The Impact of Technological Change in Modern Health Care

HOW NEW TECHNOLOGIES ARE REVOLUTIONIZING THE MEDICAL FIELD AND IMPROVING OUTCOMES

Best Doctors®

Executive Summary

Technological advances have been transforming the health care industry across the entire continuum of care, impacting all facets of the system, from the way physicians perform their jobs, to the way medical data is stored and used, to the role of patients as they gain greater access to medical information.

This paper explores key technologies that have transformed the medical field, the impacts on different stakeholder groups and how technological advances can help achieve important goals that further the interests of physicians, patients and employers.

The paper will delve into the following topics:

- Important technological breakthroughs and their impact on health care
- The role of modern technology in solving systemic problems in health care
- How analytics can be used to improve health care delivery and patient outcomes
- Key considerations for organizations when evaluating a new health program

Introduction

Over the past several decades, the impact of new technology on the medical field has been far-reaching, and the effect on patients, physicians and the health care system has been astounding. Modern technology has changed the structure of the entire medical field, revolutionizing health care and the way it is delivered. The way physicians interact with each other, as well as with patients, has been redefined. Patients are empowered by the ability to access more information than ever before within a care model that consistently places them at the center of their own care.

Key technological breakthroughs

Health care professionals across Canada are increasingly working with electronic systems that are changing the way providers function, often with very positive outcomes for providers as well as patients.

The widespread adoption of Electronic Health Records: Electronic Health Records (EHRs) are being used more and more regularly by physicians across the country, contributing to the improvement of patient safety and outcomes. Doctors and patients both benefit greatly from EHRs. With the touch of a button, doctors can access all the care a patient has ever received, helping patients avoid duplicate tests, reduce adverse drug events caused by medication mismanagement and increase diagnostic accuracy. The ability to accumulate lab results, records of vital signs and other critical patient data into one centralized area has transformed the level of care and efficiency a patient can expect to receive. EHRs also enable statistical documentation of an entire population and can help make the health care system more transparent.

Advances in imaging technology: Medical imaging has transformed health care over the past 30 years. MRIs, CT scans and PET scans have had a huge impact on the diagnosis and treatment of disease and patient outcome. Better detailed imaging can provide earlier and more accurate diagnoses, and in some cases, may even lead to more successful treatment. In Canada, imaging technology has become essential to medical care and treatment and is being used with greater frequency. In 2012, Canadians underwent 1.7 million magnetic resonance imaging (MRI) exams and 4.4 million computed tomography (CT) exams—nearly double the number performed in 2003.[1]

The widespread use of health apps and wearable devices: Increasingly sophisticated health apps and wearable devices have been helping individuals take control of their own health by providing insights into everything from sleep patterns to blood sugar levels. This has led to a shifting patient role as patients become more informed health care consumers who work with their physicians collaboratively to achieve better

outcomes. The information from health apps, wearable devices and monitoring systems can help patients become aware of possible personal health risks sooner and individuals make better and more informed decisions about their lifestyles and wellbeing.

The prevalence of information technology in health care: The widespread adoption of IT has increased efficiencies for providers while making patient care safer and more reliable. This has benefits for both doctors and other health workers who comprise an individual's health care team. For example, 99 per cent of community pharmacists in Canada using a provincial drug information system say access to patient information has improved. Technology is also making it easier for nurses to perform their role—53 per cent of nurses who take advantage of digital health solutions use them to view medications taken by a patient, while 63 per cent enter and retrieve clinical notes electronically.[2] Along with increased efficiencies, this also helps ensure greater accuracy when it comes to patient care.

On a global scale, IT is helping doctors and researchers combat disease and improve the health of individual populations and patients. A good example of this is the International Statistical Classification of Diseases, or ICD-10, a diagnostic tool that classifies illnesses, their causes and symptoms into a massive database encompassing more than 140,000 individual codes. This resource allows medical professionals and researchers to track, retrieve and utilize valuable data in the fight to control disease and provide better health care outcomes overall.[3]

"Virtual second opinion services help improve patients' quality of care by validating the right clinical pathway. A study in the Canadian Medical Association Journal found **one third** of second opinions for oncological patients resulted in a new diagnosis."

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Advances in the use of population science: Population science – which refers to the study of health and illness within groups – is beginning to have a huge impact on the medical field. Technology allows patient outcomes to be evaluated on a large scale so physicians can look at death rates, life spans and frequency of diseases throughout the health care system, which can then be used to help treat illnesses on an individual basis.[4]

Benefits to employers and insurers

As chronic diseases and diagnostic error become more prevalent, providing benefits while containing costs is becoming increasingly challenging for employers, insurers and other organizations. According to a survey conducted by The Conference Board

of Canada, the average cost of benefits for one full-time employee is now $8,330 each year. More than half of organizations (52 per cent) included in the survey reported increases in benefits costs for active employees, averaging 6.2 per cent between 2013 and 2014.[5]

Against this background, organizations stand to benefit greatly from technological advancements that improve the health care system and lead to better patient outcomes. Digital health has already produced huge gains benefiting patients, employers, insurers and other organizations, the health care system and the economy.

Consider the following:

- In 2015, 77 per cent of family physicians in Canada reported using EHRs, triple the amount of physicians in 2007 (24 per cent), resulting in $1.3 billion in benefits. Primary care physicians in Alberta who use Electronic Medical Records (EMRs) reported 94 per cent of patients receive test results faster, and 86 per cent said EMR tools improve their ability to manage patients' chronic diseases.[2]
- Digital health has produced an estimated $13 billion in benefits since 2007, contributing to the long-term sustainability of our health care system by lessening the need for duplicate or unnecessary services.[6]
- Telehealth saves costs for patients and the Canadian health system by increasing access to care and reducing travel and wait times. In 2010, this resulted in $125 million in benefits.[6]
- Electronic drug information systems deliver value such as reduced prescription errors and fewer adverse drug events. In 2010, this resulted in $436 million in benefits.[6]

Change is happening at breakneck speed as new technologies are developed and new applications for those technologies are discovered. A good illustration of this is the use of analytics in health care. Predictive analytics uses technology and statistical methods to search through vast amounts of information, analyzing it to predict outcomes for individual patients. The different applications of analytics and the many benefits for individuals, employers and insurers are incredible. For example, by mining information such as past treatment outcomes and the latest medical research, predictive analytics can be used to determine the likelihood of disease, help a physician with a diagnosis, predict future wellness in a patient or identify patients dealing with complex diagnoses.[7]

Modern technology's role in solving systemic problems in health care

Medical technology has been instrumental in improving several facets of health care and has a growing role to play if further gains are to be realized in misdiagnosis and other areas—including patient access health care, patient interaction with providers and physician collaboration, as well as in patient education, knowledge, safety and outcomes.

Uncoordinated care between many different health professionals

Complex or critical medical situations

Top Drivers of Diagnostic Error in Health Care

Fragmented medical information

Long wait times and poor access to health services

Physician time pressures

Knowledge gaps and poor communication

Increasing patient access to health care

The issue: Wait times and poor access to care are a major problem for Canadian patients. Patients face a median wait of 17.7 weeks for surgical and other therapeutic treatments in Canada—91 per cent longer than the median wait time of 9.3 weeks in 1993. The situation is far worse for Canadians who don't live in the country's most populous provinces. In New Brunswick, for example, they waited an average of 35.1 weeks for treatment.[8]

Compared to other countries' wait-time performance and access to health care providers, Canada lags behind. Among the 11 countries in the Organization for Economic Cooperation and Development (OECD) that took part in the Commonwealth Fund's 2010 survey (Australia, Canada, France, Germany, Italy, the Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States), Canada has the highest proportion of patients reporting a wait of four months or more for elective surgery.

This survey also found that:

- Less than half of Canadians reported same or next day access to physicians when sick, causing Canada to tie with Norway for last place in this area. In fact, 33 per cent of Canadians reported the last time they were sick or needed care, they had to wait six or more days for a doctor's appointment.[9]
- Two-thirds of Canadians reported difficulty getting care after hours without going to an emergency department.[9]
- Canada ranked last in specialist wait times, with only 41 per cent of Canadians reporting waiting less than four weeks for a specialist appointment.[9]
- Canada has the largest proportion of adults waiting four hours or more in the emergency department before being treated. 26 per cent of Canadians reported waiting four hours or more, versus the 8 per cent OECD average.[10]

For Canadians living in rural or remote areas, the situation is worse due to a lack of access to specialists, who tend to practice in large urban centres and university-affiliated teaching hospitals where they have access to resources such as diagnostic services, laboratories and inpatient services. This means Canadians living in smaller communities often have problems accessing specialist health care services, which creates a clear imbalance between the need for specialists and their availability in rural Canada.

According to data from the Society of Rural Physicians in Canada, 21 per cent of the Canadian population is rural, but only 9.4 per cent of family physicians and 3 per cent of specialists are considered rural. This lack of access can lead to delays in treatment, which may result in the health of individuals being severely compromised. There is also a financial element, as Canadians in rural areas may need to travel for necessary treatment and this often entails a significant cost.[11]

When it comes to timely access to diagnostic tests, even doctors express dissatisfaction. According to the National Physician Survey – a major ongoing research project that gathers the opinions of physicians, medical residents and students across Canada – over half of family physicians reported unsatisfactory access to MRI scans, and 60 per cent reported being dissatisfied with access to PET scans.[12]

The solution: Virtual health services help remedy the ongoing problem of poor access to health care providers and diagnostic tests. Monitoring technology also helps reduce the time and costs associated with recurring visits to the doctor, as monitoring systems are designed to be used by patients in their own homes. Technology can be used to

facilitate remote patient/physician communications without compromising privacy, further improving patients' access to health care. Innovative services offer patients medical consultations online and over the phone, potentially saving a trip to the ER, which in turn may help limit time spent away from work.

Improving patient education and decision-making confidence

The issue: Individuals are their own best advocates when it comes to ensuring they receive the best care possible. However, this can only be achieved if Canadians are armed with the right information to enable them to navigate a complex health care system. Partnering with health care providers and having access to timely and accurate information will help empower individuals to make the right decisions, enabling them to take control of their own health care. Technology plays an important role when it comes to information access and ensuring open communication between patients and physicians. However, individuals need to ensure they're harnessing technology in the right way to get the right information, and this can sometimes be complicated.

The solution: Canadians increasingly rely on the internet as a source for health information and medical advice. According to a survey, 41 per cent of Canadian adults polled said they turn to online sites centred around a specific disease, medical issue or health-related product. The survey also suggested that 67 per cent of the time those polled trust the information they receive. While it's tempting to turn to "Dr. Google" when there is seemingly a wealth of information available at our fingertips, trusting online sites for medical advice isn't always advisable. A good reason for this can be found in the results of a study conducted by researchers at the Department of Pediatrics at Nottingham University Hospital in Britain. Out of 500 websites the study investigated, only 39 per cent provided the correct information in response to a question about common childhood ailments.[13] Still, the Patients Association of Canada advocates use of the internet as a resource for patients who are researching how to manage their health.

"The average cost of benefits for one full-time employee is now **$8,330** each year."

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While patients should be cautious about using online sites to self-diagnose, other technological tools can provide patients with valuable personal health information and insights. Mobile health apps and wearable devices enable individuals to monitor their health, providing a constant stream of information. Apps and wearable devices that monitor personal health activity allow users to track daily sleep patterns, record how many calories are burned each day, monitor heart rate and even track daily eating patterns. These devices aren't only beneficial for the average user who is looking to improve their overall health and wellbeing—the information provided can also be very useful in employer wellness programs.

Portal technology also provides patients with information that helps them make more

informed decisions. Portals can help improve the way patients interact with the health care system, making the entire process more accessible and patient friendly. Patient portals provide 24-hour access to personal health information from anywhere with an internet connection. Using a secure username and password, patients can view information such as their recent doctor visits, medications, lab results, immunizations and more. Some patient portals allow patients to exchange secure emails and messages with health care teams, schedule non-urgent appointments, download and complete forms and more.

Other medical record platforms also aim to place more information into the hands of patients by giving them access to electronic copies of all their health care records from every doctor, hospital and health service provider.

By enabling remote access to personal health information and by enhancing patient-provider communications, patient portals and medical records platforms empower patients and allow them to become more active participants in their own health care, helping them assume greater control of the process. This can lead to fewer errors, greater collaboration between patients and providers and ultimately better patient outcomes.

Enhancing physician collaboration and convenience

The issue: To ensure patients receive the best care, including the right diagnosis and right treatment plan, health care providers need to be able to easily collaborate and share information. Collaboration should occur not only between physicians, but among physicians and the other professionals that make up a patient's health care team, including nurses and pharmacists. Good quality health care is delivered by a team of professionals and individuals who contribute expertise in a variety of ways. To underscore this point, a 2013 survey conducted among physicians and community pharmacists in Newfoundland and Labrador found strong working relationships between physicians and pharmacists is important in optimizing patient care, with both groups agreeing that collaborative practice can positively affect patient outcomes.[14]

Technology that facilitates collaboration between physicians and other members of a patient's health care team benefits both health care providers and patients. The need for technology that is easy to use and convenient for doctors is especially crucial, considering many physicians are constrained by heavy workloads and busy schedules.

Given that almost a third of physicians in Canada indicate they are overworked,[15] it's more important than ever for doctors to have access to tools and technologies that help them better perform their job and increase convenience for them.

The solution: A variety of tools and technologies have been transforming the way physicians interact with colleagues and perform the day-to-day functions of their jobs:

- Online platforms and social networks: Software that allows physicians to easily and securely access shared diagnostic images and video files has enabled clinicians to work together on challenging cases with colleagues across institutions and even countries. Online collaboration platforms and social networks aimed at building virtual physician communities are ideal for busy

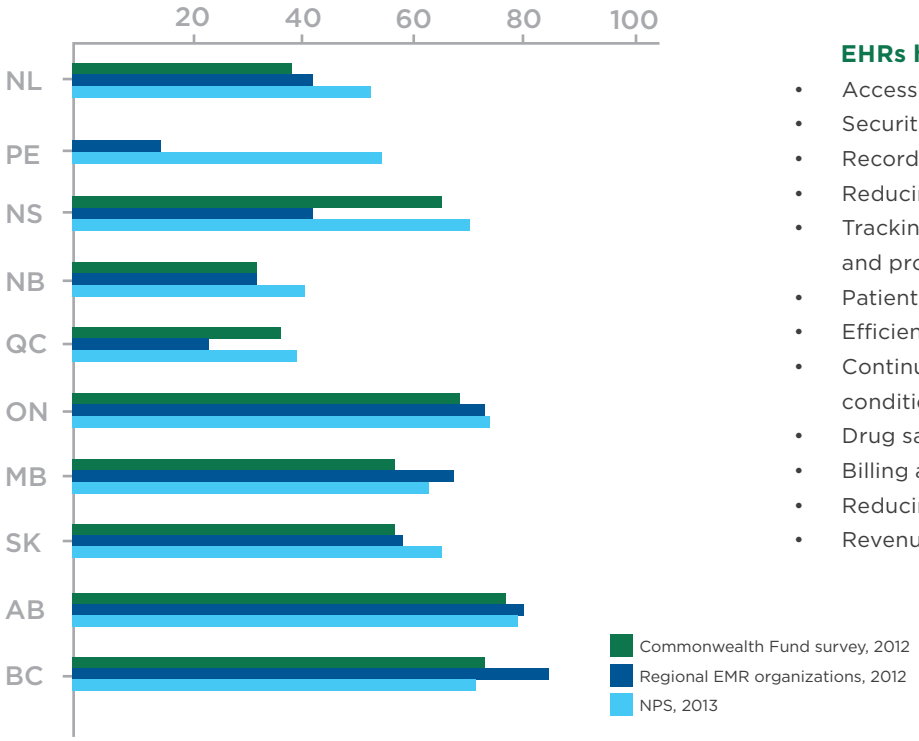
doctors and help expand access to shared knowledge. A global medical social network developed exclusively for physicians launched in Canada in 2015 – already boasting more than 340,000 physician members across the U.S. and U.K. – and was slated to be rolled out in Australia, Ireland, New Zealand and South Africa. The social network allows doctors to gather in an online meeting place, which facilitates discussions, virtual learning and medical crowdsourcing (i.e. a health care phenomenon whereby doctors pool their collective wisdom online to solve patient cases).[16]

- Single sign-on: Technology that makes administrative duties easier and faster for physicians allows them to spend more time focusing on patients. Single sign-on is an authentication service that permits the user to use one set of login credentials to access multiple applications. This technology speeds clinicians' access to patient data by eliminating password management issues, while also supporting strong authentication for greater security.

- Electronic Health Records (EHRs): There's been a huge spike in physicians' usage of EHRs, which bring together a patient's individual information registered with different health care providers and the provincial health care plan. According to the 2013 National Physician Survey, since EHRs were implemented, almost half of physicians noticed an increase in their productivity, and two out of three family physicians indicated the use of EHRs facilitates better quality of care for their patients.[17] Another study conducted by a research team from the Agency for Healthcare Research and Quality found patients hospitalized for pneumonia whose doctors' used EHRs had 35 per cent lower odds of adverse drug events, 34 per cent lower odds of hospital-acquired infections and 25 per cent lower odds of general events.[18]

- Mobile devices: Mobile devices are now commonplace in health care settings and their use by health care professionals has transformed many aspects of clinical practice. This has also led to a surge in the development of medical software applications. Several apps are available to help health care professionals with various tasks, including time and information management, reference and information gathering, medical education and more. Information management apps allow physicians to write or dictate notes, record audio, store photos and organize material into categories within a searchable electronic database. Smartphones and tablets are especially useful for health care providers at the point of care, providing easy and quick access to both the latest medical research and patient information, helping health care professionals make more informed decisions.

Rates of EMR adoption by province[19]



EHRs have improved:[19]

- Access to patient records
- Security of patient records
- Recording/reporting preparation
- Reducing repeated tests/tasks
- Tracking/sharing prescriptions, tests and procedures
- Patient care and safety
- Efficiency and delays
- Continuity of care for chronic conditions
- Drug safety
- Billing accuracy
- Reducing/eliminating paper use
- Revenue

Improving patient outcomes

The issue: Although it's difficult to arrive at a precise number, it's estimated that up to 63,000 Canadian patients die yearly from a preventable adverse event, such as a surgical error or improperly prescribed medication.[20] According to a 2015 National Academy of Medicine report, almost everyone will experience at least one incorrect or delayed diagnosis during their lives.[21]

Meanwhile, according to a study by researchers at John Hopkins Medicine in the U.S., medical errors – such as surgical complications that go unrecognized, errors with dosage or type of medication for a patient – have severe consequences so often that they're considered the third leading cause of death in the United States.[22]

Although these statistics are alarming, there is hope that patient outcomes will improve as advancements in medical technologies and virtual health services contribute to better patient care and greater accuracy in the clinical setting.

The solution: Innovations in the medical field that are leading to better patient outcomes include improved surgical methods, clinical practice guidelines and virtual health services that ensure patients receive the right diagnosis and right treatment plan.

- Technological innovations in the operating room: The advent of minimally invasive surgeries and new imaging methods has been instrumental in improving patient outcomes thanks to a reduced risk of side effects. Minimally invasive surgeries, especially within the disciplines of cardiovascular and thoracic

surgery, have become more common in recent years. Better instruments and more sophisticated technology allow surgeons to perform minimally invasive procedures in a way that wasn't possible a few years ago. Meanwhile, numerous methods of imaging allow technicians and physicians to examine a patient's anatomy without having to use invasive procedures to form a diagnosis.

- Clinical practice guidelines: With new diseases and disorders being discovered all the time, it's impossible for physicians to know how to recognize and treat every ailment. But with evidence-based clinical practice guidelines, doctors can come close. A clinical practice guideline is defined by the National Academy of Medicine as a "systematically developed statement to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances."[23] With clinical practice guidelines, doctors can more accurately figure out the likely causes of a symptom, diagnose an illness and determine the best way to treat it.

- Virtual health services: There are several types of virtual health services that can greatly improve patient outcomes in a number of ways. Virtual second opinion services help improve patients' quality of care by validating the right clinical pathway. A study in the Canadian Medical Association Journal found one third of second opinions for oncological patients resulted in a new diagnosis.[24] However, many patients feel they can't wait to get another doctor's appointment before starting treatment. When these services are provided virtually, second opinions can be done quickly and conveniently, without sacrificing medical quality. They also support primary care physicians by promoting care coordination and physician collaboration by providing virtual access to leading medical experts. Additionally, telehealth services can minimize hospital admissions and readmissions by addressing non-emergency health concerns.

"**60% of Best Doctors members** have had their treatment modified and **27%** have received a change in diagnosis."

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Enhancing patient safety

The issue: Although the majority of Canadians who access health services receive safe care, adverse events do sometimes occur. Unintended harm associated with the delivery of care may result in prolonged hospital stays, disability or death. To minimize adverse events, a focus on patient safety is critical. Patient safety refers to medication safety, infection prevention and control, surgical care safety and home care safety, and emphasizes the prevention, reduction, reporting and analysis of medical error. Technology plays a big role when it comes to ensuring patients receive safe and reliable care across the health care continuum.

The solution: Online continuing medical education and professional development is crucial for medical providers to stay current and to ensure they're providing the best possible care to patients. In Canada, in order to maintain their license to practice, physicians are required to participate in continuing professional development (CPD) activities designed to address their needs and enhance their practice every year. Canadian physicians must complete and report on a certain number of credits of continuing professional development. CPD programs are delivered through a variety of formats, including online and teleconferencing courses.

In Canada, the Accredited Canadian University Continuing Medical Education Portal, University-CME.ca, is the collective work of Canada's 17 medical schools, each with their own CME (or Continuing Professional Development) office working to help Canadian physicians with their lifelong learning, professional development and continuing education needs. This website connects physicians with new research knowledge and its application to health care and disease prevention, which is delivered through live and electronic programs. In the United States, physicians must complete yearly coursework and receive a certain number of continuing medical education (CME) credits per year to ensure the doctor's knowledge and skills remain current. CME requirements vary by state, by professional organizations and by hospital medical staff organizations.[25] CME courses are provided in several different formats, including online, making it easier for physicians to stay up to date with the latest developments in the medical field, and in turn enhancing patient safety.

Additionally, use of consumer, handheld devices to record real-time data increasingly help nurses and doctors working on the frontlines record patient data. This information can then be uploaded instantly to a patient's medical history, decreasing the chances of incorrect doses or prescriptions. There are numerous other benefits to the use of electronically recorded patient data as a means of improving patient safety. In a hospital, data can be used to identify patients who may have infections. For example, a handheld device can be used to flag patients with potential gastrointestinal infections. The infection control team can then be alerted automatically and patients who have been flagged can be moved to isolation, reducing the risk of cross-infection and ward closures.[26]

Using analytics to improve health care delivery and patient outcomes

Employee health programs that go beyond traditional wellness programs and data warehousing and instead transform individual health data into meaningful information with practical applications can have a far-reaching impact on employees and employers. A fully integrated approach to an individual's health care takes into account data from insurance carriers, biometric screenings, pharmacy claims data and more. This data is then funneled into sophisticated analytic programs and transformed into population insights to develop targeted solutions customized to each individual. This type of program has the potential to drastically improve individual health outcomes while also helping employers reduce costs.

A sophisticated analytics program can bolster an employer's health program by:

- Identifying the most common conditions affecting a population.
- Providing targeted outreach solutions.
- Helping provide answers to questions about health care spending.
- Helping employers determine why employees are missing work or why many employees may be struggling with chronic conditions, which in turn can help employees return to work faster.
- Helping employers reduce high cost claims and prescription drug spending.

By turning information into action, the right analytics program can help employers reduce costs through the development of a targeted outreach strategy that assists those employees most in need of health care intervention. This is accomplished through predictive analytics, which employs technology and statistical methods to analyze information in order to predict outcomes for individuals.

Predictive models show population segments, regions or conditions of greatest concern. On a micro level, predictive analytics can be used to identify employees with risk factors for certain conditions. Using this information, condition-specific programs can be developed to help employees while lowering health care spending.

On a broader level, software programs that make it easier to collect data have led to a vast online resource of patient histories. This data can then be mined by scientists to study trends, allowing them to make medical breakthroughs at a faster rate.

Health analytics can contribute to the goals above by helping employees stay healthy and free from illness, which has a dual benefit of keeping individuals healthy and productive, while helping employers contain their spending on benefits.

Key considerations when evaluating a new health program

Technology plays a central role within health programs that strive to ensure employees stay healthy, while reducing the administrative burden of this task for employers and insurers.

When evaluating a new health program, employers should ask themselves the following questions:

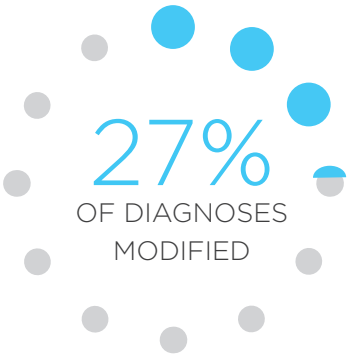
1. Will this program help me save money on high cost claims, sick pay or disability claims?
2. Does this program address the full spectrum of care for my employees?
3. Is this program easy for employees to use and access?
4. Does this program provide me with helpful insights into my employees' health?
5. Does this program simply provide data, or does it use data in a meaningful and actionable way that will produce results?
6. Does this program have a track record of success with measurable results?

Best Doctors, a global health company that brings together the best minds in medicine, provides an alternative solution that addresses these areas of concern by using technology to provide successful outcomes. By leveraging technology and employing virtual services, Best Doctors provides cutting-edge solutions to employers and insurers, ultimately helping keep populations healthy while also helping employers control their health care spending.

As the pace of technological change accelerates and new health care innovations re-define old paradigms, employers have an opportunity to revamp their health care programs to better address employees' needs, while reducing employer health care spending. As employers try to determine how to incorporate new technologies into their program design, they may want to consider the following questions:

- Can new technologies help me obtain insights into my employees, such as which segments are of greatest concern?
- Will new technologies enable me to turn insights into action in order to improve the health of employees, while helping streamline health care spending?
- How will new technologies benefit employees and help them manage their own health care, in turn helping to reduce absenteeism and presenteeism by improving the overall wellbeing of my employees?

Best Doctors' services address the entire spectrum of employees' and employers' needs. By leveraging the latest technological innovations and an unwavering commitment to the highest clinical quality, Best Doctors helps solve the unsolvable in health care.



Empowering patients

Empower employees to take control of their own health care by providing them with fast and easy access to information and experts who can address any medical concerns or questions remotely, quickly and efficiently.

For members facing medical uncertainty who need help navigating the health care system, Best Doctors 360° provides a range of tools and resources and can also offer advice and wellness support, such as help preparing for a doctor's appointment or assistance finding care and residency for elderly parents and more.

Ask the Expert is a service connecting members with leading physicians specializing in their specific condition. The member can ask the expert targeted questions and receive written answers that helps provide members with more information about their condition, as well as reassurance that they're making the right choices when it comes to their health.

Increasing access to specialists and diagnostic tests

Raising employees' access to the right medical care is crucial to increasing patient safety and helping ensure accuracy.

The Best Doctors Expert Second Opinion service, called InterConsultation, complements the care members receive from their own physicians, recognizing that general practitioners may not be able to diagnose and treat all conditions. By providing a virtual case review from a medical expert – independently validated by a compressive physician polling process and other external data – in the member's condition, the InterConsultation service can solve any medical uncertainty to ensure members receive the right diagnosis and right treatment plan.

A Best Doctors' medical expert reviews all of the relevant clinical records, including

consultation reports, lab results, imaging scans, retests pathology and provides detailed answers to questions about diagnosis and treatments, as well as recommendations for next steps. All of this information is put in an easy-to-understand report for the member.

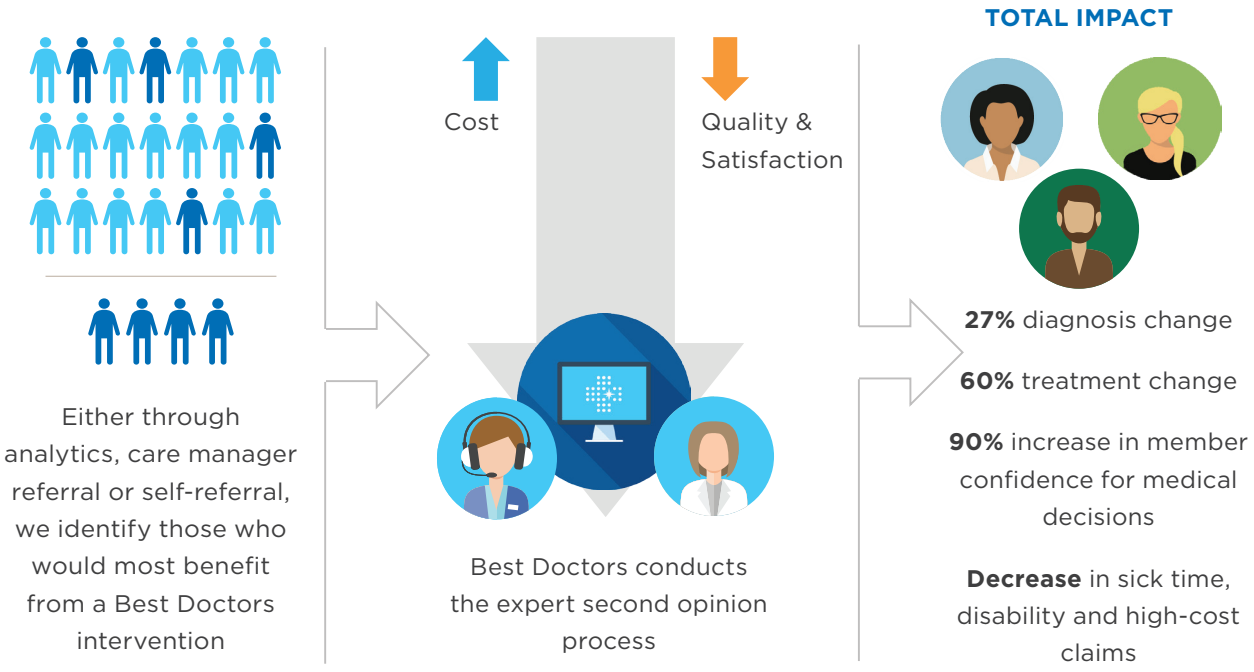
Through FindBestDoc, Best Doctors helps members find the right specialist for their medical needs through Best Doctors' proprietary expert physician database, helping ensure members receive the right care. Best Doctors also provides members with access to FindBestCare, which helps members find an expert physician or top care facility outside of Canada. With FindBestCare, members may also save on wait times for seeing the right specialist.

Best Doctors' Elite Diagnostic Imaging Service solves the problem of long wait times for "non-urgent" scans, where patients can wait months before receiving an MRI or CT scan. When EDIS is included in an employer's health care program, wait times for these diagnostic tests are reduced to a matter of days. This helps members get a faster assessment of their symptoms and can reduce stress and uncertainty, save them months of living with pain and help them receive the answers and treatments they deserve faster.

Implementing insightful analytics

Using health analytics technology transforms data into insights by identifying employees at risk for adverse outcomes. Analytics technology also allows businesses to better understand their populations so that the right interventions can be delivered to the right employees.

How Best Doctors works



Best Doctors is the only organization that uses analytics to both study and measure misdiagnosis and mistreatment. With a database of over 100,000 cases, Best Doctors can run claims data through customized algorithms to convert data into action and target members with the right outreach.

Best Doctors Analytics combines powerful health analytics technology with expert medical intervention, helping to provide employers with insights into their employees' health and turning information into action to deliver a real impact. The numbers speak for themselves: Best Doctors Analytics has corrected countless misdiagnoses and treatments, resulting in thousands of dollars in claims savings and decreased sick time and short term disability for these targeted cases for employers, as well as a faster return to work for employees.

When Best Doctors Analytics is incorporated into an organization's program design, organizations can segment populations, expose trends, allocate resources and identify members who may require medical intervention. This use of analytics illustrates how Best Doctors is at the forefront of change when it comes to harnessing new technologies and developing innovative services that benefit members, physicians, employers and insurers.

Heading toward tomorrow with greater certainty

Employers, health plans and other organizations are combining many of these new technologies and other approaches with established methods to lower the chance for medical errors.

With Best Doctors' unique solution, we can help physicians enhance care with the support of expert specialists, care managers better serve patients without disrupting workflows, employers reduce claim and sick time spending by aiding employees in returning to work faster and patients get the right care by ensuring they have an accurate diagnosis and the most effective treatment options.

To find out how your organization can reduce misdiagnosis and improve patient outcomes, contact Best Doctors today at BestDoctors.com/Canada.

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