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Primary Care Provider MyChart Patient Advice Request Message Gender-Specific Workload at the University of Vermont Health Network

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Female Providers Disproportionately Bear the Workload Burden Associated with Increased MyChart Patient Advice Request Messages

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Introduction

- MyChart messaging provides a **quick, easy, and asynchronous** method of patient-provider communication
- MyChart Messaging has:
 - replaced patient visits and follow-ups¹
 - improved the accessibility of primary care
 - Patients can reliably engage with their healthcare²
 - Patients and providers can communicate at their own convenience without the time-burden of an appointment¹
 - Increased provider workload:
 - Time spent messaging patients has low reimbursement³
 - High message volume associated with increased physician burnout⁴
 - Providers respond to patient messages in addition to their regular appointment⁵
- Female providers are more affected by an increased MyChart messaging workload than non-female providers
 - Increased workload increase female burnout rates⁶
 - Uncompensated workload exacerbates gender-based wage gap in primary care⁷

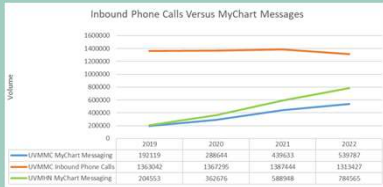


Figure 1: UVMHN experienced a 284% increase in MyChart Messages (+580,120) from 2019 and 2022.

Objective: Has the increased MyChart Messaging at UVMHN disproportionately affected female providers?

Methods



- Epic EHR signal data from:
- 89 non-female and 178 female providers
 - 27 UVMHN-Affiliated Primary Care Practices
- Patient Advice Request Message metrics analyzed in Excel
- Statistical significance at 0.05 level

Results

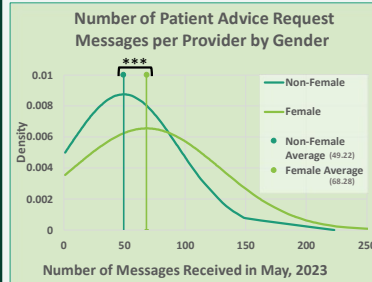


Figure 1: Patient Advice Request Messages received per Provider. Female providers received significantly more medical advice request messages than their non-female colleagues (p=0.005)

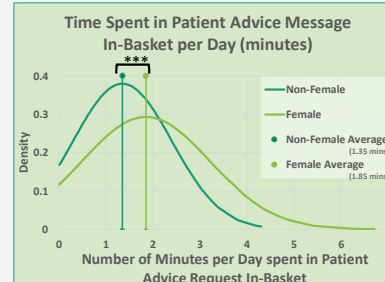


Figure 2: Time spent in Patient Advice Request message in-basket per provider. Female providers spent significantly more time in their in-basket working on medical questions than their non-female colleagues (p=0.006)

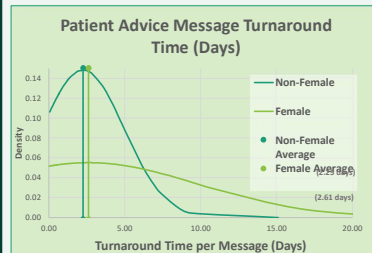


Figure 3: Response turnaround time to patient advice message requests. There was no difference between response times for female and non-female providers (p=0.68).

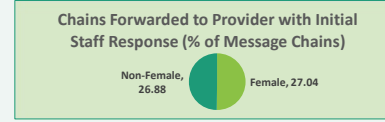
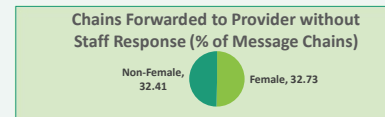


Figure 4 & 5: Staff workflow for patient advice messages. There is no difference in staff management of messages and how frequently they forward directly to providers (fig. 4; p=0.92) or respond to patients (fig. 5; p=0.95).

- Female providers received more patient medical advice request messages than non-female providers (p=0.005)
- Female providers spent more time in their patient advice request messages in-basket than non-female providers (p=0.006)
- Female and non-female providers had no difference in turnaround times for these messages (p=0.68)
- Staff workflow and treatment of messages does not differ between female and non-female providers

Table 1:	Metric	Mean (SD): Female Providers	Mean (SD): Non-Female Providers	Difference: p-value
	Patient Medical Advice Request Messages (# of messages per provider) (fig.1)*	68.28 (60.85)	49.22 (45.48)	p=0.005*
	Chains forwarded to provider without team response (% of all chains)	32.73 (24.70)	32.41 (23.21)	p=0.92
	Chains forwarded to provider WITH team response (% of all chains)	27.04 (18.72)	26.88 (16.93)	p=0.95
	Average length of chain (number of messages)	5.28 (1.41)	5.27 (1.58)	p=0.96
	Turnaround time (time in days)	2.61 (7.24)	2.25 (2.69)	p=0.68
	Time in Patient Medical Advice In Basket (time spent in min/day) (fig. 2) *	1.85 (1.36)	1.35 (1.05)	p=0.006*

Table 1 (upper right): Patient advice request message metrics by provider gender. Metrics were compared across gender. *statistically significant metrics (p<0.05).

Discussion

- Female-identifying providers receive significantly more patient medical advice question messages and have an increased message workload than their male colleagues
 - Messages are treated the same by staff regardless of provider gender indicating a similar workflow across provider teams regardless of provider gender
- Next Steps**
- Further analysis should include providers' patient demographics to identify any correlations between higher message load and patient panels as seen in other clinics¹
 - Dedicated paid staff to answer patient messages could reduce providers' workload
 - Managing patient expectations around messages and implementing best-use guidelines could help alleviate the unpaid workload associated with the high message volume

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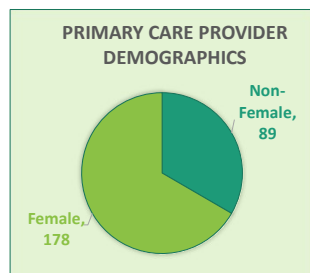


Figure 6 (left): Primary care providers who received a patient medical advice request in May 2023 demographics self-identified by pronoun use.