

SPECIAL EDITION
ISSUE 8A

Health Matters Bulletin

BY *REBOOT HEALTH CONSULTANCY & ADVISORY SERVICES INC.*

WITH FOUNDING PARTNERS: *ROCHE* AND *ORACLE HEALTH*

We Need a Pragmatic Approach
to Mental Healthcare Access

Digital Health Adoption:
Maybe It's Not the Pace, It's the Idea

New Approaches to Innovation
in Healthcare in Canada



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Foreword

Issue 8A

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:

OUR KEY STRATEGIC PILLARS



**Health Data
Privacy, Policy and
Security**



**Personalized
Medicine and
Genomics**



**Artificial
Intelligence in
Healthcare**



**Value Based
Healthcare,
Operational
Efficiency and
Health Policy**



**Health Innovation
Development**

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Acknowledgments

ARTICLE

22

We Need a Pragmatic Approach to Mental Healthcare Access

By: Diane McIntosh

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Co-founder and Chief Medical Officer, RAPIDS Health*

ARTICLE

23

Digital Health Adoption: Maybe It's Not the Pace, It's the Idea

By: John Nosta

Innovation Theorist; President, NOSTALAB

ARTICLE

24

New Approaches to Innovation in Healthcare in Canada

By: Glenn Lanteigne

CEO & President, Tectonic Advisory Services Inc.

We Need a Pragmatic Approach to Mental Healthcare Access



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Improving access to high-quality mental healthcare needs to include much better support for our primary care practitioners.

ACCESS STARTS WITH PRIMARY CARE

The majority of mental health care services are provided by non-psychiatrists, usually primary care practitioners (PCPs). When we look around the world, roughly a third of PCP visits are made by individuals with a diagnosable mental illness, representing one of the most important groups to seek medical advice.

Yet, one in five Canadians do not have access to a family physician or nurse practitioner they can see regularly, with significantly higher barriers in British Columbia (27%), Atlantic Canada (31%), and Quebec (31%).¹

Further compounding the issue, the delays are daunting for individuals who would benefit from a psychiatric consultation, with actual wait times for treatment far longer than what is considered clinically reasonable wait times, which is the case in every province for every type of treatment.²

Unsurprisingly, many turn to the emergency department (*ED*) to rapidly access psychiatric care. EDs may provide entry into the system for people in crisis but cannot be relied upon as a primary solution to diagnose or treat a mental illness, even if it is severe. One study found that, of patients who presented at the ED following a suicide attempt, only 40% were able to see a psychiatrist within six months of their visit.³

PSYCHIATRIC DISORDERS ARE HARD TO DIAGNOSE AND TREAT

For most psychiatric disorders, the accuracy of a clinical diagnosis is poor, particularly if the diagnostician is not a psychiatrist. In Canada, misdiagnosis rates for psychiatric disorders in primary care range from 66% to 98%.⁴

Untreated or under-treated mental illness can result in poor health outcomes, stemming not only from a lack of timely access – or no access – to care, but also from diagnostic inaccuracy and ineffective treatment.

Unlike most areas of medicine, psychiatry lacks biological markers (*laboratory and imaging tests*) that reliably support a diagnosis and help determine the best treatment approach. Without objective biological tests, making an accurate diagnosis and finding an effective, tolerable treatment is inexact and more complex and time-consuming.

Determining the most appropriate treatment for a mental illness requires careful consideration of many factors, including a patient's symptom presentation (*e.g., are they sleeping too much or struggling with insomnia*), knowledge of their previous treatments (*what has worked and what hasn't*), and, most critically, the unique preferences of each patient.

IT'S TIME FOR PSYCHIATRY TO CATCH UP

There is a care gap between the clinical goals outlined in evidence-based guidelines for managing and treating mental illness and actual clinical practice. In what other health domain do we tolerate more than 66% diagnostic inaccuracy rates? Ensuring our physicians, nurses, counsellors, psychologists and psychiatrists have the necessary resources to care for their patients appropriately will help to lighten the burden of mental healthcare delivery, improving caregiver effectiveness, compassion and well-being.

Robust clinical decision support systems would provide healthcare practitioners with best-practice information at the point of care (when they see their patients), but these tools are profoundly lacking.



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RAPIDS™ is a Decision Support System that validates psychiatric diagnoses and offers personalized, evidence-based bio-psycho-social treatment guidance for clinicians to consider in consultation with their patients. The latest standards, guidelines and scientific evidence are encoded in the RAPIDS engine, which allows them to be systematically applied to a patient's health information to determine which diagnosis is supported and provide appropriate treatment guidance.

All areas of medicine, including psychiatry, have demonstrated the value of algorithm-based care, which is more accurately defined as evidence-based guidance for clinical decision making. Research has shown that employing a highly structured decision-support program for the treatment of depression was associated with the need for fewer medications and a shorter time to symptom remission, compared with treatment-as-usual. Such approaches have been shown to improve patient's overall well-being (*symptoms and functioning*) and have demonstrated cost-effectiveness.^{5,6,7}

Clinical decision support programs do not replace a healthcare professional – they marry the art and science of medicine, by offering expert guidance that helps a PCP to rapidly provide better, more personalized care. Getting the diagnosis right and providing the most effective treatment to each patient should also help clinicians to have more time, energy, confidence and hope. These attributes support compassionate care, which should be at the heart of every interaction we have with our patients.

Summary:

- Treating depression with alternative approaches leads to fewer medications and faster symptom remission compared to traditional treatment.
- These approaches improve overall well-being and are cost-effective.
- Clinical decision support programs provide expert guidance to healthcare professionals, allowing for better and more personalized care.

- Accurate diagnosis and effective treatment lead to more time, energy, confidence, and hope for clinicians.
- Compassionate care should be the focus of all patient interactions.

By: Diane McIntosh | BSc Pharmacy, MD, FRCPC, Psychiatrist; Co-founder and Chief Medical Officer, RAPIDS Health

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A respected psychiatrist, author, and educator, **Dr. Diane McIntosh** is a passionate advocate for better mental health care and a tireless champion for Canadians suffering from mental health challenges. Throughout her career, Dr. McIntosh has worked to raise the profile of mental health issues in Canada and around the world. She's established medical education and advocacy programs, published numerous blogs and op-eds, and lectures widely on mental health issues. Her latest venture, RAPIDS Health, has a mission to improve diagnosis and treatment for mental illness through innovative technology. Dr. McIntosh recently launched a new podcast, **Wicked Mind**, featuring conversations with mental health thought leaders and change makers who share unique perspectives on how we can transform mental health care to inspire hope and action. Her most recent book, *This is Depression: A comprehensive and compassionate guide for those who want to understand depression*, is an Amazon Canada bestseller.

Come hear Dr. Diane McIntosh provide a talk on ***A Psychiatrist's Perspective: Our Mental Healthcare System Must Urgently Embrace Technology*** on October 3rd at the 23rd Annual Healthcare Summit. Check out the full agenda and register at www.healthcaresummit.ca.

Digital Health Adoption: Maybe It's Not the Pace, It's the Idea



Photo credit: provided by Author, created by Dalle

Healthcare has witnessed substantial transformations throughout history, from medical breakthroughs to technological advancements. Rapid adoption isn't as uncommon as one might perceive in this sector, especially when an innovation fills a significant void or simplifies a complicated process. Pulse oximetry, for instance, quickly became an indispensable tool in healthcare due to its capacity to provide real-time, non-invasive measurement of oxygen saturation levels, thereby revolutionizing patient monitoring. However, the integration of digital health into the system, brimming with potential to upend traditional practices, has experienced a somewhat slower adoption pace. It begs the question: is the core issue rooted in the pace of adoption or the concept of digital health itself?

THE ADOPTION DISAPPOINTMENT

Digital health includes a plethora of technologies like electronic health records (*EHRs*), telemedicine, wearable devices, artificial intelligence (*AI*), and personalized medicine. Each one of these has the potential to revolutionize healthcare, making services more efficient, reducing costs, and improving health outcomes.

Yet, for all its promise, the adoption of these digital health technologies has been slower than anticipated. This brings us to ponder if the real issue is not with the speed of acceptance, but rather with the idea itself.

FACTORS INFLUENCING ADOPTION

To better understand the reasons behind this paradox, it's necessary to delve into the key elements influencing the adoption of new technologies in healthcare: clinical need, integration into existing workflows, cost, and clinical validation.

Clinical Need: A new technology, regardless of its advanced nature, will only garner popularity if it addresses a compelling clinical need. Pulse oximetry, for example, was quickly adopted because it filled an urgent gap in the field of patient monitoring that was much less invasive than the old-school arterial puncture.

Digital health technologies should similarly prove that they can address real and pressing clinical challenges. Technologies that just duplicate current procedures without offering significant advantages may find their adoption lagging, whereas those offering substantial improvements are likely to gain traction faster.

Integration into Workflow: Healthcare professionals often work under high-stress conditions, with little room for additional burdens. Technologies that seamlessly integrate into existing workflows, such as pulse oximetry, gain rapid acceptance since they provide critical information without increasing the workload. Digital health technologies should follow suit, integrating smoothly into existing healthcare processes. This requires not only technological compatibility, but also an understanding of the working habits, communication patterns, and patient management approaches of healthcare professionals.

Cost: Healthcare is already grappling with escalating costs. New technologies, if expensive, can add to this burden. Innovations that provide cost savings are therefore more likely to be embraced.

Although many digital health technologies promise long-term cost savings, the upfront investment can be substantial. Therefore, demonstrating the cost-effectiveness of digital health remains an essential part of the equation.



Clinical Validation: Last but not least, robust clinical validation is essential for any new healthcare technology. This is typically achieved through rigorous, peer-reviewed studies that demonstrate the technology’s safety and effectiveness.

The track record of digital health technologies in terms of clinical validation is somewhat mixed. While some technologies have a strong evidence base, others have been brought to market with minimal validation. This lack of evidence can hinder adoption, as healthcare professionals are naturally wary of unproven technologies.

User Experience: Undoubtedly, the user experience is a pivotal factor in the acceptance of digital health technologies. Ultimately, the value of digital health technologies will be realized when they seamlessly blend into the healthcare journey, improving the user experience, and fostering a more patient-centric approach to care.

SO, IS IT REALLY THE IDEA?

Considering the multitude of challenges facing digital health, it may seem tempting to conclude that the problem lies with the idea itself. However, this oversimplifies the issue.

The concept of digital health is robust and promising. It has the potential to effect seismic shifts in healthcare, leading to better patient care at lower costs. However, like any disruptive innovation, it faces hurdles. The key to faster adoption lies not in discarding the idea, but in refining it.

Digital health technologies need to be designed and implemented with a keen understanding of the healthcare environment. Innovators should focus on addressing unmet clinical needs, facilitating integration into existing workflows, demonstrating cost-effectiveness, and backing their technology with robust clinical validation.

Taking a page from the successful adoption story of pulse oximetry, digital health needs to position itself as a solution, not a complication, in healthcare practice. As we refine these technologies, ensuring they’re attuned to the specific requirements of the medical field, we’ll likely see a significant acceleration in the adoption of digital health.

The adoption of digital health may not be about the speed, nor the idea itself, but rather how well the idea is tailored to suit the unique and complex world of healthcare. Just as with pulse oximetry, once digital health technologies align with these key factors, we could witness an adoption rate that matches or even exceeds the optimistic projections set for it. Let's not give up on the idea – let's refine and evolve it. The future of digital health is just around the corner, and it's an exciting one!

By: John Nosta | Innovation Theorist; President, NOSTALAB

 [@JohnNosta](https://twitter.com/JohnNosta)



John Nosta is the founder of NOSTALAB – an innovation think tank recognized globally for an inspired vision of transformation. He's currently ranked as one of the leading global influencers in innovation and technology and well established as one of the top global strategic and creative thinkers. He is also one the most popular speakers around the globe presenting his vibrant and insightful perspective on the future on innovation. His focus is on guiding companies, NGOs, and governments through the dynamics of exponential change and the diffusion of innovation into complex systems, particularly in technology, AI and GPT. www.nostalab.com

John Nosta will be the opening keynote speaker at the **23rd Annual Healthcare Summit in Vancouver (October 3rd - 4th, 2023)**. The Summit will embrace change, turn problems into potential, and chart the future in healthcare. If you care deeply about the current and future state of healthcare, this is the event to attend. Follow [@HlthcareSumm](https://twitter.com/HlthcareSumm) on Twitter to learn more and for event news and announcements. You can register now for the summit at www.healthcaresummit.ca.

New Approaches to Innovation in Healthcare in Canada



In the Canadian healthcare system, there is a pressing need for help and innovation. While medicine has seen remarkable advancements, the delivery of treatment often falls short in terms of efficiency, effectiveness, and consumer-friendliness.

Some of the well-known problems in the system include long wait times, insufficient data utilization, lack of coordination, and lack of accountability. The rising healthcare costs pose a threat to provincial governments and burden businesses and individuals who have to cover the additional expenses. Between 2010 and 2019, spending on healthcare grew from \$131.7 billion to \$172.6 billion, showing an overall increase of 31.1% without adjusting for inflation, with an average annual growth rate of 3.4%¹.

Given these challenges, innovative solutions are necessary to address all aspects of healthcare, including delivery to consumers, technology implementation, and operational processes. Numerous companies in Canada have invested significant time and money into finding solutions, supporting healthcare R&D, pharmaceuticals, biotechnology, medical devices, digital health, and health services. Unfortunately, despite these investments, many innovation efforts fail to deliver the desired results. This raises the question: why is it so difficult to innovate in the healthcare sector?

Innovations in healthcare delivery have the potential to offer more convenient, effective, and affordable solutions for today's time-stressed and empowered patients. New drugs, diagnostic methods, health IT systems, automated delivery systems, and medical devices hold the promise of improved treatment and care that is less costly, disruptive, and painful. IT innovations that connect different components of the healthcare system can enable more coordinated and personalized care.

However, navigating the complex landscape of healthcare innovation in Canada is not an easy task. The system is heavily regulated, making it challenging for new technologies and treatments to be introduced. The lack of coordination among different players in the healthcare system further complicates matters.

To overcome these challenges and foster innovation in Canadian healthcare, new approaches are needed. One such approach is the collaboration between the public and private sectors. By bringing together government agencies, health care providers, insurers, and technology companies, innovative solutions can be developed and implemented more effectively. This collaboration allows for the leveraging of expertise and resources from each sector to drive change and improve healthcare outcomes.

Moreover, investing in research and development is crucial. Allocating sufficient funds to healthcare R&D can provide the necessary support for innovators to develop and scale their solutions. This investment should not only focus on pharmaceuticals and medical devices but also on digital health technologies. Utilizing electronic health records, telemedicine, and mobile apps can significantly enhance patient care and accessibility.

Additionally, education and training play a vital role in promoting innovation in healthcare. By equipping healthcare professionals with the necessary skills and knowledge, they can effectively utilize new technologies and practices in their daily work. Implementing continuous education programs ensures that professionals stay updated with the latest developments in their field.

Furthermore, fostering a culture of innovation within the healthcare system is essential. This can be achieved by encouraging experimentation, rewarding innovative ideas, and creating a supportive environment for entrepreneurs and startups. By embracing a culture that welcomes change and supports new ideas, the healthcare system can become more adaptive and responsive to the needs of patients.

In conclusion, innovation is a critical component for addressing the challenges faced by the Canadian healthcare system. By adopting new approaches and fostering collaboration among different stakeholders, the delivery of healthcare can be improved in terms of efficiency, effectiveness, and consumer satisfaction. With appropriate investments, education, and a cultural shift towards innovation, Canada has the potential to lead the way in transforming its healthcare system for the better.

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Glenn Lanteigne is CEO and President of Tectonic, a former Executive with Telus and Regional CIO in Ontario. Tectonic is the nation's leading digital transformation partner for healthcare organizations. Tectonic provides unique market intelligence, proven frameworks, and results-based consulting to help solve healthcare's most significant strategic challenges. Learn more about Tectonic, the industry's premier knowledge-sharing and collaboration organization for up-to-the-minute digital insights and best practices. For more on Tectonic, please visit www.tectoniconline.com.

Attend the 23rd Annual Healthcare Summit on October 3rd and hear Glenn Lanteigne speak about *Where the Innovation Collides between the Private and Public Sector*. Glenn will be joined by some of their clients to speak about Tectonic's approach in accelerating digital transformation. To register for the summit in Vancouver, B.C. on October 3rd - 4th please go to www.healthcaresummit.ca.

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