Exploring the Use of Eye-Tracking to Support Implementation Decision Making: An Intervention Case Study

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Background

INTERVENTIONS IN HEALTH SYSTEMS
- Multicomponent strategies can be expensive and difficult to implement and sustain

EYE TRACKING
- Wearable technology that measures and records eye movements
- Eye movement data is used to assess visual focus and serves as an indicator for the wearer's cognitive attention

Eye tracking is a versatile data collection tool for assessing user behavior

Implications for D&I

- For intervention success, it is critical to identify which components are most effective and why
- Examining intervention success and user behavior during implementation phases is crucial for long term sustainment
- Eye-tracking can identify how each intervention component influences user behavior by serving as a proxy for participant cognition and real-time decision-making

What do patients look at when navigating a healthcare setting?	What elements of Health IT do primary care prescribers and pharmacists look at in clinical practice?	What do older adults look at in a drug advertisement?
Natural Setting Patients completed an assigned task in a real pharmacy environment	*Near-Live Simulation* Providers interacted with a mock EHR and standardized patient	*Dynamic Stimuli* Older adults viewed a televised medication advertisement
Examine how older adults interact with a community pharmacy redesign promoting safer over-the-counter medication selection	Examine how healthcare professionals use a novel electronic health record functionality, RxFill	Examine which components of a direct-to-consumer television advertisement are most visually salient to older adults

PARTICIPATION
- Participants wore Tobii Pro Glasses 2 and carried a battery pack throughout the pharmacy
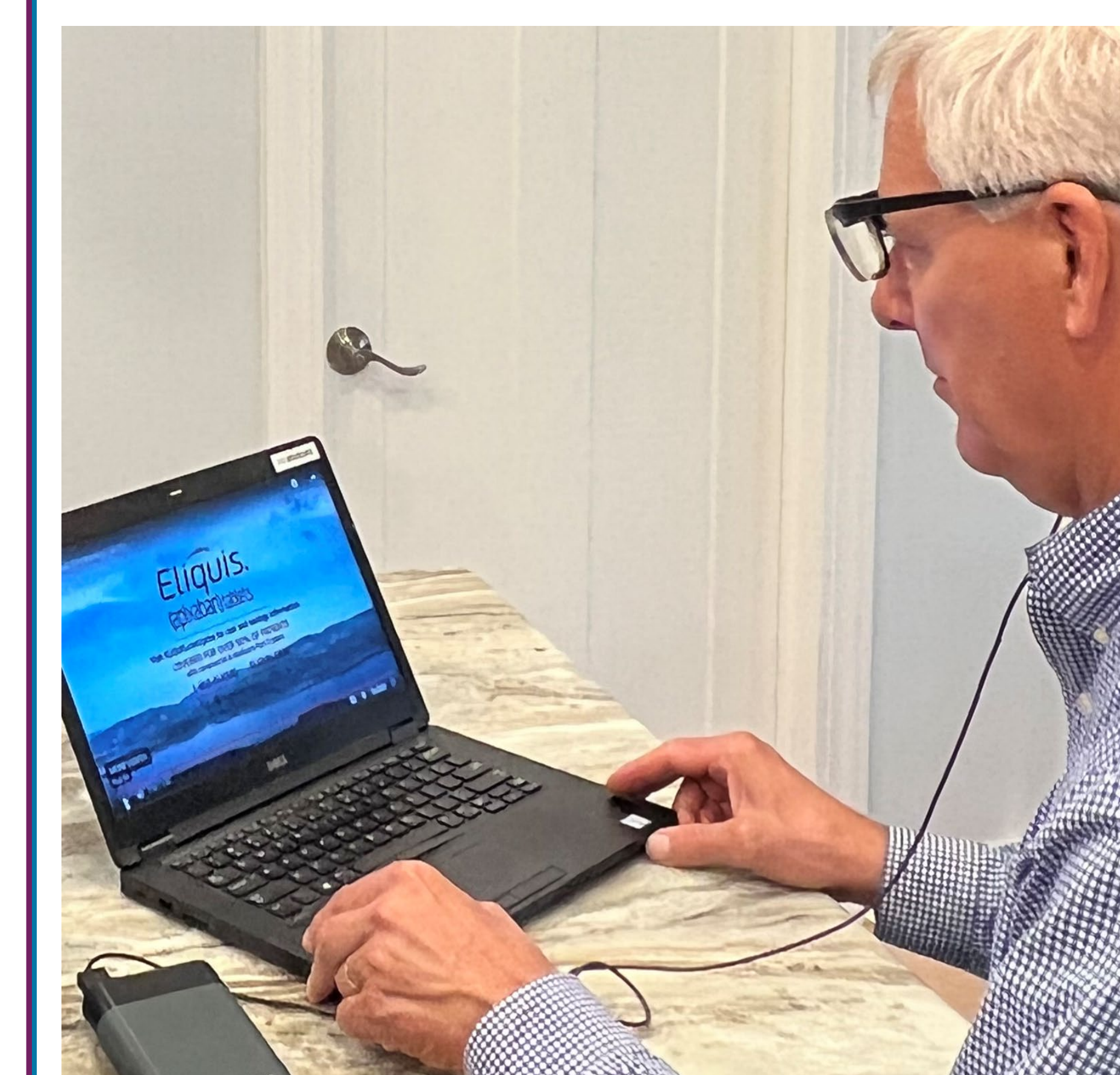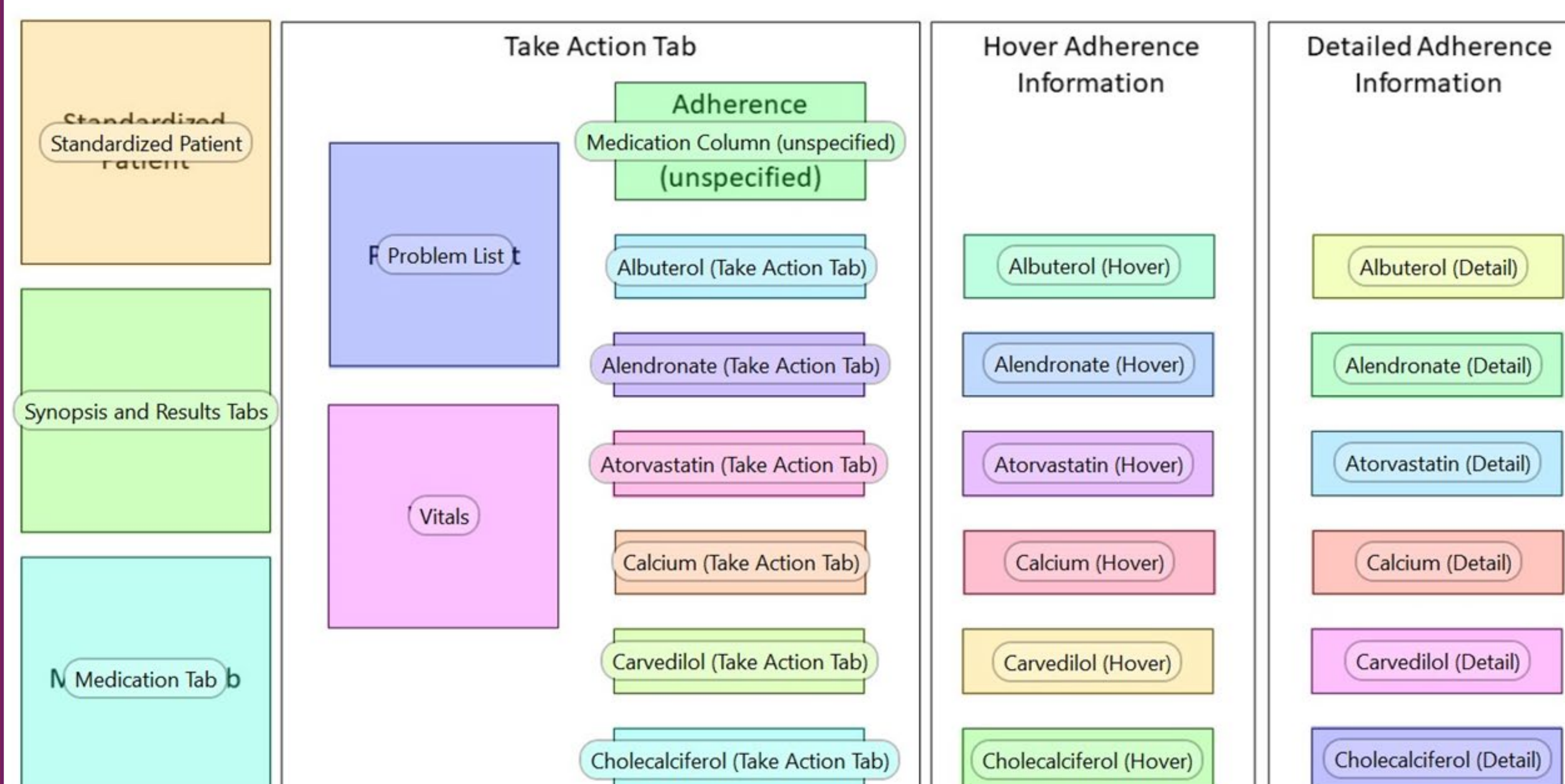- Independence in the store helped minimize researcher influence

ANALYSIS
- Areas of Interest (AOIs) were drawn onto images from each pharmacy
- AOIs captured OTC categories based on safety designation and shelf height placement
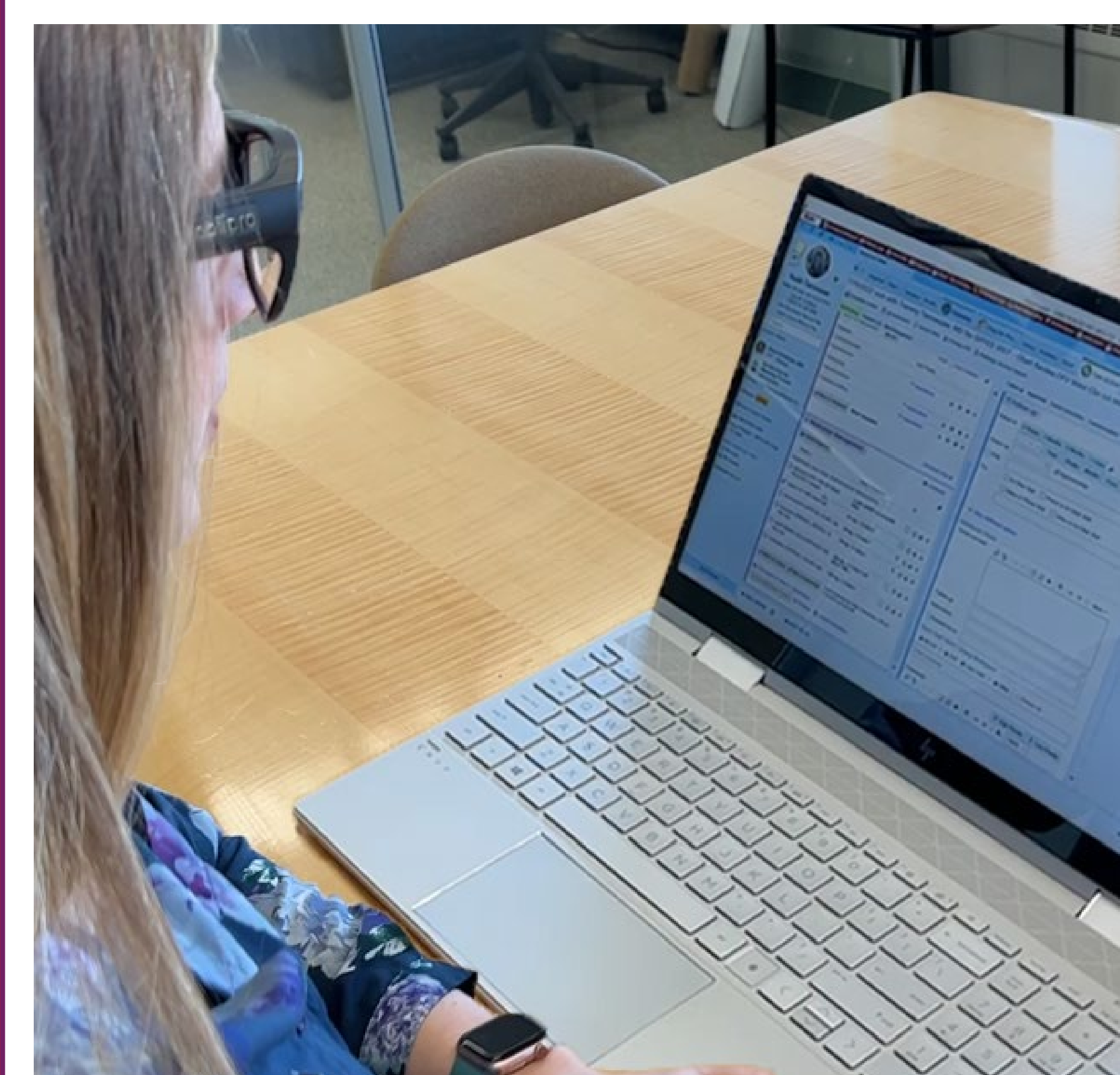
PARTICIPATION
- Participants wore Tobii Pro Glasses 3 during a standardized patient medication review
- Eye tracking captured nuanced searching behaviors within EHR that providers may not articulate in a think-aloud

ANALYSIS
- Schematic diagrams were developed representing EHR and RxFill components for consistent fixation mapping
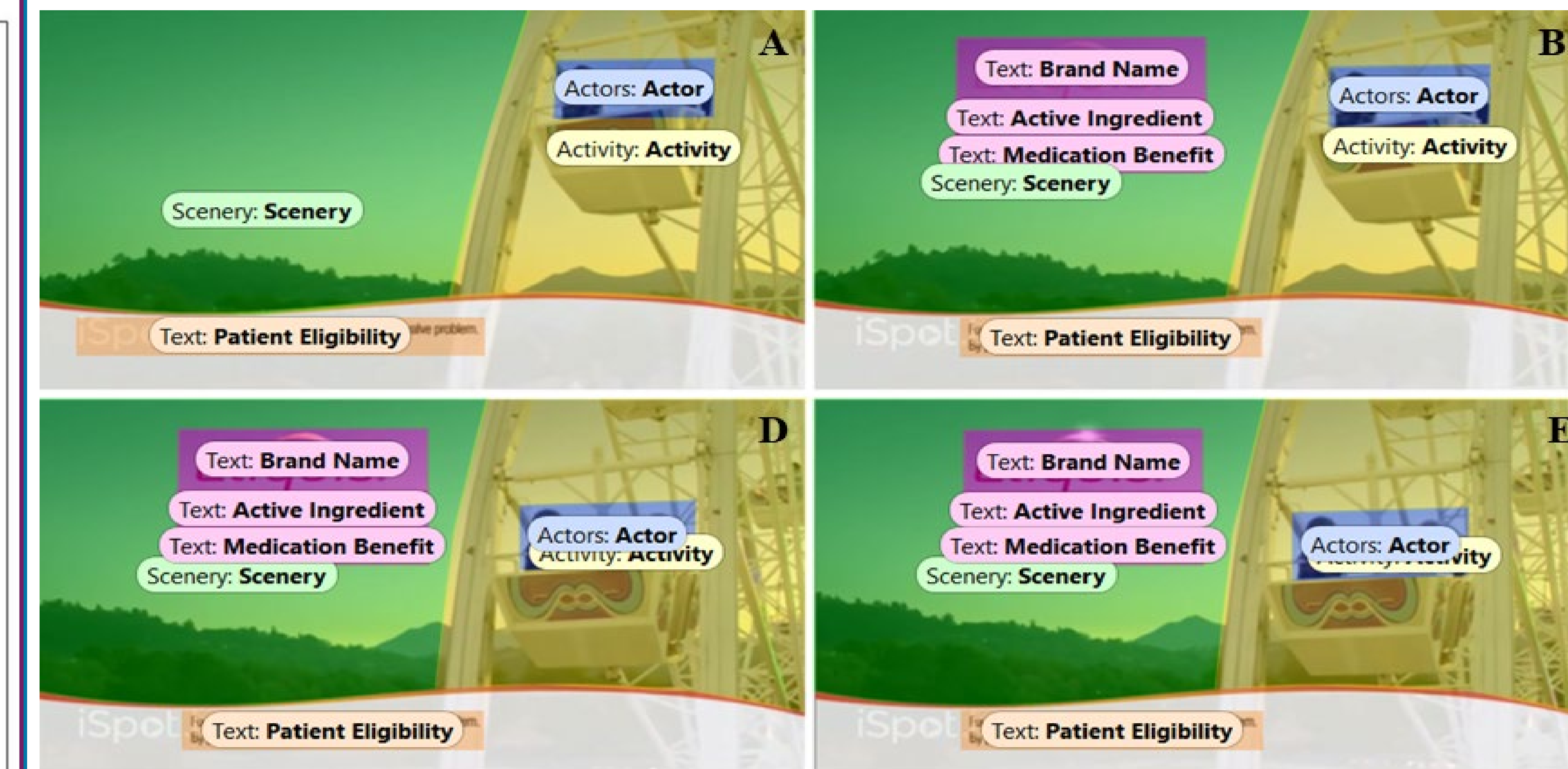

PARTICIPATION
- Participants wore Tobii Pro Glasses 2 while watching a medication advertisement
- Eye tracking captures gaze behaviors during fast-paced stimuli

ANALYSIS
- 'Dynamic' AOIs drawn onto video advertisement and changed position with each frame