



10th International Meeting on Indigenous Child Health

March 24-26, 2023 – Tulsa, Oklahoma

ORAL ABSTRACT PRESENTATIONS

#1 **What Our Mothers Need: Indigenous Maternity Experiences During the COVID-19 Pandemic** **WITHDRAWN**
Tyara Marchand, Erin Davis, Jennifer Leason*

Purpose: This work was started in response to the release of the 2009 What Mothers Say: The Canadian Maternity Experiences Survey. This report chose to leave out the voices of women who were First Nations living on reserve, women whose children were not living with them at the time of the survey and women living in psychiatric hospitals or prisons. To better serve all Indigenous mothers and children in Canada we thought it pivotal to take this research a step further and identify the gaps, barriers, and priorities these Indigenous women face.

Methods: Through Indigenous and decolonized methodologies, our research included discussions with Indigenous women, mothers, fathers, health care workers, and Elders and Knowledge Keepers across Canada. Through seven gatherings, fifty-seven participants shared positive and negative experiences of health care services, including midwifery care, prenatal, labor, birth and postnatal periods. Participants experiences during COVID-19 were captured and analyzed using thematic content analysis.

Results: Covid-19 brought a host of challenges for new parents and families. Our research aimed to understand and acknowledge the experiences and perspectives of childbirth during the COVID-19 pandemic. Our findings indicated that the cancelling of programs and services, or the shifting to online support, reduced accessibility to maternity healthcare resulting in mothers/parents to care for their children in isolation. The inaccessibility and isolation significantly impacted health and well-being, thus highlighting the systemic disparities occurring in the Canadian healthcare system. This further accentuated how our colonial health care system affects those it attempts to serve, especially in these complicated times.

Conclusions: Our research has shed light on the systemic inequities of Canadian healthcare with the Covid-19 pandemic accentuating the gaps within Indigenous maternity care. Sustainable maternal-child programs need to be created and maintained for long lasting effects on individuals. A system that prioritizes patient empowerment, health equity and community involvement is necessary to make significant impacts to quality of care for Indigenous mothers and babies in Canada.

#2 **Mental Wellness of Birth Helpers who are Restoring First Nation Birth Knowledge and Practices**
Stephanie Sinclair

Purpose: This presentation will examine the impact of Indigenous ways of knowing on the mental wellness. The doula or birth helper supported mothers as they welcome new life into the Nation. Indigenous communities have long recognized birthing as the beginning of the spiritual connection to family and community. The process of birthing has been medicalized and impacted by ongoing colonization, where the role of women supporting other women has been removed and replaced. Indigenous Doula training was developed by Wiji'idiwag Ikwewag – Manitoba Indigenous Doula Initiative to address needs identified in the community to support Indigenous women to uptake their original responsibilities. The birth helpers were trained over five days with continuing education opportunities and mentorship support.

Methods: The research question focused on the impact of practicing and promoting Indigenous knowledge as a birth helper on their own mental wellness. Mental wellness as defined by First Nations includes feeling hope, belonging, meaning, and purpose. The Birth helpers provided services in two northern Manitoba First Nation communities and in Winnipeg. The birth helpers were invited to participate in the hour-long interview through email. Ten birth helpers were interviewed of the 30 who were trained. The interview included questions about

their experiences and how being a birth helper relates to their mental wellness. The interview questions were developed in partnership with community advisory circles. The interviews were conducted over phone, in-person and then transcribed, validated by participants, and analyzed using grounded theory.

Results: The results indicated that reclaiming and restoring birth knowledge impacts hope, belonging, meaning and purpose. Some of the key themes were personal growth, identity, creating community and sharing and learning of Indigenous knowledge all related to their mental wellness. The presentation will review the findings and link to existing research on reclaiming and restoring Indigenous knowledge as an intervention to promote wellness.

Conclusions: Birth helpers are revitalizing Indigenous knowledge which was historically held by women to support mothers and families with culturally based care. Prior to the medicalization of birth and the evacuation policy, the delivery of a baby was a community event which provided community members and family the ability to celebrate, welcome and support the babies being born into their nations with culture, language, and connection to place. Birth helpers who support families and share Indigenous knowledge reported feeling connected, hope, and experienced personal growth. Many of the birth helpers also shared their knowledge with friends and family members. Reclaiming and practicing birth traditions is a first step to returning birth knowledge and eventually birth to communities.

#3 Restoring the Sacred Bond

Jolene Mercer, Southern Network of Care, Health in Common*

Purpose: The Restoring the Sacred Bond Initiative sought to improve maternal and child health, and strengthen cultural identity in Manitoba's First Nations communities, through access to culturally grounded birth helpers. The three-year pilot project, led by the Southern First Nations Network of Care (SFNNC) and Wijiidiwag Ikwewag, matched Indigenous Birth Helpers with Indigenous mothers at risk of having their infant apprehended into the child welfare system. The initiative was funded through a Social Impact Bond – a financial arrangement in which private investors provide the capital to fund the intervention and the Government of Manitoba repays the investors, with interest, based on achievement of agreed upon outcomes.

Methods: The methods included a comparison between families in the Initiative and a matched cohort of individuals based on historical data stored at the Manitoba Centre for Health Policy's data repository. A quasi-experimental design used propensity score matching to compare outcomes between mothers in the Initiative and a matched cohort of individuals based on historical data stored at the Manitoba Centre for Health Policy. In addition to comparing the number of days in care between participants and the matched control group, program evaluation focused on assessing program implementation and effectiveness. Findings from the program evaluation, based on observational data and interviews, sought to determine the degree to which the program delivered services that were responsive to participants' needs and contributed to enhanced health and wellbeing. The evaluation was overseen by an Evaluation Committee with representatives from partner agencies, Government of Manitoba, the RSB Project Board, the external evaluator and the University of Manitoba's Manitoba Centre for Health Policy. Ethics approval and permissions to access data for the purposes of comparing number of days in care were provided by the University of Manitoba Research Ethics Board and Manitoba's Health Information Privacy Committee.

Results: The results found that children born to mothers enrolled in Restoring the Sacred Bond had a lower chance of being taken into care in their first year than those in the control group. In addition the women referred to Restoring the Sacred Bond (RSB) tended to have more risk factors than women involved with SFNNC CFS Authority generally. The results showed that 24.5% of children in the RSB program group were taken into care in the first year of life, compared to 35.1% of children among control group members. In interviews, all participants (n = 26) said the program provided a positive and supportive experience that was responsive to family needs. The participants enhanced wellbeing through connections to Indigenous culture and identity, health services, addictions treatment, school and work opportunities and basic needs (housing, nutrition).

Conclusions: Restoring the Sacred Bond successfully achieved its goal of reducing days in care by preventing apprehension and reducing time spent in care. Children in the program spent an average of 29 fewer days in care than children in a matched control group. Despite challenges presented by COVID-19, participants felt well supported, sharing examples of connections made to support services, work, employment and strengthened social networks. Through strong relationships, Birth Helpers supported participants by offering holistic care, and being

available and accessible whenever they were needed. Cultural connections were strengthened through a focus on traditional teachings and Indigenous spirituality.

#4 **Implementing and Indigenous Birth Helper Program in Misipawistik Cree Nation**

Valentina McKay, Stephanie Sinclair, First Nation Health and Social Secretariat of Manitoba*

Purpose: Indigenous community-based Doulas can be categorized as a companion that provides continuous physical, emotional, and advocacy support with the incorporation of reconnecting mothers to their Nations' traditional birthing Knowledges. Misipawistik Cree Nation is a Cree community located 400 kilometers north of Winnipeg. There were 12 birth helpers trained and a community coordinator hired to develop and implement the program to meet the needs of the community. The birth helpers provided supportive services to 30 to 40 families each year. The goal of the birth helper program is to restore traditional birthing knowledge and practices that was impacted by colonization. The traditional role of First Nation women supporting other women during birth continues to be disrupted by the medical evaluation policy, where women are relocated at 36 to 38 weeks to urban centers to give birth (Health Canada Evacuation Policy). Examples of Traditional birthing practices can include and are not limited to; cradleboards, moss bags, bonnets, quilts, medicines for prenatal and postnatal care, as well as medicines and care for baby once born. The families who received support from an Indigenous birth helper were interviewed.

Methods: There were 20 families interviewed who received care from an Indigenous birth helper. The questions were developed in partnership with the local community advisory circle and conducted in person. The families were recruited through presentations at prenatal programs. The families were matched with birth helpers and the consent process was explained in person and a written copy of the consent form was provided to each participating family. The interviews were recorded, transcribed and validated with the participants prior to analysis. The interviews were analyzed using grounded theory. The interviews contained questions about the types of support they received through the program including Prenatal, birth, and postnatal and the impact it had on the wellbeing of their family.

Results: The Indigenous doula provide a variety of supports to families in MCN, including addressing the social determinants of health life providing meals on wheels, baby bundles and transportation to appointments. The results indicated that birth helpers have had a great impact on creating awareness of Indigenous knowledge about birth and parenting. The Indigenous birth helpers also provided opportunity for those that wanted to create a culturally safe space for birth and supported the inclusion of Indigenous birth practices. The results also showed that the birth helpers support was greatly valued by the families after the birth of the child. The birth helper program has resulted in families feeling more connected to community and to other families in the program.

Conclusions: The information gathered in Misipawistik Cree Nation in Manitoba, Canada; showcases the growing need for community-based doula services. Mothers joining the program are looking for a companion to share in both the grief and joy of new life. The lifespan begins before conception with the Spirit world, conception, pregnancy, and birth are all the first stages of new life. Supporting the trajectory of a mother will create ripple effects across generations that will last past the next seven generations.

#5 **Viral infections and co-infections among American Indian and Alaska Native children with acute respiratory illness, 2019–2022**

Marqia Sandoval, Rachel M. Hartman, Catherine G. Sutcliffe, Deionna Vigil, Chelsea S. Lutz, Dennie Parker, Amy Swango Wilson, Christine Desnoyers, Joseph Klejka, Mila Prill, Angela P. Campbell, Meredith McMorro, Jessica E. Atwell, Natasha Halasa, Jim Chappell, James W. Keck, Rosalyn J. Singleton, Laura L. Hammitt*

Purpose: Historically and presently, American Indian/Alaska Native (AI/AN) persons endure health and socioeconomic inequities that result in disproportionate burden of disease. AI/AN children experience high rates of acute respiratory illness (ARI).

Methods: We conducted surveillance for ARI in inpatient and outpatient AI/AN children age <5 years in the Southwest United States (Navajo Nation and White Mountain Apache Tribal lands) and Alaska (Yukon Kuskokwim Delta and Anchorage) over three years (November 2019–May 2022). Mid-turbinate nasal swabs were tested by

PCR for RSV, SARS-CoV-2, influenza viruses A, B and C, human metapneumovirus (hMPV), rhinovirus, adenovirus, and parainfluenza viruses (PIV) 1-4. The proportion of children with respiratory viruses and with co-infections pre-pandemic (Nov 1, 2019-Mar 14, 2020) and during the COVID-19 pandemic (Mar 15, 2020-May 31, 2022) were compared using a chi-square test.

Results: ARI decreased with pandemic onset; 362 children with ARI were enrolled pre-pandemic and 293 during the pandemic. Most children had a single virus detected. Pre-pandemic, RSV was the most commonly detected pathogen; during the pandemic, RSV, rhinovirus, and SARS-CoV-2 were most common. In the Southwest, the proportion of co-infections was similar pre-pandemic and during the pandemic, while in Alaska it was higher during the pandemic. Co-infections pre-pandemic most commonly included RSV in both sites. Co-infections during the pandemic most commonly included rhinovirus.

Conclusions: In these settings, the predominant cause of ARI among AI/AN children changed during the COVID-19 pandemic, with a notable decline in RSV, which could be due to a number of factors. However, RSV remained one of the most commonly detected pathogens in both single infections and co-infections.

#6 **Post-COVID conditions among Native American children in the Southwest US**

Catherine Sutcliffe, Verlena Little, Dennie Parker, Marqia Sandoval, Rachel Hartman, Alexa Kugler, Chelsea S. Lutz, Laura Hammitt, Melissa Briggs Hagen, Sharon Saydah, Tarayn A. Fairlie*

Purpose: Although acute COVID-19 has been milder in children ages <18 years compared with adults ages ≥18 years, there is a concern that children may suffer persistent symptoms. Native American children are underrepresented in studies evaluating persistent or new health problems at least 4 weeks following SARS-CoV-2 infection (post-COVID conditions; PCC). The objective of this study was to describe the PCC in a cohort of Native American children in the Southwest.

Methods: Within the context of a surveillance platform for respiratory infections, children were recruited from outpatient or inpatient settings for participation in a cohort study from February 2021 through August 2022. Children ages 0-17 years with laboratory-confirmed SARS-CoV-2 infection with or without symptoms were eligible. After enrollment, children were followed at 1, 3, 6, and 12 months; a questionnaire and chart review were performed at each visit. For this analysis, PCC was defined as any self-reported symptoms or documented medical complaints potentially related to their SARS-CoV-2 infection at any follow-up visits through 6 months among children enrolled through February 2022.

Results: Overall, 81 children (median age: 11 years; 54% male) were enrolled, including 49% who had received at least one dose of COVID-19 vaccine. Most (87%) children reported symptoms at enrollment, commonly cough (63%), runny nose (49%), sore throat (33%), fever (32%), and headache (30%); 9% were hospitalized for their illness. Among the 46 children followed through 6 months, PCC were found in 26%, 10%, and 22% of at the 1-, 3-, and 6-month visits, respectively. Common self-reported symptoms during follow-up were lethargy, cough, congestion, runny nose, and headache. Additional complaints included depressive symptoms, anxiety, and diarrhea.

Conclusions: In this cohort of Native American children with SARS-CoV-2 infection who were predominantly seen as outpatients for their acute illness, up to a quarter of children reported symptoms during 6 months of follow-up. The absence of a control group is a notable limitation; however, these findings are consistent with other pediatric studies and are consistent with the continued impact of SARS-CoV-2 infection on health and well-being. Recognition and awareness of on-going symptoms are important for parents, care givers, and health care providers to ensure children receive necessary care. Ongoing analyses will assess risk and protective factors for PCC.

#7 **Drive-Through Pediatric Sick Visits During the 2020 COVID-19 Pandemic: A Safe and Efficient Model for Testing, Treatment, and Evaluation of Native American Children in Rural Oklahoma**

Tangra Broge, Beth Feather-Mittelstet, Brittani Rushing*

Purpose: The COVID-19 pandemic has presented unprecedented challenges for the medical community and has taken an especially heavy toll on indigenous populations. Innovative approaches to evaluation, treatment and testing of sick patients are required to provide safe and effective care while protecting other patients and health

care workers from unnecessary COVID-19 exposure. In a post-pandemic era we have seen a significant upsurge in pediatric respiratory disease. Thus, we have continued this service to protect healthy children and infants from unnecessary exposure to RSV and similar respiratory illness.

Methods: Drive-through pediatric sick visits has the same advantages as drive-through testing: it promotes social distancing, prevents infectious individuals from entering an enclosed building, and offers efficiency and convenience to families.⁶ Our team, led by attending physicians and resident family medicine physicians, nurse practitioners, nursing leadership, operations and facilities managers, hospital administrators and information technology (IT) specialists developed a model for optimizing use of limited resources and minimizing both community and staff COVID-19 exposure via drive-through pediatric evaluation.

Results: Over 7000 patients have been served in our pediatric drive-thru since its inception in November 2020. In light of the recent surge in volume and severity of pediatric respiratory illness and hospitalizations, we anticipate its continued benefit during a post-pandemic era.

Conclusions: Our pediatric drive-thru is a novel approach and process for the evaluation, testing and treatment of common childhood cold and flu complaints during the COVID-19 pandemic while minimizing risk of disease spread amongst our vulnerable population. Further, at a time when pediatric respiratory illnesses are creating pediatric hospital-bed shortage nation-wide. This model has also proven to be a safe and effective method of care delivery for sick children while minimizing unnecessary exposure for healthy infants and children during routine health maintenance.

#8 **Engagement of Aboriginal children and their families during the COVID-19 Vaccination Program in Western Australia 2021-2022**

Francine Eades, Wanita Bartholomeusz, West Australian Aboriginal Elders, Leaders and Community Advice*

Purpose: During earliest stages of the rapid response of the West Australian Government to an international emergency in terms of the COVID-19 Pandemic, all Aboriginal people were prioritised. Strategies to engage with Aboriginal children and their families in a culturally secure ways was led by Aboriginal people working closely with the WA COVID-19 Vaccination Commander. To ensure high vaccinations rates and in turn higher rates of protection once COVID-19 breached our border.

Methods: Intensive community engagement strategies were employed including, empowering strategic Aboriginal advisors at the highest levels within the WA COVID-19 Vaccination Program to directly engage respected Elders and Leaders throughout the vast state of Western Australia. This enabled local Aboriginal Elders to embed their cultural protocols and ways of knowing, being and doing were abided by and those communities directly impacted how the WACVP was delivered.

Results: With the West Australian Government directions around border closures for as long as possible to delay COVID-19 entering the state, and Aboriginal community leadership and guidance from the very start, high rates of COVID-19 vaccination were achieved in comparison with other Australian States and Territories. (Data to follow - not on hand at time of abstract submission).

Conclusions: Ensuring Aboriginal peoples voices, input & leadership guided the WA COVID-19 Vaccination Program (WACVP) and was regularly communicated directly to the West Australian Government Steering Committee, via Aboriginal leaders at the table was crucial in terms of achieving best possible culturally secure engagement & in turn much improved vaccination uptake rates for Aboriginal children and their families.

#9 **Evaluation of a high efficiency particulate air (HEPA) filtration pilot project: formative research to support a future indoor air quality bronchiolitis clinical trial**

Madilyn Short, Rosalyn Singleton, Jennifer Dobson, James Keck, Gretchen Day, Jennifer Shaw, Matthew Hirschfeld*

Purpose: Alaska Native and American Indian (ANAI) children experience a high burden of acute and chronic lung disease. Wood stove use, poor ventilation, and indoor tobacco smoke contribute to indoor air pollution which lead to increased severity and frequency of respiratory infections in children. Portable high efficiency particulate air filter purifiers (referred to as HEPA filters) effectively improve indoor air quality.

Methods: In 2019 the Yukon-Kuskokwim Health Corporation (YKHC), a Tribal Health Organization that provides healthcare for 27,000 Alaska Native people in rural Southwest Alaska conducted a pilot project that provided education and HEPA filters to households of children with chronic lung conditions. We analyzed baseline demographic and housing data and interviewed household representatives to evaluate HEPA filter acceptability and use.

Results: We interviewed representatives from 11 households that received HEPA filters. Interviewees reported that the air filters were easy to use, quiet, not expensive to run, and beneficial to the health of their child and other family members. Interviewees believed that the HEPA filter improved their children's breathing by reducing congestion and coughing. Additionally, they reported improved ventilation, humidity control, and "cleaner" air in their homes. All interviewed families reported improvement in their child's health. Five households were still using the air filter three years after the pilot. Some households ended filter use because of equipment failure or lack of replacement filters.

Conclusions: Our evaluation suggests that portable HEPA filters are acceptable and feasible for use in rural Alaska Native households. Program support to address equipment issues could enhance sustained use of HEPA filters in households. This evaluation supports a future clinical trial to evaluate the impact of portable HEPA filter air purifiers on the lung health of Alaska Native children.

#10 Impact of a prenatal vitamin D supplementation program on vitamin D deficiency, rickets and early childhood dental cavities in an Alaska Native population

Melanie McIntyre, Rosalyn Singleton, Christine Desnoyers, Joseph Klejka, David Compton, Joseph Mclaughlin, Leanne Ward, Robert Schroth, Kenneth Thummel, Dane Lenaker, Rachel Lescher, Timothy Thomas*

Purpose: Prenatal vitamin D deficiency contributes to rickets and may impact enamel development. Early childhood rickets increased among Alaska Native (AN) children in the 1990s after decreases in vitamin D-rich traditional marine foods among Alaska Native woman of childbearing age. Alaska Native children experience high rates of early childhood cavities. We evaluated the impact of routine prenatal supplementation with 1,000 IU/d vitamin D3 initiated in Alaska's Yukon Kuskokwim (YK) Delta in Fall 2016.

Methods: We queried electronic health records of YK Delta prenatal women with 25(OH)D testing during 2015-2019. We analyzed serum 25(OH)D concentrations and vitamin D supplement refills in YK Delta women during early (6–19 weeks) and late (20+ weeks) pregnancy. We analyzed the association between maternal 25(OH)D levels and decayed, missing, and filled teeth (dmft) scores in their offspring. We evaluated the incidence of rickets among Alaska Native children during 2001–2021.

Results: Mean 25(OH)D concentrations increased 36.5% from pre-supplementation to post-supplementation ($p < 0.0001$); the percentage with deficient 25(OH)D levels (< 12 ng/mL) decreased by 66.4% to 5.0%. Women with ≥ 60 vitamin D3 refill days had higher late-pregnancy 25(OH)D than those with no refill days ($p < 0.0001$). Rickets cases among Alaska Native children aged < 10 years decreased from 4.88 cases per 100,000 during 2001–2016 to 2.51 cases per 100,000 during 2017–2021. Women with late-pregnancy insufficient 25(OH)D concentrations (< 20 ng/ml) had offspring with higher dmft scores than did those with sufficient 25(OH)D concentrations (OR 1.3, $p < 0.0001$).

Conclusions: Routine prenatal vitamin D supplementation of YK Delta women was associated with higher late pregnancy vitamin D concentrations, decreased dental caries among children aged < 36 months. There is a trend of decreasing cases of rickets. These findings support the Alaska Vitamin D Workgroup's 2018 recommendation for increased vitamin D supplementation in prenatal women living in Alaska.

#11 Caries risk assessment in preschool children: A pilot validation of the new Canadian caries risk assessment tool for use by non-dental primary health care providers

Robert Schroth, Adam Siray, Betty-Anne Mittermuller, Victor Lee, Ralph Hu, Olobukola Olatosi, Hamideh Alai-Tofigh, Lisette Dufour, Healthy Smile Happy Child Initiative Team*

Purpose: Early childhood caries (ECC) is a widespread but preventable disease that affects young children worldwide, particularly Indigenous children. Caries risk assessment (CRA) is essential for early advisement and the

successful management of dental caries. This is of particular importance for those groups at higher risk, such as Indigenous peoples, newcomers/refugees, and those living in rural or remote areas. This study assessed the use of a new Canadian CRA tool for children < 72 months of age to predict future caries development. This tool's development was sponsored by the Public Health Agency of Canada.

Methods: The Canadian CRA tool was developed primarily for use by non-dental primary health care providers. A prospective cohort study recruited children < 72 months from three dental clinics in Winnipeg, Manitoba. At baseline, the Canadian CRA tool was used to assess the child's caries risk based on information about sociodemographic factors, oral hygiene behaviours, and feeding practices provided by parents/caregivers via interview. The presence of dental caries was diagnosed using the World Health Organization criteria. Follow-up assessments were done after 12 months. NCSS (Kaysville, Utah) was used to analyze and compare data. A $p \leq 0.05$ was considered statistically significant.

Results: To date, 270 children have been recruited. A total of 190 children completed follow-up clinical assessments, and 181 completed CRAs. At baseline, most participants had high risk CRA ratings (72.1%), and had ECC (64.2%). Children with high risk ratings were more likely to have new caries at follow-up (OR=5.3; 95% CI: 2.5, 10.9), and were more likely to experience increases in dmft (OR=3.3; 95% CI: 1.5, 7.2) and dmfs scores (OR=6.6; 95% CI: 3.1, 14.4). The sensitivity and specificity for baseline CRA ratings and the development of new caries at follow-up were 59.9% and 77.4%, respectively (PPV=87.2%; NPV=42.7%).

Conclusions: Our findings show that the Canadian CRA tool has good potential to predict the development of new dental caries in preschool children. However, future population-based studies are recommended. Since few Indigenous Canadian children benefit from early dental visits, which increase the risk for ECC, implementation of the new Canadian CRA tool by non-dental primary care providers has the potential to improve young Indigenous children's oral health and set them on the right trajectory for optimal oral health through their lifetime.

#12 **Children's Oral Health Initiative: Contributing to Community-based Early Childhood Oral Healthcare in First Nations Communities in Canada**

Katherine Yerex, Bob Schroth, Gloria Lee*

Purpose: To review data from the Children's Oral Health Initiative (COHI) database to determine the impact that COHI is having on registered First Nations and Inuit children in three regions of Canada: Atlantic Canada, Saskatchewan and Ontario.

Methods: This study analyzed the COHI database between 2006-2016 to report the impact of COHI on Indigenous communities. Participating children ages zero to seven were divided into three groups to calculate the decayed, extracted and filled primary teeth (deft) scores. Analyses looked at the proportion of preventive services provided by COHI, including first dental visits, fluoride varnish applications, dental sealants and atraumatic restorative therapy (ART).

Results: The number of children enrolled in COHI increased from 4,773 in 2006 to 7,442 in 2016. The average participant age was 3.83 ± 2.19 years. The proportion of children receiving first fluoride varnish treatments was highest in Saskatchewan ($93.5 \pm 1.9\%$) and Ontario ($92.7 \pm 3.2\%$). The proportion of children receiving sealants was low across all regions; average range of 6.1% to 12.5%. Participants receiving ART increased from 2006 to 2012 in Saskatchewan (12.2% to 33.4%) and Atlantic Region (58.3% to 90%). There was a stable trend in the decayed extracted filled teeth scores with increasing age of participants in all regions.

Conclusions: With the high prevalence of dental caries and oral disease in children in remote First Nations and Inuit communities, COHI is a vital resource to increase access to preventive oral health care services. The data may not show significant decreases in deft scores. Still, the consistency of first dental screenings and the oral health preventative services offered in these communities prevent a considerable increase in deft scores.

#13 Diseases and mortality representation among children of the Uitoto indigenous people of the Colombian Amazon, 2019-2020

Marcela Benavides

Purpose: Infant mortality of indigenous children all over the world is higher than non-indigenous children. A baby born in a developing country is 14 times more likely to die in the first month of life than a baby born in an industrialized country. Geographical distance, access to biomedical services and healthcare practices are the main causes.

Methods: This study describes children diseases and mortality representations in indigenous communities living in the Colombian Amazon. It aims to understand the meanings and representations of the disease/sickness and the "native" diseases in children in macro, meso et micro levels, based on three symptoms: diarrhea, fever, and respiratory problems, that lead families to use or not biomedical services or being treated by shamans. This study presents findings based on participant observation in an Amazon native community and qualitative interviews, and ethnographic study with three groups of actors: pediatric healthcare professionals, three families from the Uitoto community and two shamans.

Results: Children's deaths are linked to several factors like environmental risks, territorial health coverage, but the most important is that the healthcare system is not adapted to needs and socio-cultural representations of indigenous population. So the community finds answers with the Traditional Medicine that biomedicine does not offer. Healthcare practices with the shaman are holistic and take into account the different components of what they consider to be the origin of the disease: the individual, the family, the society, the jungle/environment, and the spiritual world; The indigenous population suffer diseases that are not known or studied by biomedicine and, therefore, cannot be cured. They are afraid of biomedical practices, and are more confident of the shaman. In addition to the fact that ignorance of their health practices from health professionals is considered from their as discrimination.

Conclusions: The study shows the urgency of providing an adequate mediation to better understand the representations of diseases that the natives of the region suffer in order to provide an inclusive healthcare system and reduce differences in perception, not only for children's illnesses but for context of the Covid 19 pandemic and vaccine acceptability.

#14 Researching on Noongar Boodja: A community and stakeholder driven research strategy

Dan McAullay, Clair Scrine, Anne McKenzie*

Purpose: Conducted by the Centre for Improving Health Services for Aboriginal and Torres Strait Islander Children and Families (ISAC), the project aimed to develop a formal strategy for research with the Noongar community and/or Aboriginal people on Noongar country by identifying priorities for future research through consultation and workshops with key stakeholders. The key output was a report on project outcomes to identify gaps and opportunities to make a difference and provide a 'roadmap' for ISAC, the University and other organisations involved in the project, to influence and drive future research agendas.

Methods: Consultation with stakeholders was undertaken through three main steps and included:

1. Interviews with key informants from government, universities and research institutes, and Aboriginal organisations. Questions included:
 - What are the important areas /issues for future research for the community?
 - In what ways do you think research (and researchers) could be better serving the needs of the Noongar community?
 - What do you believe can strengthen the relationships between researchers, research institutions and the community?
2. A workshop with interviewees to discuss the findings.
3. Interviews and a workshop with community to discuss the project and seek consensus on the findings and next steps.

Results: 25 key informants took part in 19 interviews. They included researchers, senior university staff, government departments, health professionals and community members. The project highlighted gaps and concerns with how Aboriginal research is being designed, conducted and translated. Significantly, issues raised by

government and non-government agencies, health services and education were like issues raised by community. Issues included limited community engagement and involvement in the design and conduct of research; projects with little consideration for priorities and needs of those outside the research team; inconsistent, or lack of, commitment to translation; and the absence of efforts to prevent duplication.

Conclusions: Four key recommendations were identified for ISAC to lead. These included the areas of University policy, Research support, Cultural curriculum and Aboriginal representation across university and school committees. Three key recommendations for government policymakers included increased Aboriginal-led research funding, Ethics committee commitment to ensuring community consultation, and increased capacity building for policymakers to facilitate evidence-based policy development.

#15 Substance Misuse Prevention Trial in the Cherokee Nation

Hannah LaBounty, Juli Skinner, Bethany Livingston, Ashley Lincoln, Emily Ivanich, Terrence Kominsky, Melvin D. Livingston, Kelli Komro*

Purpose: Cherokee Nation Behavioral Health (CNBH) staff and Emory University public health scientists are collaborating on a substance misuse prevention trial funded by the National Institute on Drug Abuse of the U.S. National Institutes of Health as part of the Helping to End Addiction Long-term (HEAL) Initiative. The trial is focused on universal primary prevention for rural older adolescents living in or near the Cherokee Nation Reservation, a 6950 square mile area within 14 counties of northeast Oklahoma. We are implementing an integrated school, family and community intervention designed to promote mental health and prevent the onset and escalation of substance misuse.

Methods: We recruited 20 rural high schools and randomly assigned them to an intervention or delayed-intervention comparison condition. In fall 2021, following Cherokee Nation Institutional Review Board approved parent consent and student assent procedures, we enrolled and surveyed 919 10th grade students (87% response rate). Follow-up surveys are conducted every six months over three years. From January 2022 through spring 2024, we are implementing (1) Connect – a universal screening and brief motivational interviewing intervention within schools; (2) Family Action Kits mailed directly to homes, with corresponding media messages; and (3) community organizing to activate adults to take actions to protect youth.

Results: The mean age of youth at baseline was 15.5 and 28.9% report being American Indian only, 26.7% report being American Indian and another race/ethnicity, 35.1% report being White only, and 9.2% report being another race. During spring 2022 semester, the Connect brief intervention was implemented in all 10 intervention schools with 435 (82%) students. Three Family Action Kits have been mailed directly to parents/guardians. Kits include information, action tips, and resources to support parenting during the teen years. Two community organizers are conducting community assessments using tools and strategies to develop an understanding of community physical and social characteristics.

Conclusions: The trial is significant because it (1) focuses on universal primary prevention, (2) focuses on underserved rural and American Indian populations, (3) is conducted in close collaboration between CNBH and Emory University, (4) adapts previously tested and effective interventions, and (5) evaluates effects using a randomized cluster trial. Throughout initial implementation, we have learned the importance of our strong partnership and developing and sustaining relationships with community partners, engaging community to ensure cultural and developmental appropriateness, and having tribal oversight. These are all key to establishing trust and building confidence in research and showing how research can benefit Indigenous people.

#16 Plugging the gap: Using patient-led initiatives to address the burden of acute rheumatic fever and rheumatic heart disease in Fiji

Erini Tokarua, Ilikena Malo, Maria Mow, Fiona Langridge, Sainimere Boladuada, Jima Kailawadoko*

Purpose: Rheumatic heart disease (RHD) contributes to a significant burden of disease in lower-middle-income countries especially in indigenous communities. The high burden of disease in Fiji is associated with limited understanding amongst the indigenous community resulting in a missed opportunity to seek early intervention. Furthermore, the indigenous community lacks empowerment in accessing health care services. There is a need to

involve patients and their families in addressing this knowledge gap. The aim of this initiative was to develop a patient-led programme to bridge the gap between the community of People Living with RHD (PLWRHD) in Fiji and health care service providers.

Methods: The Fiji RHD programme recognised a need for patient-led awareness and education in its community work. An organic and iterative approach identified an indigenous Fijian champion with lived experience, as a mother of a child living with RHD, to lead, develop and implement patient focused activities targeting families of newly diagnosed, youths and those non-compliant to treatment. These involved schools, villages, settlements, workplaces, and faith based organizations resulting in the co-design of initiatives to identify, educate and empower more PLWRHD to be advocates of change.

Results: This initiative has increased patient involvement, which has led to improved health literacy and health seeking behaviours amongst the indigenous Fijian community. Lessons learnt from national and global level advocacy efforts using patient voices in engaging policy makers to address RHD led to calls for participatory partnerships between different stakeholders allying with those with lived experiences of RHD. With this in mind, the establishment of an independent patient-led civil society organisation has been initiated. Heart Heroes Fiji has become a strong advocacy partner and formed broad partnerships with relevant stakeholders.

Conclusions: The burden of acute rheumatic fever and rheumatic heart disease in Fiji is unacceptably high and in part due to health services that are not reaching the most-at-risk populations. Actions to address the burden must include culturally appropriate initiatives which prioritise collaborative leadership/partnership with PLWRHD as a necessary and important step to ensure services are fit for purpose. This approach can and will be an important driving factor towards an RHD-free Fiji and the enrichment of the lives of those affected by the disease.

#17 **Improving Literacy for School Success in Tribal Clinics**

Susanna Basappa, Sarah Atunah-Jay, Manisha Salinas, Supriya Behl, Karen Schaepe*

Purpose: Purpose: To deep-structure culturally adapt a Tribal Health Center literacy program to promote clinic and community priorities and to improve literacy program measures using community based participatory research (CBPR) processes.

Background: Reach Out and Read (ROR) is an evidence-based, clinic-located literacy program which improves language development and promotes literacy in the home. Cultural pride reinforcement is a racial socialization strategy in which caregivers reinforce history and traditions about the child's racial group and has been shown to mitigate the effects of internalized racism on children. The National Indian Education Study (NIES) provides important insight into the diverse experiences of American Indian/Alaskan Native (AI/AN) 4th and 8th grade students with data suggesting that families and teachers in areas with BIA schools and/or schools with high numbers of AI/AN students may value a ROR program that includes culturally and linguistically concordant books.

Methods: Mixed methods:

Qualitative: 6 focus groups evaluated knowledge, attitudes, and literacy/child wellbeing priorities. Cultural adaptations to ROR were developed from resulting themes for implementation.

Quantitative: pre-test, post-test surveys were administered to caregivers at well-child visits during which culturally appropriate books were given. Reading behavior and physician counseling on reading were assessed, summary statistics and bivariate analysis for reading and screen time were conducted.

Results: Focus group themes included recommendations for stickers, posters and bookmarks to introduce ROR to the community, use of Tribal-specific culturally grounded books and bilingual songs, read-alouds from a clinic physician, and use of online content to increase availability and reach. Data from 48 pre-test and 22 post-test surveys (pre-post) following implementation of these themes showed book recipients with an average age of 2.1-2.7 years old, >85% AIAN or AIAN&White, equal gender ratio, >85% Medicaid or IHS only insurance. Caregivers were >90% female, >75% AIAN or AIAN&White, >75% biological parents. 95% of providers gave books, >90% of providers discussed reading, with no difference pre/post surveys ($p=1.000$). Mean reading time increased from 5.31 to 5.45 days/week, although not statistically significant ($p=0.773$). Screen time increased, although not statistically significant ($p=0.063$), in the context that this study coincided with the first year of the COVID-19 pandemic. Post-test surveys were underpowered ($n=22$).

Conclusions: Focus group themes informed culturally grounded adaptations to ROR implemented within the Tribal Health Center. This proof-of-concept study provides insight into process and outcome when culturally adapting ROR programs to meet clinic and community priorities.

#18 Azhe'é Bidziil (Strong Fathers): Lessons learned from the evaluation of an American Indian (AI) fatherhood program to improve the health and wellbeing of Navajo fathers

Jennifer Richards, Tiffani Begay, Leander Staley**

Purpose: American Indian (AI, Native) men play a critical role in family and child health, yet there is a lack of community-based men's health interventions in AI communities. The Azhe'é Bidziil (Strong Fathers) study aims to address a significant gap in research by designing and implementing a culturally grounded health promotion program to increase economic stability, promote positive parenting, and build healthy relationships among Native fathers. The study protocol illustrates a community-engaged approach to developing and implementing a fatherhood program in two Diné (Navajo) communities.

Methods: Strong Fathers is a pre-post study to assess the preliminary impacts of the 12-workshop intervention on risk and protective factors associated with responsible parenting and, secondarily, the feasibility, acceptability, and satisfaction with the intervention. Eligible fathers are age older than 18 years, live within 50 miles of the participating Diné (Navajo) communities, and are caregivers of at least one child under the age of 24. The primary outcomes for this study are father involvement, quality of (co-) parenting communication, healthy relationships, fathers' engagement and communication with their children, protective factors, and economic empowerment and stability. Participants complete an outcome assessment at pre- and post-intervention. Secondary outcomes (acceptability, feasibility, and satisfaction) are assessed after every workshop and upon intervention completion.

Results: Strong Fathers recruitment and retention have been sustained by hiring facilitators with similar backgrounds and experiences as participants, building peer support through group-based workshops, providing a meal at every workshop, eliminating common barriers by providing transportation and childcare, offering flexible workshop schedules, conducting individual social support visits, and gift card incentives for attendance and assessment completion. The effects of historical trauma are also introduced by using a strengths-based approach that focuses on resilience and breaking unhealthy cycles. Lastly, land-based learning and optional family activities (e.g. hiking, fishing, sweat lodge, bowling) may coincide with workshops.

Conclusions: Results from this pre-post-study may inform a rigorously evaluated large scale intervention trial and replication in AI communities. By sharing lessons learned, Strong Fathers aims to support other men's health and fatherhood empowerment programs in achieving the long-term goal of strengthening AI societies and strengthening the sacred bond between AI fathers and their children.

#19 Walkern Katatdjin (Rainbow Knowledge): Aboriginal and Torres Strait Islander LGBTQA+ Youth Mental Health and Social Emotional Wellbeing

Bep Uink, Shakara Liddel-Hunt, Ashleigh Lin, Braden Hill, Yael Perry*

Purpose: Health inequities are experienced by Indigenous peoples globally, as part of the ongoing legacy of colonialism. Approaches to reducing this health inequity have so far taken a homogenizing approach that omits the unique needs of sexuality and gender diverse peoples within Indigenous communities. There is little Australian research, policy or resources for people who sit at the intersection of these marginalised identities, despite repeated calls from community advocates for more work in this area.

Methods: This presentation will explore the initial findings from an Australian national survey of 619 Aboriginal and Torres Strait Islander LGBTQA+ young people (14-25 years old). This study represents the first Australian data on the mental health and social and emotional wellbeing of Aboriginal and Torres Strait Islander LGBTQA+ young people. In addition to traditional measures of mental health such as psychological distress and suicidality, we tested unique measures of wellbeing based on Gee's (2014) model of Aboriginal social and emotional wellbeing. Risk and protective factors for mental health and social and emotional wellbeing will be identified using multiple regression analysis.

Results: Initial results indicate high levels of psychological distress and suicidality. For example, 45% of all participants had attempted suicide in their lifetime, and 77% reported very high levels of psychological distress. Despite these risks, participants reported high levels of connection to Culture, to Country, and pride in their Aboriginal and Torres Strait Islander and LGBTQA+ identities. Emergent risk and protective factors for mental health and social and emotional wellbeing offer avenues to addressing risk and leveraging protective factors in order to plot an effective response. Strengths will be highlighted to challenge the deficit model too-often applied to our communities.

Conclusions: These findings report on the mental health and wellbeing impacts associated with holding multiple marginalised identities and highlight the urgent need for a tailored response to improve the wellbeing of Aboriginal and Torres Strait Islander LGBTQA+ youth. Findings will be discussed in terms of how settler colonial systems worldwide respond to Aboriginal and Torres Strait Islander LGBTQA+ young peoples' health needs.

#20 **Implicit Bias. Kidz First Hospital New Zealand. The start of a journey**

Adrian Trenholme, Anton Blank, Ngāti Porou-Ngāto Kahungunu, Kimi Tangaere, Ngaati Poorou, Te Hao Appapa-Timu, Ngaati Ranginui, Ngaati Kahungunu, Ngaati Awa me Ngaati Poorou, Nalei Taufa, Flo Chan Mow, Miriam Manga, Ngati Kahungunu ki Wairoa, Minerva Ikimau, Shanthi Ameratunga. Cass Byrnes, Ngati Raukawa ki te tonga*

Purpose: Kidz First Hospital, in Auckland New Zealand developed a tiriti-based relationship with Manawhenua i Taamaki Makaurau in 2019. The collaboration identified addressing implicit bias in health care as a priority. This presentation highlights key activities within the initiative in progress, supported by an HRC activation grant awarded in 2020.

Methods: A local governance group was established supported by Manawhenua. With clear evidence of Implicit Bias in health care the group prioritised training for staff at Kidz First. Baseline whaanau and staff interviews were obtained. A literature review of Implicit Bias in paediatric health care was performed and a research proposal of discourse was developed, is underway and due completion by the end of March 2023.

Results: Maaori and Pasifika make up 33 out of 194 staff. There are no Maaori nurses or doctors, Whaanau demonstrated high health literacy and the majority were positive about Kidz First. 89 staff completed the survey ahead of attending a 90 minute implicit bias workshop. Staff enjoy working with Maaori and Pasifika patients, but are not confident that Kidz First provides a good service to them. 40% admit having racist thoughts about patients, and 40% agree that the health system is racist. The respondents feel that racism is a continuum of conscious and unconscious beliefs and behaviours. Comments included "Pakeha get a more responsive service". "Maaori patients can be challenging and stropky", "Pasifika patients are compliant". 117 staff out of 194 received a formal Implicit Bias training session which will be presented and formal feedback will occur when staff can participate in other than essential clinical duties. Discourse research review of clinic notes and staff hui/talanoa will be available by March.

Conclusions: The Kidz First workforce is receptive to the training and intervention and self-awareness of latent and explicit attitudes is high, which augers well for the developing programme of work. A specific ongoing Implicit Bias quality programme has been put in place. The audit, literature review and discourse research will enable the development of health outcome measures and practical system changes to drive and measure our progress.