Dear colleagues and friends,

After years of planning, coordination and intensive training, Alberta Health Services (AHS) is poised to launch what may be the most ambitious, potentially transformative initiative in its history.

AHS’s long-planned, widely anticipated Connect Care electronic medical information system is poised to go live at University of Alberta Hospital (UAH) and other key sites in the Edmonton Zone on Nov. 3rd.

Some 20,000 regional healthcare workers and 2,000 Physicians – including about 150 Psychiatrists – in the Edmonton Zone have already invested significant time and resources in preparation for the launch.

This included approximately nine hours of intensive pre-launch classroom training for the initial leg (Wave One) of the Connect Care rollout. An additional three hours of post-launch optimization training for Wave One will follow.

By the time the final leg (Wave Nine) of Connect Care is fully implemented in the summer of 2022, this comprehensive online medical information system will reach every corner of the province, providing tens of thousands of Alberta Physicians, healthcare team members and pharmacists with timely and consistent clinical information, all aimed at improving the quality of patient care.

Wave Two of the Connect Care launch, encompassing various healthcare sites in the Calgary Zone, is scheduled for May of 2020. Wave Three, which mainly involves suburban sites in the Edmonton Zone, is also set for May of 2020.

The impending Wave One launch will include all of the facilities and specialized healthcare departments within the Walter C. Mackenzie Health Sciences Centre, including:

• Aberhart Centre
• University of Alberta Hospital
• Stollery Children’s Hospital
• Mazankowski Alberta Heart Institute
• Clinical Sciences Building
• Kaye Edmonton Clinic
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- TB Central Services
- Zeidler Gastroenterology Health Centre

Wave One will also encompass Connect Care linkages with:

- eCLINICIAN Transition for Ambulatory Clinics
- AHS Addiction & Mental Health Bed Management
- Cross Cancer Institute
- East Edmonton Health Centre
- Connect Care Patient Portal
- Connect Care Provider Portal
- Pharmacy and Diagnostic Imaging sites in urban and suburban Edmonton
- Alberta Public Lab sites in Edmonton
- All Edmonton Pathology sites
- All DynaLIFE locations in Alberta
- Lab and Transfusion Medicine sites

AHS finalized a $459 million agreement with Wisconsin-based Epic Systems Corp. in September of 2017 to fund installation of the new Connect Care software, and to provide the ongoing support and staff training needed to prepare for the launch of Wave One.

Epic, a leader in the field of electronic medical information systems, has designed many similar systems throughout North America, which currently serve roughly 250 million patients.

Once completed in 2022, the entire Connect Care initiative, which is designed to consolidate some 1,300 independent clinical information systems currently used by AHS, is expected to cost approximately $1.6 billion.

The somewhat fractured and disconnected clinical information systems currently used by Physicians and other AHS healthcare staff means that patients – especially those with complex medical conditions requiring several medications – must often repeat their histories multiple times to different providers.

This can lead to tragic clinical errors. Studies in the U.S. indicate that nearly 100,000 people die as a result of medical errors each year.

When the Connect Care project is complete, all healthcare providers within AHS will have access to a single common medical information system featuring comprehensive and consolidated patient information, no matter where they are located.

AHS’s existing medical record systems, including Netcare, will be incorporated within Connect Care. Although Netcare allows Physicians to view lab test results, diagnostic results, some Emergency Department visits and other events, it doesn’t allow Physicians to write notes, order medications or document information easily.

Once Connect Care is fully implemented, healthcare teams will be able to use it to reimagine and redesign how they capture, store, filter, access and use information to improve care for patients. In short, they will have a more complete, timely and seamless picture of a patient’s health.

Connect Care will provide a clear, systematized, standard way of entering orders for medications and procedures, Diagnostic Imaging and medical lab tests. In addition, numerous safety checks will be built into the system including automatic alerts, standard of care alerts, critical result alerts, and routine double-checks on medication interactions and dosages.

Finally, Connect Care will provide a vastly improved platform for much more comprehensive data on patients, and this is expected to support enhanced research capabilities and Quality Improvement initiatives in all areas of patient care, including Psychiatry.

Clearly, as the Wave One launch date approaches on Nov. 3rd, all of us at AHS and within the Department of Psychiatry are extremely excited about the opportunities that lie ahead once Connect Care is fully embedded and operational within our healthcare system. We also realize that adapting to change is difficult, and can create added stress. We wish to thank all of you for your professionalism, your dedication, and your cooperation in helping us to make this dream a reality.

In closing, we’re excited to announce two key appointments to the Department of Psychiatry’s leadership team:

Dr. Tania Oommen, a Clinical Lecturer in the Department of Psychiatry and a Staff Psychiatrist at Grey Nuns Community Hospital, is the new Director of the Resident Program; and Dr. Katharine Hibbard, an Assistant Clinical Professor in the Department of Psychiatry, joins Dr. Roger Brown as Associate Director of the Resident Program.

Both bring a wealth of clinical experience and a deep commitment to mentorship. We are confident that Drs. Oommen and Hibbard will greatly enrich our Psychiatry Residents’ learning experience.

We also wish to welcome the first wave of AMHSP (Academic Medicine and Health Services Program) applicants in Psychiatry into the program.

As noted in previous issues of Connections, a rigorous search and selection process to fill these AMHSP positions has been underway since June, and internal departmental interviews continued through the summer months.

We were delighted by the level of interest. There were more applicants for AMHSP positions than available spots and search committee members were deeply impressed with some of the transformative ideas that were proposed.

It has been a very competitive process, and priority was given by the University of Alberta / AHS search and selection committee to candidates who articulated a compelling vision and commitment to the Department of Psychiatry’s academic mandates.

We wish to congratulate the successful AMHSP candidates we have recruited. We expect them to play key roles for years to come in helping us to shape a wide range of key research and education initiatives in the Department of Psychiatry.
Dr. Vincent Agyapong to Launch Study on Effectiveness of Combining rTMS and Online CBT to Treat Depression

Dr. Vincent Agyapong has been awarded a $97,500 grant from Edmonton's Mental Health Foundation to conduct a study on the effectiveness of using dual technology-based therapies to treat patients with Depression.

Dr. Agyapong, a Clinical Professor in the Department of Psychiatry, aims to recruit 100 patients to participate in a randomized controlled trial employing both rTMS and online-based Cognitive Behavioural Therapy (CBT) to treat patients with Depression.

“We’re finalizing the protocol now for our ethics application and registering the trial with ClinicalTrials.gov, so we’ll be publishing the protocol in the next few months,” says Dr. Agyapong, who is also Edmonton Zone Clinical Section Chief for Community Mental Health with Alberta Health Services (AHS).

“We expect to start the trial early in the new year, probably in January, once we hire some graduate students to help set the program up. We’ll be recruiting patients at the AHS Mental Health Clinic on 108 Street over the following 12 months, and hope to complete the study in about 18 months.”

Repetitive Transcranial Magnetic Stimulation – or rTMS – is a noninvasive form of brain stimulation that employs magnets to generate an electric current to stimulate targeted areas of the brain. There are now five rTMS machines in the Edmonton Zone, including three at the 108 Street clinic and two at Alberta Hospital Edmonton’s Day Hospital.

The Mental Health Foundation funded the purchase of all five Edmonton-area rTMS machines. Previously, the only publicly available rTMS machine in Alberta was located at Ponoka’s Centennial Centre for Mental Health and Brain Injury.

“Most patients with Depression are treated with antidepressants to correct biochemical imbalances in the brain, typically targeting chemicals such as Serotonin and Norepinephrine. But sometimes antidepressants are not effective. That’s why rTMS and ECT (Electroconvulsive Therapy) are often used for patients with treatment-resistant Depression, to enhance these biological processes,” he explains.

In addition to rTMS treatments, trial participants will also receive Internet-delivered Cognitive Behavioural Therapy, or CBT. CBT is a psycho-social treatment that teaches patients the skills needed to help them better manage anxiety, Depression or other mental health challenges. Dr. Agyapong hopes the trial results will show whether a combination of the two treatments produces better patient outcomes.

“When CBT is delivered in person, one-on-one, it is very human resource intensive, and therefore very capital intensive. There is also a very long wait list for patients to access CBT. Many people need it but there are very few therapists available to provide it,” says Dr. Agyapong, noting that the current wait time to see a therapist at the 108 Street clinic is 56 days.

“By using Internet-based, Internet-delivered CBT – or iCBT – in combination with rTMS we can reduce that wait time. Another benefit of using i-CBT is that patients will have their subscription to the program for a year, so apart from what is delivered to them while they attend the clinic, they will continue to have access to the i-CBT program for one year.”

Although online CBT can be an effective way to treat Depression, it can be difficult to motivate patients to use it. By providing simultaneous rTMS treatments, Dr. Agyapong believes this will “kick start” patients into being more proactive about accessing i-CBT.

“The program includes videos and exercises that one has to follow and they are all designed to be similar to what you’d experience in a face-to-face CBT session,” he explains.

“Once the trial starts, participants will come in two days per week, one hour before their rTMS session, to access online CBT. For each cohort in the trial, the rTMS treatments will be offered every weekday for six weeks. By the end of six weeks, each participant will have completed 12 hours of online CBT, which is similar to what a patient receives in face-to-face sessions.”

Trial participants will subsequently be monitored at one-month, three-month and six-month intervals using standardized assessment scales.

The study is just the latest example of Dr. Agyapong’s willingness to harness the power of technology in an effort to better serve the needs of mental health patients.

In 2016, AHS launched Dr. Agyapong’s Text4Mood program, a daily supportive text messaging service for patients struggling with Depression and Anxiety. Since it was unveiled Text4Mood has been used by tens of thousands of subscribers, and Dr. Agyapong has developed a series of related spin-off programs.

In honour of his pioneering work, Dr. Agyapong was named Physician Innovator of the Year at the March 2018 Edmonton 

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sponsored elective placements in Psychiatry at Irish institutions. The number of Psychiatrists in Ghana has subsequently increased from four to 18 with another 27 Residents in Psychiatry currently training with the Ghana College of Physicians and Surgeons,” he added.

“Dr. Agyapong has demonstrated enormous compassion and a willingness – indeed an eagerness – to go out of his way to care for people who would otherwise not have access to the care they need. The people of Alberta and Ghana in particular have benefited greatly from his work on their behalf.”

As part of his efforts to encourage medical students in Ghana to pursue a career in Psychiatry, Dr. Agyapong launched an annual debating competition for the country’s medical students in 2010.

“The whole idea was to run an annual inter-medical schools public speaking competition, with each of Ghana's medical schools selecting two students to speak about a topic of public health interest. The winners of the competition were sponsored to go to Dublin for four weeks to study Psychiatry,” he says.

“Initially I had two hospitals as sponsors but one withdrew. I’m now hoping the Department of Psychiatry will support this. The Royal College of Physicians and Surgeons of Canada has put out a call for funding for programs in middle-income countries, so I’m planning to file an application in the name of the department to assume control of this program and sponsor two Ghanaian students to come to Alberta.”

The Royal College is offering $30,000 a year of funding for three years – more than enough to cover the program’s costs, as well as a series of guest lectures by faculty members at Ghana’s medical schools, says Dr. Agyapong.

“If the application is successful this won’t cost the department anything, but it will be a huge benefit to Ghana’s medical students and it will help us to continue to promote Psychiatry as an exciting career option for them.”

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**Community Initiatives:**

Living Hope Program a Coordinated City-Wide Effort to Curb the Number of Suicides in Edmonton

It’s a gorgeous autumn afternoon. The birds are chirping and squirrels are scampering about, gathering nuts for the upcoming winter. Seems like a perfect day to conduct an interview outdoors – which is exactly what Lahn Jones and I decide to do, after ditching his nearby office for a picnic table at a west side city park.

But this idyllic setting belies the painful subject we’re here to discuss: suicide, and how to prevent it. It’s an issue Jones spends a lot of time thinking about as Project Coordinator of Living Hope, a community plan aimed at preventing suicides in Edmonton.

The ambitious city-wide awareness, education and prevention program, under development since 2016 and launched two years later, runs until 2021. Jones, funded by AHS, is one of a three-person project team who work for Living Hope, including two project management positions provided by the City of Edmonton.

“Up to this point in my career I’ve focused on trying to understand how best to support peoples’ mental health and well-being, and Living Hope has given me an opportunity to be a part of something very special,” says Jones, who previously worked with local nonprofits, tackling issues like domestic violence.

“Living Hope is a municipal initiative so it’s really grounded right here in Edmonton,” he explains.

“On the contrary it’s quite inspirational to see this level of partnership come together, with a wide variety of stakeholders including Alberta Health Services, the City of Edmonton, the Alberta Capital Region United Way, Edmonton Police Service, Edmonton Fire Rescue Services, Emergency Medical Services, the Canadian Mental Health Association and the Department of Psychiatry at the University of Alberta. We’re all taking a very collaborative approach with this.”

A 60-page report titled Living Hope: A Community Plan to Prevent Suicide in Edmonton, outlines the history, background and primary goals of Living Hope. The initiative’s key goals are:

- To provide awareness and education that promotes positive mental health, reduces the stigma of suicide and provides an understanding of how to help someone considering suicide;
- To ensure the whole continuum of services – prevention, intervention, postvention – is fully accessible to all; and
- To address the needs of higher-risk populations (including members of the LGBTQ2S and Indigenous communities, and middle-aged males).

Currently available data does not give a precise picture of who is...
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dying by suicide in Edmonton, since not every death by suicide is reported as such, but the report does highlight some key facts, including:

- Middle aged males have the highest suicide death rate: about 75% of those who die by suicide are males, primarily between the ages of 40 and 59;
- Suicide is the single greatest cause of injury-related deaths for Indigenous people;
- For every person who dies by suicide, it is estimated that as many as 20 others are likely to have attempted suicide;
- In 2015, 214 people died by suicide in the Edmonton Zone; of these, 148 (69%) were male and 66 (31%) were female;
- In 2016 there were 2,365 visits to hospital emergency departments in the Edmonton Zone due to suicide attempts.

Members of the LGBTQ2S community are two and a half times more likely to have attempted suicide than heterosexuals; LGBTQ2S youth and transgender women are particularly at risk.

More than 20% of off-reserve Indigenous adults reported having suicidal thoughts, according to a 2012 Statistics Canada survey.

The key risk factors for suicide include mental illness, addictions, social isolation, major life transitions, illness, trauma, poverty, oppression and discrimination, the report notes.

On the positive side, the “protective factors” that prevent suicide include positive coping skills, social supports, healthy relationships, reduced stigma, having a sense of purpose, and good health.

“Living Hope really lives and breathes by its community connections, its community engagement and the many partnerships that support it. It’s truly an inspirational effort involving a large number of committed individuals and organizations,” says Jones.

The effort dates back to 2016, when the Edmonton Suicide Prevention Advisory Committee released the Edmonton Suicide Prevention Strategy, 2016-2021. So what triggered that initial heightened focus on suicide?

“I would say it was a combination of things. Community members impacted by suicide made a request to Council for action to be taken on the High Level Bridge, where many suicides occurred, and their voices were heard,” Jones explains.

Recognizing the need to take preventative measures, City Council then directed the city administration to develop a suicide prevention framework.

“Various supportive community partners then came together to lend weight to that movement, with the CMHA being one of them. That led to the creation of the Implementation Planning Committee, and the plan being formalized in 2018, which is Living Hope.”

The Implementation Planning Committee Leadership Team includes Mark Snaterse, Executive Director, Addiction & Mental Health, Edmonton Zone, Alberta Health Services; Jenny Kain, Director, Family & Community Supports, Community Inclusion and Investment, City of Edmonton; Ione Challborn, Executive Director, Canadian Mental Health Association, Edmonton Region; and Jean Dalton, Director, Neighbourhood Health and Personal Well-Being, United Way, Alberta Capital Region.

Scott Phillips, Assistant Chair of the Department of Psychiatry at the University of Alberta, has also been actively involved in bringing the Living Hope initiative to life, says Jones.

“City Councilors Scott McKeen and Aaron Paquette are also key supporters of Living Hope. The eleven of us media campaign was launched in September, with a number of City Council members attending in support. It’s been wonderful to have such a strong city commitment to this effort.”

The eleven of us campaign slogan and website (https://11ofus.ca) refers to the fact that on average, 11 Edmontonians attempt or die by suicide each day.

“One of the key things we want to promote with Living Hope and the eleven of us campaign is to offer community members and stakeholders, service providers – and any others who might not have access to training and education around suicide prevention – opportunities to get that training,” he says.

“So a training framework is available on the website that provides no-cost suicide prevention training, including ASIST (Applied Suicide Intervention Skills Training), QPR (Question, Persuade, Refer) Training, SafeTALK and Trauma Informed Care. The training opportunities offer a range of content and lengths to meet the different needs and availability.”

In the end, Living Hope is aimed at all Edmontonians, not only those who are directly involved in suicide prevention.

“The foundation of Living Hope’s perspective is that in order to effectively promote and achieve suicide prevention we have to employ a multi-faceted public health approach. We really feel strongly about that,” says Jones.

“It has been understood that by engaging everyone in the community and working together to come up with an effective strategy for suicide prevention, this would be the best approach. The support from community partners has been amazing, so I would say there is a strong belief in the direction that Living Hope is going in. The foundations have been built and we are hopeful we’ll see positive results.”
From Balance Sheets to Psychiatry: The Tale of Muzammil Ahmad’s Unlikely Career Journey

Eight years ago, Muzammil Ahmad was completing a finance degree at the University of Calgary’s Haskayne School of Business.

Fast forward to September 2019, and the Canadian Psychiatric Association’s (CPA’s) Annual Conference in Quebec City.

That’s where Ahmad – now a second-year student in the Faculty of Medicine & Dentistry (FoMD) at the University of Alberta – presented a poster on the results of a study on the rehabilitation and community reintegration of Forensic Psychiatry patients with development disabilities.

“Dr. Xin-Min Li, the Chair of the Department of Psychiatry, funded the entire trip, including travel, conference costs and accommodation, and Dr. K (Dr. Maryana Kravtsenyuk, an Assistant Clinical Professor in the Department of Psychiatry) guided me throughout the project. It was a great experience.”

Ahmad’s sponsorship to attend the CPA conference was part of a departmental strategic research initiative, championed by Dr. Li, to offer support to all levels of learners.

So how did this 29-year-old Calgary native go from studying balance sheets to presenting a research project to some of Canada’s leading psychiatrists? Well, you’d better take a seat. It’s a complicated tale.

It began in 2012, when Ahmad accepted a contract position with the Mental Health Commission of Canada (MHCC) as part of year-long MHCC study on Vancouver’s homeless population.

“We provided people living on the streets with mental health care for four to six months in the hopes that it would help them put their lives back together, and the project went really well,” he says.

Although Ahmad was hired to do accounting work, seeing the pain and suffering of those living in Vancouver’s gritty Downtown Eastside left a profound impression.

He spent the next two years back in Calgary, working for energy giant Shell Canada. But he soon realized he wasn’t cut out to be a bean counter.

“It was a great experience and I learned a lot, but it didn’t fit what I wanted out of life. I wanted to feel like I was helping people, one-on-one, so I decided it was time to pursue a different path.”

That path took him to the University of Glasgow in Scotland, where he earned a Master’s degree in Psychology in 2016. “I was always interested in mental health but that got me even more interested,” he says.

“My research was on body image issues among Asian men living in the UK – a very interesting topic. After that I wasn’t sure if I wanted to pursue a PhD in Clinical Psychology or Medicine, so I shadowed both. Although I enjoyed both, I felt Medicine fit my needs better.”

To boost his chances of getting into medical school, he spent the next year taking science courses and preparing for the MCAT (Medical College Admission Test). He passed with flying colours, and was admitted as a first-year student in the FoMD in August, 2018.

That’s where he met Dr. Kravtsenyuk, who is also a Forensic Psychiatrist at Alberta Hospital Edmonton.

“Initially I wasn’t even looking for a specific project. I was just shadowing Physicians but I wanted to make some connections with Psychiatrists, because that’s the field I’m interested in,” he explains.

“Then I met Dr. K, as I call her. We had some really good conversations, so I told her I’d love to work with her on something, and I asked if she had any research projects I could work on.”

As it turned out, she did. That’s what led to Ahmad’s research on Forensic Psychiatry patients with development disabilities.

In February, he began reviewing the latest literature on evidenced-based and effective interventions for enhancing the safe rehabilitation and community reintegration of patients with neurodevelopmental disabilities. He completed his review over the summer and presented his findings to the CPA’s annual meeting in September.

“We basically looked at whether there are any specific programs in North America that are helping these patients, and whether these programs are cost effective or effective in general,” he says.

The study’s conclusions:

- The success of reintegration programs is defined by the availability of individualized support, housing, and mental health treatment;
- Reintegration programs tend to save on long-term costs and reduce the number of days spent in jail;
- Improvements in vocational and social functioning in reintegration programs decreases re-offense or recidivism rates; and
- Patient-centered care can benefit forensic patients with their transition back into the community.

“As we all know, the criminal justice system is very expensive, and mental illness plays a huge role in that. Crime costs totaled $31.4 billion in Canada in 2008, and
Conference News: Dr. Temple Grandin Brings Crowd to its Feet at Innovations in Practice 2019 Conference

Approximately 450 participants recently gathered in Edmonton to hear renowned author, educator and speaker Dr. Temple Grandin, among other experts, address the mental health challenges of those living with Developmental Disabilities, Intellectual Disabilities and Autism Spectrum Disorder.

The Innovations in Practice 2019 Conference – held Oct 9-10 at the Edmonton Inn & Conference Centre – attracted an enthusiastic and engaged crowd of Psychiatrists, General Practitioners, frontline Addiction and Mental Health clinicians, Teachers, support workers, families and individuals with lived experiences from across Canada.

It followed the inaugural Innovations in Practice Conference last year – the first such gathering of its kind ever held in Western Canada – which drew some 300 participants to Edmonton.

“This is one of the biggest conferences in the country in the field of Developmental Disabilities and mental health. It was a wonderful forum to learn about the most innovative practices in the field and it provided a great opportunity for people to network with their peers,” says Conference Chair Dr. Yogesh Thakker, a Clinical Lecturer in the Department of Psychiatry at the University of Alberta (U of A).

“We had very positive feedback. Many people are asking if we can host this conference every year. But for logistical reasons, that would be difficult. It’s a lot of hard work to put the conference together, so we plan on holding it every 18 months to two years,” adds Dr. Thakker, who also serves as Lead Psychiatrist for Alberta Health Services’ (AHS’s) Community Outreach Assessment and Support Team (COAST).

Other members of the Innovations in Practice Conference organizing committee included Mr. Scott Phillips, Assistant Chair, Department of Psychiatry, University of Alberta (U of A); Conference Co-Chair Dr. Pierre Chue, Professor, Department of Psychiatry, U of A; Dr. Keith Goulden, Associate Professor, Department of Pediatrics, U of A; Mr. Clayton Kleparchuk, Program Manager, Tertiary & Residential Services, Alberta Hospital Edmonton; Ms. Crystal Grunling, Conference Coordinator; Ms. Jennifer Sadowski, Clinical Supervisor, COAST; and Ms. Donna Brothers-Palfrey, Behavioural Consultant, COAST.

Dr. Grandin, the keynote speaker on day two of the conference, was severely Autistic and unable to speak at age two. But she overcame many early life social and academic challenges, and went on to earn a PhD in Animal Science from the University of Illinois in 1989. She is currently a Professor at Colorado State University.

Dr. Grandin, who was greeted with a standing ovation at the conference, is also a prolific author. Her book, Animals in Translation, made The New York Times best-seller list. Other popular books authored by Dr. Grandin include Thinking in Pictures, Emergence Labeled Autistic, Animals Make us Human, Improving Animal Welfare: A Practical Approach, The Way I See It, and The Autistic Brain.

She has been the subject of dozens of articles in major media outlets, and a movie about Dr. Grandin’s early life and career with the livestock industry earned seven Emmy Awards. In 2016, Dr. Grandin was inducted into the American Academy of Arts and Sciences and in 2010 she was named by Time Magazine as one of the 100 most influential people in the world.

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In her keynote address, Dr. Grandin – who describes herself as a “photo realistic visual thinker” – highlighted the differences between those who see the world in pictures, like herself, and “pattern thinkers” who excel at mathematical concepts or “verbal thinkers” who love facts and history.

Many students who do poorly in conventional classrooms may well be “visual thinkers” who are on the Autistic Spectrum, she argues, and would benefit from traditional shop or carpentry classes that offer a more hands-on approach to learning.

“One of the biggest problems I’m seeing right now in the schools is we’ve taken out all the hands-on stuff. That’s why we’re locking kids up in seclusion rooms. We’ve got to get hands-on classes back in the schools,” she told the audience.

“I know a guy right now who is in his 60s. He’s dyslexic, he’s ADHD, he’s very Autistic acting, and he was a terrible student in school. Then he took a welding class. Now he owns a metal fabrication company – and it’s a big metal fabrication company. We’re paying a price right now by taking skilled trades out of the schools. We’ve got to put this stuff back in.”

Indeed, she noted that many of the world’s most successful inventors, pioneers and creative types – from Thomas Edison to Steve Jobs, Albert Einstein and Steven Spielberg – were social misfits who overcame learning disabilities or behavioural challenges.

“Jane Goodall, when she did her famous work studying chimpanzees, had a two-year secretarial degree. Would that be possible today?” she asked. “Stephen Spielberg was dyslexic and bullied in school. Einstein had no speech until age three. What would happen to him today?”

By valuing only conceptual or mathematical thinkers, and by failing to recognize the importance of “bottom up” thinkers who see the world in more tangible terms, huge engineering mistakes sometimes occur.

“With the Boeing 737 Max (grounded by Boeing following several crashes) the first mistake they made was a visual thinking mistake in trusting a single, very delicate little fragile sensor that sticks out of the plane that was wired directly into the flight computer. The plane thought it was stalling when it wasn’t, and it kept shoving the nose down,” she says.

“Why would you trust a single, physically fragile sensor, especially when your company already makes another plane for the military that uses two sensors, and Airbus uses three sensors? Why would you do that? That was the first mistake. If that first mistake hadn’t been made those planes would still be flying.”

Dr. Ross Greene, who delivered the keynote address on the opening day of the conference, was on the faculty at Harvard Medical School for over 20 years and is now a member of the clinical faculty in the Department of Psychology at Virginia Tech. He is also the founding director of a nonprofit organization called Lives in the Balance (www.livesinthebalance.org), through which his advocacy work occurs.

He is also the author of such best-selling books as The Explosive Child and Lost at School, and is an outspoken advocate for the compassionate understanding and treatment of kids with behavioural challenges.

Dr. Greene’s innovative, research-based Collaborative & Proactive Solutions (CPS) approach posits that challenging behavior is the result of lagging skills rather than lagging motivation, and he emphasizes solving problems collaboratively rather than using motivational procedures. His approach has been adopted by hundreds of general and special education schools, inpatient units, and residential and juvenile detention facilities.

In his address – titled Collaborative & Proactive Solutions: Understanding and Helping Kids with Social, Emotional, and Behavioral Challenges – Dr. Greene objected strongly to the use of seclusion rooms in schools, saying the evidence shows they do not make teachers and students safer, but quite the opposite.

Instead of banishing kids who misbehave to seclusion rooms, he argues that educators must learn to detect and respond to the issues that lead to misbehavior before classroom confrontations occur.

“Defusing is late, de-escalating is late, restraining and secluding is late,” he told the audience. “Where does it begin? All restraints and seclusions begin with an expectation the kid is having difficulty meeting, and that unmet expectation – we call them unsolved problems in the CPS model – is highly predictable. The kid has probably been having difficulty meeting that unmet expectation for a very long time. If you want to provide good care you want to be early, not late.”