

Nuuk, Grønland 5.-7. Oktober 2019



NUNAMED 2019

– en grønlandsmedicinsk konference



10. NUNAMED – BEVÆGELSE I SUNDHED

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NUUK, GRØNLAND 5-7 OKTOBER 2019



NUNAMED 2019

FAGLIGT PROGRAM

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12.30 – 13.30 Frokost · Lunch, Hotel HE		12.30 – 13.30 Frokost · Lunch, Hotel HE	
13.30 – 15.00		13.30 – 15.00	
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Thematic sessions, Hotel HE <ul style="list-style-type: none">• Aldring og ældrepleje - politik og praksis (DK/ ENG)• Workshop om sorg og sorgarbejde i Grønland - kortlægning og muligheder fremadrettet (DK).....• Hørelse og Mellemøreinfektioner (ENG/DK).....• Hvordan forbedrer vi folkesundheden (DK)• Telemedicin og Sundhedsdata (DK/ ENG)	22 24 25 28 31	Thematic sessions, Hotel HE <ul style="list-style-type: none">• Miljømedicin (ENG/DK)• Psychiatry and mental health (ENG/DK)• Diabetes (ENG/DK)• Dietary transition (ENG)• Patient perspective and culturally relevant methods (ENG/DK)	43 46 49 52 54
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FAGLIGT PROGRAM

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• Sundhedsvæsenet i Grønland (DK/ENG)	62		
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11.00 – 12.30			
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• Helsetjenestens opgaver ved seksuelle overgreb (DK)	68		
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12.30 – 13.30 Frokost · Lunch , Hotel HE			
13.30 – 15.00			
Thematic sessions, Hotel HE			
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• Infections (ENG/DK)	75		
• Panel: Sharing youth perspectives and innovations across the Arctic (ENG)	77		
• Rehabilitering/Palliation samt organisering i Sundhedsvæsenet (DK)	77		
15.00 – 15.30 Kaffepause · Coffee break			
15.30 – 17.00			
Keynotes Katuaq			
Christoph Lange – <i>Multidrug resistant tuberculosis</i>	7		
Magritt Brustad – <i>Vitamin D in the Arctic</i>	7		
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Gala dinner at 19.00 at HHE			

KEYNOTES

ÅBNINGSCEREMONI KATUAQ

Naalakkersuisoq for Sundhed · Minister of Health
Martha Abelsen
Arrangørerne & de fire Organisationer

KEYNOTES:

Health and health care in Greenland in 2019 *Henrik L Hansen*

Purpose: Health, disease patterns and healthcare is under constant and rapid change also in Greenland. This presentation will give an overview of the most important health challenges and trends in the Greenlandic society today. This will be followed by a short presentation of the present status and challenges of the healthcare system in Greenland.

Material and methods: The presentation is based on the newest data and information collected in the office of the chief medical officer in Greenland and other available sources.

Fysisk træning som medicin – fra menneske til molekyle *Bente Klarlund Pedersen*

Der er sket et paradigmeskift indenfor behandling af patienter med kroniske sygdomme. I flere år har det været kendt, at regelmæssig fysisk aktivitet nedsætter risikoen for omkring 35 forskellige sygdomstilstande. Det relativt nye er, at fysisk træning har en plads i behandlingen af en lang række kroniske sygdomme, også udenfor bevægeapparatet. Det gælder så forskellige sygdomme som cancer, type 2 diabetes/metabolisk syndrom, hypertension, hjerte-karsygdomme og kronisk obstruktiv lungesygdom (KOL).

Center for Aktiv Sundhed på Rigshospitalet er et translationelt forskningscenter, der dels undersøger de molekylære mekanismer hvorved fysisk aktivitet påvirker inflammation, metabolisme og tumorvækst, dels udfører kliniske træningsstudier med henblik på at undersøge i hvilket omfang fysisk træning kan anvendes som behandling. Et selvførtstående mål er at formidle og implementere forskningsbaserede træningsinterventioner i kommuner og på hospi-

taler. Foredraget fokuserer på fysisk træning af personer med type 2 diabetes og cancer.

Sund by *Asii Chemnitz Narup*

Vi må til stadighed stille hinanden spørgsmålet: "hvordan udvikler vi vore byer, så vi sikrer, at alle mennesker trives med høj livskvalitet og således, at byudviklingen understøtter folkesundheden?"

Mit indlæg vil tage afsæt i både det brede sundhedsbegreb og FN's 17 verdensmål for bæredygtig udvikling.

Jeg vil også komme med konkrete eksempler på, hvordan jeg har været med til at arbejde med byudvikling som kommunalpolitiker i mine 11 år i Kommuneqarfik Sermersooq.

Er du dine gener? *Lone Frank*

Den genetiske revolution ruller hen over os og forandre den måde vi opfatter og forstår os selv. For der viser sig at være overaskende meget genetik i forskellige aspekter af det der gør os hver især til den vi er. Men hvad betyder det for den enkelte at både personlighed, temperament og dispositioner for psykiske lidelser formes af biologisk arv? Mange er nervøse for, at viden om vores genetik bliver en individuel spændetrøje, men måske er den snarere et værktøj til bedre at kunne forme sit liv. Samtidig lægger udviklingen op til en debat om, hvordan samfundet og dets institutioner forholder sig, når borgernes arvemasse findes i nationale databaser, og kan bruges til en helt ny type biologisk socialforskning.

Ageing in the Arctic. Everyday health practices and perceptions of older people *Tenna Jensen*

The health status and behavior of older people is a subject, which has attracted growing amounts of international scientific attention since the mid-20th century. In an Arctic context, interest in qualitative and collaborative ageing research methods and insights has been increasing in recent

years. Studies of everyday health practices and perceptions among older people and their social and care relations focus on what is important for the individual older person and how their values and conditions of life are negotiated in an interplay between individual traits and past and present cultural and societal structures. Knowledge about the complexities of everyday health behavior in old age is important to the understanding of the individual and societal rationales and priorities influencing the everyday life of older people as well as in the development of care and health promotion initiatives targeting this group of citizens. The lecture will focus on recent trends within Arctic ageing research and introduce the collaborative and qualitative work in the AgeArc project, including how a diverse set of actors are engaged in developing and implementing cultural and age sensitive initiatives.

Health in Remote Communities – The story of the Qaujigiartit Health Research Centre and our Piliriqatigiinniq health research model

Gwen Healey Akearok

It is well-known in Canada that northerners face a number of challenging circumstances when it comes to health. There are also tremendous strengths in communities to address local health concerns, such as a willingness to work together, pathways to wellness that have existed for centuries, and strong cultural pride. Drawing upon existing community strengths and resources, and strengthening capacity to lead and conduct research in the North, is the key to addressing a number of health concerns presently and over the coming years. This presentation will tell the story of the creation and evolution of the Qaujigiartit Health Research Centre and our model that facilitates the inclusion of Inuit Qaujimajatuqangit and western methods and in addressing health concerns, creating healthy environments, and improving the health of Nunavummiut.

Hjerter af grønlandsk guld – en grønlandsk hjerterejse

Uka Wilhjelm Geisler

Tidligere hed det sig, at der ikke fandtes hjertesygdomme

i Grønland. Som hjertelæge på Dronning Ingrids Hospital og rejsende rundt i Grønland, har jeg set de fleste af de syge hjerter der findes i hele landet – store hjerter, trætte hjerter, tykke hjerter, bange hjerter og sorgfulde hjerter; men også forelskede hjerter og hoppende hjerter samt små børne hjerter på størrelse med en rypes hjerte. Fælles for dem alle er, at de er fulde af varme, blod og kærlighed. Denne grønlandske hjerterejse vil jeg gerne tage deltagerne til Nu-naMed-konferencen med på.

Mange bliver allergiske i fiskeindustrien

Niels Ebbehøj

Gennem mere end 10 år er ca. 400 patienter med arbejdsværende lidelser blevet undersøgt i Grønland. Undersøgelserne sættes i værk efter anmeldelse til Center for Arbejdsskader i Nuuk, som finansierer den arbejdsmedicinske service i Grønland. De seneste år har et forskningsprojekt også systematisk afdækket forekomsten af luftvejslidelser og allergi i fiske- og skaldyrsindustrien.

En forekomst af sensibilisering overfor rej- og krabbe-protein på hhv. 25% og 30% i skaldyrsindustrien hænger sammen med en alt for stor forurening med aerosoler fra produktionen på fabrikker og trawlere. Tilsvarende har over 20% af de ansatte mistænkt eller påvist arbejdsværende astma.

Allergi og astma i fiskeindustrien, ryg- og bevægeapparatsmerter hos fiskere og i byggeindustrien, samt stress problemer i den offentlige sektor er kendtegnet for de arbejdsmedicinske patienter i Grønland. Indeklimaet er en særlig udfordring under arktiske forhold, og et stigende antal patienter med indeklimagener bliver anmeldt og hvert år får flere diagnosticeret indeklimaudløst astma ved den arbejdsmedicinske udredning.

Resultaterne fra den arbejdsmedicinske udredning bliver hvert år delt med Arbejdstilsynet i Grønland, og er på den måde med til at give tilsynet et godt prioriteringsgrundlag for indsatsen. Sygehusene i Grønland får besked om resultatet af undersøgelserne, så de også har mulighed for at holde opmærksomheden på sygdomme udløst af arbejdet i Grønland.

Men for at systemet kan bidrage til at højne sikkerheden på Grønlandske arbejdspladser og at de skadelidte kan få den kompensation de har krav på, er det vigtigt at lægerne på sygehusene bruger hjemmesiden www.anmeld.gl til at rapportere mistænkte arbejdsværende lidelser blandt patienterne.

Diabetes i Grønland – klinik og forskning

Michael Lynge Pedersen & Marit Eika Jørgensen

Baggrund: Diabetes er i løbet af de sidste 30 år blevet en hyppig sygdom i Grønland. Baggrunden for dette er, at befolkningen bliver ældre, at kost- og fysiske aktivitetsvaner har ændret sig, og at forekomsten af fedme er stigende. Betydningen af disse risikofaktorer forstærkes af, at mange grønlændere har en genetisk disposition til diabetes.

Metode: Data fra Livsstilsambulatorierne og fra befolkningsundersøgelserne i Grønland ligger til grund for oplægget. Foredraget vil blive en diskussion mellem de to oplægsholdere som vil udfordre hinanden på en række væsentlige spørgsmål.

Resultater: Følgende spørgsmål vil blive besvaret: Hvor mange har diabetes i Grønland – og hvilken rolle spiller den diagnostiske metode for den formodede sygdomsbyrde? Hvad er forekomsten af graviditetsdiabetes og hvordan kan vi bedst screene for det? Hvordan forebygges diabetes – i teorien og i den praktiske virkelighed? Skal genetisk testning være en del af standarddiagnostikken for diabetes i Grønland? Ses samme grad af sendiabetiske komplikationer i Grønland som i vestlige befolkninger? Skal diabetes behandles på samme måde i Grønland som i vestlige befolkninger

Konklusion: Oplægget forventes at stille skarpt på problemstillinger af væsentlig betydning for fremtidens forskning i- og behandling af diabetes i Grønland.

Multidrug resistant tuberculosis

Christoph Lange

In the year 2015, the World Health Organization (WHO) has proclaimed the EndTB strategy with the following ambitious goals by the year 2035 (compared with 2015); 95% reduction in tuberculosis (TB) deaths, 90% reduction in TB-incidence rate (less than 10 TB-cases per 100,000 population) and no affected families facing catastrophic costs due to TB. However, according to the latest WHO report, estimated numbers of patients with TB have increased from 8.6 million in 2012 to 10.0 million in 2017 and numbers of

patients identified with multidrug-resistant TB (MDR-TB) have increased from 84,000 to 161,000. Estimated numbers of patients with MDR-TB are approximately 3 times higher with the proportion of patients with MDR-TB being especially high in the European region of the WHO. Without control of MDR-TB and the development of a preventive vaccine, it appears that the goals proclaimed in the EndTB strategy are far to optimistic, which also highlights the importance of not introducing MDR TB in Arctic settings where TB incidence is high and TB control challenging.

Vitamin D in the Arctic

Magritt Brustad

Vitamin D is essential for bone health, muscle function and for normal calcium and phosphorous homeostasis. The interest for and research on vitamin D and different health outcomes have increased markedly the last decade. Vitamin D is believed to have physiological importance beyond the muscle and bone system.

Vitamin D can be obtained from both diet and the skin upon exposure to UVB-radiation. The nature of these sources makes vitamin D of special interest in an Arctic context.

Due to high latitude, cutaneous production of vitamin D is absent a considerable part of the year, thus making the dietary contribution to vitamin D important for the population in the North. Dietary sources to vitamin D are few in number. It is mainly found in seafood with high fat content. Vitamin D food-fortification is common. However, the food fortification policy differs between countries, as well as the use of cod liver oil supplement.

Studies have shown that the use of traditional food is a significant predictor for vitamin D status in Arctic populations. A shift away from use of traditional foods towards a more westernized diet increases the risk for vitamin D deficiency. Studies have shown that Arctic populations with frequent use of food from the sea have satisfactory vitamin D status during winter.

The marine sources to vitamin D are to some degree also sources to persistent organic pollutants. Thus, the theme vitamin D in the Arctic also includes food safety perspectives.



TEMASESSIONER

Lørdag · Saturday 5. Oktober 2019, kl. 13.30 – 15.00

HEALTH AND WELLBEING IN OLD AGE *Moderator Tenna Jensen og Stig Andersen*

This session brings together researchers from different research fields working on health and wellbeing in old age. The presentation reports on ageing in Greenland and

the Arctic part of Norway. The session represents both medical sciences and humanities with topics such as physiological changes, health, and everyday life and life course.

Kort introduktion på vegne af Departementet for Sundhed

Tine Pars

Udfordring i aldring – fysiologiske ændringer med aldring og betydning for det at blive gammel i Grønland

Stig Andersen

Alderdomshjemundersøgelsen i Grønland

Stig Andersen

Indsamlede data fra alderdomshjem dækende hele Grønland vil indgå i præsentationen, således fra såvel Nuuk som fra større byer og mindre byer på kysten. Data beskriver det fysiske funktionsniveau systematiseret ved Barthel index. Ligeledes indgår data vedrørende medicin og diagnosering til beskrivelse af de personer, der bor på alderdomshjem i Grønland. Endelig vil der indgå et sammenligningsgrund-

lag for 10-års opfølgning til beskrivelse af udviklingen i dette.

Data er indsamlet ved Nadja Albertsen, Tine Sommer, Hans Kallerup, Anna Jakobsen, Thomas Mikkel Olsen og Stig Andersen i samarbejde med personalet på alderdomshjem i Østgrønland, Sydgrønland og Vestgrønland inklusive Nuuk.

Befolkningsundersøgelsen i Grønland 2018 – data om ældre

Peter Bjerregaard, Ingelise Olesen, Christina Viskum Lytken Larsen

Ældre har indgået i de grønlandske befolkningsundersøgelser siden den første Sundhedsprofil i 1993, men som noget nyt har undersøgelsen i 2018 haft specielt fokus på ældre. Undersøgelsen omfattede 473 deltagere i alderen 65-94 år og udgør således et solidt grundlag for tværnitsanalyser af helbred og levevilkår blandt ældre. Mange af de ældre (58%) deltog også i undersøgelsen Inuit Health in Transition fra 2005-2010 og kan derfor følges i et cohorte perspektiv.

De ældre er ligesom de yngre interviewet om levevilkår, sociale forhold, fysisk og psykisk helbred, kost, alkohol,

rygning og fysisk aktivitet, og dertil om deres sociale netværk og funktion og hjælp i dagligdagen. De er blevet målt og vejet, har fået taget blodprøver, har fået undersøgt lungefunktion og blodtryk, og har deltaget i måling af håndgrebsstyrke og en stoltest.

Der præsenteres tre eksempler på resultater fra befolkningsundersøgelsen blandt ældre:

- Fysisk funktion i dagligdagen
- Håndgrebsstyrke
- Determinanter for ensomhed

AgeArc – Experiences of care trajectory in old age

Mette Mørup Schlütter, Tenna Jensen, Line Dalsgård, Lise Hounsgaard

Session: Health and wellbeing in old age

Aim: Every year there are around 5.000 patient travels to Queen Ingrid's Hospital from other cities, towns and settlements in Greenland, but the total number of patient travels is much higher as there are also travels from settlements to health centers in towns and from settlements and towns to the four regional hospitals in Greenland. The aim of this presentation is to describe how the distance to receive biomedical treatment affects older Greenlander's experience with illness in Northern Greenland.

Methods: The discussion is based on a total of 6 months of ethnographic fieldwork in a town and two surrounding settlements in Northern Greenland from February – May 2018, mid-January – mid-February and mid-June – mid-July 2019. The fieldwork includes interviews, conversations

and participant observation in the every day life of older Greenlanders.

Discussion: The presentation describes the stories of four different older Greenlanders from Northern Greenland and their experiences with traveling in order to receive biomedical treatment in one of the bigger regional hospital, at Queen Ingrid's hospital in Nuuk or Rigshospitalet in Copenhagen. I will discuss how they experience the uncertainty in their care trajectory and how it influences their decision making in relation to health.

Result: Narratives about uncertainty in the raising of children, in conversations and every life and the life stories of older Greenland as well as Inuit cosmology makes it possible to understand on what basis older Greenlanders make decisions in regards to their health and care trajectory.

Arctic ageing in place – results from a study among family caregivers for home-dwelling persons with dementia in Northern Norway

Bodil H. Blix, Jill-Marit Moholg, Torunn Hamran

Background: Norwegian healthcare authorities have conceptualised ageing in place as an attainable and required goal for older adults. Nursing homes in rural areas have been closed down. Norway has a relatively small population of 5.2 million, of which approximately 20% resides in rural areas. The average age of the population in rural areas is relatively high. Aging in place policies presuppose access to appropriate informal care and high-quality home-based healthcare services in people's homes and engagement of family caregivers in the provision of care. However, large geographical distances and insufficient staff competence pose challenges to the provision of sufficient high-quality home-based healthcare services. Moreover, sociodemographic changes and mobility have reduced the possibility of informal care from family caregivers in people's homes. The study aimed to identify potential barriers for ageing in place in Northern Norway.

Materials and methods: A survey involving 430 family caregivers in 32 municipalities in Northern Norway, focus group interviews with healthcare professionals, and individual interviews with family caregivers.

Results: Persons with dementia in rural areas used fewer services than their peers in urban areas. The indigenous Sami families received less home-based care services than their Norwegian peers. In some rural municipalities, the availability of services was reduced and the delivery of services was inappropriate. This could jeopardise the possibilities of ageing in place. Moreover, older adults in rural areas had to move to assisted living facilities in community centres when sufficient healthcare services could not be provided in their homes due to long distances.

Conclusion: Large geographical distances are barriers for the provision of high-quality healthcare services in people's homes. Moreover, sociodemographic changes and mobility reduce the possibility of informal care from family caregivers in people's homes. Hence, ageing in place is particularly challenging in rural areas.

Life as an elderly visually impaired in Northern Finland

Heidi Johanna Siira, Aura Aino Kaarina Falck, Helvi Aulikki Kyngäs

Objective: The objective of the study was to describe the lives of elderly people with visual impairment (VI) as experienced by themselves in order to produce new knowledge that can be utilized by many social and health care professionals to improve encounter and to provide age-and VI-friendly services.

Material and methods: The data was collected between May 2018-July 2019 by semi-structured interviews from elderly people ($N=28$) that had been VI and received individual low vision rehabilitation (LVR) for two years from Oulu University Hospital Low Vision Center (OLVC). The data was analyzed through inductive content analysis.

Results: **Four upper categories described the lives of VI** elderly people: social relationships, health, cognitive factors and independent coping in everyday life. Contact and care of relatives and close ones were considered important as well as support and help from friends, although feelings of loneliness were recognized. Issues raised relating to health

were rather good or deteriorating overall health, severe other diseases, hopes for maintaining or improving vision, concerns about further vision loss and possible blindness. Contentment, positive and active attitude towards life, plans for near future, accepting disability and adjusting to life with it together with learning new skills were introduced as cognitive factors defining life as VI. However, negative emotions and passivity also emerged. Vision was seen essential in everyday life activities, and therefore challenges posed by VI burdened and limited life to home-environment for many concluding to dependence on other people and services. Familiar home-environment on the other hand facilitates coping.

Conclusion: The lives of the elderly VI people appeared very diverse with great individual differences in descriptions. VI does not prevent successful and active aging, but challenges it by increasing dependence on other people and limiting life.



RESEARCH ETHICS IN GREENLAND – MOVING TOWARDS A COMMON FRAMEWORK FOR ETHICAL GUIDELINES ACROSS DISCIPLINES IN GREENLAND?

Moderator Elizabeth Rink & Christina Viskum Lytken Larsen

In Greenland, only research in health science goes through an ethical review managed by the Science Ethics Committee organized under the Chief Medical Officer. Beyond this there is no ethical review process for the extensive amount of research conducted in Greenland. Furthermore, very few guidelines exist for the conduct of ethical research making it difficult to guide researcher across disciplines towards how to engage communities and develop partnerships that are ethically appropriate. In addition, developing ethical guidelines and ethical review processes in Greenland is necessary to ensure that knowledge translation is being conducted accurately to reflect Greenland and Greenlanders and is being given back to the communities in Greenland in which the research was conducted. This is particularly important because most researchers doing research in Greenland are not from Greenland.

Across the Arctic most regions have ethical guidelines and ethical review boards focused on research involving indigenous land and communities. Examples of these will be presented by international partners at the workshop along with input from key stakeholders of research policy in Greenland.

The purpose of this workshop is to: 1) discuss different ethical guidelines and ethical review processes established to

protect research with Indigenous populations; and 2) discuss how to develop ethical guidelines and ethical review processes in Greenland. Community members, fellow researchers, health professionals and all who are interested are invited to participate in an open discussion about the importance and the potential of establishing ethical guidelines for research in Greenland moving beyond health research.

The workshop is organized by scholars of the Fulbright Arctic Initiative II.

Invited speakers from Greenland:

- Gitte Adler Reimer, Rector for Ilisimaturfik (University of Greenland)
- Josephine Nymand, Chair of the Greenlandic Research Council

Invited speakers from other Arctic regions:

- Jon Petter Stoor – Research Ethics in Sapmi.
- Gwen Healey and Josée Lavoie – Research Ethics with indigenous communities in Canada
- Katie Cueva and Elizabeth Rink – Research Ethics with indigenous communities in the US

Co-organizers: Gwen Healey, Jon Petter Stoor, Josée Lavoie, Katie Cueva, Nicole Kanayurak, Sean Guistini



Screening for atrial fibrillation among subjects aged 50+ years in East Greenland

Stig Andersen, Paneeraq Noahsen, Sam Riahi

Background: Heart disease in Greenland had a focus on diet, n3-fatty acids and ischemic heart disease, which has shifted to heart rate variability and sudden death. Still, everyday clinical work suggests the presence of, and need for treating arrhythmias. However, these have gained limited attention in the literature. This led us to screen for, the most common arrhythmia worldwide, atrial fibrillation in Greenland.

Methods: The third decade data collection in the East-West Greenland cohort conducted at 10-year intervals since 1998 included screening for atrial fibrillation among inhabitants in the major town and in one settlement in East Greenland. Participants were aged 50+ years and inclusion was based on residence. ECG data were recorded using an instant check real time ECG monitor by DailyCare BioMedical Inc (Chungli 320, Taiwan). This measures for 30 seconds

with a sampling rate of 250 samples/second using either dry conduction electrodes or external electrode cable. Data were transferred to a computer for evaluation.

Results: We recorded 225 ECGs. Three were excluded because of poor quality, 9 were acceptable for rhythm diagnostics only, and 13 were useful for full rhythm diagnostics while 200 were of good quality. Sinus rhythm was seen in 218 (98.2%), two (0.9%) had a pacemaker and two had atrial fibrillation. The frequency was between 55 and 138, on average 83 beats per minute with an SD of 13.7. It was above 100 beats per minute in 30 (14.2%) of the 213 participants with an ECG valid for frequency evaluation.

Conclusions: Atrial fibrillation was rare in 30-second recordings among 50+ year East Greenland citizens. The finding needs validation and warrants further attention.

Hjertesygdom hos Grønlandske børn og unge voksne: Et nationalt registerbaseret cohortestudie

Marie Tindborg, Sascha Wilk Michelsen, Mikael Andersson, Klaus Juul, Uka W. Geisler, Bolette Søborg, Anders Koch

Baggrund: Medfødt hjertesygdom (MHS) er den hyppigste medfødte lidelse på verdensplan. MHS forekomsten i Grønland er ikke beskrevet, men studier har vist en fire gange højere MHS forekomst hos canadiske Inuit sammenlignet med den canadiske baggrundsbefolkning. Studieformålet er at beskrive forekomsten af hjertesygdom, herunder MHS, blandt børn og unge voksne i Grønland og at sammenligne med den danske baggrundsbefolkning.

Metode: Et nationalt registerbaseret cohortestudie inkluderende alle 0-39 årige grønlændere og danskere, bosidende i Grønland/Danmark, i perioden 1989-2014. Hvis mindst en forælder var født i Grønland blev deltageren kategoriseret som Inuit/af blandet herkomst. Data blev indhentet fra CPR-registeret, landspatientregistret og det grønlandske landspatientregister. Hjertesygdom blev klassificeret vha. ICD-8 og ICD-10 koder.

Resultater: Forekomsten af hjertesygdom var lavere i Grøn-

land ujusteret IR, 73/100.000 pyrs 95%CI 68,07-79,03 vs. Danmark, IR 88/100.000 pyrs (95%CI 87,38-88,76), imens forekomsten af MHS var ens for landene. Endvidere var forekomsten af hjertesygdom og MHS i Grønland stort set uændret over perioden. Risikoen for MHS var lavere hos drenge, sammenlignet med piger i begge lande; Grønland justeret HR 0,76 (95%CI 0,61-0,94). I Grønland var forekomsten af hjertesygdom højere blandt Inuit/af blandet herkomst vs. ikke-Inuit, justeret HR 1,94 (95%CI 1,22-3,09), og specifikt for MHS, justeret HR 3,14 (95%CI 1,44-6,85). Forekomsten af medfødt hjertesygdom blandt Inuit/af blandet herkomst var højere i Grønland, p=0,03.

Konklusion: Forekomsten af hjertesygdom var lavere i Grønland blandt børn og unge voksne sammenlignet med Danmark, imens forekomsten af MHS var ens. Inuit/af blandet herkomst havde en højere forekomst af MHS både i Grønland og Danmark.

Lung function and smoking habits in Greenland

Ulla Møller Weinreich, Vibeke Backer

Background: During the third Greenlandic Health Study lung function was measured and smoking habits registered.

Method: From June 2017 to January 2019, 2081 Greenlandic residents (96% inuit) participated. Age, Sex (female(F), male(M)) and height was recorded. Spirometry with Forced expiratory volume in the first second (FEV1) and Forced Vital Capacity (FVC) in liters(L) and percent of expected value (%pred), (Global Lung Function Initiative Caucasian reference values) and FEV1/FVC was carried out. FEV1 < 80% was considered low level of lung function. Smoking status and pack years were recorded. Results presented in mean(SD).

Result: In total, 1128/ 992 (F/M) participated, aged 15-92 years old (y.o.), on average 48.1(±16.4) y.o, F: 48.0(±16.0), M: 48.2 (±16.9), p=0.4. FEV1 was 3.05L/105.9%pred (±0.9/19.3), F: 2.6L/107.2%pred, (±0.6/19.9) and M: 3.5L/104.4%pred, (±0.9/18.6), F/M %pred p=0.1. FVC

3.9L/113.5%pred (±1.1/19.9), F: 3.3L/116%pred (±0.7/20.1), M: 4.6L/110.3%pred (±1.1/19.1) F/M%pred p=0.09.

FEV1<80% recorded in 7.3% (F: 6.1%, M 8.6%, p=0.2) and FVC% <80% in 3.4 % (F: 2.4, M: 4.4%, p<0.0001) FEV1/ FVC<70% recorded in 13.8% (F: 3.3, M 15.3, p<0.0001). Smoking history was registered in 83.3% (F:93.5%, M:80.8%, p<0.0001), 56.1% were current smokers (F: 57.0%, M:56.1%, p=0.6). Patients had smoked for 27.2 years, 12.5 pack years, no significant differences between F/M. Heavy smoking (>15 cigarettes/day) in current smokers was seen in M:21.2%/F:7%, p=0.02. Correlation was found between smoking history and FEV1/FVC<0.7, (p=0.001).

Conclusion: In Greenlandic residents, a smoking history is frequent and average lung function is high, using Caucasian standard values. Obstructive lung function and heavy smoking was primarily seen in males.

A common Arctic missense variant in LDLR impacts cholesterol profile significantly and increases the risk of types of cardiovascular diseases

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Objective: A common (MAF = 0.16) missense variant (rs730882082) in the LDLR gene was recently shown to associate strongly with elevated LDL cholesterol, total cholesterol and apolipoprotein B levels in Inuit across the Arctic. These traits have previously been found to be risk factors for cardiovascular events. The goal of this study is to elucidate the impact of this common Arctic specific genetic missense variant on cardiovascular events in Greenlanders and to investigate how its effect might be mediated.

Material and methods: We genotyped almost 5000 Greenlandic individuals and obtained information on cardiovascular events from health registries. We then performed genetic association analyses using a linear mixed model to characterise the effect of rs730882082 on metabolic phenotypes and Cox regression for survival analysis for years lived to a cardiovascular event.

Results: We were able to replicate previous associations with LDL cholesterol ($\beta=0.75 \text{ mmol/L}$, $P=5.5 \cdot 10^{-87}$), total cholesterol ($\beta=0.69 \text{ mmol/L}$ $P=1.8 \cdot 10^{-72}$) and apoli-

poprotein B levels ($\beta=0.12 \text{ g/L}$, $P=1.7 \cdot 10^{-17}$). We found novel associations with a large effect on HDL cholesterol levels ($\beta=-0.058 \text{ mmol/L}$, $P=0.00041$) and an effect on albumin-to-creatinine ratio in urine ($\beta=7.9 \text{ mg/L}$, $P=0.042$). Furthermore, we found that this variant is significantly associated with an increased risk of ischemic heart disease ($P=0.00465$, HR=1.4), peripheral artery disease ($P=0.00616$, HR=2.1) and coronary operations ($P=0.000386$, HR=2.0) and that it is nominally associated with increased risk of heart failure ($P=0.01549$, HR=1.5). Tentative results indicate the effect on ischemic heart disease and heart failure might be mediated through its effect on apolipoprotein B levels.

Conclusion: We were able to show associations between our LDLR missense variant and certain cardiovascular diseases. This information might be useful for better early detection of dyslipidemia and improved preventive care of cardiovascular diseases as well as providing molecular insights into the mechanisms for these diseases.

Do Greenlandic carriers of the TBC1D4 variant have increased risk of cardiovascular disease?

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Background: The TBC1D4 p.Arg684Ter variant is associated with decreased insulin-stimulated glucose uptake in skeletal muscle and postprandial hyperglycemia in the Greenlandic population. Homozygous carriers have an odds ratio of 10.3 for developing type 2 diabetes and around 30% of the population are carriers of the TBC1D4 variant 4% are homozygous.

Aim: To investigate if the TBC1D4 variant confers an increased risk of CVD in the Greenlandic population.

Methods: The study population included genotyped Greenlanders from population based health surveys in Greenland with information from interviews, clinical exams and blood works. Baseline was defined as date of clinical examination and outcome was a composite CVD outcome. Registers with follow up information included the Danish and Greenlandic civil registration system, the Danish and Greenlandic cause of death register and the Danish and Greenlandic hospital discharge register. Poisson regression was used to estimate incidence rate ratios of CVD.

Results: We had 3902 participants with a median follow up time of 10 years [IQR 8-14]. A total of 315 (8%) had a CVD event in the time period 1998 to 2017. We found 11% of all homozygous, 9% of all heterozygous and 8 % of all wildtype with CVD events. Age was significantly associated with increased CVD risk. We did not find a significant association with the TBC1D4 variant. Incidence rate ratios of CVD for TBC1D4 homozygous vs. wildtype were as follows:

Unadjusted: Crude effect of TBC1D4: IRR 1.5 [CI 0.5-4.6]; Model 1: Adjusted for age, calendar year, sex, admixture: IRR 1.4 [CI 0.6-3.6]; Model 2: Model 1 + adjusted for known diabetes, BMI, LDL, smoking: IRR 1.3 [CI 0.5-3.5].

Conclusion: Age was significantly associated with increased CVD risk and TBC1D4 had a positive effect on CVD risk in both unadjusted and adjusted models, although not significant.



Rusmiddelbehandling i Grønland – organisation og data fra 2018b*Birgit Niclasen*

Allorfik varetager det nationale tilbud om behandling af afhængighed af alkohol, hash og pengespil. Tilbuddet har baggrund i ”Forslag til national plan for fremtidens misbrugsbehandling”, der beskriver et gratis nationalt tilbud til voksne med rusmiddel- og spilproblemer. I perioden 2016-2018 blev oprettet et behandlingscenter i hver kommune. Behandlingen sker ud fra motiverende samtale og en kognitiv adfærdsterapeutisk metode. Centrene gør det muligt for 62 % af befolkningen at henvende sig direkte ved ønske om be-

handling. De 38 %, der har bopæl uden for byer med et Allorfik-center, tilbydes behandling i samarbejde med den private udbyder. Behandlingen i Katsorsaavik Nuuk sker efter Minnesota/CENAPS-metoden i 6-8 uger som dagbehandling ca. 5 timer dagligt. I oplægget præsenteres data omkring sværhedsgraden af rusmiddel og spilproblemerne, behandlingstype og borgeres øvrige udfordringer uddover rusmiddelproblemerne ud data i fra den Nationale Rusmiddeldatabase.

A qualitative research of the partnership agreement between Allorfik – Videnscenter om Afhængighed og Kofoed’s School Nuuk about Kofoed’s School’s referral of students to alcohol and drug treatment*Margrethe Raabjerg Kruse*

Based on the need of action-oriented social work research in Greenland, this study was carried out to explore the interplay between alcohol and drug treatment and life of homeless residents facing problems with alcohol and drug abuse in Nuuk, the capital of Greenland. In March 2018, Allorfik and Kofoed’s School made a partnership agreement that provides students at Kofoed’s School day treatment including housing and economic support to cover food expenses during alcohol and drug treatment at Katsorsaavik Nuuk. Based on a qualitative approach, this study examines the agreement between Allorfik and Kofoed’s School. During September and October 2018, fieldwork was conducted in Nuuk with participatory observations at Kofoed’s School, combined with informal and formal interviews with students and key professionals. A structural approach with the concept of structural violence was applied to thematic analysis. Results showed that students at Kofoed’s School had got into vicious circles of abuse, disrupted elementary school, unemployment, debts and homelessness. The school’s work is based on an empowerment strategy that was found to conflict with the students’ space of action to break the circle of abuse. In the absence of support from the municipality combined with a high turnover of employees, these circles are hard to break. Especially, the homelessness con-

stitutes a threat to the students’ improvements and treatment. Following 6-8 weeks of treatment, students return to shelters where alcohol and cannabis is highly present. Additionally, students do only have access to environments without alcohol and cannabis within Kofoed’s School’s opening hours. Consequently, students have high risks of relapse and the effect of treatment is reduced. Furthermore, some school days are characterized by sporadic student participation and the students’ urgent needs that challenge progress towards their long-term goals.



Activity analysis is so cool

Henrik Kruse-Hansen, *Sara Jilsø Fleischer*

Formål: At afprøve anvendelse af en ergoterapeutisk kernekompentence, aktivitetsanalyse, i fagligt utraditionelle omgivelser, Thule Airbase, og på den baggrund designe, tilrettelægge og iværksætte en aktivitet for det udstationerede mandskab.

Materiale og metoder: To danske ergoterapeutstuderende tilbragte 4 uger på Thule Airbase sommeren 2019. De studerende foretog indledningsvist en observation af dagliglivet på basen og udledte på baggrund af observationerne mulige behov hos de udstationerede, som kaldte på en ergoterapeutisk intervention. Ud fra en grundig aktivitetsanalyse iværksatte de studerende dernæst to aktiviteter: Badminton- og volleyballturnering. De udstationeredes udbytte blev efterfølgende målt via evalueringssredskabet OVAL-9.

Resultater: Såvel badminton- som volleyballturnering viste sig at være værdsatte aktiviteter blandt de udstationerede. Ud fra deltagernes evalueringer kunne udledes, at begge aktiviteter indeholdt såvel en konkret værdi, en sociosym-

bolsk værdi samt en selvbelønnende værdi. Deltagerne gav verbalt udtryk for, at aktiviteterne oplevedes som sjove ”It was fun”. Der var – som forventet ud fra den forudgående analyse – en tydelig kulturel forskel: Volleyball appellerede særligt til den amerikanske del af mandskabet, hvor badminton omvendt appellerede til den danske del. At aktiviteterne indeholdt et element af konkurrence var af særliges stor betydning for deltagerne. Ligeledes blev mulighed for at vinde præmier og diplomer af stor betydning.

Konklusion: Aktivitetsanalyse er et værdifuldt ergoterapeutisk redskab til at designe, planlægge og iværksætte relevante aktiviteter. Den forudgående analyse gjorde det muligt at tage højde for kulturelle forskelle. Analysen gjorde det endvidere muligt at imødekomme et eftertragtet konkurrenceelement samt at tage højde for et efterspurgt synligt udkomme af aktiviteterne i form af pokaler og diplomer. Aktivitetsanalysen gjorde det slutteligt muligt at lade aktiviteterne tale ind i det maskuline kammeratskab og den særlige omgangstone, som hersker på Thule Airbase.

Babycafé- fysikaktivitet, leg og tilknytning

Sara Jilsø Fleischer

Formål: Ultimo 2017/foråret 2018 blev der gennemført et 8 ugers forløb med gratis frivillig holdundervisning på spædbørnsområdet. Formålet var at lave et sundhedsfremmende tiltag for hjemmegående forældre med børn i 0-12 mdr. alderen. 77 mødre og deres børn fordelt på 8 hold deltog.

Metode: Indholdet var bevægelse og leg, der understøtter den naturlige motoriske og sensoriske udvikling hos børn. Øvelserne og legene havde rod i ”Stimulastik®” og ”Theraplay®”, med tilknytningsteori, sanseintegration, aktivitets-teori og virksomhedsteori, som teoretiske fundament. Der blev lavet semistrukturerede interview af 38 af deltagerne.

Resultat: Der var stor tilfredshed blandt deltagerne med undervisningen, særligt over følgende; Sundhedsfaglig-information, overførbar inspiration til samværet med deres børn, netværksmulighed på tværs af sociale og kulturelle skel.

Der blev klarlagt en efterspørgsel på: Et uformelt og uforpligtende tilbud i nærmiljøet, der imødekommer et socialt behov hos aktørerne for netværksdannelse og samværel med ligesindet; og med en større social diversitet end de

oplever i ex. privatnetværk, arbejdsregi og i mødreggrupper sammensat af sundhedsplejen. For flere grupper var de fysiske rammer en vigtig faktor for deltagelse i samvær, da alternativerne i barselskulturen ofte enten er omkostningsfyldte café besøg eller i eget hjem med svingende muligheder ift. forplejning og oprydning. Fremmødeprocenten 86%.

Konklusion: Der er behov for information og inspiration til udviklende og understøttende lege på småbørnsområdet. Tilbuddet om holdundervisning imødekom dette. Behovet for uformelle mødesteder for hjemmegående for at forebygge social isolation og imødekomme erfaringsudveksling og netværksdannelse blev synlige på baggrund af tilbuddet, men blev ikke dækket i holdundervisningen.

Efterskrift: Tiltaget er siden fortsat som åben babycafé 3 timer om ugen. Den kontinuerlige progressive undervisning er afløst af mere uformelt samvær og legeseancer med inspiration til samvær, beroende på samme teoretiske grundlag. Tilbuddet drives som et samarbejde mellem foreningen Paarsisoq, medborgerhuset ”Illorput” (Kommuneqarfik sermersooq) og Ergoterapeuten.gl.

Synsscreening af børn i Grønland

Nick Duelund, Hanne Jensen, Hans Ulrik Møller

Introduktion: I Grønland er det særlig vigtigt, at de lokale sundhedsplejerske kan identificere børn med synsproblemer, som bør ses af øjenlæge. I den nuværende screeningsmetode bliver børn henvist til øjenlæge, når deres visus for afstand er 6/9,5 eller dårligere. Målet med nuværende studie er optimering af screeningsprogrammet, så de børn, som bør ses af øjenlæge bliver identificerede.

Metoder: Alle 1. klasses elever, som startede i skole august 2017 blev inviterede. Sundhedsplejerskerne fik 2 dages undervisning, og alle nye testmaterialer blev udleveret. Synsscreeningen inkluderede visus måling for afstand og nær ved brug af HVOT tavler, Lang II test for samsynstest og refraktion med en autorefraktor (Plusoptix)

Resultater: 532 børn blev inkluderet i studiet. 45 børn var i forvejen kendt af øjenlæge, 19 børn havde i forvejen briller. Vi fandt at 8 % havde et binokulært visus på $\leq 6/9,5$. 2 % havde myopi på mere end -1,0 Dioptrier (D), 6 % havde hypermetropi over +2,0 D. 6 % af børnene havde reduceret nærvibusus eller abnorm stereosyn, og disse ville have bestået den tidlige screeningsmetode.

Konklusion: Nedsat visus og skelen bør diagnosticeres så tidligt som muligt. En brugbar, tilgængelig og national screeningsmetode er nødvendig for at identificere disse problemer. Dette studie har vist, at synsscreening af skolebørn er mulig, og på den måde kan sundhedsplejersker identificere synsproblemer hos disse børn. Vi forventer at udføre en follow-up af disse børn hos en øjenlæge.

Leversygdommen CFG (Cholestasis Familiaris Grønlandica) og Stofskiftesygdommen PCCB (Propionsyreacidæmi) – 2 recessivt arvelige og dødeligt forløbende sygdomme, som er hyppige i Grønland

Inge-Merete Nielsen, Peder Kern, Ole Lind, Marie Luise Bisgaard, Hans Eiberg

Kvalitetssikring: 1/1-2006 - 31/3-2019 – et tilbud til alle gravide grønlandske kvinder, for bærertilstand af den ene eller begge recessivt arvelige og dødeligt forløbende sygdomme CFG og PCCB, som tidligere optrådte med stor hyppighed i GL. Analyserne og svar med vejledning er udført på genetisk afd. Panum Instituttet, Københavns Universitet.

Leversygdommen CFG - Vi har kendskab til 47 børn født med CFG. Kun 2 børn, der er levertransplanterede lever i dag – men med svære sequelæ.

Stofskiftesygdommen PCCB - Vi har kendskab til 14 børn, som er døde i 2.-3. levedøgn med svær syreforgiftning. Det er sandsynligt, at der er mange flere børn, som er døde af denne sygdom, men som er diagnosticeret som Pludselig Uventet Spædbarnsdød.

Forebyggelse: Pr. 1. januar 2006 indførte Hjemmestyret et tilbud til alle gravide grønlandske kvinder, at de kunne blive testet for, om de var bærere af CFG eller PCCB eller begge. Er den gravide bærer af en eller begge sygdomme tilbydes partneren undersøgelse. Er begge forældre bærere af samme sygdom tilbydes en fostervandsprøve.

Hvis resultatet af FVP viser, at fostret vil udvikle sygdommen CFG eller PCCB, indkaldes forældrene til samtale med lægen og jordemoderen. Mange forældre kender sygdommene fra deres egen familie, og alle har de efter samtaLEN ønsket at fostret aborteres.

Dækningsgraden af en screening er særdeles vigtig. Da vi pr. 1.april 2019 efter ønske fra vores leder, ophører med at analysere gravidprøverne, skal vi på det varmeste anbefale en lokal kvalitetssikring.

Patientperspektivet repræsenterer et vigtigt element i evidensbaseret pleje og behandling. Værdigrundlaget er, at patienter støttes i på et informeret grundlag at medvirke til at træffe beslutninger om deres behandling, samt i at integrere sygdom og behandling bedst muligt i deres hverdagsliv.

Set i det perspektiv er sundhed og sygdom ofte et familielanliggende, og det er derfor vigtigt også at inddrage patientens familie og øvrige netværk, hvilket oplæggene med afsæt i forskellige projekter vil belyse. Sessionen afsluttes med paneldebat.

Sundhedsopfattelser og familie

Ingelise Olesen

Baggrund: Oplægget tager udgangspunkt i kvalitative interview fra et studie, udført i forbindelse med afslutningen af en masteruddannelse i Sundhedspædagogik og Sundhedsfremme (MSU) ved DPU i 2015. Formålet med undersøgelsen var at afdække seks informanters opfattelse af sundhed og selvvurderet helbred, med henblik på at finde nye muligheder for det sundhedspædagogiske og sundhedsfremmende arbejde i Grønland.

Metode: Kvalitative interviews med seks informanter bosat i Nuuk.

Resultater: Der er blandt informanterne en bevidsthed om sundhed og usundhed i en biomedicinsk forstand, men også en metafysisk opfattelse af sundhed i en moderne grønlandske udgave med udgangspunkt i grønlandske kulturelle

værdier herunder kosten og naturen som en meget stor medspiller for sundhed og identitet. I Arbejde med mennesker og sundhed i Grønland bør vi alle være bevidst om at religion, opdragelse, familien, tarneq (sjælen) og naturen (herunder også sila) har betydning for opfattelsen af sundhed. Familiesammenholdet har gennemgående stor betydning for oplevelsen af det at være sund.

Konklusion: Undersøgelsen konkluderer, at noget kunne tyde på, at der er behov for at have mere fokus på menneskers værdier og kulturspecifikke sundhedsopfattelse i de grundlæggende mål og strategier for visionerne for sundheden i Grønland. Alle informanter havde på forskellig vis fokus på opdragelse, familie og familiesammenhold, hvilket muligvis også må være vigtige elementer, der skal huskes ind ved involvering af patienter og pårørende.

Teknologiske løsninger til reduktion af tvang – introduktion af vurderingsredskabet MR-CRAS i Grønland

Lasse Overballe Nielsen, Lise Hounsgaard, Ellen Boldrup Tingleff, Frederik Alkier Gildberg

Introduktion: I Grønland har den psykiatriske afdeling haft et øget fokus på anvendelsen af tvang blandt indlagte patienter. Dette ses blandt andet efter implementeringen af BVC (Brøset Violence Checklist), hvor antallet af årlige bæltefikseringer er blevet reduceret. Hjemtagelse af retspsykiatriske patienter fra Psykiatrisk afdeling, Risskov i Danmark til den nybyggede anstalt i Nuuk, kan skabe et behov for yderligere fokus på reduktionen af tvang. Forskere ved psykiatrisk afdeling Middelfart, har gennem de sidste år udviklet vurderingsredskabet MR-CRAS (Mechanical Restraint – Confounder, Risk, Alliance Score), som anvendes i relation til retspsykiatriske patienter under bæltefiksring til vurdering af deres parathed til at blive løsnet fra bæl-

tet. Dermed er MR-CRAS udviklet til at reducere varigheden af bæltefiksringen. Af tidlige studier ses det, at både patienter og pårørende i retspsykiatrien har negative opfattelser af bæltefikseringer, hvilket blandt andet er relateret til varigheden af bæltefikseringer. Dette præsenterede studie er del af et større forskningsprojekt med fokus på afdækning af muligheder og udfordringer ved brug af teknologiske løsninger til reduktion af bæltefikseringer. Delt projektet vil således være en del af et forventet samarbejde mellem Psykiatrisk afdeling Middelfart, Psykiatrien i Region Syddanmark og psykiatrien ved Dronning Ingrids hospital i Nuuk.

Formål: At udvikle viden om anvendelsen af tvang, med

et særligt fokus på bæltefikseringer, i Grønland og afdække hvorvidt vurderingsredskabet MR-CRAS kan anvendes i psykiatrien i Grønland med henblik på at vurdere patientens parathed til at blive løsnet fra en bæltefiksering.

Materiale og metode: Etnografisk feltarbejde i psykiatrien i Nuuk, hvortil der anvendes deltagende observation og kvalitative forskningsinterview med sundhedsprofessionelt personale. Derudover, anvendes feltdagbog muligt

suppleret med visuel etnografi.

Resultater: Resultater fra dette studie forventes løbende publiceret lokalt og internationalt fra år 2020 og frem.

Konklusion: Det forventes, at projektets resultater kan danne baggrund for yderligere udvikling og mulig implementering af MR-CRAS i psykiatrien i Grønland.

Sundhedsprofessionelle perspektiver på patientinddragelse i det grønlandske hospitalsvæsen

Helle Mougaard-Frederiksen, Lene Seibæk

Introduktion: Sundhedsvæsenet i Grønland ønsker at inddrage patient og familie i forebyggelse, pleje og behandling. Målet er at gøre den sundhedsfaglige indsats tilgængelig for alle, og bedre tilpasset kulturel baggrund og livsførelse. I bestræbelserne for at opnå højere grad af patientinddragelse formuleres krav til patient og familie om at være mere aktive og opsøgende. Men også de sundhedsprofessionelles holdninger til og konkrete samarbejde med patient og familie må tilpasses den ny virkelighed. Desuden må der udvikles og implementeres ny arbejdsgange, der bedre understøtter patientinddragelse.

Formål: I denne del af projektet undersøges de sundhedsprofessionelles perspektiver på patientinddragelse, for at kortlægge muligheder og barrierer for patientinddragelse i hospitalsvæsenet. **Materiale og metode:** Projektet gennemføres i samarbejde mellem Grønlands Center for Sundhedsforskning og Dronning Ingrids Hospital. Der fokuseres både på udvikling af viden og på afprøvning af ny handlemuligheder. Der gennemføres observationer og semistrukturerede forskningsinterview med sundhedsprofessionelle med fokus på, hvordan de ser muligheder og barrierer for patientinddragelse i klinisk praksis. Malteruds

tekstkondensering anvendes til analyse af transskriptioner og identifikation af handlemuligheder.

Resultater: I 2018 blev der foretaget tre semistrukturerede forskningsinterview og afholdt 12 uformelle møder med deltagelse af i alt 23 sundhedsprofessionelle fra otte forskellige hospitalsansatte faggrupper. Foreløbige temaer i analyser af interview og feltnoter faldt indenfor følgende områder:

- Organisering og overgang i patientforløbet
 - Opfattelse af patientinddragelse og egen rolle i forhold til dette
 - Forudsætninger for inddragelse hos patient og familie
- I de sundhedsprofessionelles perspektiv er der interesse for at inddrage patienterne. Aktuelt er der imidlertid ikke en fælles forståelse af hvad inddragelsen skal og kan bestå i, eller af hvordan inddragelse kan implementeres i klinisk praksis.

Konklusion: Patientinddragelse i hospitalsvæsenet kontekst – og personafhængig. Der er derfor fremadrettet brug for yderligere begrebsafklaring, tværfaglig personaleuddannelse samt udvikling af handlemuligheder i klinisk praksis.

'Patientinvolvering' og 'livskvalitet' eller medmenneskelighed og livsglæde?

Tine Aagaard

Introduktion: Involvering af patienter og pårørende i professionel praksis er et 'upcoming' begreb i grønlandske sundhedsstrategier. Forskning i Grønland og Danmark peger på forskellige måder, begrebet praktiseres på. Involvering tager for det meste udgangspunkt i professionel praksis og ikke i patienternes liv.

Formål: At diskutere vaner, rutiner og procedurer i institutionel praksis og deres betydning for at involvere patienter og pårørende som ligeværdige samarbejdspartnere, dvs som medmennesker, i pleje, behandling og rehabilitering.

Materiale og metode: Diskussionen bygger på materiale fra kvalitativ forskning i patienters perspektiver på sundhedspraksis i Grønland, på forskning i patientinvolvering i Danmark, på analyse af policy-dokumenter og på teori om institutioners oprindelse (Berger og Luckmann).

Resultater: Præsentationen er et diskussionsoplæg til den efterfølgende paneldebat.

PANELDEBAT – alle oplægsholdere: Patient og familie i centrum for sundhedsarbejde og forskning

Påørrende til hjemmeboende personer med demens sine erfaringer med deltagelse på kommunale påørrendeskoler

Lill Sverresdatter Larsen, Bodil Hansen Blix, Jill-Marit Moholt, Nils Henriksen, Torunn Hamran

Bakgrunn: Norske helsepolitiske føringer vektlegger at personer med demens får bo i eget hjem så lenge som mulig. Etablering av påørrendeskoler i kommuner er en av flere strategier for å støtte påørrende med omsorgsansvar. Hensikten med denne studien er å skape kunnskap om påørendes erfaringer med den norske påørrendeskolemodellen.

Metode: Kvalitative dybdeintervju av 16 påørrende bosatt i nordnorske bykommuner er analysert ved hjelp av stegvise-deduktiv induktiv metode.

Resultat: Deltakerne erfarte skolen som et nødvendig og

godt tilbud. Samtidig pekte de på flere dilemmaer; 1) God organisering, men kunne vært styrt bedre 2) Å snakke fritt, men ikke utlevere, 3) Kunnskap på godt og vondt, 4) Tema som etterlyses og 5) Veien videre. Deltakernes opplevelse av mestring hang tett sammen med deres evne til å forstå sykdom og situasjon, ressurser til å håndtere uforutsigbare situasjoner og evne til å skape mening.

Konklusjon: Påørrendeskolen kan bidra til mestring i form av økt forståelse for sykdom og situasjon, samt sosial støtte gjennom samtalegrupper. Tilbuddet kan bidra til redusert eller ingen mestring på andre viktige områder.



Denne session handler om politik og praksis på ældreområdet. Der er oplæg fra policy makers og forskere, som beskæftiger sig med forhold for ældre mennesker på forskellige måder i deres daglige arbejde. Sessionen udgøres

af nedslagspunkter, der alle er vigtige for både praksis og politik på området. Nogle af temaerne er rehabilitering, kost, demens og pårørende.

Kort introduktion på vegne af Departementet for Sociale Anliggender og Justitsområdet

Julie Wilche

Udvikling og validering af demensudredning i Grønland

Inaluk Kleist, Paneeraq Noahsen, Ole Gredal, Stig Andersen

Baggrund: Demens forståelse og udredning er afhængigt af kultur og uddannelse. Der findes ikke en ramme der kan dække beskrivelse af kognitiv funktion ud fra den Grønlandske kultur.

Formål: Derfor vil vi udvikle redskaber til vurdering af kognitiv funktion hos grønlændere.

Materiale og metoder: Ekspertpanel blev sammensat til at vurdere og udvælge relevante redskaber. Processen er drevet af grønlandsk læge med kulturforståelse og forudsætninger for at bidrage til at udvikle Grønlandske værktøjer og algoritmer til demensudredning.

Resultater: Trin-A var nedsættelse af ekspertpanel. Pan-

let udvalgte demenstest til bearbejdning frem mod grønlandsk forståelsesramme. Dertil var panelet enige om at udvikle og validere en algoritme til udredning af mistænkt kognitiv dysfunktion, hvor der tages højde for 3 geografisk betingede niveauer. Trin-B var ressourceudvikling. Test til vurdering af kognitiv funktion gennemgik komplet oversættelsesproces og udvikling baseret på separat bedømmelsesproces. Trin-C var afprøvning og valideringsproces af værktøjerne i det tre test niveau.

Konklusion: Relevant og nødvendig udvikling af værktøjer til anvendelse ved vurdering af kognitiv funktion i en Grønlandsk forståelsesramme er udviklet og validering pågår. Udbredelsen af disse nye værktøjer vil støtte udredning og behandling af demensramte i Grønland.

Family caregivers' involvement in decision-making processes regarding admission of persons with dementia to nursing homes

Lill Sverresdatter Larsen, Bodil Hansen Blix, Torunn Hamran

The current Western health policy of ageing in place relies on a triad collaboration among patients, healthcare service providers and family caregivers. Such collaborations presuppose involvement in a vague juridical landscape. This article explores family caregivers' experiences with involvement in and influence on nursing home decision-making processes for persons with dementia. The data consist of twelve in-depth interviews with family caregivers. Using positioning theory, we demonstrate how family caregivers strive to balance their assumed duty to care for the person

with their needs to care for themselves. Their involvement (or non-involvement) in the complex decision-making process is demonstrated through the following seven positions: 1) self-condemning determiner, 2) dominant, 3) proponent, 4) saluting, 5) pending, 6) prisoner, and 7) stooge. Furthermore, we discuss why expedient positions are more available for some individuals and the consequences of family caregivers' various positions on the healthcare policy aims of collaboration and equal healthcare services.

Pårørende til mennesker med demens

Birthe Eriksen, Kamilla Nørtoft

Demens er en sygdom, som rammer flere og flere mennesker. Det er også en sygdom, som i høj grad berører de pårørende til den syge. Dette oplæg fokuserer på, hvordan pårørende til mennesker med demens oplever sygdommen og de muligheder der er for at få hjælp, støtte og behandling

i forbindelse med sygdommen. Oplægget er baseret på interviews med pårørende til mennesker med demens i Kommunqarfik Sermersooq. Interviewene er foretaget af Birthe Eriksen som en del af forsknings- og udviklingsprojektet Arktisk Aldring (AgeArc).

Ledelsesudvikling på ældreområdet i Kommuneqarfik Sermersooq

Arnnanguaq Heilmann Christensen

I Kommuneqarfik Sermersooq er ældreområdet i gang med en udviklingsproces, der starter hos lederne af de forskellige afdelinger. Lederne mødes og gennemgår et uddan-

nelsesforløb sideløbende med, at de inddrager personalet i udviklingen af de enkelte organisationer. Der er blandt andet fokus på værdier, inddragelse og deltagelse.

Rehabilitering eller et godt liv som gammel?

Tine Aagaard

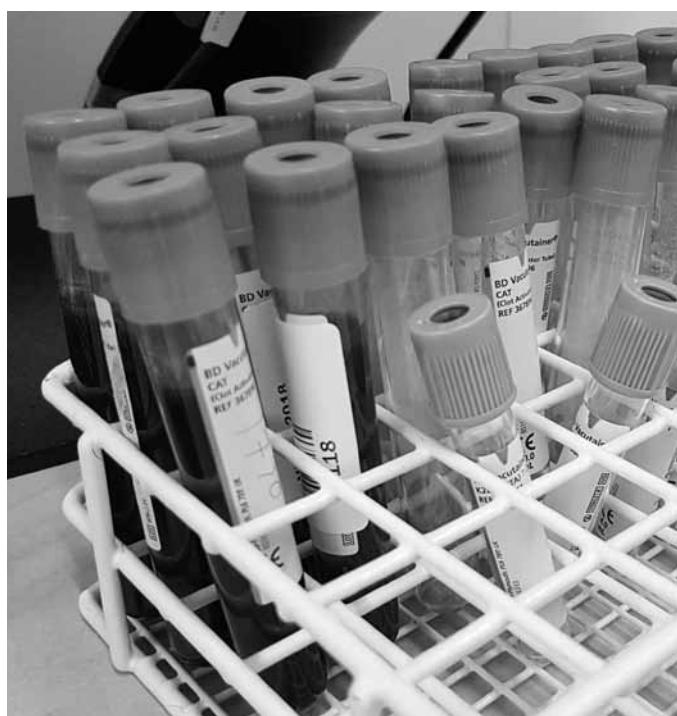
Introduktion: Nye politikker om 'aktiv aldring' spreder sig på ældreområdet som følge af den stigende andel af befolkningen over 65 år. Siden 2015 er indsatsen 'hverdagsrehabilitering' i hjemmeplejen blevet et lovkrav i Danmark. Hverdagsrehabilitering bliver også afprøvet i Grønland. Mange brugere har glæde af indsatsen, men forskning i de skandinaviske lande viser, at et ensidigt fokus på fysisk genopræning ekskluderer mange gamle med andre behov for støtte.

Formål: At undersøge gamle borgers perspektiver på et godt liv som gammel, og hvordan rehabilitering kan støtte dem i at føre et meningsfuldt liv.

Materiale og metode: Studiet gennemførtes i efteråret 2017 i Kommuneqarfik Sermersooq som et etnografisk feltstudie med metoder som deltagerobservationer, kvalitative interviews og dokumentanalyse. Seks brugere af hjemmeplejen og ni medarbejdere blev interviewet.

Resultater: Hverdagsrehabilitering er instrumentelt orienteret og inddrager ikke de gammels ressourcer og værdier. Dette kan medføre demotivation og passivitet. Gamle mennesker har et liv med mange erfaringer bag sig, de håndterer aktivt deres liv i hverdagen, så godt de kan, og de har drømme om fremtiden. Men mange har brug for professionel støtte. Det er kommunikationen herom, som ikke altid fungerer, fordi der kun er fokus på fysiske funktioner. Hjemmehjælperne er ofte dem, der ved mest om brugerne og deres liv, men deres viden har ikke høj status i det tværfaglige samarbejde.

Konklusion: Inddragelse af de gammels livshistorier og perspektiver i ældreplejen – rehabilitering, hjemmepleje og dagcentre – kan pege på indsatser, der kan inkludere alle, uanset fysisk funktionsniveau og forskelle i værdier og interesser. Det kræver samarbejde mellem personale og brugere, og det kræver en professionel anerkendelse af brugernes viden og perspektiver, som de kommer til udtryk i hverdagslivet.



WORKSHOP OM SORG OG SORGARBEJDE I GRØNLAND – KORTLÆGNING OG MULIGHEDER FREMADRETTET

Moderator Preben Engelbrekt & Tina Graven Østergaard

Det Nationale Sorgcenter har lavet en kortlægning af sorgområdet i Grønland gennem en kvalitativ interviewundersøgelse blandt fagpersoner i 4 byer i Grønland. Undersøgelsen peger på, at komplicerede sorgreaktioner i Grønland er en alvorlig problemstilling, og flere risikofaktorer er tilstede, ikke mindst i relation til de mange, som oplever traumatiske tab som fx tab til selvmord m.v.

Med undersøgelsen ønsker Det Nationale Sorgcenter at sætte bredt fokus på sorg og tab i Grønland. Når flertallet har mistet til selvmord i så tæt-forbundet en befolkning med stor risiko for at udvikle behandlingskrævende, komplicerede sorg-reaktioner, så bliver den enkeltes tab til alles tab, og omfang og konsekvenser af tab og sorg spredes som ringe i vandet. Derfor er det nødvendigt med et samfundsmæssigt og sundhedsmæssigt fokus på sorg og sorgarbejde i Grønland.

Kom og få en præsentation af undersøgelsens fund og konklusioner med særlig fokus på fagprofessioners muligheder og begrænsninger i mødet med mennesker i sorg og deltag i en drøftelse af muligheder fremadrettet i sorgarbejdet i Grønland.

Workshop program:

- 30 minutters præsentation af undersøgelsens fund og konklusioner med særlig fokus på fagprofessioners roller, ansvar, begrænsninger og muligheder i mødet med mennesker i sorg.
- 60 minutter til i) faglig refleksion ii) tværfaglig drøftelse og iii) opsummering i plenum af anbefalinger til at sikre at sorg og tab indarbejdes systematisk i fagprofessionelles møde med borgere i Grønland



HØRELSE OG MELLEMØREINFektIONER

Moderatorer Preben Homøe & Malene Nøhr Demant

Mellemøreinfektioner er udbredte i Grønland og medfører hørenedsættelse som ofte er livslang. Dette betyder at en gruppe børn får sværere livsvilkår både mht. social trivsel og uddannelse. Dette forhold har været kendt siden 1800-tallet og er vedvarende blevet bekræftet. Imidlertid eksisterer der fortsat ikke et øre-høre program I Grønland med henblik på at forebygge pro-

blemet. Der foreligger evidens for at høreproblemer forårsaget af mellemøreinfektioner kan forebygges. Sessionen vil omhandle forskellige emner indenfor mellemøreinfektioner og hørenedsættelse samt komme med forslag til en fremtidig indsats således at øre-høre-problematikken blandt grønlandske børn kan komme i yderligere bevægelse.

ØNH i Grønland – hverdag og praksis

Jens G Fleischer

Acute Otitis Media and Pneumococcal Vaccination

Simon Imer Jespersen, Malene Nøhr Demant, Michael Lyng Pedersen, Preben Homø

Introduction: Streptococcus Pneumoniae (s. pneumoniae) is one of the main pathogens leading to otitis media (OM). In 2010 the 13-valent pneumococcal conjugate vaccine (PCV13) was implemented in the Greenlandic children vaccination programme, but the effect of this change is not yet well documented. The objective of this study is to evaluate the effect of the implementation based on the number of episodes of acute otitis media (AOM).

Methods: Data was obtained from Greenlandic medical journals. The PCV13 vaccine is given in three doses, when the child is 3, 5 and 12 months old. We included all children born from January 2015 to December 2016, thus eligible for the three doses of PCV13 including one year of follow-up time. Exclusion criteria was uncertain vaccination status and predefined comorbidities. The children were divided into two groups based on vaccination status defined as “Completed vaccination programme”: having received

all three doses of PCV13 within the age of 15 months; and “Incomplete/delayed vaccination programme”: not having received all three doses of PCV13 within the age of 15 months and not fulfilling any exclusion criteria.

Results: In total, 1077 children were included. 742 were allocated to the “Completed vaccination programme”-group and 335 were allocated to the “Incomplete/delayed vaccination programme”-group. Significant differences were found between the two groups in the following variables: age at first, second and third dose of PCV13 ($p < 0.0001$), premature birth ($p < 0.0001$), elective sectio ($p < 0.0001$) and “all types of birth” ($p = 0.03$). There was significant fewer episodes of AOM in the group “Incomplete/delayed vaccination programme” ($p = 0.01$).

Conclusion: The PCV13 did not reduce the number of AOM episodes among Greenlandic children.



Smartphone otoscopy by non-specialist health workers in rural Greenland: a cross-sectional study

Malene Nøhr Demand, Ramon Gordon Jensen, Mahmood F. Bhutta, Gunnar Hellmund Laier, Jørgen Lous, Preben Homøe

Introduction: Greenland has one of the highest prevalences of otitis media in the world. However, access to ear specialists throughout Greenland is limited and currently there are no national guidelines for treatment or prevention. Tele-otoscopy may be beneficial in optimizing diagnosis and treatment. The smartphone otoscopy device, CuprisØ, has previously been validated when used by medical doctors on a population primarily consisting of adults. In this study we evaluated the usability of the CuprisØ otoscope when used by local health care workers with different levels of training and education, examining children aged 1-6 years.

Methods: We conducted a cross-sectional study in three Greenlandic towns. Health care personnel were asked to perform video-otoscopy on children contacting the health clinic for any reason. The videos were sent for remote evaluation by three ear specialists who rated the videos on a 5-

point Likert scale and provided information on challenges with the videos. The dichotomous outcome “not useful/ useful” was defined as 1-3 and 4-5 on the Likert scale, respectively.

Results: In total, 142 videos were recorded on 84 patients. Mean proportion of useful videos was 18.1%, with a modified Fleiss’ Kappa interrater agreement coefficient of 0.67 95% CI [0.57-0.76] corresponding to substantial agreement among three raters.

Conclusions: In this study the usefulness of the CuprisØ TYM otoscope did not prove to be sufficient with the presented instruction in the hands of local health care workers when examining Greenlandic children. Focus on training and education of local health personnel is crucial and warranted before advantageous implementation for non-specialist health care workers can be expected.

Webbaserede smartphone høreprøver Preben Homøe

I de senere år er der udviklet mulighed for at udføre simple screeningshøreprøver via smartphone app's. Vi vil afprøve flere af disse app's og gennemgå styrke og svagheder.

Et eksempel er WHO's app – hearWHO. Download denne til din telefon inden sessionen og medbrag dine hovedtelefoner som kan forbindes med din smartphone.

Parental perceptions and management strategies for otitis media in Greenland

Malene Nøhr Demand, Christina Viskum Lytken Larsen, Preben Homøe

Introduction: Otitis media (OM) in Greenland is a substantial problem and the country prevalence is among the highest in the world. However, little is known about how Greenlandic Inuit parents perceive and manage everyday life with children suffering from OM.

Methods: We conducted a qualitative study based on semi-structured interviews and focus groups with parents to children with OM. The interviews took place in the capital Nuuk and two smaller towns in West and East Greenland. We conducted the data analysis using Systematic Text Condensation.

Results: In total, 27 parents participated in the study. Although most parents perceived OM as a result of genetic or environmental dispositions, individual perceptions and cultural beliefs of causal associations between behavior and OM co-existed with the general understanding of medical explanation models. This created a sense of guilt among the parents.

Some parents felt in control of managing the disease of the child and used medically well-established strategies. Others felt frustrated and considered contact to the health clinics as futile, thereby managing the disease by ‘waiting it out’. Emerging themes were shame and stigma related to the symptoms of OM, which led to social isolation as a consequence for several of the families.

Conclusion: Our results indicate that Greenlandic Inuit families are impacted by OM in a complex and severe manner. Guilt, shame and social isolation were predominant themes influencing the everyday life of the affected families. Perceptions and management strategies go beyond the scope of the medical explanation models which poses a potential challenge for the parents' experiences with the present treatment offer. The results underline the need to develop a broader approach to prevention and treatment for OM – both at the clinical level as well as part of public health promotion at the community level.

Self-reported hearing impairment among Greenlandic adolescents: Item development and findings from the Health Behaviour in School-aged Children study 2018

Christina Schnohr, Karl-Emil Frid, Ramon Gordon Jensen, Preben Homøe, Birgit V. L. Niclasen

Ear infections are the leading cause of hearing impairment among children and a major public health problem in indigenous populations, yet representative studies of self-reported hearing impairment are scarce. The purpose of the study was to develop items for the collection of data on hearing impairment among Greenlandic adolescents, and to report data on child reports on hearing impairment from a national questionnaire-based survey. The data formed part of the HBSC Greenland 2018 survey including 2,273 students in the age range from 10 to 16 years. 4% reported experiencing ear pain almost daily, and almost 10% reported ear pain at least weekly. 3% reported having inflammation in the ear at least weekly, and 5% reported to have such impaired hearing that they were not at all able to follow what

happened in school. Regression analyses showed that girls had significantly higher odds of low self-rated health, poor school environment and academic achievement below average when they had experienced impaired hearing. ORs varied from 1.85 (95% CI: 1.16-2.94) for low self-rated health to 3.05 (95% CI 1.83-5.11) for feeling pressured by school-work. For boys the only significant association with impaired hearing was an academic achievement below average of 1.73 (95% CI 1.08-2.77). The study confirms clinical knowledge and case studies that a significant proportion of Greenlandic adolescents experience impaired hearing. Future studies may use questionnaire data to follow up on children with hearing impairment to be able to report changes over time and associations to school-related and social factors.

Hvordan kan man behandle øreinfektioner og høretab?

Ramon Gordon Jensen

Som afslutning på øre temasessionen vil vi se på mulighederne for behandling af mellemørebetændelse i primærsektoren i Grønland. Og når skaden så er sket – vi belyser de

forskellige former for hørerehabilitering herunder høreforbedrende kirurgi, høreapparater, implanterbare høreapparater og lydforstærkning i skoleklasser.

PANELDEBAT: Diskussion og fremtidsplaner: Hvordan får Grønland etableret et øre-høre program?
Med alle deltagere



Befolkningsundersøgelerne 1993-2018. Koncept og nogle tidsserier

Peter Bjerregaard, Ingelise Olesen, Christina Viskum Lytken Larsen

Baggrund og Formål: Der er i samarbejde mellem Statens Institut for Folkesundhed og Departementet for Sundhed gennemført fem landsdækkende interviewsurvey med tilhørende kliniske undersøgelser og blodprøver. Undersøgelerne er gennemført i 1993, 1999, 2005-2010, 2014 og 2018. Formålet med oplægget er at præsentere disse undersøgelser og at vise nogle tidsserier over vigtige udfordringer for folkesundheden i Grønland.

Datamateriale: Befolkningsundersøgelsen i 1993 omfattede 1728 interview og 228 kliniske undersøgelser; i 1999 1961 interview og 1314 kliniske undersøgelser fra Grønland samt 1346 interview og 908 kliniske undersøgelser fra grønlændere i Danmark; i 2005-2010 3253 interview og 3115 kliniske undersøgelser; i 2014 2012 interview og 550 kliniske undersøgelser; i 2018 2539 interview og 2525 kliniske undersøgelser. Siden 2014 har der været tale om en opfølging af kohorten fra de tidligere undersøgelser. I alt 7352 voksne indbyggere i Grønland har deltaget i Befolkningsundersøgelsen.

ningsundersøgelerne svarende til 22% af den voksne befolkning. Undersøgelsen i 2005-2010 (Inuit Health in Transition) blev gennemført i samarbejde med en tilsvarende undersøgelse blandt inuit i Canada, og data er i vidt omfang sammenlignelige.

Resultater: For en del af resultaterne kan der etableres tidsserier fra 1993 til 2018 altså over 25 år. For eksempel var andelen af dagligrygere i 2018 faldet til 80% af procenten for 1993, mens andelen af overvægtige med et BMI på 30 eller mere var steget til 221% af procenten for 1993.

Konklusion: Befolkningsundersøgelerne rummer en guldgrube af data om udviklingen af folkesundheden i Grønland og har haft stor betydning for de grønlandske folkesundhedsprogrammer, Inuuneritta. De har desuden leveret materiale til talrige videnskabelige artikler og fem ph.d. afhandlinger.

Om indikatorer for folkesundheden, dataindsamling og dialog med deltagerne i Befolkningsundersøgelsen 2018

Christina Viskum Lytken Larsen, Ingelise Olesen, Peter Bjerregaard

Befolkningsundersøgelsen er sat i verden for at følge udviklingen i folkesundheden med henblik på at skabe et evidensbaseret grundlag for prioriteringer på sundhedsområdet, herunder de forebyggende og sundhedsfremmende indsatser. Der er udvalgt 38 indikatorer for folkesundheden og 19 af disse måles blandt voksne i Befolkningsundersøgelsen, mens de øvrige 19 måles i den grønlandske skolebørnsundersøgelse HBSC Greenland.

Dataindsamling i befolkningsundersøgelsen er et stort logistisk puslespil med løbende udfordringer betinget af vind, vejr, teknik og godt humør. En så stor undersøgelse kan kun lade sig gøre med opbakning fra borgere så vel som sundhedsprofessionelle i alle de byer og bygder vi besøger. Alle

steder er forskellige og nye løsninger for opsætning af undersøgelsessted, laboratorium og diverse kliniske tests skal findes fra gang til gang.

Helt afgørende for undersøgelsens værdi er dialogen med de borgere, der siger ja til at deltage og bidrager med deres tid, besvarelser og kliniske test. Der bliver afsat god tid til at modtage deltagerne og informere dem om undersøgelsens indhold og ved afsluttet undersøgelse, bruges der mindst lige så god tid på at informere om de umiddelbare resultater på gennemførte tests og antropometriske mål. Svar på de kliniske undersøgelser, som først skal analyseres i et laboratorium, sendes med post til deltagerne nogle måneder efter undersøgelsen.

Generationsforskelle i forekomsten af belastende opvækstvilkår

Christina Viskum Lytken Larsen, Ingelise Olesen, Peter Bjerregaard

Baggrund: Misbrug af alkohol betragtes fortsat som Grønlands største folkesundhedsudfordring på grund af de store konsekvenser misbruget har for børn, familier og lokalsamfund. En høj forekomst af belastende hændelser under opvæksten kan ses som en direkte konsekvens heraf. I Befolkningsundersøgelsen 2018 er der indsamlet en række data om belastende hændelser i barndommen, såsom alkoholmisbrug i barndomshjemmet, vold og seksuelle overgreb. Det er således muligt at se på omfanget af en eller flere belastninger samt forskelle i belastningsgraden mellem forskellige fødselsårgange.

Metode og materiale: I undersøgelsen deltog 2539 personer mellem 15 og 94 år fra 12 byer og 8 bygder i hele Grønland. Deltagerprocenten var 52%, men varierede med alder, køn og bopæl og resultaterne er derfor vægtet til befolkningen i 2018. Information om belastninger under opvæksten blev opnået gennem et selvudfyldt spørgeskema på dansk/grønlandsk, der blev udleveret og udfyldt af deltagerne på undersøgelsesstedet.

Resultater: For fødselsårgangene født i 1965 til 1990 var der omrent lige mange, der havde oplevet problemer relateret til alkohol i barndomshjemmet ofte og af og til (ca. 70%). For personer født i 1995 eller senere angav 37% at være vokset op med alkoholproblemer i hjemmet. For fødselsårgangene født i 1970 til 1980 angav ca. 60% at være vokset op med vold i barndomshjemmet, mens dette tal for personer født i 1995 eller senere var 28%. Blandt personer født i 1995 eller senere havde 20% været utsat for seksuelle overgreb i barndommen (inden de fyldte 18 år), mens dette var tilfældet for mere end 40% blandt personer født i 1970-1979.

Konklusion: Personer født i 1995 eller senere er i mindre grad end generationerne født både i 1970'erne og 1980'erne vokset op med belastende hændelser i barndomshjemmet. Der er dog fortsat tale om meget høje forekomster af især alkoholproblemer i barndomshjemmet og seksuelle overgreb i barndommen.

Fedme, diabetes og hjertekarsygdom i Grønland

Marit E. Jørgensen

Formål: Den kliniske del befolkningsundersøgelsen 2017-19 (B2018) omfattede undersøgelse af fedme, diabetes, lungefunktion, kardiovaskulære risikofaktorer, EKG, sekssuelt overførte sygdomme, aldringstests samt undersøgelse for sendiabetiske komplikationer. Oplægget præsenterer selve dataindsamlingen og hovedresultater relateret til fedme, diabetes og risikofaktorer for hjertekarsygdom.

Materialer og metode: Deltagere over 18 år deltog i undersøgelse af vægt, højde, hofte- og taljemål, fedtprocent og blodprøveanalyse af HbA1c, lipider, nyrefunktion og DNA samt urinanalyse af albuminudskillelse. Deltagere over 35 år fik også lavet en oral glukosebelastning med blodprøver fastende, efter 30 og 120 minutter til undersøgelse for glukose og insulin.

Resultater: Blandt 2335 deltagere > 18 år var 32% af kvinder og 24% af mænd svært overvægtige ($BMI \geq 30 \text{ kg/m}^2$). Andelen med forhøjet blodtryk ($>130/80$) har været stigende siden 2005-2010. For mænd har der været en stigning fra 49% i 2005-10 til 76% 2018, og for kvinder en stigning fra 34% i 2005-10 til 61% i 2018. En meget stor andel af be-

folkningen i alle aldersgrupper havde dyslipidæmi defineret som LDL-kolesterol $> 3 \text{ mmol/l}$. Blandt 45-54-årige havde over 70% LDL-kolesterol $> 3 \text{ mmol/l}$. Målt med HbA1c havde 6,8% af mænd og 6,2% af kvinder diabetes i den undersøgte population >35 år, heraf var 22% af tilfældene på forhånd uerkendte. Forekomsten vurderet ved en oral glukosebelastning var markant højere på 18% og 15% hos mænd og kvinder i den undersøgte aldersgruppe, heraf 47% ikke tidligere diagnosticeret.

Konklusion: Den kardio-metaboliske risiko vurderet som overvægt, hypertension, diabetes og dyslipidæmi er høj i den voksne grønlandske befolkning og har været stødt stigende siden den første befolkningsundersøgelse i 1993. Den store andel med forhøjet LDL-kolesterol udgør formentlig en overset risikofaktor i Grønland, muligvis fordi tidligere studier primært har fokuseret på de gunstige niveauer af triglycerid og HDL-kolesterol.

Rusmidler og rygning – Befolkningsundersøgelsen 2018

Ivalu Katajavaara Sørensen, Christine Ingemann, Ingelise Olesen, Peter Bjerregaard, Christina Viskum Lytken Larsen

Introduktion: Med kampagner som Max4Tassa og Røgefri Skole har PAARISA gennem tiden arbejdet for at formidle et sundere liv til befolkningen ved blandt andet at mindske forbruget af alkohol og tobak. I Befolkningsundersøgelsen 2018 blev deltagerne spurgt om deres rygevaner og forbrug af rusmidler.

Formål: Formålet er at beskrive indikatorer for folkesundheden i Grønland, herunder brugen af tobak og rusmidler. **Metode:** Analyserne er baseret på landsdækkende tal fra Befolkningsundersøgelsen 2018, som inkluderede 2539 deltagere mellem 15 og 94 år fra 12 byer og 8 bygder i hele Grønland. Data blev indsamlet ved hjælp af interviews, selvudfyldte spørgeskemaer og kliniske undersøgelser.

Resultater: Resultaterne fra undersøgelsen viser at 19% af deltagerne slet ikke indtog alkohol. Rusdrikning på månedlig basis forekom blandt 34% og den største andel med rus-

drikning sås blandt mænd i alderen 25-34 år (42%). På baggrund af det ny indførte mål, The Alcohol Use Disorders Identification Test (AUDIT), som også Allorifik bruger, viste undersøgelsen, at 32% havde et storforbrug, mens 5,9% havde et skadeligt forbrug, og 4,7% var afhængige af alkohol. Unge mænd var mere tilbøjelige til at ryge hash regelmæssigt, mens størstedelen af befolkningen (70%) ikke havde røget hash inden for det seneste år. Andelen af rygere er fortsat høj, men er faldet fra 68% i 1993 til 52% i 2018. Hovedparten af deltagerne (80%) angav, at de havde rygebegrænsninger i deres hjem og dette tal var endnu højere for husstande med børn sammenlignet med husstande uden børn.

Konklusion: Mange grønlændere er afholdsmænd, og blandt dem som drikker alkohol er der en stor andel som rusdrikker på månedsbasis. Andelen af rygere er aftagende men udgør fortsat en stor udfordring for folkesundheden.

Sundhedsadfærd og forandringsparathed i den voksne befolkning

Christina Viskum Lytken Larsen, Charlotte Brandstrup Hansen, Ingelise Olesen, Peter Bjerregaard

Baggrund: Det er velkendt at over halvdelen af den voksne befolkning i Grønland ryger og at overvægten er stigende. Det er dog kun i begrænset omfang undersøgt, om personer der fx ryger eller er overvægtige rent faktisk har et ønske om at ændre adfærd. Og mindst lige så vigtig, befolkningens oplevelse af adgang til hjælp og vejledning, hvis man er motiveret for at ændre vaner og opnå en sundere livsstil. Disse emner blev for første gang inkluderet i Befolkningsundersøgelsen i 2018.

Metode og materiale: I undersøgelsen deltog 2539 personer mellem 15 og 94 år fra 12 byer og 8 bygder i hele Grønland. Deltagerprocenten var overordnet set 52%, men varierede med alder, køn og bopæl og resultaterne er derfor væget til befolkningen i 2018. Information om sundhedsadfærd og forandringsparathed blev opnået gennem et interviewer-administreret spørgeskema udfyldt på ipad samt via et selvudfyldt spørgeskema, der blev udleveret og udfyldt af deltagerne på undersøgelsesstedet.

Resultater: Blandt rygere angav 72% at de gerne stoppe med at ryge, men kun 2% havde planlagt, at det skulle ske inden for den næste måned. Blandt svært overvægtige (BMI 30+) og overvægtige (BMI 25-29) deltagere, havde henholds-

vis 30% og 18% forsøgt at tage sig inden for den sidste måned. Blandt personer, der indtog alkohol en gang i mellem, angav 36%, at de ønskede at ændre drikkevaner. Denne andel steg med gennemsnittet for antal ugentlige genstande. Flest i Nuuk og færrest på Østkysten oplevede at det var muligt at få hjælp og støtte til vægttab og rygestop i lokalsamfundet.

Konklusion: En relativ stor andel ønsker at ændre livsstil til det sundere. Det er dog langt fra alle og oplevelsen af, at det er muligt at få hjælp og støtte til forandringen i lokalsamfundet afhænger af, hvor man bor.



Forestil dig at alle telemedicinske konsultationer bliver udført med bravour, og forestil dig at Grønlands helbredstilstand forbedres som resultatet af at alle borgere har lige adgang til sundhedsydeler. Det Grønlandske Sundhedsvæsen har en vision – alle borgere skal have lige adgang til sundhedsydeler.

Da telemedicin er nøglen til at opfylde visionen, arbejder vi i Peqqik-data på at udvikle, forbedre og imple-

mentere telemedicin i hele Grønland. Vi står overfor opførelsen af et nyt Diabetes- og Livsstilscenter, støttet af Novo Nordisk fonden. Telemedicin bliver naturligvis et vigtigt element i patientkonsultationerne, så menneskerne i selv de fjernehede egne af Grønland, kan se fagspecialisterne i øjnene og modtage behandling. Da kompetent behandling af patienter ikke indebærer fysisk tilstedeværelse af specialister, arbejder vi målrettet på at udnytte potentialet i telemedicin i alle patientforløb.

Telemedicinske konsultationer inden for neurologi

Sara Lund Fønss Bach, Kirstine Kongsgaard Nielsen

Formål: At afdække de fordele og begrænsninger der er ved de telemedicinske konsultationer inden for neurologen.

Metode: Der er foretaget en kvalitativundersøgelse samt journal gennemgange.

Resultater: De teleneurologiske konsultationer foregår ved hjælp af 'Skype for Business' og gør adgangen til specialitviden lettere tilgængelig. Derudover er der en tids- og økonomisk besparelse i, at afholde konsultationerne fremfor at specialisten skal på specialistbesøg. Patienterne oplever ligeledes at det giver dem en tryghed i deres hverdag, at de er tættere på specialisten ved, at de kan komme i kontakt med dem gennem den teleneurologiske konsultation. Vi skal overveje, hvordan den indledende small talk man har med patienten ved det fysiske møde, kan overføres

til den telemedicinske konsultation. Den indledende small talk kan nemlig have en væsentlig betydning for vurderingen af patienten samt at patienten føler sig godt tilpas. De fysiske lokaler ude lokalt kan være en udfordring, fordi de kan begrænse muligheden for at vurdere patientens gangfunktion. Der er nogle tekniske udfordringer ved afholdelsen af de teleneurologiske konsultationer, herunder internetforbindelsen, da nogle områder i Grønland har dårligere internetforbindelse end andre.

Komklusion: Specialisterne oplever at samarbejdet med kysten fungerer godt, når arbejdsgangen er velkendt. Det er derfor vigtigt at sundhedspersonalet er bekendt med arbejdsgangen. Opfølgningen fungerer godt, når den ensrettes og at personalet er bevidst om deres opgaver og ansvar.



Telemedicinsk fotoscreening for diabetisk retinopati i Grønland

Marianne Valerius, Stine Byberg, Anne Seitz Christoffersen, Ane Marie Ulrik, Henrik Lund-Andersen

Formål: I Grønland har ca. 10 % af voksne diabetes. For at forebygge diabetesrelateret synstab, anbefales fotoscreening af nethinden med 1-2 års intervaller. Geografien i Grønland er en udfordring, så for at alle diabetespatienter kan tilbydes rettidig og regelmæssig screening, opstartede vi (Peqqik, Rigshopitalet/Glostrup og Steno Diabetes center Copenhagen (SDCC)) i 2015 en telemedicinsk løsning 5 steder i Grønland, efter Steno-modellen.

Materialer og metode: I 2015 blev der etableret lokale screeningsstationer i Nuuk, Qaqortoq, Tasiilaq, Ilulissat og Sisimiut, med det formål at screene for diabetisk retinopati (DR), men også levere generel telemedicinsk øjenservice. I 2017 udvidede vi med: Upernivik, Maniitsoq og Aasiaat. Alle 8 telemedicinske screeningsstationer har udstyr til at fotografere nethinden i vidvinkel, tykkelsesmåling af den centrale del af nethinden, foto af det ydre øje, samt måling af øjentryk og synsstyrke. Der er udpeget øjennøglepersoner alle 8 steder og disse har gennemført kursus i øjenundersøgelse, men de udfører også andre ikke-øjenrelaterede opgaver. Billeder fra øjenundersøgelserne uploades

automatisk til en central server i Nuuk og to øjensygeplejersker fra SDCC i Danmark, graderer billedeerne og afgiver svar i Cosmic. Ved behov for konference med øjenlæge, laves en intern omvisitation i Cosmic til det etablerede øjen-telemedicinske system. Svaret formidles af den lokale øjen-nøglepersonen.

Resultat: Det estimeres, at ca. 1000 diabetespatienter bliver telemedicinsk øjenscreenet årligt i Grønland. Dette er en klar fremgang fra ca 5-600 årlige screeninger i 2015/2016. Som følge af samarbejdet mellem sundhedspersonerne i Grønland og øjenpersonalet i Danmark, bliver flere systematisk screenet og rettidig forebyggelse og behandling kan iværksættes. Således kan diabetesrelateret synstab blandt diabetespatienter i Grønland, i udstrakt grad kan forhindres.

Konklusion: Selvom der ikke findes højt specialiseret personale on site, kan et specialiseret team af Telemedicinske fagspecialister, opretholdes en høj kvalitet af screening, som lever op til de anbefalinger der beskrevet af WHO.

The use of big data for assessment of hypertensive care quality in Greenland

Nils Skovgaard, Michael Lyng Pedersen

Greenland faces a tremendous challenge maintaining an efficient healthcare system with high quality healthcare to the highly dispersed population. Since 2004 healthcare data has been digitalized in a primary healthcare system, which was expanded in 2014 to cover the whole healthcare system. Here we present a follow-up on a cross-sectional register study aiming to test the potential of the registration of healthcare data and the data structure as well as our ability to use data to measure the quality of care in Greenland.

Data was extracted from the national electronic medical record system for patients from age 20 and up who receive anti-hypertensive care. OECD standard process indicators including blood pressure (BP) measurements, BMI and smoking status were used, among others, as indicators of the quality of data registration. The number of patients with BP values below 140/90 was used as proximal indicator of the treatment quality.

By 2018 1/6th of the total population currently received

anti-hypertensive medication, but of all recorded BP values only around 50% of the patients had a BP within normal range. Following the previous assessment, we now take a closer look at the status to evaluate both the development in the registration and the quality of the treatment while taking into account the patients' medical progression, using historical data, as well as current comorbidities and parallel treatments.

Digitalization enables extraction and analysis of large sets of lifestyle indicators to establish estimates on the current and historic health status of the Greenlandic population while, at the same time, allowing us to monitor of the registration efficiency. We find a continuous improvement of the registration efficiency since 2014, however, improving the current, fragmented registration practice has potential to raise the general monitoring of healthcare quality in Greenland as a support for maintaining a high treatment quality.

Smartphone based thermal imaging device for assisting in breast cancer early detection and treatment response

Israel Gannot, Merav Ben-David, Michal, Tepper, Eleni Liapi

Thermal imaging technology has advanced tremendously in the last few years. A small device that can be attached to a smartphone has the capabilities of thermal resolution better than 0.1°C with spatial resolution of micrometers and time resolution of 30 frames per second.

We developed a thermal-based device and imaging methodology for breast cancer temperature monitoring and tested the feasibility of its application in a study of breast cancer patients treated with radiation therapy. The data collected and analyzed till now indicate that our thermal based methodology can reliably monitor breast cancer temperature during and after treatment. Therefore, it can reliably monitor breast tumor thermal signature and predict tumor response to therapy. The same device used in the clinic can be given to the woman undergoing treatment for follow-up

at home, especially to identify delayed response as in immunotherapy. This methodology is further extended into early detection assisting device in between mammography sessions. Women are taking their annual/bi-annual mammography and at the same time receiving a multi-angle thermal imaging with the camera attached to their smartphone. Then they bring the device with them home and are taking their own self imaging as prescribed by their physician. The images are then analyzed on the application installed on their phone and sent to the medical centers with the result. This method is especially suitable to remote locations such as towns and villages across Greenland. We will discuss in this presentation our current results and the planned steps to be able to assist in early detection of breast cancer. and in monitoring the response to treatment.

Fjernundervisning af sygeplejerskestuderende i naturvidenskabelige fag: Erfaringer, rammer og perspektiver

Nabil Karas

Formål: Undersøgelsen har til formål at indsamle viden og erfaring fra gennemførte fjernundervisningsforløb ved Ilisimatusarfik med henblik på udvikling af fremtidige fjernundervisningsaktiviteter ved sygeplejestudiet.

Metode: Semistrukturerede interviews er gennemført med tre interessergrupper (tre hold sygeplejestuderende, undervisere samt ledere ved Ilisimatusarfik). Interviews er efterfølgende transskribteret, og vigtige udsagn er udvalgt og overført til en kategoriseringssramme for videre tolkning og analyse.

Resultat: De foreløbige resultater viser bla, at: De studerende har forskellige kompetencer mht til studie, sprog og It, hvilket får betydning for deres motivation og lærning. De studerende ønsker at kunne tilgå lærings-materialer via en anvendelig platform, når de har brug for det. De udtrykker desuden ønske om lokalt forankret støtteperson, og at der foretages evaluering efter fjernundervisningsforløb.

Ved fjernundervisning er underviser-rollen ændret i forhold til den traditionelle lærerrolle i grønlandske sammenhænge. Det er desuden som underviser nødvendigt at

udvikle et didaktisk design, som aktiverer og inddrager de studerende. Dette kan være i form af elementer af kooperativ læring og blended learning.

Studerendes læringsudbytte ser ikke ud til at afhænge af bestemt IT-udstyr, platform eller programmer, men at disse IT-rammer selvagt fungerer, og at de udvælges efter didaktiske overvejelser. Der er desuden behov for at udvikle informationsmateriale og færdselsregler for afvikling af fjernundervisning.

Konklusion: Læring i forbindelse med fjernundervisningsforløb opstår i et samspil, som omfatter studerendes kompetencer og motivation, undervisernes rolle og didaktisk tænkning samt institutionens rammesætning omkring undervisningen. Den pædagogiske litteratur fremhæver desuden, at de nævnte interesser har forskellige perspektiver i forhold til studiet og fjernundervisning. Derfor er det vigtigt på forhånd at afklare og medtænke disse perspektiver i forbindelse med fjernundervisningsforløb.

Erfaringer, rammer og perspektiver belyses og diskuteses yderligere ved oplægget.

The Greenlandic birth cohort ACCEPT

Eva Cecilie Bonefeld-Jørgensen, Manhai Long, Maria Wielsøe, Ane-Kersti S. Knudsen, Anne S. Terkelsen, Henning S. Pedersen

Objectives: Establishment of a geographical Greenlandic mother-child cohort and compare with circumpolar and other international child cohorts. To evaluate the pregnant women's lifestyle, diet and exposure to environmental contaminants versus fetal growth and child health.

Methods: Cross-sectional study of 591 pregnant women in Greenland collected in the period 2010-2015 in five regions including 10 Greenlandic towns. We used interview-based questionnaire to collect data on participants' reproductive factors, lifestyle and diet. Serum concentrations of Persistent Organic Pollutants (POPs) were determined and POP mixtures extracted from serum for measurement of hormone disruption. Birth outcome data and follow-up of the child's health and development at 3-5 years of age were obtained via the country doctor office and questionnaire, respectively.

Results: We observed a relatively high BMI level and high smoking frequency and cannabis use among the pregnant

women. Smoking, alcohol consumption, breastfeeding plans, food intake profile and parity differed between the regions. The study showed a further decrease of Greenlandic traditional food intake among pregnant women. We found significant correlations between age, POP levels, metals and lifestyles factors. Serum POP levels were significantly inverse associated with several hematological parameters.

Conclusion: Age, BMI and smoking levels have not changed much over the last 20 years but a decrease in alcohol intake among pregnant women. Biomarkers of POP exposure reflect mother's diet and lifestyle. POP exposure influence maternal hematological parameters suggesting immunosuppressive potential of POPs in Greenlandic pregnant women. Although a decrease in serum POP levels, the levels are, still of concern for influencing the fetus development. Further studies are needed to elucidate the impact of mother's diet and lifestyle on fetus and child development.

Persistent organic pollutants and metals in Greenlandic pregnant women and indices of foetal growth: the ACCEPT study

Manhai Long

Hormone and dioxin receptor activities of combined lipophilic environmental chemicals in serum from Greenlandic pregnant women and foetal growth

Maria Wielsøe, Manhai Long, Mandana Ghisari, Eva Cecilie Bonefeld-Jørgensen

Background: Bio-accumulating Persistent Organic Pollutants (POPs) have been shown to affect foetal growth in animals and humans. Several POPs have been reported to influence the estrogen- (ER), androgen- (AR), and aryl-hydrocarbon receptor (AhR) activity, and thereby affect foetal growth through the potential endocrine disrupting pathways.

Objective: Evaluate the effects of serum POP mixtures on cellular receptor functions (ER, AR and AhR) in Greenlandic pregnant women, and the relation to foetal growth indices (weight, length, head circumference and gestational age at birth).

Material and methods: In five Greenlandic regions, 591 Greenlandic pregnant women were enrolled in the ACCEPT

mother child cohort during 2010-2015. Serum concentrations of POPs were measured. Mixtures of lipophilic POPs (lipPOPs) and dioxin-like POPs were extracted from serum samples. The effect of the mixture extracts on the ER ($n=500$), AR ($n=471$) and AhR ($n=287$) function was determined using cell culture reporter gene assays. The serum POP mixtures were analysed alone and upon co-exposure with natural receptor ligands to determine agonistic and antagonistic/competitive activity. Birth outcome data were obtained via the country doctor office. Correlation between serum POP levels and receptor activity induced by the extracted POP mixtures were analysed by spearman correlation and associations between receptor activities and foetal growth indices by multiple regression analysis.

Results: Estrogenic and dioxin-like activity of the POP mixtures were significantly, positively correlated with serum POP levels. The lipPOP androgenic activity were significant inverse associated with birth weight. After stratification for gender, the association were only significant in girls.

Conclusion: Serum lipPOP mixtures can activate cell receptors and are potential endocrine disruptors. High androgenic activities induced by lipPOP mixtures extracted from maternal serum were associated with lower birth weight in

the offspring, especially girls. These findings suggest that lipPOPs may exert an effect on human foetal growth through disruption of cellular receptors.

PLENUM discussion for about 10 minutes

The BioSund-ACCEPT study and results from a pilot study on smoking during pregnancy and child risk for asthma, eczema and allergy

Maria Wielsoe, Irene Albertsen, Manhai Long, Silvia Isidor, Dina Berthelsen, Gert Mulvad, Eva Cecilie Bonefeld-Jørgensen

Objective: To follow up on the development and health of the children (age 3-5 years) included in the ACCEPT mother child cohort, and to evaluate associations between prenatal exposures and childhood development and health. In a pilot study, to elucidate the association between smoking during pregnancy and the risk of child asthma, allergy and eczema, and the effect of breastfeeding duration.

Material and methods: The data collection for the BioSund-ACCEPT project is ongoing with interview-based questionnaires on the children's development and health, questionnaires on the parent's lifestyle and health and biological samples (blood, urine, hair and nails) from parents and children. Inclusion of 100 families in total (from the regions West, Disko bay and East) is planned, and the data collection is done in collaboration with the children's health care in Nuuk and University of Greenland.

In a pilot study, 120 questionnaires were sent to the mothers about the children's development and health and 51 were returned. With logistic regression, associations between smoking during pregnancy and the risk of children's asthma, eczema or allergy as well as the associations between the diseases were studied, both in the total study population and after stratification for breastfeeding duration.

Results: The progress and current status for the BioSund-ACCEPT will be presented. The pilot study showed that the risk of having allergy among the offspring was higher when the mother had been smoking during pregnancy and the child were breastfed less than 12 months. Furthermore, we found that children with eczema had a higher risk of also having asthma, as well as having allergy when breastfed more than 12 months.



Trenger samer et tilrettelagt helsetilbud? Folkehelse utfordringer i den samiske befolkningen og etableringen av Sámi Klinikhkka.

Anne Cathrine Silviken, Elisabeth Gerhardsen, Ann-Karin Furuskognes, Marit Myrvoll, Gunn Heatta

Formål: Denne workshopen ønsker å belyse folkehelse utfordringer i den samiske befolkningen i Norge samt gjøre rede for etableringen av Sámi Klinikhkka. Bakgrunn (Materiale og metode): Den samiske bosettingsområdet (Sápmi/Sábme/Saemie/Sameland) strekker seg over fire nasjonalstater; Russland, Finland, Sverige og Norge. I Norge har samer status som urfolk. I de nordiske landene er det kun Norge (1990) og Danmark (1993) som har ratifisert ILO konvensjonen 169 om urfolk og stammefolk i selvstendige stater, noe som forplikter statene å gi et likeverdig helsetilbud til den samiske og grønlandske befolkningen.

Resultat: I workshopen vil følgende folkehelseutfordringer i den samiske befolkningen, samt Samisk helsepark bli presentert og drøftet: a) Kliniske erfaringer i fht negative konsekvenser av fornorskningspolitikken (assimileringsprosessen, fornorskningssår og diskriminering). b) Vold og overgrep er globale folkehelseproblemer, også blant urfolk, og det er behov for mer kunnskap på feltet. I prosjektet

“Vold og overgrep i samiske samfunn” er det sentrale forskningsspørsmålet å undersøke hvilke kulturelle verdier og holdninger som påvirker og opprettholder slike atferdsmønstrene. c) Trenger samer et tilrettelagt helsetilbud? Sámi Klinikhkka – en samorganisering av spesialisthelsetjeneste for samisk befolkning – vil bli presentert. SANKS og Samisk spesialistlegesenter, har blitt opprettet for nasjonalt å kunne tilby samisk befolkning et likeverdig helsetjenestetilbud på tvers av geografiske, språklige og kulturelle grenser. Begge institusjonene var tidligere organiserte i to forskjellige klinikker. Nå etablerer vi en holistisk institusjon – en dør inn – for rus- og psykisk helse og somatikk – Sámi Klinikhkka. Konklusjon: Den samiske befolkningen har en relativt god helsetilstand sammenlignet med mange andre urfolk, men det finnes utfordringer blant annet knyttet til vold og overgrep. Den samiske befolkningen har behov og rett til et likeverdig helsetilbud – Sámi Klinikhkka er et viktig bidrag i denne sammenheng.



Where did the European ancestors of the Greenlanders come from?

Ryan K Waples, Aviaja L Hauptmann, Inge H Seiding, Emil Jørsboe, Marit E Jørgensen, Niels Grarup, Christina VL Larsen, Peter Bjerregaard, Garrett Hellenthal, Torben Hansen, Anders Albrechtsen, Ida Moltke

Objective: Previous genetic studies have shown that the present-day population of Greenland has ca. 25% of its genetic ancestry from Europe due to recent gene flow. However, it is not known which European countries this ancestry is from. While Denmark is an obvious source due to the recent colonisation history, historical records show contact with people from many other European countries. In fact, most contact prior to colonisation was non-Danish. E.g., Dutch sailors whaled extensively off the west coast of Greenland in the 17th century, and in the early stages of colonization, many missionaries came from Norway and Central-Europe. Motivated by this, we aimed to investigate to what extent 14 different European countries have contributed genetically to the Greenlandic population.

Materials and methods: We applied recently developed haplotype-based statistical methods to resolve the sources of European ancestry at country level. We analysed genetic data from 1763 Greenlanders from all parts of Greenland and 8275 Europeans from 14 countries, including 1582

Greenlanders with some European ancestry. Using these methods, we obtained several different measures of the amount of genetic ancestry that each of the European countries has contributed to the Greenlandic population.

Results: We found that almost all the European ancestry in the Greenlandic population is from Denmark, with a minor contribution from Norway, but found little, if any, ancestry from non-Scandinavian countries, including the Netherlands and Central European countries, despite their history of contact. In line with this, we also found that a large fraction of the European gene flow happened within the last two generations.

Conclusion: These findings provide new insights into who the European ancestors of the Greenlanders are: they are prominently Danes. Surprisingly, almost all of the other European countries with a history of contact, seem to have contributed little, if any, genetic ancestry to the present-day Greenlandic population.



Traditional Diet Influences Erythrocyte Fatty Acids Differentially across Genetic Variants of Fatty Acid Metabolism: The Greenlandic Inuit Health in Transition Cohort

Ninna Karsbæk Senftleber, Marit Eika Jørgensen, Emil Jørsboe, Fumiaki Immura, Nita Forouhi, Anders Albrechtsen

Background: Several recent studies have found signs of recent selection on the carnitine palmitoyl-transferase 1A (CPT1A) gene in the ancestors of Arctic populations likely as a result of their traditional diet. CPT1A is involved in fatty acid (FA) transportation and strongly affects circulating FA profiles in Inuit. Traditional foods of the Greenlandic Inuit consist mainly marine animals, and the unique dietary FA profile may affect circulating FA profiles. We aimed to assess if an interaction exists between the CPT1A variant and intake of traditional Inuit diet on 12 blood cell membrane fatty acid levels.

Methods: We included 3005 genotyped individuals living in Greenland, who had blood cell membrane fatty acid level measured. Food intake was estimated from a semi-quantitative food-frequency questionnaire. Consumption of 25 food items typical of the traditional diet was expressed as percentage of total energy intake. We tested for CPT1A x traditional diet interaction while taking relatedness and admixture into account.

Results: The derived CPT1A allele had a frequency of 76.5%. We found that increasing intakes of traditional diet significantly diminished the effect of the variant on levels of 20:1n-9, 18:2 n-6, 20:3n-6, 20:0, and 24:0, but increased the effect of the variant on 20:5 n-3 and 22:5 n-3 levels ($p: 0.049-0.0007$), more than doubling the genotype effect on 22:5 n-3 levels for individuals with a high intake of traditional diet (90% percentile) compared to individuals with a low intake (10% percentile). Similar results were found when assessing interactions between the variant and intake of marine mammals however, we cannot exclude that other traditional food items are important as well.

Conclusions: Our results suggest that the association between traditional diet and blood cell FA composition is affected by CPT1A genotype and support the hypothesis that the n-3 FAs may have been important for adaptation to the Arctic diet.

Monogenic diabetes due to rare variants in Greenland

Anne Cathrine Baun Thuesen, Anette Marianne Prior Gjesing, Marit Eika Jørgensen, Niels Grarup, Ida Moltke, Anders Albrechtsen, Michael Lynge Pedersen, Torben Hansen

Objective: Due to being small and historically isolated, the Greenlandic population has a unique genetic profile, with low genomic variability which means that variants will tend to be either common or absent and often there will be a low prevalence of rare variants. Consequently, rare monogenic diseases are expected to occur at a low frequency. Here, we report two Greenlandic families with dominantly inherited rare monogenic forms of diabetes due to mutations in the HNF1B and GCK gene.

Materials and methods: Genomic DNA from patients and family members was sequenced using a target region capture sequencing chip developed for identifying variants in the coding regions of GCK, HNF1A, HNF4A, HNF1B, and INS, among others.

Results: We found one family with a nonsense variant in the HNF1B gene resulting in a premature stop codon (p.Gln182X). Two of the carriers have diabetes diagnosed

in their twenties and severe kidney disease. Two children under ten and two adult carriers aged 20 and 64 years are normoglycemic and have no reported signs of kidney disease. The variant has not been found in the 1000 Genomes Project (1KGP) or Genome Aggregation Database (gnomAD), or in 450 Inuit genomes, but has previously been found in one French carrier with diabetes and mildly impaired renal function.

A family with a missense variant in the GCK gene (p.As-p206Glu) was also found. Three carriers have been identified, all with mildly elevated fasting glucose. The variant has not been found in 1KGP, gnomAD, or in 450 Inuit genomes, and has not been described previously.

Conclusion: Rare, dominant, monogenic forms of diabetes exist in the Greenlandic population, and it is important to consider a genetic etiology when diagnosing and treating diabetes in Greenland.

Loss-of-function variants in ADCY3 increase risk of obesity and type 2 diabetes

Niels Grarup, Ida Moltke, Mette K. Andersen, Maria Dalby, Kristoffer Vitting-Seerup, Timo Kern, Yuvaraj Mahendran, Emil Jørsboe, Christina V. L. Larsen, Inger K. Dahl-Petersen, Arthur Gilly, Daniel Suveges, George Dedoussis, Eleftheria Zeggini, Oluf Pedersen, Robin Andersson, Peter Bjerregaard, Marit E. Jørgensen, Anders Albrechtsen, Torben Hansen

Objective: Identification of loss-of-function mutations can provide insights into specific genes' biological impact and role in disease. For example, we recently identified a Greenlandic loss-of-function variant in TBC1D4 that substantially increases the risk of type 2 diabetes. Motivated by this, we aimed to identify additional loss-of-function mutations in Greenlanders and investigate their role in obesity and type 2 diabetes.

Materials and methods: We screened for novel loss-of-function mutations in exome sequencing data from 9 Greenlandic trios and intersected the set of identified variants with loci known to associate with obesity or body mass index (BMI). This left us with one variant, which we genotyped in a cohort of 4038 Greenlandic individuals and tested for association to BMI and type 2 diabetes using a recessive linear mixed model. Furthermore, we tested other loss-of-function mutations in the same gene in other populations using a gene-based test. Finally, to investigate the functional impact of the variant, we performed deep RNA sequencing

in leukocytes from 17 Greenlandic individuals.

Results: We identified a loss-of-function mutation in ADCY3 associated with markedly increased risk of obesity and type 2 diabetes: homozygous carriers had a 7.3 kg/m^2 increased BMI ($P=0.00094$) and five out of the seven homozygous carriers had type 2 diabetes or pre-diabetes ($P=0.000078$). In trans-ancestry cohorts, we did not observe the newly identified variant, but we observed an enrichment of other rare ADCY3 loss-of-function variants among 8845 individuals with type 2 diabetes compared to 9323 controls. Finally, RNA data showed that the variant disrupts a splice acceptor site, and that carriers have decreased ADCY3 RNA expression and produce an isoform susceptible to nonsense mediated decay, which hampers protein production.

Conclusion: Our findings provide new information on disease etiology relevant for future treatment strategies of metabolic diseases

A loss-of-function mutation in the sucrase-isomaltase gene is linked to a markedly healthier metabolic profile in Greenlanders

Mette Andersen, Line Skotte, Emil Jørsboe, Peter Bjerregaard, Christina V.L. Larsen, Bjarke Feenstra, Mads Melbye, Marit E. Jørgensen, Anders Koch, Ida Moltke, Torben Hansen, Anders Albrechtsen

Objective: Congenital sucrase–isomaltase deficiency (CSID) is a condition most prevalent in Arctic populations. The condition is known to give severe symptoms among children, including persistent diarrhea, yet the general metabolic health among adults with the condition is not well characterized. Recently, a predicted loss of function mutation, c.273-274delAG, in the sucrose-isomaltase gene was identified, and serves as a diagnostic marker for CSID. We aimed to characterize the metabolic health among adult Greenlanders carrying the c.273-274delAG mutation.

Materials and methods: We genotyped c.273-274delAG in two cohorts of Greenlanders comprising 4600 (Cohort I) and 1500 participants (Cohort II), respectively. We assessed the effect of the variant on markers of metabolic health.

Results: In cohort I, homozygous carriers of the c.273-274 del AG mutation had a markedly healthier metabolic profile than the remaining population, including lower BMI (beta, -2.0 kg/m^2 , $p=3.1 \times 10^{-5}$), fat% (-3.3% , $p=0.0004$), weight (-4.8 kg , $p=$

0.0005), and levels of triglycerides (-0.27 mmol/l , $p=2.3 \times 10^{-6}$) and remnant cholesterol (-0.11 mmol/l , $p=4.2 \times 10^{-5}$). Even though homozygous carriers had a significantly lower consumption of sugar, this did not explain the healthier phenotype in these individuals. In cohort II, metabolomics data revealed that particularly HDL metabolism was altered among homozygous carriers of the mutation, and that these individuals had markedly increased levels of circulating acetate (1.78 mmol/l , $p=2.1 \times 10^{-26}$). Based on these findings, we hypothesize that the observed phenotype is caused by increased fermentation of undigested carbohydrates in the gut, leading to increased amounts of circulating acetate, which increases lipid oxidation, reduce storage of fat, and induces lower energy intake.

Conclusion: We provide an improved characterization of individuals with CSID. Our results show, that homozygous c.273-274delAG mutation carriers have markedly healthier metabolic profiles and indicate that sucrose-isomaltase constitutes a promising new drug target, which might be used to treat obesity and dyslipidemia.

First case of cystic fibrosis in Greenland – diagnosed by neonatal screening

Marianne Skov, Anders Koch, Morten Dunoe

Introduction: CF is a severe monogenic, autosomal recessive disease caused by biallelic mutations in the CFTR (cystic fibrosis transmembrane regulator) gene, leading to disturbance in the chloride and bicarbonate transport in epithelial cells. More than 1500 different pathogenic CFTR mutations, have been reported in the literature, and almost exclusively affecting individuals of Caucasian/European origin.

Patient and methods: May 1st, 2016 newborn screening for CF (CF-NBS) was implemented in the Danish Kingdom (Denmark, Greenland and the Faroe Islands). The algorithm is based on immunoreactive trypsinogen (IRT) and comprehensive genetic analysis, and age at diagnosis has reduced to one to four weeks of age.

Results: The present infant was born in a settlement in Greenland. The primary IRT was above 50 ng/ml, and a subsequent sequencing for the F508del CFTR mutation detected one F508del allele. Full CFTR sequencing revealed a second CFTR mutation. The CF diagnosis was confirmed by

gold standard CF diagnostic tests. Sweat chloride was high (116mmol/L) and fecal-elastase <15 mcg/g indicated pancreatic insufficiency. DNA analysis confirmed the infant to be compound heterozygous for F508del and c.3000_3014del, p.Val1001_Ile1005del. The latter is included in the CFTR database (www.genet.sickkids.on.ca) but has to our knowledge not previously been described in the literature. The infant's parents as well as the grandparents are/were all Greenlandic Inuit as defined by being born in Greenland. Both great-grandfathers of the father side were found to be Caucasian Danes. Four generations earlier a father in the mother's family was Caucasian Dane.

Conclusion: Implementation of CF NBS screening in Denmark 2016 including Greenland identified, to our knowledge, the first case of CF in Greenland and thereby in Inuit population. Although some genetic diseases are not known at present in given populations, their causal mutant alleles may have been introduced through ancestors, which in turn may warrant genetic screening.

SUNDHEDSMÆSSIGE ASPEKTER AF FØDEVAREPOLITIK I GRØNLAND

Moderator Kista Hammeken Lennert & Christina VL Larsen

På efterårssamlingen 2017 besluttede et enigt Inatsisatut, at der er brug for at få undersøgt fremtidens fødevarepolitiske pejlemærker i landet. Kostmønsteret har gennem en længere årrække været under ændring i retning af mere importeret kost (frugt, grøntsager, svinekød, oksekød) og mindre sæl og hval. Der bliver stadigvæk spist meget fisk, men uhældigvis mere usund kost (slik og kager, snacks). Under 5% af den voksne befolkning spiser bare tilnærmelsesvist efter Ernærings- og motionsrådets 10 kostråd.

Forekomsten af fedme er fordoblet siden 1993. Mere end en fjerededel af den voksne befolkning er i dag svært

overvægtige, mens næsten halvdelen har større livvidde end anbefalet af WHO. Overvægt og fedme øger risikoen for diabetes, forhøjet blodtryk og hjertekarsygdom. På trods af det aftagende forbrug af sæl og hval på landsbasis overstiger næsten alle kvinder i daen fødedygtige alder fra byggerne grænseværdien for kviksolv i blodet. Forurening af den grønlandske kost er således et væsentligt aspekt af den fødevarepolitiske dagsorden.

Formålet workshoppen er at diskutere fremtidens pejlemærker på baggrund af de aktuelle sundhedsmæssige udfordringer og nye muligheder på fødevareområdet. Op-læg og diskussioner i workshoppen samles i et notat til PN.

Den stigende overvægt og de folkesundhedsmæssige konsekvenser

Michael Lynge Pedersen

Kostmønstre i Grønland – hvordan spiser vi og hvad koster det? Er det dyrt at leve sundt?

Peter Bjerregaard, Ingelise Olesen, Christina Viskum Lytken Larsen

Baggrund og Formål: En af de helt store udfordringer for folkesundheden i Grønland er den fedmeepidemi, der de

seneste 25 år har øget andelen af svært overvægtige mænd fra 13% til 24% og endnu mere for kvinder – fra 12% til

32%. Årsagerne hertil er en markant ændring af befolkningens kostvaner og en reduktion i den daglige, fysiske aktivitet i en befolkning, der tilsyneladende er genetisk disponeret for overvægt. Foredraget beskriver en række aspekter af kost i Grønland, herunder kostændringer, fødevareusikkerhed og den grønlandske families udgifter til mad.

Datamateriale: Fremstillingen er baseret på Befolkningsundersøgelserne i Grønland 1993 – 2018 og andre kilder.

Resultater: Andelen af grønlandske produkter i kosten faldt fra 82% i 1900 til 38% i 1955 og 15% i 2018. I de seneste 15 år er forbruget af sodavand, slik, kager og snacks steget markant, men der er udtalt social variation. Fødevareusik-

kerhed, dvs. oplevelsen af ikke at have penge nok til at købe mad for, var især udbredt i Østgrønland (27%) i sammenligning med 11% i hele landet, blandt personer på overførselsindkomst (29%) og blandt unge. En gennemsnitlig, grønlandsk familie brugte i 2018 21% af madbudgettet på at købe sodavand, slik, kager og chips. Analyserne viste desuden, at det ikke var dyrere at leve sundt end usundt.

Konklusion: Analyser af Befolkningsundersøgelsernes kostspørøgsmål giver detaljeret information om sociale og demografiske forskelle i kostens sammensætning, fødevareusikkerhed og udgifter til mad. Dette er nyttig viden, når de officielle kostanbefalinger skal føres ud i livet.

Madens sociale og kulturelle betydninger

Tenna Jensen, Kamilla Nørtoft

Mad og kost kan sige noget om et menneskes fysiske sundhed og livsstilsvalg- og muligheder. Men mad kan også give indsigt i det enkelte menneskes velvære og livskvalitet. Oplægget fokuserer på grønlandsk mads betydning for in-

dividuel og kollektiv identitet, kulturelle værdier og sociale netværk blandt ældre mennesker. Oplægget tager udgangspunkt i etnografisk data fra forsknings- og udviklingsprojektet Arktisk Aldring (AgeArc).

En diskussion om fordele og ulemper ved den grønlandske mad

Gert Mulvad

Viden er nødvendig i valg af sund mad. Kan vi trygt spise vores traditionelle mad? Ja, det meste af det!

Den grønlandske kost er i dag en blanding af den traditionelle mad og importerede madvarer, og sådan har det været for de seneste generationer.

Ofte er der fokus på problemer med vores mad, og i forbindelse med de importerede fødevarer hører vi blandt andet om forskellige bakterier, for meget sukker og underlødige fastfoodprodukter.

I forbindelse med vores egen traditionelle mad hører vi

om miljøgifte, botulisme og trikiner, og i den senere tid om sygdom blandt fangstdyrene.

Sund mad er mad, der giver tilstrækkeligt med energi, næringsstoffer, vitaminer og mineraler.

Mængden af mad skal stå i forhold til vores arbejde og bevægelse.

Vores traditionelle mad er proteinrig, sukkerfattig og indeholder vigtige vitaminer og mineraler.

De 10 kostråd fortæller om sund mad i forhold til de kostvaner, som er mest almindelige i Grønland i dag.

Værdifulde partnerskaber! – en introduktion til “NERISA – an Arctic Food Cluster”

Anne Nivika Grødem

”NERISA – an Arctic Food Cluster” er en nyere klynge, drevet og finansieret af Sermersooq Business Council. Medlemmerne kommer fra mere end 40 forskellige virksomheder, som dækker hele værdikæden på fødevareområdet! NERISA fokuserer på at være et udviklende og værdifuldt netværk, som skaber merværdi i fødevarebranchen. Vi tror nemlig på, at det giver mening og resultater, at samarbejde på tværs! NERISA har indtil nu haft stor indflydelse på udarbejdelsen af den nye rammelov på fødevare-

området, ligesom medlemmerne spiller en vigtig rolle i FoodLab, som åbnede i september 2019.

NERISA har således formået at sætte et solidt aftryk allerede, og skabt bedre rammevilkår for fødevarebranchen på kort tid. Det er vi meget stolte af!

Fysikkerhed og håndtering af utilsigtede hændelser i Air Greenland

Sigurd Schjøtt

Formål: At åbne op for en læring om indrapportering af utilsigtede hændelser som system og læring af erfaringer på tværs af organisationer.

Oplægget handler om, hvordan Air Greenland har systematiseret arbejdet med utilsigtede hændelser med det formål at maksimere læringen fra de indrapporterede hæn-

delser. Dette er sket igennem en kulturbearbejdning hvor skyld er uinteressant og fokus fjernes fra den enkelte medarbejder. Der åbnes op for en diskussion om, hvordan man som branche kan lære af hinanden, når det gælder arbejdet med sikkerhed og utilsigtede hændelser.

Status på læring af indberettede utilsigtede hændelser i sundhedsvæsenet

Tina Nielsen

Baggrund: Som ansat i sundhedsvæsenet kan du indberette utilsigtede hændelser, der er sket i sundhedsvæsenet og denne mulighed har nu fejret 1 års fødselsdag. Fra maj 2018 til august 2019 var der indberettet 1925 utilsigtede hændelser, hvilket giver et gennemsnit på 4,2 indberettede hændelser pr. dag.

De indberettede hændelser registreres i systemet D4 og sendes med det samme til sagsbehandling i den afdeling, hæn-delsen er sket. Hændelserne ses ligeledes igennem af en patientsikkerhedskonsulent, hvor de gennemgås for mønstre således, at der i samarbejde med lokale og overordnet ledelse skabes et overblik over uhensigtsmæssigheder.

Den grønlandske håndtering af utilsigtede hændelser skabte positiv opmærksomhed ved Konferencen For Patientsikkerhed i København i 2019, netop fordi vi har valgt, at hændelserne skal sagsbehandles lokalt og hermed give de

involverede medarbejdere og ledelser mulighed for inddragelse i forbedringsprocessen, hvor vi sammen kan skabe en arbejdskultur, hvor vi lærer af hinanden og de fejl vi alle uundgåeligt laver fra tid til anden.

Formål: Indberetning af utilsigtede hændelser er et lærings-system, som sigter mod forbedring og ikke et registrerings-system, blot for at registrere.

Dette oplæg har til formål, at gøre status på, hvilken læring og forbedringstiltag sundhedsvæsenet har udledt og igangsat i led af en utilsigted hændelse.

Metode: Der tages udgangspunkt i udvalgte indberettede hændelser som cases og gennemgang af sagsbehandlingen og læringsprocessen efter indberetning.

Behandlingsklager i 2018 Tina Nielsen, Kirstine Kongsgaard

Baggrund: I 2018 blev der indgivet 71 behandlingsklager. Sundhedslovgivningen foreskriver, at en patient eller dennes pårørende har ret til, at indsende en klage til Landslægeembedet, når det vedrører klage over sundhedsfaglig virksomhed.

Det påhviler Det Grønlandske Sundhedsvæsen, at en patient kender til deres mulighed for klageadgang og kan ydes vejledning ved behov.

Behandlingsklagesystemet er ikke hjemtaget til Grønland, som de fleste andre områder i sundhedsvæsenet. Når en klage er sammenfattet og sagsbehandlet ved Landslægeembedet sendes den til Patientklagenævnet i Danmark, som er øverste myndighed for afgørelser i behandlingsklagesager.

Formål: Dette oplæg har til formål, at give et indblik i kla-

geven og hvilke informationer man kan lede ud af de behandlingsklager patienten indberettede i 2018.

Metode: I samarbejde med Landslægeembedet er der foretaget audit og analyse på behandlingsklager fra 2018, journalmateriale og sagsbehandlingsdokumenter indhentet i F2 i perioden september – december 2018.

I Det Grønlandske Sundhedsvæsen har alle patienter mulighed for at indgive en klage over den behandlingsperson, de er behandlet af i deres patientforløb. Dette oplæg har til formål at give et indblik i, hvilke borgere der indberettede behandlingsklager i 2018, hvordan klagerne blev fordelt geografisk i Grønland og hvad handlede klagerne egentlig om? Sidst skildres klagevejen og den typiske varighed af denne.

The BioSund-ACCEPT study and results from a pilot study on smoking during pregnancy and child risk for asthma, eczema and allergy

Exposure to environmental contaminants, hormone levels and foetal growth in a Danish population

Sophie Boesen, Maria Wielsøe, Manhai Long, Eva C. Bonefeld-Jørgensen

Objective: Previous studies have suggested that Persistent Organic Pollutants (POPs) decrease foetal growth. A mechanism of action is not yet ascertained. This study examines possible associations of i) maternal POPs exposure in early pregnancy and effects on the homeostasis of endogenous hormones; ii) maternal hormone levels and their effect on foetal growth indices (FGI) and; iii) the effect of prenatal POPs exposure on FGI.

Method: During 1st trimester maternal hormones (oestrogen-, androgen- and thyroid hormones) and POPs levels (lipophilic POPs and perfluoroalkyl acid substances (PFAS)) were measured in serum up to 800 nulliparous women in the Aarhus Birth Cohort sampled during 2011-2013. FGI (weight, length, head circumference, ponderal index and gestational age at birth) were collected postpartum. Associations were assessed by multivariate-linear regression models under adjustment for potential confounders. A principal component analysis was conducted to explore the combined effect of POPs.

Results: i) Maternal POPs exposure was found to affect maternal hormone levels: PFAS exposure was positively associated to thyroid hormones and androgens, while lipophilic POP levels were negatively associated with androgens and oestrogens, respectively.

When evaluating categorical exposure no differences from continuous data was seen, except PFAS quartiles were negatively associated with oestrogen hormone levels.

ii) The maternal hormone levels were not related to FGI, neither in the total study population, nor after stratification on gender. However, evaluating categorical exposure, single quartiles of oestrogen and thyroid hormone levels were positively associated with FGI.

iii) Lipophilic and amphiphilic POP exposure did not affect FGI in the total study population, however, upon stratification on gender, both male and female FGI were affected.

Conclusion: Maternal hormone levels was found to alter upon POPs exposure. We found weak evidence of maternal hormone level and impact on FGI. Maternal POP exposure affected FGI in both genders.



Serum selen niveauer hos grønlandske fiskeindustriarbejdere – association med astma?

Birgitte Hamann Laustsen, Jakob Hjort Bønløkke, Ole Carstensen, Øyvind Omland, Torben Sigsgaard, Kurt Rasmussen, Niels Ebbehøj

Baggrund: Tidligere studier har vist, at prævalensen af astma er lavere i Grønland end i andre dele af verden. I andre dele af verden, herunder Canada, har fiskeindustriarbejdere øget risiko for at udvikle erhvervsbetinget astma. Fisk og skaldyr udgør en vigtig og betragtelig del af kosten i Arktis inkl. Grønland. Fisk og skaldyr bidrager væsentligt til selenindtag via kosten, og tidligere studier har vist høje serum selen (S-Se) niveauer i Grønland.

Formål: At undersøge om selen niveauer hos grønlandske fiskeindustriarbejdere er associeret med luftvejssymptomer tydende på astma, og om der er association med lægediagnos-ticeret astma.

Materiale og metoder: Medarbejderne på flere fiske- og skaldyrsfabrikker i Grønland blev inviteret til at deltage i et studie med et spørgeskema vedr. helbred og arbejd-forhold, en hud priktest, lungefunktionsundersøgelse og blodprøver. S-Se niveauer blev målt i blodprøverne. De var

ikke normalfordelt, og der blev anvendt parametriske tests på logaritmen til S-Se.

Resultater: Der var tilgængelige data fra spørgeskema og blodprøver på 290 undersøgte. Ansatte i større byer havde en lavere gennemsnitlig S-Se end ansatte på trawlere og i bygderne. S-Se var højere hos undersøgte, som rapporterede symptomer fra nedre luftveje, men der var ikke en statistisk signifikant association mellem S-Se og lægediagnos-ticeret astma. S-Se var højere blandt tidligere rygere end nuværende rygere og ikke-rygere.

Konklusion: Undersøgelsen konkluderede, at S-Se var højere hos de, der boede og arbejdede i bygderne, hvor kosten med højere sandsynlighed vil være traditionel grønlands-k med større indhold af fisk og skaldyr. Foreløbige resultater indikerer, at høje S-Se niveauer er associeret til nedre luftvejssymptomer men ikke til mindre astma. Resultaterne tyder på, at tidligere rygere har højere S-Se niveauer.

Allergier i fiske- og skaldyrsindustrien i Vestgrønland

Jakob Bønløkke, Niels Ebbehøj, Ole Carstensen, Andreas Lopata, Øyvind Omland, Kurt Rasmussen, Torben Sigsgaard

Formål: at undersøge forekomst af erhvervsbetinget allergi i fiske- og skaldyrsindustrien i Vestgrønland.

Metoder: Fra oktober 2016 til oktober 2017 undersøgte vi 336 arbejdere på 10 fabriksanlæg i Grønland. De arter, der blev produceret i størst omfang var reje (*Pandalus borealis*), torsk (*Gadus ogac*), hellefisk (*Reinhardtius hippoglossoides*) og snekrabbe (*Shionoecetes opilio*). Vi undersøgte allergiske reaktioner, lungefunktion og luftvejssymptomer.

Resultater: Deltagelsesraten var ca. 80% og gennemsnits-alderen 40 år. Ved test med specifikke priktestreagenser udviklet til dette projekt var 10% af rejearbejderne sensibiliserede overfor rejer og 30% af krabbearbejderne overfor krabber. Arbejdsværtet astma var sandsynligvis til stede hos 4% af rejearbejderne og 12% af krabbearbejderne. Hos yderligere 14-18% af arbejdere var der symptomer, der tydede på arbejdsværtet astma. Arbejdere med mere end 5 års ansættelse i krabbeforarbejdning havde en risiko

(odds ratio) på 4,8 for at være sensibiliserede sammenlig-net med arbejdere med mindre end 1 måneds ansættelse. Ved at teste for specifik allergi i blod fandt vi, at 167 (50%) af arbejdere var sensibiliserede overfor rejeproteinet hemocyanin, 68 (20%) var sensibiliserede overfor fiskeormen *Anisakis simplex* mens kun en var sensibiliseret overfor torsk.

Konklusion: Vores undersøgelser bekræftede fund fra et pilotstudie i 2007 og viste at krabbeallergi og -astma er lige så hyppig i fiske- og skaldyrsindustrien i Vestgrønland, som de er i andre regioner i verden. Undersøgelsen viser også, at selvom rejeforarbejdning fremkalder mindre sygdom end blandt krabbearbejdere, så er sensibiliseringer høj i begge jobs. Det vides ikke i hvilket omfang sensibilisering afspejler kostvaner snarere end arbejde eller i hvilket omfang forebyggende foranstaltninger på arbejde kan ned-bringe sensibilisering og astma.

Incidence of sensitization to the fish parasite anisakis

Jakob Bønløkke

Greenlandic housing and health

Niels Erik Ebbehøj

Persistent organic pollutants and metals in Greenlandic pregnant women and indices of foetal growth: the ACCEPT study

Marie H. Hjermitslev, Per I. Bank-Nielsen, Manhai Long, Marie Wielsøe, Eva C. Bonefeld-Jørgensen

Objective: Environmental contaminants such as persistent organic pollutants (POPs) and heavy metals are transported to the Arctic regions via atmospheric and ocean currents. Previous studies have shown POPs and heavy metals to be associated with disturbance of foetal development. We investigated the associations between the levels of serum POPs and blood metals in Greenlandic pregnant women and their infants' foetal growth indices (FGI) including birth weight, length, head circumference and gestational age at birth.

Method: In five Greenlandic regions 591 Greenlandic pregnant women were enrolled during 2010-2015. The levels of lipophilic POPs including 11 Organochlorine pesticides (OCPs), 14 Polychlorinated biphenyls (PCBs) and 10 Polybrominated diphenyl ethers (PBDEs) and 16 amphiphilic POPs (Perfluoroalkylated substances (PFASs)) as well as 13 metals were measured in up to 509 samples. The regional levels of POPs and metals were compared using ANOVA test. The associations between maternal levels of POPs and metals and FGI were assessed using multiple regression analysis.

Results: There was significant regional difference of lipophilic POPs and amphiphilic PFASs with higher level in East and North Greenland. The levels of POPs such as PCBs, OCPs, perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) in the ACCEPT women were lower than reported previously.

We observed significant inverse associations between PFOA and birth weight, birth length and head circumference, whereas a positive association with gestational age at birth were seen.

Significant regional differences were observed for several metals. Cadmium, lead and copper were significantly inverse related to FGI.

Conclusion: A decrease trend of some POPs was observed. However, the East and North region still had the highest level of serum POPs. PFOA and cadmium levels was significantly and inversely associated with FGI in the population of ACCEPT study. The data indicate that the environmental contaminants have a negative effect on foetal growth.

Successful dietary recommendations regarding mercury in a high exposed community

Pál Weihe

High levels of Hg in meat and organs from pilot whales, which are an important traditional food source for the Faroese were first reported in 1977.

This finding led to the first consumption advisory for the general Faroese population from the Chief Medical Officer to limit the consumption of pilot whale and to completely avoid pilot whale liver and kidney. Since 1980, pregnant women were specifically advised to limit their consumption of pilot whale meat and blubber. In 1989, additional information on high levels of organochlorine contaminants in pilot whale blubber led to the consumption advisory to further limit intake. In 1998, another advisory followed due to demonstrated effects of Hg and PCB exposure on the health of the fetus and newborns. In 2008, the Faroese health authority concluded that pilot whales exceeded limits for acceptable concentrations of toxic contaminants and could no longer be recommended for human consumption.

The risk communication efforts appear to have been successful. Hg levels in pilot whales have not decreased over the last three decades but concentrations in the blood of pregnant women have decreased significantly. The risk communication is likely to have been the driving force for this decrease. For example, associated with the extensive cohort studies ongoing since 1985, risk communication was continuous throughout the years and reached all areas of the islands. Risk communication messages were always restricted to pilot whale consumption, while fish species with low contaminant concentrations were available and recommended as alternative dietary choices. The success of the risk communication efforts and lower levels of contaminants in the Faroese population comes at a cost of loss of cultural identity for the Faroese people, who have relied on pilot whales as a staple part of their diet for hundreds of years.

Psykiatri i Grønland

Ane Storch Jakobsen Lundell, Michael Lynge Pedersen

Den grønlandske befolkning er på mange måder unik; genetisk såvel som historisk og kulturelt. På baggrund af interaktioner med europæiske folk har sociale, kulturelle og økonomiske ændringer forårsaget væsentlige ændringer i folkesundheden i løbet af de seneste århundreder. Der ses mange tegn på, at den mentale sundhed i Grønland er truet, bl.a. i form af høje selvmordsrater blandt unge, ulykker, vold og stofmisbrug, samt høj forekomst af almindelige psykiske lidelser som depression og angst. Vi ved imidlertid foreløbig ikke meget om forekomst og behandling af psykotiske lidelser i Grønland i løbet af de sidste to årtier.

Vi gennemførte et observationelt tværsnitsstudie baseret på dataudtræk og gennemgang af hospitalsjournaler for psykiatriske patienter i Grønland for at bestemme forekomsten af de psykotiske og bipolare lidelser og beskrive socioøkonomiske og kardiovaskulære risikofaktorer.

Vi fandt forekomst af de alvorlige psykiatriske sygdomme, der var sammenlignelig med de globale mønstre, bortset fra en høj forekomst af unge mænd med skizofreni. Cannabis- og alkoholmisbrug, men ingen andre stof-misbrug var udbredte. Vi fandt lav socioøkonomisk status og lavt uddannelsesniveau blandt de alvorlige psykisk syge. Metaboliske og kardiovaskulære risikofaktorer blev kun i meget ringe grad monitoreret blandt patienterne i antipsykotisk behandling, og de tilgængelige data afslørede dårlig sundhedstilstand blandt andet i form af overvægt og rygning.

Det grønlandske psykiatriske sundhedssystem ville utvivlsomt drage fordel af mere kontinuerlig og specialiseret bemanding, samt generelt flere ressourcer.

"If you do not birget [manage] then you don't belong here": a qualitative focus group study on the cultural meanings of suicide among Indigenous Sámi in arctic Norway

Jon Petter A Stoor, Gro Berntsen, Heidi Hjelmeland, Anne Silviken

Background: Suicide is a major public health issue across the Arctic, especially among Indigenous Peoples. The aim of this study was to explore and describe cultural meanings of suicide among Sámi in Norway.

Methods: Five open-ended focus group discussions (FGDs) were conducted with 22 Sámi (20) and non-Sámi (2) participants in South, Lule, Marka, coastal and North Sámi communities in Norway. FGDs were recorded, transcribed verbatim and analysed employing thematic analysis. Findings: Six themes were developed from the analysis: "Sámi are treated negatively by the majority society," "Some Sámi face negative treatment from other Sámi," "The historic

losses of the Sámi have turned into a void," "Sámi are not provided with equal mental health care," "The strong Sámi networks have both positive and negative impacts," and "Birgetkultuvvra' might be a problem."

Conclusion: The findings indicate that the participants understand suicide among Sámi in relation to increased problem load for Sámi (difficulties in life not encountered by non-Sámi) and inadequate problem-solving mechanisms on different levels, including lack of equal mental health care for Sámi and cultural values of managing by oneself ("ieš birget"). The findings are important when designing suicide prevention initiatives specifically targeting Sámi.

Treating and Preventing Stress Related Disorders in Greenland with Self Care: An Evidence-based Review of the Transcendental Meditation Technique

Robert H. Schneider

Self-harm (or suicide) is the leading cause of premature death in Greenland. Rates of other stress-related disorders are also high—depression, anxiety, posttraumatic stress disorder, substance abuse, interpersonal violence, chronic pain, cardiovascular disease and diabetes. Amongst stress-reducing, self-care approaches, the Transcendental Meditation™ technique is one of the most widely practiced and research techniques internationally. Several hundred published scientific studies report on neurophysiological, physiological, psychological and behavioral effects of acute and chronic practice. Practice of the TM technique is associated with a state of “restful alertness” that is characterized by EEG alpha coherence simultaneous with reductions in metabolic activity and neuroendocrine activation. Systematic reviews and meta-analyses of randomized controlled trials (RCT) of TM indicate short and long-term reductions in anxiety and depression. A recently conducted RCT of 220 patients with PTSD showed that the TM technique was as effective as well-established cognitive behavior therapy

in reducing symptoms of PTSD and depression. Other studies have shown reductions in anger/hostility, and alcohol abuse, smoking and violent behavior. A series of clinical trials sponsored by the US government and others reported that practice of TM technique for 20 minutes twice a day lowered high blood pressure, prevented hypertension and metabolic syndrome. Two long-term RCTs involving 400 subjects showed 48% reduced risk for mortality, and the composite of mortality, myocardial infarction and stroke. The cardiovascular prevention effects have been reviewed in scientific statements from the American Heart Association. Comparative effectiveness studies suggest that the regular experience of the state of restful alertness during TM has distinctive neurophysiological correlates and perhaps clinical outcomes than other meditation and relaxation practices that involve concentration or open monitoring. Thus, the TM technique appears to offer an effective and self-care alternative for those suffering from stress-related conditions in Greenland and other arctic regions.

Introduction to therapeutic landscapes and landscapes of despair

Chúk Odenigbo

Objective of this presentation: To demonstrate the ways in which landscape can be used to study human health, adapted for a Greenlandic context. Landscapes are a cornucopia riddled with numerous interpretations, visions, understandings and realities that influence and are influenced by human cultures, behaviours and beliefs. Landscapes are related to, but not synonymous with nature, scenery, and the environment. They are inherently complex and impossible to fully define and grasp without considering multiple perspectives and angles. Landscapes form a strong basis from which to analyse and study health because they are formed through and altered by both the biomedical and non-biomedical paradigms of every disease. Landscapes thus force an acknowledgement of both the epidemiology of a disease as well as the societal factors that influence its incidence, prevalence and mortality. The use of landscapes to study health is a relatively new concept. Many cultures often link levels of health with certain places, assigning the term “landscapes of despair” to locations that inspire death and disease; or “therapeutic landscapes” for areas that are believed to rejuvenate the mind and/or body. The use of place as a marker of health has transcended generations and spanned many ethnicities and cultures, remaining in force till today. A common example is “homesickness,” where

when one misses a place that makes them feel safe, secure and connected to the land, they manifest physical and mental symptoms akin with biological diseases. Despite the complexity inherent in studying landscapes and understanding their significance in a health-oriented perspective, they provide a multidisciplinary base for integrated policy development and land/disease management. Looking at landscapes and health brings about questions of agency and structure; assessing the roles that individual decisions, cultural norms, natural assets and both governmental and non-governmental organisations play in rendering a given area “therapeutic” or “despairing.”

Tech Literacy for Youth Empowerment and Wellness in Nunavut

Taha Tabish, Ryan Oliver

Objective: Technology is ubiquitous in Northern Canada, and Nunavut is no exception. Nunavummiut (people from Nunavut) use their devices daily. However, computer science instruction is minimal in schools, so youth are not learning the skills to use these devices to create their own solutions. Through “te(a)ch workshops”, and “Makerspaces”, we aim to address this in a culturally-relevant way, while focusing on building youth empowerment and wellness.

Methods: These tech literacy programs teach youth the concepts and application of computer science through the creation of video games, and its method is embedded in Inuit Qaujimajatuqangit (traditional knowledge). This has been done in partnership with Pinnguaq Association since 2014, through week-long train-the-trainer sessions in communities across Nunavut, and more recently through more permanent “Makerspaces”. The design of the program and

the skills taught act to build agency, resilience, and empowerment, providing youth with a creative outlet to tell their stories, use their language, and build on their overall wellness. Direct observation and participant feedback is used to evaluate program delivery.

Results/Conclusion: A key focus of the program has been to shift the relationship between youth and technology from one based solely on consumption, to one that includes creation and innovation. A combination of short-term tech literacy workshops, and more permanent “Makerspaces” have been used to deliver this education to youth in communities across Nunavut. “Iqaluit Makerspace” has been operating since September 2018, and with recently-announced funding from the Government of Canada, additional Makerspaces in Nunavut are planned to open in the next 5 years. Feedback has been positive, and the plan is to continue evaluating impact of these programs.



Diagnosiceret diabetes Grønland – forekomst og kvalitet i diabetesomsorgen

Michael Lynge Pedersen

Formål: Beskrivelse af forekomsten af diagnosticeret diabetes og kvaliteten af diabetesomsorgen i Grønland gennem de sidste 10 år.

Materiale og metode: Beskrivelsen tager udgangspunkt i en række tværsnitsundersøgelser baseret på data registreret i den elektroniske patientjournal. Forekomsten beskrives som andel af befolkningen over 20 år diagnosticeret med diabetes i forhold til baggrundsbefolkningen. Kvaliteten beskrives ved hjælp af anerkendte kvalitets indikatorer.

Resultater: Undersøgelsen viser at forekomsten af diagnosticeret diabetes i Grønland er steget gennem de sidste 10 år. Kvaliteten af diabetesomsorgen er steget i forhold for 10 år siden.

Konklusion: Forekomsten af diagnosticeret diabetes er steget gennem de sidste 10 år og må forventes at stige yderligere i de kommende år. Diabetesomsorgen er forbedret i forhold til tidligere, men der er plads til forbedringer.

Hjemmemåling af HbA1c for sårbare patienter

Ulrik Appel, Kirstine Kongsgaard Nielsen

Formål: Projektets formål er at afprøve potentialet i et koncept, hvor blodprøvemålinger af langtidsblodsukker for sårbare patienter omlægges. Projektet skal understøttes af digitale sundhedsløsninger, såsom som videomøder og måltagning i eget hjem. Disse teknologier skal anvendes således, at ydelserne kan leveres i tæt tilknytning til borgerens eget hjem og dermed reduceres den belastning de sårbare patienter kan opleve ved et fysisk fremmøde. Steno Diabetes Center har ved projektstart en velfungerende platform til video-møde, men måtte afsøge markedet for udstyr til blodprøvetagning.

Materiale og metoder: Fase 1 i projektet var en række dialoger med forskellige leverandører af udstyr til blodprøvetagning i eget hjem. På dialogmøderne blev både præsenteret eksisterende og ikke færdigudviklet løsninger. Løsningerne blev efterfølgende teknisk vurderet af sundhedsfagligt personale i forhold til eksempelvis brugervenlighed og holdbarhed. På baggrund af vurderingerne blev en maskine udvalgt til projektet. I Fase 2 blev der gennemført blodprøvetagning af 25 testpersoner. Her blev prøve-

svarende fra den udvalgte maskine sammenholdt med prøvesvar fra hospitalets laboratorium. I projektet er der gennemført test af CRP, HbA1c og Lipid og dernæst beregnet korrelationsanalyser for alle værdierne. Fase 3 er at få testet løsningen i forskellige sammenhænge, hvor sundhedsprofessionelle kommer ud til borgeren i eget hjem. I første omgang testes maskinen i en mindre nordjysk kommune, hvor hjemmesygeplejersken og patienten først tager en blodprøve, får analyseret blodprøven på stedet og efterfølgende har et videomøde med lægerne fra Steno.

Resultater: Resultaterne på nuværende tidspunkt er at der er gennemført test og udvælgelse af det teknisk udstyr til hjemmemåling.

Konklusion: At de eksisterende tekniske løsninger kan understøtte arbejdsgange med hjemmemåling af HbA1c og mulighederne skal afprøves ved sårbare patienter. Steno Diabetes Center Nordjylland er derfor i gang med at forberede fase 3 i mindre kommuner, men søger samtidigt også andre teststeder.

Prevalence of diabetic retinopathy in Greenland

Trine Jul, Marit Eika Jørgensen, Michael Lynge Pedersen, Henrik Lund-Andersen, Ellen Juul, Marianne Valerius, Stine Byberg

Objective: The prevalence of diabetes is high and increasing in Greenland. Diabetic retinopathy (DR) is a common, sight-threatening complication to diabetes, however, the risk of developing DR may vary by ethnicity and HbA1c levels. We aimed to assess the prevalence of DR among persons with known diabetes, newly diagnosed diabetes and prediabetes participating in the 2018 Population Health Survey in Greenland (B2018), a follow up survey of three previous health surveys conducted in 1999-2001, 2005-10, and 2014.

Materials and methods: Participants of B2018 with diabetes or prediabetes, diagnosed by oral glucose tolerance test in one of previous health surveys, or HbA1c values ≥ 42 mmol/mol upon participation in B2018, were invited for a diabetes complication screening. After obtaining informed consent, autonomic- and peripheral nervous function was assessed. Using Optos Daytona Ultra-wide field fundus camera, at least two images were taken of each retina. Images were assessed for DR by two ophthalmologic nurses in Denmark.

Results: 493 persons had their retina imaged. For 6 persons, images were ungradable due to cataract (n=2) or poor quality (n=4), and they were excluded from the analyses. 10 persons were identified with DR equivalent to a prevalence of 2%. Only mild or moderate DR were found. Among persons with known diabetes, 13% (6/46) had DR. Among persons with newly diagnosed diabetes or prediabetes <1% (4/444) had DR. Among persons with HbA1c levels above the diabetes threshold (≥ 48 mmol/mol) at the date of examination, the DR prevalence was 11% (8/75), whereas it was only 0.5% (2/409) among persons with HbA1c levels below the diabetes threshold.

Conclusion: The prevalence of DR is lower in Greenland compared with Denmark or similar countries. DR was almost non-existent among persons with HbA1c below the diabetes threshold, and the present study indicates that screening should not be extended to persons with prediabetes.

Suspekt udseende synsnerver i Grønland fundet ved fotoscreening i repræsentativ befolkningsundersøgelse

Ellen Juul, Marianne Valerius, Stine Byberg, Trine Jul Larsen, Marit Eika Jørgensen, Henrik Lund-Andersen

Formål: Som et led i den seneste befolkningsundersøgelsene udført i 2017-19 (B2018), blev deltagere med nuværende eller tidligere prædiabetes og diabetes inviteret til at deltage i en komplikationsundersøgelse. Denne inkluderede måling af perifer og autonom neuropati samt nethinodescreening for diabetisk retinopati. Sekundært til retinopati screeningen fandt vi flere suspekt udseende synsnerver, som kunne give mistanke om udiagnosticeret glaukom. Ifølge tidligere opgørelser er der større af forekomst af arvelige øjensygdomme i Grønland, både åben vinklet og lukket vinklet glaukom. Glaukom er en langsom fremadskridende sygdom med sent opstående symptomer ubehandlet kan tilstanden føre til blindhed.

Materialer og metode: Alle deltagere i B2018, som i tidligere befolkningsundersøgelser havde prædiabetes eller diabetes i henhold til en oral glukose tolerancetest, eller HbA1c ≥ 42 mmol/mol i B2018 fik fotoscreenet deres nethinder med Optos vidvinkelkamera efter informeret samtykke. Screeningen foregik over en periode på 1½ år, i 16 byer/bygder i Grønland. Billederne blev vurderet af to special-

uddannede øjensygeplejersker med adgang til deltagernes sundhedsdata i Cosmic. Brevsvar blev sendt til alle deltagere med resultat af nethindevurderingen. Deltagere med patologiske fund på deres nethindefotos blev anbefalet snarlig undersøgelse på nærmeste telemedicinske klinik.

Resultat: 480 deltagere fik taget nethindefotos i B2018. På baggrund af nethindebillederne fra B2018, vurderede vi, at 35 deltagere havde glaukomsuspekte synsnerver. Ved opslag i Cosmic var fire allerede kendt med glaukom (11%). 31 havde ingen tidligere øjenundersøgelse fra før B2018. Fire deltagere er indtil videre blevet undersøgt af øjenlægekonsulent på vores opfordring, hvoraf en deltager (25%) blev diagnosticeret med glaukom. 27 mangler således fortsat at blive undersøgt.

Konklusion: Glaukom er fortsat et problem i Grønland. 14% af en population viser glaukomsuspekte synsnerver. Hvor stor en del af denne gruppe der reelt har glaukom er ved at blive undersøgt; foreløbige undersøgelser viser at 25% har glaukom, men baseret på et lille patientgrundlag

Diabetisk øjenscreening – en øjenåbner

Jytte Lindskov Jacobsen

Formål: Sundhedspædagogisk tilgang til øjenundersøgelse kan medføre øget forståelse for diabetes.

Metode: Diabetespatienter er opmærksomme og lyttende i forbindelse med en systematisk og pædagogisk tilgang til Diabetisk øjenscreening.

Afhængig af patientens viden og forforståelse for sin diabetes, benyttes øjenundersøgelsen til at ”samle trådene” omkring diabetes.

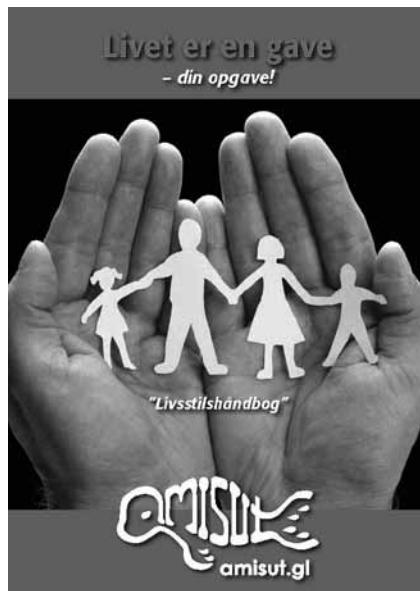
Patienten informeres om, at sundhedsvæsenets tilbud til hende/ham har til formål, at have det bedst muligt trods sygdommen og at behandlingen sigter mod at holde følgesydomme til diabetes stangen. Patienten informeres om, at hun/han har stor indflydelse på hvordan dennes diabetes er reguleret og at det er meget vigtigt selv at tage ansvar for sin sygdom og komme til kontrol.

Resultat: Jeg oplever at patienten gør store øjne, når jeg forklarer nethinden og hvordan diabetes kan medføre forandringer på dennes nethinde, specielt hvis blodsukkeret er på et højt niveau gennem længere tid.

Konklusion: Patienterne giver udtryk for at samtalen i forbindelse med øjenundersøgelsen giver en ny forståelse for

hvad diabetes er, og at det giver god mening med de tilbud vi har i sundhedsvæsenet. Således udsprang ideen med at lave en øjenfilm, så flest mulige diabetespatienter i Grønland kan få samme information om, hvad diabetisk øjenscreening går ud på.

Film vises.



Summer Grocery Store Food Availability in Southern Greenland

Aviva A. Musicus

Purpose: Greenland is currently in the midst of a transition away from a traditional diet to one largely comprised of imported foods, which are often high in calories with low nutritional value. Accompanying this shift has been an increase in rates of obesity and type 2 diabetes. Although much research has been published documenting Greenlandic dietary patterns, there is a dearth of data on environmental barriers people may face in making healthier choices, such as the availability and accessibility of healthier foods. Researchers have previously examined the grocery store food environment in Northern Greenland in the spring. The purpose of this study was to document the grocery store food environment in Southern Greenland in the summer.

Materials and Methods: The availability, quality, and pricing of healthier foods in five grocery stores across Qaqortoq, Nuuk, and Kangerlussuaq were measured using the Nutrition Environment Measures Survey in Stores (NEMS-S) in July 2019.

Results: The NEMS-S total availability score ranged from 11 to 14 (out of 27) across the five grocery stores sampled. The lowest total availability score (11/27) was found in Kangerlussuaq, the smallest community sampled, while the highest (14/27) was found in Nuuk, the largest community sampled. The majority of grocery stores sampled had a wide variety of high-quality fruits and vegetables, but were lacking in availability and variety of whole grain products and reduced-fat meats, frozen meals, baked goods, and potato chips.

Conclusion: This study highlights a gap in grocery store inventory which could be filled through sourcing more whole grains and healthier meats, frozen dinners, baked goods, and potato chips. The study's findings provide baseline and comparison data for past and future Greenland food environment research, and can help inform policy and community interventions to increase the availability of healthier food in Southern Greenland.

Dietary Transition in the Indigenous Populations in the Arctic

Jon Øyvind Odland, Maria Wennberg, Ashiq Mahmud

Objective: Explore the dietary and nutritional transition in the Arctic indigenous populations and find out the causes of these transitions through a systematic review of literature of existing evidences.

Material and methods: All the data and evidence on human health in the arctic will be searched using the key words food, diet, nutrition and dietary transition in Arctic indigenous populations, from AMAP, Pubmed, Medline, Google Scholar, NTNU, and Umeå University databases. Data items will be considered according to PICO.

Results: The results is expected to be presented within June 2020 at NTNU. But the expected outcomes are to find transition, changes in dietary pattern like food selection, consumption rate, nutritional intake in the indigenous popula-

tions in the Arctic, while tabulating these data in a systematic manner.

Conclusion: The dietary changes, nutritional transition, changes in food preference in time will be observed and presented in the final report.

Iodine intake and thyroid function with seaweed intake in Greenland

Paneeraq Noahsen, Stig Andersen, Karsten F. Rex, Hans Christian Florian-Sørensen, Gert Mulvad

Objective: Iodine intake is essential in production of thyroid hormones. Both low and high iodine intake increase the risk of thyroid disease. Iodine is found in various food items such as dairy products, fish and seaweed. Asian and Inuit have iodine rich diet. While intake and impact are well described in Asian populations, the data are lacking for Arctic Inuit. Thus we set out to describe a) iodine content and bioavailability of edible Greenlandic seaweed, b) the consumption of seaweed in the Greenlandic population, c) the influence on iodine and thyroid function among Greenlandic Inuit.

Material and methods: East Greenland household seaweed was donated for measurement of iodine content. 8 volunteers ingested 45 g seaweed each with subsequent urine collections. We invited 50-69 year-olds to the cross sectional study for a questionnaire, blood sampling for thyrotropin, and urine for iodine and creatinine measurements.

Results: Seaweed species were chondrus crispus and ascophyllum nodosum. The iodine contents were 47 and 102 mg/g. Bioavailability was around 50%. One percent of the Greenlandic population was invited and 96% participated in the population survey in East Greenland, and 70% reported some dietary use of seaweed wherein 41% reported a weekly intake. The intake of seaweed was associated with urinary iodine excretion (194, 170, 164 µg/g; p=0.037) while not with thyroid function (p=0.69).

Conclusion: The iodine content in edible seaweed in Greenland is very high and bioavailable, associated with iodine intake while not with thyroid function tests. Dietary intake contributed to the recommended iodine intake level without influencing thyroid function.

Factors influencing Inuit Seniors' food insecurity status (FIS) in Nain and Hopedale, Nunatsiavut, Canada: Preliminary results

Shirin Nuesslein, Chris Furgal, Kristeen McTavish, Hans Christian Florian-Sørensen, Gert Mulvad

High food insecurity levels documented among Inuit in Northern Canada have caused significant public health concerns. For example, national household food insecurity levels documented in 2014 were 12.8% compared to 59.3% in Nunatsiavut, a self-governing Inuit region of Northern Canada, with significant disparity reported between communities within the region.

While significant research has taken place on many of the factors influencing food insecurity and the associated health outcomes, little is known about factors specific to Inuit located in food systems shaped by unique environmental, socio-economic and cultural values and contexts. Even less is known about which groups within the Inuit population are more vulnerable to food insecurity. It is important to understand population-specific factors and sub-group vulnerability for developing evidence-based policies to address food insecurity.

In partnership with the Nunatsiavut Government (NG) this study examines factors influencing the FIS of Seniors, a

group identified by the NG to be vulnerable to food insecurity in that region. The study follows an explanatory sequential mixed-methods design with three phases. A systematic literature review of peer-reviewed literature identified factors reported to influence the FIS of Indigenous Seniors globally. Key-factors were then considered in phase 2 of the study involving a multivariable analysis of an existing dataset on the FIS of Seniors in Nain and Hopedale, Nunatsiavut. This dataset is the only complete community-representative food security dataset in Canada to-date of a specific sub-group within an Indigenous population. Statistical results will be further examined in phase 3 (fall 2019) through key-informant interviews with local health representatives from Nunatsiavut.

Overall, this study will inform the regional food security strategy currently led developed by the Nunatsiavut Government and make a specific contribution to interventions for Seniors' food insecurity. Results will also enhance understanding of the vulnerabilities to food insecurity experienced within the Inuit population.

Lávvu-laboratory – using a traditional Sámi Lávvu (tent) for scientific experiments on smoked reindeer meat

Kia Krarup Hansen, Svein Disch Mathiesen

Objective: Develop a community-based method – a Lávvu-laboratory - with traditional knowledge holders and scientists, arriving at a better understanding of reindeer herding peoples' traditional smoking of reindeer meat to ensure healthy products.

Material and methods: Co-production with Sámi reindeer herders in their traditional tent – the Lávvu - in Northern Norway, including interviews, participatory observations, workshops, smoke temperature measurements and reindeer meat laboratory analysis.

Results: A co-produced data set with different perspectives of Sámi traditional smoking, to be used as explanatory rea-

sons. For example, apart from modernization, the Sámi people continue to smoke their meat in the Lávvu, using Arctic wood species, either willow or birch. The wood species used affects the smoking temperature and the chemical content of meat and fat, essential for the healthiness of the product.

Conclusion: Sámi traditional knowledge of smoking are rich, but might be lost through modernization, rationalization and regulations. Using a community-based method, such as this pioneer Lávvu-laboratory, co-understanding could be achieved and traditional knowledge as well as science can be used to recommend healthy smoked meat products.



PATIENT PERSPECTIVE AND CULTURALLY RELEVANT METHODS

Moderator Christine Ingemann & Kimberly Fairman

Patient experience studies in the circumpolar region: a systematic literature review

Christine Ingemann, Nathaniel Hansen, Kennedy Jensen, Nanna Lund Hansen, Susan Chatwood, Christina Viskum Lytken Larsen

Patient experiences of healthcare and health systems constitute a crucial pillar of wellness and the quality of care itself. Across the Arctic, patients' interactions with the health-care system are influenced by challenges of access, high turn-overs, historical inequities, and social determinants. Though it is well understood that these challenges affect care outcomes, prior research across the Arctic has explored patient experiences only inconsistently, with isolated research efforts that address a variety of components and angles of the care experience. In an international partnership

between Danish, Greenlandic and Canadian research teams, we undertook a systematic literature review of research exploring patient experiences in the circumpolar North. Of the 2,824 articles initially found through systematic searches in seven databases, 92 articles were included for data extraction. Findings from the review may be used to guide future explorations of patient experiences in the Circumpolar context through the identifying knowledge gaps, as well as inform health system improvement and steer health policy decisions.

En pilotinterviewundersøgelse om brugeres perspektiv på og oplevelse af det grønlandske sundhedsvæsen

Ingelise Olesen, Nanna Lund Hansen, Christine Ingemann, Christina Viskum Lytken Larsen

Baggrund og Formål: Center for Folkesundhed Grønland har i sommeren 2019, med et opdrag fra Departementet for Sundhed, gennemført et pilotprojekt der sætter fokus på at undersøge befolkningens oplevelser af- og perspektiv på det grønlandske sundhedsvæsen. Formålet med undersøgelsen er at give et indblik i, hvad der er vigtigt for brugerne af sundhedsvæsenet og hvordan adgangen til sundhedsvæsenet opleves.

Metode: Projektet er deltagerorienteret, hvilket forudsætter brugerens aktive deltagelse i undersøgelsen, der sikres gennem individuelle kvalitative interviews og fokusgruppeinterview/Sharing Circle i de pågældende byer. Der er desuden etableret en referencegruppe som består af en række personer, der alle hver især gennem deres arbejde repræsenterer sundhedsvæsenet eller brugerne. referencegruppen følger, giver input til og forholder sig til undersøgelsens fokus, metoder og resultater.

Det empiriske datamateriale består af 23 semistrukturerede kvalitative interviews med informanter af forskellige køn og alder, 6 interviews med nøglepersoner, som repræsenterer forskellige institutioner, der har berøring med sundhedsvæsenet. Interviewene er gennemført ved hjælp af en interviewguide, der er udarbejdet med inspiration fra undersøgelsens referencegruppe.

Resultater: De foreløbige resultater peger på følgende overordnede temaer, der kan arbejdes videre med. Det drejer sig bl.a. om kulturel relevans og sikkerhed, dialog, kommunikation, mistillid, værdier og sprog.

Konklusion: Pilotundersøgelsen vil fremkomme med forslag og anbefalinger til både det politiske niveau og sundhedsvæsenet med henblik på øget inddragelse af brugerperspektivet i Grønland i fremtiden.

Community of Practice in the Arctic: A Model for Patient Engagement in Greenland and the Northwest Territories

Kimberly Fairman, Christina Viskum Lytken Larsen, Felix Lockhart, Paul Andrew, Ingelise Olesen

Objective: Health care in The Arctic faces considerable challenges in the delivery of services. Despite per capita expenditures that are among the highest in the world, health outcomes continue to lag behind the rest of global populations, and health inequities continue to persist. While improving the health of arctic people requires addressing underlying social determinants, transforming the health care system holds promise in the short and medium term. A key component of system transformation includes process for patient engagement.

Material and Methods: A community of practice model was used to guide the formation of community based patient groups in the Northwest Territories, Canada and Greenland. Our teams collaborated on the development of survey questions and shared lessons learned on engagement practices for patients in the Arctic regions.

Results: Community of practice groups were developed in the areas of indigenous values, life transitions, mental wellness, and chronic conditions. A patient group in Greenland was also established. The two groups worked together to share information and perspectives on the healthcare system and a literature review was conducted to support aspects of healthcare services from a patient perspective.

Conclusion: The panel presentation will highlight the approach for community engagement, emerging themes from the literature, and key activities within community of practice groups. Patients will share their reflections on the process and offer insight into how this engagement has shaped their perceptions of health, healthcare and provision of services.

The Potential of Culturally Relevant Online Learning with Health Workers in the North: Lessons from Alaska

Katie Cueva, Melany Cueva, Laura Revels, Michelle Hensel, Mark Dignan

Objective: The circumpolar north has challenges in access to healthcare, given isolated communities, vast geography, and limited healthcare professional training opportunities. These challenges can result in disparities in health outcomes, including in cancer rates in Alaska. Alaska's community-based primary care providers requested online information about cancer to overcome geographic and economic barriers. Culturally-relevant health promotion strategies are an opportunity to reduce health inequities. A team based at the Alaska Native Tribal Health Consortium developed, implemented, and evaluated online cancer education for Alaska's Community Health Aides and Community Health Practitioners (CHA/Ps).

Methods: To create a framework for culturally-relevant online cancer education, the project team conducted formative assessments. Findings informed the development of twelve interactive online cancer education modules. Each module was reviewed by content experts, CHA/Ps, and interested partners. The revised versions were published online through the Alaska Community Health Aide Program Training Center as CHA/P continuing education. Since January 2016, over 1,600 module evaluations were completed by over 200 unique individuals.

Results: Formative assessment findings describe a framework for culturally-relevant online education that includes: collaborating with learners; delivering content in relevant ways, such as through personal stories, interactivity, and visuals; contextualizing information as relevant to learners' unique realities; and connecting learners to build relationships. After completing a module, learners reported that they felt, on more comfortable, confident, prepared, and knowledgeable to talk with their patients, friends, family, etc. about cancer. Almost all respondents shared they would use the information they learned in the cancer education modules with their patients (93%) and for themselves (97%). Extended interval follow-up indicates that learners followed-through on their intentions and enacted real behavior change.

Conclusions: Culturally relevant online health promotion with community health workers may be a strategy translatable in Greenland and throughout the north to catalyze health behaviors and reduce health disparities.

Cultural competence and safety in Circumpolar countries: an analysis of discourses in healthcare

Josée G Lavoie, Jon Petter Storr, Elizabeth Rink, Katie Cueva, Elena Gladun, Christina Viskum Lytken Larsen, Gwen Healey Akearok, Nicole Kanayuk

Context: Circumpolar Indigenous populations continue to experience dramatic health inequities when compared to their national counterparts. The objective of this study is first, to explore the space given in the existing literature to the concepts of cultural safety and cultural competence, as it relates to Indigenous peoples in Circumpolar contexts; and second, to document where innovations have emerged.

Methods: We reviewed the English, Danish, Norwegian, Russian and Swedish Circumpolar health literature focusing on Indigenous populations. We include research related to Alaska (USA); the Yukon, the Northwest Territories, Nunavik and Labrador (Canada); Greenland; Sápmi (northernmost part of Sweden, Norway, and Finland); and arctic Russia.

Findings: Our results show that the concepts of cultural safety and cultural competence (termed cultural humility in Nunavut) are widely discussed in the Canadian litera-

ture. In Alaska, the term relationship-centred care has emerged, and is defined somewhat more broadly to encompass more explicitly structural barriers to care. We found no evidence that similar concepts are used to inform service delivery in Greenland, Nordic countries and Russia.

Conclusions: While we recognize that healthcare innovations are often localized, and that there is often a lapse before localized innovations finding their way into the literature, we conclude that the general lack of attention to culturally safe care for Sámi and Greenlandic Inuit is somewhat surprising given Nordic countries' concern for the welfare of their citizens. We see this as an important gap, and out of step with commitments made under United Nations Declarations on the Rights of Indigenous Peoples. We call for the integration of cultural safety (and its variant) as a lens to inform the development of health programs aiming to improve Indigenous in circumpolar countries.

DIVING BELOW THE TIP OF THE ICEBERG – STRENGTHENING THE CRITICAL VOICE OF ARCTIC COMMUNITIES WHEN WE TALK ABOUT HEALTH AND WELL-BEING IN THE ARCTIC: Perspectives and interactive presentations from scholars of the Arctic Fulbright Initiative II

Moderator Nicole Kanayurak & Christina Viskum Lytken Larsen

This workshop is organized by sub-cohort of the 2018-2019 Fulbright Arctic Initiative fellows as a part of our collaboration during the program. We are committed to incorporating critical, community-based perspectives within the discourses of community resilience, health, and well-being in the Arctic.

We envision health and well-being research in the Circumpolar world as being similar to an iceberg floating in the Arctic Ocean. Too often, the focus of work in the north is limited to a narrow set of epidemiologic indicators that represent only the tip of the iceberg, while the remaining mass and depth are often hidden from inquiry. Our collective work demonstrates a need to dive deeper and our recommendations provide a path forward. Our collective decades of work have shown us that strengths-based approaches can best support thriving Arctic communities. Our focus is community-based, privileging holistic and Indigenous models of health and well-being, and acknowledging the roles of

culture, community context, spirituality, relationships (interpersonal and human-animal-environment), trauma, mental health, and infrastructure, in supporting wellbeing in Arctic communities.

The purpose of this workshop is to: Engage with the Greenlandic/Danish research community, Indigenous knowledge holders and community members to discuss a set of policy recommendations for strengthening the critical voice of Arctic communities when we talk about health and well-being in the Arctic.

Community members, fellow researchers, health professionals and all who are interested are invited to participate in an open discussion.

The workshop is organized by scholars of the Fulbright Arctic Initiative II.

Diving Below the Surface: A Framework for Health and Wellness Research in the Circumpolar North

Cueva, K., Healey Akearok, G., Larsen, CVL., Lavoie, JG., Stoer, JP., Rink E., Guistini, S., Kanayurak, N.

Objective: The 2018-19 Fulbright Arctic Initiative cohort sought to develop a framework to inform community-led health and social research in the Arctic. Often, the focus of work in the north is limited to a narrow set of deficit-oriented epidemiologic indicators (i.e., prevalence of diseases). While valuable, this research does not adequately capture the complexities of community health and well-being, and also fails to highlight solutions. The complexities of a community's context, strengths, and continued expressions of well-being need to be present in the approach to inquiry in the north.

Methods: Building on the collaborative, relational nature of the Arctic communities we come from and work with, our collective expertise has informed the development of a framework to encourage investigation into the contextual factors that promote Circumpolar communities to thrive.

Results: Our framework centers around the visual imagery of an iceberg. Much as the tip of an iceberg is the only visible part above the water while the majority of mass is below, we view much of existing research on health and wellness in the north as akin to the tip of the iceberg. We see a need to look deeper, below the surface, to examine individual, family, social, cultural, historical, and environmental contexts and determinants of illness and wellness in the Circumpolar north.

Conclusions: The framework we propose is a way to conceptualize circumpolar health research and encourage investigators to both monitor epidemiologic indicators, particularly when even that information is lacking, but also to dive below the surface to investigate contextual factors that support thriving communities.

Determinants of tuberculosis trends in six Indigenous populations of the USA, Canada, and Greenland from 1960 to 2014: a population-based study

Kianoush Dehghani, Zhiyi Lan, Peizhi Li, Sascha Wilk Michelsen, Bolette Søborg, Dick Menzies

Background: TB continues to disproportionately affect many Arctic Indigenous populations. We aimed to investigate whether population-based TB interventions or changes in general health and socioeconomic indicators, or a combination, were associated with changes in TB incidence in Indigenous populations.

Methods: We examined annual TB notification rates between 1960-2014 in six Indigenous populations of the USA, Canada, and Greenland as well as the general population of Canada. We used mixed-model linear regression. Population-wide interventions evaluated were of bacillus Calmette-Guérin (BCG) vaccination, radiographic screening, or testing and treatment for latent TB infection (LTBI).

Findings: TB notification rates declined rapidly in all six Indigenous populations between 1960-1980, with continued

decline in Alberta, Alaska, and Eeyou Istchee thereafter but recrudescence in Nunavut, Nunavik, and Greenland. Annual percentage reductions in TB incidence were significantly associated with two TB control interventions, relative to no intervention, and after adjustment for infant mortality and smoking: BCG vaccination (-11%, 95% CI -6 to -17) and LTBI screening and treatment (-10%, -3 to -18). Declining TB notification rates were significantly associated with increased life expectancy (-37·8 [95% CI -41·7 to -33·9] fewer cases per 100 000 for each 1-year increase) and decreased infant mortality (-9·0 [-9·5 to -8·6] fewer cases per 100 000 for each death averted per 1000 livebirths) in all six Indigenous populations.

Interpretation: Population-based BCG vaccination and LTBI screening and treatment were associated with significant decreases in TB notification rates and should be reinforced in populations still affected by TB.



Best practice initiatives and experiences in tuberculosis prevention implemented in the Northern Circumpolar regions – from 2007 to 2017

Sascha Wilk Michelsen, Anders Koch, Maria Vinokurova, E.I Nikishova, Jean-François Proulx, Bolette Søborg

Background: In 2006, the International Circumpolar Surveillance – Tuberculosis Working Group (ICS-TB) was established and aimed to share and improve existing knowledge of TB in Circumpolar regions, which may be key in preventing TB and in reaching the WHO goal of TB-elimination worldwide. Within ICS-TB, the national boards of health or corresponding administrative organs are represented for Alaska, Canada, Greenland, Norway, Sweden, and Finland, and three jurisdictions in Russia. Using the network, the knowhow, and collaborative efforts we aim to propose a catalogue of TB preventive initiatives and experiences implemented in the Circumpolar north.

Methods: Examples of best practice initiatives and experiences were collected focusing on regions mainly populated by indigenous populations during 2007-2017. Submission was open to all stakeholders. The collected examples will be categorized according to WHO criteria.

Results: We received seven best practices from Russia, Canada, and Greenland and they are distributed within all

three WHO areas of importance.

Patient-Centred Care and Prevention:

A Tool for Tuberculosis Outbreak Management (Canada). Early identification of new or reactivated cases of TB in individuals with high risk of TB activation (Canada). Improvement of diagnosis and treatment of multidrug-resistant tuberculosis (Russia). Preventive Treatment of Latent Tuberculosis Infection in Children Contacted to Patients with Multidrug-Resistant Tuberculosis (Russia). Systematic control measures to cope with re-emergence of active tuberculosis (Canada).

Policies and Supportive Systems:

Educational activities among population as an effective tool in the fight against TB (Russia)

Research and Innovation:

The effectiveness of BCG vaccination in preventing Mycobacterium tuberculosis infection and disease (Greenland)

Risk of progression from latent to active tuberculosis among children in Greenland

Nanna Brokhattingen, Mikael Andersson, Bolette Søborg, Anders Koch

Objectives: To estimate the risk of progression to active tuberculosis (TB) and to evaluate the effect of prophylactic treatment of latent TB in a cohort of children screened for latent TB in 2005-7.

Material and methods: A cohort of children and teenagers aged 5-19 years living in Tasiilaq, Nanortalik, Narsaq, Qaqortoq, and Sisimiut were screened between 2005 and 2007 for latent TB using IGRA (Quantiferon) and Mantoux skin test (TST). The national TB database and medical records were screened for information on TB treatment and subsequent TB development.

Results: 1,797 children were followed up for median 13 years. At time of screening, 82 (4.4%) had latent TB. Following screening, the TB incidence in the cohort was 339 cases per 100,000 person-years with latently infected children having 159% (HR = 2.56, CI: 1.01 – 6.50) higher risk of TB development than uninfected children. This depended on place of living, as latently infected children living in

East Greenland where the overall incidence of TB is high, did not have a higher risk of TB than uninfected children, while latently infected children living in other parts of Greenland, had 5 times higher risk of TB than uninfected children. 21 (26%) of the 82 latently infected children were treated with prophylactic treatment following screening, and none developed TB, while 5 of the 61 (8.2%) untreated latently infected children later developed TB (insignificant difference). Number needed to treat was 13 (CI: 7 – 76).

Conclusion: These results support that latently infected children are at higher risk of TB development than uninfected children and indicate that treatment of latent infection may prevent active TB. Number needed to treat was relatively low and supports the use of treatment of latent TB. The value of screening depended on place of living in Greenland. These findings may be used in the national work against TB.

Multiresistent TB i Grønland – et potentiel problem for sundhedsvæsenet

Anders Koch, Dorte Halberg, Michael Gerfelt, Uka Wilhjelm Geisler, Åse Bengaard Andersen

Introduktion: Til trods for den høje forekomst af tuberkulose i Grønland, har antallet af personer med resistant tuberkulose indtil nu været beskedent. I 2018 blev konstateret et nyt tilfælde af multiresistent TB i Grønland.

Sygehistorie: En 62-årig mand får i oktober 2016 konstateret tuberkulose og sættes i behandling. Bliver kort efter start af behandlingen bakteriefri, men der findes igen i marts 2017 tuberkulosebakterier i hans ekspektorat. Til trods for fortsat behandling vedbliver han i 2017 med at have bakterier i ekspektorater. Der testes flere gange for resistens i 2017, der dog ikke findes. Får i januar 2018 påvist bakterier, der er resistente overfor isoniazid og rifampicin (multiresistens). Sættes efterfølgende i behandling med forskellige kombinationer af i alt 11 forskellige antibiotika, heraf ét intravenøst, og bliver bakteriefri i maj 2018. Den samlede behandling afsluttes juni 2019, 1½ år efter påvisning af de resistente tuberkulosebakterier. Pt. har været indlagt såvel på sygehuset i hjembyen som på Dronning Ingrids Hospital, og har været isoleret i en længere periode i hjemmet.

Diskussion: Resistente tuberkulosebakterier repræsenterer et helt andet problem end mange andre resistente bakterier, som f.eks. MRSA eller VRE, hvor problemet i mange tilfælde drejer sig om valg af alternative antibiotika. Resistente tuberkulosebakterier medfører ikke blot valg af andre antibiotika end de fire standardstoffer, men også øgning i antallet af disse, hvorfra nogle administreres intravenøst, større risiko for medicinbivirkninger, længere behandlings- og isolationsvarighed, betydelige meromkostninger til medicin, hospitalskontroller og mikrobiologiske undersøgelser samt betydelig risiko for smitte af andre.

Resistens udvikles primært pga. nedsat medicincompliance, dvs. hvis den ordinerede medicin ikke tages efter forskrifterne.

Med konkret afsæt i den aktuelle sygehistorie diskuteses den mulige betydning af multiresistent TB for Grønland, vigtigheden af opmærksomhed på mulig resistens hos patienter, hvis kliniske forløb ikke svarer til det forventede, og på vigtigheden af klinisk kontrol og adhærens til behandling.

Tuberkulose og social udsathed, – Screening af brugere af Herberg i Nuuk

Rikke Rask Bruun de Neergaard, Lise Hounsgaard, Michael Gerfelt, Anne Birgitte Jensen

Tuberkulose er fortsat en af verdens omfattende sundhedsproblemer med 10 millioner syge på verdensplan i 2017 og ¼ af verdens befolkning smittede med TB. I Grønland var den højeste forekomst af TB i nyere tid i 2010. I 2018 blev der anmeldt 88 TB tilfælde per 100 000 indbyggere. Dette placerer for første gang i en årrække Grønland, som et land der ikke har højincides af TB. I den nationale TB strategi for 2017-21 er målet, at man udrydder TB i Grønland inden 2050. Dette nås blandt andet igennem en identificering af særlige risikogrupper for TB-smitte og sygdom.

TB strategien udpeger hjemløse som en risikogruppe. Det er interessant at afkræfte eller bekræfte denne hypotese, samt afdække andre risikofaktorer og sociale indikatorer, som kunne øge risikoen for at modtage smitte og udvikle sygdom, samt komplikere udrednings – og behandlingsarbejdet. Dertil er det interessant, at undersøge muligheden for at udvikle et tværsektorielt samarbejde for denne gruppe socialt utsatte borgere.

Formål: At afdække om det at være hjemløs er en risikofaktor i for at være smittet med eller syg af TB, samt ana-

lysere mulighederne for, at videreudvikle et tværsektorielt samarbejde og indsats.

Metode: En monitorering af en TB screening af 35 herbergs brugere. Til dette benyttedes sundhedsvæsenets journalsystem og landslægeembedets anmeldelsesregister, samt spørgeskema. Der blev også indsamlet feltnoter og udført interview af fagpersoner.

Resultaterne fra dette studie viste at 49 % af brugerne på et tidspunkt havde været smittet med TB, og 29 % af gruppen havde haft aktiv tuberkulose.

Det forventes at konklusionen på dette projekt viser, at brugerne er en risikogruppe i forhold til TB-smitte og sygdom. Samt at der kan afdækkes særlige risikofaktorer i forhold til smitte og udvikling af TB. Der forventes også at kunne konkluderes, at der er mulighed for udvikling af tværsektorielt samarbejde for denne gruppe borgere.

Plenumdiskussion: Skal alle TB-smittede i Grønland behandles?

Objective: The importance of a strong multidisciplinary approach and interagency cooperation in order to prevent and combat sexual abuse and exploitation in Greenland. The objective is to present the Greenlandic Government's strategy against sexual abuse and give concrete cases of what has been done thus far since the strategy has had its' launch in 2018.

Material and methods: The role of the advisory group will be highlighted with their incentives to develop, their means in quality assurance, as well as implementing the initiatives of the national strategy against sexual abuse. Furthermore, will the involvement of role models be presented.

Results: A handbook with information and guidance ma-

terials for professionals nationwide; a documentary about a road to recovery after sexual abuse, as a campaign to break the silence and taboos regarding sexual abuse in Greenland.

Conclusion: A nationwide movement against sexual abuse in Greenland has been on rise since the launch of KILLILIISA, and more and more are joining! The core values in KILLILIISA is to help each other all the way. There are a lot of work being done to combat the high number of people being affected by sexual abuse in Greenland, but there is still a long way. This is just the beginning.

After the presentation there will be time for questions and discussions.



Rurale sygehus i en Urban verden

Niels Tobias Gredal

Hvilke særlige udfordringer er knyttet til sygehusdrift i rurale områder i det nordatlantiske område, Grønland, Island,

Færøerne og i Nordnorge og hvordan kompenseres der for smådriftsulemper ved denne type sygehuse drift?

Greenlandic medical evacuations – a description of the current prehospital system

*Bastian Pedersen, Mark Biilmann, Helena Breum Smith, Nicolai Lohse, Malik Møller, Peter Vedsted,
Søren Stilling Mikkelsen*

Formål: 1: beskrive det nuværende system, 2: lave en sundhedsøkonomisk analyse af det præhospitale system i Grønland, 3: På baggrund af resultaterne at beskrive de særlige omstændigheder der gør sig gældende for det præhospitale system i Grønland.

Materiale og metoder: Alle patienter, som i perioden 1.

januar 2018 til 31. december 2018 har fået foretaget en ikke-planlagt overflytning på sundhedsfaglig indikation fra det sted, hvor der primært har været kontakt til sundhedsvæsenet til et sted med højere sundhedsfaglig ekspertise.

Resultater: Præliminære resultater forventes klar til Oktober.

Monitoring of the rapid response system at Queen Ingrid's Hospital, Greenland

Søren Christiansen, Pernille Lennert

Objective: The 1st of May 2019 an early warning system was implemented at Queen Ingrid's Hospital, Nuuk, Greenland to ensure immediate assistance to patients suffering from clinical deterioration, severe trauma or are in cardiac arrest. The system triggers a rapid response team composed of physicians, nurses, patient transporters and laboratory technicians to provide treatment for the patient. To assess the quality and applicability of the early warning system, we aim to collect information on each event and the patients treated.

Material and methods: Each time the rapid response team was activated, we obtained information on the basic demography of the patient and the time and place of the event and what triggered it (i.e. clinical deterioration, trauma or cardiac arrest). Additionally, we registered certain quality indicators for each type of event. We plan to collect data from the 1st of May 2019 until the 1st of May 2020.

Results: From the 1st of May 2019 until end of July 2019, there have been 27 identified events. The majority, 23 (85%), have taken place in the emergency room. 12 (44%) have been from patients in clinical deterioration, 7 (26%) suffering from trauma and 8 (30%) patients suspected to be in cardiac arrest.

Conclusion: In 2019 an early warning system was implemented at Queen Ingrid's Hospital, Nuuk, Greenland. To monitor the system, we aim to collect data from the 1st year of implementation. This will be of assistance when making adjustments to the system. At Nunamed 2019, we will present the preliminary results from the first months of implementation.

E-lægen ved Dronning Ingrids Sundhedscenter (DIS) Nuuk

Jesper Olesen, Michael Lyng Pedersen, Gert Mulvad

DIS er ansvarlig for primær sundhedstjeneste i Nuuk med en befolkning lidt mere end 18.000 personer. Efterspørgslen efter sundhedstjenester har i mange år været så stort at ventetid på ydelserne altid har været en anledning til beklagelse. Med henblik på at lette kontakten mellem patienter og lægerne besluttede klinikken i 2003 at indlede udviklingen af et system til e-mail kontakt til klinikken. Systemet var planlagt at inddrage en evaluering af aktiviteterne.

E-lægefunktionen opstartede maj 2004.

E-læge: Den består af et antal websider tilgås via internettet.

Patienten udfylder et skema, inklusive e-mail adresse og CPR-nummer, det er nødvendigt, fordi lægen er nødt til at være i stand til at identificere patienten og skrive en note i patientens journal. På denne web-side, skal patienten præsenterer hans / hendes spørgsmål eller anmodninger om fornyelse af en recept.

I 2018 kom ny leverandør der kunne leveres ydelse, der lever op til den nye persondatalovgivning.

Ydelsen udvides med billedmulighed og indsendelse af skema med hjemmeblodtryk.

Alle indhentede oplysninger lagres i en database, herunder oplysninger, der genereres af software.

Disse oplysninger giver nogle søgemuligheder til at vurdere tjenesterne på forskellige kriterier.

For eksempel er det muligt at overvåge den tid, der bruges på webtjenesten, både at evaluere patientens og lægens tid på tjenesten. Den tid der går før patienten får svaret er en anden søgemulighed, køn og alder på patienten er en tredje mulighed.

Ved starten i 2004 var der nogle hundrede henvendelser om måneden. I 2019 er henvendelser steget til mere end 1500 pr måned.

Facebook for borgere i Nuuk og Sermersooq kommune

Lone Storgaard Hove, Lisa Ivalu Lind

Hvordan og hvorfor vi startede vores facebook side i DIS, Nuuk, Grønland.

Om at kunne kommunikere direkte og hurtigt til borgerne som led i at drive en stor klinik.

Har vi nået hvad vi ville og hvordan kan vi gøre endnu mere for åbenhed og kommunikation med borgerne.

Preliminary visits to settlements water systems

Judith YA Maréchal, Pernille Erland Jensen

Objective: the Overall PhD intent is to determine the impact on human health of water systems in Greenlandic villages. This presentation will be on the two preliminary observation visits to the Upernivik area (7 settlements) and Sarfannguit in August 2019.

Material and methods: In Upernivik district: interviews and visits to facilities. In Sarfannguit: sampling and test-

ing of drinking water (for pH, alcalinity, conductivity, turbidity, temperature and microbial quality)

Results: in progress

Conclusion: The status of water quality and systems will be presented.

At last year's International Congress on Circumpolar Health, the Circumpolar Maternal and Child Health Working Group (MCHWG) was established. The MCHWG vision is to promote and advocate for a human rights-based approach to improving health outcomes and equity in the circumpolar region. These approaches are underpinned by the United Nations' Declaration of Human Rights, The Convention on the Rights of the Child and The Rights of Indigenous Peoples. The Group aspires to nurture collaborative relationships both with-

in the groups as well as across and beyond the region; offer support to maternal and health projects, advocate for ethical collaborations with Indigenous people and their families; and produce scientific articles that can contribute towards improving the health and well-being of Arctic mothers, children and families. With this session we would like to continue the groups discussions and strengthen the work by identifying topic areas on which the MCHWG will focus on the coming years.

Atopic dermatitis amongst children and adolescents in the Arctic region: A systematic literature review between 1990-2019

Anna Maria Andersson

Atopic dermatitis (AD) is a chronic inflammatory itchy skin disease affecting children of all skin types worldwide. AD and related atopic disorders are increasing in western countries, possibly due to changed living conditions and environmental factors. The objective of this systematic review was to determine the prevalence and predictors of AD in the Arctic region.

Method: A systematic review was performed in Embase, Web of Science and PubMed and included studies on AD in the Arctic region. One reviewer preformed study title, abstract and data extraction.

Result: Overall 532 studies were identified, 21 studies met inclusion/exclusion criteria and were included in the systematic review. 15 (71%) were cross-sectional, 3 (14%) were prospective cohort and 3 (14%) were case-control studies.

The studies were performed in 8 different Arctic countries/regions, including Greenland (3), Iceland (2), Norway (6), Finland (3), Sweden (2), Russia (2), Canada (2) and USA (1) with a total of 32.755 participants. The definition of AD varied greatly in the included studies and the reported cumulative incidence was between 14.2%-16.8% and 7.4%-41.3% amongst children aged 0-5 and 5-18, respectively. Generally, in the Arctic region, maternal history of AD, female gender, high social class and modern lifestyle were associated with an increased risk of developing AD.

Conclusion: The cumulative incidence of AD in the Arctic region is high and similar to western countries. The regional difference of AD varies greatly and may be explained by different living conditions, environmental factors and genetics that are present in different regions in Arctic.



Silent Genomes: The development of an Indigenous Background Variant Library (IBVL) to improve opportunity for precision diagnosis for Indigenous children with genetic disease

Laura Arbour, Nadine Caron, Solenne Correard, Brittany Morgan, Laurie Montour, Sarah McIntosh, Leah Ballantyne, Wyeth Wasserman

Background: There are more than 10,000 single gene conditions estimated to affect 1 in 12 persons world-wide. Access to genetic diagnosis is an ethical issue but genomic technologies are often inaccessible to Indigenous populations for numerous reasons. Notably, lack of reference variant data reduces effective interpretation of genomic sequencing results. The Silent Genomes project is a Canada-wide initiative addressing these issues, carried out with the support of the Assembly of First Nations, Inuit Tapiriit Kanatami, Metis National Council and the British Columbia (BC) First Nations Health Authority. The goal is to translate research directly into health care benefit within the defined four-year time frame of the project.

Objective: To address inequity in genetic diagnosis contributed by a lack of background variant information by building an IBVL from 1500 Canadian Indigenous participants.

Methods: In partnership with 8 First Nations communities across Canada, discussions are underway to determine if

blood samples stored as part of a longitudinal cohort study can be utilized to generate a library of genomic variants for clinical use only. Principles such as Self Determination, Respect, Equity, and Accountability help direct the discussions as use of samples and level of access are considered. The spectrum of levels of access under consideration include highly restrictive (clinician request for access to library) to variant/frequency only deposition in existing clinical population databases. The degree of oversight of the IBVL in the long term will be determined by the agreed level of access as determined by Indigenous partners. Preparation is also underway to invite Indigenous people from BC, and relatives of Indigenous patients to participate in the development of the IBVL.

Discussion: This abstract is presented with the intent of encouraging discussion and debate as to how to best address the development of an IBVL that might eventually include other Northern Indigenous populations.



Early prevention program in Greenland “MANU 0-2 years, a parent education program” – the programs development and first phase of implementation

Christine Ingemann, Rikke L. Kuhn, Christina VL Larsen

In Greenland, the parent education program ‘MANU 0-2 years’ was launched between 2017 and 2018. MANU stands for Meeraq Angajooqqaat NUannaarneq meaning ‘child and parent’s good life’. The program’s concept builds on the theories of mentalization, attachment theory, emotional regulation, and children’s health and development. It is a universal parent education program addressing both the mother and the father. On the grounds of the social challenges many Greenlanders face, MANU focuses on strengthening the skills of parents through positive parenting in order to also support those who grew up in a more unstable home. The Greenland health survey from 2014 reported that 66% of the adult population grew up in a home with alcohol related problems or had been exposed to violence or sexual assault. In the program, parents are asked to reflect on their own childhood and are then invited to discuss their thoughts and ideas with their partner and other participating parents.

Objective: To identify the barriers and strengths in the first two years of the program implementation – when going from program manual to national application/implementation.

Methods: Qualitative methods were applied, and data collection was conducted throughout a two-year period (2017-2019). Relevant documents from the program development and coordination were assessed and analyzed. Multiple formal and informal interviews were held with program developers and coordinators. MANU training sessions were observed and attending midwives and public health nurses were interviewed after having received their training. In data analysis the ‘Consolidated Framework for Implementation Research’ by Damschroder was applied.

Results/conclusion: We are still analyzing data but preliminary results show that key messages will suggest the need for an even closer collaboration with local midwives and public health nurses in the very first stages of the development of the program. Furthermore, close and repetitive follow-ups throughout the implementation are essential.

Inunnguiniq Parenting Program: A made-in-Nunavut program based on Inuit knowledge

Gwen Healey Akearok, Shirley Tagalik

Inuit have an intentional process for childrearing called Inunnguiniq or “making a capable human being”. Experiential learning from a young age helps build their skills, knowledge and capacity on the land and relationships with other people. The cultural expectation is that every child is able/enabled/capable to live a good life, contributing to working for the common good, helping others and making improvements for those to come. It describes culturally situated ethical and social/behavioural expectations, specific com-

petencies and skill sets, and an adherence to a well-defined set of values, beliefs and principles which are foundational to the Inuit life view. This philosophy is the foundation of a parenting program developed, piloted, and implemented by the Qaujigiartit Health Research Centre in Iqaluit, Nunavut, Canada. In this presentation, we will tell the story of Inunnguiniq and the Inunnguinq Parenting Program’s development, reception, and expansion across Nunavut.

Maternity Care in the Qikiqtaaluk Region of Nunavut

Patty DeMaio

“Having someone there – that is basic care”: Eco-cultural practices which can strengthen Greenlandic families

Ruth Montgomery-Andersen

WORKSHOP: VACCINEDÆKNING I GRØNLAND

Moderator Sascha Wilk Michelsen, Bolette Søborg & Anders Koch

Børnevaccinationer er vigtige for folkesundheden i et land. En konstant udfordring for sundhedsmyndighederne er at sikre, at tilstrækkeligt mange børn i de relevante aldersgrupper vaccineres til tiden. Grønland har, som mange andre lande, udfordringer med at nå det ønskede antal vaccinerede. I Danmark har man i de senere år haft betydende problemer med tilslutningen til HPV-vaccineprogrammet. Andelen af HPV-vaccinerede er nu på vej op, men har krævet en stor indsats fra sundhedsvæsenets side.

I denne workshop diskuteses vaccinetilslutning i Grønland;

havd man har gjort for at øge tilslutningen til børnevaccinationsprogrammet i Danmark; hvordan man designet en effektiv vaccinationskampagne med fokus på HPV-vaccinetilslutningen i Danmark; og hvad man måtte kunne gøre for at øge tilslutningen til børnevaccinationsprogrammet i Grønland.

Udover de workshopansvarlige planlægges deltagelse i workshoppen af nøglepersoner indenfor vaccineområdet i Grønland.



HELSETJENESTENS OPPGAVER VED SEKSUELLE OVERGREP MOT KVINNER, MENN OG BARN

Moderator Christina VL Larsen & Berit Schei

Helsemessig og rettslige aspekter. Seminaret vil dra nytte av Nordiske erfaringer med å etablere egne tjenester for ofre for seksuelle vold innen sundhetsvesenet. Fore-

dragsholdere vil inkludere både profesjonelle med politifaglig, rettslig og medisinsk bakgrunn.

Politets oppgave og samarbeid med Sundhetsvesenet Barn

Lina Davidsen

Politets oppgave og samarbeid med Sundhetsvesenet Voksne

Rune Nielsen

Hvor ofte skjer seksuelle overgrep på Grønland?

Christine VL Larsen, Ingelise Olesen, Peter Bjerregaard

Baggrund: Fysisk vold, psykisk vold og seksuelle overgrep er alle store udfordringer for det grønlandske samfund. Som en del af de løbende befolkningsundersøgelser i Grønland har Center for Folkesundhed i Grønland ved Statens Institut for Folkesundhed indsamlet data om seksuel vold i form af seksuelle overgrep og fysisk vold første gang i 1993 og efterfølgende i 2005-2010, 2014 og 2018.

Metode og materiale: I Befolkningsundersøgelsen i Grønland 2005-10 deltog 3.253 deltagere og heraf besvarede 2.115 spørsgsmålene om vold og 1.948 spørsgsmålene om seksuelle overgrep. Befolkningsundersøgelsen i 2014 omfattede spørsgmål om vold i barndomshjemmet og om udsættelse for seksuelle overgrep, men ikke om vold som voksen. Blandt de 2.188 deltagere i 2014 besvarede 1.798 spørsgsmålene om vold i barndomshjemmet og 1.358 spørsgsmålene om seksuelle overgrep. Befolkningsundersøgelsen i 2018 omfattede spørsgmål om vold i opvækst og som voksen samt om seksuelle overgrep. I alt 2539 personer deltog. Heraf svarede

1.792 på spørsgmål om vold og 1686 på spørsgsmålene om seksuelle overgrep.

Resultater: Kvinder angiver i højere grad end mænd, at de har været utsat for seksuelle overgrep i barndommen. Ca. hver fjerde kvinde og hver 10. blandt mænd. Blandt personer født i perioden 1970-79 angiver optil 37% af kvinderne og 20% af mændene, at de har været utsat for seksuelle overgrep i barndommen. De højeste forekomster af ofre for grov fysisk vold samt overgrep i barndommen findes i den gruppe, der også angiver, at der ofte har været problemer relateret til alkohol i deres barndomshjem.

Konklusion: Kvinder er mere utsatte for vold og overgrep end mænd. Opvækstvilkårene har betydning for både seksuelle overgrep i barndommen og vold i voksenlivet og især personer født i perioden 1970-79 har været utsat for overgrep i barndommen.

Organiseringen av sundhetsvesen for ofre for seksuelle overgrep i Norden

Berit Schei

Kulturell tilpasning av helsetjenester for ofre for vold

Astrid Eriksen

Health and Well-being in the Arctic – UArctic Thematic Network

Gert Mulvad, Anastasia Emelyanova, Anna Rönkä, Sandra Juutilainen

The network aims to support sustainable development on health and well-being in populations within circumpolar regions via: 1. promoting research projects and education on health; 2. organizing research training; 3. distributing scientific information.

The network will base its research and higher education activities on the contemporary needs and priorities of the circumpolar regions and aims to promote a multidisciplinary approach to improve social circumstances for population health and well-being, as well as delivery of health care and social services in the Arctic.

Main Activities:

- PhD Program in Arctic health
- Summer and winter schools (graduate level)
- International research projects
- Working groups

Current and Planned Activities:

- One Health One Future Conference – University of Alaska, Fairbanks (March 11-14, 2020) PhD Course – Community based health research methods and strategies – Nuuk, Greenland (October 2-7, 2019)
- Unnamed conference, Movement in Health – Nuuk, Greenland (October 5-7, 2019)

Circumpolar Health Comparisons: Where to Next?

Katherine E. A. Fleury, Susan Chatwood

Objective: To review work done to date on circumpolar health systems comparisons and suggest areas for expansion.

Materials and Methods: Literature review, moving towards a community based, participatory approach

Results: There are three main pillars of healthcare that see the most similarities and differences between circumpolar nations: financing, decentralization, and human resources (or lack thereof). These pillars are challenged by small populations, indigenous values, and harsh climates, and are controlled by each nation's respective health policy. Comparisons on the efficacy of health system models which separate indigenous populations from the rest (Canada, United States) vs. models which do not distinguish population groups (Nordic models) are still needed. In addition, research must be completed on the extent to which cold climates increase the cost of circumpolar health systems. In contrast, the effects of the climate emergency on health system engagement and policy development are lacking; despite all circumpolar nations having a climate change strate-

gy, none touch on how health systems are to respond to the crisis.

Conclusion: Experiences related to remote geographies, indigenous values, health equity and climate change are shared features to which circumpolar health systems must adapt. Understanding the underlying cultural and social determinants of health is a common concern raised by clinicians, administrators, policy-makers, and indigenous groups from these areas; there is a need for international comparisons between regions with shared values and contexts. This type of approach, combined with health stewardship, is adaptable to researching the effect of the climate crisis on health as well as the necessary policy adaptations that will be required to live with such change.

Medevac, Homelessness, and Barriers to Medical Care

Erin Gurr

Nunavik-based, Inuktitut-speaking Inuit women and their children who receive medevac to southern Quebec for a variety of health conditions may lack the requisite social support frameworks to protect themselves and their offspring from a variety of negative environmental pressures (Pauttuutit et al, 2018), such as impoverishment due to lack of employment/housing infrastructure, social isolation/unemployment, homelessness, sexual exploitation, and concomitant drug/solvent abuse (Kishigami, 1999). Some of these negative factors not only have the inherent potential for harm, but also may serve as barriers to receipt of necessary care. My prospective study utilizes qualitative description to investigate possible barriers to medical care, considering the following:

- Risk factors for homelessness among individuals being transported from remote communities (focusing on, but not necessarily limited to Inuit Peoples) for the explicit purpose of receiving medical care;
- The extent to which medical mistrust associated with the use of heritage languages (focusing on, but not necessarily limited to the use of Inuktitut) affects health and social service utilization and health outcomes;
- The nature and strengths of relationships between homelessness, linguistic and cultural considerations, and access to health and social services.

Housing and health in the Arctic: A systematic literature review

Mylene Riva, Rene Iwo

Objectives: The particular situation of Indigenous Peoples with regards to housing is a well-recognized yet chronic source of social and health inequity. As part of a larger systematic literature review project, we assessed the state of the epidemiological evidence linking housing and health for Indigenous Peoples. Here, we report on the evidence pertaining to housing and health for Arctic Indigenous populations.

Methods: A systematic review of the peer-reviewed literature was conducted following PRISMA guideline. The systematic search of the literature yielded 5,564 unique studies. Overall, a total of 73 quantitative studies were included. Of these studies, 26 focussed on Arctic Indigenous populations in Canada, Greenland, and Alaska. Data extraction and analysis was conducted on a sub-set of 21 studies of high/medium quality.

Results: Most of the evidence is based on results from cross-sectional studies (57%), and from case-control studies (33%). In the 21 papers, over 150 housing-health associations were investigated. Structural housing conditions examined included overcrowding, household size and composition, repairs needed, and indoor air quality. Their effects were mainly assessed in relation to respiratory diseases (33%) and psychosocial outcomes (20%), but a variety of outcomes were examined. Most studies were conducted in children and youth (62%). Household size and overcrowding were the variables most consistently associated with health out-

comes, especially with poorer respiratory health outcomes.

Conclusion: Most of the epidemiological evidence linking housing conditions to various health outcomes in Arctic Indigenous populations is exploratory and observational. While interventions studies are needed to support housing and public health policies in Arctic communities, improvements in housing conditions are critically needed.



A Neglected Apology: Inuit, Inuu, NunatuKavut Residential School Survivors of Newfoundland and Labrador

Neda Maki

On November 24th, 2017, Prime Minister Justin Trudeau on behalf of the Government of Canada offered an official apology and a \$50 million settlement to the residential school survivors of Newfoundland and Labrador, amending the 2008 federal apology to now include the Indigenous people of this province. A neglected apology speaks to the exclusion of residential school survivors from the 2008 federal apology by former Prime Minister Stephen Harper and the \$1.9 billion Indian Residential School Settlement Agreement (IRSSA). As an observer to the 2017 public apology and the feast that followed in Happy Valley-Goose Bay, Labrador, my research is a critical analysis of the problem of the language of the IRSSA and the 2008 and 2017 federal apologies and its real-world impact on the wellbeing of the Innu, Inuit, and NunatuKavut former residential school students of Newfoundland and Labrador. Informed by ex-

tensive archival research at the National Centre for Truth and Reconciliation at the University of Manitoba, I ask, is a late apology enough for hopes of reconciliation for those affected by systems of structural violence? While official apologies are a significant step toward reconciliation, I argue, by controlling the scope of its responsibility for past harms, the Canadian government continues to disenfranchise the Indigenous people of Canada. I conclude the official apologies would not have taken place without the residential school survivors' immense courage and resilience by sharing their stories. This study contributes to the critical discourse on apologies by providing an anthropological perspective on how official apologies alter our understanding of trust, forgiveness, reconciliation, cultural resilience, and ultimately healing of those affected by the residential school experience.

Informing an Inuit online module for type-2 diabetes mellitus

Wayne Clark

Inuit have long-held concepts of self-preservation that directly relate to individual and collective well-being. There has been little research conducted to reveal how Inuit culture and history gained from community sources could benefit the development of an Inuit health curriculum in medical training. A culturally relevant medical education curriculum for physicians requires an in-depth syllabus that describes present-day Inuit experiences and contains perspectives that originate from Inuit healing systems. To help provide a solution, this research study will be carried out

using a storytelling methodology framework to inform an Inuit type-2 diabetes mellitus (DM2) online module. The conversation method will be used to engage Inuit Elders and community members to inform the design of an online module that incorporates Inuit Qaujimajatuqangit (i.e., what Inuit have always known to be true). Findings from the research will be used to support community-driven curriculum design initiatives that can be implemented by Inuit community members in various other contexts.



Sundhedsetik repræsenterer forskellige etiske problemstillinger, som findes i sundhedsvæsenet. Det omhandler alle de etiske problemstillinger, man møder i arbejdet som sundhedsprofessionel. Nogle etiske problemstillinger vil være fælles for forskellige faggrupper, andre vil adskille sig ud fra det fagperspektiv man har. Etik handler ikke kun om at svare ja eller nej til en handling eller beslutning, men om at kunne argumentere og begrunde handlinger og beslutninger ud fra etiske værdi-

er og retningslinjer. Etiske problemstillinger kan handle om alt fra emner som værdig død, etiske dilemmaer, menneskesyn, og udviklingen af etiske retningslinjer i klinikken.

Sygeplejeetisk Råd har valgt at være tovholder på en workshop om sundhedsetik, fordi Rådet gerne vil være med til at styrke den etiske debat og derved kvaliteten i det grønlandske sundhedsvæsen.

Udviklingen af et Sygeplejeetisk Råd i Grønland

Rikke Rask Bruun de Neergaard, Pauline Olesen, Birthe Kølle, Lili Holm Kleist, Paarma Egede Lund, Karen Nørris Christensen

Baggrund: I Grønland findes endnu ikke et Etisk Råd eller etiske komiteer, som sætter fokus på etiske problemstillinger i samfundet eller i sundhedsvæsenet. Dette er til forskel fra andre arktiske og nordiske lande. I 2017 besluttede generalforsamlingen under sygeplejerskernes faglige organisation (PK), at nedsætte et Sygeplejeetisk Råd. Begründelsen for dette var etikkens væsentlige betydning både i samfundet, i sundhedsarbejdet og i sygeplejen. Dette oplæg vil præsentere hvilke typer arbejdsopgaver, etiske problemstillinger og samarbejdsrelationer som rådet har mødt i sit virke i perioden fra etableringen til nu.

Formålet: med Rådet er at sætte fokus på etiske udfordringer i sygeplejen og fremme sygeplejefagets etiske perspektiv i Grønland, gerne med henblik på at der etableres et generelt etisk råd i Grønland.

Rådets primære opgaver er at synliggøre etiske problemstillinger i sygeplejen, støtte medlemmer som oplever etiske dilemmaer og udvikle etiske retningslinjer.

Rådet består af 5-7 medlemmer, som alle er medlem af PK. Der efterstræbes mangfoldighed i Rådet, så der inddrages forskellige perspektiver. Det er derfor ønskeligt at medlemmerne er geografisk, virksomhedsmæssig og aldersmæssig forskellige. Rådet har en bred vifte af type arbejdsopgaver at tage fat på. Disse prioriteres efter medlemmernes kompetencer og ressourcer. Rådet er frivilligt og møderne foregår omtrent hver måned i form af et kombineret fysisk og internetmøde.

Rådet indgår i samarbejde med andres sygeplejeetiske Råd i Norden, herunder særlig Danmark, som har givet stor støtte til etablering af Rådet.

Konklusion: Rådet har haft mange forskelligartede opgaver, erfaringerne tyder på at der er et behov for at udvikle egne værdier og etiske retningslinjer som kan bruges af både den enkelte sygeplejerske, af sundhedsvæsenet og sygeplejefaget. Dette med henblik på at øge kvaliteten af sygeplejen både til fordel for patienterne og sygeplejefaget.

Demens, etik og teknologi

Karin Christiansen

Der erudsigt til, at antallet af personer, som lider af demens vil stige i de kommende år, mens antallet af individet som har mulighed for at behandle og drage omsorg for disse personer vil falde. I oplægget sættes fokus på en række etiske udfordringer og dilemmaer, som kan optræde, hvis vi vælger at anvende forskellige teknologiske løsninger (som fx. sociale robotter) til at varetage traditionelle sygeplejefaglige

funktioner og roller. Hvordan skal vi forstå begrebet omsorg i sygeplejen, når de nye teknologier for alvor rulles ud? Er det en skrøne at tale om risikoen for 'kolde' hænder, når tiden til omsorg i forvejen er knap p.g.a. manglende ressourcer og manglen på uddannet sundhedspersonale er stor? Hvordan finder vi en passende balance, så det enkelte individts værdighed altid respekteres?

(Etiske) dilemmaer i forhold til at forske i eget praksisfelt

Lisbeth Aaskov Falch

Formål: At udfolde de (etiske) dilemmaer, som kan opstå i forbindelse med at forske i eget praksisfelt. I det her tilfælde som sygeplejerske at forske omkring den ældre medicinske patient i en dansk sygehuspraksis. Et perspektiv som kan berige drøftelser om sundhedsetik i såvel Danmark som i Grønland.

Materiale og metoder: Dilemmaerne søges udfoldet

gennem konkrete praksiseksempler fra min ph.d.- afhandling: "Det er ikke vores patient"

Resultater og konklusion: På baggrund af ph.d.- afhandlingen kan konkluderes at der er særlige dilemmaer ved at udforske eget praksisfelt, som man som forsker er nødt til at medindtænke i sin udforskning.

Værdighed ved livets afslutning

Charlotte Hald

Formål: At belyse begrebet værdighed ved livets afslutning og hvad der kan påvirke oplevelsen af værdighed.

Materiale og metoder: Med udgangspunkt i en praksis- og udviklingsbaseret kontekst på et dansk hospice belyses, hvordan værdighed kommer til udtryk hos døende patienter og deres pårørende, samt problematikker der kan opleves i forbindelse med uafklarede forventninger til og aftaler om pleje- og behandlingsniveau.

Resultater: Hvis vi siger, at noget er uværdigt, siger vi vel også, at det er uden værdi. Indenfor hospicefilosofien arbejdes ud fra at ethvert menneske har værdi i sig selv i kraft af dets person. Men hvis man siger, at et patientforløb er uværdigt, betyder det så at mennesket i situationen er uden værdi? Hvem definerer om en situation er værdig? Er det patienten selv? De pårørende? De sundhedsprofessionelle?

I en travl hverdag i sundhedsvæsenet kan det være udfordrende at leve op til ambitionerne om kontinuitet i pa-

tientforløbet, uanset hvor meget vi prøver. Ligesom blufærdighed, berøringsangst og travlhed formodentlig kan påvirke relationen mellem patient og sundhedsprofessionel. Derved kan nuancer om den døende patients og de pårørendes ønsker, erfaringer og præferencer gå tabt. Nuancer og informationer der kan påvirke patientens og pårørendes oplevelser af værdighed ved livets afslutning. Gennem praktisk anvendelse af tilgangen om "De seks S'er", samt tydelig kommunikation med patient, pårørende og samarbejdspartnere både internt og eksternt, kan man formodentlig fremme en oplevelse af værdighed ved livets afslutning.

Konklusion: Oplevelsen af værdighed ved livets afslutning, samt hvad der determinerer, er individuel, dels i forhold til personlighed, erfaringer, kultur. Den helt store udfordring er at have den enkelte patient i centrum, også i en travl kontekst i sundhedsvæsenet, her kan tilgangen om "De seks S'er" formodentlig være en støtte til patientinddragelse.



Multidisciplinary approach – ethical reflection and cooperation

Ulla Timlin, Joan Nymand Larsen, Jon Haukur Ingimundarson, Leneisja Jungsberg, Johanna Scheer, Peter Schweitzer, Arja Rautio

Objective: Nunataryk project is funded by the EU Horizon 2020 program (2017-22) and it focuses on permafrost thaw and the changing Arctic coastal areas. Project includes seven work packages (WPs) and the field of social science has three work packages: WP5 Health & Pollution, WP6 Coastal Infrastructure and WP7 Natural resources, economy & coastal community planning. Nunataryuk project includes four case areas, one of them is Greenland.

Material and methods: One objective of WP5 is to describe multidisciplinary teamwork among researchers of social science and co-operation with local communities in the perspective of ethical reflection. Researchers working in different WPs of social science had a joint consultation visit to Greenland in spring 2019. This trip consisted of consultation discussions and workshops with local representatives to achieve a holistic picture of the region and local population in the participatory research approach. Essential part was to create discussions with locals using methods that will support this.

Results: There were joint workshops and discussions, both between the researchers from different disciplines and researchers and locals. To have a holistic picture of the case area it required constant work and discussion among researchers, especially when integrating own scientific field to that of others. Researchers learned a lot from locals and received important information for further development in each WP, but also from other researchers, especially when planning and creating seamless cooperation in future.

Conclusions: Ethical reflection is an ongoing process that requires mutual understanding among researchers and locals. A key element is to find a joint language for shared discussions and understanding. Researchers need to understand locals' needs and wishes and listen carefully their perspectives. Ethical issues are more visible in some parts of the research project, but they are indeed to be an issue that all researchers need to recognize, follow and remember.



Arctic Human health in the changing climate

Khaled Abass, Arja Rautio

Objective: Warmer temperatures in the Arctic bring new health challenges to the Arctic, in addition to already complex issues such as high concentrations of environmental contaminants and rising chronic disease rates. The objective was to provide a firm basis for future levels of on environmental contaminants and human infectious diseases in relation to the changing Arctic climate.

Results: Several time series of 31 contaminants from different Arctic cohorts were reviewed. Contaminants in human biological matrices showed declining trends in most of the monitored Arctic cohorts, with the exception of oxy-chlordane, HCB, PBDE153 and perfluorinated compounds. Environmental factors and the impact of climate change on temperature will affect the volatilization and distribution of POPs. Despite the general declining trend of PCBs levels in human biological matrices and biota, modelling of the atmospheric PCB composition and behavior showed some increase in environmental concentrations in a warmer climate.

Additionally, understanding how climatic factors and climate change affect infectious disease rates is important for minimizing human and economic costs. We systematically reviewed recent studies in the field. Tick-borne diseases, tularemia, anthrax, and vibriosis are likely to be impacted by climatic factors in the Arctic. Increased temperature and precipitation are predicted to have the greatest impact on infectious diseases in the Arctic.

Conclusion: Several changes challenge the ability of Arctic communities to adapt and maintain resilience. One Health is a cross-disciplinary approach to considering the health of humans, animals, and the environment, which gives a more integrated, and holistic view of Arctic health. While more research is needed to address all of the factors affecting Arctic health, these findings contribute to a deeper understanding of the research on environmental contaminants and human infectious diseases in relation to the changing Arctic climate.

Gonorrhea in Greenland: Geographic and diagnostic differences in 2015

Anne-Sophie Homøe, Sine Berntsen, Michael Lyng Pedersen

Background: For decades the spread of sexually transmitted infections (STIs) has been a health concern in Greenland, especially within the age group of 15-34 year olds. However, no overview exists of the potential differences in regional incidence and management of STIs.

Objective: To investigates the age, gender and region specific diagnostic activity and incidence of gonorrhoea in Greenland in 2015.

Methods and material: The study design was an observational cross sectional register study with inclusion of patients tested for gonorrhoea in 2015. Patients above 15 years of age were included. Data was obtained from the laboratory system used at The Central Laboratory at Queen Ingrid's Hospital in Nuuk. We found, in 2015, a total of 17,911

tests for gonorrhoea were performed on both men and women. Women accounted for 68% of the tests, while men accounted for 32%.

Results: The positivity rate was 7,878 pr. 100,000 of which 56% were women and 44% were men. The regional distribution showed a disparity of the testing rate and the rate of positive gonorrhoea tests..

Results: We have documented a high diagnostic activity and high incidence of gonorrhoea in Greenland in 2015 among both women and men. We also found significant regional differences in both diagnostic activity and gonorrhoea incidence.

HIV-smittekæde i Grønland 2018-19 – vigtigheden af aktiv smitteopsporing

Anders Koch, Jan Olsen, Peter Vedsted, Jannik Fonager, Didi Bang

Introduktion: I sommeren 2018 var der 68 HIV-smittede i Grønland, der alle var i antiviral behandling. Fra september 2018 blev der ved graviditetsscreening konstateret flere smittede i byer på vestkysten og omhyggelig smitteopsporing blev foretaget efter gældende retningslinjer.

Metoder: Nøglepersoner i sundhedsvæsenet i de berørte byer bad de nydiagnosticerede HIV-smittede om at oplyse seksuelle kontakter. Disse blev opsporet og via sundhedsvæsenet tilbuddt HIV-testning.

Resultater: September 2018 - juni 2019 er fundet i alt 14 nydiagnosticerede personer i Grønland. To blev fundet i forbindelse med graviditetsundersøgelser, de resterende i forbindelse med smitteopsporing. Alle er en del af samme smittekæde. Ingen børn af gravide blev smittet. Yderligere 16 seksuelle kontakter til disse personer blev opsporet, hvoraf hovedparten er testet negative, mens enkelte endnu ikke er testet. De smittede var mediant 33 år på diagnosetidspunktet, og kønsfordelingen var 5 mænd og 9 kvinder. Alle var heteroseksuelt smittet. Ingen havde tegn på

nedsat immunforsvar på diagnosetidspunktet. En særlig resistensmutation (G190A) findes i HIV-1 virus hos alle af de HIV-smittede, der blev testet for mutationen. Dette underbygger, at der er tale en én enkelt smittekæde.

Diskussion: Siden 1998 er prævalensen af HIV-tilfælde i Grønland faldet, og det har været opfattelsen, at der har været en vis kontrol med HIV-situationen. Fremkomsten af en smittekæde med foreløbigt 14 HIV-smittede på under ét år viser dog, at situationen er sårbar. Alle smittede blev fundet som led i aktiv case-finding (graviditetsscreening og smitteopsporing), og hvis smitteopsporing ikke havde forekommet, var 12 af de 14 ikke blevet fundet og kunne have smittet videre. Ved moderne HIV-behandling, som anbefales iværksat på diagnosetidspunktet, vil HIV-smittede ikke smitte videre, og epidemien kan derfor begrænses gennem opsporing og iværksættelse af rettidig behandling. Dette udbrud af HIV-smitte understreger vigtigheden af aktiv smitteopsporing ved nye HIV-tilfælde og vigtigheden af, at dette samles på få og dedikerede hænder i Sundhedsvæsenet.

PLENUMDISKUSSION: Indsatser mod seksuelt overførte infektioner - Erfaringer fra Grønland og Danmark - Hvad er vejen frem for Grønland?



PANEL: SHARING YOUTH PERSPECTIVES AND INNOVATIONS ACROSS THE ARCTIC

Moderator Christina Viskum Lytken Larsen, Tukumminnguaq Nykjaer Olsen, Gwen Healey Akearok, Ceporah Mearns

Background: Please join our discussions on innovations and experiences of working with youth in Greenland and Nunavut. Land-based programs and digital story telling are among the successful interventions and promising practices helping to improve the health and well-being of our Arctic Youth.

During 2018-2019 Arctic youth met in workshops across the circumpolar region to create digital stories that have

now been shared at the website www.projectcreates.com. Stories and experiences from these workshops will also be included in the panel discussion.

The panel is a collaboration between youth and professionals working with youth from Greenland and Nunavut, ICC Greenland, Center for Public Health in Greenland (University of Southern Denmark), PAARISA and Qaujigiartit Health Research Centre (Nunavut, Canada)

REHABILITERING/PALLIATION SAMT ORGANISERING I SUNDHEDSVÆSENET

Moderator Anne Birgitte Jensen & Ella Skifte

Organisering af forskellige patientforløb er et stort issue og omdrejningspunkt for sundhedsvæsenet. Organiseringen af de forskellige områder er overordentlige vigtige for at sundhedsvæsnets ydelser kan gives på det rigtige tidspunkt og det rigtige sted.

Derfor er et effektivt patientforløb meget afhængig af

at alle spiller sammen og arbejder på en smidig tilgang til at patienternes behandling således at alle tager hånd om den del af forløbet som de er ansvarlige for. I den sammenhæng er en effektiv planlægning af patientforløb alfa og omega i patientens sygdomsforløb.

Apopleksiforløb

Anne Birgitte Jensen

Kræftgruppen i Sisimiut

Mette Marie Jensen, Lis P Lennert

Formålet med kræftgruppen i Sisimiut shv. er at gøre kræft-patienter ensartet i behandlingstilbud, samt følge med i kontinuitet under deres behandlingen.

Behandlingstilbuddene er udhentet fra både retningslinjer samt ud fra patienters behov, D4, fra hospicebesøget samt Neriuffik og relevante personer der tidligere har arbejdet med det.

Resultatet er at der er mere kontinuitet i behandling, hvor pt. ved hvem de skal henvende sig til ved behov.

Man samarbejder tæt med kommunen og Neriuffik, lokal afd. i Sisimiut.

At der nu er konkrete håndgribelige procedurer således at man i andre instanser godt kan bruge proceduren.

Skeletal muscle insulin resistance in Inuit carriers of the common Greenlandic p.Arg684Ter TBC1D4 variant is improved by a single bout of exercise

Jonas Møller Kristensen, Trine Jul Larsen, Christian Strini Carl, Anette Thorup, Janne Rasmus Hingst, Johan Onslev, Jesper Olesen, Michael Lynge Pedersen, Erik A. Richter, Torben Hansen, Marit Eika Jørgensen, Jørgen F.P. Wojtaszewski

Background and aims: Recently, a common nonsense p.Arg684Ter variant was discovered in TBC1D4 with an allele frequency of 17% in the Greenlandic Inuit population. Homozygous carriers of this variant have impaired glucose tolerance, and a 10-fold risk of type 2 diabetes. Here we investigate whether the TBC1D4 p.Arg684Ter affects regulation of glucose uptake during exercise, during insulin stimulation, and in the ability for a single bout of exercise to improve insulin sensitivity in skeletal muscle.

Methods: Inuit carrying zero (n=8) or two (n=8) alleles of the TBC1D4 variant were recruited from population surveys in Greenland. Glucose tolerance was measured during a 6 hours oral glucose tolerance test. Skeletal muscle glucose uptake was measured by applying arterial-venous balance technique across the legs during one legged exercise and during subsequent euglycemic hyperinsulinemic clamp conditions (in the prior rested and the prior exercised leg).

Results: During the glucose tolerance test blood glucose was markedly elevated (by 4.4 mM) in TBC1D4 variant carriers compared to matched controls at 2 hours, hypoglycemic at 4 hours (3.3 vs 4.7 mM) and similar at 6 hours. Preliminary data (n=5 in each group) suggest similar glucose uptake in skeletal muscle during exercise in the two groups. During insulin clamp conditions glucose uptake in the rested leg was lowered (~50%) in TBC1D4 variant carriers compared to controls. In the exercised leg glucose uptake during insulin clamp conditions was elevated in both groups. However, glucose uptake in the previously exercising leg from variant carriers was comparable to the previously resting leg in none carriers and thus still markedly lower than controls.

Conclusion: Preliminary data suggest that TBC1D4 variant carriers have compromised insulin stimulated but normal exercise stimulated glucose uptake in skeletal muscle. A single bout of exercise improves glucose uptake in carriers to levels seen in non-exercised muscle of controls.



Hyppige sygdomsalleler i fem gener bestemt i Grønland

Hans Eiberg, Inge-Merete Nielsen, Peder Kern, Ole Lind, Marie Luise Bisgaard

I alt 46 tilfælde af CFG (Progressive Familiær Intrahepatisk Cholestase type 1 (PFIC1)) er blevet diagnosticeret hos Grønlandske Inuit børn siden 1943. Anlægsbærerfrekvensen varierer geografisk fra 1-18 %.

En anden metabolisk sygdom der skyldes mangel på enzymet propion CoA-carboxylase (PCCB) er undersøgt . Siden 1976 er ti Grønlandske Inuit børn diagnosticeret. Anlægsbærerfrekvensen varierer geografisk fra 0-8 %.

Seks personer i Attamik og en i NV-Grønland er fundet afferet med symptomer på en tidlig manifesterende form for Parkinson sygdom (PARK9). Mutationen er udbredt i hele Grønland med lav frekvens og hyppigst i Tasiilaq.

Forebyggelse: På grund af den høje anlægsbærerfrekvens i Grønland af både CFG and PA, besluttede det Grønlandske

Hjemmestyre at tilbyde en screening for anlægsbærerstatus til alle gravide grønlandske kvinder fra den 1. januar 2006.

Resultater: Efter 6 års forskning efterfulgt af 12 års screening er resultater fra over 8000 personer sat i Greengene databasen. (8198 blodprøver) incl. 48 fostervand (den 28.juni 2016).

Der er fundet: 515 CFG bærer, 271 PCCB bærere, 11 CFG homozygote fra før screeningen startede og 5 efter.

2 PCCB homozygote og graviditeten blev afsluttet. Bærerfrekvensen i Grønland for CFG og PCCB er henholdsvis 6,6% og 3,6%, højest i Tasiilaq med 18%.

Frekvenser for de tre andre sygdomsalleler blev fundet højest i Tasiilaq med 9,7% BRCA1, 20% SI og 4% PARK9 og på vestkysten op til 2,6%.BRCA1, 8% SI og 3,7% for PARK9. Resultater fra 15 byer er vist i figur 1.

The Greenlandic school system in relation with helping children whose families are struggling with social issues

Kevin Rafie

Background: Throughout history the Inuit of Greenland as an indigenous population, have developed issues that are current in all the societies. Many individuals are touched by them, including children, yet the young government struggles to solve these issues.

Rational: The environment children are being raised and are evolving is what will provide them the necessities that will help them being stable and healthy adults. Hence they can be contributors and protagonists for the advancement of their society. However, with issues all around them – unstable families who are abusing narcotics or alcohol – the consequences on children are inevitable. Since the children are spending a consequent time in school and that teachers could be the only stable adults they meet in their lives, the educational system possesses a significant potentiality. Thus,

the purpose of this study is to examine the role this system in helping children and how it can solve these issues.

Methods: The research was conducted within the framework of a Master's Internship within the Ministry of Education of Greenland. 13 individuals were met and semi-direct interviews were conducted: a municipality employee, a principal, teachers, student teachers and pupils.

Results and discussion: The school system should have a better response to issues and helping children. The role of the teacher was found to be critical, they should receive a better training for this purpose. A definition of the social issues present in Greenland and the meaning to have a state of well-being were given. Greenland should have more educated people specifically in education.

Samer och vård i livets slut – kunskap om traditioner för att utforma framtidens vård

Lena Maria Kroik

Föremål: Samerna är ett urfolk i norra Europa och beräknas i Sverige uppgå till ca 20 000 personer. Vetenskapligt systematiserad kunskap kring samers hälsa är begränsad kring hur den samiska kulturen kommer till uttryck i situationer relaterade till döende, död, sorg och vård i livets slutskede. För att kunna utveckla en vård i livets slutskede som är av god kvalitet och både person-centrerad och kulturkompetent, behövs systematisk kunskap som bygger på människors upplevelser, erfarenheter och önskningar.

Material och metod: 4 delstudier ingår i doktorandprojektet där samer och personer verksamma i Saepmi intervjuas, ingår i fokusgrupper lokalisera utomhus på fjället eller använder ett verktyg, DöBra kortleken, där syftet är att studera önskemål, prioriteringar, behov och uttryck inom den samiska befolkningsgruppen relaterade till vård i livets slutskede och omhändertagandet därefter.

Resultat: Kastenbaums modell av ett dödssystem användes i den första delstudien för att tolka resultatet, där markör-

er för samisk identitet såsom den utökade familjen, språk och traditionell mat, framstod som viktiga i livet slut. Årstidsväxlingar och relationer till naturen i stället för kalendertid, dominerade dödssystemet och som länkade samman komponenterna människor och platser med tid. I delstudie 2 studeras dessa erfarenheter av årstidsväxlingar, landskap, djur och natur i förhållande till vård i livets slutskede närmare genom berättelser. Vidare kommer formella- och informella stödsystem undersökas i delstudie 3. Avslutande delstudie identifierar vilka värderingar som är viktiga och prioriteras i relation till livets slut bland samer i Sverige.

Konklusion: Doktorandprojektet förväntas bidra och ge vägledning till ökad förståelse för den samiska kulturen vilket kan leda till att utveckla och förbättra bemötandet och vården av samer och samiska patienter vid vård i livets slut. Medvetandegörandet av urfolks föreställningar om döende och död kan även bidra till en fördjupad förståelse om andra kulturella grupper.

Brugerperspektiv og oplevelse af det grønlandske sundhedsvæsen – en systematisk gennemgang af brugeres beskrivelser i de offentlige platforme og politisk/administrative kanaler

Arnaruluk Lundblad, Nanna Lund Hansen, Ingelise Olesen, Christina Viskum Lytken Larsen, Christine Ingemann

Baggrund: Sundhedsvæsenets brugere har mulighed for at drøfte deres oplevelser med sundhedsvæsenet enten gennem direkte samtale med sundhedsvæsenets personale eller gennem sundhedsvæsenets klagesystem. Brugere kan også gøre brug af nyhedsmedier eller sociale medier. Oftest er formålet med disse platforme at skabe opmærksomhed omkring et tema ved at dele en personlig oplevelse. Undersøgelsens formål var (1) dels at danne et overblik over de platforme og politisk/administrative kanaler tilgængelige for sundhedsvæsenets brugere og (2) dels at undersøge hvor meget og med fokus på hvilke aspekter af sundhedsvæsenet disse platforme og kanaler bruges. Det er vigtigt at understrege, at hervede undersøgelse kun giver et overblik over omtalte aspekter af sundhedsvæsenet i udvalgte offentlige platforme og politisk/administrative kanaler, og at der kun er taget udgangspunkt i brugerens synspunkt.

Metode: Vi foretog en systematisk gennemgang af sundhedsvæsenets omtale i de offentlige platforme Facebook (51 opslag), Sermitsiaq og AG (128 udgaver), samt i de politisk/administrative kanaler §37 spørgsmål (11 spørgsmål) og

klagesystemet (200 klager). Materialer fra 2018 til og med første kvartal 2019 er blevet inkluderet. Herudover blev der lavet et enkelt interview med en erfaren KNR-journalist.

Resultater: Gennemgang af avisser samt interviewet med KNR-journalisten viser, at sundhedsvæsenet jævnligt omtales, men sjældent ud fra borgerens perspektiv. De 51 identificerede opslag i den undersøgte Facebookgruppe inkluderer generelle frustrationer med spørgsmål til sundhedsvæsenets ydelser og organisation. Blandt de gennemgåede paragraf37-spørgsmål fra 2018 og 2019, vedrørte 11 sundhedsvæsenet. I alle inkluderede kilder var kvalitet et overvejende tema. Overordnet set omhandlede mange borgerindlæg på tværs af platforme og kanaler udfordringer med at få adgang til sundhedsvæsenet og ønsket om en bedre dialog og forventningsafstemning mellem brugere af sundhedsvæsenet og systemet.

Konklusion: Set fra brugernes perspektiv viser undersøgelsen af borgerne efterspørger lettere adgang til og tætere dialog med sundhedsvæsenet.

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