



A crowdsourced campaign in IT optimization to improve ease of practice

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INTRODUCTION

Improving the culture of wellness, ease of practice, and sense of professional fulfillment are cornerstone components to achieving physician well-being. Clinicians are expected to take extraordinary care of patients despite being faced with increased inefficiencies and administrative burdens across healthcare organizations.¹⁻⁴ Information technology contributes to inefficiencies within clinical practice, which ultimately results in a downstream negative impact on clinicians caused by practice disruption, dissatisfaction, and overall provider disengagement and burnout. Roughly 60% of physicians state that the electronic health record (EHR) reduces professional satisfaction and/or needs a complete overhaul.⁵ Further, several studies have demonstrated the significant time burden that EHRs place on physicians. EHR usability and functionality are consistently poor, scoring 9%, which is considerably below that of many everyday technologies.⁶ In fact, there is a dose-dependent relationship between EHR usability scores and the odds of burnout—every one point higher (more favorable) on the System Usability Score correlates with 3% lower odds of burnout.⁶

Systemic improvements require a more nuanced and comprehensive understanding of the deficiencies surrounding healthcare-associated technology from the perspectives of frontline clinicians so that we can begin to make concerted efforts to improve inefficiencies that lead to dissatisfaction and reduced well-being. Without feedback from our healthcare workforce, we may overlook mechanisms that can ultimately improve healthcare-related technologies that serve clinicians and patients alike.

PROGRAMS TO IMPROVE EHR EFFICIENCIES

The team from Hawaii Pacific Health launched the first known campaign of this kind, known as “Getting Rid of Stupid Stuff.”⁷ This intervention targeted inefficient and cumbersome documentation processes in an effort to decrease unnecessary tasks and save clinicians time. Employees were asked to identify facets of the documentation process that they felt were poorly designed or superfluous and then nominate these inefficiencies to the program. Nominations were related to documentation requirements that were unnecessary, inefficient, or confusing. Such nominations led to key insights that enabled leadership to either address or eliminate various documentation requirements or provide education to clinicians on how to more effectively leverage tools within the EHR that could improve their workflow efficiencies. Although limited in scope to documentation-specific tasks, this program demonstrated a very important initial step in engaging with frontline clinicians to improve EHR-related inefficiencies.⁷

The IDEA study outlined by Strudwick et al. is an ongoing effort to specifically engage nurses in generating ideas to improve EHR-related inefficiencies specific to their workflows at two Canadian facilities.⁸ Ultimately, the study aims to better understand EHR usage patterns and documentation requirements to determine the greatest sources of burden. Their team uses EHR analytics and focus group processes to improve documentation, chart review, and medication reconciliation. While similar programs to combat IT-related burnout are limited, there is a clear emerging need.

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THE #WHATTOFIX PROGRAM

The #WhatToFix program, a newly developed campaign at the University of Chicago, is a novel program for physicians and advanced practice providers (APPs) designed to: (1) engage clinicians to improve ease of practice and reduce daily IT-related frustrations; (2) introduce a practical “fix” system that optimizes the practice of medicine; (3) analyze commonly reported and recurring themes to escalate priority fixes; and (4) highlight notable successes of the program via a broadcast system.

Submissions to the #WhatToFix program were solicited through a six-question intake form via Redcap, which was disseminated to physicians and APPs at periodic intervals. This included two free-text fields for the user to describe the relevant problem as well as a proposed solution. Submissions were routed to a core team: a program manager, a clinical informatics (CI) fellow, health informaticists, and a supervisor with high visibility at the organization (Chief Medical Officer, Chief Wellness Officer, Clinical Learning Environment Review, Designated Institutional Officer) to evaluate submissions with the goal of selecting one submission per month to operationalize. Submissions were evaluated for feasibility in becoming operationalized within 1–2 months, and projected impact alongside alignment with institutional goals. The team committed to one of the following actions based on various phenotypes: (1) exploring a fix that uses multiple services and processes to improve practice, (2) sending the fix to an analyst or builder for quick resolution, (3) moving the fix to a leadership discussion for broader consideration, (4) acknowledging the value of the fix but realizing it is not feasible now.

#WHATTOFIX EARLY EXPERIENCE

The #WhatToFix program received a total of 378 submissions from July 1, 2019 to March 17, 2021. Most submissions (63%) were related to the EHR or IT issues. Submissions surrounding operations at the hospital and patient level came next at 20% and 16%, respectively. This breakdown also demonstrates the numerous

submissions received from outside the EHR/IT categories. From phlebotomy processes to parking, call rooms, and paging—clinicians engaged with #WhatToFix on issues unrelated to the EHR (Table 1). The program welcomed this engagement, as no centralized mechanism existed to report and provide feedback for operational problems pertaining to the hospital. To address non-IT related submissions, the #WhatToFix team worked to liaison with various leaders across different departments within the health system.

Among the submissions that were resolved and operationalized, a select number were chosen to be broadcasted to the entire clinical community of MDs and APPs, monthly. Broadcasts highlighted not only the problem and operationalized solution but also recognized the individuals involved in identifying and developing the positive changes. Broadcasts also included screenshots, job aids, and explanations of the fixes.

#WHATTOFIX PROCESS EXAMPLE: SHARED DISCHARGE SUMMARIES

The #WhatToFix received three requests for fixes from residents, or our frontline teams, around the problem of single author discharge summaries that siloed communication to one provider despite handoffs, and multidisciplinary and subspecialty involvement in patient care. One fixer wrote “discharge summaries are often used of a depository of information and become unwieldy and un-usable as teams provide hand offs of patients before discharge.” The CI and CMIO leaders agreed that the ‘shared discharge summary’ would help minimize note bloat, uses timely information during service handoffs and highlights that discharge planning starts early and continues throughout the hospitalization. Using our analytics teams, a new system was created based on the proposed solution of our users. Now, there is a “share note” pathway for discharge summaries across the organization that can be implemented as soon as the first author starts writing. This fix was broadcast in a monthly email, generating support for the process and putting key notes about the fix increasing the use of the fix at the organizational level (Figure 1).

TABLE 1 #WhatToFix submission overview 2019–2021.

Category	Description	Reported	Broadcasted
EHR/IT	Usability, order entry, results, documentation, mobile, telehealth	63% (n = 237)	82% (n = 23)
Hospital	Processes and operations, infrastructure, clinician resources	20% (n = 77)	
Physician/patient	Communication, scheduling and accessibility, wellness	16% (n = 59)	18% (n = 5)
Other	All remaining submissions	1% (n = 5)	

Note: Categories of submissions to the #WhatToFix platform consisted of four primary groupings: EHR/IT, hospital, physician/patient, and other. Most submissions (63%) pertained to EHR and IT-related issues, with the categories of hospital and physician/patient representing 20% and 16% of submissions, respectively. Of operationalized submissions, a small portion was chosen for broadcast to the UCM community. Eighty-two percent of those chosen for broadcast were related to EHR and IT issues.

Abbreviations: EHR, electronic health record; UMC, UChicago Medicine.

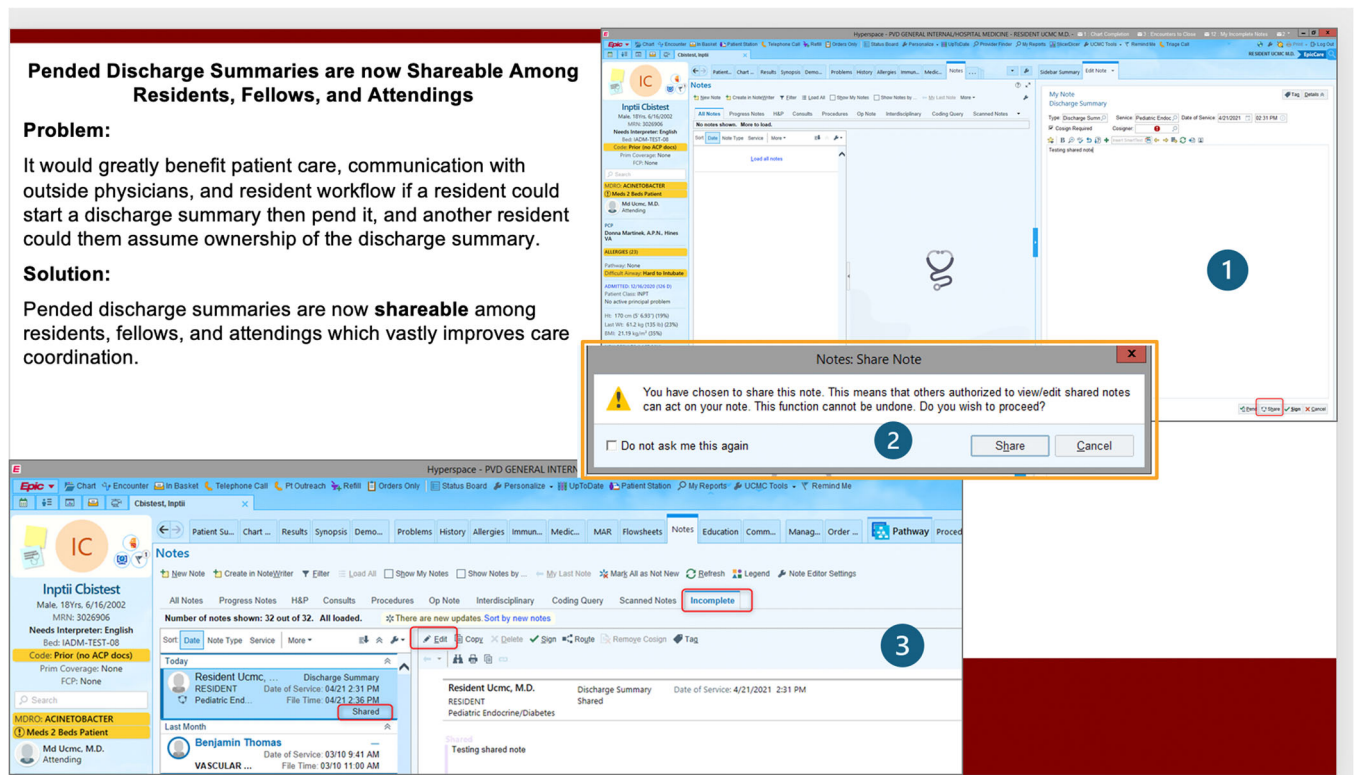


FIGURE 1 Sample broadcast detailing #WhatToFix submission and solution.

DISCUSSION

The crowdsourced #WhatToFix platform has been a successful pilot program in engaging physicians and APPs to suggest IT and non-IT solutions to system-level problems. Many of these operationalized solutions have improved ease of practice, revealed knowledge or practice gaps, and ultimately promoted engagement between clinicians, CI, and IT.

Operationalizing the #WhatToFix program revealed several important considerations. A significant challenge is the issue of limited resources facing every healthcare system. The small team size, restrictions on team-member time, and lack of financial resources limited the program's ability to expand beyond the present scope. Expanding the program to employees across the institution, program automation, and implementation of submission tracking would require a designated allotment of time and resources to the program. In addition, a budget should be allocated specifically for such programs, allowing them to function independently from normal IT operations, similar to how a help desk functions for basic matters like connectivity or password resets.

FUTURE DIRECTIONS

The #WhattoFix program is an efficient and effective way for clinicians to report problems or propose solutions; #WhatToFix has served as a direct conduit between the clinical workforce to health system leadership. The crowdsourcing nature of the program has

led to enthusiasm and a climate of collaboration for solutions. With appropriate and effective intra- and interdepartmental triage, permanent solutions to problems were developed and disseminated to the entire community, improving practice beyond the EHR.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

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REFERENCES

- West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med*. 2018;283(6):516-529. doi:10.1111/joim.12752
- Hartzband P, Groopman J. Physician burnout, interrupted. *N Engl J Med*. 2020;382(26):2485-2487. doi:10.1056/NEJMp2003149
- Shanafelt TD, Noseworthy JH. Executive leadership and physician well-being. *Mayo Clin Proc*. 2017;92(1):129-146. doi:10.1016/j.mayocp.2016.10.004
- DeChant PF, Acs A, Rhee KB, et al. Effect of organization-directed workplace interventions on physician burnout: a systematic review. *Mayo Clin Proc Innov Qual Outcomes*. 2019;3(4):384-408. doi:10.1016/j.mayocpiqo.2019.07.006
- Hecht J. The future of electronic health records. *Nature*. 2019; 573(7775):S114-S116. doi:10.1038/d41586-019-02876-y

6. Melnick ER, Dyrbye LN, Sinsky CA, et al. The association between perceived electronic health record usability and professional burn-out among US physicians. *Mayo Clin Proc.* 2020;95(3):476-487. doi:10.1016/j.mayocp.2019.09.024
7. Ashton M. Getting rid of stupid stuff. *N Engl J Med.* 2018;379(19):1789-1791. doi:10.1056/NEJMp1809698
8. Strudwick G, Jeffs L, Kemp J, et al. Identifying and adapting interventions to reduce documentation burden and improve nurses' efficiency in using electronic health record systems (The IDEA

Study): protocol for a mixed methods study. *BMC Nurs.* 2022;21(1):213. doi:10.1186/s12912-022-00989-w

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