Magazica

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Health
Hope, Happiness

BOOK REVIEW:
WHEN BREATH BECOMES AIR
BY PAUL KALANITHI

HEALTHY HEART, HEALTHY MIND:
INSIGHTS FROM DR. RADIN KAMVAR

THE ROLE OF AI IN CANADIAN HEALTHCARE

RADIN KAMVAR

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Publisher
Magazica Inc.

Publication Manager
Ashkan Pourzeinali

Head-Editor
Suman Dhar

Designer and Head-IT
Moe Nabi

Website
www.magazica.com

Contact to Editorial
editorial@magazica.com

Marketing Opportunities
ads@magazica.com

@mymagazica
YouTube @magazica

Interview

Dr. Radin Kamvar

With a Physician Ambassador and researcher

Dr. Radin Kamvar is a dedicated medical doctor with a profound interest in the interplay between the body and mind, particularly focusing on cardiovascular diseases and neurocognitive disorders. As an international medical graduate, Dr. Kamvar brings a global perspective to healthcare, having pursued his medical education in Hungary before moving to Canada. His journey demonstrates resilience and adaptability, culminating in the successful completion of Canadian licensing exams. Dr. Kamvar is committed to leveraging his expertise to enhance patient well-being and is enthusiastic about the evolving landscape of medicine, including the role of AI.

Healthy Heart, Healthy Mind:

Insights from Dr. Radin Kamvar on Cardiovascular Disease, Neurocognitive Disorders, & the Future of Healthcare

Imagine a world where medical knowledge bridges continents and cultures. Meet Dr. Radin Kamvar, an international medical graduate whose journey from Iran to Hungary and now Canada has forged a unique perspective on health. He's not just another doctor; he's a witness to diverse healthcare systems, a student of the intricate dance between heart and brain. Ever wondered how simple habits can ward off life-altering diseases? Curious about the truth behind memory loss that goes beyond aging? Get ready to unlock practical insights on cardiovascular health, demystify neurocognitive disorders, and discover the mindset needed to thrive in the demanding world of medicine. This isn't just an interview; it's a roadmap to a healthier, smarter life, drawn from experience and expertise.

Magazica: Hello, everyone, and welcome back

to *Magazica*. Today, we have the pleasure of speaking with Dr. Radin Kamvar.

Dr. Kamvar is a medical doctor with a deep interest in how our bodies and minds work, especially when it comes to our hearts and brains. He is also an international medical graduate (IMG), showcasing his dedication to medicine on a global scale. Dr. Kamvar is passionate about making a real difference in people's lives through medicine. We are honored to have him share his journey, insights, and expertise with us today—insights that can help us live healthier, smarter lives. So, let's dive in. Dr. Kamvar, welcome!

Dr. Radin Kamvar: Thank you very much for inviting me and for the beautiful introduction. I want to say hello to the viewers and readers and thank you for having me here.

Magazica: Oh, it's a pleasure to have you here. Becoming a doctor is a long and challenging journey, as we all understand. What initially sparked your interest in medicine? Was there a specific moment or experience that solidified this path for you?

Dr. Radin Kamvar: That's a good question. I've had a strong interest in medicine and healthcare since childhood. I remember a specific moment when my grandfather was diagnosed with a heart condition called aortic stenosis. He ended up in the hospital, and I saw the medical team—how they communicated and worked to find better solutions for the patients, crafting effective management plans.

I was deeply inspired by how beautiful and essential the role of healthcare is in society, especially the work of physicians. From that moment, I knew I wanted to pursue a medical degree and practice as a physician in the future.

Magazica: You are an international medical graduate, which speaks volumes about your determination and adaptability. Could you share a bit about what that journey has been like? Perhaps you could highlight some key lessons or milestones you've encountered while navigating different healthcare systems and educational approaches.

Dr. Radin Kamvar: Yes, of course. Thank you for your kind words. The journey has definitely been challenging since starting medical school. I began my medical education in Hungary back in 2016. Adjusting to a new environment and learning new languages—especially Hungarian, which is one of the most difficult languages in the world—was no easy task. To communicate with patients and work within the healthcare system, I had to adapt and learn the language. It was very different from my home country, Iran, both culturally and academically.

During my time in Hungary, I learned a lot from my mentors and professors, including specialists in various medical fields.

We faced many challenges in Hungary, from exams to language barriers, especially in clinical settings where we needed to communicate with patients. As international students, we had to work harder than Hungarian students. Despite these difficulties, I graduated in 2023 and moved to Canada.

In Canada, I began preparing for my licensing exams, the MCCQE1 and NAC OSCE, while working alongside remarkable Canadian physicians. Thankfully, I passed both licensing exams. Currently, I am in the process of completing my residency application.

Magazica: It sounds like an incredible and rigorous journey. What has been your biggest takeaway from these experiences?

Dr. Radin Kamvar: Medicine is a vast field, and anyone who enters it must be prepared to work hard and remain optimistic. You need to have resilience and adaptability, especially when moving to a new country with different cultures and people. Having lived and studied in Iran, Hungary, and now Canada, I've seen both similarities and differences in healthcare systems.

For example, in Iran, the healthcare system is more doctor-centered, where the doctor's word is absolute, and patients are expected to comply without question. In Canada, the system is very different—it's patient-centered. Patients are presented with options, and they make the final decisions. This approach truly puts the patient first, and I find it very positive.

Another important lesson I've learned in Canada is the value of respecting diversity. Here, you meet people from all kinds of backgrounds, cultures, and religions. As a physician, it's crucial to respect every patient equally and avoid judgment based on their beliefs, skin color, or culture. Respect and understanding are fundamental to treating patients effectively. In Canada, patients' needs

come first, and they are treated with the utmost care and dignity.

As a physician who studied in Hungary, I learned the importance of adaptability. It's essential to adjust to the environment you are living in. In medicine, adaptability is a key skill, especially in healthcare practice.

Magazica: Fantastic, fantastic. So let's move on to your field of interest—cardiovascular diseases and neurocognitive disorders. Let's focus on the first one: cardiovascular diseases. What does this term encompass, and why are these conditions critical for everyone to understand?

Dr. Radin Kamvar: Cardiovascular diseases refer to any conditions related to the heart. For example, hypertension—commonly known as high blood pressure—can lead to various heart issues and damage organs such as the kidneys, liver, and eyes. Other examples include valve disorders and heart failure. Essentially, anything related to the heart falls under cardiovascular disorders.

It's crucial to pay attention to our heart health. For example, lifestyle changes can significantly impact conditions like hypertension. Reducing salt intake is vital for controlling blood pressure. A sedentary lifestyle—sitting too much and not having any physical activities—can negatively affect our cardiovascular system and overall health, leading to poor outcomes.

Many people don't realize how important simple lifestyle changes can be. For instance, individuals with a high salt intake are at greater risk of developing hypertension. If they have a family history of high blood pressure, the risk is even higher. People with such predispositions need to be especially mindful of their lifestyles—they need to stay active and cut down on processed foods, sugar, and excess salt.

> **"DOPAMINE IS LIKE ROCKET FUEL—IT'S THE SUPERPOWER THAT ENERGIZES THE ENTREPRENEURIAL BRAIN."**

I'm not saying don't enjoy fast food or go to places like McDonald's, but moderation is essential. Small changes can make a big difference in heart health.

Magazica: That's a valuable perspective. What else can lead to hypertension?

Dr. Radin Kamvar: Stress is another significant factor.

Magazica: And an imbalanced diet?

Dr. Radin Kamvar: Yes, exactly. An imbalanced diet and sleep quality are

significant factors. If someone is going to sleep at 2 a.m. and waking up at 7 or 8 a.m., this irregular sleep cycle can contribute to developing hypertension.

We have what I call the “4 S’s” when it comes to hypertension: reduce salt intake, ensure good quality sleep, and stop smoking. Smoking counts as two “S’s” because it’s that impactful. Smoking not only increases the risk of hypertension and cardiovascular diseases but also raises the likelihood of developing cancer.

We need to take care of our bodies by avoiding excessive consumption of junk food, fast food, and processed foods. It’s equally important to ensure good sleep and manage stress levels. I understand that stress is unavoidable for many people, especially with the current economy and societal challenges. However, practices like meditation, yoga, or other stress-reducing activities can be incredibly helpful.

Physical activity is also crucial. Walking for at least 45 minutes a day is essential for heart health. It can significantly reduce the risk of cardiovascular diseases and even cancer.

Magazica: Fantastic suggestions. That actually led to my next question: What are some common habits that people, even from an early age, can adopt to reduce their chances of developing cardiovascular diseases? You’ve already answered this beautifully.

Let’s move on to your second area of interest, which I see from your profile: neurocognitive disorders. For those of us who aren’t medical professionals, the term can sound intimidating. What are some common misconceptions about brain health that you wish more people understood?

Dr. Radin Kamvar: That’s an excellent question. Many misconceptions surround neurocognitive disorders. One common misunderstanding is that they are synonymous with Alzheimer’s disease. This is not true.

Neurocognitive disorders are an umbrella term, and Alzheimer’s disease is just one subtype. There are many diseases under this category, such as Lewy body dementia, vascular dementia, Parkinson’s disease (which can lead to dementia), Huntington’s disease, and others. All of these conditions involve cognitive decline, which is the hallmark of neurocognitive disorders.

For instance, Alzheimer’s disease is a progressive neurodegenerative disorder where patients may experience forgetfulness, lose the ability to perform daily tasks, and even struggle to recognize family members. Once simple tasks, like going to the bathroom or washing dishes, become increasingly difficult or impossible.

However, neurocognitive disorder is not the same as Alzheimer’s; Alzheimer’s is merely one type of neurocognitive disorder. This is an important distinction I wish more people understood.

People often think that Alzheimer’s disease or dementia is simply a part of aging—that as people grow older, say 70 or 80, their cognition declines, and that’s Alzheimer’s. But that’s not

true. Occasional forgetfulness, like forgetting someone's name now and then, is normal. However, when it progresses to forgetting family members or struggling with simple activities of daily living, it could be Alzheimer's disease and needs to be checked.

Cognitive decline of this kind is not a normal part of aging; it's a potential sign of Alzheimer's disease that requires medical evaluation. Unfortunately, there is no cure for Alzheimer's at this time, but some medications can slow its progression and help manage symptoms, including psychiatric symptoms like depression or anxiety. While researchers haven't found a definitive cure yet, I'm hopeful that future advancements in science will lead to breakthroughs, as this condition is becoming increasingly common.

Magazica: The world of medicine is constantly evolving with new technologies and discoveries. What excites you most about the future of healthcare, particularly in your field?

Dr. Radin Kamvar: AI is growing rapidly, especially in the healthcare system, and I'm very excited to see where it will lead in the next 10 years. For example, in cardiology, we already have AI-powered imaging and wearable devices that allow for earlier detection of heart diseases. These technologies can even help prevent disease progression by alerting patients and doctors to early signs of trouble.

AI's potential extends to diagnostics, where it could support physicians in identifying conditions more quickly and accurately. In specialties like radiology and pathology, AI might be able to detect abnormalities, such as identifying cancer cells or biomarkers, with a level of precision that complements human expertise. For instance, it could help detect tumors at earlier stages, improving patient outcomes.

While I hope AI won't replace healthcare professionals, I believe it will play an increasingly supportive role, enhancing our ability to deliver quality care. I'm optimistic that AI will continue to help us address challenges in medicine, especially in areas like cancer detection and treatment.

Magazica: That's fascinating. In this age of the information revolution, there's so much medical information available online. What's your top advice for finding trustworthy sources and making informed decisions about health?

Dr. Radin Kamvar: Many people, including my own family, turn to "Dr. Google" when experiencing symptoms. Let's say someone has abdominal pain; they might search "causes of abdominal pain" and come across a list of possible conditions. This can lead to unnecessary anxiety—thinking it might be cancer when it's actually just a minor gastric issue.

While the internet is a great resource for learning and expanding knowledge, it's not a substitute for professional medical advice. If someone has symptoms or is concerned about their health, they should see their family doctor. These are trained professionals who can assess symptoms accurately and recommend appropriate diagnostic tests or treatments.

Relying solely on online resources can lead to distress and misinformation. It's better to learn from real human intelligence, not just artificial intelligence.

Magazica: Looking back on your incredible journey, what has been the most rewarding aspect of pursuing a career in medicine? What keeps you motivated during challenging times?

Dr. Radin Kamvar: The most rewarding part of medicine, for me, is making a real difference in people's lives. Helping patients understand their conditions and supporting them during difficult times is deeply fulfilling. What keeps me motivated is the knowledge that one day, I'll make a meaningful impact on many patients' lives—helping, healing, and supporting them in numerous ways. That vision of the future inspires me to keep going, even during the tough times.

Magazica: Finally, for someone inspired by your story and considering a path in healthcare, especially as an IMG in Canada, what advice would you offer to support their journey?

Dr. Radin Kamvar: That's a great question. Many IMGs come to Canada to pursue medicine, obtain their licenses, and practice here. It's a challenging journey, particularly with so many talented doctors and the competitive nature of the healthcare system.

For those preparing for licensing exams, my advice is simple: study hard, stay determined, and keep pushing forward. Even if things don't go as planned, don't lose hope or get discouraged. Persistence is key to overcoming challenges and achieving your goals.

Success doesn't happen in one day. It takes time, persistence, and resilience. If you're not yet where you want to be, keep fighting, keep working hard, and stay passionate about your goal in medicine. Believe in yourself.

Challenges and setbacks are part of the journey, but they don't define your future. You have to fight for your dreams. Never give up. Trust in your abilities, and you will reach the position you've worked so hard for. Believe in that.

Magazica: Thank you, Dr. Kamvar. Thank you for sharing all those beautiful insights with our readers and viewers.

Dr. Radin Kamvar: Thank you for having me.
Magazica: Thank you.

The First Canadian Hospital:

A Legacy of Care and Innovation

By Editorial Team

A notable institution developed in the center of New France's former vast rugged lands which established the groundwork of Canada's healthcare system. The Hôtel-Dieu de Québec existed beyond its medical function starting from 1639 because it represented hope and resilience along with a steadfast dedication to healing. The creation of this hospital during an era with basic medical technology and harsh living conditions represented a major development in Canadian medical history.

Three Augustinian nuns from France launched the Hôtel-Dieu de Québec through their relentless dedication. The Augustinian nuns Marie Guenet de Saint-Ignace along with Anne Le Cointre de Saint-Bernard and Marie Forestier de Saint-Bonaventure-de-Jésus undertook a dangerous Atlantic crossing to deliver medical assistance to residents of the new colony. The journey of the Augustinian

nuns represented a shift from structured European medical practices to the unforeseen challenges of Canada's natural landscape.

A French noblewoman named Duchess d'Aiguillon supported the mission by funding the hospital's creation. Her vision took shape from her uncle Cardinal Richelieu's humanitarian dedication and compassionate nature. The duchess held that hospitals were essential for European settlers while simultaneously serving Indigenous communities as a conduit for cultural connection through compassionate medical care.

The hospital was situated in Québec City to strategically support the expanding colony. Hôtel-Dieu faced severe difficulties during its early days because of extreme winter conditions and medical supply shortages which led to disease outbreaks endangering both European settlers and Indigenous communities. The nuns maintained their mission through the creation of unique healthcare methods that combined European medical science with Indigenous healing traditions. Through intercultural collaboration the hospital refined its medical practices while establishing holistic healthcare standards throughout Canada.

As time passed the hospital improved and grew through additional facilities and services. Stone buildings replaced the original wooden structure which solidified the hospital's permanent place in Québec City's landscape. Despite modern hospitals leading medical advancements today, Hôtel-Dieu continues to uphold its importance by offering healthcare education and serving the community.

The Hôtel-Dieu differed from other early North American hospitals through several unique characteristics. Hôtel-Dieu de Québec emerged as one of the earliest medical facilities north of Mexico before many famous medical institutions were established. Hôtel-Dieu functioned differently from European hospitals by serving settlers and Indigenous peoples while also healing wounded soldiers from French-British conflicts. The hospital's inclusive approach mirrored its wide-reaching humanitarian goals while establishing itself as a landmark of medical advancement and empathy.

The facility distinguished itself through its adoption of Indigenous healing techniques. The nuns acknowledged traditional Indigenous remedies as effective treatments and therefore adopted time-tested herbal treatments and healing techniques within their practice. The combination of multiple healing traditions led to the development of early integrative medicine practices before modern healthcare officially recognized the field.

Hôtel-Dieu served as more than a healing facility because it functioned as an educational establishment. The Augustinian nuns offered training programs for nurses and medical professionals which became one of Canada's first formal medical education systems. Through their commitment to knowledge-sharing these institutions established the foundation for later nursing schools and medical colleges throughout the nation.

Hôtel-Dieu de Québec demonstrates remarkable endurance through centuries of

wars and epidemics alongside numerous political changes. The hospital became a battleground during the British conquest of 1759 as part of the Seven Years' War. The hospital served as a shelter where medical staff cared for injured soldiers from both French and British forces. The hospital maintained its original purpose of delivering medical assistance to everyone regardless of the new colonial rulers.

Epidemics were another formidable challenge. The colony experienced multiple epidemics of smallpox, typhoid, and influenza which frequently exceeded the hospital's ability to manage patients. The nuns demonstrated unwavering dedication as they relied on both their medical expertise and spiritual beliefs to provide solace to those who suffered. Both the French-speaking community and British colonial administrators who governed Canada developed deep respect for their dedication.

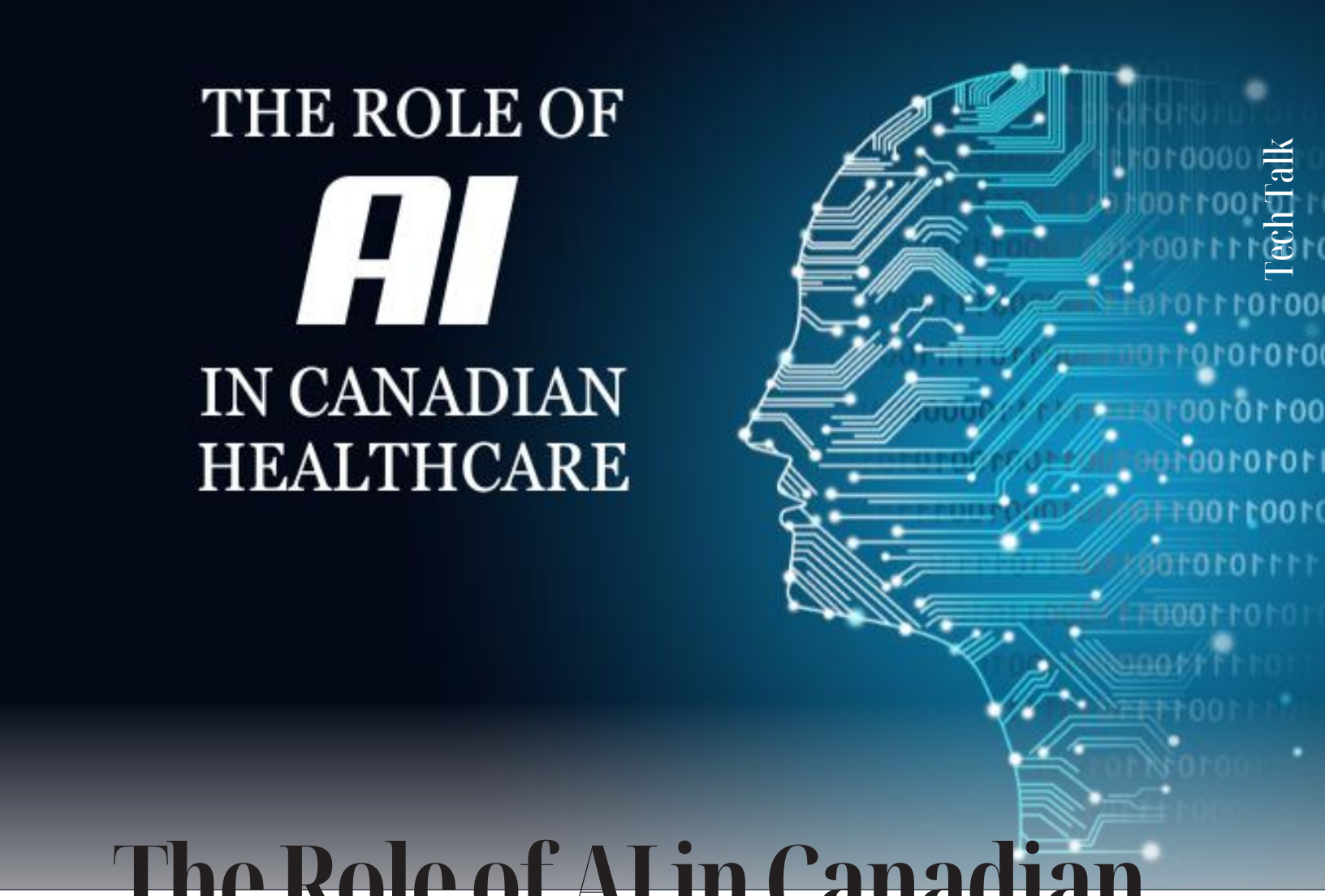
Hôtel-Dieu now functions as a dedicated medical facility for specialized treatments. Even though it no longer operates as Québec City's main hospital facility, its historic structures now function as healthcare and research centers which preserve its tradition of medical excellence.

Canada holds one of the finest healthcare systems globally with modern hospitals and advanced technology yet remains profoundly connected to its medical history through the enduring legacy of Hôtel-Dieu de Québec. Healthcare extends beyond medical treatments to encompass compassion alongside resilience and community services. The Augustinian nuns who journeyed across the ocean in 1639 could not have foreseen the extensive medical network emerging from their modest origins yet their foresight established one of Canada's most valued institutions.

The Monastère des Augustines museum and wellness center is located within Québec City's historic hospital buildings where visitors can explore its exhibits today. The site honors the trailblazing dedication of women healers throughout history while providing visitors a chance to explore the origins of Canadian healthcare and its lasting principles of care and humanity.

It remains crucial to recognize the foundational institution as we honor Canada's progress in medical and public health achievements. Hôtel-Dieu de Québec exemplifies how perseverance and faith can create a lasting dedication to helping others beyond its function as a hospital. Our understanding of modern medical institutions becomes more profound when we recognize their foundation on centuries of dedicated sacrifice.

The first Canadian hospital served both as a treatment center and a groundbreaking model which established medical standards for subsequent institutions.



The Role of AI in Canadian Healthcare:

Transforming Diagnostics, Patient Care, and Hospital Management

By Editorial Team

Canada's healthcare system is experiencing a swift transformation through Artificial Intelligence (AI), which brings about unprecedented innovation and efficiency. AI technology is reshaping medical services delivery by revolutionizing diagnostics and patient care while optimizing hospital operations to improve health outcomes for Canadians. The adoption of this technological revolution in the country shows that AI serves as an effective solution to critical healthcare challenges related to accessibility, accuracy, and resource management.

Diagnostic medicine represents one of AI's most revolutionary contributions to Canadian healthcare. Medical professionals now use AI tools which detect diseases rapidly and precisely during the early stages when treatments work best. Medical image databases combined with patient records serve as training material for machine learning algorithms which can detect subtle patterns and anomalies that humans may overlook. The ability to analyze and interpret medical data through AI shows exceptional impact within the fields of radiology, pathology, and oncology.

AI systems analyze mammograms, CT scans, and MRIs to identify early indicators of cancer and cardiovascular diseases as well as neurological conditions like Alzheimer's. Canadian hospitals and research institutions use AI platforms including IBM's Watson and Google's DeepMind to help radiologists and pathologists analyze complex medical imaging data. Diagnostic tools help minimize errors while accelerating examination processes which lead to faster patient treatments.

Predictive diagnostics are advancing with the help of AI technology. AI algorithms can identify people at high risk for conditions like diabetes and heart disease through analysis of electronic health records and genetic information while enabling preventive measures before symptoms develop. The transition to proactive healthcare represents a transformative force in Canadian public health systems.

Artificial intelligence technology expands beyond diagnostic improvement to revolutionize the delivery method of patient care. Personalized medicine stands as a groundbreaking advancement because it enables medical treatments to be customized according to each person's genetic profile along with their lifestyle choices and medical background. AI algorithms use genetic data to determine optimal cancer therapies while eliminating guesswork in treatment and reducing adverse effects.

AI innovations continue to improve patient care through virtual health assistants that function using natural language processing (NLP) technology. Patients receive round-the-clock support through these digital tools which provide medical question responses while administering medication reminders and tracking chronic conditions like diabetes or hypertension with wearable technology. AI-driven applications monitor blood sugar levels continuously and send notifications to patients or their doctors when treatment is required.

AI technology is closing healthcare access gaps in Canada's rural communities and extensive geographic regions by utilizing telemedicine solutions. Patients located in remote areas now benefit from expert medical care through virtual consultations and AI-powered diagnostic tools that eliminate travel requirements. The benefits of improved healthcare access through AI affect Indigenous communities significantly because they have traditionally faced restricted specialist access. AI provides quality medical services to all Canadians regardless of location through healthcare democratization.

Hospital management has been transformed by AI which both streamlines operations and improves resource allocation beyond direct patient care. The numerous components that make up hospital environments function in complex systems which AI technology works to organize. Hospitals use AI-powered scheduling systems with predictive analytics to anticipate patient inflow which allows them to distribute staff and beds more effectively. The system cuts down patient waiting periods while simultaneously maintaining availability of essential resources when they are most needed.

The field of robotic process automation (RPA) represents an important area where AI has made substantial advancements. The implementation of RPA in healthcare settings automates administrative activities like medical billing and patient record management which allows health professionals to direct their energies toward patient care. The implementation improves operational efficiency while simultaneously reducing the risk of burnout among healthcare workers which has become an increasing issue in Canada's strained healthcare system.

AI significantly assisted Canadian hospitals to handle the COVID-19 crisis during the pandemic period. Health systems used predictive analytics software to estimate case increases and accordingly distribute ventilators and improve ICU space management. AI-driven models enabled policymakers and healthcare providers to make decisions based on data which led to optimal deployment of resources in critical areas. The pandemic demonstrated AI's potential to boost emergency preparedness and response capabilities for upcoming health emergencies.

Canadian healthcare stands on the brink of limitless transformation possibilities as AI technology continually advances. Current research in healthcare is investigating how AI-driven robots can execute intricate surgical tasks with unmatched accuracy. AI-powered chatbots and mental health apps represent a promising new frontier by offering support to those who struggle with anxiety and depression.

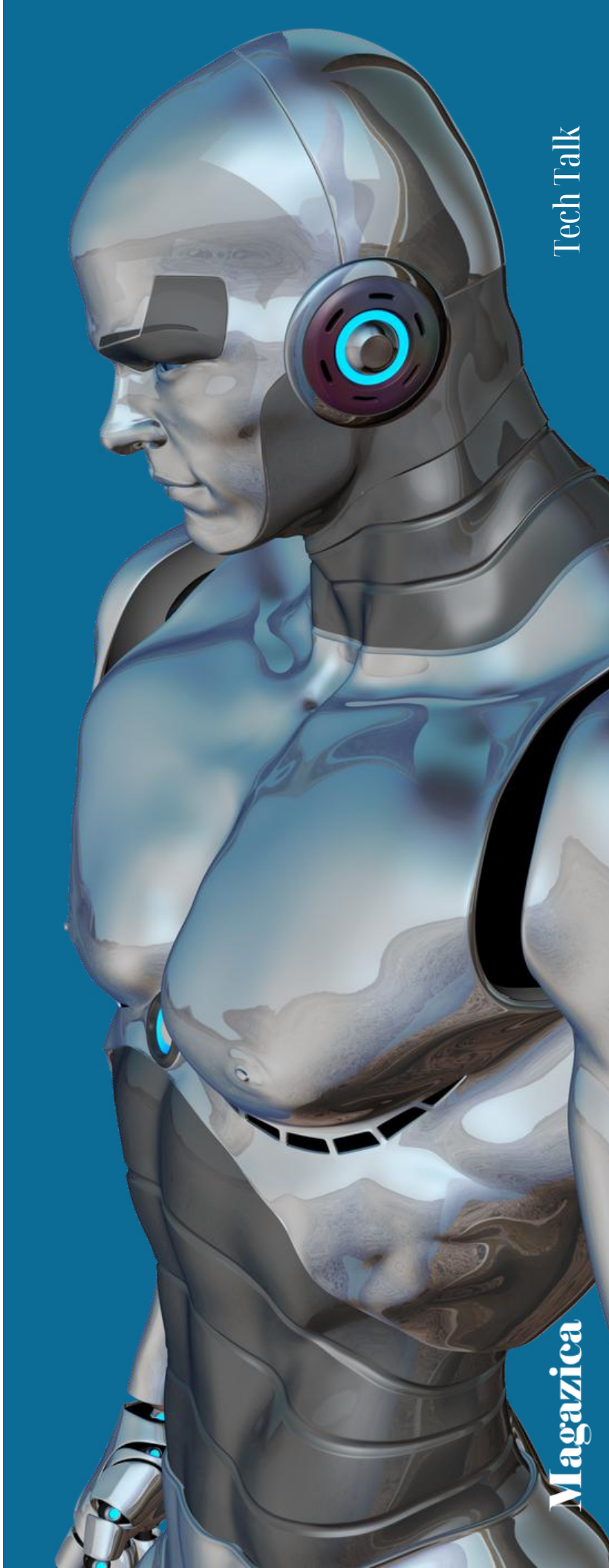
The Canadian government acknowledges the critical role AI plays in healthcare and directs substantial funds toward research and development in this area. The Pan-Canadian Artificial Intelligence Strategy represents Canada's effort to become a top global innovator in AI development with healthcare applications as its main focus. Academic institutions working together with industry leaders and government bodies are developing state-of-the-art AI technologies that could both save lives and decrease healthcare expenses.

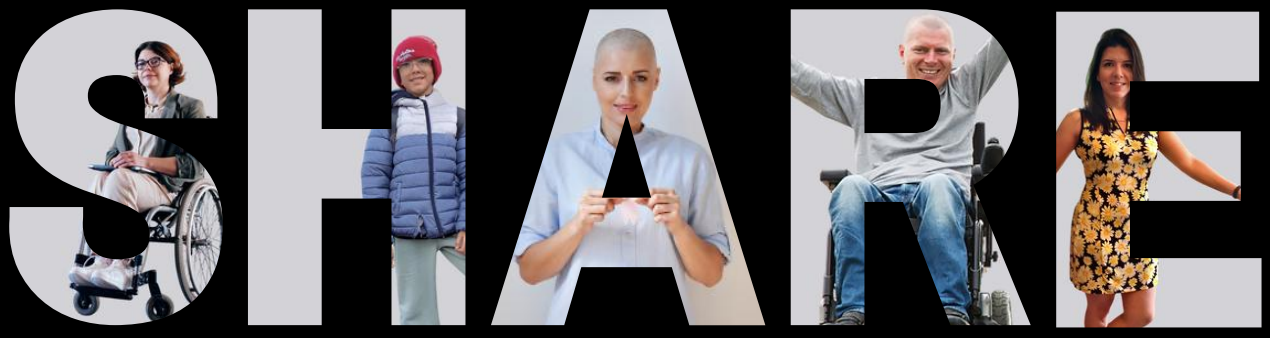
While AI holds promise for healthcare advancements its implementation faces several obstacles. The use of AI tools demands careful attention to ethical issues including data privacy and algorithmic biases to promote responsible AI application. Human oversight must ensure that AI technology supports healthcare professionals without substituting their expertise. Achieving success for AI in Canadian healthcare depends on finding the right equilibrium between technological advancement and patient-focused treatment.

AI technology exists to support healthcare professionals rather than substitute them. AI serves as an influential instrument that extends healthcare professionals' abilities to offer improved care through more efficient processes. Healthcare providers benefit from AI because its automation of routine tasks and provision of data-driven insights along with improved diagnostic accuracy enables them to dedicate their time to their patients.

The Canadian healthcare system stands at a critical point because it must confront the issues of an aging population together with escalating healthcare expenses and growing service demands. Artificial Intelligence presents an innovative pathway with solutions that advance patient outcomes and make healthcare both more accessible and sustainable. The adoption of AI by Canada enables the development of a healthcare system that functions more intelligently and efficiently while providing fair benefits to every citizen.

The incorporation of artificial intelligence into Canadian healthcare initiates a modern age where precision, personalization, and efficiency dominate. AI revolutionizes healthcare by advancing early disease detection and personalized treatments along with enhancing hospital operations. Despite existing challenges there are significant advantages that promise a future healthcare system which is more accessible and fair while delivering better outcomes.





YOUR STORY OF STRENGTH

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Healthcare Workforce Challenges:

Canada's healthcare system needs more doctors, nurses, and specialists than ever before.

By Editorial Team

The Canadian healthcare system which served as a point of national pride now faces a foundational crisis. Surging demands for doctors, nurses, and specialists have reached unprecedented levels which reveal systemic weaknesses while prompting serious concerns about the future viability of universal healthcare. The increasing number of elderly people combined with rising chronic illnesses and changing healthcare expectations puts unprecedented pressure on our workforce. This

study examines workforce shortages by identifying their fundamental causes as well as their effects on patient care while assessing the creative strategies being implemented to manage this escalating crisis.

The Canadian healthcare system operates through the fundamental efforts of committed medical professionals including doctors and nurses as well as specialists who deliver necessary care to millions of citizens. However, this backbone is under immense pressure. The Canadian Medical Association (CMA) data projects that Canada will need to find solutions for a medical workforce deficit of about 44,000 physicians by the year 2028. The Canadian Nurses Association (CNA) predicts a deficit of 60,000 nurses nationwide by the year 2030. Beyond raw numbers these data points signal an impending crisis that endangers the delivery of quality healthcare services throughout the nation.

Numerous elements are creating growing demand for healthcare professionals. By 2030 seniors will constitute approximately 25% of Canada's population which shows they lead the trend of an aging population. The medical needs of older adults who need more frequent and intricate care create further pressure on a healthcare system already stretched to its limits. The increasing prevalence of chronic diseases like diabetes, heart disease and mental health conditions demands more specialized healthcare services.

These healthcare challenges are intensified by the unequal spread of medical professionals throughout the nation. Rural areas and remote communities face significant difficulties because they cannot successfully recruit and maintain doctors and nurses. Residents of some Newfoundland and Labrador communities have not had access to a family physician for multiple years which leaves them with no choice but to visit emergency rooms or journey extensive distances to receive medical care. Despite being better equipped with resources urban centers face shortages because the high number of specialists in these areas results in extended waiting periods for essential services.

These workforce shortages generate widespread ramifications that cause significant anxiety. Throughout various regions across the nation people face extended waiting periods for surgical procedures as well as diagnostic evaluations and specialist appointments. Patients requiring vital treatments such as cancer therapy or mental health care frequently experience treatment delays which worsen their conditions and diminish their recovery prospects.

The frontline of healthcare delivery through emergency rooms faces significant vulnerability. Staff shortages and patient overcrowding have caused healthcare workers to experience burnout which leads to a cycle where exhausted staff leave their positions and worsen staffing shortages. The increasing frequency of nurses working back-to-back shifts and doctors attending to scores of patients daily underscores the personal toll of the ongoing crisis.

The psychological well-being of healthcare workers represents an urgent concern. Working within an overstretched system during the COVID-19 pandemic revealed both the emotional and physical burdens faced by healthcare workers. Healthcare professionals often feel unsupported and undervalued which results in emotional exhaustion and high levels of workplace burnout and staff turnover. Their well-being suffers from these conditions while their capability to deliver patient care declines.

These challenges create impacts that reach far beyond the healthcare system. Families must deal with a broken healthcare system as they become primary caregivers for relatives who lack timely access to medical care. Productivity declines for employers when their employees need to leave work to manage family health needs or personal medical situations. An overstretched healthcare system leads to substantial economic losses amounting to billions of dollars annually because of its inefficiencies and failure to meet healthcare needs.

A proper understanding of this crisis requires a thorough examination of its fundamental causes. The main reason for healthcare problems lies in medical education and training programs which have reached their maximum capacity. The demand for healthcare workers has increased dramatically but medical and nursing program enrollment capacity remains insufficient. The shortage of available spaces has forced institutions to reject thousands of eligible candidates annually.

Another contributing factor is the aging workforce. The healthcare workforce faces a shortage as more doctors and nurses approach retirement age with insufficient new graduates to fill their positions. In specialized medical areas like geriatrics and psychiatry the demand for skilled professionals surpasses available supply.

Working conditions in the healthcare sector contribute as a significant factor in the industry's challenges. The combination of extended working hours and high pressure levels along with lower financial rewards compared to other fields has resulted in significant challenges to recruit and maintain skilled professionals. The emotional burden of their work in combination with insufficient support and resources has driven numerous healthcare professionals to leave their careers early.

Systemic barriers have prevented the integration of healthcare professionals who received their training abroad. Foreign-trained doctors and nurses have been critical for Canada's workforce needs but have encountered many bureaucratic obstacles and extended licensing periods that slow their integration into the healthcare system. Bureaucratic barriers and licensing delays prevent skilled professionals from practicing even though their skills remain in high demand.

Despite the significant challenges, cautious optimism exists because of some positive developments. Government bodies and healthcare organizations nationwide partner with education systems to resolve workforce deficits while establishing stronger systemic resilience.

A viable strategy involves growing existing medical education and training programs. Multiple provinces have revealed their initiatives to expand medical school and nursing program seats while emphasizing the preparation of healthcare professionals ready to serve in areas with limited access to medical services. The University of Toronto has introduced a new program that accelerates family physician training with a primary focus on community-based care. The University of British Columbia introduced an initiative to educate nurse practitioners to serve in rural and remote areas where primary care requirements are highest.

A critical part of workforce development involves hiring healthcare professionals who received their training overseas. The Canadian healthcare system has traditionally depended on doctors and nurses trained abroad to meet workforce shortages but faces challenges with bureaucratic obstacles and lengthy licensing procedures that slow their entry into medical practice. Provinces including Ontario and British Columbia have launched streamlined processes that allow internationally educated professionals to enter practice more rapidly and efficiently. Bridging programs and mentorship opportunities work alongside these initiatives to assist internationally trained healthcare professionals in adjusting to Canadian healthcare practices.

Technology is also playing a transformative role. Telemedicine experienced significant growth during the pandemic period and now serves as an essential tool to expand healthcare professionals' reach and better access to medical care especially in remote

regions. Digital health solutions like virtual consultations and remote monitoring platforms decrease patient visits to healthcare facilities and help to alleviate their operational pressures. Healthcare organizations explore artificial intelligence systems and automated processes to alleviate administrative tasks so healthcare workers can dedicate more time to direct patient care. AI diagnostic tools enable doctors to identify medical conditions with greater speed and precision while robotic assistants help perform tasks more efficiently in operating rooms and labs.

The healthcare workforce in Canada faces complex challenges yet these obstacles remain solvable. All stakeholders including governments, healthcare organizations, educational institutions and the public need to work together to address these challenges. The system needs fresh dedication towards appreciating and backing healthcare professionals who serve as its essential foundation.

Governments need to make healthcare workforce planning a top priority by channeling investments into essential infrastructure and resources that will enable the training and retention of doctors, nurses, and specialists. Medical education programs must grow alongside enhancements in working conditions and the provision of competitive pay packages. The implementation of policies which facilitate the integration of internationally trained professionals should speed up by focusing on barrier reduction and creating significant career advancement opportunities.

Healthcare organizations need to build supportive environments that promote resilience while acknowledging the profession's emotional and mental challenges. Organizations can decrease employee burnout and boost job satisfaction through mental health counseling and peer support networks together with flexible work arrangements.

Educational institutions need to evolve their offerings to meet healthcare system developments by preparing students through programs that reflect modern healthcare challenges. The curriculum now places stronger focus on interdisciplinary teamwork along with cultural competency training and technological advancements in patient care.

The public needs to value healthcare professionals and push for necessary changes to support them. The strategy encompasses policy reform advocacy, local healthcare support and celebration of doctors, nurses and specialists' relentless work.

The robust healthcare system in Canada mirrors the strong and dedicated workforce behind it. Maintaining our healthcare system as a source of pride and reliable care for future generations demands strategic investments in recruiting doctors and specialists as well as training and retaining nurses. Innovative approaches along with collaborative efforts and strong determination will allow us to create a healthier future despite the difficult road ahead.

The Canadian health industry faces possible effects from new U.S. tariff implementations

By Editorial Team

The U.S. and Canada maintain one of the world's strongest trade partnerships by exchanging billions of dollars worth of goods and services each year. The Canadian healthcare sector faces heightened concerns due to possible new U.S. tariffs. The U.S. government is evaluating multiple new tariffs across various industries as part of their trade strategy to safeguard domestic businesses while correcting trade deficits. Canada's healthcare system could face major challenges because it depends heavily on the United

States for medical equipment and healthcare technology.

Canada's healthcare sector stands as a foundational element of its economy while remaining an essential part of its social structure. Interrupting medical goods and services movement between borders could trigger broad negative effects including heightened healthcare expenses and patient care delays. The article analyzes how new U.S. tariffs could affect the Canadian health industry by evaluating major areas of concern together with economic consequences and Canada's potential responses.

The United States supplies Canada with essential medical equipment including MRI machines and ventilators as well as surgical tools and diagnostic instruments which represent a significant part of Canada's healthcare imports. The introduction of new tariffs on medical imports from the U.S. could force Canadian hospitals and clinics to increase prices for patients or reduce spending on essential services. Healthcare facilities operating in rural areas are at greater risk because they manage their operations with limited financial resources.

A strong pharmaceutical connection exists between the two countries since many drugs and active pharmaceutical ingredients (APIs) originate from the U.S., and new tariffs on these drugs could cause medication prices to rise which would affect both patients and public healthcare systems. The cost of life-saving medications for conditions such as diabetes and cancer will rise which will put pressure on provincial drug plans and force Canadians to pay more themselves. Tariffs on imported raw materials like chemicals and plastics from the U.S. threaten Canadian pharmaceutical production by increasing costs and disrupting supply chains which may cause shortages of essential medical products. The ability of Canada to manage public health emergencies including pandemics and natural disasters could face limitations.

The COVID-19 pandemic revealed how Canada depends on protective equipment sourced from the United States which includes items such as gloves and masks along with gowns. The imposition of new tariffs on medical supplies will increase costs for healthcare facilities to maintain proper stockpiles thereby risking healthcare worker and patient safety. The learning about preparedness during the pandemic heightens concerns about this issue.

The shift towards digital healthcare systems has resulted in greater dependency on medical software and electronic health records from the United States along with telemedicine platforms. Canadian hospitals and clinics could experience higher expenses because of tariffs on these technologies which would hinder their ability to implement innovative solutions that enhance patient care and operational efficiency.

Medical import tariffs will probably cause healthcare system expenses to rise. Higher operational costs for equipment, supplies, and medications at hospitals and clinics could force these institutions to either increase patient fees or cut back on services. The current strain on

provincial healthcare budgets might make it difficult for them to handle the upcoming additional expenses.

The partnership between Canadian and U.S. research teams serves as a fundamental element for advancements in medical science. The application of tariffs may lead to increased expenses for research equipment and materials which could decelerate the advancement of new medical treatments. The medical research landscape may change permanently for Canada because of these developments.

The Canadian healthcare manufacturing and distribution sectors may encounter difficulties if supply chains are disrupted by tariffs or if costs rise. Companies might have to lay off workers or scale down their technology investment budgets. The uncertainty from new trade barriers is likely to discourage foreign investors from investing.

Canadian patients will experience the final effects of tariffs. Increased tariffs will lead to higher medication costs along with extended waiting periods for medical treatments and decreased availability of advanced healthcare treatments. Seniors and low-income people represent the groups that would experience the most negative impacts from these conditions.

Canada can lessen its dependence on U.S. imports by investing in its own production facilities for medical equipment, pharmaceuticals, and PPE. Canada's ability to withstand crises would improve while reducing tariff effects through this approach.

Canada should seek alternative suppliers from Europe and Asia to decrease its dependency on U.S. products. The development of stronger trade partnerships with nations such as Germany, India, and South Korea could enable Canada to access new channels for medical supplies and technologies.

New U.S. tariffs threaten to disrupt the Canadian healthcare sector by increasing expenses and hindering both medical innovation and patient treatment quality. This development allows Canada to reevaluate its dependence on U.S. imports while building its domestic capabilities.

Throughout the ongoing changes in U.S.-Canada trade dynamics healthcare remains an essential focal point. The future health and well-being of Canadians depends on finding the right balance between economic protectionism and a strong collaborative healthcare system.

The History of Public Health in Canada:

The formation of Canada's Public Health System along with its significant milestones

By Editorial Team

Canadian public health has undergone significant transformation since its rudimentary local disease control measures became an advanced universal healthcare system admired worldwide. Public health developments in Canada have been influenced by disease outbreaks and scientific advancements as well as social reforms and policy decisions that looked to the future. Canada's public health history goes beyond medical achievements and reveals key national qualities like resilience and a dedication to shared health benefits.

Prior to Canada's establishment as a nation in 1867 public health consisted of uncoordinated local actions lacking scientific insight. The

Indigenous peoples who inhabited the land for thousands of years developed advanced methods for health maintenance and treatment. Their health care practices consisted of traditional knowledge and herbal treatments combined with holistic health methods to manage sickness and sustain wellness. The arrival of Europeans during the 16th and 17th centuries resulted in catastrophic impacts on Indigenous communities. The Indigenous populations experienced severe population declines because they lacked immunity to diseases like smallpox, measles, and influenza which spread quickly through their communities. The first major public health crisis in the region now known as Canada emerged during this tragic time period.

The early 19th century saw urbanization establishing itself in the cities of Montreal, Toronto, and Quebec City. The fast expansion of the population exceeded the development of infrastructure which resulted in densely populated housing conditions and poor sanitation systems alongside polluted water resources. The combination of overcrowded housing and poor sanitation made the cities ideal environments for the spread of diseases like cholera, typhoid, and tuberculosis. The outbreaks of cholera during the early 1830s served as a significant alert for public health authorities. Lower Canada created its initial Board of Health in 1832 which focused on quarantine procedures and sanitation improvements. The establishment of public health as a formal government duty started in Canada at this point in history.

The creation of Canada as a federal state through Confederation in 1867 united the provinces but public health continued to be managed primarily on a local and provincial level. Industrialization along with urbanization kept intensifying the health problems faced by society. The combination of crowded living spaces, substandard work environments, and contaminated water supplies resulted in extensive epidemics of tuberculosis, diphtheria, and typhoid fever. Children faced extremely high mortality rates while the general population had short life spans.

The period from the late 19th century to the early 20th century witnessed the rise of public health leaders who promoted sanitation and hygiene practices to prevent diseases. Dr. Peter Bryce dedicated himself to advocating for better living standards in Indigenous communities while tackling the tuberculosis epidemic. Cities started building public health infrastructure like sewage systems and clean water supplies which greatly reduced how waterborne diseases spread.

The 1918 Spanish flu pandemic served as a critical turning point for national public health due to its status as one of the deadliest global health crises in history. The flu claimed about 50,000 Canadian lives and revealed serious flaws in the nation's divided health system. The federal government founded the Department of Health in 1919 to initiate a national framework for public health coordination. The department was created to address disease prevention and health education while improving living conditions and establishing foundations for upcoming public health initiatives.

Public health advancements reached significant milestones during the early 1900s. The creation of vaccines for illnesses such as diphtheria, polio, and tuberculosis led to a significant decline in death rates. The dissemination of public health initiatives that covered hygiene practices along with nutrition education and vaccination led to improved health results across the population.

Canada's public health priorities underwent significant transformation as a direct consequence of World War II. Canada's wartime recruitment showed numerous citizens could not serve because of inadequate health which underscored the necessity for improved healthcare access. The federal government launched the National Health Grants Program in 1948 to support provinces with financial resources for building hospitals as well as advancing medical research and health education initiatives. The federal government's program initiated federal healthcare involvement and laid the foundation for future national healthcare system development.

Public health initiatives started examining social determinants of health including housing conditions and educational opportunities along with income disparities during this time period. The post-war period brought about an increased understanding that true health encompassed physical fitness along with mental stability and social well-being rather than merely being free from illness.

Canada's public health landscape experienced its greatest transformation through the creation of universal healthcare. Under Premier Tommy Douglas who is known as the "father of Medicare," Saskatchewan started the movement in 1947 by establishing universal hospital insurance so all residents could receive hospital care without financial barriers. The innovative program initiated by Saskatchewan served as a model which encouraged other provinces to adopt similar healthcare systems.

The Medical Care Act passed by the federal government in 1966 extended funding to provinces that developed universal healthcare programs. All Canadian provinces and territories created universal healthcare systems by the early 1970s which made medically necessary services available to all citizens without any direct payment required.

The Canada Health Act became the concluding segment of the healthcare system in 1984. The healthcare system gained its foundational principles of universality, accessibility, comprehensiveness, portability, and public administration through this legislative act. The legislation prevented both extra billing and user fees to maintain healthcare as a free service at the time of delivery. The Canada Health Act established Canada as a top international authority in public health and social equality.

During the transition from the 20th to the 21st century public health priorities moved beyond infectious diseases to tackle chronic diseases and mental health and environmental health challenges. The emergence of diseases such as diabetes and heart disease together with cancer emphasized the importance of preventive healthcare measures and health promotion strategies. Public health efforts to

reduce smoking along with initiatives to promote nutritional diets and physical exercise became primary strategies to enhance population health.

Modern public health experienced a significant turning point due to the 2003 SARS outbreak. The SARS outbreak revealed deficiencies in Canadian disease monitoring and emergency response which led to the establishment of the Public Health Agency of Canada in 2004.

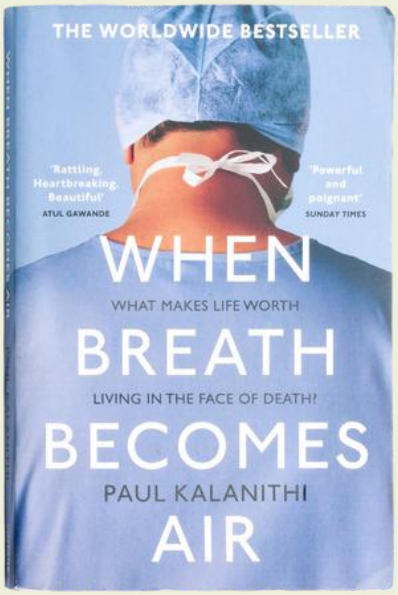
Collective action and scientific innovation along with progressive policy-making demonstrate the strength of Canada’s public health journey. The public health system has developed through each historical period by learning from earlier experiences to establish a society that prioritizes health and equality.

Canada anticipates facing multifaceted and evolving public health challenges in the future. The challenges posed by climate change along with antimicrobial resistance and the rising prevalence of chronic diseases necessitate innovative approaches and continuous investment in public health infrastructure. Mental health now stands as a vital priority because more people understand how it influences general well-being.

The development of artificial intelligence and genomics technologies provides transformative possibilities for changing healthcare delivery and preventing diseases. The success of medical advancements in Canada will depend on maintaining a focus on equity and inclusivity to make sure all Canadians benefit regardless of their background or personal circumstances.

In the ever-changing field of public health Canada finds guidance through historical lessons. Canada's public health narrative transcends medical achievements to represent core national principles and a steadfast dedication to people's health and welfare. The narrative of public health keeps advancing as every new generation builds upon previous efforts to create a stronger and healthier future.

BOOK Review



When Breath Becomes Air

by: Paul Kalanithi

Review By Suman Dhar

Imagine life as a bestselling novel you're halfway through, only to realize you hold the pen — and the pages are running out.

In his memoir **When Breath Becomes Air**, **Paul Kalanithi** takes us on a heartbreaking journey that is equal parts philosophical meditation, medical drama, and a love letter to life itself. After receiving a stage IV lung cancer diagnosis at age 36, Kalanithi goes from being an accomplished neurosurgeon to a helpless sufferer facing his own death.

What was the outcome? A reflective masterpiece that makes you feel as though you are holding a beating and bleeding heart in your hand.

A Physician with Two Lives

This book has a special significance because of Kalanithi's dual perspective as a patient and a doctor. He shows readers the unvarnished vulnerability of hospital beds, where his own life is on the line, and the antiseptic walls of operating rooms, where he formerly had lives in his hands. He talks of giving patients heartbreaking diagnoses, for example, and then being in their shoes and hearing the same words. Being the healer one minute and the one in need of healing the next is like being on opposite sides of a mirror.

Every Chapter Offers Life Lessons

The book is full of "aha!" moments that stay with you long after you've put it down.

Kalanithi's contemplation on identity included one particularly noteworthy observation:

"If the unexamined life was not worth living, was the unlived life worth examining?"

As he rethinks what it means to live a meaningful life and faces his own limited time, the question strikes a deep chord.

His choice to go back to work after receiving his diagnosis—not because he denies his disease, but rather because he finds meaning in serving others—is another moving instance. It's like seeing someone charge their phone with just 1% of its battery left because they understand that even a small amount of electricity may have a big impact.

Magazica Moments

At its center, **When Breath Becomes Air** investigates three widespread topics:

- ***Life and Death***: Kalanithi sees passing not as a conclusion but as a necessary portion of life's story. His reflections on mortality are both calming and oddly elevating.
- ***Purpose and Personality***: As his career plans disintegrate beneath the weight of cancer, Kalanithi reclassifies success—not by awards but by minutes of association and cherish.
- ***Leaving a legacy***: The birth of his girl, Cady, gets to be an image of trust and coherence. In her, he finds a future that will outlive him.

A Love Letter to Writing and Life

Kalanithi's cherish for writing sparkles all through the diary. He weaves cites from T.S. Eliot and Samuel Beckett into his story, utilizing them as stays in his hunt for meaning. His composing is wonderful however accessible—like tuning in to a companion who talks with both judgment skills and heart.

Points to Ponder:

- In case you know your time is counted, how would you rethink victory in your life?
- How does Kalanithi's double role as a doctor and a patient, changes your viewpoint on healthcare experts?
- Would you consider composing or making something as a portion of your legacy? Why or why not?

Last Contemplations

When Breath Becomes Air is more than a memoir — it's a first-hand experience of how to live well when facing death. Whether you're intrigued by therapeutic science or looking for more profound meaning in life, this book will make you motivated and introspective. It's not around biting the dust; it's about truly living. As Kalanithi appeals to his girl on the closing pages:

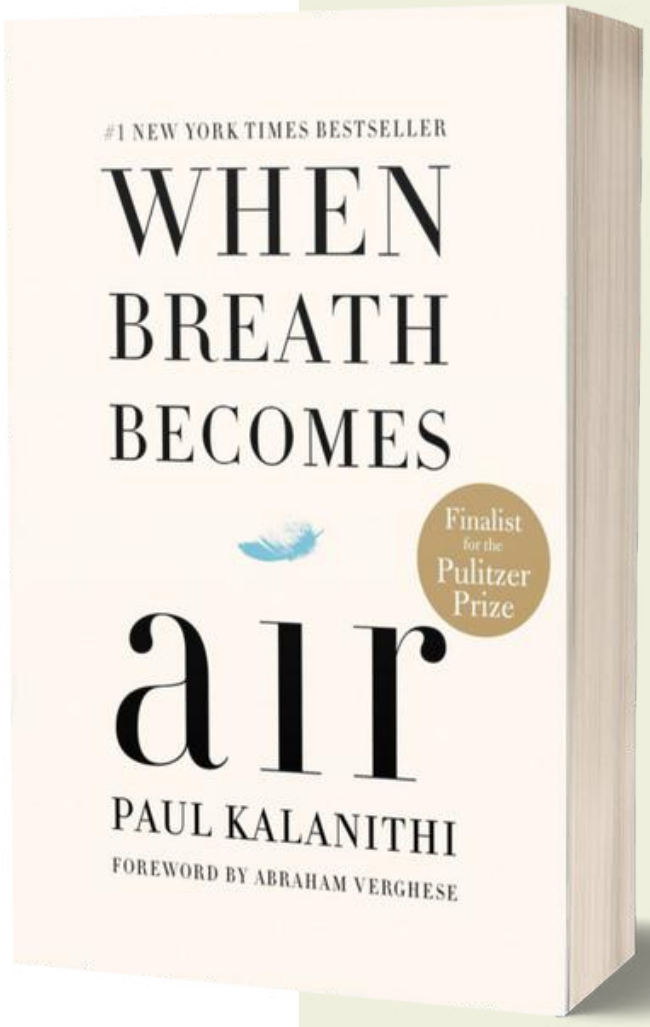
“When you come to one of the many moments in life where you must give an account of yourself, provide a ledger of what you have been, and done, and meant to the world, do not, I pray, discount that you filled a dying man’s days with a sated joy, a joy unknown to

me in all my prior years, a joy that does not hunger for more and more but rests, satisfied. At this time, right now, that is an enormous thing."

This isn't just a book — it's an encounter that reminds us of all what makes life worth living.

Final Verdict: ★★★★★

A masterpiece that doesn't just ask *"What makes life worth living?"* — it dares you to answer. Read it before your next birthday.



Magazica is a dynamic platform connecting businesses, experts, and health advocates to share cutting-edge insights and advancements in the health industry. Focused on enhancing wellness, we provide a space for showcasing innovations that shape the future of healthcare.

With a strong presence in North America, particularly Canada, Magazica hosts global experts to share valuable knowledge with the Canadian community. Our structured approach supports health-focused businesses in their mission to improve lives.

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