AN INDEPENDENT SECTION BY MEDIAPLANET TO THE VANCOUVER SUN

Small but mighty
The new wave of medical devices

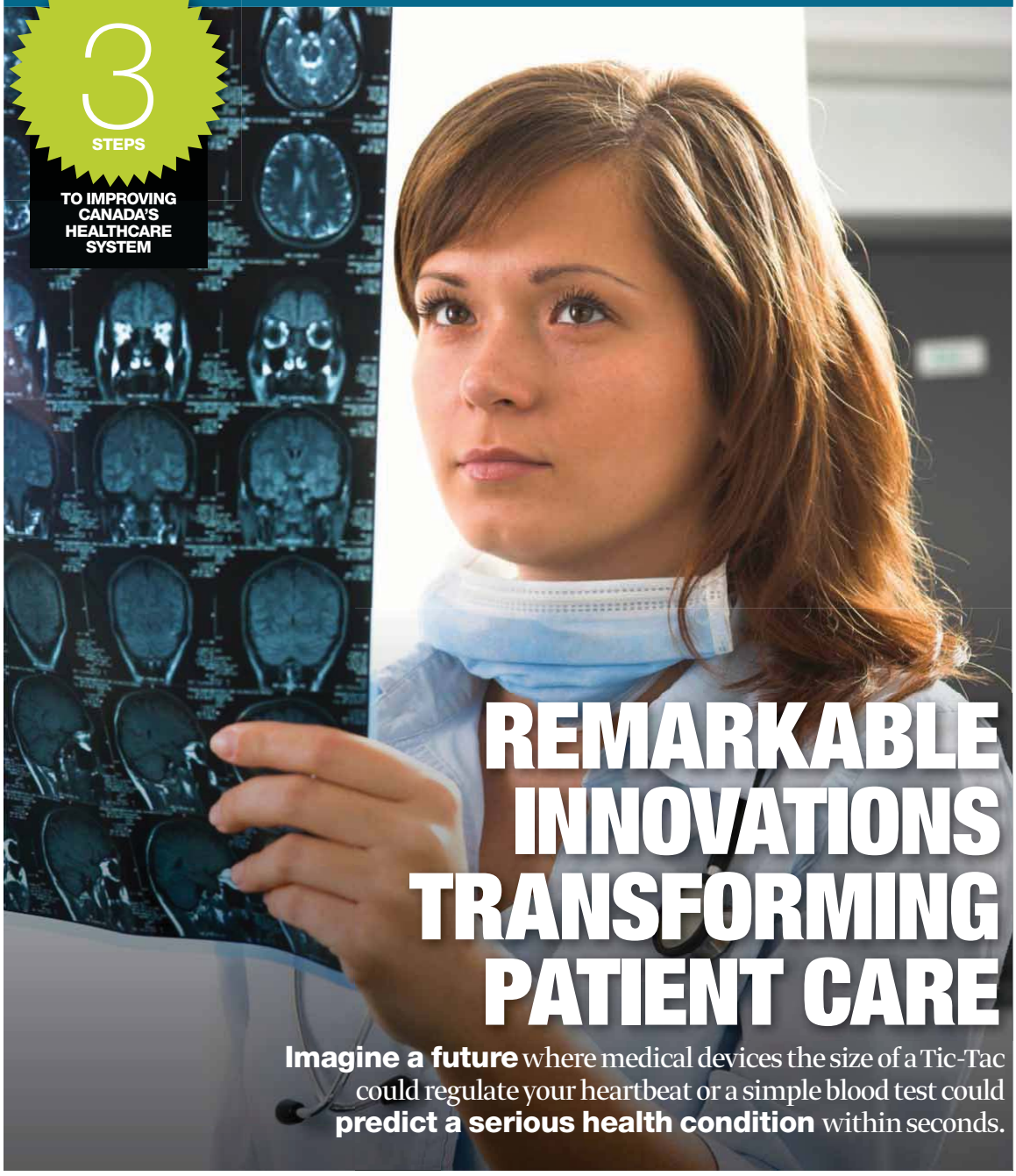
Going digital
A more communicable way to treat patients

MEDIA PLANET

June 2011

THE FUTURE OF HEALTHCARE

3 STEPS TO IMPROVING CANADA'S HEALTHCARE SYSTEM



REMARKABLE INNOVATIONS TRANSFORMING PATIENT CARE

Imagine a future where medical devices the size of a Tic-Tac could regulate your heartbeat or a simple blood test could **predict a serious health condition** within seconds.

CHALLENGES

STEP 1

IMPROVED ACCESSIBILITY TO HEALTH-CARE FOR ALL CANADIANS IS ESSENTIAL

OUTSIDE LOOKING IN
Ken Winnig, Regional Director of Diagnostic Services for Northern Health examines some scans.
PHOTO: NORTHERN HEALTH

The quest to provide the **highest quality of care** is underway. The necessary measures focus on seamless **communication** and increased **accessibility**—for British Columbians and all Canadians.

Transformation of the system is necessary to move forward

Each of our six Health Authorities, the Ministry of Health Services, professional associations and employee organizations play a critical role in re-shaping British Columbia's health system.

While the call for change is not new, it is intensifying. Today's leaders grapple with a wide range of complexities; to name a few: continued cost escalation, increased demand for service driven by an aging population and a growing chronic disease, a smaller and less available workforce, emergent technology, new service models, and limited additional resources to fund the change. Compounding these challenges, citizens expect continued, if not higher, levels of service in spite of constrained resources. The gap between what is desired and what can be delivered will only widen if changes do not occur. This is the challenging environment that government and health leaders must navigate.

A plan for implementation

Without doubt, this situation is complex, however, the seeds of transformation lie within this doom and gloom scenario. Lessons learned and experiences across Canada tell us that traditional cost reduction efforts have not generated sustained results. As a result, BC and our counterparts seek longer term interventions to bend down or minimize the cost curve while increasing health system innovation, efficiency and effectiveness. This commitment to do business differently is evident in BC though multiple initiatives—a shared service model for back-office functions, lower mainland integration across Fraser Health, Vancouver Coastal, Providence Health Care and Provincial Health Services, enhanced physician care, increased focus on chronic disease management, facility renewal to support new models of care, and technology expansion and implementation. All of these initiatives share common goals to provide better care, better health and better value.

Agreeing on the need to change is only the start. Implementation is where we can become stuck or fail. Whether our provincial health system relies on partnerships and collaboration or directives as the impetus and process for change, transformation is not risk free. Simply put, wanting to reach a destination does not mean that you will get there.

Experience suggests several requirements are needed to bring about successful transformation:

- Build effective stewardship and governance at government and health provider levels in the beginning.
- Translate change plans into a hierarchy and staging of programs and projects based on best alignment to desired outcomes and return on investment.
- Recognize that people, relationships, and respective organization cultures are core elements in change design.
- Dedicate or reallocate funds and ultimately funding structures to drive and sustain change effort.
- Develop standardized performance management that directs course corrections and maps to intended outcomes.
- Support and even force tough decisions. Listing these requirements is the easy thing, putting them in place is tough and takes time.

Leading and sustaining change is and will continue to be a priority for health system leaders. Without well-planned and supported execution, breakthrough thinking falls apart, and little to no value is added. As our provincial and health leaders partner in this change journey, it is imperative that they think hard about execution to make these important changes succeed.

> "The gap between what is desired and what can be delivered will only widen if changes do not occur."

Dalton Truthwaite
Associate Partner
Deloitte—National Health Consulting

Innovation: Just what the doctor ordered

It's a very exciting time to be involved with the healthcare system in British Columbia.

Nasir Jetha, MD
President,
BC Medical Association

Innovation, leadership and collaboration have been driving changes in the way physicians deliver care to patients that result in improvements to the patient's journey in our healthcare system. The BC government and the BC Medical Association are at the forefront of change and have collaborated since 2004 to bring sustainable, affordable and beneficial programs directly to British Columbians.

An essential building block in the process is the use of technology. Key is the advancement of secure standardized electronic medical records (EMRs). The electronic version of hand written medical records found in your doctor's office are one of seven essential components of British Columbia's long term vision for the integration of communications technology into our healthcare system. The other components include electronic health records, electronic laboratory and diagnostic results, electronic prescriptions, public health information and telehealth (provides electronic healthcare services in remote areas). EMRs ensure doctors have faster access to current medications and lab results and that records are complete and legible. This allows doctors to have all patient information at their fingertips.

A general improvement

General practice has seen, and will continue to see, major transformation. Family medicine is the cornerstone of healthcare. The GP is not only a patient's initial contact with the healthcare system but they also have the responsibility to care for patients over the long term. When family practice is supported, patients get better healthcare, physicians feel less stress and cost savings to the system are realized. The General Practice Services Committee (GPSC), developed to improve the primary care system, has four overarching programs. The Family Practice Incentive Program enables physicians to take the extra time required to manage their chronically ill and complex patients, provides additional resources to support maternity care, and funding to help newly qualified doctors establish practice in underserviced areas of the province. Through the Practice Support Program, physicians participate in learning modules to redesign their clinical practices to make them more efficient and shorten the wait times. Divisions of Family Practice were developed to work with partners to identify and reduce the number of patients that can fall through the healthcare gaps—notably the elderly and other vulnerable patients—at the community level. And CHARD, a healthcare resource directory that GPs can use to refer patients to specialists as well as non-medical based services such as addictions counsellors and dieticians within a particular geographic region.

Spreading specialty service access

Within the specialist care system changes are in their fledgling stage, but the potential of the Specialist Services Committee (SSC) to deliver advancements similar to the recent advancements in primary care is substantial. Currently the SSC provides specialist physicians with the opportunity to help determine the future direction of healthcare through initiatives that focus on access, quality patient care, and system-wide improvements. To expedite patient care the SSC is also supporting indirect specialist services by funding remote follow-up visits with patients and physician-to-physician communication.

We are working towards and look forward to a seamless healthcare system in which the patient moves between the primary and specialist care systems smoothly and in a timely manner, and physicians feel they have the resources needed to effectively take care of their patients.

NEWS IN BRIEF

Innovation comes in small packages

Chronic pain affects about 340,000 Canadians, but last year, 10 Saskatchewan patients were implanted with a device that senses changes in a patient's body position, and massages the spinal cord with pain relief signals.

Despite some patients having to manually adjust their stimulator, the study showed that pain management was achieved by all participants.

This gadget highlights the trend of harvesting body movements to power and direct devices. "Medical technology's future is completely wireless, characterized by self-powered devices," says Georgia Tech University Professor Zhou Lin Wang. In a video lecture, he predicted the demise of batteries when scientists learn how to better convert the body's energy into electrical currents.

Miniaturization is the future

A March 2011 UK report, "Energy Harvesting from Human Power", noted that human-powered wireless sensing or monitoring devices would require fuel cells powered by bodily fluids. Even this has left the science fiction realm. Last September, "National Geographic" reported that a white rat, Ricky, was implanted for 11 days with a glucose-powered fuel cell.

The good news? Ricky lived to tell the tale, giving researchers hope that such cells could power tiny pace makers, and even, artificial hearts.

INDRANI NADARAJAH
editorial@mediaplanet.com

WE RECOMMEND

A marked improvement
How biomarkers are increasing the accuracy and ease of diagnosis.
PAGE 4

"The ultimate vision is to have the most cost-effective, widely available lab test that can give very personalized information on each patient."

MEDIA PLANET

THE FUTURE OF HEALTHCARE
1ST EDITION, JUNE 2011

Responsible for this issue:
Publisher: Candice Font
candice.font@mediaplanet.com
Designer: Penelope Graham
penelope.graham@mediaplanet.com
Contributors: Ida Goodreau, Nasir Jetha, Indrani Nadarajah, David Ostrow, Brett J. Skinner, Dalton Truthwaite

Managing Director: Justin Guttman
justin.guttman@mediaplanet.com
Editorial Manager: Jackie McDermott
jackie.mcdermott@mediaplanet.com
Business Developer: Joshua Nagel
joshua.nagel@mediaplanet.com

Photo Credit: All images are from iStock.com unless otherwise accredited.

Distributed within:
Vancouver Sun, June2011
This section was created by Mediaplanet and did not involve The Vancouver Sun or its Editorial Departments.

FOLLOW US ON FACEBOOK AND TWITTER!
www.facebook.com/MediaplanetCA
www.twitter.com/MediaplanetCA

DON'T MISS!

Coming together for better health

Canada's Western provinces health care sector will be in focus during a two-day event at the 11th Annual Healthcare Conference. This regional summit, held in Kelowna, BC on June 27-28th, will showcase some of the latest developments in our western provinces healthcare sector. Private and public collaboration and supply chain shared services are some of the topics that will be debated at this annual event, that will attract this year over 300 senior representatives from the healthcare sector. For more information, please check www.rebootconference.com/health2011/.

BCBiomedical
LABORATORIES LTD.
The community laboratory practice of Dr. C.J. Coady Associates

British Columbia's community laboratory for over 50 years

BC Biomedical Laboratories is dedicated to improving patient health in British Columbia.

We are committed to providing you with diagnostic health care of the highest calibre and are proud to promote the overall well-being of our patients, our employees and the communities we serve.

To serve you better, we have 45 Patient Service Centres across the Lower Mainland.

For a complete list of our locations, please visit www.bcbio.com.

BEST EMPLOYERS IN CANADA

THE GREEN 30 2011

Proud partner of: *my ehealth*

Accredited by: CAP ACCREDITED, DAP Accredited

Tel: 604-507-5000

www.bcbio.com

Your laboratory test results make up more than 3/4 of your medical record

For more than 10 years, Excelleris has been using the latest technology to get the majority of this important information into the hands of your physician safely and as soon as it's available.

We deliver more than 7 million laboratory results annually, directly to doctors like yours via our secure portal, LaunchPad™, or via secure integration with any of the Electronic Medical Records systems in active use in BC.

In February 2010, Excelleris launched *my ehealth* in response to the growing demand by patients for secure, electronic access to their laboratory results. Today, more than 110,000 patients use the *my ehealth* service to view and print this critical personal information. You too could be using this service if you've recently visited either a BC Biomedical or LifeLabs community laboratory in BC.

my ehealth

For more information about *my ehealth* visit www.myehealth.ca

Excelleris Technologies

For more information about Excelleris and our Health Care Information Distribution and Access service, visit www.excelleris.com

Beat Colorectal Cancer. *Get* Screened. *Get* FIT

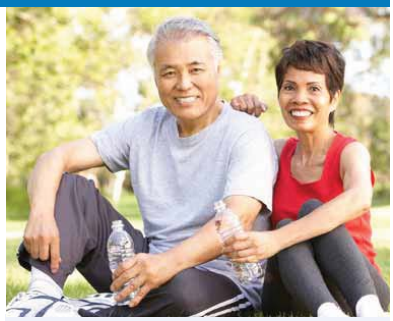
Colorectal cancer is the second leading cause of cancer-related deaths in Canada. But, it is also one of the most preventable forms of cancer. If screened and caught early – the chances of survival increase by 90%.

FIT Testing is an immunochemical fecal occult blood screening method that is highly sensitive, requiring just one sample, reducing specimen collection time and providing faster results to physicians and patients.

The Canadian Association of Gastroenterology and the Canadian Digestive Health Foundation recommend individuals aged 50 years and older, who do not have a family history of colorectal cancer, be screened at least every 2 years using a fecal occult blood test - the preferred method.

LifeLabs provides results electronically to physicians through Excelleris. Patients can access FIT test results by registering for and using ***my ehealth.***

LifeLabs® Medical Laboratory Services



What are the benefits?

- Routine screening increases survival rates by detecting colorectal cancer early
- Ease of sample collection ensures patient compliance
- Patients can collect the sample with ease and no interruption to daily routine
- Only one sample is required
- There are no restrictions on diet or medicine

The best screening test is the one that gets done*

*Colon Cancer Screening Guidelines 2005: The Fecal Occult Blood Test Option Has Become a Better FIT. Gastroenterology Vol. 129, No. 2, p.745-748. Aug. 2005

INSPIRATION

STEP 2

TIMELY DELIVERY OF SERVICES GOES A LONG WAY IN IMPROVING QUALITY OF CARE

Biopsies are known to be an **invasive** procedure that can leave a patient feeling **traumatized** and increasingly **vulnerable**. A new procedure is employing the use of **biomarkers** to make treatment a kinder, gentler process.

A marked improvement in diagnosis

CHANGE

Gordon Allan, 58, was born with a congenital heart defect that deteriorated sharply in his 40s, requiring him to undergo both a heart and a kidney transplant about 10 years ago.

However, it is not the surgeries that stand out in his mind as much as the numerous biopsies he had to endure, which he describes as "traumatic". "The procedures are invasive and made an already stressful situation even more stressful," he says. Equally overwhelming for him was the specialized equipment set-up and the number of healthcare professionals in the room for each biopsy.

While tissue biopsies may never be totally done away with, exciting new research is pointing the way to a gentler, more precise way of reading the body's signals, according to doctors.

Biological signposts

Disease prediction or diagnosis often starts with a laboratory test that is usually applied to a blood, urine, saliva or tissue sample. =However, the challenge is assessing the sample so sensitively and specifically that it truly reflects the key workings of a patient's health, explains Dr. Bruce McManus, director of the Centre of Excellence for Prevention of Organ Failure (PROOF Centre), based at St Paul's Hospital.

This is where biomarkers come in. A biomarker is a biological indicator that can be measured reliably, sensitively and specifically to detect or monitor changes in patient health, says McManus. Examples of biomarkers are genes, proteins or other molecules.

A staggering amount of research is going into identifying improved, clinically relevant biomarkers, and this has intensified in the last decade. In the research units of B.C. universities and hospitals alone, at least $50 million has been deployed to investigate biomarkers. This figure does not take into account research efforts in the private sector.

Not all transplants are problematic

Contrary to popular opinion, not everybody rejects transplanted organs and not everybody rejects severely.

The PROOF Centre has been tasked with identifying the individuals who are susceptible to, are living with, or responding to, care strategies for heart, lung and kidney failure. It has already successfully identified immune rejection biomarkers in transplantation. These biomarkers are so sensitive that they can differentiate sharply between acute, treatable rejection and its absence, says McManus.

Other markers can distinguish between those patients with longer term, smouldering rejection and those without.

Such markers will be assessed for clinical value in B.C. beginning in January 2012.

The financial perspective

Allan is involved in the financing of investment of real estate and fund management services. He is also on the Translation Advisory Committee (TAC) to the PROOF Centre board of directors. The TAC reviews all proposals submitted to the PROOF Centre to assess if they can be commercialized and translated through the healthcare system.

If a simple blood procedure testing for certain markers can yield even more targeted information than a biopsy, then that is a no-brainer for Allan. Equally attractive for the businessman in Allan is that, for an overstretched health sector that siphoned off 11.7 percent of the country's GDP in 2010, blood tests are a lot cheaper than biopsies.

FACTS

- **Definition:** Biomarkers are biochemical features that can be used to measure a disease's progress, treatment efficacy or normal biological processes to confirm the absence of disease.
- **Why:** Current diagnostic tools like biopsies for organ rejection, are unable to predict rejection or other problems.
- **Goal:** Replacing tissue biopsies with accurate, reliable blood tests.

Source: PROOF Centre

1

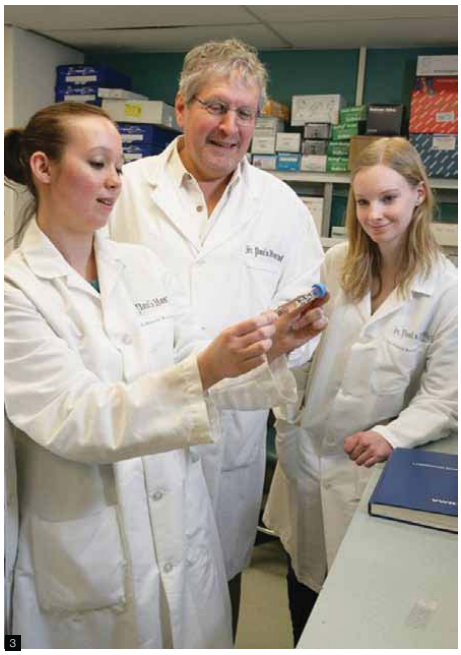
The ultimate goal

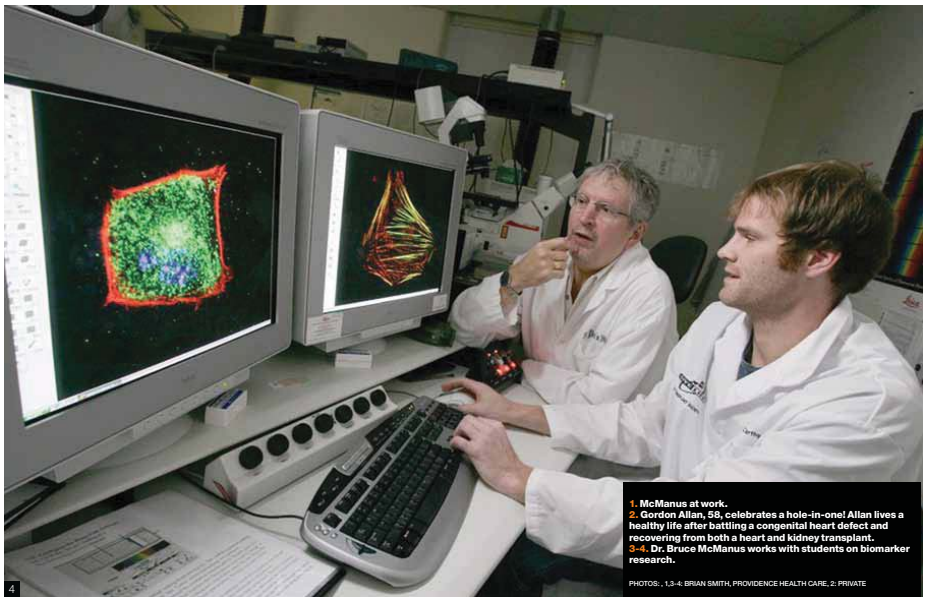
Ultimately, biomarkers will reduce the direct and indirect costs to patients and to society. "Multiply this effort across a myriad of diseases that cause heart, lung and kidney failure and one gets an indication of how important this field of research is, not just in terms of savings, but also for the individual person and their health outcomes. We do stand on the promise of breaking through to a whole new level of understanding," says McManus.

"The ultimate vision is to have the most cost-effective, widely available lab test that can give very personalized information on each patient. That's the PROOF Centre's dream, not just for Canadian medicine, but globally."

INDRANI NADARAJAH
editorial@mediaplanet.com

INSPIRATION





1. McManus at work.
2. Gordon Allan, 58, celebrates a hole-in-one! Allan lives a healthy life after battling a congenital heart defect and recovering from both a heart and kidney transplant.
3-4. Dr. Bruce McManus works with students on biomarker research.

PHOTOS:, 1,3-4: BRIAN SMITH, PROVIDENCE HEALTH CARE, 2: PRIVATE

NEWS IN BRIEF

The one-minute AIDS test

HIV/AIDS remains a major global health challenge, affecting 33 million globally. With traditional testing methods, it is common for people in less developed countries to travel far for an HIV test and then cool their heels for several days for the results.

Bar travelling time, the situation is not that different in Canada.

However, a BC-based firm, bioLytical Laboratories, has created a point-of-care HIV antibody test that delivers accurate results within 60 seconds. The test, approved for use in Canada in late 2005, received US FDA approval last November, says Dr. Christopher Shackleton, a bioLytical adviser.

People do want to know their HIV status—especially with the availability of effective treatment options to manage the disease, he says. "We have seen a paradigm shift in the fight against the HIV epidemic to one of routine testing and a seek-and-treat philosophy. Increasingly, patients want to know how to manage their situation and point-of-care rapid testing is a cornerstone of this approach."

bioLytical is currently developing and expanding its point-of-care rapid-test technology to detect other infectious disease biomarkers, Shackleton said.

INDRANI NADARAJAH
editorial@mediaplanet.com

PANEL OF EXPERTS

	Dr. David Ostrow President and Chief Executive Officer, Vancouver Coastal Health	Dr. Brett J. Skinner President & Director, Health Policy at Fraser Institute	Ida Goodreau Director of Strategy UBC Centre for Health Care Management
Question 1: With the federal-provincial health accord expiring in 2014, it's time to think about the future of our healthcare system. What would be the components of an ideal healthcare system?	**The ideal system** would allow healthcare consumers to be more involved. We need to put people first and give them opportunities and tools to make choices about the healthcare options available to them that are supported by medical evidence. Equally important is the fostering and support for innovation that leads to better quality of care, especially where that improved quality can offset the increased demand for a service that inevitably follows innovation. Our ideal system will also encourage more robust partnerships with physicians based on shared resource and quality incentives.	**In Canada,** government has a monopoly on medical insurance. Therefore, the allocation of medical goods and services is a political decision. User fees are unpopular so governments tend toward subsidizing 100 percent of the costs, which leads to unsustainable cost growth. Governments react by rationing, which causes shortages when there are no options to pay privately. Ideally, we need a competitive market for healthcare that is minimally regulated to achieve universal access to necessary medical treatment, provides means-tested public subsidies, and exposes all consumers to prices. Netherlands and Switzerland are examples.	**An ideal healthcare** system is focused on three components: people, sustainability and innovation. First, the system must focus on helping people live longer and healthier lives. This requires access to excellent treatment, confidence that care is safe and compassionate, and an environment where individuals "own" their health. Sustainability necessitates that policy addresses the system's funding now and for decades to come. Policy-makers must ask if taxpayers are receiving good value on investments and if long-term needs are being considered. Finally, the system should be permeated with a commitment to innovation in prevention, new technologies and greater self-care.
Question 2: Finding solutions to Canada's healthcare problems will require innovation and leadership. What should our priorities be?	**Innovation in service** delivery needs to match the innovation occurring in technology and drug development. We must innovate through service delivery. To do this we must provide healthcare that is comprehensive, not episodic. We should help create strategies and solutions to keep people well and treat them effectively. We must also incentivize to meet targeted times for diagnostics, surgery and outcomes of care. This requires leaders who can innovate, learn from mistakes, and be accountable. Healthcare needs people with the vision to de-politicize the more challenging realities of our healthcare system to ensure the focus remains on people, quality and care.	**The feds financially** penalize provinces that allow user fees and private payment or insurance options—policies that would make the system financially sustainable. The feds should not increase provincial transfers after the 2014 accord expires. Instead they should announce that provinces experimenting with user fees and private payment or insurance will not be penalized. The provinces should adopt percentage-based user fees, private payment options and competitive delivery. These kinds of policies are common in other countries that achieve universal access without the shortages or wait times we see in Canada.	**In the past 40 years,** a major change has occurred in the profile of the "typical" patient, from someone with an acute illness to someone with one or more chronic diseases. Leaders are now required who can shift the system toward community and home-based care, with patients more engaged in their own health. Patients will require an integrated approach that links hospitals, General Practitioners, clinics and homecare, as well as public and private services. This system needs to be coordinated around a comprehensive individual care plan, supported by technology, and enabled with appropriate funding and incentive models.
Question 3: Health spending swallows as much as half of provincial government's budget. How can we control healthcare costs without compromising quality?	**Healthcare costs** are rising due to a number of factors that include an aging and growing population as well as costs of new technologies and drug therapies. We need to meet these financial demands by removing as many non-productive costs as possible. That means decreasing administrative costs to provide more direct, efficient hands-on care. It also requires us to improve the quality of care we provide. Fewer medical errors and reduced risk of infection will make the patient journey better, less expensive and—ultimately—more satisfactory.	**In BC,** health spending will consume 50 percent of revenues by 2017. We must make health spending sustainable before it bankrupts the province. Federal funding and raising taxes are not solutions. The feds have already transferred billions more than needed to keep up with inflation or population growth. High and rising taxes discourage economic growth and reduce the long-term potential revenue base for governments. User fees and private payment options would offload public cost pressures, encourage economic efficiency, and offer a sustainable source of additional resources: providing better healthcare, sustainable costs.	**The focus of** the "cost" debate has tended to centre on expenses incurred by hospitals, doctors, tests, homecare, etc., and much of the effort to contain costs has gone to improve efficiencies in these areas. Going forward, we could have much greater impact if we shift focus to the effective adoption of information technology and e-health throughout the healthcare system; enhancing roles for nurses, pharmacists and other caregivers; and redesigning funding and incentive models. As well, combined patient and physician examination of how prevention can reduce the need for medical intervention could have a substantial impact on the bottom line.

NEWS

A NEW ERA OF COMMUNICATION
E-health will completely change healthcare. It is one of the fastest-growing fields of healthcare today.
PHOTO: MARTIN DEE

Treating patients the e-health way

■ **Question:** How is the digitization of medical record data improving communication about patients' health?
■ **Answer:** It gives all doctors involved in a patient's care easier and faster access to vital information.

Despite teething problems, more doctors are using technology to support disease diagnosis and management, according to experts.

Electronic medical records (EMR), though promising to revolutionize medicine, still do not have a robust following in Canada. Unlike New Zealand, where almost 100 percent of doctors are electronically connected, only a third of Canadian doctors use EMR. However, the figure is higher in B.C —almost 60 percent. More than 90 percent of larger practices with at least six doctors have EMR, according to Jeremy Smith, program director at the Physician Information Technology Office (PITO), a $108 million partnership between the provincial government and the B.C. Medical Association to support and implement IT planning.

Cost has been an issue. Dr. Jeff Harries, of Penticton in the South Okanagan Valley, says that despite the B.C. government funding 70 percent of parts of the EMR bill, it still cost his three-physician practice about $20,000 after the rebate. It took six months for the system to be integrated into the workflow, during which time patient volume fell by a quarter, despite doctors working longer hours. "We lost about $75,000 in revenue. The stress was massive," recalls Harries.


PHOTO: MARTIN DEE

"We need to think about using it to enhance clinical acumen. We are talking about the art of e-medicine."

Dr. Kendall Ho
Director,
e-Health Strategy Office,
Faculty of Medicine, University of British Columbia

Furthermore, laboratories, imaging clinics and hospitals need to be included in the electronic network as well. Hospitals have been notoriously slow to change their system, preferring the less expensive option of sending out paper reports to external doctors, according to Harries.

The art of e-medicine

Despite the initial start up issues in EMR, great strides have been made in electronic medicine. E-health is a very broad term, covering data collation and storage via EMR in the doctors' offices, hospital electronic records, or a patient's personal health record, Telehealth (the actual delivery of a medical service), and knowledge management. The last refers to the analysis of health data to guide medical decision making, explains Dr. Kendall Ho, the director of the e-Health Strategy Office at the Faculty of Medicine, University of British Columbia.

E-health is not new—B.C emergency room doctors have relied on Pharmanet, which tracks patients' prescription history, for 20 years, points out Ho. The goal is now to capitalize on data collection and storage. This involves changing medical education. "Medical students today are using digital technologies," Ho says. "We need to think about using it to enhance clinical acumen. We are talking about the art of e-medicine."

Telehealth points the way

St Paul's Hospital is trialling two web-based programs targeting heart patients in less urban settings. Each web program cost about $100,000 to develop, a boon to a financially stretched health system.

According to Dr. Scott Lear, chair of cardiovascular prevention research at St Paul's Hospital, heart rehabilitation programs are usually based in large, urban hospitals. In 2004-05, St Paul's decided to compress its heart disease rehabilitation program into a web-based program. Patients upload their weight, heart rate during and after exercise and blood pressure results into the program. They also have a monthly chat with the nurse, dietician and exercise specialist.

One program is focused on heart disease patients who have had heart attacks, and the second program helps patients with progressive heart failure. Both are presided over by a nurse and the patients are connected with other health professionals like dieticians and exercise specialists.

The general practitioner remains the lynchpin in the patient's care plan, stresses Lear. So far, patient results have been "encouraging."

INDRANI NADARAJAH
editorial@mediaplanet.com

Empowering patients through social media

Some healthcare practitioners are using social media as a tool to connect with their patients.

For example, in Brooklyn, New York, Hello Health (a primary healthcare practice) touts its video visit facility for its low-maintenance patients, secure email and online scheduling.

However, patients with chronic diseases are truly leveraging off social media, with sometimes quite startling results. Last year many Canadian multiple sclerosis patients used social media to pressure the medical fraternity and provincial governments to investigate and fund research into a currently unendorsed surgical procedure.

Vickie Cammack
CEO,
Tyze Personal Networks

Loneliness not an option

Health social networks have many uses. Many emphasize community-building, facilitating information gathering or even the maintenance of privacy across far-flung distances.

One of the best known health websites is PatientsLikeMe, established in 2005 by three MIT engineers. The site, which has nine chronic disease categories, enables patients and physicians to share treatment and symptom information. PatientsLikeMe says it has more than 100,000 registered patients who share their data. Physicians and researchers can also access the site to gauge real-world outcomes of medical treatments. However—somewhat controversially—the data is sold.

In contrast, Vancouver-based Tyze Personal Networks, emphasizes its members' privacy. Less than three years old, Tyze has 5,000 mainly Canadian, members today. Many have chronic disease or cancer. CEO Vickie Cammack says Tyze was created because "no-one should face illness, disability or ageing on their own."

A Tyze network is advertising-free. Each network, which has between four to 20 members, also has a vault for patients to deposit sensitive information like wills or funeral arrangements. Tyze is also creating a "drop box" where doctors can deposit medical information for the patient and their support group to access. This feature comes online in July.

INDRANI NADARAJAH
editorial@mediaplanet.com

NEWS IN BRIEF

Jeffrey Betts
Business Development Manager, Healthcare and Life Sciences Division, IBM

Research leads the way for clinical decision-making

Last February, an IBM computer named Watson competed on "Jeopardy"! against two long-running champions. In a thrilling two-game, combined-point match broadcast over three episodes, Watson beat its opponents to win US$1 million in prize money.

Watson is a question-answering computing system that responds to questions in natural language and sorts through reams of information at a mind-blowing pace.

Philosophical musings aside (are machines really smarter than humans?), Watson's technology comes into its own in the healthcare arena, where 2,000 new medical papers are published every day (700,000 a year), and physicians are struggling to keep up, according to Jeffrey Betts, IBM business development manager, healthcare and life sciences division.

The power of large-scale computing

IBM is developing a program to help doctors access the most relevant, timely information on their smartphone or computer. The application will be ready in 24 months.

Watson's children, metaphorically speaking, will emerge as savvy physicians' assistants on smartphone applications or as a drop-down box in a physician's clinical support system.

"Using the brute power of large scale computing, the program will sort through relevant articles to create a list of statistically probable hypothesis and diagnosis to support physicians' decision-making," says Betts.

It is unlikely that Watson's progeny will bask in the glamour of television cameras, but there will probably be a lot of grateful patients and doctors.

Better decision-making for doctors

The University of British Columbia's Faculty of Medicine is also studying better decision making processes. "Together with the Ministry of Health and BC Medical Association, we have digitized 52 clinical practice guidelines into an iPhone application for general practitioners," says Dr. Kendall Ho, eHealth Strategy Office director.

Within five clicks and 10 seconds, clinicians can find the required information. Work on delivering the electronic format of these guidelines began in 2006, even though the iPhone application was only completed last June.

UBC is also researching electronic communication strategies like social media to support patient-centred care. Ho's team is investigating how health professionals can, through technology, coordinate their advice to benefit the patient, rather than having it doled out.

The patient as king

Treating the patient as king makes compelling economic sense. "Quality and customizing healthcare and appropriate treatment options [at the outset] are cheaper than fixing mistakes," argues Betts.

A strong patient focus, underpinned by cutting-edge technology, can markedly improve diagnosis and lead to better targeted treatment. Such an approach results in reduced patient suffering and cost to the state. Ultimately, patients are kept out of the hospital, he continues.

Surely, a goal worth aspiring to.

INDRANI NADARAJAH
editorial@mediaplanet.com

LIVE LIFE.
PASS IT ON.

Register online at **transplant.bc.ca**

Artist: Eva Markvoort Photographer: Cyrus McEachern

Need a reason to donate your organs?

Here's five.

1. You have the potential to save seven lives.
2. There's a greater chance that you will one day need an organ transplant than there is of you ever being an organ donor.
3. Survival rates of transplant patients continue to improve, providing recipients with an extended and high quality of life.
4. It takes seconds to register your decision online at transplant.bc.ca
5. You want to make a difference.

There are more than 350 British Columbians currently waiting for a second chance.
Stop the wait. Registering for organ donation takes seconds at transplant.bc.ca

BC TRANSPLANT

Provincial Health Services Authority
Province-wide solutions. Better health.

BRITISH COLUMBIA
The Best Place on Earth