Addressing EHR-related Burnout at CAMH

25 January 2021

camh

AGENDA

1

About CAMH &

The I-CARE Journey

2

Practical Recommendations for Reducing EHR-Related Burnout

3

Physician Engagement Strategy

1

About CAMH

Dr. Gillian Strudwick

Chief Nurse Executive (Interim) & Independent Scientist
Campbell Family Mental Health Research Institute &
Information Management Group

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CAMH - **Health redefined.**

- Largest mental health and addictions hospital in Canada
- University of Toronto - affiliated teaching hospital
- World leader in brain science
- 3 main sites with 30+ locations
- 90 distinct services between an emergency department, inpatient, outpatient, day treatment and partial hospitalization models

I-CARE Journey

Canada EMR Adoption Model℠

STAGE	2017 Q2
Stage 7	2
Stage 6	7
Stage 5	25
Stage 4	10
Stage 3	197
Stage 2	190
Stage 1	100
Stage 0	113
	n=644

Cumulative Capabilities

Achieved: June 2017

Achieved: June 2015

Pre I-CARE

Key (Difficult) Requirements:

- Paperless clinical environment (<1% documentation created on paper)
- **Closed Loop Medication Administration and CPOE rates sustained above 95% and 90% respectively**
- **Demonstrated use of clinical data to improve quality of care and patient safety over a 1 year period**
- Demonstrated use of data to achieve financial savings
- Advanced clinical decision support
- All external documentation scanned within 24h

2

Practical Recommendations for Reducing EHR-Related Burnout

Brian Lo

Research Analyst & Doctoral Student
Information Management Group & Office of the CMIO

Dr. Gillian Strudwick

Chief Nurse Executive (Interim) & Independent Scientist
Campbell Family Mental Health Research Institute & Information Management Group

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Lo, B., Kemp, J., Cullen, C., Tajirian, T., Jankowicz, D., & Strudwick, G. (2020). Electronic Health Record-Related Burnout among Clinicians: Practical Recommendations for Canadian Healthcare Organizations. *Healthcare Quarterly (Toronto, Ont.)*, *23*(3), 54-62.

Background

Electronic health records contributing to physician burnout

Roger Collier

CMAJ November 13, 2017 189 (45) E1405-E1406; DOI: https://doi.org/10.1503/cmaj.109-5522

JAMA Network | Open

Original Investigation | Health Informatics

Association of Electronic Health Record Design and Use Factors With Clinician Stress and Burnout

Multicenter Study > Mayo Clin Proc. 2019 May;94(5):793-802. doi: 10.1016/j.mayocp.2018.08.036. harry Veres, MD; Stewart Babbott, MD; Sara Poplau, BA; Fares Qeadan, PhD; Carolyn Parshall, MPH;

Epub 2019 Feb 26.

Optimization Sprints: Improving Clinician Satisfaction and Teamwork by Rapidly Reducing Electronic Health Record Burden

Amber Sieja [1], Katie Markley [2], Jonathan Pell [1], Christine Gonzalez [3], Brian Redig [3], Patrick Kneeland [1], Chen-Tan Lin [4]

Methods

Objective: Review the **current initiatives and strategies** aimed at combatting EHR-related burnout and achieving the quadruple aim among multiple clinician groups, and what **recommendations** may be derived for the Canadian context.

Search Strategy

- Articles related to burnout and EHR usage
- Indexed in Embase, Medline, PsycInfo
- Published from 2014-2019

Screening

- 286 articles identified for title/abstract screening (Inter-rater kappa = 0.95)
- 63 articles identified for full-text screening

Data Extraction

- Demographics Information
- Statistics on burnout and EHR usage
- Interventions and outcomes
- Notable points of discussion

Lo, B., Kemp, J., Cullen, C., Tajirian, T., Jankowicz, D., & Strudwick, G. (2020). Electronic Health Record-Related Burnout among Clinicians: Practical Recommendations for Canadian Healthcare Organizations. *Healthcare Quarterly (Toronto, Ont.)*, *23*(3), 54-62.

Results: Demographics of Included Articles

50 articles included for analysis

84% of articles published between 2017 – 2019

24% of articles were editorials or commentaries

98% of articles were published in the **US (n = 47)**, **Canada (n = 2)**

Only **2 articles** were conducted in **psychiatric settings**

62% of articles (n = 34) examined EHR usage and burnout in **medical doctors**

Lo, B., Kemp, J., Cullen, C., Tajirian, T., Jankowicz, D., & Strudwick, G. (2020). Electronic Health Record-Related Burnout among Clinicians: Practical Recommendations for Canadian Healthcare Organizations. *Healthcare Quarterly (Toronto, Ont.)*, *23*(3), 54-62.

Results: Measuring EHR-Related Burden and Burnout

Methodologies Employed

Surveys
(n = 22)

Interviews
(n = 4)

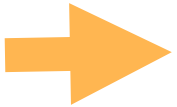
Usage Logs
(n = 7)

Statistics on Burnout and EHR Usage

Cross-section of

24

articles reporting current state



25% of respondents reported symptoms of burnout

70% of those reporting burnout attributed it to using health information technology, such as EHRs

Those who had symptoms of burnout often disagreed with others about the efficiency of EHR systems

Lo, B., Kemp, J., Cullen, C., Tajirian, T., Jankowicz, D., & Strudwick, G. (2020). Electronic Health Record-Related Burnout among Clinicians: Practical Recommendations for Canadian Healthcare Organizations. *Healthcare Quarterly (Toronto, Ont.)*, *23*(3), 54-62.

Results: Potential Interventions to Identify and Reduce Burnout

Education and Training
(n = 3)

Additional Support
(n = 5)

Interface Improvement
(n = 6)

Communication Improvement
(n = 1)

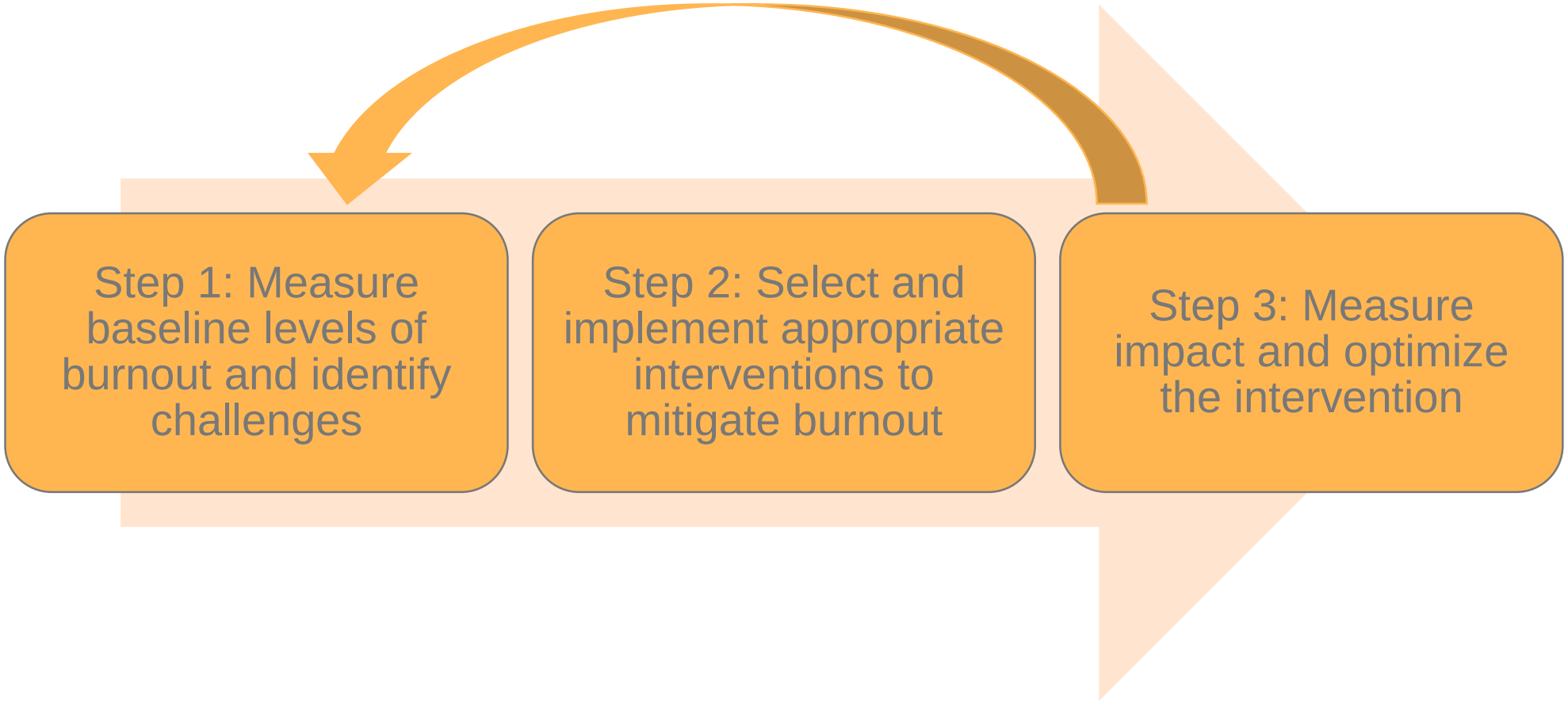
Lo, B., Kemp, J., Cullen, C., Tajirian, T., Jankowicz, D., & Strudwick, G. (2020). Electronic Health Record-Related Burnout among Clinicians: Practical Recommendations for Canadian Healthcare Organizations. *Healthcare Quarterly (Toronto, Ont.)*, *23*(3), 54-62.

Discussion

- The global adoption of EHR systems highlights the need to **examine burnout and EHR usage outside of the American context**
- Only **2 articles have focused on a mental health setting**, with one examining psychiatric residents and faculty[2]
  - The unique documentation demands of psychiatry warrants **further exploration** of using EHR systems in this domain
- Most of the literature has **focused on physician usage** of EHR systems, however, **other healthcare professionals** critical to mental health care delivery (e.g., nurses, social workers) should also be **supported in EHR usage**[4]
- There is a **paucity of evidence** surrounding effective techniques to identify and reduce burnout; identifying which **techniques** are **efficient** and **cost-effective** is critical to developing a toolkit to **support the increasingly advanced digital healthcare environment**[4]

Lo, B., Kemp, J., Cullen, C., Tajirian, T., Jankowicz, D., & Strudwick, G. (2020). Electronic Health Record-Related Burnout among Clinicians: Practical Recommendations for Canadian Healthcare Organizations. *Healthcare Quarterly (Toronto, Ont.)*, *23*(3), 54-62.

Recommendations



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CAMH Physician Engagement Strategy

Dr. Tania Tajirian

Chief Medical Information Officer
Chief Medicine in Psychiatry Division

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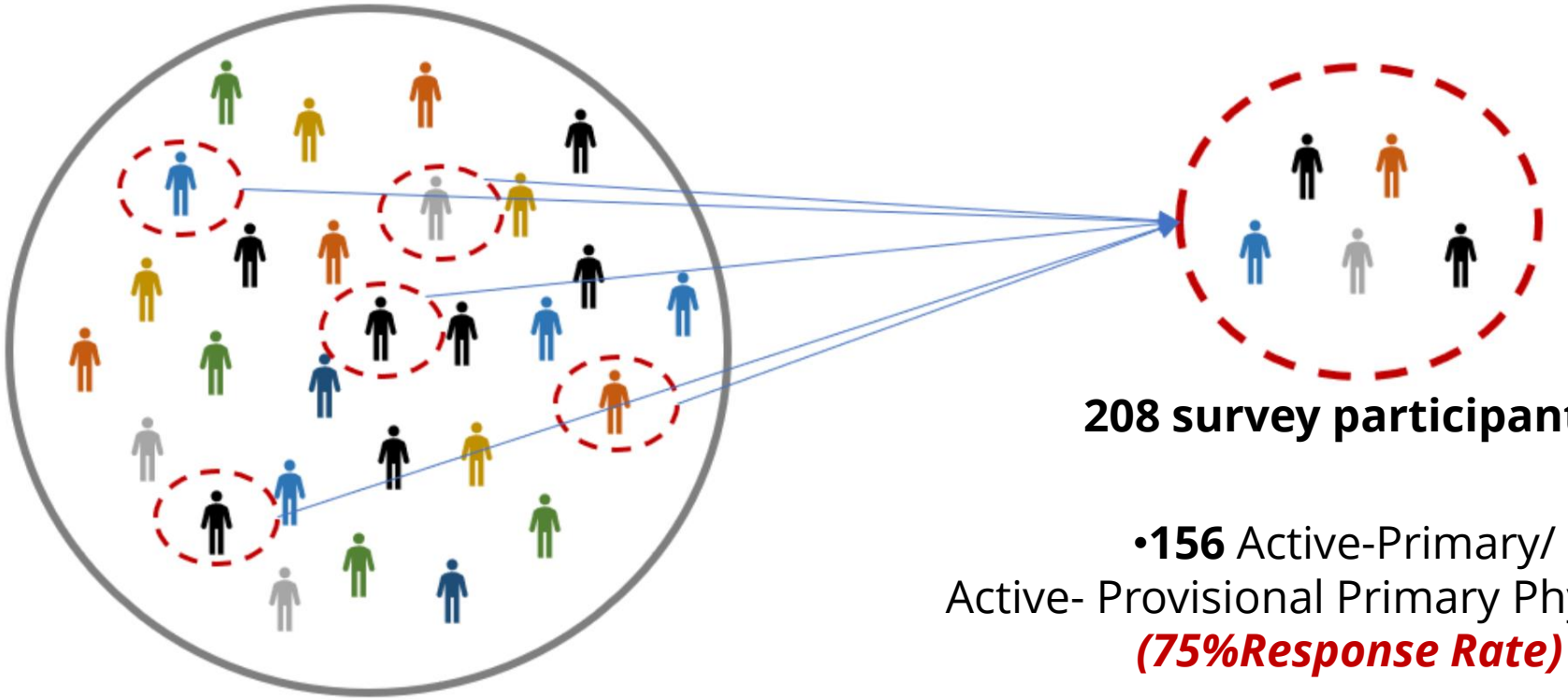
Benchmark Survey: Target population & sample



474 CAMH physicians and learners

- **208** Full-time physicians*
- **199** Part-time physicians**
- **67** Learners (53 residents, 14 fellows)

208 survey participants

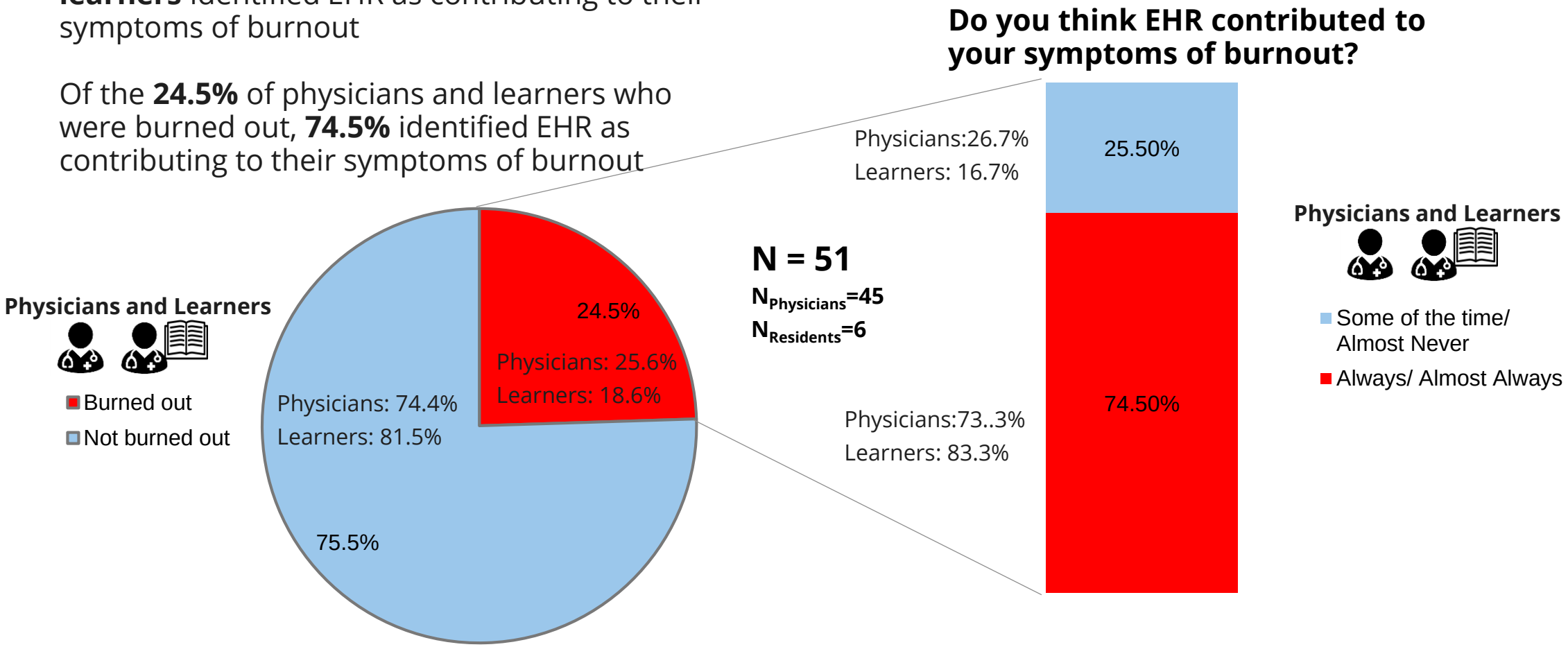
- **156** Active-Primary/ Active- Provisional Primary Physicians* ***(75%Response Rate)***
- **20** Active- Primary Secondary/ Active- Secondary/ Clinical Associate/ Consultants/Courtesy** ***(10% Response Rate)***
- **32** Learners (Residents/ Fellows) ***(47.8% Response Rate)***

Tajirian, T., Stergiopoulos, V., Strudwick, G., Sequeira, L., Sanches, M., Kemp, J., Ramamoorthi, K., Zhang, T., & Jankowicz, D. (2020). The Influence of Electronic Health Record Use on Physician Burnout: Cross-Sectional Survey. *Journal of medical Internet research*, *22*(7), e19274. https://doi.org/10.2196/19274

Benchmark Survey: Contribution of EHR to physician burnout

In total, **69.7% of physicians** and **68.8% of learners** identified EHR as contributing to their symptoms of burnout

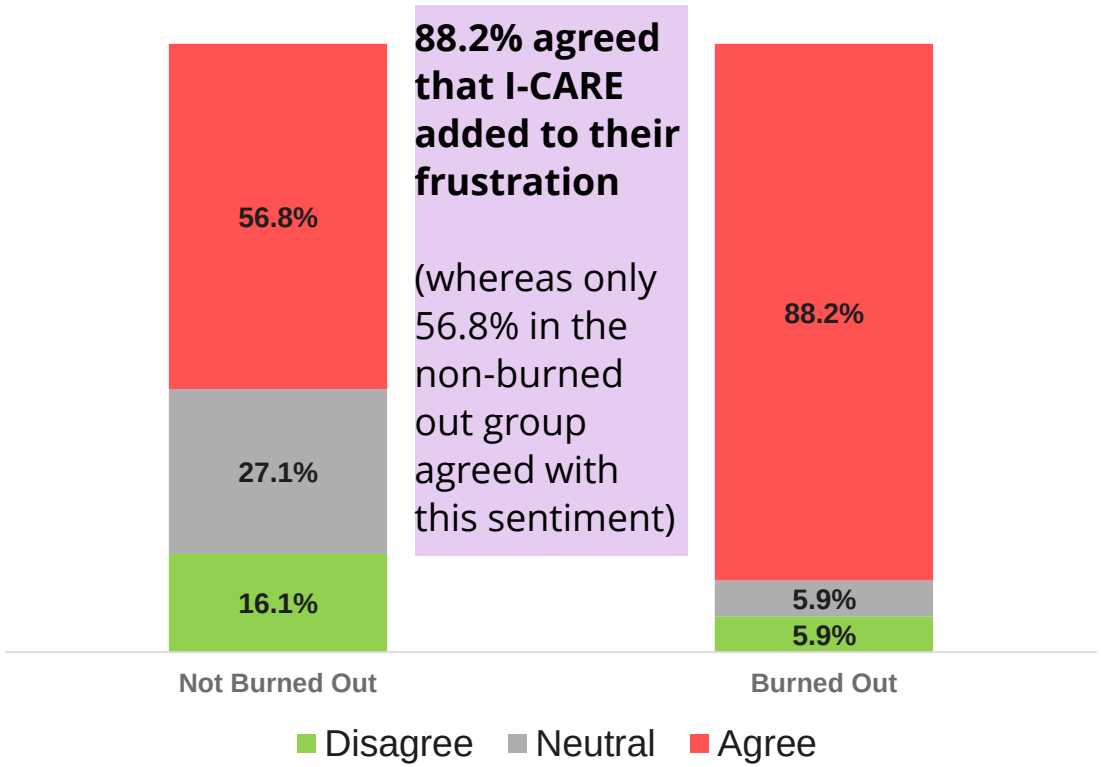
Of the **24.5%** of physicians and learners who were burned out, **74.5%** identified EHR as contributing to their symptoms of burnout



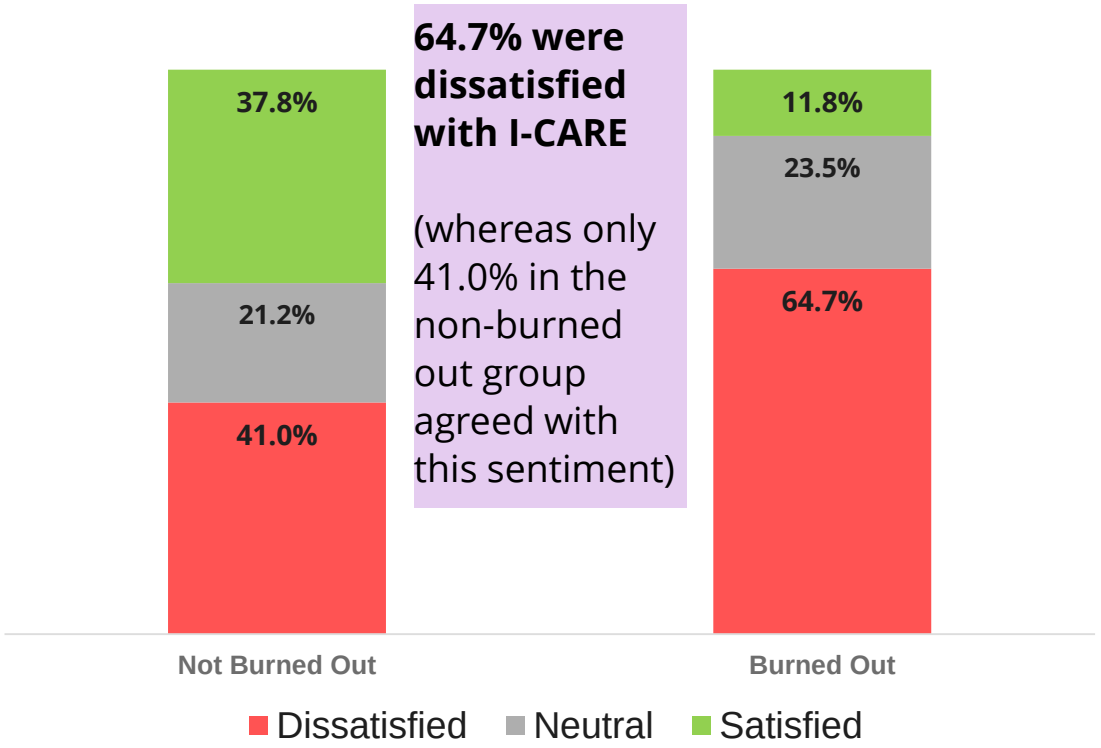
Tajirian, T., Stergiopoulos, V., Strudwick, G., Sequeira, L., Sanches, M., Kemp, J., Ramamoorthi, K., Zhang, T., & Jankowicz, D. (2020). The Influence of Electronic Health Record Use on Physician Burnout: Cross-Sectional Survey. *Journal of medical Internet research*, *22*(7), e19274. https://doi.org/10.2196/19274

Benchmark Survey: Significant contributors to physician burnout - Frustration and Satisfaction with EHR

Of those physicians and learners who were burned out



EHR adds to my daily frustration (p<0.001)

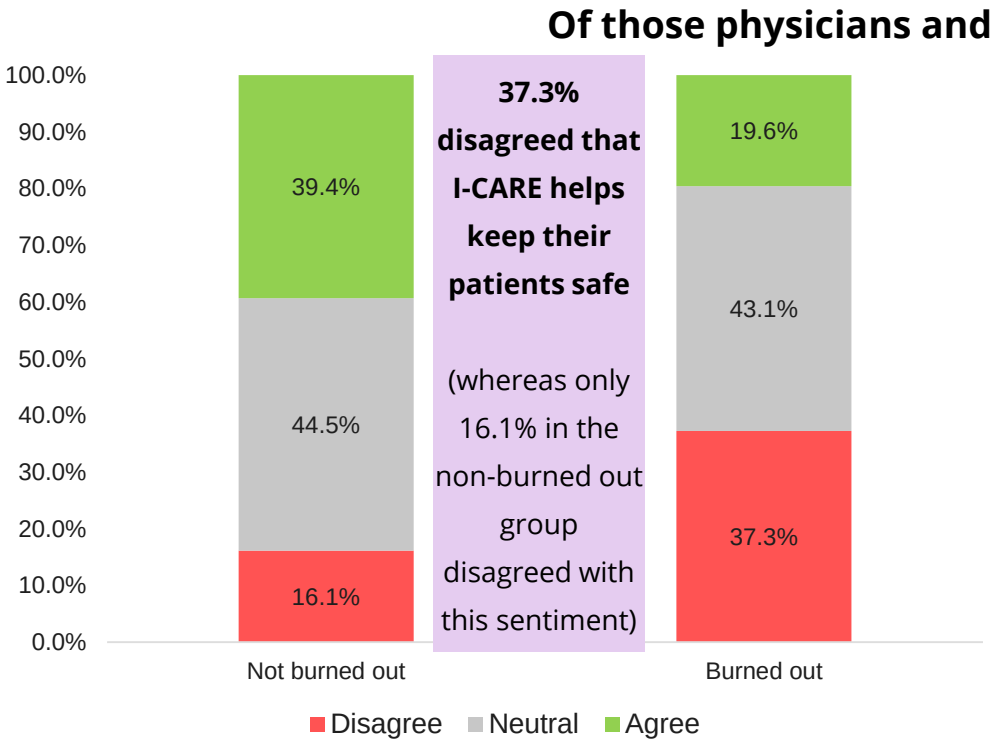


How would you rate your satisfaction with EHR? (p<0.001)

Tajirian, T., Stergiopoulos, V., Strudwick, G., Sequeira, L., Sanches, M., Kemp, J., Ramamoorthi, K., Zhang, T., & Jankowicz, D. (2020). The Influence of Electronic Health Record Use on Physician Burnout: Cross-Sectional Survey. *Journal of medical Internet research*, *22*(7), e19274. https://doi.org/10.2196/19274

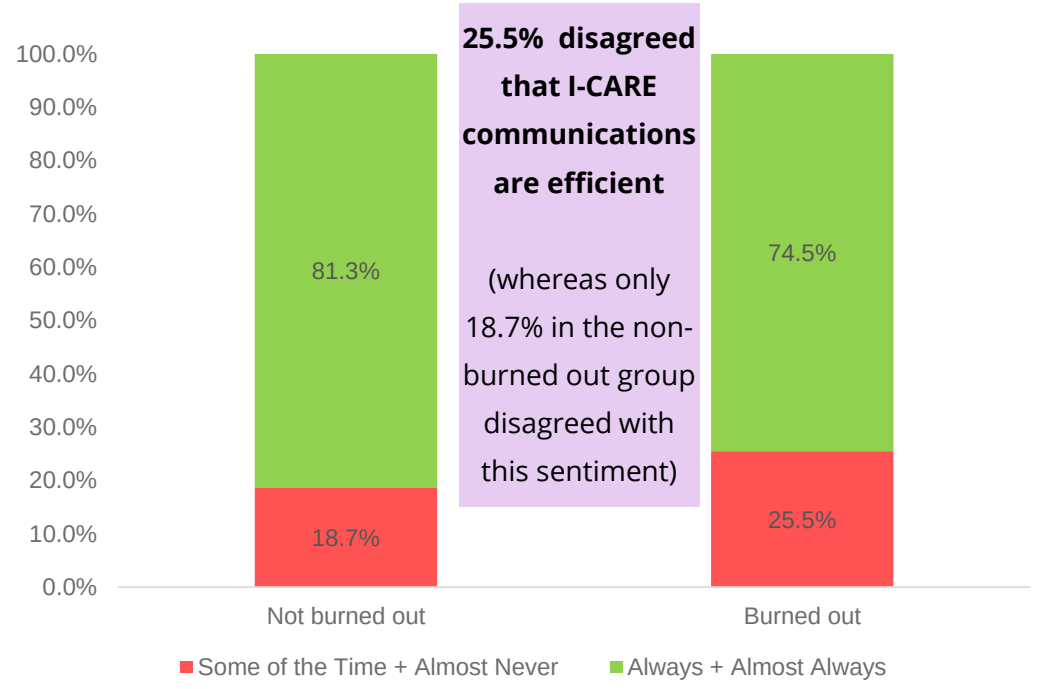
Benchmark Survey: Other significant differences between participants who were burned out vs. not burned out

Perceptions on I-CARE's usefulness



EHR helps keep my patients safe (p<0.002)

Communication around I-CARE



Do you feel communication regarding EHR changes are efficient? (p<0.047)

Tajirian, T., Stergiopoulos, V., Strudwick, G., Sequeira, L., Sanches, M., Kemp, J., Ramamoorthi, K., Zhang, T., & Jankowicz, D. (2020). The Influence of Electronic Health Record Use on Physician Burnout: Cross-Sectional Survey. *Journal of medical Internet research*, *22*(7), e19274. https://doi.org/10.2196/19274

Benchmark Survey: Physicians' Experiences with EHR

Themes amongst those participants with

Low EHR Satisfaction

Usability:
"not intuitive",
"not user friendly",
"too many redundant tasks",
"too many clicks"

Technical issues:
"system crashes",
"have to log out and back in often"

Additional training:
"don't know any shortcuts", "forwarding notes is a great function and surprisingly underused"

Information retrieval:
"difficult to find documents",
"info you need is buried"

System speed:
"unresponsive", "slow", "clunky",
"takes away from time spent with patients"

Fixes:
"prompts for diagnosis hinders workflow",
"dialogue boxes that cannot be dismissed"

High EHR Satisfaction

Need for customization:
"I use my own templates, not EHR templates",
"personal short cuts"

Workarounds:
"type long consult notes in word then copy into EHR",
"enter appointments in my calendar"

New users:
"still getting used to it",
"probably use not all the functionalities"

Speech recognition:
"use speech recognition tool exclusively instead of typing progress notes"

Tajirian, T., Stergiopoulos, V., Strudwick, G., Sequeira, L., Sanches, M., Kemp, J., Ramamoorthi, K., Zhang, T., & Jankowicz, D. (2020). The Influence of Electronic Health Record Use on Physician Burnout: Cross-Sectional Survey. *Journal of medical Internet research*, *22*(7), e19274. https://doi.org/10.2196/19274

Multi-Pronged Physician Engagement Strategy

Improve Physicians' experience by rapid handling of EMR issues (SWAT)

Enhance physicians engagement and leadership (Physician Think Tank)

Leverage accessibility to system use data and metrics to measure outcomes (System Use Data Dashboards)

Develop education and communication strategies (peer education, e-learning, physicians portal and CMIO newsletter)

ENGAGE

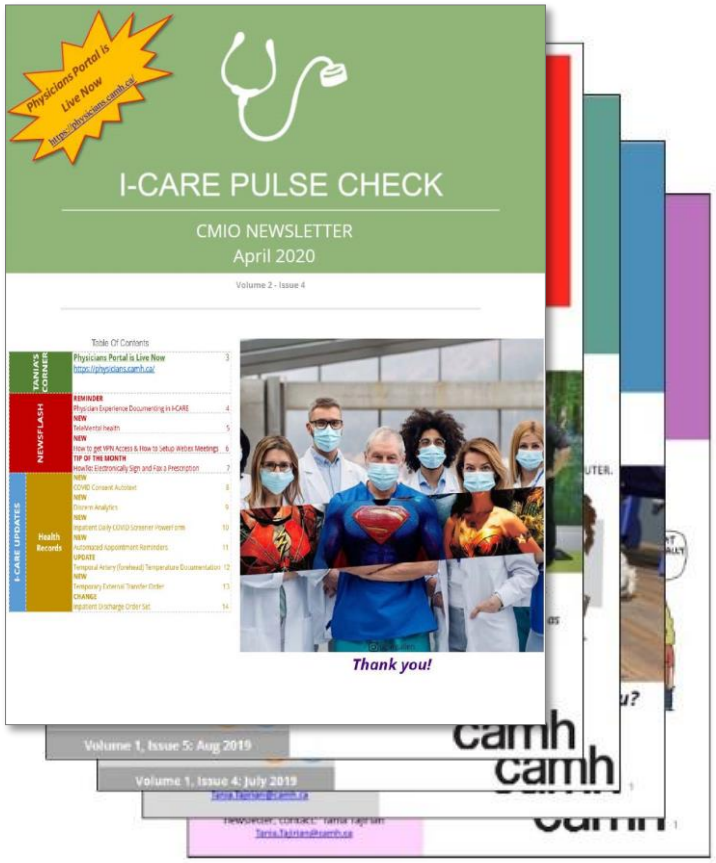
INSPIRE

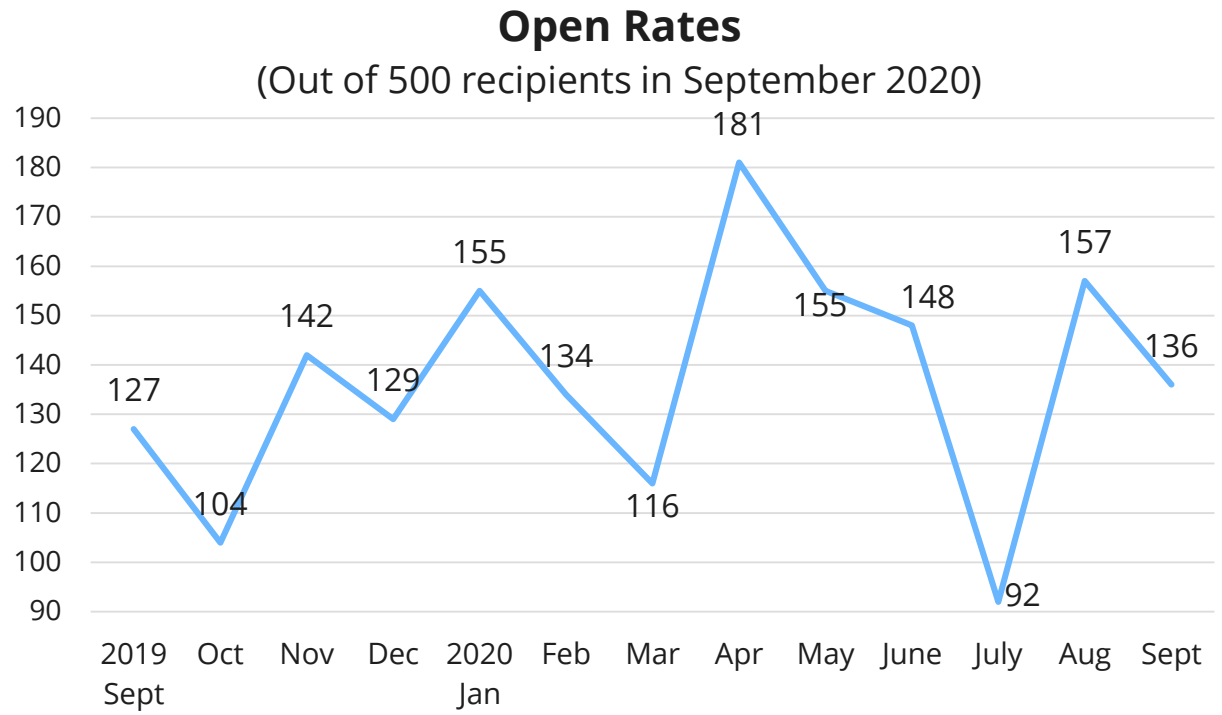
CHANGE

Develop education and communication strategies (peer education, e-learning, physicians portal and CMIO newsletter)

CMIO Monthly Newsletter
(September 2019 onwards)

Content:
-Initiatives updates
-Interviews
-EHR Tips & Tricks
-EHR changes in 3 categories
(Pharmacy, labs, health records)



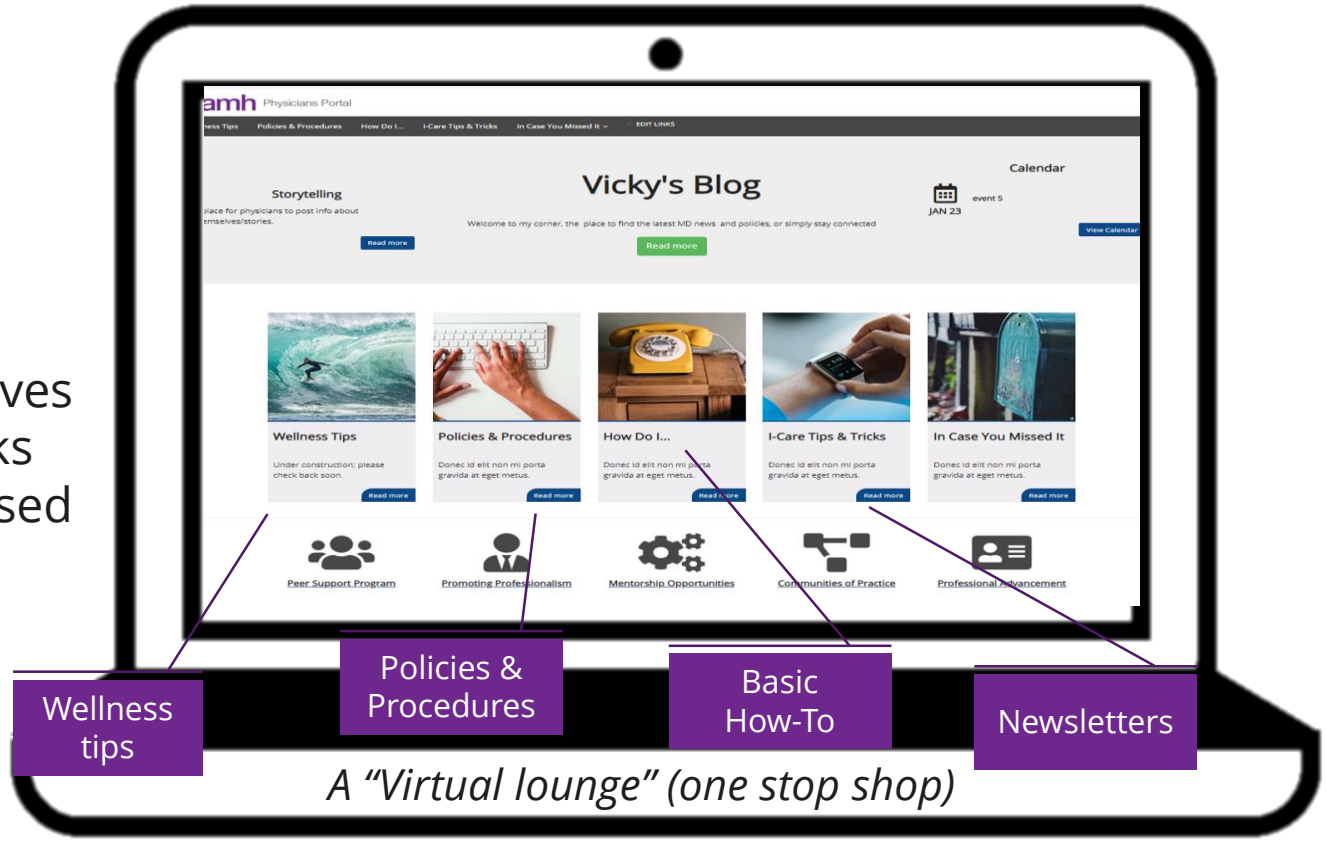


Performance metrics: Delivery rates, Open rates, Links clicked.

Develop education and communication strategies (peer education, e-learning, physicians portal and CMIO newsletter)

Physician Portal
(March 2020)

Content:
-Stories
-Wellness initiatives
-EHR Tips & Tricks
-In case you missed



A "Virtual lounge" (one stop shop)

Enhance physicians engagement and leadership (Physician Think Tank)

Physician Think Tank
(Cross divisional lens)

Membership

CMIO (Chair)

Physicians 'Divisional Liaisons'

Clinical Informatics Nurses

Clinical Applications Team

Health Information Management

Pharmacy Informatics

Laboratory and Diagnostics

Professional Practice Office

Enterprise Project Management Office

Goals

- Discuss new topics/changes
- Lead the improvement of EHR

Benefits

- Part of the Change Control Governance
- Representation from all divisions and stakeholders

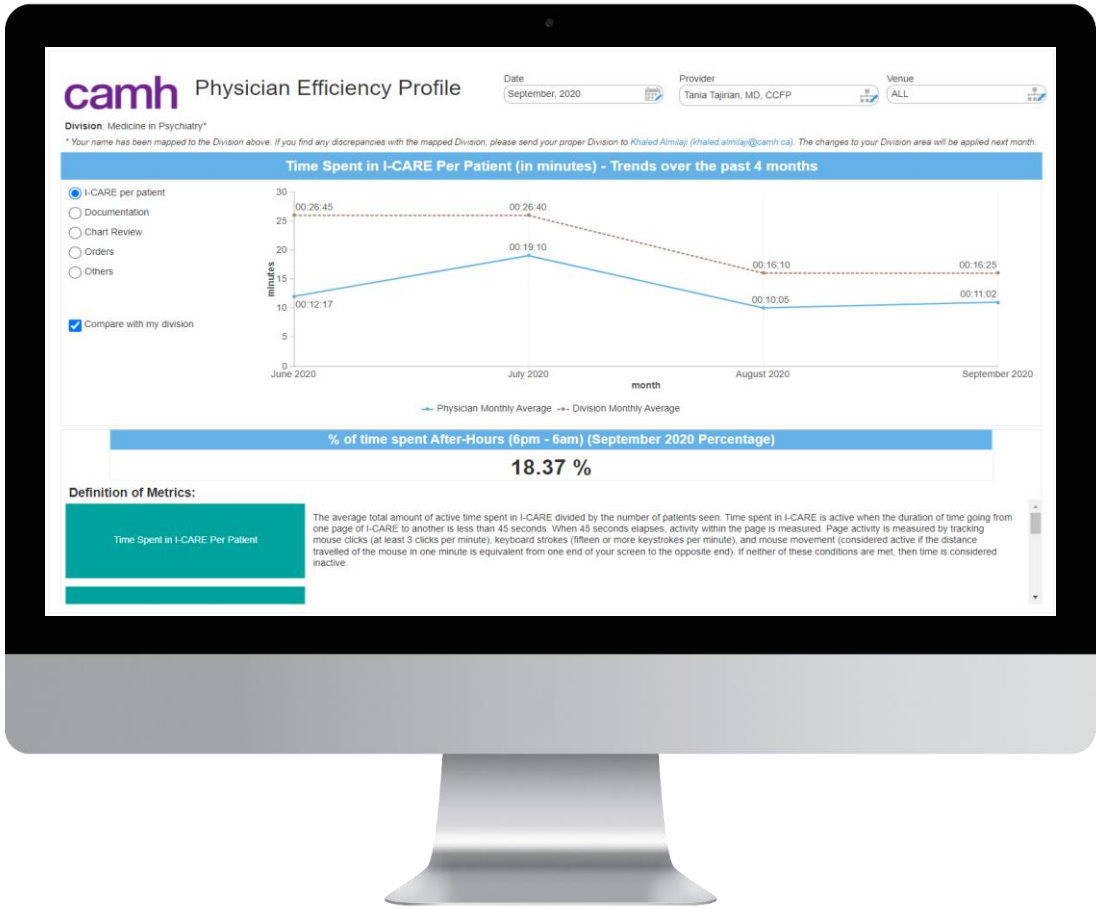
Leverage accessibility to system use data and metrics to measure outcomes (System Use Data Dashboards)

Physician Efficiency Profiles

Allowing physicians to view their own system use metrics:

Time in EHR
- Total active time
- Time spent **per patient** including:
  - documentation
  - chart review
  - orders time
  - orders

Time Spent in EHR After Hours



Improve Physicians' experience by rapid handling of EHR issues (SWAT)

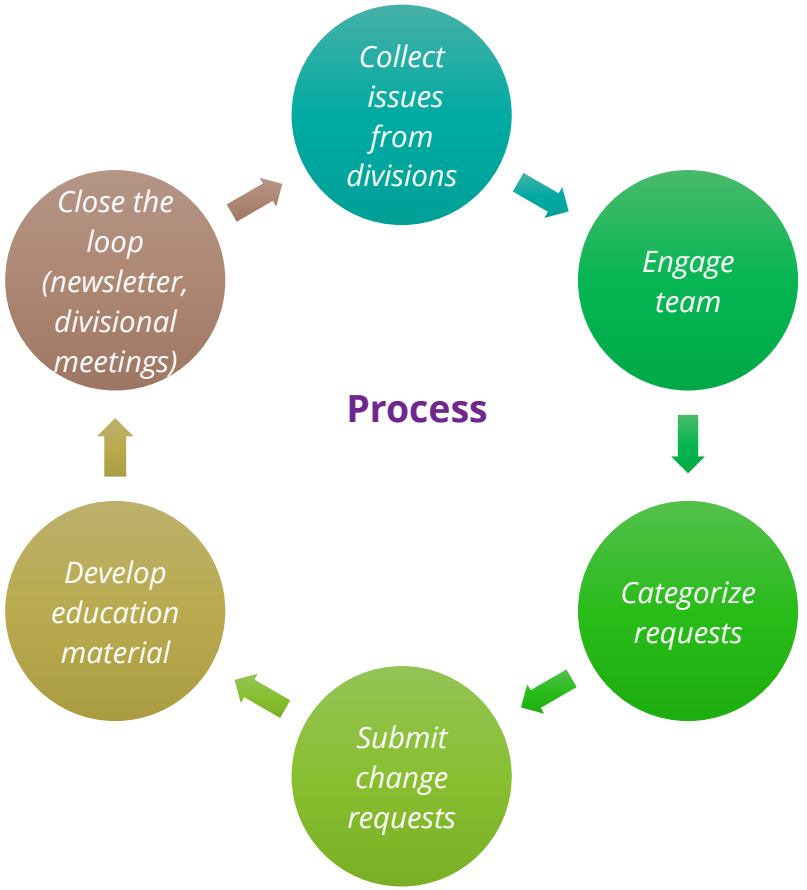
SWAT

Goals

- Apply rapid changes and fix "the pebbles in your shoes"
- Fill the gaps in the physicians' EHR knowledge

Benefits

- Multi disciplinary team
- Follows agile methodology



SWAT: Request Categorization

Blue Requests

Needs more training

Green Requests

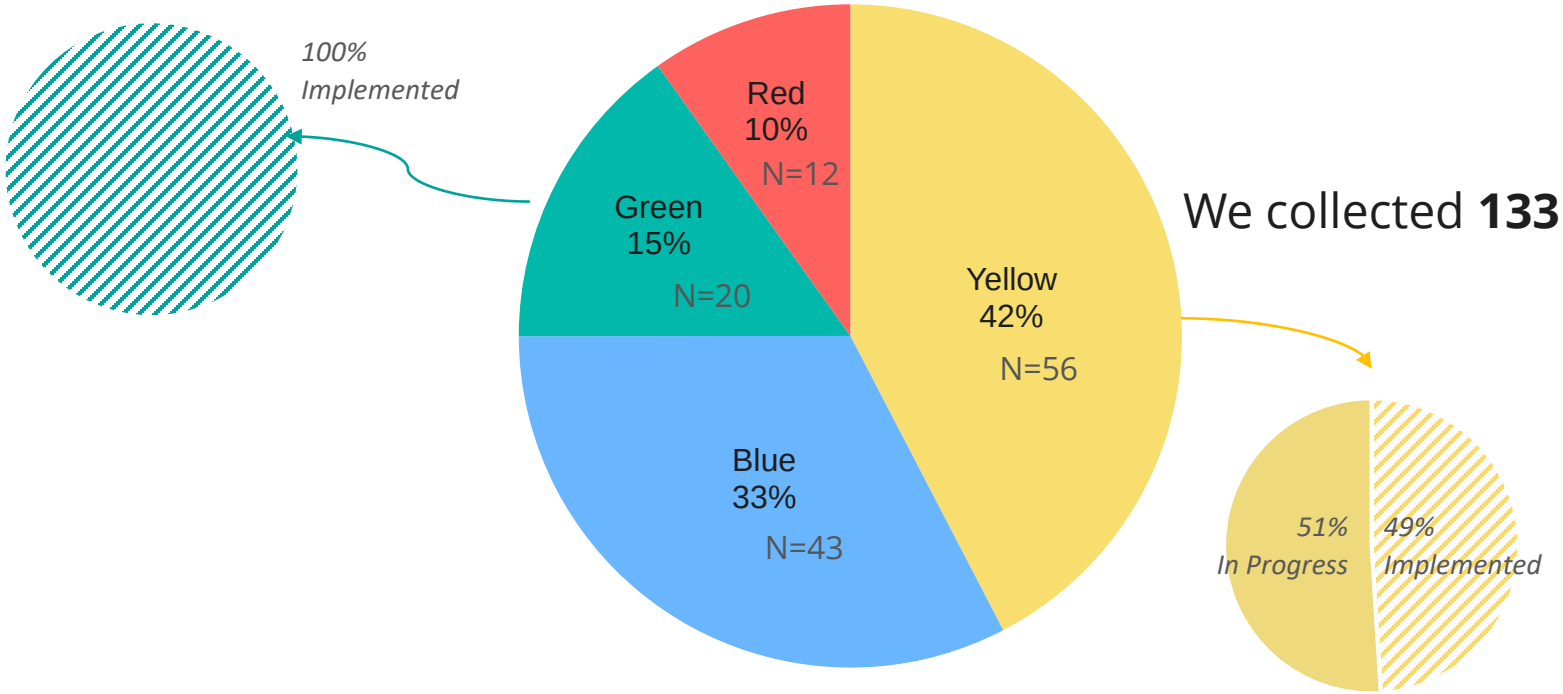
Fixes will be delivered within 6 weeks of submission to change control governance

Yellow Requests

Request is applicable but needs time due to needed system upgrade or other requirement (On-Hold)

Red Requests

Change is not in scope, or not aligned with policies and regulations



We collected **133** EHR Change Requests

SWAT: Divisional Dashboards

- Shareable interactive dashboard to monitor the status of all requests including:
  - Feedback for each request
  - Visualization by: Division, Status, Category
- Allows for real-time updates

SWAT: Lessons Learned from SWAT I

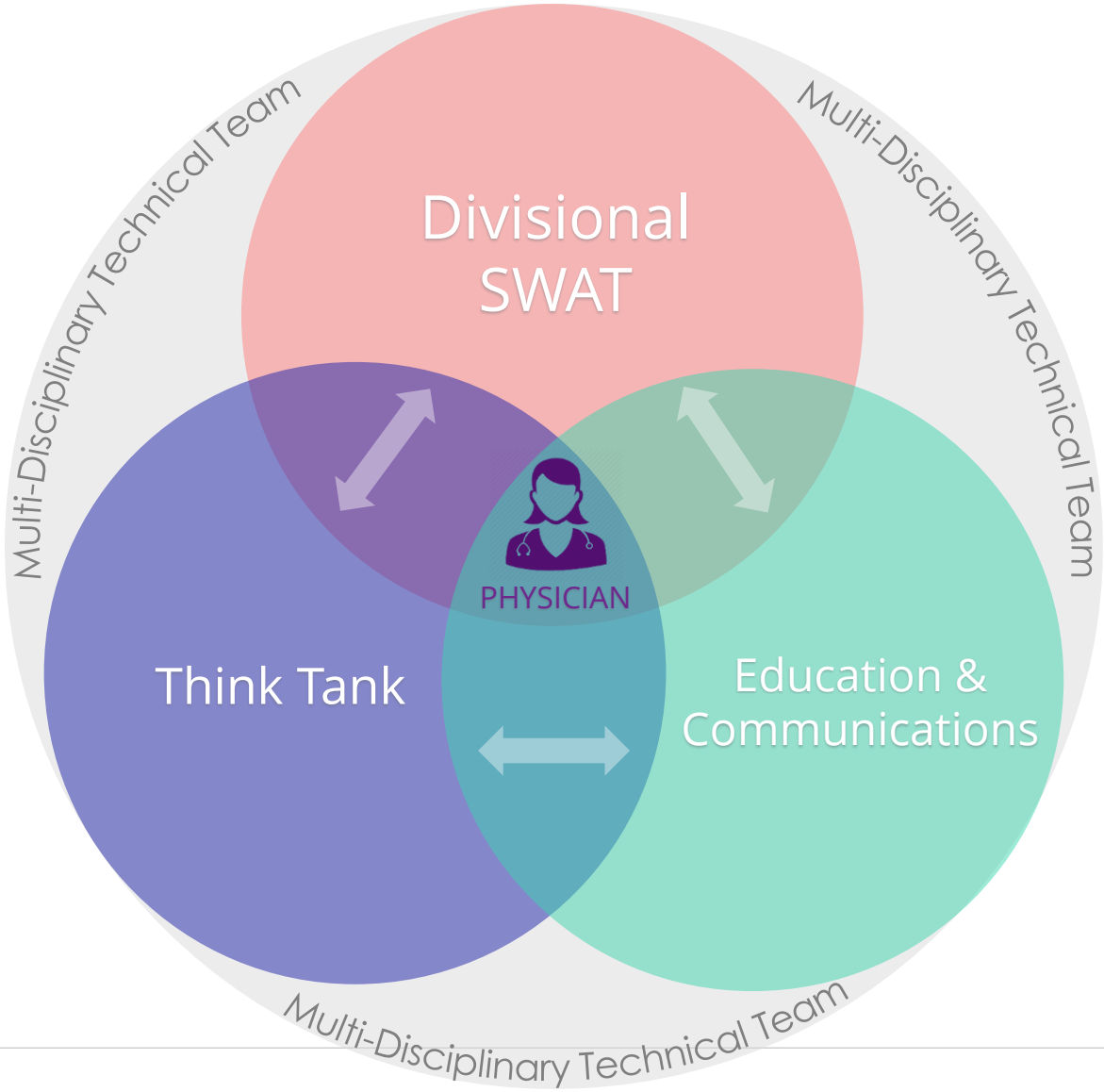
- ✓ Agile methodology
- ✓ Attending physician divisional meetings
- ✓ Engaging divisional leadership
- ✓ Multi disciplinary representation in the SWAT team
- ✓ Development of SWAT II (education focus)
- ✓ SWAT III (closing the loop) to maintain accountability

SWAT II:

- **EHR education sessions resumed in September 2020**

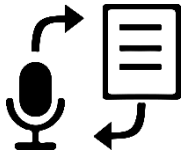
Multi-Pronged Physician Engagement Strategy: Lessons Learned

- Physicians are main stakeholders/decision makers in all initiatives of the strategy
- Multi-disciplinary team to be engaged in direct discussions with MDs
- Initiatives are connected and provide essential input to each other



Next Steps

- Continue to increase *satisfaction* through
  Reducing inefficiencies and **improving education**



Speech recognition technology

Peer education, videos, e-learning, super users

- **Measure impact** & continuously improve (PEPs)

- ***Return to what EHR was intended to do:***
  - *Provide fast access to patient information*
  - *Support clinical decision making*
  - *Support the patient journey through transitions of care*
  - *Improve patient safety & quality of care*

Data rich
=
Data driven

Questions?

Gillian.Strudwick@camh.ca

Tania.Tajirian@camh.ca

Brian.Lo@camh.ca

@GStrudRN

@TaniaTajirian

@lobri888

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