Health Matters Bulletin

BY REBOOT HEALTH CONSULTANCY & ADVISORY SERVICES INC.

ISSUE 4

Post-pandemic - Restoring the Rights of Individuals

Healthcare Worker Burnout - Strategies to Save Clinicians

Brought to you by Reboot Health Consultancy & Advisory Services Inc
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**HEALTH CONSULTANCY &
ADVISORY SERVICES INC**

Foreword Issue 4

Welcome to the Health Matters Bulletin, a regular quarterly publication provided by the Reboot Health Consultancy & Advisory Services Group and our Founding Partners. The Group's Objective is bringing together policy, industry and health leaders to discuss poignant topics in healthcare by creating opportunities and organizing formal, ongoing dialogue, and focused communications on health innovation topics with specialized Health Matter's subject experts. We invite you to review articles which provoke thought leadership and foster collaboration, catalyze healthcare innovation to optimize the use and deployment of increasingly scarce resources in this country. We bring knowledge, views and perspectives which focus on these key strategic pillars advancing healthcare:

· Health Data Privacy, Policy and Security

· Personalized Medicine & Genomics

· Artificial Intelligence in Healthcare

· Value Based Healthcare, Operational Efficiency and Health Policy

· Health Innovation Development

Editors: Alan Low, Greg Spievak, and Howard Waldner,
Reboot Health Consultancy and Advisory Services Inc.

Acknowledgements

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POST-PANDEMIC -
RESTORING THE RIGHTS OF INDIVIDUALS

IN THE UK, UNITED STATES AND MANY OTHER COUNTRIES, emergency regulations were issued and used as the legal basis for an exceptional expanded authority to collect and retain sensitive healthcare data. The need to keep this emergency data, regardless of how it's protected, will wane as we come out of the pandemic. And when governments decide to revoke these emergency powers, corresponding healthcare data will have to be deleted.

When the world realized how serious a global problem COVID-19 was, governments everywhere began imposing restrictions and mandates on their populations. Initially for a period of two weeks, whilst attempting to flatten the curve, then for an extended period of months, or even years. On top of the physical restrictions, governments began granting themselves emergency data collection authority that allowed them to capture data including patient health information, COVID-19 test result data, and even location information for contact tracing.

LIFTING RESTRICTIONS AND DATA DELETION

Public interest in having restrictions on the population has lapsed and governments have slowly lifted the intrusive physical restrictions that they previously imposed. But what of the sensitive data that was collected throughout this time? The public health interest in holding that data has also lapsed in some jurisdictions. Governments will need to holistically and irreversibly delete the emergency data that they have collected over these last two years, to build and maintain trust with the public.

This deletion is not a trivial challenge. In many cases, institutions collaborated across many disparate partners and platforms to advance their response efforts. Huge amounts of data were collected, combined, transformed, shared, and repurposed – creating a complex history of different types and versions of data that were pulled into a variety of tools and systems.

Incomplete data deletion could create new sources of risk; pieces of data left behind potentially make restoring the rights of individuals impossible. Without a powerful and systematic solution for data tracking and deletion, sensitive data could continue to linger indefinitely.

To day-to-day users of technology, deletion is a familiar concept, and may seem quite simple – simply drag a file into the trash can on your computer. But deleting data from large data systems is much more involved, for a couple reasons.
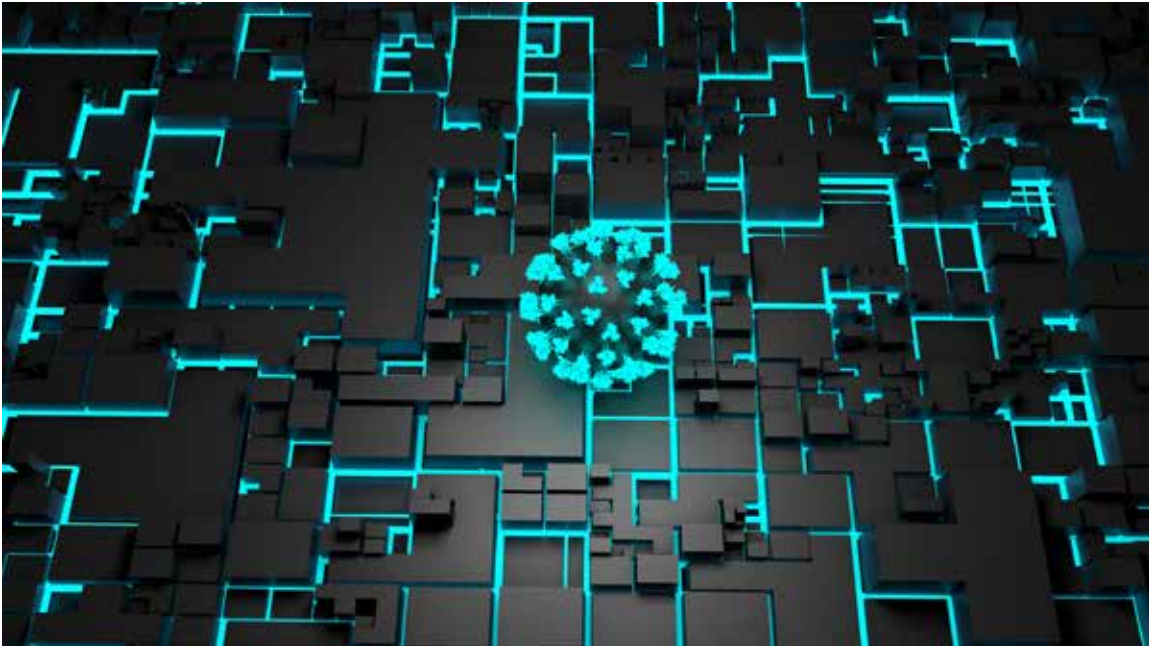
The first is that the degree of deletion is different. Moving a file into a virtual trash can is an inherently reversible action. One can just pull the file out of the trash can as though it was never deleted. This "soft deletion" is insufficient when deleting sensitive data. Instead, our goal is "hard deletion", a process which eventually makes data irreversibly inaccessible. In the current climate, this should be the standard that governments and critical societal organizations worldwide aspire to achieve.

The second reason is because we care about deleting more than just a few files. In large systems, data is replicated many times, combined with other data, and stored in different ways to facilitate unique manners of usage. In this way, the data in large-scale data systems implicitly follows the concept of "data lineage" — the knowledge of where the data was derived from. And when a piece of data needs to be deleted, generally all its "descendants" in the lineage must also be deleted.

Palantir has invested considerable development effort in ensuring that our Palantir Foundry platform explicitly records the "data lineage" of all data in the platform – which can enable "hard deletions" of data that lives along this lineage.

So, no matter what happens to a piece of data or where it ends up in the platform, Foundry can be configured to help institutions comprehensively perform deletions throughout the system.

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Palantir builds leading software platforms for data-driven operations and decision making. We partner with the world's leading government and commercial institutions across 50+ industries in many countries across the globe, including cybersecurity, healthcare, manufacturing, finance, humanitarian aid and more. Privacy, data protection, and general data governance issues are often central challenges for our customers in a world of continuous digital transformation, where regulatory and ethical frameworks are perennially playing catch-up.

Read more on the quality, privacy and security of data at blog.palantir.com

Learn more at the 22nd Annual Healthcare Summit, September 22-23, 2022 when Palantir will discuss how other jurisdictions have leveraged these technologies to transform operations coming out of the pandemic, see: **www.healthcaresummit.ca**

Robert Taylor
Health System Partner,
Palantir Technologies Canada Inc
Email: robertt@palantir.com

HEALTHCARE WORKER BURNOUT
STRATEGIES TO SAVE CLINICIANS

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BEFORE THE COVID-19 PANDEMIC, several studies stated that electronic health records (EHRs) play an important role in clinician burnout due to a variety of reasons including low user intuitiveness, high number of steps required to document and find information, clinical data fragmentation (as often different electronic documentation systems exist with little to no interoperability or interfaces) and rigid documentation requirements.

In addition to the labour-intensive working hours within the healthcare centers/hospitals, physicians and other clinicians spend anywhere between 60 to 120 minutes in retrospective documentation, patient communication or other administrative tasks before finishing their day.

WHAT IS BURNOUT?

Burnout has been defined as emotional exhaustion, great detachment, and a reduced sense of personal achievement. If we add to the already heavy workload clinicians have, the extensive amount of documentation they have to consume and create for each patient or shift, it's understandable the load will not decrease but increase and worsen the sense of burnout for the users. This is the case unless we have efficient and integrated health information systems in place.

In 1974, clinical psychologist Herbert Freudenberger identified the presence of emotional and physical exhaustion along with emotional detachment in his co-workers[1]. He referred to this experience as "burnout." Since then, the topic has been researched extensively and more notably by Christine Maslach. In 1981, Maslach published a methodology to understand the variables causing burnout syndrome[2]. Current research validates this, evidenced by epidemic proportions of burnout among clinicians, resulting in overwhelming feelings of frustration in their careers and a loss of professional fulfillment stemming from factors ranging from loss of autonomy to decreased efficiency.

In 2019, the World Health Organization (WHO) officially recognized occupational burnout as a disease by assigning it an ICD-11 diagnostic code. Accordingly, the WHO notes that burnout is characterized by 1) feelings of energy depletion or exhaustion; 2) increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and 3) reduced professional efficacy[3].

According to the latest physician survey by the Canadian Medical Association (CMA) approximately 53% of Canadian physicians are experiencing burnout, and 46% are thinking of cutting back their clinical workloads[4].

The COVID-19 pandemic completely transformed the way things are done all over the world. People, businesses, and public services had to quickly change and adapt to ensure both service providers as well as consumers could continue doing priority tasks as safely and efficiently as possible given the new circumstances.

In the case of healthcare services, acute care systems and centers were forced to cancel non-urgent surgeries, procedures and appointments and repurpose spaces and staff to accommodate surges in the emergency departments and critical care units.

IMPACT OF CLINICIAN BURNOUT

Burnout leads to job dissatisfaction and has the potential to increase adverse patient outcomes. Resulting feelings of disengagement, physical and emotional exhaustion, loss of control, decreased productivity and cynicism can be transferred to other co-workers, teams, units and patients, ultimately affecting the organization's very culture.

With patient safety initiatives at the forefront of modern health care delivery, clear evidence shows that disproportionately higher staffing ratios and dissatisfactory work environments are highly correlated to poor patient outcomes, reduced patient satisfaction and shorter tenure of the clinical workforce. Lower staff-to-patient ratios results in lower burnout rates, less chance for error and decreased incidences of hospital-acquired infections. Lighter staff workloads also afford more time and attention to the patient and lift the burden of feeling mentally and physically stretched.

STRATEGIES TO REDUCE BURNOUT

Engagement level and resilience plays a significant role in clinician retention. Research points to a combination of individual programs and an organizational approach to creating less stressful work environments. Focusing on staff wellness and safety enhances health system improvements and performance. Staff wellness proves to be most impactful when hospital leadership emphasizes their commitment to employee wellbeing.

1. CULTURE - Unfavorable organizational culture is an important predictor of clinician burnout. Clinician engagement is related to the practice of participative management, social support, and team interaction.

2. TRAINING AND EDUCATION - Provide consistent and efficient training sessions and targeted ongoing education when needed.

3. CLINICIAN ENGAGEMENT IN INNOVATION - encourage clinicians to participate in EHR design, system workflow correlation to clinical practice and testing, giving them a seat at the table. Best practice is to support standardization of technology and care process workflows which allows for the best possible adoption outcomes, as well as a more seamless transition when taking new updates to EHR software.

4. STREAMLINE PHYSICIAN DOCUMENTATION/IMPROVE CLINICIAN WORKFLOW - Four major factors influence satisfaction with electronic documentation tools, they are: time efficiency, availability / accessibility, expressivity, and quality.

HOW IS ORACLE CERNER HELPING

All of healthcare is moving at a rapid pace from digitized healthcare (a substitution for paper) to data-enabled transformational changes in the industry. As we enter a new age promised by artificial intelligence (AI), machine learning, blockchain and other advancements, Oracle Cerner will continue to lead the industry in

reducing clinician burnout. We have pivoted from simplified documentation and order entry to truly intelligent systems that leverage patient data to recognize sepsis, SIRS, obstetric emergencies and many others.

A well-designed system, with proper end-user input and appropriate governance structures for configurations, updates, and optimizations, in addition to appropriate end-user training with personalization and time-saving documentation workflows will contribute to increased engagement and proper adoption while reducing burnout.

The use of clinical dashboards or tracking shells proved especially useful in the last two years in displaying relevant and critical information for health teams regarding COVID-19 status for admitted patients. These tools allow quick display and reference of data elements like diagnosis, risk factors, key lab results and vital signs that usually have to be searched for within the patient's chart through several clicks.

In the ambulatory space, healthcare providers have been forced to reduce in-person appointments in favor of virtual visits enabled by phone or video calls. A recent joint survey by Canada Health Infoway and the Canadian Medical Association on the use of digital health and information technology among physicians in Canada showed that phone calls were among the most highly used resources by physicians, followed by video visits and secure email communications. Most physicians believe virtual care improves patient access, enables quality and efficient care for their patients.

While burnout in the ambulatory care venue may not be as evident or widely publicized as in the acute care and inpatient spaces, providers struggle with similar challenges: retrospective documentation, fragmented systems and paper-electronic hybrid workflows. Some physicians and ancillary healthcare team members spend considerable amounts of time after hours to ensure tasks are completed and especially reaching out to patients to provide necessary updates or follow ups to the virtual care visit.

Recent technological innovations are making their way into the healthcare space that will greatly help streamlining physician and other clinician's workflows, while reducing burden and burnout: remote and home patient monitoring, wearable devices that can upload data directly to the patient record, natural language processing, AI assisted patient visit documentation and more. At Oracle Cerner we are embedding these new technologies in our solutions while we continue to work on providing a consistent and optimal experience regardless of the devices healthcare providers are using. Our goal is to enable all clinicians with the resources to do their job efficiently, facilitating an efficient electronic documentation workflow and enabling more and better time spent interacting with their patients.

To learn more about strategies to prevent healthcare worker burnout, visit: nap.nationalacademies.org

Attend the upcoming 22nd Annual Healthcare Summit, Where the Rubber Hits the Road: Implementing Innovation and Access for Patients, where topics in health innovation will be discussed, see: **www.healthcaresummit.ca**

Sergio Carmona, MD
Lead Physician Executive
Oracle Cerner Canada
Email: Sergio.Carmona@cerner.com

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Issue 4 ebook edition July, 2022

Editors: Alan Low, Greg Spievak, and Howard Waldner, Reboot Health Consultancy and Advisory Services Inc.

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