November 2017

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VITAL SIGNS

Deep in the Weeds: Cannabis Use in Children
Calgary Urban Project Society (CUPS) Literacy Project
The Geriatrics of Pediatrics
Primary Health Care Integration Network Launches in Alberta
How to Improve Quality Without a Project
Do What You Love!
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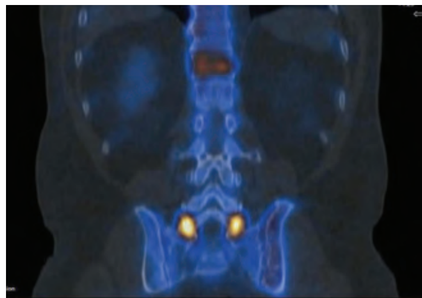

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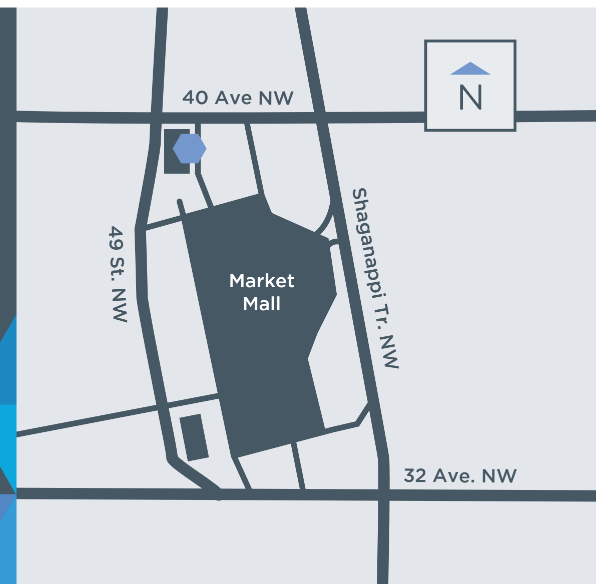

VITAL SIGNS

A CALGARY & AREA MEDICAL STAFF SOCIETY PUBLICATION

November 2017

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SUBMISSIONS:
Vital Signs welcomes submissions (articles, notices, letters to the editors, announcements, photos, etc.) from physicians in Alberta. Please limit articles to 1000 words or less.

Please send any contributions to: Spindrift Design Studio Inc. Hellmut Regehr, hregehr@studiospindrift.com

Vital Signs reserves the right to edit article submissions and letters to the editor.

The deadline for article submissions for the next issue of Vital Signs is November 17, 2017.

CONTRIBUTORS:
The opinions expressed in Vital Signs do not necessarily reflect the opinions or positions of CAMSS or CAMSS executive.

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Save the Dates!

CAMSS

Annual General Meeting: November 8, 2017 | The Glencoe Club – 5:30-7:30 pm
Council Meeting: December 13, 2017 | FMC Boardroom 152 – 5:30-8:30 pm
Council Meeting: January 10, 2018 | FMC Boardroom 152 – 5:30-7:30 pm

CZMSA

Executive Meeting: November 9, 2017 | WebEx
Zone Advisory Forum: November 23, 2017 | Red Deer – 7:00-9:00 pm CANCELLED
Executive Meeting: December 14, 2017 | WebEx
Executive Meeting: January 18, 2018 | WebEx

EZMSA

General Meeting: November 16, 2017 | TBD, 6:00-9:00 pm

SZMSA

Annual General Meeting: November 6, 2017 | Medicine Hat, 5:30 pm
Zone Advisory Forum: November 6, 2017 | Medicine Hat, 6:30 pm

Dr. Sharron Spicer

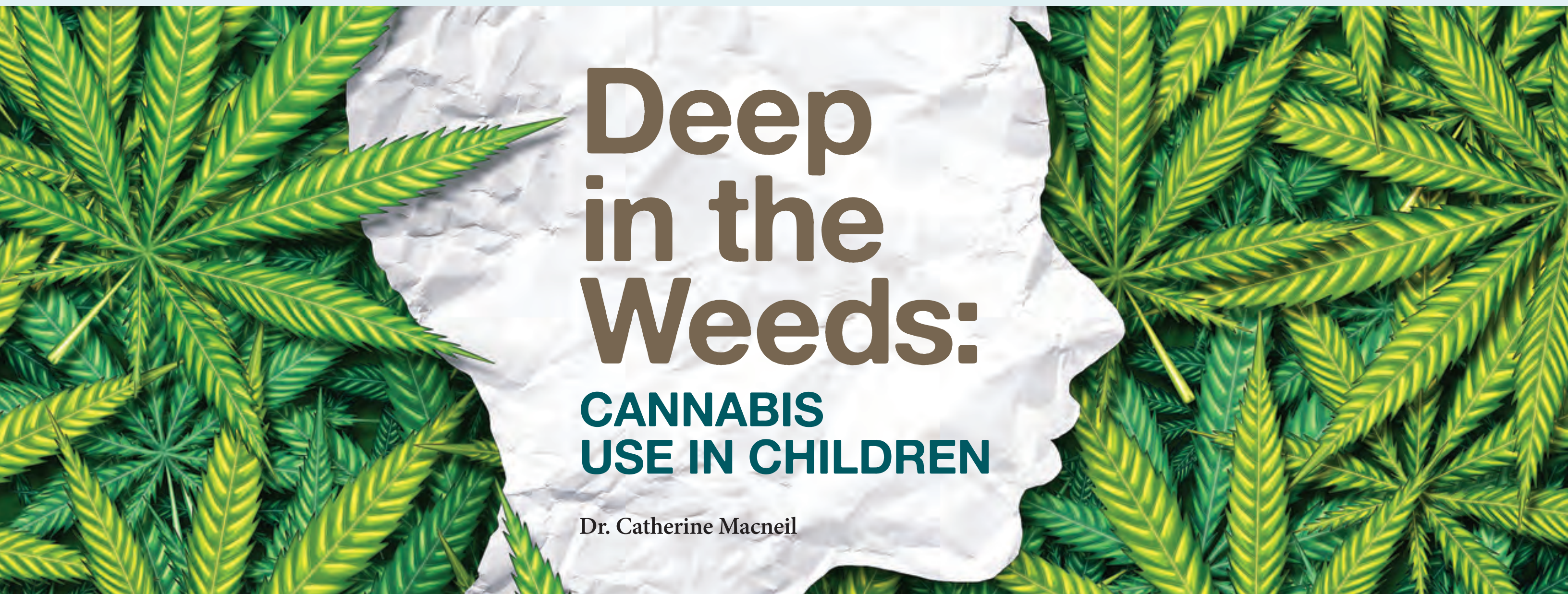
Dear Readers:

We hope that you enjoy this issue of Vital Signs highlighting pediatric care. As a pediatrician myself, I feel a special pride in this month's content. You will read opinions from physicians across the province on a wide range of topics affecting children: cannabis use for children and youth, pediatric care in smaller centres, complex pediatric care, mental health, and medical research in children.

We pediatricians like to say that children are not just little adults – but my own opinion is that sometimes adults are just big kids! So echoes Dr. Tito Daodu in her article "Do What You Love" – pediatric care allows us sometimes to be silly and cheerful and childlike despite the weight of what we face on a daily basis.

As always, our articles are provided by readers like you who are passionate about what they do. Your contribution and feedback are always welcome.

Dr. Sharron Spicer, Calgary and Area Medical Staff Society Past President



Deep in the Weeds: CANNABIS USE IN CHILDREN

Dr. Catherine Macneil

Dr. Catherine Macneil

Cannabis is a hot topic in Canadian medicine – including pediatrics. Cannabis use is likely to grow within the pediatric population in both recreational and medicinal realms. Here is a brief introduction to some of its related issues.

Recreational

The systems of licencing and distribution for medicinal and recreational cannabis will remain separate following the proposed legalization in July, 2018. For pediatric patients, this is an important distinction; recreational use will not be permitted for children and youth, while medicinal use is, and will continue to be, legally permitted *(more on that below).* Further, a parent will not be "allowed" to use their own legally obtained cannabis, whether obtained for medicinal or recreational purposes, to give to their child, even for the child's medicinal purposes.

Alberta's Cannabis Secretariat conducted public surveys and solicited feedback from various stakeholders this summer on Alberta's implementation of the upcoming federal law. Although the Alberta Medical Association (AMA) provided a written submission advocating for the age of legal use to be 21 years old, the Alberta government announced that the age for legal recreational use will be 18.

Provincial and federal governments are planning public health campaigns to promote awareness of risks of cannabis. Some students may still be in school at the age that they can legally use recreational cannabis. School boards expect to treat this like alcohol, where the presence of, or intoxication from cannabis will not be permitted on school property. Cannabis intoxication will be against the law when driving, but details on how to operationalize enforcement of this ban are still being worked out. In other jurisdictions where recreational use has been legalized, there have been unintended consequences, for instance an increase in cases of toddlers' accidental ingestion of their parents' stashes, and an increase in pregnant women using cannabis to relieve nausea.

The regulation of medicinal cannabis in Alberta allows for those not directly involved in the care of that patient to authorize cannabis for that patient via a consultation service. This has skewed the authorization of cannabis away from primary care providers and subspecialist experts towards a reliance on cannabis clinics. This is concerning in the pediatric world, for many parents of children with complex illnesses or life-limiting diseases may approach a cannabis clinic in desperation.

Physicians, including pediatricians, will be expected to watch for complications of recreational use and help raise awareness around risks. Tracking complications and harms will be important for our public health colleagues, as well as measuring the expected reduction in incarceration and other judicial complications for youth, to ensure the legislation is working the way it is intended.

While medicinal cannabis is allowed within specific guidelines across AHS sites, cannabis for recreational purposes will not be accommodated in AHS institutions, including Alberta Children's Hospital (ACH).

Medicinal

It is important to know that although medicinal use is allowed in the law, Health Canada does not approve it as a drug, it does not have a DIN number, and "authorizations" allowed by each province's collages are not "prescriptions".

Unlike in adults, there is no pediatric indication for cannabis. Issues of tone in MS helped by cannabis have not borne the same success in pediatric spasticity conditions. It has been used far down the therapeutic line for certain conditions like seizures, garnering coverage from the lay press. The ACH Section of Neurology is a global leader in epilepsy management and research, and does not endorse the use of cannabinoids for epilepsy, whether in the form of cannabis or purified derivatives such as cannabidiol (CBD). *(See letter from ACH, page 4)*

Research has been confusing to interpret due to poor quality studies, confounding factors, *synthetic vs plant*-based cannabinoids being used between studies, innumerable different plant-based characteristics between suppliers, *inhaled vs enteral* intake, challenges in specifying dose, and so on. Conditions where there is a glimmer of hope for an application already have better, more well established, or safer pharmacologic and non-pharmacologic alternatives. This is a solution looking for a problem in pediatrics, for now.

There may be a few parents seeking cannabis who prefer the idea of a "natural" remedy for their child's special health care needs. Most children whose parents are on this path, however, have complex or intractable symptoms: irritability, pain, poor sleep, and frequent seizures. They may have tumours, degenerative diseases, or life-limiting illnesses, with parents exhausted, desperate, and grieving.

The regulation of medicinal cannabis in Alberta allows for those not directly involved in the care of that patient to authorize cannabis for that patient via a consultation service. This has skewed the authorization of cannabis away from primary care providers and subspecialist experts towards a reliance on cannabis clinics. This is concerning in the pediatric world, for many parents of children with complex illnesses or life-limiting diseases may approach a cannabis clinic in desperation.

But if you didn't do a residency in "desperate parents", this might not be your gig. These children are often supported by one or several subspecialty clinics, our tertiary care centres, and highly trained community pediatricians. Physicians in cannabis clinics may not have expertise in complex pediatric conditions or the multitude of pharmacologic options. Their abilities to manage complex conditions do not match those highly trained pediatric specialists. This situation is not hypothetical; already we have seen children at ACH with complications related to medically authorized cannabis.

Even for managing pain, for which most physicians have more than a passing knowledge, there are nuances in children. ACH has a Complex Pain Clinic which uses a holistic and multidisciplinary approach. They do not use cannabis for pain and have tremendous success in long-term relief and return to function.

This is not to say that there might never be a time when exogenous cannabinoids might be useful, but there is not enough information to date to make safe or reasonable recommendations. Dose, frequency, route, duration, CBD:THC ratio, terpine and flavonoid content, interactions, all of these are still to be elucidated in the pediatric population. The influence of exogenous cannabinoids on the endogenous endocannabinoid system in the developing brain is unknown and concerning, for that endogenous system is important to neurologic development. Many children whose families are tempted to use cannabinoids for symptom management have neurologic abnormalities, further complicating the research landscape. There is research ongoing and this landscape is rapidly changing. Still, it is likely to be years before the use of cannabis in children is rational.

Parents are seeking out cannabis and getting authorizations from MD's in their community, or sometimes from compassion clubs, or sometimes directly from illegal dealers. Their sense of urgency, anguish, and despair may be warranted. It is just unlikely that cannabis is the solution to their problems. Please don't authorize for desperate parents; there are other places they can go for help.

At ACH, we recognize that our responsibility to children and their families does not stop at the door. Some children are using cannabis. There is a willingness to pursue research or become adopters as evidence crystalizes. It behooves each of our pediatric clinical areas to consider an approach to concentrate expertise, watch for emerging literature, and participate in research initiatives. Facing this new world of cannabis use together, sharing information, expertise, risks, and benefits, are what our community expects of us.

Catherine Macneil, MD, FRCPC
Pediatrician, Complex Care Team; Vice President, Medical Staff Association, Alberta Children's Hospital; Assistant Clinical Professor, Department of Pediatrics, University of Calgary
Calgary, Alberta

Letter from the Alberta Children's Hospital Comprehensive Epilepsy Centre. *See article, page 3*:

DEPARTMENT OF PEDIATRICS
ALBERTA CHILDREN'S HOSPITAL
2888 Shaganappi Trail NW
Calgary, AB, Canada T3B 6A8

September 20, 2017

From: Jeffrey Buchhalter MD, PhD, Director, Comprehensive Children's Epilepsy Centre at ACH

Re: Cannabinoid Use in Epilepsy

Beginning in 2013, the members of the Comprehensive Children's Epilepsy Centre (CCEC) at ACH have evaluated the evidence relating to the use of medical marijuana for its efficacy and safety in epilepsy. There continue to be anecdotal reports regarding the efficacy of compounds contained in marijuana (MJ), specifically tetrahydrocannibinol and several cannabinoids. There has been one study using pharmaceutical grade CBD that demonstrated efficacy in the same proportion of patients seen in many anti-seizure drug trials with a significant rate of adverse effects. The compound, Epidiolex ®, has not as yet been approved by the FDA in the USA and is not available in Canada. In addition, the reports of adverse effects related to the artisanal formulations that are available continue to increase. And there is a growing body of evidence from basic science laboratories as to the deleterious effects of MJ/CBD on the developing brain. Finally, MJ/CBD has not been endorsed by any national or international expert organization for use in epilepsy. Therefore, the CCEC thought it would be useful to put together a "policy statement" that guides our practice.

- MJ/CBD will not be prescribed, authorized or its acquisition facilitated by our providers for any seizure type or epilepsy syndrome until efficacy & toxicity information is available for pharmaceutical grade compounds.
- We strongly discourage the use of any formulation of MJ/CBD that is produced by an unregulated laboratory without the same quality controls as pharmaceutical laboratory as serious adverse effects could occur.
- Anyone under our care who has seizures that are not responsive to previously tried therapies according to established care pathways will be discussed at a scheduled Epilepsy Conference. Recommendations for additional treatment possibilities will be made.
- We consider it our obligation to inform patients/families as to the most recent scientific evidence regarding efficacy and toxicity.
- We strongly encourage patients/families to let us known if MJ/CBD is being used so that any change in clinical status can be understood in the context of all the medications & other substances that the patient is taking.
- The above can and will change based upon new evidence as it becomes available.

Est: 2013-09-10
Rev:2014-05-14
Rev:2017-09-20

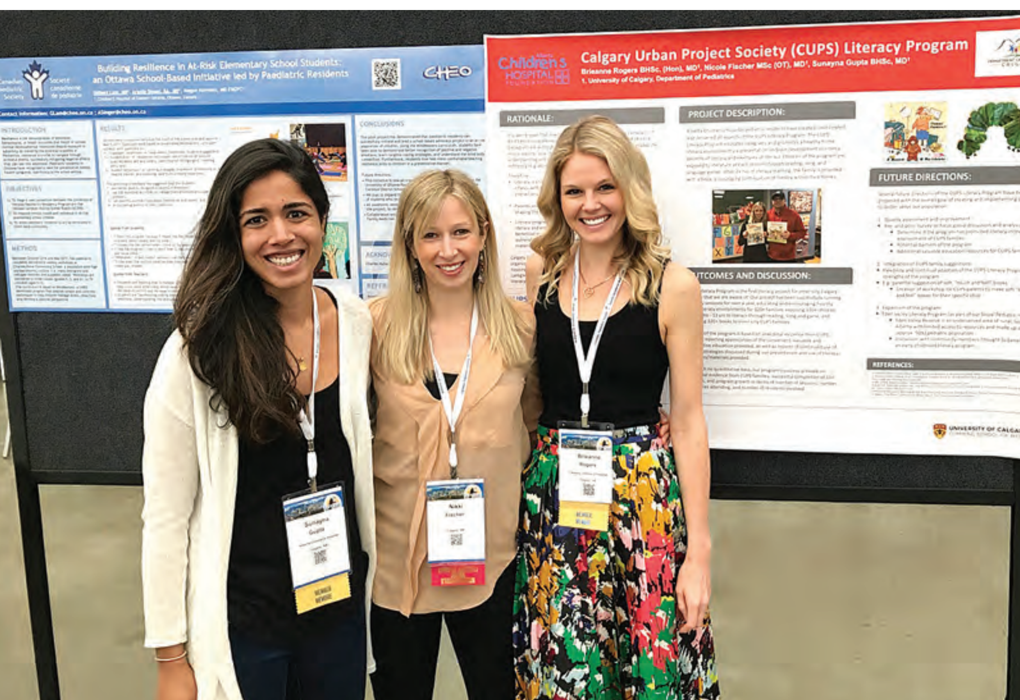
Calgary Urban Project Society (CUPS) Literacy Project

Dr. Brieanne Rogers, Dr. Sunayna Gupta, Dr. Nicole Fischer, Dr. Rubeeta Gill

The opportunity to advocate for and to promote a child's development is a unique and privileged aspect of Pediatrics. By promoting brain development, pediatricians can have a major positive impact on a child's health trajectory and overall outcome.

As per the Canadian Pediatric Society's Statement *Read, Speak, Sing: Promoting literacy in the physician's office*, literacy skills are a major factor in advancing the development of a child. Furthermore, skills in literacy are closely related to almost all of the social determinants of health. They are closely tied to employment, socioeconomic status and stress levels. The best time to develop these skills is in early childhood, while the brain architecture is actively forming and making new connections.

Keeping this in mind, residents from the Alberta Children's Hospital started a literacy group for inner-city families in Calgary in 2015. Through this collective, a group of residents attend evening parenting sessions at the Calgary Urban Project Society (CUPS). In these sessions, we discuss with parents the importance of promoting literacy with their children through reading, singing, playing games and engaging in opportunities at the Calgary Public Library. These sessions also provide opportunities for parents to ask questions, give suggestions, and discuss their unique methods of promoting literacy in their respective households. We then interact with the children, reading and playing games that focus on word recognition, naming and spelling. At the end of each session, each child receives a book of his or her own to take home. Picking a book is usually their favourite part!



Poster Presentation at the Canadian Pediatric Society Annual Conference 2017 in Vancouver, BC. Created by Drs. Brieanne Rogers, Nicole Fischer, Sunayna Gupta (from right to left). Author missing from photo: Dr. Rubeeta Gill

This year, we will be looking to expand this project to include the Eden Valley Literacy Program. Eden Valley Reserve is an underserved area of Southern Alberta, with limited access to resources. By implementing a similar project as we have done at CUPS, we hope to promote early language development in a population, that through discussion with community members, is projected to benefit from an early childhood literacy program.

Promoting a child's skills in language is vital in helping them gain self-confidence, improve their socio-economic status and improve their overall health. Pediatricians are in an excellent position to support early exposure to literacy. By developing the literacy project at the University of Calgary, we hope that we are accomplishing this goal.

Dr. Brieanne Rogers, *R2 Paediatric Resident at Alberta Children's Hospital/ University of Calgary*

Dr. Sunayna Gupta, *R4 Paediatric Resident at Alberta Children's Hospital/ University of Calgary*

Dr. Nicole Fischer, *R4 former Paediatric Resident at Alberta Children's Hospital/ University of Calgary (currently at University of Toronto for Developmental Paediatrics fellowship)*

Dr. Rubeeta Gill, *R2 Paediatric Resident at Alberta Children's Hospital/ University of Calgary*

The Geriatrics of Pediatrics

Dr. Catherine Macneil

Pediatrics has changed over a generation. I supposed this happens every generation. Improved sanitation and nutrition, the use of vaccinations and antibiotics, access to safe and effective birth control, and surgery for congenital malformations have each had their impact on who survived childhood over the past 150 years. Even over my clinical practice history, there have been changes. Pneumococcal meningitis, a real fear in my early years, has become rare. Today, many residents may not see acute encephalopathy from varicella (but they don't forget to test for NMDA receptor antagonists when faced with acute encephalopathy). Biologics are no longer the next big thing; they are commonplace, with expanding indications. Bone marrow transplants are used for sickle cell disease. NICU survivorship is the expected norm and the "cusp of life" keeps shifting earlier in gestation. Tube feeding and non-invasive ventilation extend life spans beyond what was ever thought possible for a whole variety of conditions. This opens the door to corrective or palliative surgeries in these children, pushing the boundaries of PICU care to extend the length of their lives. This has created not rarities, but a whole cohort of children with chronic, complex disease.

Dr. Catherine Macneil

Pediatric survivors of extremes of illness have existed before, but never in the numbers we now see. Where our system was built to support rapid turnover of patients with infectious diseases, fractures, or one-time surgeries like myringotomy tubes and appendectomies, an explosion of chronic disease has now emerged in pediatrics. Many "pediatric-only" diseases persist more than ever into adulthood (eg. cystic fibrosis, congenital heart disease, Duchenne Muscular Dystrophy). They necessitate an emerging expertise in our adult colleagues, who in turn have organized new clinics to manage our pediatric survivors. The adult world is increasingly responsive to these needs and there is growing momentum to support transitions to adulthood.

But there are strains with these successes. We have more and more Children with Special Health Care Needs (CSHCN) and more Children with Medical Complexity (CMC) in our collective environments. These terms do not seem to adequately convey the level of care complexity of the "uber-complex" patients and the chronic care required to keep some of these children alive and comfortable, whether in tertiary and quaternary centres or in their homes — or usually a combination of the two. For some children, we ask their families to do the impossible: run an ICU step-down unit in their homes. We often do not adequately support them in this Herculean task. There are so many problems families face as a result, an important topic all unto itself.

This growing population brings us to new frontiers of care. While we stretch and expand the near miraculous capabilities of our surgeons and intensivists, we deal more and more in grey zones of morality. While collectively the experiences of caring for the uber-complex has expanded the life spans of some, the care for each one may come at a cost to the quality of life of that individual. Today, survivorship at all costs is the default, sometimes trumping quality of life (for the child, parent, or family unit) and that survival can be brief. Until we're really slick at something, it can be pretty messy. And sometimes, even when we are really slick at something, it can still be messy when mixed with new complications and new co-morbidities. We are in a messy phase of development and it can be quite uncomfortable at the expanding edge.

Our adult colleagues have sought to reorganize their practices to better support patients aging with chronic diseases. Geriatrics emerged more than 50 years ago with its comprehensive, generalist, individualistic approach to help balance the need of patients and their families with complex diseases and compromised health in the last years of their lives (Table 1).

THE GERIATRIC PROCESS

- **Assessment**
  Health (diagnosis, prognosis
  Function (physical, mental)
  Resources (culture, education, social, economic)
- **Agree Objectives of Care**
  What does the patient want?
  What is feasible?
- **Specify the Management Plan**
  Objective – To close the ecological gap between what the patient can do and what the environment requires
  Therapeutic changes – improve the patient
  Prosthetic changes – reduce environmental demands
- **Regular Review**
  Is progress as expected?
  Does the plan need changing?

What has emerged in my generation is the geriatrics of pediatrics: a field of complex children with short, medically intensive lives. Their illnesses are multi-system and multi-faceted, affecting parents, siblings, and extended family, encompassing overlapping spheres of employment, housing, education, recreation, and respite. These children may have limited lifespans in spite of all of the possible interventions. And there are a lot of possible interventions; not all are appropriate for all of these patients. The adult world deals with this as well, caring for 90-year-olds who have multiple co-morbidities. But what if those 90-year-olds are actually 3-year-olds – but without peripheral vascular disease and heart disease and with kidneys that generally function well? We can, potentially, sustain them much longer than elderly adults, often with very intensive management. But should we, always? Our education here is lacking, though our experience is piling up.

These patients have been growing in number for many years but our system is just waking up to realize how unprepared we are for this population of CMC and uber-complex in terms of our hospital and community resources, our training, our communication with families, our moral distress around decision making. The "inpatient/outpatient" distinction so established in medical and allied health care can be artificial and encumber optimizing care. A more flexible and inclusive view of the "medical home", emphasizing the advantages of continuity of care and a stable, trusting relationship with families, might look a bit different from what we are used to.

The traditional pediatric subspecialty model alone is not satisfactory for the care of these patients and the functioning of their families. Though, by definition, these children have the need of multiple pediatric subspecialists, dealing with one system at time belies their complexity. We should be training both our generalists and our subspecialists to be better prepared for the myriad needs of these patients and families.

The emerging generalist subspecialty of hospital pediatrics includes clinical care as well as system integration for CMC. Leadership skills are at its focus; advocating for increased pharmacy support, organizing DI hours for tube care, and coordinating medical and surgical care plans are examples of how this sort of coordination has served patients well. Subspecialties, intensive care, community pediatrics, and palliative care all have critical roles to play in the care of these complex children. Family physicians can be key supports for affected families, addressing issues of parental self-care and sleep, employment leaves and benefits, tax and funding assistance, marital relations, sibling behaviour, and grief.

There is good news in Calgary and across Alberta. There are several new initiatives to address the gaps in service for CMC and families. Alberta Children's Hospital will be piloting a Complex Care Program, creating a new model of care to bridge the divide between inpatient and outpatient care, facilitating discussions with multiple subspecialties and even fostering advance planning for Emergency Department and PICU visits. In an even broader initiative, there is a newly formed body, the Children with Medical Complexity Collaborative Initiative Working Group, bringing together the services of multiple ministries such as health, social services and education, to provide more seamless provision of home care, respite, funding for equipment and programs, and access to educational supports. Once again, collaboration across services allows integration where artificial divides have previously existed.

There is still work to do. Learning and building evidence to fully understand the needs of these children and families continues to be challenging given this group's heterogeneity. Our most valuable asset is trust. Building or rebuilding that trust with families who may have repeated negative experiences within health care systems is one of the challenges that will persist in this population for the foreseeable future. The time, skills, and determination to do this should be sought and supported in abundance.

Catherine Macneil, MD, FRCPC
Pediatrician, Complex Care Team; Vice President, Medical Staff Association, Alberta Children's Hospital; Assistant Clinical Professor, Department of Pediatrics, University of Calgary
Calgary, Alberta

DEFINITIONS:

CSHCN – "Those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally" (US Maternal and Child Health Bureau, 1998). It is estimated to include 13-18% of US children.

CMC – a subgroup of CSHCN with a lengthy official definition who essentially have a combination of medical fragility from congenital or acquired multi-system disease, marked functional impairment (generally with a severe neurologic condition), and dependence on technology for activities of daily living. They also have high health care usage and poor outcomes for their health and their family (E. Cohen, 2011).

Uber-complex – a subgroup of CMC, who may only intermittently spend time out of hospital, who invariably have significant social stressors that impact their care, and often could use more resources than the system is authorized to provide (author's own informal definition).

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JG Evans. Geriatric medicine: a brief history. BMJ 1997; 315:1075-7.

E. Cohen et al. Children with Medical Complexity: An Emerging Population for Clinical and Research Initiatives. Pediatrics. 2011 Mar; 127(3): 529-538

Table 1: The geriatric process (from JG Evans. Geriatric medicine: a brief history. BMJ 1997; 315:1075-7)

Primary Health Care Integration Network Launches in Alberta

A pivotal challenge for Alberta physicians relates to transitions of care between primary healthcare providers and acute care, emergency departments, specialized services and other community services. Addressing these challenges is a focus of the Primary Health Care Integration Network (PHCIN), which celebrated its official launch on September 8, 2017 during the PCN Strategic Leadership Forum in Calgary.

AHS, Alberta Health, PCN and patient representatives were among guests who joined for an evening reception to celebrate the occasion at the conclusion of the integration-themed day at the PCN Strategic Leadership Forum. **Pictured left to right are:** Rob Skrypnek, Senior Program Officer, PHC (AHS); Tracy Wasylak, Senior Program Officer, SCNs (AHS); Dr. Brad Bahler, Medical Director, PCN Evolution; Senior Medical Lead, PHCIN; Jacque Lovely, Acting Executive Director, Integration & Innovation (AHS); Dr. Francois Belanger, Vice President Quality & Chief Medical Officer (AHS); Dr. Richard Lewanczuk, Senior Medical Director, PHC (AHS); Shelly Vik, Assistant Scientific Director, PHCIN (AHS); Colin Penman, Patient and Family Advisor; Melissa Hartwell, Patient and Family Advisor; Dr. Phillip van der Merwe, Co-chair, PCN Physician Leads Executive.

Jacque Lovely, Director of Innovation & Integration at Alberta Health Services (AHS), said the forum enabled some of the key partners of the PHCIN to come together and discuss some of the work underway as well as some of the promising future integration practices in the province.

"We were inspired by the excitement and enthusiasm among our colleagues in primary healthcare to work together and improve transitions of care for all Albertans," said Lovely, noting that the key areas of focus that have been identified include keeping care in the community, linking to specialists and back, hospital to home transitions (admissions/discharges) and system foundations for integration.

Dr. Brad Bahler, senior medical director of the PHCIN, believes the network will help to address challenges for primary and specialty care physicians dealing with a system that is not always well coordinated and can be difficult for patients to navigate.

"The network was designed to work locally with partners on real life challenges of integration," said Dr. Bahler. Those partners include patient and family advisors, AHS zones and provincial programs, Primary Care Networks (PCNs), the Primary Care Alliance, Alberta Medical Association, other SCNs, Alberta Health and academic partners.

In addition to its many partners, the PHCIN receives guidance from a Coalition for Integration. Dr. Bahler co-chairs the Coalition, along with a patient representative. "This is an independent group that can bring knowledge, ideas and connections to integration challenges."

Colin Penman is the patient representative co-chairing the Coalition, providing context on his personal struggles within the healthcare system.

"I was out of town when I had a heart attack and wound up in emergency," he explained. "I was there for 12 hours being shuffled from room to room. It was not a very good experience for me." He went on to say that his experience directly with cardiac care in the hospital was excellent, but the challenge was in transitioning between different units. Those challenges continued when he returned back to Calgary and went to see his family physician. "The information didn't flow as quickly from the hospital back to him. He didn't know what had actually happened or what treatment had been provided."

The structure of the PHCIN will align with the new Zone PCN committees that were recently announced as part of the new governance framework for PCNs.

Unfortunately this is a situation that many primary care physicians are familiar with.

Dr. June Bergman from Foothills PCN said she frequently works as a facilitator for patients with chronic pain who are dealing with multiple providers, which can result in conflicting medications or therapies being prescribed. When there is direct, integrated information, patients benefit in three ways. "One, they are getting the appropriate treatment. Two, they begin to trust because they aren't getting different stories from different people, and three, they feel cared for."

Dr. Ernst Greyvenstein, Calgary Zone PCN physician lead, concurred that it's critical for providers to understand the patient perspective and help ease patients through the complex system. "We need to break down barriers in order to make everything work more efficiently and be more patient-centric, and less physician and facility centric," he said.

"It is not one person's responsibility. There is not one entity that can change that. It is a system wide change that needs to focus around patients' needs and truly caring for the patients," added Dr. Greyvenstein, who believes there have already been huge integration successes.

"We've had really good integration with some of the hospitals, specifically programs in place like Path to Care and Path to Home which are facilitating transitions between community care and acute care. It's been working really well," he explained. "In some jurisdictions we have capabilities in place that would capture those patients who do not have a family physician but need follow up care in the community within a specific timeframe. We have the ability to get those patients into facilities with the appropriate provider where they can be connected to primary care providers and receive care in their communities. We've had really good integration with public health, on provincial initiatives breast feeding clinics where patients can self-refer or be referred by public health nurses and other providers. Linkages with specialty disciplines have made tremendous progress, towards appropriate and timely referrals for specialty care."

According to Dr. Greyvenstein, there is now the ability to translate those successes to other PCNs or jurisdictions that are interested. "We are not there yet but we are definitely making big strides towards an integrated health system."

The structure of the PHCIN will align with the new Zone PCN committees that were recently announced as part of the new governance framework for PCNs. Physicians, clinics and PCNs will work collaboratively through the five zone committees to identify challenges in the system in realizing high-functioning medical homes for patients and pursue solutions to address them.

For more information, visit our website at www.ahs.ca/phcin.

How to Improve Quality Without a Project

Dr. Alayne Farries

Dr. Alayne Farries

"Have you ever done something simply on principle, because it was the right thing to do, knowing that you couldn't explain it to anyone, without there even being a good feeling attached to your act?" Karl Rahner

Quality improvement projects are like motherhood and apple pie. No one can argue against improving care and outcomes. Some quality improvement projects tackle large systemic problems, while other projects improve small things that, like removing the stone in your shoe that affects your every step, when fixed make each step so much easier.

Sometimes improvement comes from a physician who is enthusiastic and just does the right thing. This is the story of one such improvement that is a step in the right direction, but it took a doctor willing to extend herself to her colleagues, and colleagues who were willing to do the right thing.

In Red Deer our paediatricians provide complete care from neonatal to adolescence. The paediatricians are busy on call and we are always grateful for their prompt service on the obstetrical floor.

A number of years ago, Dr. Emmi Driedger agreed to work in Red Deer pediatrics. The expectations of the role required further training in neonatology and Dr. Driedger invested additional time practicing in a neonatology unit to gain this training and experience. During the process she also became a Neonatal Resuscitation Program (NRP) instructor. The NRP is an educational program that introduces the concepts and skills of neonatal resuscitation. The Canadian Paediatric Society administers this program. The NRP course content is evidence based and delivered across Canada.

"After birth, approximately 4% to 10% of term and late preterm newborns will receive positive pressure ventilation, while only 1-3 per 1,000 will receive chest compressions or emergency medications. Because the need for assistance cannot always be predicted, teams need to be prepared to provide these lifesaving interventions quickly and efficiently at every birth".[1]

There is no formal project in Central Zone for physicians to become NRP certified. Dr. Driedger organized her colleagues in pediatrics, general practice, obstetrics, and anesthesia and together with local instructors taught NRP to interested physicians. It is hard to stay no to an enthusiastic colleague. It is even more difficult when you know the colleague is due to have a baby and she is still pursuing improvements in care.

Physicians do not attach good feelings to simulator courses with their colleagues. Many physicians expressed concerns about making errors in front of their coworkers. At the end of the course learners left feeling enthusiastic about the knowledge and skills they had learned. The contagious enthusiasm of the group encouraged Dr. Driedger to offer an additional course to a family medicine call group when she was thirty-eight weeks pregnant.

There was no quality improvement project motivating the physicians. The doctors did it because it was the right thing to do.

Dr. Alayne Farries, MD FRCP(C), Anesthesiologist in Red Deer, and CZMSA President

Dr. Bruce Benson, Dr. Emmi Driedger and Dr. JS Badenhorst taking part in a Neonatal Resuscitation Program (NRP).

FOOTNOTES

[1] Weiner, Gary Editor, Textbook of Neonatal Resuscitation, 7th Edition American Academy of Pediatrics page 3

Do What You Love!

Dr. Tito Daodu

The ability to practice as a surgeon is an incredible privilege, one that involves people coming to you at their most vulnerable moments and putting their trust and lives in your hands. I was attracted to general surgery for its universality and the incredible impact that surgeons have the potential to make in the lives and health of their patients. I could imagine no other profession that would allow me to be a detective, a scientist, a repairman, an advocate, and a confidant, all at the same time. Added to that is the ongoing balance between humility and pride as I tackled the intellectual, technical, even emotional challenges of training in general surgery. But it was the desire to have the ability to not only impact someone's health, but also the potential to completely change the trajectory of a patient's life that stimulated my interest in pediatric surgery. As I complete my last year of residency in General Surgery, I look forward to the future of my pediatric surgery fellowship and eventual career with great excitement.

My experiences have made a tremendous contribution to my desire to become a pediatric surgeon. As a child immigrating to Canada under difficult circumstances and growing up in inner city Winnipeg, I was challenged by the inequities I saw and experienced, especially with regard to safety, security, and health. After we came to Canada, we didn't know many people and our resources were very limited. My mother worked three jobs while going to school part-time. She was determined to make sure all of our needs were met. As I looked around at many of my peers, I discovered that the level of safety and security that I felt was not universal — in fact, far from it. This spurred me as a teen to become a volunteer and tireless advocate for children and youth everywhere. To that end, I worked with numerous community organizations as volunteer, staff, and member of boards of directors, connecting with youth in Winnipeg's core-area, organizing and developing homework, sports, and mentorship programs. I continue to mentor many of those children today. I also worked with and developed a pilot program for high-risk and gang-involved youth, designed to connect them with positive mentors, educational and social support, and alternatives to street life. That passion to reach out to and help children and youth has carried throughout my life.

I am cognizant that I have the privilege to do many things I could not have dared to dream of as a child. Having lived in four different countries, on three different continents, always having an avid interest in global health and social justice, it was important to me to be able to do work that has the potential for both local and global influence. I did research on childhood pneumonia in Nigeria that helped lead to a grant from the Bill and Melinda Gates Foundation to support accessible oxygen therapy in community hospitals across Nigeria.

Dr. Tito Daodu

Additionally, while a medical student at the University of Manitoba, I co-developed a novel project in Tanzania in partnership with the Canadian Physicians for Aid and Relief (CPAR) focusing on adolescent gender and reproductive health. As a result, an ongoing partnership between CPAR and the university continues to send medical students to deliver this culturally appropriate, participant-driven, and locally supported curriculum.

I am attracted to the diversity and scope of pediatric surgical practice. Pediatric surgeons are in a unique position of being able to confidently care for infants, children, and adolescents presenting with an array of both common and rare surgical diseases. The global burden of pediatric surgical disease also drives my desire to work in the burgeoning field of global health, but after all is said and done, at the end of the day, my desire to do pediatric surgery is motivated by my desire to wake up every morning and know that I get to do something I love. That allows me to be an advocate every day for the surgical care of young ones who may not be able to speak for themselves. A job that lets me be silly and cheerful and childlike. In that sense, the drive towards this work is somewhat selfish. Because "doing what you love is the cornerstone of having abundance in life" (Wayne Dyer). Well then, bring on the abundance!

Tito Daodu, MD, BSc(Med), BSc
PGY-5, General Surgery
University of Calgary

Silent Cry

Dr. Rubeeta K. Gill

Dr. Rubeeta K. Gill

To most doctors, the hospital is a strangely comforting place.

It is 2 in the morning, and I am on call.

I find myself in a full ward. This unit houses twenty-six rooms, and tonight, twenty-five children. I have more units to take care of downstairs, but this unit is my favourite. I like the way the computer keyboards don't stick, and how the Charge nurse smiles at me kindly when I rest my head on the counter. This unit is also a degree warmer, which is significant within frigid hospital walls.

Like I said: to many of us, the hospital feels like home. We know our way around. Entering a room, we find solace in the predictable motions of washing our hands and donning our gloves; as if whatever may lie beyond, however sick the child may be and however unprepared we may feel we are, the way the gloves fit is certain and simply not subject to change.

I walk quietly through the ward. I stop at Room 14 and stare into the lone empty space.

A crib stands unassumingly in the middle of the room, bidding its time until its next precious inhabitant arrives. It has protected some of the smallest: the sickest, the fussiest, the sweetest. Even the dead. How many stories will it have in its lifetime?

The sheets are perfectly white and perfectly laid. The bedpans and the equipment and the monitors: waiting. No beeps. The shiny linoleum floor looks curated, almost comfortable. For a room that has woven so many dreams, it looks strangely barren.

It is 3 in the morning.

"New admission, a 2-month-old with a tibial fracture, non-surgical," I hear from the senior resident. I hurry down to the Emergency Department to meet Baby. I wonder how a non-mobile infant sustains a fracture.

Baby Jack looks forlorn. I adjust my stethoscope around my neck, place my shuffle of papers haphazardly next to the sink and wash my hands just one more time.

You little thing, how sweet you are, I murmur. He stirs, but does not look at me.

"Won't you smile at me?" I whisper as I move to shine light in his eyes. His midline cleft gets in the way; he does not smile but I suspect a hint of an upturn on the right corner of his face. I make note of it.

His stoic permissiveness puts me at unease. He lays there: staring not scanning, fixing not following, moving not tracking. I examine his right hip, wary of the left leg that he holds so still. He does not cry.

"Won't you smile at me?" I whisper as I move to shine light in his eyes. His midline cleft gets in the way; he does not smile but I suspect a hint of an upturn on the right corner of his face. I make note of it.

My heart breaks as I write in his chart an hour later. I order more tests.

It is 5 in the morning, and I stir uncomfortably in my call room bed. My pager sits next to my ear: sinister and foreboding. I resist the impulse to check it for the sixth time to ensure I haven't missed a page. As if on cue, it beeps.

"Jack, Bed 14, looks a little dry," says the nurse on the phone. I fix my clumsily long hair in a bun before heading upstairs.

Jack's capillary refill time is lagging behind, and I want to rehydrate him. I watch him lie still, expressionless.

You must be afraid, I think. Are you afraid, little one? Of being trapped while others may be hurting you. You don't see this yet, but perhaps they are victims, too.

We give him fluids, and it is 7 in the morning when he finally voids.

An hour later, my shift ends. Upstairs, on my favourite unit, the team will soon be rounding on Jack.

The residents and medical students will gather around Jack's crib while his mother and her boyfriend look on. Everyone will smile, except for Jack. The medical student, with a reflex hammer precariously hanging out of her pocket, will find her sheets and start talking: "This is Jack, he is a 2-month-old male with a history of cleft lip admitted overnight with a left-sided tibial fracture, with incidental findings of subdural hemorrhages and retinal hemorrhages, skeletal survey scheduled for today at approximately…"

Everyone will continue to nod and exchange subtle courtesies as she talks. Jack's mother will say again that she doesn't know what kind of magic broke her son's leg. She won't ask about the bleed in the brain.

Later, as everyone stumbles out of the room, they will fight feelings of frustration and sadness, maybe even apathy. In the coming

months, they will learn to use examples like Jack as fuel and not fire. They will struggle, more as they keep up with documentation from social services. Weeks later, they will wonder how Jack is interacting with his world. Has he learned to smile?

In my world, it is still 8 in the morning, and with rising relief and a giddy sense of joy I make my way to the hospital cafe. I pass by a wall of black and white photographs. Sprawled on this wall, inside self-important glass cases and carefully appointed white labels, is the history of the hospital I have been working in for the last year and a half. I see photographs of the first building that was this hospital: a 6-room cottage located within an expanse of land in the middle of the city. Nurses, clad in white frilly aprons and petite caps, smile out of the photos. Excerpts from them read no different than what they would read today: about the exhaustion, sorrows and profound joy in caring for the ill. Because that is the tune we sing, as healthcare professionals: we would rather be nowhere and everywhere else at the same time.

These photos, all in monochrome. Then one beacon of colour: an old bottle of penicillin nestled among these photos. Cure, saviour, with a written label of bright yellow, signifying: Hope.

Rubeeta K. Gill, MD
PGY-2 Paediatrics, University of Calgary
Calgary, Alberta

Photo of historic glass display taken by the author at the Alberta Children's Hospital, 2017

Calgary History of Medicine Society (CHoMS) Presents

Dr. Paula A. Michaels

Natural Childbirth's Cold War History

Friday, November 17, 7:30 pm to 8:30 pm

Grand Rounds, Cummings School of Medicine, HSC U of C

This talk sheds light on the previously untold Cold War history of the natural childbirth movement. In 1933 British physician Grantly Dick-Read coined the term Natural Childbirth to connote his approach to unanesthetized birth, achieved through prenatal education to alleviate women's fears and through constant support during labour. Nearly two decades later, French obstetrician Fernand Lamaze travelled to the Soviet Union and witnessed the psychoprophylactic method, which similarly promised the relief or even elimination of labour pain without resort to pharmaceuticals. Popularised in the West as the Lamaze method, psychoprophylaxis used conditioning in patterned breathing and conscious relaxation. Threatened by the rising popularity of the Lamaze method, Dick-Read mocked the breathing technique as "merely frills" and condemned Lamaze as an instrument of Soviet propaganda and plagiarism. Dick-Read's accusations against Lamaze were not wholly unfounded. Though psychologists in the USSR had come up with psychoprophylaxis independently, the Soviet state did, indeed, seek to use this method to spread word of Stalin's benevolence toward working class women. When, in the 1960s, the Lamaze method arrived in North America, its politically suspect pedigree would first be the subject of scrutiny and, ultimately, erasure.

Paula A. Michaels is currently an associate professor of history at Monash University (Melbourne, Australia), where she specialises in modern European history and the social history of medicine. She is a graduate of Northwestern University (BA) and the University of North Carolina at Chapel Hill (MA, PhD). Michaels is the author of numerous articles and two prize-winning books: *Curative Powers: Medicine and Empire in Stalin's Central Asia* (2003) and *Lamaze: An International History* (2014). Support for her research has come from, among other organizations, the National Institutes of Health, National Endowment for the Humanities, John Simon Guggenheim Foundation, American Council of Learned Societies, and Social Science Research Council. She is co-editor of the forthcoming *Paths to Parenthood: Emotions on the Journey through Pregnancy, Childbirth and Early Parenting* (Palgrave Macmillan 2018) and is currently working on a book-length study on gender and trauma since World War II.

The Calgary History of Medicine Society (CHoMS) is meant to be an intergenerational and interdisciplinary forum for everyone interested in the History of Medicine and Health Care. It is run by its members and all sessions are open to the public. If you are interested in joining this Society and participating in its future activities, please contact one of the following: Dr. Jim Wright (jim.wright@cls.ab.ca); Dr. Frank Stahnisch (fwstahni@ucalgary.ca). For any further activities, please see the homepage of the History of Medicine and Health Care Program (www.hom.ucalgary.ca) – CHoMS Tab.

UNIVERSITY OF CALGARY
CUMMING SCHOOL OF MEDICINE

Dr. Rita Dahlke

What's Your ACE Score?

Dr. Rita Dahlke

Recently I decided to take part in a research project and one of the things I had to do was fill out forms to determine my ACE (Adverse Childhood Events) score. Like golf, a low score is good. Mine, in fact, is zero out of 10. As a child I was not abused physically, emotionally or sexually. My parents did not neglect me, divorce, die, go to jail, abuse any substances or have any mental illness. So my number of adverse childhood events is zero.

I first became interested in 'Adverse Childhood Events' about a decade ago when I read the Vincent Felitti studies that were done at Kaiser Permanente between 1995 to 1997. About 17,000 pretty average patients were interviewed in Southern California to determine their ACEs and to align that score with present health. The research clearly showed that the higher a person's ACE score, the more likely that person will struggle with mental health, addiction and chronic disease issues as an adult. A significantly higher likelihood! [1]

There are few Canadian studies looking at Adverse Childhood Events and outcomes, but there is one for Alberta. In 2013 the Alberta ACE Survey was done. This showed similar results to the Felitti studies. Childhood trauma significantly increases adult disease. In Alberta the survey, which was modified somewhat to make it appropriate to conduct by telephone, was given to 1200 adults over 18 years old. The results showed that 27% of the people interviewed had experienced some sort of childhood adverse event and about 49% had experienced a dysfunctional home setting. Even with just a score of one, the risk of mental health and addiction later in life doubled. Also noted in the key findings were "children who experienced more ACEs were more likely to perceive their physical health, emotional health, and social support as poor. And, children who experienced both abuse and family dysfunction had the highest risk for negative health outcomes in adulthood."[2] The study makes the statement that "almost 50% of the risk for poor health outcomes could be attributed to ACEs"[2]. This is amazing data. AND I would presume that no homeless persons skewed the data as they don't have telephones!

Certainly, working at CUPS Community Health Center, it has been clear to me that our patients' stories carry an unfortunately too common a theme. When I take the time and ask the ACE questions, most scores for our patients start at four and then they go up from there. The lives of our patients have been fraught with childhood adversity and the resulting impact is clear: addiction, mental health problems, physical health problems, poverty and homelessness.

Our clinic is working hard to become more "trauma informed" so that we can provide a setting that is safe and supportive. Brain development work is now showing clearly that early adversity and trauma create "toxic stress" which releases large amounts of stress hormones that can disrupt the development of neural circuits over time leading to poor outcomes, especially if it occurs before age three. This change in brain architecture results in the behaviours that cause permanent poor coping strategies later in life. Fortunately there is good news. The brain is "plastic" and there is capacity to create change. To see change however, the problems need to be identified as soon as possible and families and children supported early on to break the cycle.[3,4]

This information should motivate us all to understand and work with families who are at risk so that lifetimes of potential are not lost. Just as we have learned to do CAGE evaluations, OPIATE Risk Scores, Hamilton Depression scores and suicide risk evaluation, etc., I believe we should also do ACE scores for our patients to help us determine which families may be most in need of assistance.

Certainly, for me, understanding all of this has made it easier to accept my patients where they are at, to validate their experiences and try to find support for them to make changes where possible. For the children in our practice, we need to intervene as quickly as possible so they can be set on a path of success. Children are not born resilient, but it is possible to build the foundations of resilience in them by providing them with opportunities to practice skills while supported by stable, responsive adults.[3,4] I would encourage all of us to look at the Alberta ACE Survey[2] and to consider doing the Brain Story Certification.[5]

Rita Dahlke is a family physician who has worked at CUPS since 2013.

Fundraising Statement: CUPS physicians and nurse practitioners invite all Calgary physicians and nurse practitioners to join them in raising $190,000 for one unit in the new women's housing building in Albert Park. Please donate to Alpha House through the Resolve housing campaign. To learn more about how Calgary physicians are improving women's health through end¬ing homelessness go to: http://www.resolvecampaign.com/calgary-alpha-house-society

The ACE Questionnaire https://www.ncjfcj.org/sites/default/files/Finding%20Your%20ACE%20Score.pdf.

FOORNOTES

[1] Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, et al JS, The relationship of adult health status to childhood abuse and household dysfunction. American Journal of Preventative Medicine. 1998; 14:245-258

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[3] National Scientific Council on the Developing Child (2005/2014). Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper No. 3. Updated Edition. Retrieved from www.developingchild.harvard.edu.

[4] Center on the Developing Child at Harvard University (2015). Supportive Relationships and Active Skill-Building Strengthen the Foundations of Resilience: Working Paper No. 13. Retrieved from www.developingchild.harvard.edu.

[5] http://www.albertafamilywellness.org/training)

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CHALLENGES IN RECRUITMENT OF PEDIATRICIANS FOR Small and Remote Centres

Dr. Kyle McKenzie

Dr.Kyle McKenzie

Practicing pediatric medicine in small and remote communities is often quite different than practice in a large city. Pediatricians in these smaller communities frequently perform a very broad scope of work, spanning the entire breadth of pediatric care. The wide scope of practice can be very rewarding, but also quite stressful. This is not unique to pediatrics though. Most fields of medicine face some challenges when moved away from the larger cities.

Because of the many unique challenges facing those who practice pediatrics in small communities, recruitment of new physicians is quite challenging. Most small communities in Alberta are now at risk of losing their pediatric services in the near future if they can't recruit new health-care providers. Without continuous provision of pediatric and neonatal care, there could be disastrous outcomes for these regions.

Without local pediatricians, acutely ill children from rural communities would have to be transferred to tertiary hospitals for provision of service. There would be no pediatrician to attend to high-risk deliveries, or manage unwell neonates. Without these remote pediatric centres, the tertiary Children's Hospitals and NICU's in Alberta would likely have to manage several additional admissions per day. Additionally, many women with high-risk pregnancies would have to leave their home community to deliver their babies. It is also necessary to consider psychosocial strain on families and the additional cost of transporting patients for assessment. Provision of pediatric services in these locations is valuable, and is at risk of being lost.

There has been a lot of discussion about how to address this looming crisis. Recently, there have been some indications that the government may try to dictate practice location by restricting the provision of new billing numbers to doctors who work in underserviced areas. Although the government may not be following through on this in the near future, it is still a topic that will likely generate intense debate. Restriction of billing numbers in larger cities might result in a movement of doctors toward underserviced areas. However, it could also result in doctors seeking employment in other provinces as well. Furthermore, if it does force doctors to move to remote centres, they may be disgruntled and aren't likely to remain as a member of the community for a significant length of time. It is not hard to appreciate that it would be very disrupting to an existing system if a number of unhappy workers suddenly appear. There would be a risk of low morale, and patient care could suffer.

Although government restriction of practice location is a heavy-handed approach and may not be as successful as hoped, we must recognize that it may be preferable compared to the prospect of losing pediatric services in smaller community hospitals. Another approach for increasing the number of pediatricians in underserviced communities would involve the provision of positive incentives and addressing systemic barriers preventing doctors from moving to these locations.

In terms of positive incentives, there are two broad categories to consider. This includes improved remuneration, and provision of a desirable lifestyle. Improvement in "lifestyle" is a complex topic and I won't discuss this in detail here. Increased income seems like the simplest method of encouraging an individual to work in a specific area. Currently, most pediatricians in small communities are paid on a fee-for-service basis. There isn't any bonus for pediatricians who treat patients in underserviced locations. If there is an acknowledgement

We have identified three additional systemic barriers that keep pediatricians from moving to small communities. This includes a lack of doctors originating from these communities (and thus have personal ties to the region), a lack of comfort in practicing outside of tertiary hospitals, and difficulty in employing the highly educated spouses of doctors in small communities.

that there is insufficient supply of rural pediatricians, coupled with increasing demand, it makes logical sense to increase the fees for rural pediatricians. Unfortunately, this simple solution isn't actually very simple. It is not practical or easy to divert funds in a meaningful fashion to a small group of doctors. Manipulating the fee schedule is extremely complex. Furthermore, we acknowledge that the current health care system doesn't have any additional funds, and the magnitude of financial incentives required may be prohibitive. Finally, I don't think that financial incentives will be sufficient without addressing other systemic issues. I also acknowledge that it seems very self-serving of me to recommend a pay raise for myself. However, I do think that it may be necessary if we are to prevent governmental restrictions on the locations where pediatricians may work.

We have identified three additional systemic barriers that keep pediatricians from moving to small communities. This includes a lack of doctors originating from these communities (and thus have personal ties to the region), a lack of comfort in practicing outside of tertiary hospitals, and difficulty in employing the highly educated spouses of doctors in small communities.

Doctors are more inclined to work in locations where they are comfortable. In order to encourage more doctors to establish practice in underserviced areas, it would be beneficial to train more doctors from these locations (where they have a greater comfort level). Although it is not guaranteed that they will return to their place of origin, it would increase the odds that they would establish their practice in these locations where they are needed. Additionally, I would argue that the financial incentives necessary to attract a doctor to a rural community would be lower for an individual from that community compared to an individual who has no ties to that community. Increasing the number of successful medical school applicants from rural locations is a complex topic and won't be addressed in detail here.

Another important consideration when addressing pediatrician comfort with practicing in rural locations relates to the training the individual receives. As the practice of medicine becomes more fragmented to different subspecialties, it has become increasingly difficult finding doctors who are comfortable with the generalized practices seen in smaller communities. For the last several years, pediatric residency training in Canada has struggled to cope with the demand to produce pediatricians who are comfortable working without the services available in a large hospital (particularly in the field of neonatology). Additionally, an important focus in residency is to "recognize your limitations". This has led to a new group of pediatric graduates who are highly knowledgeable and competent within the framework provided by a large centre. Unfortunately, many new graduates also feel very uncomfortable leaving these larger cities to practice in the remote location without pursuing additional training. This is obviously a deterrent to working in remote communities. Furthermore, simple financial incentives will not likely be able to overcome a new graduate's feeling of discomfort in working outside of the environment where they trained. Residency programs are currently trying to address this using a variety of techniques. These initiatives will take some time to be effective.

We have also found recruitment challenges in trying to accommodate the spouses of prospective pediatricians. Doctors are frequently partnered with individuals who are highly educated and working in specialized fields. This includes individuals in academia (with PhD's), engineers, lawyers, financial specialists and other doctors. It is often difficult for the spouses of pediatricians to find work in their field if they are forced to relocate to smaller communities. This is one of the most important issues we have faced thus far, and will prove to be disastrous if the government tries to force doctors to move out of larger centres. Unfortunately, I don't have any proposed solutions for this, but feel it should be mentioned as an important barrier.

Many solutions to the issues preventing recruitment of pediatricians to underserviced locations are expensive and won't produce results quickly. In the interim, many have suggested enhancement of the locum program, and recruitment of foreign physicians. In summary, reliance on locums is expensive and doesn't provide the best longitudinal patient care. It is also work-intensive to recruit locums for recurrent shifts. Foreign physicians have long been an invaluable resource to the underserviced communities of Alberta. However, evaluation of foreign physicians is also very work-intensive. Suitable candidates make up a small percentage of all those who are evaluated. Frequently, it takes more than a year for a candidate to proceed through the evaluation process. It is difficult to plan physician resources around a foreign graduate who will not be ready to work for many months, and who may not be deemed appropriate by the end of the process. This is an ongoing project, but should not replace attempts at improving the availability of Canadian physicians for rural practice.

It will not be easy to fix the problems afflicting the pediatric departments in the small and remote communities in Alberta. It will be expensive, require fundamental changes to our training systems, and will take a lot of time. However, the alternatives are not attractive. They would involve loss of pediatric services in these communities, or require that the government force pediatricians to leave the larger cities and move to these communities (possibly against their will). It will be a difficult process, but is necessary. Fortunately, there appears to be a lot of political will among the pediatricians of Alberta, and the problem is finally being highlighted among those in government and AHS administration. I am hopeful that this will improve and we won't face a loss of services in these small communities.

Kyle McKenzie, MD, FRCPC
Consultant Pediatrician
Red Deer, Alberta

ReadyOrNotAlberta.ca

Preconception Health information for Albertans "ready" to have a baby, or not

Have you ever been asked any of the following questions by your patients?

- Does my weight affect my chances of conceiving or having a healthy baby?
- Why didn't anyone ever tell me that it would be this difficult to have a baby after 40?
- Why is folic acid recommended if I'm not planning to have a baby?
- What's the issue with hot tubs? It's my partner who is trying to get pregnant, not me!

Alberta Health Services' (AHS) ReadyOrNotAlberta.ca website is here to help! This website provides preconception health information for all adult males and females of reproductive age. By highlighting relevant key messages for those currently contemplating pregnancy (Ready) and relevant key messages for those not currently contemplating pregnancy (Not Ready) on two separate "paths" of the website, your patients are introduced to preconception health concepts for whatever stage of life they are at. Asking your patient, "Are you planning a pregnancy in the next year?" can help to determine which path to follow.

Some of the key messages to promote with your patients include:

- It's never too early to have a reproductive life plan, including personal goals for education and career, and for planning for children (or not having children) in the future.
- Engaging in behaviours that enhance physical and mental health now, including safer sex practices and reducing STI risk, healthy eating and active living, will not only benefit the individual, but also the health of a future baby.
- Over 40% of pregnancies are unplanned (whether they be mistimed or unintended).
- Visit ReadyOrNotAlberta.ca for information and tools to support health today.

ReadyorNotAlberta.ca

READY OR NOT For Albertans ready to have a baby, or not.

Ready or Not

Planning to become pregnant (or not become pregnant) is a big decision for both men and women.

Visit ReadyOrNotAlberta.ca for reliable, evidence-based **preconception health** information for you and your patients.

Alberta Health Services

The website has helpful information to promote planning for healthy pregnancies, including tips and tools regarding:

- **Giving Protection:**
  - Folic acid
  - Immunization Travel
  - Prevention of sexually transmitted infections/safer sex practices
  - Birth control options
- **Avoiding Exposure:**
  - Drug, Alcohol and Medicine use
  - Tobacco and Tobacco like products
  - Environmental risks
- **Promoting Healthy Mind and Body:**
  - Mental Health and stress
  - Healthy and Unhealthy relationships
  - Food and Nutrition
  - Physical Activity/Sedentary Behaviour
  - Healthy Weight
- **Managing Conditions:**
  - Family and Medical history
  - Pre-existing medical conditions
  - Genetic Risks
  - Age and fertility

Positive health practices lead to healthy lifestyles and to optimizing the early fetal environment during critical periods of development. These statistics emphasize the need to communicate the importance of preconception health to both males and females:

- The low birth weight rate in Alberta in 2014 was 7.1%,
- The preterm birth rate was 8.8 % in the same year,
- 18.3% of women giving birth in Alberta in 2014 were 35 years of age or older, and
- One-third of Canadian women enter pregnancy with a BMI ≥ 25

To increase awareness of the importance of preconception health planning and of www.readyornotalberta.ca, AHS launched a media campaign and is currently developing a health care provider learning module scheduled to be released in 2018.

Planning to become pregnant-or not become pregnant- is a big decision for both men and women. Whether "*Ready*" or "*Not ready*", preconception health information helps you to support your patients to have the healthiest baby possible- now or in the future.

ReadyOrNotAlberta.ca resources including a poster and promotional cards may be ordered free of charge from:

https://dol.datacm.com/
User ID: healthypublic
Password: healthy2013

Research is essential to improving the health and lives of children and families everywhere.

Many studies require participation from children who are healthy. Other studies compare a healthy group to one with a particular illness. These participants are called controls and they are crucial to studies exploring the causes, treatments, and outcomes of virtually all pediatric diseases. Successful control matching is a challenge for all clinical pediatric researchers but one that the community at large has the capacity to solve.

HICCUP was designed to harness the generous and giving spirit of the southern Alberta community to overcome this problem and provide the opportunity for improved child health research. We are building a large sample of healthy children and parents willing to consider participation in healthy control research. HICCUP provides a direct opportunity for children, families, and communities to directly contribute to the advancement of research and child health in Alberta. Many families wanting to "give something back" can do so by volunteering their time to help child and community health in a positive way.

The HICCUP program will provide leading researchers and investigators with easy, equal, systematic access to healthy controls to be invited to participate in their own studies. This will drastically improve efficiencies while reducing costs, allowing researchers to be more productive and focused on the problems they are targeting. The result is the direct enhancement of all child and family health clinical research in southern Alberta, potentially serving as a model to advance such systems in other pediatric research settings.

Families can go to www.hiccupkids.ca and sign to be enrolled in the registry. They select the level of commitment and frequency of contact. HICCUP provides researchers with the contact names of children that fit the criteria for their specific study. Researchers contact directly the families and explain their study. At this point the family decides if they are interested in participating in that study or not. This gives the families control over which type of studies they participate and how much time they can and are willing to commit.

The HICCUP program has registered 451 healthy controls (145 families) that have been matched with a variety of pediatric researchers conducting important studies that will benefit our community. HICCUP has received requests for 31 studies in different areas of pediatric research. The feedback from families and researchers has been very positive. Families have found a way to give back in a way they see as meaningful and researchers have reported high participation from controls from our registry.

If you want to get more information or if you have any questions please go to www.hiccupkids.ca, http://www.ucalgary.ca/research/participate/ or email us at hiccup@ahs.ca

Poster outlining HICCUP programs. *See article, page 19*:

KIDS HELPING KIDS
GET INVOVLED IN RESEARCH !

Alberta Children's Hospital

Adrianna Giuffre and **Lauran Retzer-Cole** are pursuing a Masters in Neuroscience at the University of Calgary in Dr. Adam Kirton's lab. Dr. Kirton is a Pediatric Neurologist at ACH and Professor at U of C. His research applies technologies to better understand and treat brain injuries (strokes) in babies and children.

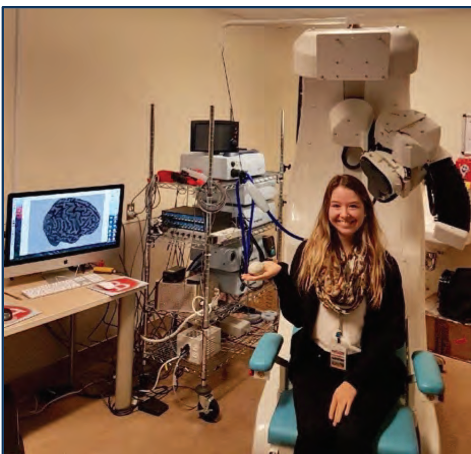
Adrianna earned an Honors BA in Kinesiology at Western University. Her thesis involves accelerating motor skills using non-invasive brain stimulation, mapping the changes that occur using the only pediatric brain stimulation Robot (see picture) in the world!

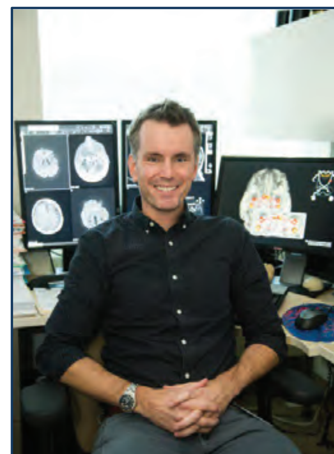
Lauran received a BScH in Life Sciences from Queen's University. Her project uses the KINARM Robot (see picture) to measure awareness of arm position, reaction speed, and more to understand brain plasticity!

Pediatric research needs healthy children and you can help ! The Healthy Infants and Children Clinical Research Program **(HICCUP)** was designed to harness the generous spirit of the southern Alberta community to connect willing families with researchers.

Signing up is easy and does not oblige you to participate in a study. It just allows researchers to contact you to see if you are interested. To learn more, please visit www.hiccupkids.ca or email hiccup@ahs.ca

If you want to get your brain zapped or see a real MRI picture of your brain, you can also sign up for Adrianna and Lauran's study by contacting them directly:
adrianna.giuffre@ahs.ca
lauran.cole@ahs.ca





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Dr. Ann Vaidya

The Annual Mackid Lecture Series

Dr. Ann Vaidya

Over the past number of years, the annual Mackid lecture has been organized by the AHS Calgary Zone Department of Family Medicine thanks to a legacy fund from the Mackid family to support lectures and networking among physicians. This year, 191 participants came together to increase their knowledge on the topic of cannabis at an evening event on June 8, 2017 for the 51st Annual Mackid lecture entitled Controversial Prescribing: What's a Doc to Do?. Thank you to the Calgary Area Medical Staff Society (CAMSS) for their help with sponsorship and advertising.

With the fast approaching federal promise of legalized marijuana by July 1, 2018, physicians are finding more patients approaching them to discuss if cannabis is a viable option for them. This year's event included a well-received lecture entitled High Times: Evidence based conversations about cannabis for pain given by Dr. Lori Montgomery, Medical Director of the Calgary Chronic Pain Clinic (http://calgaryfamilymedicine.ca/DFM_Clinical/index.php/program). This was followed by a panel discussion lead by Dr. Raj Bhardwaj, well known for his weekly CBC radio health commentary. The panel was made up of Dr. Lori Montgomery, Dr. Ann Crabtree (College of Physicians and Surgeons of Alberta), Dr. Christian Turbide (Gastroenterology), Dr. Rebecca Haines-Saah (Assistant Professor Community Health Sciences), Dr. Cris Bockmuehl (Family Physician) and Detective Collin Harris (Calgary Police Drug Unit).

During the presentation and panel discussion, the group heard that the evidence is limited, but more is coming as studies into cannabis have increased. Some resources mentioned were the College of Family Physicians of Canada Authorizing Dried Cannabis for Chronic Pain or Anxiety: Preliminary Guidance (http://www.cfpc.ca/Dried_Cannabis_Prelim_Guidance/) and the College of Physicians and Surgeons of Alberta (http://www.cpsa.ca/physician-prescribing-practices/cannabis-for-medical-purposes/).

The attendees heard from our presenter and expert panel members that there is in fact limited literature around the effects and safety of cannabis. A number of specific issues were discussed including balancing unknown risk with patient quality of life, variations in absorption with different delivery methods, public health ramifications including first and second hand smoke exposure and effects on driving and capacity while using. There were many questions around risks in the under 25 year age group, and interesting viewpoints and discussion on the different active ingredients in non-commercial and commercially available products and how they differ in effect.

The questions to the panel were of a practical nature. Dr. Ann Crabtree answered the expectations from the College perspective and directed people to their website resources. Dr. Christian Turbide discussed quality of life for his irritable bowel syndrome (IBS) patients. Dr. Rebecca Haines-Saah shared the public health aspects including the youth culture.

Family Physician of the Year Award Winner Dr. John Hagan (left) and the inaugural Specialist of the Year Award Winner Dr. Gabriel Fabreau (right).

Dr. Raj Bhardwaj moderated a diverse panel of experts including law enforcement, specialist physicians, and public health researchers who provided their experiences and input on the upcoming cannabis legalization and medical usage of cannabis.

– continued on page 24

RENEW YOUR ZMSA MEMBERSHIP!

It's that time of year again… time to renew your ZMSA membership!

The ZMSA is your vehicle for direct participation in the planning and delivery of healthcare in Alberta. Membership provides you with many opportunities:

Get accurate information as ZMSA executive are in direct contact with AHS and AMA on a regular basis

- Learn about emerging issues;
- Provide direct input and feedback on healthcare issues;
- Build professional relationships outside your own circle of influence;
- Dialogue about and examine healthcare issues in frank and constructive ways;
- Participate in educational and engaging training workshops;
- Receive a subscription to Vital Signs.

The ZMSA annual membership process is conducted through the AMA. By now you will have received an email from AMA Membership Services providing you with a link to complete your renewal. If there is no email address on file for you, the membership form is sent by mail. If you wish to switch to online renewal please contact the ZMSA Admin Office at zmsaadmin@albertadoctors.org to provide your email address.

Your zone membership options will default to what you selected last year, if applicable. You can make changes as you wish.

Have questions?

Please feel free to contact the ZMSA office at zmsaadmin@albertadoctors.org. You can also find step-by-step instructions with screen shots on our website: www.albertazmsa.com

The Rockyview General Hospital Medical Staff Association Meeting

Dr. Charlene Lyndon, President, Rockyview General Hospital Medical Staff Association

Fisher Hall, on Tuesday, December 12, 2017
from 6:00 p.m. – 8:00 p.m.

Members' Dinner at 5:30 p.m.

Guest Speaker: **Alberta Medical Association Representative**

Topic: **Update on Adjusted Net Daily Income (ANDI) and the next Agreement**

We look forward to seeing you there.

Please RSVP by November 14, 2017 to stella.gelfand@ahs.ca

– continued from page 23

Dr. Cris Bockmuehl discussed how he has the conversation with his family medicine patients that ask about using cannabis. Detective Collin Harris gave us a fascinating look into what is happening on the streets and the preparation that the police need to undertake. An overall theme for the evening was the need to invest in quality conversations with our patients and to be accessible as trusted partners in making wise decisions around cannabis use.

The landscape will change next year with legalization and over the next few years with legislation. At the Alberta Medical Association September 2017 Representative Forum, the delegates from various specialties supported a motion that would have the medical cannabis authorization letter included in a patient's electronic health record. In time, more studies and information on interactions and risks/side effects will become available to inform clinicians.

Feedback from participants was very positive, both toward the topic and the new format of a presenter and panel at an evening event.

An additional highlight to the event was the presentation of the Department of Family Medicine Calgary Zone Annual Family Physician of the Year Award and the First Specialist of the Year Award.

The Department of Family Medicine Calgary Zone Annual Family Physician of the Year Award gathers nominations from patients which generates an exceptional pool of candidates. This year's award winner is Dr. John Hagan. Dr. Hagan started his career working in isolated areas of the NWT followed by a full scope of rural practice in High River and now holds a position at one of the Department of Family Medicine academic teaching clinics.

The Specialist of the Year Award nominations came from family physicians who wanted to acknowledge partnerships with their specialist colleagues. The inaugural recipient is Dr. Gabriel Fabreau, an internal medicine specialist who provides care at the Shared-Care clinic at East Calgary Health Centre, the Mosaic refugee clinic and the Calgary Urban Project Society (CUPS).

Ann Vaidya, B.Sc. (CMMB, Psych), M.D. (CFPC-FM, CofE)
Deputy Head – Department of Family Medicine, Calgary Zone, AHS
Calgary, Alberta

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