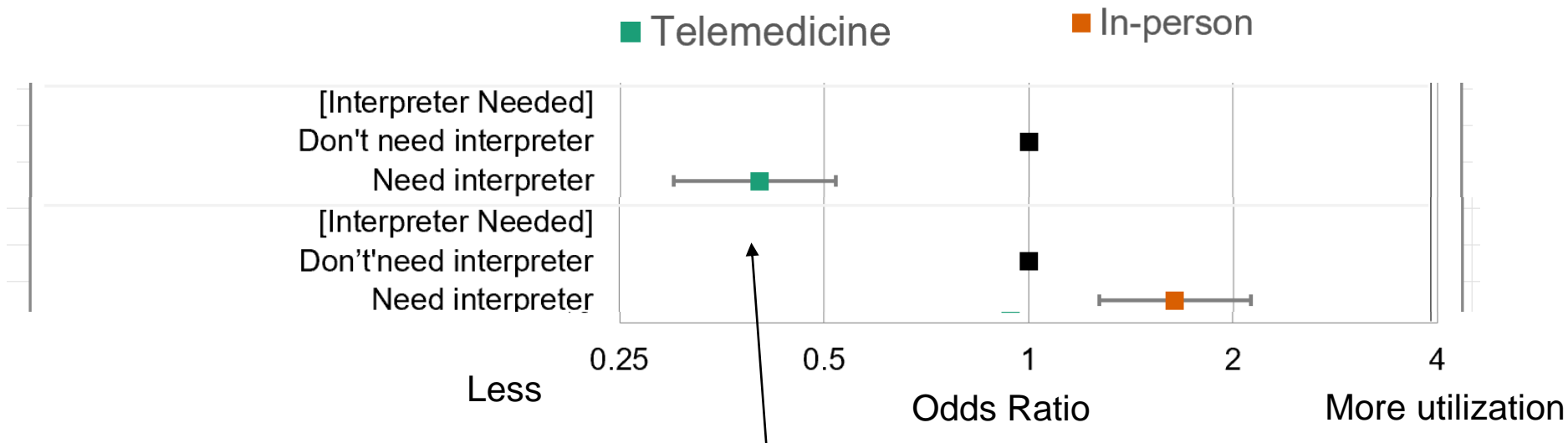
Odds Ratio

■ In person



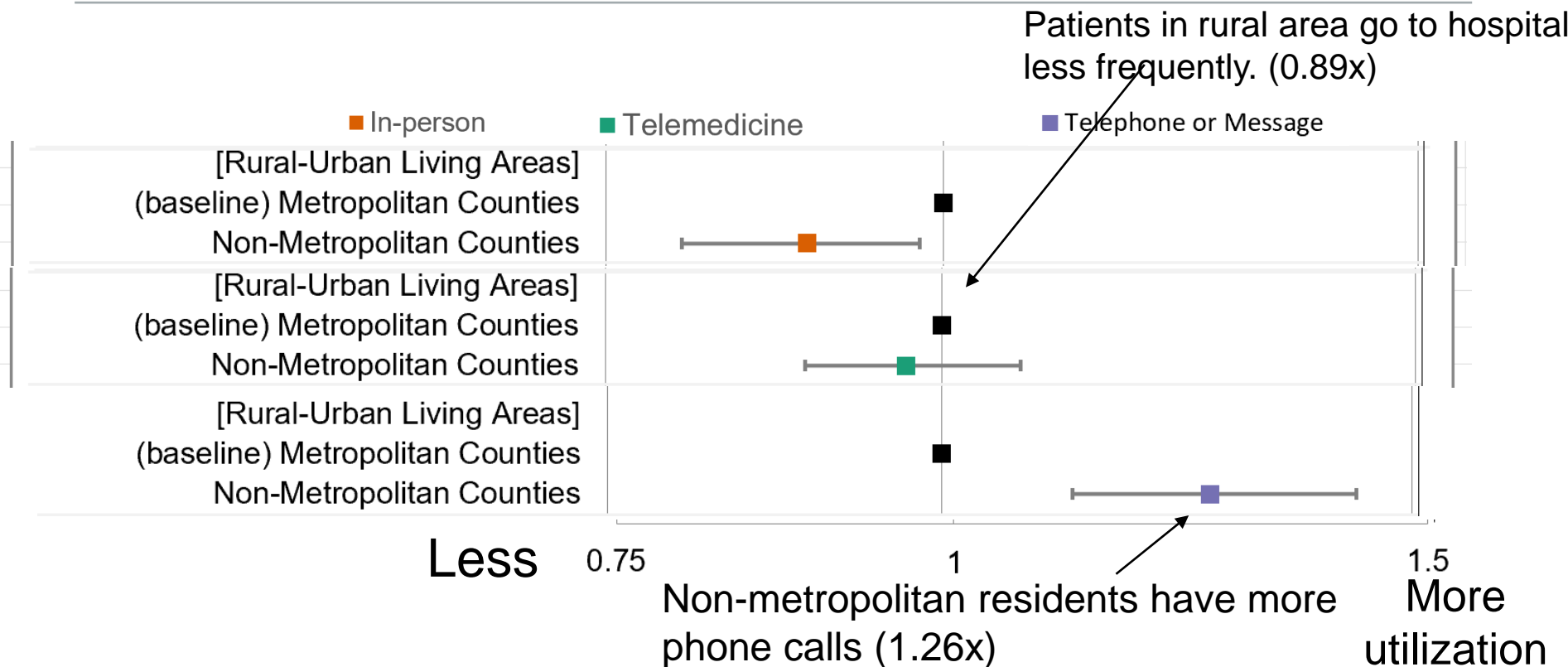
■ Telemedicine



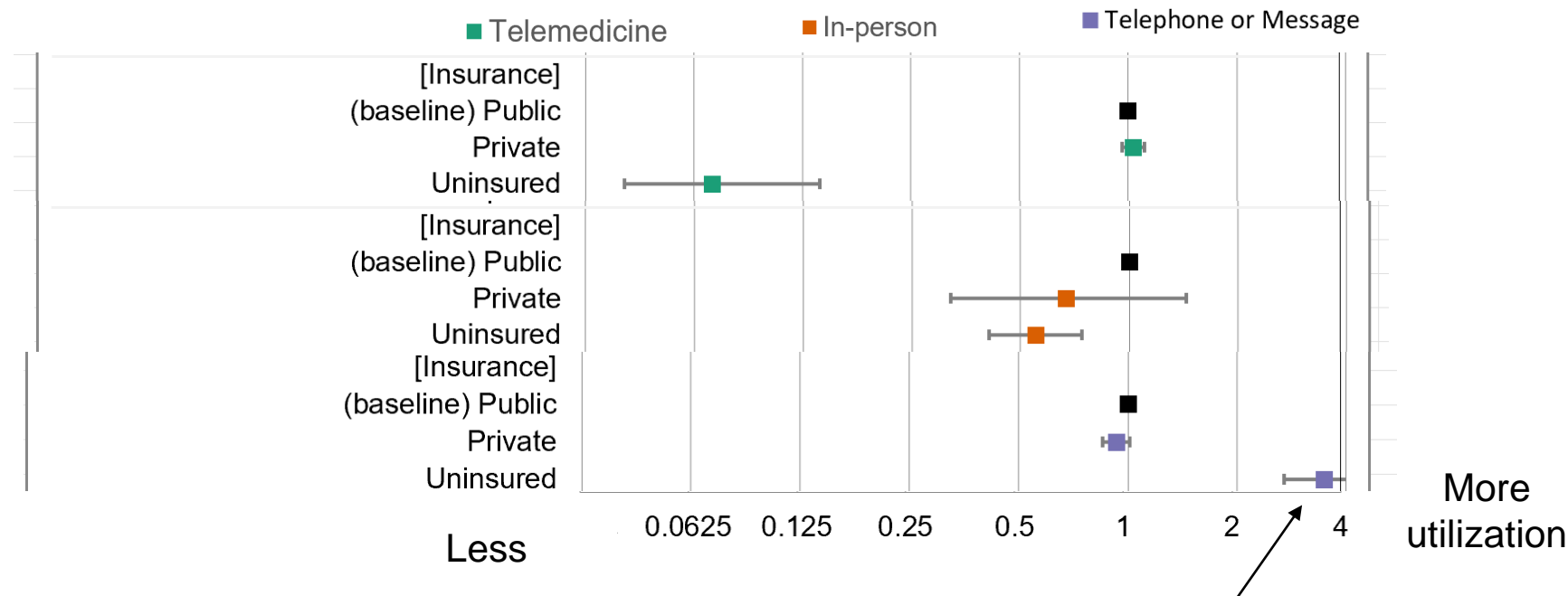


Patients who don't speak English are underserved population
(Telemedicine may not address their care needs
Due to Non-English speakers.)

Rural-urban Continuum Code



Insurance Type



Uninsured patients use 3.7 times more on calling/messaging for healthcare needs

Telemedicine Utilization Gap

Telemedicine exacerbated disparities in:

- People who do not speak English (with a 0.30 odds ratio compared to baseline)
- Older age (65y/o+, 0.89x)
- Rural residences (0.89x)
- Uninsured (0.07x)

- Tech:
 - Provide accessible platform for older adults
 - Use video remote interpreting technology:
- Financial Support
 - Availability of free digital devices and internet
 - Partnership with community organizations
- Clarify the role of telemedicine
 - Only use for initial consultations
 - Encourage in-person visit hereafter

Conclusion

- Telemedicine: an under-used service have potentials and gaps
- Minority socioeconomic groups: Unequal utilization
- Systematic guideline is needed.

Thank you!

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