



American Society for Circumpolar Health

2024 Annual Meeting Agenda

Friday, March 29, 2024

Noon – 1:00pm

**UAA Campus, Professional Studies Building, Room 166 (Parking is free!)
New Members Welcome!**

Zoom: [https://alaska.zoom.us/j/83941319647?
pwd=aW1uWU1KOFJ2VitVQUdMRGkrVXJNUT09](https://alaska.zoom.us/j/83941319647?pwd=aW1uWU1KOFJ2VitVQUdMRGkrVXJNUT09)

****Boxed lunches will be available for \$10 (\$5 student) donation to support the American Society for Circumpolar Health. ASCH membership forms will be available.**

12 – 12:30pm

Welcome/Buffer/Networking

12:30 – 1:00pm

ASCH Annual Meeting

Welcome

Neil Murphy & Abbie Willetto

Introductions

Membership Update

ASCH Election Results

Student/Board Members

Treasurer's Report

Tom Hennessy

ICCH18

Neil Murphy

Yellowknife Postponed

Update

Arctic Health Foundation Update

Patricia Cochran

Announcements from participants

Other business

1:00pm

Close of ASCH Business

Arctic Health Sciences Seminar Agenda

Friday, March 29, 2024

1:00pm – 4:30pm

UAA Professional Studies Building, Room 166 (Parking is free)

ZOOM LINK: <https://alaska.zoom.us/j/83941319647?pwd=aW1uWU1KOFl2VitVQUdMRGkrVXJNUT09>

1:00pm – 1:25pm

ASCH/IUCH Historian

Dr. Carl Hild, Retired, Past President ASCH

1:25pm – 1:45pm

Keynote, Robert Fortune Lecture.

Dr. Katie Cueva, Research Asst. Professor, Center for AK Native Health Research UAF

1:45pm – 1:55

Exploring COVID-19 Misinformation on Alaska-Based Social Media (Emily Maxwell, UAF)

1:55-2:05

Health Equity to Inform Action (Natalie Uy, UAA)

2:05-2:15

Evaluating Household Water Security in Remote Alaska
(Laura Eichelberger, ANTHC)

2:15-2:30

Questions & Break

2:30-2:40

Economic consequences of food spoilage in Alaskan rural supply chains (Mike Jones, UAA)

2:40-2:50

Thematic Analysis of the 2022 Outbreak of Avian Influenza in Alaska (Keelan Kenny, State of Alaska)

2:50-3:00

Healthy Smiles (Gretchen Day, ANTHC)

3:00-3:10

Fatal Orthopoxvirus in an Immunosuppressed Hospitalized Patient (Julia Rogers, CDC)

3:10-3:15

Questions

3:15-3:25

Increase in invasive Pneumococcal disease due to streptococcus pneumoniae serotype 4; Alaska 2013-22
(Laurie Orell, CDC)

3:25-3:35

Resident building evaluation of a senior housing building
(Ashley Hearn, UAA)

3:35-3:45

Congenital Syphilis in AK (Elizabeth Ohlson, SoA)

3:45-4:00

Questions & Break

4:00pm – 4:15pm

AMEPA (Albrecht Milan Emerging Professional) Award

4:15pm – 4:30pm

Closing Remarks

Presentation Abstracts

Exploring COVID-19 Misinformation on Alaska-Based Social Media

Author: Emily Maxwell (UAF)

Background: The COVID-19 pandemic created an influx of misinformation and false narratives, triggering an infodemic of unparalleled magnitude. Natural language processing is a machine learning method used to gain insight into infodemics, particularly with large datasets. Objectives: This study assessed the feasibility of utilizing a social media listening tool and natural language processing methods to produce a model of misinformation topics. We sought to identify and understand the prevalent themes in COVID-19 misinformation. Design: Data were collected from select Facebook pages from 2021 to 2022. We utilized LDA, a natural language processing technique, for topic modeling. Methods: Data were preprocessed into a suitable format for input into an LDA model. LDA then identified latent topics by using qualitative interpretation of the most salient words. A time series analysis then identified trends in misinformation over the monitoring period. Results: A total of 4,265 unique posts were collected from 30 websites, out of which four main topics emerged: "treatment," "vaccine safety," "false reporting," and "COVID spread." Each had a specific peak period coinciding with key events in the pandemic, illustrating the potential benefit of using LDA for identification and classification of COVID-19 misinformation. This approach provides a foundation for addressing misinformation as well as informing evidence-based strategies to combat the misinformation and enhance public health communication.

Health Equity to Inform Action

Authors: Natalie Uy and Katy Wright (UAA)

The Alaska Center for Rural Health and Health Workforce (ACRH-HW) has been working diligently to empower healthcare providers across Alaska to improve health equity in their communities. The team designed and distributed a survey to healthcare workers in the winter of 2022 with the goal of gaining input to guide the development of continuing education courses with a distinct health equity lens. The survey was designed to inquire about training needs that will reduce inequities and improve social determinants of health in communities across the state. The survey results informed the development of trainings to address these needs. All training is housed on the CACHE-Clearinghouse for Alaska's Continuing Health Education, which was designed in partnership with the State of Alaska Department of Health Division of Public Health. The CACHE serves as a one-stop-shop for healthcare professionals to find continuing education credits and training. To date, the results have informed the development and/or deployment of an in-person experiential training on the Arts of Traditional Healing; self-paced trainings including Interprofessional Responses to Fetal Alcohol Spectrum Disorders and Cultural Foundations training; and Mental Health First Aid Mondays, offered in multiple formats including live on-line, blended with self-paced pre-work or in-person. The Center provides timely, actionable, and measurable continuing education that improves the health equity of Alaskan communities.

Evaluating Household Water Security in Remote Alaska: Lessons Learned from the 5-year PASS Health and Wellbeing Study.

Authors: Laura Eichelberger, Amanda Hansen, Marla Wehrli, MaKaela Dickerson, Valerie Tony (ANTHC)

In Alaska, over 4,600 Alaska Native/American Indian people lack complete plumbing systems (hot and cold piped water, bathtub or shower, flush toilet) (Census Bureau, 2022b). Many of these households self-haul limited quantities of water, leading water reuse and higher A multi-disciplinary team of researchers have been evaluating the systems' affects on water access, use, hygiene, health, and wellbeing throughout these phases of the PASS intervention. In this presentation, we describe the phases of the 5-year evaluation, and strategies we used to address challenges, such as the COVID-19 pandemic. We conclude by sharing our main findings, limitations of the sytem, and future directions.incidence of water-wash disease. In response to these ongoing inequities, in 2016 the Alaska Native Tribal Health Consortium (ANTHC) developed and piloted the Portable Alternative Sanitation System (PASS) to address water and sanitation needs in unplumbed Alaska Native households. The original PASS project took on new importance during the COVID-19 pandemic, due to the increased risk of SARS-Cov2 infection in households without indoor plumbing (L. Eichelberger et al., 2021; Rodriguez-Lonebear et al., 2020). During the pandemic, ANTHC received donor funds from the CDC+F to modify and install smaller versions of the PASS (Mini-PASS) in order to provide in-home flowing water for handwashing.

Economic consequences of food spoilage in Alaskan rural supply chains

Author: Mike Jones (UAA)

Retail food supply chains are challenging in Arctic environments, particularly for fresh produce which is key to healthy diets. In Alaska, ~80% of communities and over 20% of the population live off the road system and rely on aviation supply chains for the majority of retail grocery items. Statewide availability and affordability of fresh produce is a key priority for the AK DHHS "Food is Medicine" initiative, and a cornerstone goal of the legislature's Food Strategy Task Force. However, rural grocery retailers report large quantities of fresh produce is "nonsellable on arrival" due to extreme temperature exposure and is sent to landfills. We present the first quantitative evidence of the extent and seasonality of product-level spoilage in transit to rural Alaska, leveraging a unique private sector dataset. We then further decompose the analysis to losses at the nutrient level.

We focus here on initial descriptive results, pending incoming data to permit econometric analysis. We disaggregate 2018-2022 monthly losses across 35 communities and cross-reference 700 distinct UPCs with the USDA's Food Data Central database. We estimate spoilage in transit of ~1.3M servings of fruit/vegetables for just one rural grocery retail chain, with 360k servings lost in 2022 alone. Initial nutrient-level decompositions indicate the greatest daily value losses are in Vitamins C, E, B6, K, A, Potassium, and Dietary Fiber. We tentatively extend to estimate per-capita losses across rural catchment areas, though this will be refined with anticipated arrival of data on retailer market shares.

We descriptively connect spoilage to detailed data on outages in key aviation infrastructure that impedes air traffic flow, leading to delays and prolonged exposure. Monthly patterns show greatest losses in summer and winter, reflecting seasonally exacerbated impacts of freeze/chill storage deficits and clogged supply chains disrupted by poor visibility and outages in weather stations to permit instrument-assisted landings.

Thematic Analysis of the 2022 Outbreak of Avian Influenza in Alaska: An Interviewee Perspective

Author: Keelan Kenny (State of Alaska)

The 2022 avian influenza (AI) outbreak in the United States (US) came with large economic consequences. In Alaska, AI posed not only economic concerns, but also food security concerns as wild birds represent a critical subsistence food. The importance of birds in Alaska necessitates monitoring and controlling diseases that threaten this subsistence resource. The state of Alaska responded to the 2022 outbreak of AI with a One Health approach by involving a wide range of Tribal, state, federal, and other stakeholders. The following study therefore functions to assess the response to the 2022 outbreak of AI in the state. Semi-structured interviews were conducted with Tribal, state, federal, and other key stakeholders (n = 12). Interviews were then transcribed, de-identified, and analyzed for thematic trends. Analysis revealed four thematic categories: 1) successes, 2) lessons learned, 3) disconnects, and 4) additional takeaways. “Successes” and “lessons learned” reflect categories in which 2 or more interviewees communicated a similar experience. “Disconnects” include differences across interviewee perspectives that also arose during interview thematic analysis. Finally, additional takeaways serve as an opportunity to discuss items of import that did not fit into the preceding categories. Interviewing Tribal, state, federal, and other key stakeholders provided a wealth of information on the response to the 2022 outbreak of AI. Interview analysis should provide a baseline for further discussion amongst stakeholders with the goal of enhancing zoonotic disease surveillance and response in future outbreaks.

Healthy Smiles: Early childhood care coordination to address oral health disparities

Author: Gretchen Day (ANTHC)

By 6 years of age, 73% of Alaska Native children in the Yukon-Kuskokwim (YK) region of southwestern Alaska have had a full mouth dental reconstruction (FMDR), requiring general anesthesia for the treatment of extensive early childhood caries. The presence of early childhood caries affects health, sleep, eating habits, and performance in school. While it is uncommon for YK Delta children to receive an oral health exam by age 24 months (12%), almost all (80%) received standard vaccinations during this period of their lives. Vaccinations require 5 visits to a clinic where frequently, both Community Health Aides and Dental Health Aide Therapists are co-located. Building upon the sustained success in achieving high vaccination rates among children in the region, researchers from ANTHC and YKHC will collaborate to improve the reach and coordination of dental services for children in a project called Early Intervention for Childhood Caries to Address Alaska Native Disparities in Oral Health. We will discuss this collaborative project to implement and evaluate care coordination. Our aims are: (1) to explore facilitators and barriers to oral health care including the integration of dental and well child visits for children, (2) to design an implementation plan for integrating a care coordinator position into the well child visit workflow, to systematically reach children for an oral health exam prior to age 24 months, (3) to compare stakeholder-reported, implementation process and clinical outcomes.

Fatal Orthopoxvirus Infection in an Immunosuppressed Hospitalized Patient — Alaska

Author: Julia H. Rogers, B. Westley, K.G. Newell, J. Laurance, A.K. Rao, A. McCollum, W. Davidson, W.C. Carson, M.B. Townsend, J.B. Doty, C.L. Hutson, Y. Li, K. Wilkins, J. Deng, C. Gigante, S.S. Panayampalli, A. Tuttle J. Wright, L. Castrodale, J. McLaughlin (CDC)

***Abstract withheld from public circulation at this time.

Increase in invasive Pneumococcal disease due to streptococcus pneumoniae serotype 4; Alaska 2013-2022

Author: Laurie Orell (CDC)

Background. Pneumococcal conjugate vaccines (PCV) have substantially reduced invasive pneumococcal disease (IPD) in the United States, including Alaska. However, *Streptococcus pneumoniae* serotype 4, which is included in PCV recommended in the United States, has emerged as an important cause of disease in some populations. **Methods.** We used statewide, laboratory-based surveillance data to calculate incidence per 100,000 Alaska residents and 95% confidence intervals (CI) for serotype 4 IPD during 2013–2022. We compared average annual rates during 2013-2017 and 2018-2022, and described the characteristics of serotype 4 IPD cases. **Results.** Among 1,382 IPD cases with serotype data from 2013-2022, 324 (23%) were caused by serotype 4 for an average annual incidence of 4.4 per 100,000 persons (95% CI: 3.4-5.4), including 0.1 per 100,000 children aged <18 years (95% CI: 0.0-0.3) and 5.8 per 100,000 adults, aged ≥18 years (95% CI: 5.2-6.5). Overall, average annual rates of serotype 4 disease increased from 0.1 per 100,000 (95% CI: 0.0-0.1) during 2013-2017 to 8.8 (95% CI: 7.8-9.7) during 2018-2022. Serotype 4 accounted for 0.4% (2/493) of IPD cases during 2013-2017 compared to 36% (322/889) during 2018-2022. Among the 324 persons with serotype 4 IPD during 2013-2022, 321 (99%) were aged ≥18 years, 287 (89%) had an underlying medical condition, 81 (25%) were persons experiencing homelessness, and 35 (11%) had received ≥1 dose of any PCV. **Conclusions.** Serotype 4 has recently emerged as a substantial contributor to IPD among adults in Alaska. Continued monitoring is needed to better understand the epidemiology and future impact of PCV use among adults.

Resident building evaluation of a senior housing building

Author: Ashley Hearn (UAA)

Background & Purpose. The presenter will discuss the process of completing a resident building evaluation of a senior housing building located in South Anchorage, AK. The building, named Qevu, is a newly developed senior housing property in Cook Inlet Housing Authority's (CIHA) portfolio. The resident building evaluation was conducted by CIHA's Community Development Dept., along with the 2023 Community Development Public Health Fellow, Ashley Hearn. CIHA is a tribally designated housing entity serving the Cook Inlet region whose mission is to create housing opportunities that build community and empower the people of Southcentral AK. The purpose of this building evaluation was to collect and analyze feedback from residents' lived experience one year into operations, then compare results to the staff evaluation of the building which occurred prior to lease-ups. **Methods/Activities.** CIHA piloted an approach new to the organization, called Participatory Action Research (PAR), for resident outreach aimed at building trust with residents through more intentional participatory survey methods. The presenter and team offered numerous opportunities for participation, including a pre-survey gathering, five in-person survey tabling events, and a post-survey potluck. Evaluation surveys took place in October 2023, about 1.5 years after initial lease ups. **Results.** Out of 49 occupied units, 39 residents completed the survey (80% response rate). Residents were able to complete the survey via various methods, including email (14), paper-copies (18), phone (4), and in-person (3). Results demonstrated high satisfaction and recommendation rates, and a stable outlook. **Conclusion.** This evaluation process was a great opportunity to find creative ways to enhance communication between property staff, evaluation staff, resident services, and residents. It was also concluded utilizing a PAR approach was an effective method to discover resident education opportunities as well as manage expectations.

Congenital Syphilis in AK

Author: Elizabeth Ohlson (State of Alaska)

Background: Congenital syphilis (CS) is a serious illness caused by syphilis infection during pregnancy that can lead to miscarriage, stillbirth, neurological problems, and infant death. CS is preventable with adequate screening and treatment during pregnancy. In Alaska, CS cases increased from an average <1 case reported per year during 2012–2019 to an average >8 cases reported per year during 2020–2022. The Alaska Section of Epidemiology analyzed 2020–2023 case data to identify factors contributing to CS and developed Alaska-specific mitigation strategies. Methods We reviewed available DPH maternal case investigation and partner services records for 35 probable and confirmed 2020–2023 Alaska CS cases. We identified and categorized possible contributing factors and developed responses guided by these findings. Results: Of 35 maternal records reviewed, 34 (97%) expectant mothers had inadequate prenatal care (≤ 3 visits), 20 (57%) had no prenatal care, 19 (54%) experienced unstable housing or homelessness, 5 (14%) had experienced documented sexual assault or intimate partner violence, 29 (83%) had documented methamphetamine (26, 74%) or opioid (13, 37%) use during pregnancy, and 12 (34%) had known, inadequately treated syphilis before pregnancy. Other barriers to care included transportation difficulties (5, 14%) and not having a phone (6, 17%). Of 20 persons with no prenatal care, 6 (30%) visited an emergency department at least once during pregnancy. Discussion: During 2020–2023, most Alaska infants with CS were born to mothers who had inadequate or no prenatal care and who were experiencing addiction, homelessness, or both. DPH launched a public awareness campaign to promote symptom recognition and testing, and to prompt treatment of syphilis among sexually active Alaskans. DPH expanded the disease intervention specialist workforce to conduct case investigation and partner notification and is partnering with healthcare and community organizations to expand syphilis testing and treatment availability, including during pregnancy.