#1 Innovation to improve access and care quality for Indigenous women in three distinct communities in the province of Alberta, Canada

Richard Oster*, Bonny Graham, Tracy Lee, Wendy Bouwman-Oake, Dennis Laboucan, Deborah McNeil, Deborah Leitch, Allison Bichel

Purpose: Child health trajectories start within the womb. Women, their spouses, and their families need support and appropriate perinatal care to achieve a healthy pregnancy. The overall purpose of our project is to use community-based ways to enhance the support of pregnant Indigenous women and their families, and overcome barriers to perinatal care in three unique communities in Alberta, Canada. Specifically, our partnership sought to improve access to culturally safe perinatal care, enhance protective factors through cultural pride, sharing of traditions and cultural wisdom, deliver services and supports close to home, and address perinatal-related social determinants of health.

Methods: This project is the result of a novel and equitable partnership between researchers, healthcare professionals, Alberta Health Services, and the communities of Maskwacis, inner-city Edmonton, and Little Red River Cree Nation. We used the principles of community-based participatory research to guide our approach. Engaging appropriately with each of the involved communities was fundamental. How the planned initiatives were developed, implemented, evaluated and maintained relied heavily on input from communities, local cultural practices, collaborative leadership and learning, and a common shared voice.

Results: In Maskwacis we have implemented a community gardening model for mothers and families, provided perinatal health skill enhancements for local healthcare staff, and are developing strengths-based images and videos of healthy Cree pregnancies. In inner-city Edmonton we contributed to the implementation of a safe housing program for pregnant homeless women with 24/7 wrap-around services. In Little Red River we have hired a local community member to provide enhanced community-based support to mothers and families, and have implemented a family wellness camp model for healthy pregnancy education and transferring cultural knowledge surrounding pregnancy, parenting, traditional food gathering and preparation, and ceremony.

Conclusions: Through engagement, genuine relationship building, and collaboration our partnership designed and implemented unique community-based ways to improve healthcare services and programs for Indigenous women and their families.

#2 Patient navigation of Indigenous populations in a tertiary pediatric healthcare setting: A promising practice for reducing healthcare disparities

Renata Taylor*, Shaquita Bell

Purpose: In 2008, Seattle Children’s Hospital launched a pilot program to demonstrate the efficacy of patient navigation in the pediatric healthcare setting. Rather than focusing on specific chronic diseases or cancer, this program has been directed at removing barriers to timely, safe and effective care that families with low levels of acculturation and/or limited English proficiency (LEP) face when accessing tertiary care at the hospital and in the community for their children with chronic/complex medical needs. While early Patient Navigation efforts at Seattle Children’s Hospital focused on LEP families, a pilot project was initiated in 2017, adding the services of part-time bi-cultural Patient Navigator to serve Alaska Native, Native American and Pacific Islander patients and their families. Based on the success of services during the pilot; permanent and ongoing capacity was added to our Navigation program to serve Indigenous populations.
Methods: Patient navigators in our program remove barriers by establishing trust and rapport with families in their own language and culture. Navigators teach families how to access hospital and community-based healthcare services, including how to schedule and complete outpatient appointments. They bridge communication between families and providers to assure family understanding of their child’s diagnosis and treatment, and provider understanding of the cultural needs of the family. They teach and empower families to independently and proactively navigate the healthcare system to meet their child’s ongoing healthcare needs. When a family can successfully access and participate in care, they “graduate”

Results: Outcomes for this program are consistent with the premise that patient navigation reduces disparities. For example, in one study of the services, patient navigation resulted in a 44 and 59 percent reduction in missed ambulatory appointments for Somali and Spanish-speaking patients served by the program, respectively. Patient navigation has also resulted in a significant reduction in the number of hospital admissions per year for these patient populations (3.7 admissions/year pre-navigator versus 1.0 admissions/year after graduation; p<0.001) and reductions in the average length of stay (14.8 days pre-navigator versus 6.5 days after graduation; p<0.001).

Conclusions: Patient navigators facilitate effective communication between families and providers and help families who face language or cultural barriers become full partners in the care of their children. Patient navigation is a promising approach for improving the outcomes of children with chronic/complex conditions served by this program. Additional work is needed to examine the economic impact and sustainability of targeted patient navigation.

#3 Health care that integrates culturally safe, trauma and violence-informed and family-centered approaches best meets the needs of Indigenous mothers and infants

Amy Wright*, Rachel Bomberry, Olive Wahoush, Marilyn Ballantyne, Chelsea Gabel, Susan M. Jack

Purpose: Mothers typically act as gatekeepers to health care for their children, yet many Indigenous mothers report poor access to health services. Inadequate access to health services may contribute to the poor health outcomes experienced by Indigenous infants. Understanding how Indigenous mothers living in urban areas experience selecting and using health services to meet the health needs of their infants is important to informing how health services can best support the needs of these families.

Methods: This study employs qualitative interpretive description methodology guided by the Two-Eyed Seeing framework and Andersen’s Behavioural Model of Health Services Use. Interviews facilitated by ecomaps and a discussion group were conducted with 19 Indigenous mothers living in Hamilton with infants under the age of 2 years. Additional interviews with 12 health providers added further context to the mothers’ experiences.

Results: Results relate to three domains of health service use: primary care, acute care and early childhood health promotion services. Findings suggest that health providers can improve the access and use of health services by Indigenous mothers and infants through integrating three approaches to care: culturally safe care, trauma and violence-informed care and family centred care.

Conclusions: While Indigenous-led supports may be better suited to meet the needs of Indigenous families, mainstream services can improve access and promote health service use through integrating these approaches to care. The findings have numerous implications for nursing education, practice and research as well as for health policy. Application of this evidence may result in equitable access to care, improved use of health services and better health outcomes for Indigenous infants and their families.

#4 Our future healers: Innovations to foster success of Indigenous youth in the health professions pathway

Erik Brodt, Allison Empey*

Purpose: Oregon Health & Science University’s (OHSU) Northwest Native American Center of Excellence (NNACOE) is operating innovative outreach and enrichment programming to enhance the identity of Indigenous youth as future health professionals.

Methods: The Center represents a partnership between OHSU, Portland State University and the NW Portland Area Indian Health Board, all of which are working with social media innovators We R Native and WE ARE HEALERS to undertake a digital media campaign to introduce Indigenous youth to health professions pathways. In 2018,
NNACOE partnered with the Warm Springs Tribe to pilot the “Tribal Health Scholars” program to provide an in-depth externship in health careers and individualized health education pathway coaching.

**Results:** Since August 2017, we have reached more than 10,000 Indigenous youth (age 10-24) through our digital media campaign and developed a pilot “Tribal Health Scholars” program with the Warm Springs Tribe.

**Conclusions:** Participants will be able to: 1) Articulate the value of Indigenous representation in contemporary media to foster positive self-identity of Indigenous youth 2) Learn how digital media may be used to reach and inspire Indigenous youth to health professions careers 3) Learn a tribal-academic model designed to enhance Indigenous youth access to health careers and training programs.

#5  
**Indigenous representations of Elder-youth relationships using Photovoice: Perspectives from the Labrador Inuit community of St. Lewis, NL, Canada**  
*Chelsea Gabel*, *Jessica Pace*

**Purpose:** The presence of strong relationships across generations has been recognized as an important contributor to the health and well-being of individuals of all ages. Broadly, a deterioration of intergenerational engagement is seen to contribute to a variety of issues with elders and youth. In Indigenous communities, the deterioration of intergenerational relationships has additionally been impacted by the effects of colonialism including the dispossession of land, erosion of traditional lifeways, and the effects of intergenerational trauma. This presentation reports the results of a community-based participatory action research Photovoice project which aimed to document and understand the nature of intergenerational relationships in the southern Labrador Inuit community of St. Lewis, NL, Canada. In particular, we discuss the barriers and enablers to intergenerational engagement in this community and explore ideas for new, culturally-safe initiatives and programming aimed at maintaining and strengthening relationships between seniors and youth.

**Methods:** We utilized photovoice, a qualitative, arts-based methodology in which participants are provided with cameras and asked to take photographs to represent how their lived experience relates to the research questions. Our research was carried out in four stages: 1) an information and training session, 2) a participant photography assignment, 3) individual interviews, and 4) a sharing circle. Once all individual interviews were completed, participants were invited to attend a potluck supper as a whole group. During this event, elders and youth were brought together to share a meal, view each other’s photos, discuss the similarities and differences in their photographs, reflect shared experiences and think about future opportunities for meaningful interaction between the two groups.

**Results:** Our findings relating to elder and youth relationships in St. Lewis, NL show strong relationships between older and younger generations, particularly within families. The themes that emerged in our research were closely interrelated. Elders spoke of the importance of family, pride in their community and connection to the natural environment, teaching, storytelling, and traditional knowledge and ways of life. Although elders spoke only peripherally of the health benefits of their interactions with youth, it is clear that there are many positive outcomes to intergenerational relationships. For example, engaging with youth through arts, crafts, music, and community contributes to social participation and generativity among St. Lewis elders.

**Conclusions:** Intergenerational relationships in any community are complex and have the potential to contribute to community well-being and cohesiveness in various ways. In Indigenous communities, especially those which are small and remote, relationships across diverse generations are a key component of the fabric which holds the community together. Our results suggest that intergenerational relationships in St. Lewis, NL are strong, particularly within families. However, interviews with older adults and youth also indicated that social and demographic change is putting pressure on these relationships and the ability for community members to maintain the rich bonds between generations, particularly in relation to the oldest people in the community. Effort should be made to continue to support the positive factors that contribute to intergenerational engagement in St. Lewis and to address some of the challenges. These results have the potential to be useful in other Indigenous communities, as similar pressures relating to demography, lifestyle, technology, and the economy are a reality in many other communities.
Addressing transience in Nunavut’s health care workforce care by implementing a health career camp for Inuit high-school-aged youth
Sidney Horlick*, Gwen Healey, Jennifer Wakegijig, Nancy Edgecombe, Kristy Ste Marie, Ken Beardsall, Nubiya Enuaraq, Leigh Anne Willard, Timothy Fawehinmi, Adeline Salomonie, Sarah LeBlanc

Purpose: High levels of transience in Nunavut’s health care workforce have produced a number of chronic challenges; these include patient exhaustion, cultural orientation, continuity of care and communication, building trusting relationships, and patient outcomes. Evidently, a vast improvement in recruitment and retention of Nunavut’s healthcare workforce is needed, and targeting youth is a key component. Rural or remote background is one of the strongest factors influencing the choice to practice in rural and remote communities. Barriers to recruitment and retention may be alleviated by increasing the visibility of health career pathways to Nunavut youth.

Methods: With the goal of increasing awareness and interest in health care careers, Nunavut post-secondary students were identified as the target population. The camp model was adapted from the existing Northern Ontario School of Medicine Health Science Camp model, and delivery included Nunavummiut health professionals. Pre- and post-intervention data were collected from the youth, mentors, and facilitators to determine whether the objectives of the pilot program were achieved and if an annual camp is viable in Nunavut.

Results: Community mentors were selected via an application process, based on their ability to support youth with their career and educational goals. Inuit youth from 6 different communities (n=18) were selected by the community mentors for the pilot camp program, held February 12-16, 2018. Pre- and post-intervention data collected from the youth suggests the camp resulted in increased interest and knowledge in the health sciences and health careers. Post-tests revealed the majority of participants interested in pursuing health careers in post-secondary wished to enter family medicine, pediatrics, or other child-focused health fields.

Conclusions: The Nunavut camp increased participants’ interest in health careers and gave participants knowledge of the pathways to entering these careers. Supporting local youth to pursue health careers is a key component to alleviating issues in health service delivery related to transience in rural and remote communities. With the majority of participants reporting interest in child-focused health careers post-camp, Health Career Camps delivered by and for Nunavummiut have the potential to encourage Nunavut youth to enter health careers and return to practice in their communities. Potential long-term benefits include lower transience in the healthcare workforce and improved Inuit child health.

Exploring the essential conditions needed to deliver the Indigenous Youth Mentorship Program
Sobierajski F*, Lévesque L, McGavock J, Storey K, IYMP National Team

Purpose: The Indigenous Youth Mentorship Program (IYMP) is a 20-week peer-led, wellness program for Indigenous children. IYMP embraces Mino-Bimaadiziwin/miyo-pimâtisiwin (“living in a good way”) with core components of: physical activities/games, a healthy snack, and relationship-building. A strength of IYMP is that it values autonomy, adaptability, and context. This presents challenges when evaluating its implementation, as traditional implementation science methods tend to oversimplify the process. The purpose of this project is to examine how IYMP is implemented across different communities using qualitative and quantitative approaches to gain preliminary insight into the essential conditions needed to successfully implement IYMP in a school community.

Methods: Implementation was evaluated using direct observation. Logs were completed by community-based IYMP leaders and research coordinators to assess the dose delivered, fidelity, and quality of the program. Based on our experience determining the essential conditions of implementing other school-based healthy living programs, we also conducted qualitative interviews (n=5 completed; n~30 planned) with program leaders and coordinators. The goal of the interviews is to understand if these previously established essential conditions resonate with participants’ experiences of IYMP. Interview data are being analyzed using inductive thematic analysis and will be used to create a framework to guide new IYMP communities.

Results: Preliminary findings suggest that IYMP consistently included healthy snacks and vigorous intensity physical activities/games. During interviews, participants shared valuable insights about how and why IYMP was successfully taken up and maintained by communities. Indeed, there is positive support among those interviewed
that the essential conditions resonate with their experience delivering IYMP. Participants agreed that students as change agents, community-specific autonomy, support of the school principal, a dedicated champion to engage IYMP team members, community support, local data/evidence, and professional development were needed to implement IYMP.

**Conclusions:** While work is on-going, preliminary findings highlight the importance of qualitative approaches within the field of implementation science, as they provided a deeper understanding of how and why IYMP is successfully delivered in different settings. In collaboration with the IYMP team, these data will be used to create a framework to evaluate the implementation of IYMP in new communities. Such research will support the rippling of this program to other Indigenous communities in different contexts.

**#8 I(nuit)-SPARX: Design of a culture-specific mental health e-intervention by Nunavut youth for Nunavut youth**

*Yvonne Bohr*, *Yookyung Lee, Leigh Armour, Marette Abdelmaseh, Ian Manion, Alexandria Pavelich, Leah Litwin, Chelsea Singoorie*

**Purpose:** Suicide rates in Canadian Inuit youth are inordinately high, while mental health resources in remote communities continue to be scarce. There is a need for innovative approaches to delivering culturally appropriate interventions that support resilience. I-SPARX is a community-led, intergenerational initiative designed to enhance youth wellbeing through the creation of an Inuit version of SPARX: a psycho-educational computer game focused on cognitive behavioural strategies. SPARX has shown promise in enhancing mental health in Maori youth, and in a previous pilot study with Inuit youth. The current study expands the scope of the intervention through community embedded youth engagement and leadership.

**Methods:** I-SPARX, a youth- and community-led initiative, is grounded in a decolonized Two-Eyed Seeing Framework, guided by Inuit Qaujimajatuqangit, and a Community Participatory Spectrum of Prevention model. We are reporting on Phase 2 of a 4-Phase project. 20 youth leaders (ages 15 to 18), 5 community facilitators and 1 community coordinator from 5 communities have completed: the original SPARX CBT intervention; a general mattering scale; interviews and focus groups that form the basis of the Inuit specific design of I-SPARX. Community resource scans were completed for each location, and Elders provided their guidance. In Phase 3, 75 youth will test I-SPARX.

**Results:** In Phase 1, a pilot study, paired sample t-tests focused on pre/post intervention changes showed significant improvements and trends in Thought/Rumination, Catastrophizing and Hopelessness for 24 participants in SPARX. In this presentation, we will report on Mattering, and thematic analyses of the completed community processes, specifically the recommendations extracted from youth and Elder interviews, both conceptual and stylistic. The latter form the basis of the design of the I(nuit)-SPARX software which is currently underway. The effectiveness of the culture-specific I-SPARX will be assessed with 75 community youth in Fall 2019.

**Conclusions:** A pilot study of a Maori-specific version of SPARX, a computer-based CBT intervention to support youth mental health, showed promising results in Nunavut. Now an Inuit adaptation (I-SPARX) is being developed. Two-Eyed Seeing Framework, Inuit Qaujimajatuqangit, and Community Participatory Spectrum of Prevention frameworks successfully guided productive inter-generational consultations. Positive youth engagement highlighted emerging Inuit youth mental health promotion themes that form the core of the new I-SPARX. The latter’s upcoming rollout and evaluation with 75 community youth, will be collaboratively designed with youth, facilitators, Elders and their communities at an upcoming retreat. I-SPARX shows a capacity to engage Inuit youth.

**#9 Indigenous families’ journeys with early intervention therapy in Northern BC**

*Alison Gerlach*, *Margo Greenwood*

**Purpose:** Early intervention therapy (EIT), that is occupational therapy, speech-language pathology, and physiotherapy for children with dis/abilities, are predominately informed by the perspectives of Caucasian, middle-class, urban, two-parent families. How EIT can be inclusive of, and responsive to the disabling impacts of colonization, and the diverse circumstances, strengths, and priorities of Indigenous families remains poorly understood in Canada and internationally. In order to benefit Indigenous communities, families, and children – EIT organizations and providers need to rethink the nature and delivery of their programs and services.
Methods: This presentation will focus on the preliminary findings from a critical qualitative inquiry that explored how EIT can be provided in ways that are responsive, culturally safe, and effective for Indigenous families and children. Data collection included semi-structured interviews, sociodemographic information, visual mapping, and extensive field notes. Knowledge was generated on the perspectives and experiences of (N=27) participants – Indigenous family members (n=14) and professionals in Indigenous early years programs (n=13) located in two urban centres in Northern BC.

Results: The data highlight family members’ agency in navigating what many perceived to be a frightening and stressful system – emphasizing the importance of reframing EIT, and particularly standardized assessment processes, from a perspective of ‘trauma- and violence-informed care’. Participants generated multiple recommendations for improving how services were organized and delivered.

Conclusions: This research provides important insights for rethinking the provision of EIT and assessment programs/services with Indigenous families and children in Northern BC. The implications and recommendations arising from this study have relevancy for implementing the full intent of Jordan’s Principle and promoting health equity for Indigenous children with disabilities. The findings are highly relevant to a wide range of interdisciplinary pediatric health care in diverse Indigenous contexts.

#10 Indigenous parent feeding practices in Australia; Impact of Western worldviews
Athira Rohit*, Renae Kirkham, Louise Maple-Brown, Julie Brimblecombe

Purpose: To explore Aboriginal and Torres Strait Islander (Indigenous) parent feeding practices in Australia’s Northern Territory. Parent feeding practices are defined as any behavioral characteristic of a parent or caregiver related to feeding their child. The primary aim of this study was to obtain an understanding of Indigenous parent feeding practices to inform current nutrition improvement programs.

Methods: A qualitative study based on the principles of phenomenology was designed. The study incorporated a pragmatic interpretive framework. Indigenous parents’ (n=30, 24 remote and 6 urban) attitudes and practices around feeding their children (age 2-5 years) were explored. Responses were inductively coded and thematically analysed, using a decolonizing framework. Themes were cross-checked with key stakeholders (n=29) including senior community members and health practitioners and policy makers in the delivery of child health and nutrition programs in four remote Northern Territory communities. Stakeholders’ perspectives on Indigenous feeding practices were also collected.

Results: Aboriginal parents allowed high level of child autonomy. This style of parenting, whilst has many strengths, was challenged by a food environment not conducive to easily making healthy choices. Stakeholders indicated that Indigenous families were highly responsive to the needs of their children and recognized that feeding practices were highly related to the social determinants of health. A common discourse among non-Indigenous stakeholders was that child autonomy was related to unhealthy parenting. Recommendations to strengthen existing parent feeding practices included knowledge transfer from elders, community-level education on cooking healthy meals, improving healthy food choices at shops, and involving children in physical activities.

Conclusions: Indigenous worldviews seemed to be expressed differently to that of the general western worldview in parent feeding practices. How worldviews are represented in parent-child relationships is important to consider for the way research with Indigenous populations is conducted and the evidence it generates to inform policy and practice. Developing culturally appropriate support structures to equip health practitioners to support parents in feeding practices could be useful.

#11 Jordan’s Principle – Child first initiative Niniijaanis Nide (My Child, My Heart) Program
Gwen Traverse*, April Sanderson

Purpose: It takes a community to raise a child. The “Niniijaanis Nide (My Child, My Heart) Program” is a Community based program intended to ensure that First Nations children do not fall through the gaps of care. Through a Circle of Care approach “My Child, My Heart” provides quality services, supports and resources at the community level to achieve a wholistic outcome for families with children with complex needs to be cared for within their home environments.
**Methods:** Engagement with external stake holders. The process involved inviting parents, family members and extended family along with the health and education professionals to engage with the child in the decisions that affect them. This has demonstrated the positive outcomes and highlight the family’s leadership capabilities to make decisions when properly engaged, prepared and informed. Demonstrated a much higher level of success for their children because the child remains connected to their family, community and culture. Offer wholistic services to meet the physical, communicative, social, emotional, cognitive, cultural and spiritual needs for First Nations children and their families.

**Results:** Family empowerment approaches resulted in: Higher level of participation, Higher levels of follow through on care plans, High levels of child and family satisfaction, Reduction of stress on the family/parents, Strong family ownership of decisions, plans, and long-term care management for their child.

**Conclusions:** All First Nations children are entitled to the same rights and services as any other Canadian child, regardless of their place of residence and level of needs to achieve a comparable quality of life.

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**#12 Engaging the voices of First Nations Mohawk children and youth through visual storytelling to inform meaningful child injury prevention actions**  
*Émilie Beaulieu*, Rose-Alma McDonald, Ian Pike, Alison Macpherson

**Purpose:** Injury is the leading cause of death among First Nations (FN) children and youth in Canada. Children’s perceptions of injury and injury prevention are often overlooked as valuable resources, while they are often as knowledgeable about their neighbourhood as the adults who establish policies, and could provide valuable insights into ways to prevent child injury. *The Voices of Children and Youth* is a community-based participatory research project that aimed to understand child injury in FN communities from the perspective of children and to empower and implement their knowledge. This abstract presents the methodological approach used for engaging children.

**Methods:** Trusting partnerships were developed between the Mohawk Council of Akwesasne (MCA), the Akwesasne Mohawk Board of Education (AMBE), a local Mohawk researcher, and researchers at York University and University of British Columbia. Guided by the principles of OCAP, a research agreement was signed between partners to foster respectful and community-led actions. Two Akwesasronon post-secondary trainees were also recruited to assist with the project and expand community-based research capacity. Visual storytelling methodology was developed combining traditional oral storytelling and participatory photo-mapping method. Akwesasronon children and youth were invited to combine photography, narratives, and mapping to identify the community’s safety issues and successes.

**Results:** Twenty-five fifty-minute in-class and outdoor sessions were created to prepare Akwesasronon children and youth to take supervised community walks in distinct districts within Akwesasne and tell valuable stories of places they consider safe or unsafe. The sessions foster capacity in photography, journalism and mapping skills, and touch upon different injury types, injury prevention concepts and strategies. Local professionals, including Akwesasronon police officers, EMTs, and journalists from the local newspaper, TV, and radio were invited to the school sessions to share their knowledge and experience with students. School sessions started in October 2018 and included eight grade-6 students from the Kana:kon School, who represent 2 districts of Akwesasne and the southern portion of the community (located in NYS).

**Conclusions:** Visual Storytelling allows Akwesasronon children and youth to position themselves as informants and future leaders in the community, and to champion their community’s safety to reduce injury mortality and morbidity. This approach demonstrates fulfillment of the values and goals of cultural safety, which provides the community more than data – it gives evidence from a child perspective to inform meaningful child injury prevention actions.

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**#13 Students’ perceptions of a school nutrition policy at Kipohtakaw Education Centre in Alexander First Nation**  
*Christina Gillies*, Alexander Research Committee, Anna Farmer, Katerina Maximova, Noreen D. Willows

**Purpose:** One strategy to improve the diets of children within school environments is the use of a school nutrition policy (SNP). A SNP may be especially important in First Nations communities where parents often struggle to provide their children with nutritious food due to economic and environmental limitations. However, there is little
knowledge concerning SNP implementation in First Nations schools. The purpose of this study was to explore students’ perceived facilitators and barriers to a SNP at Kipohtakaw Education Centre.

**Methods:** A community-based participatory research approach was adopted in which community members, including Elders, worked in close collaboration with university researchers on all stages of the research. The research was a process evaluation of policy implementation using a mixed-methods design. Students in grades 4-12 (n=94) completed a 17-question survey to capture their perceptions of the policy. Survey data informed an 11-question semi-structured interview guide. Transcripts from interviews with students (n=20) were analyzed using content analysis to identify barriers and facilitators to policy implementation.

**Results:** Facilitators to SNP implementation included students’ support for the policy and food preferences. Most students (87%) agreed that only healthy foods should be served at school and they expressed an interest in consuming healthy foods in interviews. Barriers included access to unhealthy foods and lack of communication between students and their teachers and parents. Over half (55%) of students reported that their eating habits at school were average or unhealthy; interviews explained that their diets could be improved by consuming more fruit and vegetables. Surveys and interviews found that student engagement with their parents and teachers about nutrition was low.

**Conclusions:** To support children’s healthy eating at school, SNPs should provide clear guidelines on foods permissible in the school and include specific strategies to promote parent and teacher engagement with students about diet and nutrition. It is also important that SNPs consider local context as well as social and environmental barriers to healthy eating. The involvement of First Nations children as important stakeholders in the evaluation of school nutrition policies is recommended.

#14 The potential of eggs to improve the nutritional and economic status of vulnerable Indigenous communities in northern Colombia

*Lina Solano*, Ana Maria Galvis, James A. Thomas

**Purpose:** The Wayuú, the largest Amerindian group in Colombia, inhabit La Guajira state, plagued by drought and extreme poverty. In this region, acute < 5 yr malnutrition exceeds 3.2% (national prevalence ~1%) and chronic malnutrition approaches 28%. The Wayuú suffer increased malnutrition-associated mortality due to inadequate food intake, the malnutrition-infection cycle, deficient sanitation and impaired access to healthcare. As part of a program to reduce malnutrition-associated mortality, we piloted a collaborative egg production program in 6 Wayuú communities. Eggs were chosen for their contribution to dietary diversity and their relative ease of production.

**Methods:** The sustainable egg-health production project was carried out in the target Wayuú communities for 6 months with 3 activities: nutritional screening, medical care and egg production. Nutritional and medical care included growth and development surveillance, prenatal care, immunizations, and educating all beneficiary families about healthy nutrition and eating habits. Egg production included ND vaccination, predator-resistant coop construction from local materials, use of supplemental feeds from agricultural wastes, and holistic extension courses. Outcomes at the end of the piloted project were compared to baseline data collected.

**Results:** In the 6 communities, 455 members were screened and treated, 22% were children <5 yr. 500 layer hens produced 35,288 eggs. 90.4% of eggs were consumed by the communities. Nutritional results showed a reduction in acute malnutrition to 3.7% (Guajira prevalence 28%) and 100% of children and pregnant women had up-to-date health controls. Additionally, 10% of the eggs were sold and the resulting income funded a new production cycle. The table below compares health indicators, at the outset and finish of the production project.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>End of Project</th>
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<tbody>
<tr>
<td>Acute Malnutrition</td>
<td>3.7%</td>
<td>&lt; 1%</td>
</tr>
<tr>
<td>Chronic Malnutrition</td>
<td>28%</td>
<td>&lt; 10%</td>
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**Conclusions:** This egg production project was a practical, low-cost, easy-to-replicate and income-generating initiative for Wayuú families with food insecurity. It also outlined a potential pathway to prevent chronic malnutrition, the main cause of malnutrition-associated problems. Additional steps must be taken to address cultural barriers and decrease the production costs to improve project efficiency. Achievement of sustainable health outcomes requires addressing determinants of health and not just diseases. Moreover, working with
Handling the heat: Impact of burn injuries on Aboriginal and Torres Strait Islander children and their families
Hayley Williams*, Bronwyn Griffin, Kate Hunter, Kathleen Clapham, Roy Kimble

Purpose: Australian Aboriginal and Torres Strait Islander children experience burn injuries on average 2.4 times more than other Australian children. These injuries and their treatment are highly distressing and can have ongoing psychosocial implications for the affected child, their caregivers, and other family members. However, the extent to which these injuries specifically affect Australian Aboriginal and Torres Strait Islander children and their families is unknown. This study combines Indigenous and westernised qualitative research methods to explore the impact of paediatric burn injuries on children, their families, and treating clinicians.

Methods: Australian Aboriginal and Torres Strait Islander children aged <16 years accessing care at an Australian tertiary burns service, their caregivers, and treating clinicians participated. Ethnographic observation of the children’s appointments provided insight into the current challenges and strengths of acute burns care. Retrospective ‘thinking aloud’ sessions outlined the perceptions and experiences of clinicians immediately following the children’s appointments. One-on-one yarning sessions with caregivers provided an opportunity for them to share their personal experiences of their child’s injury and treatment. Grounded theory approaches are used to develop themes and theories around the psychological and social implications of the burn injuries.

Results: The process of acute burns care is complex, impacting the injured child, their families, and treating clinicians in varying ways. While paediatric burn injuries have similar effects on all families, Australian Aboriginal and Torres Strait Islander children, their caregivers and families have psychosocial implications that are specific to their unmet cultural and support needs.

Conclusions: The ongoing support needs of Australian Aboriginal and Torres Strait Islander children with burn injuries, their families, and treating clinicians require further attention. Ongoing research will involve yarning circles with the participating caregivers, and focus groups with the treating clinicians to discuss priority areas, strategies to meet the current unmet needs of each group, and to inform resource and intervention development to meet these needs.

Association of bullying, mental health, and academic success in North Dakota middle school Native American youth
Susanna Basappa*, Sarah Atunah-Jay, Kristin Harden, Sean Phelan

Purpose: Bullying is a significant risk factor for negative mental health and academic outcomes among children. Recent studies have shown an increased prevalence of bullying that may be associated with increased thoughts of suicide, suicide planning, and suicide attempts among Midwestern American Indian/Alaskan Native (AIAN) students. Here, we further explore this assessment using data from a cohort of students from North Dakota with a high percentage of Native students.

Methods: Publicly available survey data from the North Dakota Youth Risk Behavior Survey (NDYRBS) were analyzed. Descriptive statistics, bivariate analysis, and structural equation modeling were performed to assess for significant associations between bullying, grades, and suicidality among students of different races and ethnicities.

Results: Non-Hispanic AIAN students were more likely to report being bullied (β=0.037 p=0.027, β=0.044 p=0.024) compared to white students. These students had a correspondingly increased risk for suicidality (β=0.071 p=0.020, β=0.061 p=0.018, β=0.086 p=0.018) that was partially mediated by bullying. Academic grades were not mediated by bullying (β=-0.685 p=0.056).

Conclusions: Our results support recent assessments that AIAN students are at increased risk for bullying and suicidality, particularly bullying-mediated suicidality, compared to non-Native students. Further data analysis using the NDYRBS data for protective lifestyle factors is underway. These data will lay the groundwork for assessments of trends in bullying, and protective interventions against negative mental health outcomes for Native children in non-Midwestern communities.
#17 Evaluation of the Manitoba Healthy Baby Prenatal Benefit: Is it improving Métis birth and early childhood outcomes?

*Marni Brownell*, Julianne Sanguins, Mariette Chartier, Nathan Nickel, Jennifer Enns, Dan Chateau, Elaine Burland, Joykrishna Sarkar, Janelle Boram Lee, Aynslie Hinds, Farzana Quddus

**Purpose:** In Manitoba, low-income pregnant women are eligible for the Healthy Baby Prenatal Benefit (HBPB), an income supplement of up to $81.41/month provided during the second and third trimesters of pregnancy. The objective of this study was to determine the impact of the HBPB on Metis newborn and early childhood outcomes. The study is part of a program of research being done in partnership between the Manitoba Metis Federation and the Manitoba Centre for Health Policy (MCHP), using MCHP’s population-wide cross-sectoral Data Repository, to evaluate programs for Metis children and families.

**Methods:** We identified all Metis women giving birth in Manitoba 2003-2011 (N= 17,939). To develop comparable groups of Metis women receiving and not receiving HBPB, our analysis focused on Metis women receiving income assistance during pregnancy (n=4,852). Propensity score weighting was used to adjust for differences between treatment (receipt of HBPB; n=3,681) and control (no HBPB; n=1,171) groups. We used multi-variable regressions to compare breastfeeding initiation, low birth weight, preterm birth, small- and large-for-gestational age, Apgar scores, birth hospitalization length of stay (LOS), neonatal and infant readmissions, immunizations at 1 and 2 years, and child developmental scores at Kindergarten between groups.

**Results:** Receipt of the HBPB was associated with reductions in low birth weight (adjusted Relative Risk (aRR):0.74 (95% CI: 0.59, 0.94)), preterm births (aRR:0.78 (0.65, 0.94)) and, small-for-gestational age births (aRR:0.84 (0.69, 1.01)), and increases in breastfeeding initiation (aRR:1.04 (0.99, 1.09)), large-for-gestational age births (aRR:1.21 (1.06, 1.38)), and neonatal readmission (aRR:1.58 (1.05, 2.37)). The birth hospitalization LOS was also lower for newborns whose mothers had received versus not received the HBPB (Mean Difference = 0.31 days). HBPB receipt during pregnancy was associated with increases in 1- and 2-year immunizations for children (aRR:1.07 (1.00, 1.15), and aRR:1.11 (1.05, 1.18) respectively).

**Conclusions:** A modest unconditional income supplement received by low-income Metis women during pregnancy was associated with improved birth outcomes and increased immunization rates for their children; however, there was also an association with increased neonatal readmissions, which warrants further exploration. The lack of significant associations between the prenatal income supplement and child development measures at school entry suggests more sustained support may be necessary to improve longer-term outcomes.

#18 High impact evaluation of the “Sacred Babies” infant survival training for early childhood workers in Manitoba First Nation communities

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**Purpose:** High rates of unsafe sleep and life style practices have resulted in numerous infant deaths in First Nations communities. The “Sacred Babies” curriculum was developed as an intervention measure to curb risky behaviors through training early childhood workers. Trained workers would then take a four pronged approach to combating risk factors including education, providing information on improving living conditions, ameliorating socio-economic circumstances of parents and making sure parents access healthcare in order to reduce incidents of preventable infections. The training takes a strength based and context oriented approach and encourages participants to generate and share tools to ensure success.

**Methods:** High Impact Evaluation was used to assess the perceived impact of the training by gauging the Return on Investment, evaluating the capacities and capabilities, assessing trained workers confidence in applying information from the training and determining barriers to the use of information and knowledge gained. 85 community-based workers from 20 FN communities who had taken the training in the last 6 years to as recently as one month were surveyed in person, by phone or through emails. Descriptive data was analyzed using SPSS software.

**Results:** Over seventy percent of all survey respondents reported “increased knowledge” following the training and have continued to create awareness in their communities using knowledge gained from the training “to a great extent”. Another eighty percent reported performance increase, ability to provide accurate SIDS related information to parents, ability to provide trauma informed care to clients, use of culture based information and tools to help clients and more confidence working with parents affected by SIDS. Some respondents however
reported not using the information because they lacked relevant opportunities to apply new learning because they no longer worked directly with parents.

**Conclusions:** Trained worker(s) able to provide focused SIDS education, resources and supports to parents and families, position First Nation communities to work towards reducing incidents. A return on investment is recorded especially when trained staff remain in their communities and have the opportunity to continue sharing relevant knowledge and information. Community and Organizational outcomes include improved safety behaviors, safe sleep practices among parents and reduced SIDS.

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**Evaluation of a pilot pediatric concussion telemedicine program for northern communities in Manitoba**

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**Purpose:** Patients without timely access to post-concussion medical care remain at risk of additional injury associated with premature return to sports and other high-risk activities as well as the development of persistent symptoms that can have a negative impact on mental health, school functioning, and quality of life. Therefore, our objective is to describe the development of a pilot telemedicine program for pediatric concussion patients living in northern Manitoba and summarize the clinical characteristics, healthcare utilization, outcomes and estimated cost avoidance associated with this program.

**Methods:** We conducted a retrospective chart review of all patients who underwent clinical management through a telemedicine program established between The Pan Am Concussion Program, a provincial multi-disciplinary pediatric concussion program, in Winnipeg, MB and the hospital located in Thompson, MB from October 1st, 2017 to July 1st, 2018.

**Results:** Twenty patients were evaluated: average age of 13.1 years, 15 were males, and 14 self-identified as Indigenous. Concussion mechanisms included hockey (50%), falls (35%) and assaults (15%). Median time from referral to initial telemedicine consultation was 2.0 days. After screening by the treating neurosurgeon, 90% of patients underwent initial consultation via real-time videoconferencing with 80% managed exclusively through telemedicine. Eighteen patients were clinically recovered, one remained in treatment, and one was discharged to a headache neurologist. There were 66 telemedicine encounters (57 videoconferencing appointments, 9 telephone follow-ups) representing an estimated cost avoidance of $40,972.94.

**Conclusions:** Telemedicine may be a useful and feasible approach to assist pediatric concussion programs with delivering timely, safe, equitable and cost-effective care to patients living in medically underserviced remote and northern communities in Canada. Future work is needed to evaluate how geographic, cultural, and socioeconomic factors impact outcomes following pediatric concussion and whether pediatric concussion telemedicine programs can provide sustainable care across more diverse northern and circumpolar regions of Canada.