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Background

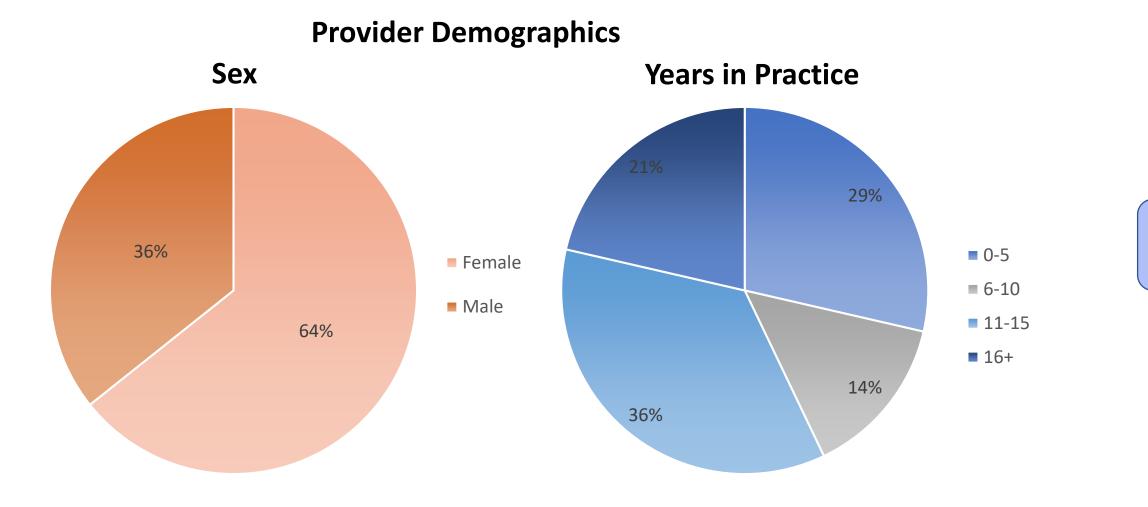
- Time on electronic health records (EHR) affects the quality of life of primary care providers (PCPs)
- Family physicians spend 5.9 hours on EHRs per workday
- Workload is increasing and professional satisfaction may be decreasing as PCPs spend more time on non face-toface patient care activities including InBasket tasks
- Understanding PCP workload by EHR task is critical in helping clinicians achieve the Quadruple Aim

Objective

- Directly observe PCPs in family medicine (FM) and general internal medicine (GIM) to assess time and usage patterns of EHR InBasket management
- Categorize EHR direct observations by InBasket task to make future correlations to EHR user action log data

Design and Setting

- Participants included 14 PCPs from FM (n=7) and GIM (n=7) clinics at UW Health in Madison, WI
- Observational time motion study, summer 2019
- Each PCP was observed for one half-day clinic session with focus on EHR InBasket management
- Common InBasket events were defined by 2 PCPs and built into WorkStudy+ App on iPad for tracking



Assessment of PCP InBasket Burden Using Direct Observation Time Motion Study Rutvi Shah¹; Mark Micek, MD MPH^{2,4}; Wen-Jan Tuan, MS MPH³; Brian Arndt, MD^{3,4}

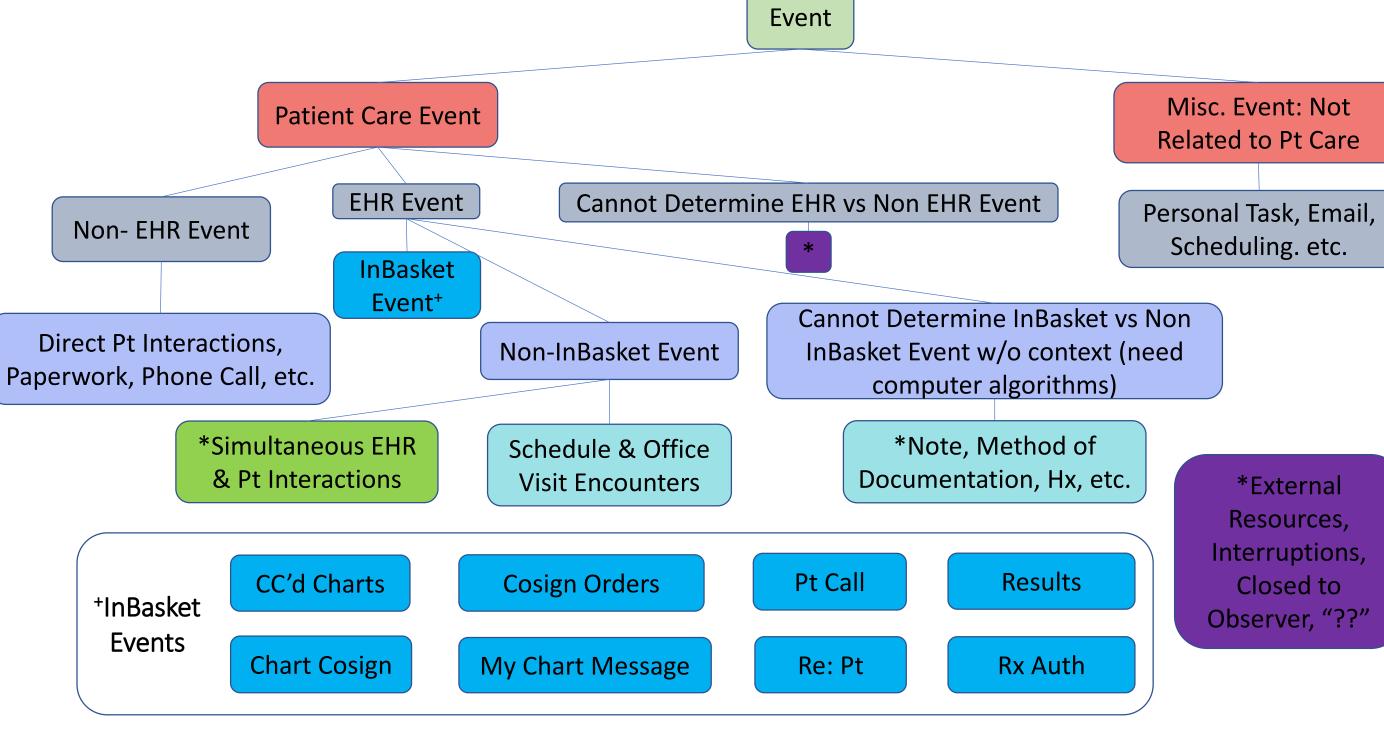
Data Collection

A medical student observed PCPs using WorkStudy+ App on an iPad to track time in InBasket tasks

Physician_iPad					
In pt room	Interruption	Create Telephone encounter	Re: pt	Imaging	Take action
??	Controlled meds auth	Canceled orders	Routing	Labs	WIR/ Health Maintenance
Admin/Misc pt care tasks	External resources	CCd charts	Rx auth	Letters	Order entry
Misc	Alert/ error message	Chart cosign	Staff message	Meds	Note
Schedule	Sign/approve/ accept click	Cosign clinic orders	Unsent letters	Mark as reviewed	Edit problem list/ FHx
Office visit encounter	Done	E-consults	Rooming	Update med/ prescription	Select/update pharm
New pt	Batch (done/sign/app rove)	MyChart Message	Care everywhere	Message intake	Dx association
Exit Screen	Quick action inbasket letter	MyChart reply	Chart Review	Open orders	Visit dx
Return to open pt	View inbasket	Pt call	Encounter	Order review	Schedule F/U
Pt chart search	Admit/ discharge visit	Pt unread messages	History	Problem list	Wrap Up/ Pt instructions
Smart Sets	Quick Note	Results	Snapshot	Release	Method of documentation
Security	Create encounter	Results action	Synopsis	Results review	<add></add>
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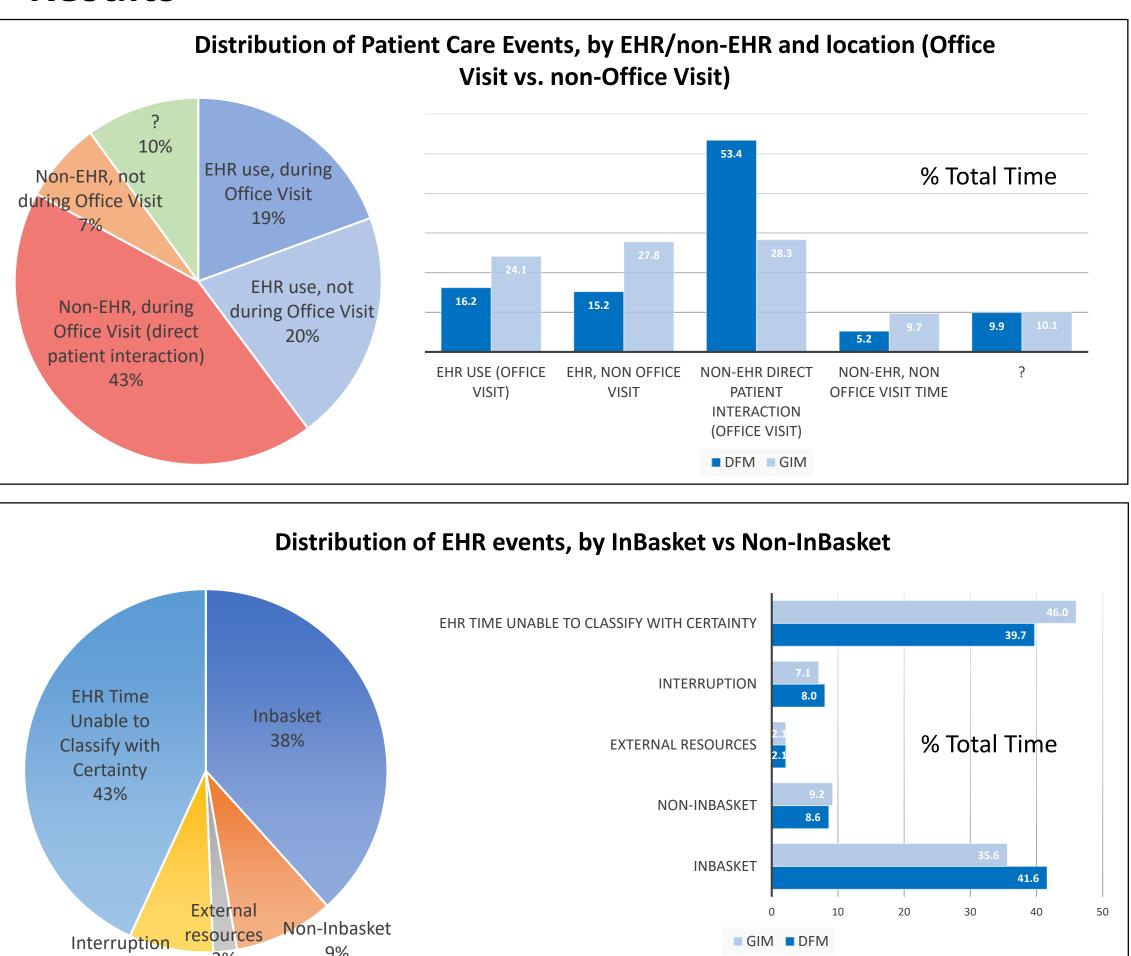
Classification of Events

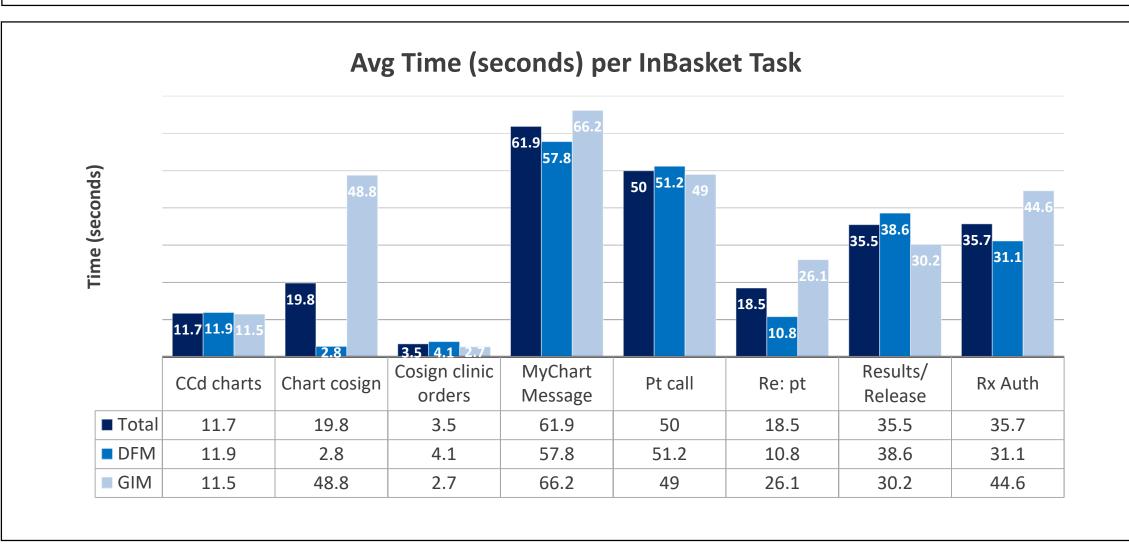
EHR time by InBasket task category was allocated with sequencing algorithms





Results





Conclusions

- PCPs spend substantial in-clinic time completing non face-toface tasks in the InBasket
- InBasket activities that take the most time per task include responding to MyChart messages and patient calls
- Because of the link between physician well-being and InBasket volume, workflow redesign is needed to reduce PCP's burden of InBasket tasks
- Further study is needed to assess concordance between direct observations and EHR user action log data



