A Contribution to the International Polar Year

CIRCUMPOLAR HEALTH

SUPPLEMENTS

2010 (5)

Behavioral and Mental Health Research in the Arctic: Strategy Setting Meeting

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Behavioral and Mental Health Research in the Arctic: Strategy Setting Meeting

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UNITED STATES ARCTIC RESEARCH COMMISSION
National Center for Research Resources

BEHAVIORAL AND MENTAL HEALTH RESEARCH IN THE ARCTIC:
Strategy Setting Meeting
June 2-3 2009

Commons Building #41, Room 107
University of Alaska Anchorage, Anchorage, AK

Conference moderator and timekeeper: James Herrington, Ph.D., M.P.H. (National Institutes of Health)

Day 1	**June 2, 2009**	
8:00 a.m. – 8:15 a.m.	**Registration**	
8:15 a.m. – 8:40 a.m.	**Welcome address**	Dorothy Cook, President of the Native Village of Eklutna Roger Glass (Associate Director for International Research, National Institutes of Health) Mead Treadwell (Chair, US Arctic Research Commission)
8:45 a.m. - 9:10 a.m.	**Keynote Address**	Representative Reggie Joule (Alaska, District 40)
9:10 a.m. - 9:15 a.m.	**Setting the agenda**	Warren Zapol (Commissioner, US Arctic Research Commission)
9:15 a.m. – 10:30 a.m.	**Epidemiology of behavioral and mental health disorders in the Circumpolar Arctic** <u>Objective: To provide an overview of the epidemiology of various behavioral and mental health disorders in the Arctic</u>.	
	Behavioral and Mental Health Disorders in the Arctic	Bob Chaney Mark Erickson (Southcentral Foundation)
	Suicide	James Allen (University of Alaska - Fairbanks) and Jay Butler (Alaska Department of Health and Social Services)
10:30 a.m. – 10:45 a.m.	**Break**	
10:45 a.m. – 11:50 a.m.	Drug abuse and related disorders	Spero Manson (University of Colorado)
	Alcohol abuse, fetal alcohol spectrum and other related disorders	Gerald Mohatt (University of Alaska - Fairbanks) and Christina Chambers (UCSD)

12:00 p.m. – 12:30 p.m.	**Research and the Healthcare System** Objective: to provide an overview of Alaska Native Health Corporations priorities for behavioral and mental health research	Don Kashevarof (Alaska Native Tribal Health Consortium)
	Overview of the health care system and service delivery	Ileen Sylvester (Southcentral Foundation)
12:30 p.m. - 1:30 p.m.	**Lunch (provided)**	
1:30 p.m. – 3:30 p.m.	**Current Challenges and Opportunities in Behavioral and Mental Health Research in the Arctic**	

CONCURRENT BREAKOUT SESSIONS:

Objective: to develop a list of challenges and opportunities for behavioral and mental health research in the Arctic

Questions:

- What are the current approaches to studying mental health among Arctic peoples?
- What are the state of the art approaches in contemporary behavioral health research in the US and internationally?
- Case examples of utilizing various approaches to studying behavioral & mental health issues among Arctic populations.
- Challenges and opportunities in conducting research in the Arctic using various methodologies.

Session I	**Session II**
• 1:30-2:00 Basic biomedical research Wayne Goodman (NIMH/NIH) • 2:00-2:30 Epidemiological research Raul Caetano (University of Texas) • 2:30-3:00 Genetic and environmental studies Bert Boyer (University of Alaska Fairbanks) • 3:00-3:30 Discussion	• 1:30-2:00 Intervention research to establish evidence based practices for Arctic populations Gerald Mohatt and Jim Allen (University of Alaska Faibanks) Spero Manson (University of Colorado) • 2:00-2:30 Socio-cultural, anthropological research Lisa Wexler (University of Massachusetts) • 2:30-3:00 Health services research and evaluation studies of paraprofessional and primary care system (e.g., tele health, telepsychiatry) Albert Yeung (Harvard Medical School) Wandal Winn (Alaska Psychiatric Institute) • 3:00-3:30 Discussion

3:30 p.m. – 4:30 p.m.	**Overview and discussion: Current research challenges and opportunities** Reports back to the group (groups assign reporters) • Basic/Epi/Genetics • Intervention Research/Health Services Research/Social	
Day 2	**June 3, 2009**	
9:00 a.m. – 10:00 a.m.	**Agenda for Behavioral and Mental Health Research in the Arctic** Objective: to begin setting a research agenda for behavioral and mental health research with populations in the Arctic	
	Goals and Priorities for an Arctic Human Health Research Strategy	Nathan Kotch (Maniilaq Association)
	Challenges of Analyzing Existing Programs: A Randomized Control Study in an Alaskan Social Service Setting	Debra Caldera (Alaska Public Health Association)
10:00 a.m. – 10:45 a.m.	**Discussion: Research needs** Basic biomedical research Genetics research Epidemiological research Intervention/Health Services research Socio-cultural research Clinical research	Chairs: Wayne Goodman (Mount Sinai School of Medicine; formerly NIH/National Institute of Mental Health/NIMH) Jim Berner (Alaska Native Tribal Health Consortium/ANTCH)
10:45 a.m. – 11:00 a.m.	**Break**	
11:00 a.m. – 11:30 noon	**Data needs** "Tracking health and social indicators: Observations and a framework for pan-Arctic data"	Larry Hamilton (University of New Hampshire)
11:30 a.m. – 11:45 p.m.	**Discussion: data needs**	Larry Hamilton (University of New Hampshire)
11:45 - 1:00 p.m.	**Lunch (provided)**	
1:00 p.m. – 2:45 p.m.	**Panel Discussion: Actions and next steps**	Panel members:
	Actions: What do we need to move the research agenda forward?	William Hogan (Commissioner, Alaska Department of Health and Social Services)

	Conducting behavioral health research in the Arctic: Challenges and Opportunities	Karen Perdue (University of Alaska - Fairbanks)
	Behavioral and mental health research education and training in the Arctic	Spero Manson (University of Colorado)
	Capacity-building needs	
2:45 p.m. – 3:00 p.m.	**Break**	
3:00 p.m. – 3:45 p.m.	**Panel Discussion:** continued	Delisa Culpepper (Mental Health Trust)
	Potential funding sources (USG, Foundations, Tribal Corporations, Foreign Governments)	Jim Sellars (Alaska Action Research Consortium)
	Potential collaborators (USG, Foundations, Tribal Corporations, Foreign Governments)	Jim Berner (Alaska Native Tribal Health Consortium/ANTCH)
	Next steps ….	
3:45 p.m. – 4:00 p.m.	**Break**	
4:00 p.m. - 5:00 p.m.	**Closing remarks** (University of Alaska Fairbanks)	Gerald Mohatt
	Denise Dillard (Southcentral Foundation)	
	Warren Zapol (US Arctic Research Commission)	

BIOGRAPHIES OF PRESENTERS

Dr. James Allen is Professor of Psychology at the University of Alaska Fairbanks, where he has served as Director of Clinical Training and Department Chair. He also recently served as Fulbright Lecturer/Researcher at the Psychosocial Centre for Refugees in the University of Oslo Medical School. He is the author of journal articles and book chapters in the areas of multicultural training and assessment, psychological acculturation, and cross-cultural research methodology, and co-editor of a recent book on cultural competency training. His current research focuses on protective factors and resilience in youth development, design, implementation, and validation of cultural approaches to prevention and treatment. His current teaching interests include cultural, indigenous, and rural psychology, and multicultural clinical and community psychology.

Dr. James Berner has practiced medicine in the Alaska Native health care system since 1974. He directs the Alaska Native Traditional Food Safety Monitoring program, which assesses contaminant and micronutrient levels in pregnant Alaska Native women, and evaluates health effects in mothers and newborn infants. He has been the key national expert for the U.S. on the Human Health Advisory Group of the Arctic Monitoring and Assessment Program (AMAP), a Program of the Arctic Council, since 1999. Dr. Berner was co-lead author of the chapter on the impact of climate change on the health of Arctic residents in the 2005 Arctic Climate Impact Assessments, an international report on climate change in the north. In April 2005 he was appointed to the National Academy of Sciences Polar Research Board. Dr. Berner graduated from Oklahoma University Medical School in 1968. He spent three years in the U.S. Navy Medical Corps, completed residency training, and is board certified in Internal Medicine and Pediatrics. He served as Director of Community Health of the Alaska Native Tribal Health Consortium from 1984 until 2006, and now serves as Senior Director for Science within the Division of Community Health Services, as well as serving as part-time clinician in Pediatrics.

Dr. Bert Boyer is a professor of molecular biology at the University of Alaska Fairbanks. He is broadly interested in genetic and environmental risk and protective factors related to obesity and diabetes in Yup'ik Eskimos. Dr. Boyer, along with several CANHR staff and other collaborating scientists, have established a longitudinal cohort study involving ~1,200 Yup'ik Eskimos in 11 communities in rural SW Alaska and have found obesity prevalence equal to that of the general US population, but strikingly, type 2 diabetes prevalence is less than half that found in the US. This is unusual because obesity is the single greatest risk factor for diabetes. His research group is obtaining refined measures of physical activity using combined heart rate/movement monitors and they are assessing diet using Yup'ik-derived food frequency questionnaires, as well as dietary biomarkers. They are interested in how diet and physical activity modify genetic risk. In collaboration with colleagues at the University of Washington, Dr. Boyer is also involved in the development of culturally appropriate dissemination strategies to return the full continuum of research results to participants using a community-based participatory research framework. This approach includes consultation with community partners and Yup'ik leaders to develop a framework of research results and a communication plan to return all results. This collaboration, and his genetic research has expanded to include pharmacogenetic testing to determine drug safety and efficacy related to warfarin use for stroke patients and tamoxifen use in breast cancer patients.

Dr. Jay Butler is Chief Medical Officer in the Alaska Department of Health and Social Services (DHSS). He received his MD from the University of North Carolina, Chapel Hill in 1985. His clinical training includes residencies in internal medicine and pediatrics at Vanderbilt University, residency in preventive medicine at the Centers for Disease Control and Prevention (CDC), and fellowship in infectious diseases at Emory University. Before coming to DHSS, he was Director of the CDC's Arctic Investigations Program in Anchorage from 1998 through 2005. He has authored or co-authored over 100 scientific papers and medical textbook chapters. His varied professional experiences include working as a physician for two months at a mission hospital in Kenya, leading the CDC field response to the initial Hantavirus pulmonary syndrome outbreak in the US in 1993, and serving as the CDC liaison to FBI Headquarters in Washington, DC during the investigation of the anthrax attacks in the fall of 2001. He was a team co-leader during the CDC responses to the SARS outbreak of 2003, avian influenza in 2004, and Hurricanes Katrina and Rita in 2005. He is governor of the Alaska chapter of the American College of Physicians. He enjoys fishing, running, and Nordic skiing and lives on the Anchorage Hillside with his wife and four of their five children.

Dr. Raul Caetano is a psychiatrist and an epidemiologist who has written about alcohol consumption, drinking problems, and about the relationship between drinking and intimate partner violence among U.S. ethnic minorities. He is also interested in the development of methodology to identify and diagnose alcohol problems and in the cross-cultural validity of diagnostic categories such as alcohol abuse and dependence. He is Dean and Professor of Health Care Sciences and Psychiatry at the Southwestern School of Health Professions, University of Texas Southwestern Medical Center at Dallas, and he is also Professor of Epidemiology and Regional Dean of the Dallas Regional Campus, University of Texas School of Public Health.

Ms. Debra Caldera is a nurse with a Master's Degree in Public Health. Her career has taken her from nursing at a large teaching hospital on the East Coast to managing a tiny clinic in the Philippines. She moved to Alaska in 1984 and, while working with a tribal organization, identified major challenges facing Native health workers in remote clinics. She partnered with the Tribes and spearheaded a successful federal legislative initiative to address these problems. Since 1992, she has worked with the State of Alaska managing maternal child health programs and in program evaluation. Debra has received recognition for her work from the Indian Health Service and the National Indian Health Board and was a fellow in the Kellogg International Leadership Program. She is currently Past President of the Alaska Public Health Association.

Dr. Christina Chambers is a perinatal epidemiologist and Associate Professor in the Department of Pediatrics at the University of California San Diego. Her research is focused on the identification of environmental causes of birth defects and other adverse pregnancy outcomes, i.e., human teratogens. She is the Director of the California Teratogen Information Service, and the President of the Teratology Society. She is involved in research on prevention and intervention for Fetal Alcohol Spectrum Disorders.

Dr. Bob Chaney has been a practicing Psychologist for over 25 years. He has been working with the Alaska Native Medical Center and Southcentral Foundation for the past 16 years. Dr. Chaney specializes in the areas of self-regulation, pain management and recovery from trauma and loss. Because of his ability to translate, blend and communicate diverse philosophies of life, he is a sought after speaker and consultant. In recognition of his numerous cross-cultural contributions, the Alaska Psychological Association presented him with the 2006 Cultural Humanitarian of the Year award. Through his years of experience he has developed a mind-body approach to healing that emphasizes non-judgment and cooperation. This approach is founded in a working knowledge of the mechanics of survival. His clinical contributions have been utilized by indigenous communities through out Alaska. Bob is currently the Director of Employee and Community Assistance with Southcentral Foundation.

Ms. Dorothy Cook, Native Village of Eklutna President, first elected in 1993 as the Treasurer and since 1997 has served as the President and Chair. In June 2008, the Tribal Council appointed her as the Tribal Administrator for NVE. The Native Village of Eklutna is the local federally recognized tribe within the Municipality of Anchorage. NVE has an enrollment of approximately 300 members.

Ms. Delisa Culpepper is the Chief Operating Officer/Deputy Director of the Alaska Mental Health Trust Authority (The Trust), a state of Alaska corporation that works on public policy and budget issues and gives out grants in the areas of mental health, alcohol, developmental disabilities, brain injury, and Alzheimer's. She has an Associate of Science degree in Dental Hygiene, a BS in Community Health Education from the University of Oregon and a Masters in Public Health from Loma Linda University. Delisa has worked in the private sector and in the public sector at the local, state and federal levels for over 30 years with special interest in prevention and health public policy. She has provided leadership to many coalitions and professional organizations on issues affecting local, state, and federal policies and currently provides leadership within The Trust on prevention issues and workforce development.

Dr. Denise Dillard is an Inupiaq Eskimo raised in Anchorage. She has her Ph.D. in psychology and has worked for Southcentral Foundation for 5 years. She provided direct services to Alaska Native and American Indian adults in an outpatient clinic on the Alaska Native Medical Center campus before moving into management. She currently oversees two large outpatient behavioral health clinics, one clinic in an Alaska Native village, and the supervision portion of the Behavioral Health Aide program for the Anchorage Service Unit. She is involved in a variety of research activities on the identification and management of behavioral health symptoms in primary care.

Dr. Mark Erickson, MD, studied biological psychology as a graduate student at the University of California at Berkeley before going on to the University of Texas Medical School where he completed an MD degree. His residency training in psychiatry was at Columbia University and the University of California, San Diego. He is currently Medical Director of Behavioral Services at Southcentral Foundation in Anchorage and an Assistant Clinical Professor of Psychiatry at the University of Washington. His published work has focused on the developmental ethology of familial bonds.

Dr. Roger Glass was named Director of the Fogarty International Center and Associate Director for International Research by NIH Director Elias A. Zerhouni, M.D., on March 31, 2006. He formally took office on June 11, 2006. Dr. Glass graduated from Harvard College in 1967, received a Fulbright Fellowship to study at the University of Buenos Aires in 1967, and received his M.D. from Harvard Medical School and his M.P.H. from the Harvard School of Public Health in 1972. He joined the Centers for Disease Control and Prevention in 1977 as a medical officer assigned to the Environmental Hazards Branch. He received his doctorate from the University of Goteborg, Sweden in 1984, and joined the National Institutes of Health Laboratory of Infectious Diseases, where he worked on the molecular biology of rotavirus. In 1986, Dr. Glass returned to the CDC to become Chief of the Viral Gastroenteritis Unit at the National Center for Infectious Diseases.

Dr. Glass's research interests are in the prevention of gastroenteritis from rotaviruses and noro viruses through the application of novel scientific research. He has maintained field studies in India, Bangladesh, Brazil, Mexico, Israel, Russia, Vietnam, China and elsewhere. His research has been targeted toward epidemiologic studies to anticipate the introduction of rotavirus vaccines. He is fluent and often lectures in 5 languages. Dr. Glass has received numerous awards including the prestigious Charles C. Shepard Lifetime Scientific Achievement Award presented by the CDC in recognition of his 30-year career of scientific research application and leadership, and the Dr. Charles Merieux Award from the National Foundation for Infectious Diseases for his work on rotavirus vaccines in the developing world.

Dr. Wayne Goodman is currently the Chair of the Psychiatry Department at Mount Sinai School of Medicine. Prior to his position at Mount Sinai, he served as the Director of the Division of Adult Translational Research and Treatment Development at NIMH. He is a pioneering researcher in the field of Obsessive-Compulsive Disorder (OCD). A graduate of Columbia University with a BS in electrical engineering, Dr. Goodman received his medical degree from Boston University and completed his internship, residency, and a research fellowship at Yale University School of Medicine where he remained on faculty until 1993. He then relocated to the University of Florida in Gainesville where he served as Chairman of the Department of Psychiatry for nine years prior to joining NIMH. Dr. Goodman has published more than 200 articles in scientific journals and has been principal investigator on NIMH-funded grants since 1992. He is a member of the American College of Neuropsychopharmacology, Distinguished Fellow of the American Psychiatric Association, member of Florida's Suicide Prevention Council by gubernatorial appointment and acting chair of the FDA's Psychopharmacological Drugs Advisory Committee.

Dr. Larry Hamilton is Professor of Sociology and Senior Fellow of the Carsey Institute at the University of New Hampshire. Since 1992 he has conducted survey, demographic, and social-indicators research around the circumpolar North. Recent work includes articles on migration and population dynamics in Greenland and Alaska, and on demographic impacts of fisheries crises in the northern Atlantic. Dr. Hamilton served as lead author for a chapter on health and population indicators for the forthcoming Arctic Social Indicators report. Under two NSF research projects, he guided development of a new regional-level (boroughs, counties, etc.) framework for human-dimensions data on the Arctic. His survey research, although mainly non-Arctic, includes one recent article asking "Who cares about the polar regions?" Dr. Hamilton also writes books on data analysis and applied statistics.

Dr. James Herrington has over 25 years experience in international public health. In September 2005, Dr. Herrington was appointed Director, Division of International Relations, Fogarty International Center, the National Institutes of Health (NIH) where he serves to develop new and strategic partnerships between U.S. scientists and researchers abroad to advance translational research and training in the biomedical and behavioral sciences. Previous to NIH, he worked for the Centers for Disease Control and Prevention, the International Planned Parenthood Federation, and the University Of North Carolina School Of Medicine.

Dr. Herrington's career has focused primarily on Africa and the Caribbean, with long-term assignments in Côte d'Ivoire, Haiti, Nigeria, and Sénégal. Dr. Herrington holds a Ph.D. in environmental health and epidemiology from Colorado State University, an M.P.H. from the University of North Carolina at Chapel Hill, and a B.S. from Texas A&M University. His research interests include behavioral epidemiology, risk perceptions, vector-borne and immunizable infectious diseases, and the communication of science and technology. In addition to authorship of articles in peer-reviewed journals, Dr.

Herrington also serves as an anonymous reviewer for the *American Journal of Preventive Medicine*, the *American Journal of Public Health*, and *Health Behavior and Education*. His secondary languages include French and Wolof. Dr. Herrington is from Oklahoma and a member of the Chickasaw tribe.

Mr. William Hogan is the Commissioner of the Alaska Department of Health and Social Service. Mr. Hogan has spent more than 30 years in the mental health, substance abuse, developmental disabilities and social work fields, with experience as a clinician, supervisor and administrator. Before joining the Alaska Department of Health and Social Services in 2003, he was Chief Executive Officer of Life Quest, a private, nonprofit community mental health center located in Wasilla, Alaska. Hogan holds a Bachelor of Arts in Sociology from State University of New York and a Master of Science in Social Work from West Virginia University. Hogan has served as chair of the Alaska Mental Health Board, board member of the Alaska Community Mental Health Services Association and Executive Director of the New York State chapter of the National Association of Social Workers.

Representative Reggie Joule was born in Nome on July 14, 1952 to Tony and May Joule, a well-known Inupiaq teacher from the village of Point Hope. As a young boy he lived in St. Michael and Deering. He traveled extensively with his parents and went wherever they taught. Since 1958 Kotzebue has been his home. He graduated from Copper Valley High School. Representative Joule was first elected to office in 1996 and has served District 40 since then. Rep. Joule serves as a member of the Alaska House majority as part of a coalition. He is currently a member of the Finance Committee, the Economic Development Trade and Tourism Committee, and is the Chair of the Bush Caucus. In his 13 years in public service he has also served on a number of other committees.

Over the years Rep. Joule has been involved in a variety of public service organizations. He has served as a member on the following associations or boards; Kotzebue City Council, the NANA Regional School Board, the local Dog Mushers Association, the NANA Regional and Village Corporation Board, the statewide Alcohol and Drug Abuse Advisory Board, the Governor's Interim Commission on Children &Youth; Alaska Human Resource Investment Council; the Governor's Council on Developmental Disabilities, the Extension Advisory Board for Boys and Girls Club, and the Prevention Advisory Council to name a few.

Mr. Don Kashevaroff is the Chairman and President of Alaska Native Tribal Health Consortium, which provides health, sanitation and health facilities and other services for 125,000 Alaska Natives. He is President (Chief) of Seldovia Village Tribe, a federally recognized tribe located in Southcentral Alaska . He is also the Chair of the Seldovia Native Association, Inc., an ANCSA corporation with land, resource and tourism ventures.

Kashevaroff is the Consortium's primary spokesperson on issues such as funding, legislation, and regulatory issues of great importance to ANTHC, the Alaska tribal health system, and the Indian Health Service. He serves as an *ex officio* member of all ANTHC board committees and subcommittees, and appoints members to those committees as needed. He collaborates with the ANTHC CEO and board on policy, operational, and matters of global significance to ANTHC. Kashevaroff's previous work experience includes strategic planning, grant writing, business planning and management consulting service; Project director for the Seldovia Village Tribe, financial planning services for Waddell and Reed Financial Services, and commercial fisherman.

Kashevaroff's present affiliations include Alaska Native Health Board, Denali Commission Health Steering Committee, IHS Information Systems Advisory Committee, and the Alaska Native Medical Center Joint Operating Board. He also Chairs and Co-Chairs the IHS Tribal Self Governance Advisory Committee and IHS National Budget Formulation Committee respectively.

Mr. Nathan Kotch, Jr. was born in Columbus, Georgia and was raised in a military family. His maternal mother is full-blooded KUNA Indian from Panama. His father is Ukranian mixed with Hungarian. Nate graduated from Hawaii's Leilehua High School in 1972 with honors.

Nate joined the Air Force in 1972. He was transferred to Alaska in 1975, where he was stationed in Kotzebue. After serving his country, he continued to make Alaska and Kotzebue his home.

Nate began his career serving the Northwest Region in January 1977, with the State of Alaska, Division of Public Assistance. Nate learned about the region and its people through traveling to the villages providing social service programs for the next seven years. He became the Director of the Kotzebue Recreation Center in 1984, where his involvement with youth included programming in the areas of coaching, mentoring, and counseling. Nate's desire to work with youth promulgated a switch in his career to social work. Maniilaq Association employed Nate in 1991 initially as a Social Worker, then as the Tribal Operations Administrator, and for the past 17 years as the Administrator of Social Services where he currently oversees the Social Services programs.

Dr. Spero Manson, (Pembina Chippewa), a medical anthropologist and Distinguished Professor of Public Health and Psychiatry, directs the Centers for American Indian and Alaska Native Health in the School of Public Health at the University of Colorado Denver's Anschutz Medical Center. His programs include 8 national centers, totaling $65 million in sponsored activities which entail research, program development, and training among 110 Native communities, spanning rural, reservation, urban, and village settings. Dr. Manson has published 160 articles on the assessment, epidemiology, treatment, and prevention of physical, alcohol, drug, as well as mental health problems in this special population. A member of the Institute of Medicine, he has received numerous awards including 3 Distinguished Service Awards from the IHS (1985; 1996; 2004), the prestigious Rema Lapouse Mental Health Epidemiology Award from the APHA (1998), being named among the 10 Best Telemedicine Programs in the USA (1999) by *TeleHealth Magazine*, 2 Distinguished Mentor Awards from the Gerontological Society of America (2006; 2007), the Herbert W. Nickens Award from the Association of American Medical Colleges (2006), the George Foster Award for Excellence from the Society for Medical Anthropology (2006), and the Health Disparities Excellence Award from the National Institutes of Health (2008).

Dr. Gerald Mohatt has worked with American Indian, Canadian First Nations, and Alaska Natives since 1968. He was born and raised in the Midwest, Iowa and Nebraska. In 1962 he first visited the Rosebud Reservation in South Dakota and returned in 1968 to stay for the next 15 years working to establish the tribal college, Sinte Gleska University. In 1983 he and his family moved to Alaska where he has been since. He is Professor of Psychology and Director of the Center for Alaska Native Health Research at the University of Alaska Fairbanks. He received his bachelors and masters degrees at St. Louis University and his doctorate at Harvard University. Throughout his career he has focused on building new settings in rural areas to increase opportunity for rural indigenous groups and research to increase our knowledge base to design better methods of prevention and treatment. At the same time he has maintained a community and clinical practice. His current work, funded by the National Center for Resource Resources of the NIH, is to establish a permanent center to do interdisciplinary research on health disparities of Alaska Natives with a focus on understanding protection and risk for obesity, diabetes and heart disease as well as behavioral health problems such as substance abuse and suicide. His research and writing has been in the area of resilience and substance abuse, cross-cultural healing, the ethics of research with indigenous groups, and reform of schooling to increase success for Alaska Native and American Indian children. Currently, he is conducting prevention research funded by NIH to create evidence based practices directed at preventing alcohol abuse and suicide risk among Alaska Native youth and their families. He is most interested at this time in translating research into treatment and prevention approaches that are effective for rural Alaska Native and American Indian groups.

Ms. Karen Perdue is the Associate Vice President for Health at the University of Alaska. In that capacity she works with the President of the University and the Board of Regents to develop health and social science capacity across the University system. Ms Perdue has had a long career in public service. For seven years she served as Alaska's Commissioner of Health and Social Services. Perdue serves as a member of the DHHS National Rural Advisory Commission on Health and Human Services, the Providence Alaska Region Advisory Board, and the Fairbanks Memorial Hospital Foundation Board. She serves as the U.S. representative on Sustainable Development for the Arctic Council, an eight-member arctic nation forum. She recently helped establish a new Arctic Human Health Expert Group to advise the Senior Arctic officials of strategic directions in arctic health.

She is the recipient of numerous awards including the Dot Truran Advocate Award for Persons with Disabilities, the Alaska Meritorious Health Service Award, national and state recognitions for FAS advocacy. In the last few years, in a total departure from the health field, she executive produced two public television documentaries on Alaska history, the 49th Star and Mr Alaska: Bob Bartlett. The 49th Star received numerous awards including an Emmy in 2008. She is currently working on an oral history of mental health services in Alaska from 1890 to present. She lives in Fairbanks Alaska, the town in which she was born and raised. She and her husband have four children and six grandchildren.

Mr. Jim Sellers is a founding member and currently serves as Chair of the Alaska Action Research Consortium (AARC), is currently the President and Executive Officer of Akeela Development Corporation, and is a previous Executive Director of Akeela Inc. He has over 25-years experience in Alaskan public policy and has a particular interest in the implications and application of research findings and evaluation to policy. Jim has served in the role of consultant or evaluator on several AARC/PIRE Alaska projects, sits on project oversight committees of several NIH-funded studies in Alaska, and is currently part of the team evaluating Alaska's Bring the Kids Home initiative. He is active with several behavioral health advocacy organizations, is a member of numerous national, state, and local behavioral health workgroups and committees, and serves on the Board of Directors of the Alaska Center for Public Policy, the ACMHS Consumer Directed Services Advisory Board, and Therapeutic Communities of America.

Ms. Ileen Sylvester, MBA, is a leader in Alaska Native Healthcare services and administration. She is a CIRI shareholder and is of Aleut, Athabascan, and Yupiq heritage. Educational opportunites took Ileen to Tennessee where she graduated from Milligan College with a degree in business administration. Originally from Homer, Alaska, she moved to Anchorage, Alaska pursuing career opportunites. She began working with Southcentral Foundation (a nonprofit healthcare affiliate of CIRI) in 1995 and has worked in several positions including Finance Manager, Director of Operations, Vice President of Operations, and Vice President of Executive and Tribal Services Division. Ileen works closely with the rest of the executive leadership team in the management and direction of a complex health care delivery system. She currently manages and directs the day-to-day operations of tribal relations and village initiatives for health care delivery to 55 rural villages, as well as traditional healing, youth internship and Elder programming, public relations, and planning and grants. Ileen serves on numerous boards and committees including the Alaska Tribal Health Directors, the Alaska Native Medical Center (ANMC) Joint Operating Board, the Public Health Accreditation Advisory Committee, and more.

Mr. Mead Treadwell was appointed to the US Arctic Research Commission in 2001 and was designated chair by the President in 2006. During his 30 years residency in Alaska, Mead Treadwell has played an active role in Arctic research and exploration. His focus has been on development of natural resources, protection of the Arctic environment and fostering international cooperation after the Cold War. In business, government and the academy, Treadwell has helped establish a broad range of research programs in technology, ecology, social science and policy. Currently, Treadwell serves as Senior Fellow of the Institute of the North, founded by former Alaska Governor Walter J. Hickel. Treadwell's research at the

Institute focuses on strategic and defense issues facing Alaska and Arctic regions, management of Alaska's commonly owned resources and integration of Arctic transport and telecommunications infrastructure. Concurrently, in business, Mead Treadwell is Chairman and CEO of Venture Ad Astra, an Anchorage, Alaska based firm which invests in and develops new geospatial and imaging technologies. He is non-executive chairman of Immersive Media Company, a publicly listed corporation Venture Ad Astra helped refinance in 2003. He served from 1990-1994 as Deputy Commissioner of Alaska's Department of Environmental Conservation, and helped establish a number of instruments of official cooperation in the Arctic region. Treadwell received his Bachelors degree from Yale University, and an MBA from Harvard University in 1982.

Dr. Lisa Wexler has been working in Northwest Alaska for over a decade, focusing on understanding the ways in which culture shapes Indigenous behavioral health and processes of resilience. More specifically, her research has used community-based participatory methods to understand Inupiat beliefs, attitudes and practices in order to identify promising, culturally specific prevention and health promotion strategies. Her new projects have focused on how young people are utilizing social, cultural and material resources to support their effective responses to stress and difficulty. With funding from a local tribal organization, she is trying to answer these questions by analyzing digital stories created by young people in Northwest Alaska to better understand their unique perspectives, priority relationships, areas of achievement, and everyday contexts. These insights will be used to craft youth programming to generate community dialogue. In addition, her recent studies of resilience have looked at cultural continuity across age cohorts in the region, and have explored the unique challenges faced by Inupiat college students. Dr. Wexler's current work has expanded to consider the similarities and differences in young, indigenous people's experiences growing up across the circumpolar North. With generous support from the National Science Foundation, the International Polar Year Project is working with researchers and community members in Siberia, Alaska, Canada and Norway to understand, and therefore better support young, indigenous people on their pathway to adulthood.

Dr. Wandal Winn is a life-long Alaskan and board-certified psychiatrist. He served as Chief of Psychiatry and Director of Mental Health Services at Alaska Native Medical Center for three years and then entered private medical practice in Anchorage. He has served as an itinerant psychiatrist to rural and remote mental health centers on a monthly basis for the past 25 years and is a designated expert in trauma, safety sensitive employee issues, and disability issues, serving as a consultant to the FAA, VA, state, and managed care companies. Dr. Winn has traveled to Russia and China to review their provision of health care and is a recipient of the National Alliance for the Mentally Ill Exemplary Psychiatrist Award. He initiated and participated in the first Tele-Behavioral connection in Alaska via AT&T videophone and was the medical coordinator for the state's Child Telepsychiatry Project in Ketchikan.

Dr. Albert Yeung is currently the Director of Primary Care Research at the Depression Clinical and Research Program at the Massachusetts General Hospital, and Assistant Professor of Psychiatry at Harvard Medical School. He is also Co-medical Director of the South Cove Community Health Center in Boston, which serves the Asian immigrant community. Dr. Yeung obtained his medical degree from National Taiwan University. He also obtained a Doctor of Science degree with a major in epidemiology from Harvard School of Public Health.

Dr. Yeung's major research interests include integrating primary care and mental health services to improve treatment of depression, mental health issues of under-served populations, and the use of acupuncture in treating mood and anxiety disorders. He was the recipient of a travel award and a post-doctoral research-training award from the Program for Minority Research Training in Psychiatry of the American Psychiatric Association Office of Research. He is also a recipient of a Career Development (K) Award from the National Institute of Mental Health (2003-2008) to study Culturally Sensitive Collaborative Treatment (CSCT) of Depression among Asian Americans. He is currently the principal investigator of a RO1 award from the National Institute of Mental Health to study telemedicine-based CSCT. He has published more than 50 peer reviewed articles and book chapters on epidemiology of depression, depression screening, and collaborative management of depression among Asian Americans.

Dr. Warren Zapol served as Anesthetist-in-Chief of the Department of Anesthesia and Critical Care at Massachusetts General Hospital and Harvard Medical School from 1994 to 2008. He now directs the MGH Anesthesia Center for Critical Care Research. A graduate of the Massachusetts Institute of Technology and the University Of Rochester School Of Medicine, his major research efforts include studies of acute respiratory failure in animals and humans. In 2003, he was awarded the Intellectual Property Owners Association's Inventor of the Year Award for the treatment of hypoxic human newborns with inhaled nitric oxide, a lifesaving technique that he pioneered with his MGH team. Supported by the National Science Foundation, he has led nine Antarctic expeditions to study the diving mechanisms and adaptations of the Weddell Seal. Through that research they learned how marine mammals avoid the bends and hypoxia (low blood oxygen levels) based on blood nitrogen and oxygen measurements in free diving seals. Zapol served as a member of the Polar Research Board of the National Academies from 2003-2006. He is a member of the Institute of Medicine of the National Academy of Sciences.

On July 25, 2008, Dr. Zapol was appointed by President Bush to serve a four year term on the U.S. Arctic Research Commission. Under the Arctic Research and Policy Act of 1984, the Commission is charged with establishing national Arctic research policy, priorities and goals, promoting Arctic research, and working with the National Science Foundation to support cooperation on Arctic research throughout the federal government, and with other nations.

REPORT OF THE
BEHAVIORAL AND MENTAL HEALTH RESEARCH IN THE ARCTIC: STRATEGY SETTING MEETING

Levintova, M., Zapol, W.I., Engmann, N., Editors

Purpose: To develop a U.S. Government Arctic Human Health Research Strategy that will advise the Interagency Arctic Research Policy Committee on the development of a U.S. Government Arctic Human Health Research Plan.

June 2-3, 2009
Commons Building #41, Room 107
University of Alaska Anchorage, Anchorage, AK, USA

Introduction

On June 2-3, 2009, the Fogarty International Center (FIC) of the National Institutes of Health (NIH) and the U.S. Arctic Research Commission (USARC), with the support from the following NIH institutes: National Institute on Alcohol Abuse and Alcoholism (NIAAA), National Institute on Drug Abuse (NIDA), National Institute of Mental Health (NIMH), National Center for Research Resources (NCRR) and the Centers for Disease Control and Prevention (CDC), hosted a workshop on behavioral and mental health research in the Arctic. The conference aimed to develop a research strategy to address circumpolar Arctic behavioral and mental health, one of the high priority goals established by the USARC.

The goals of this workshop were (1) to discuss behavioral and mental health issues faced by pan-Arctic communities; (2) to review the status of ongoing research in these fields; (3) to identify and discuss new research opportunities; and (4) to initiate a process to develop a long-term plan to conduct future research in these areas. A report, including recommendations for a U.S. research plan in behavioral and mental health research in the Arctic, will be presented to the Interagency Arctic Research Policy Committee (IARPC) for adoption and implementation.

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Glossary

ANTHC	Alaska Native Tribal Health Consortium
CBPR	Community-Based Participatory Research
CDC	Centers for Disease Control and Prevention
FASD	Fetal Alcohol Spectrum Disorder
FIC	Fogarty International Center
IHS	Indian Health Service
IUCH	International Union of Circumpolar Health
MHT	Mental Health Trust
NA/AN	Native American/Alaska Native
NCRR	National Center for Research Resources
NIAAA	National Institute of Alcohol Abuse and Alcoholism
NIDA	National Institute of Drug Abuse
NIH	National Institutes of Health
NIMH	National Institute of Mental Health
OSTP	Office of Science and Technology Policy
SAMHSA	Substance Abuse and Mental Health Services Administration
SCF	Southcentral Foundation
UAF	University of Alaska – Fairbanks
UAA	University of Alaska – Anchorage
USARC	United States Arctic Research Commission
USG	U.S. Government

Executive summary

The National Institutes of Health (NIH) Fogarty International Center, together with the U.S. Arctic Research Commission (USARC) and with the participation of other NIH institutes and the Centers for Disease Control and Prevention (CDC), organized a strategy-setting conference on *Behavioral and Mental Health Research in the Arctic* that was held at the University of Alaska at Anchorage, on June 2-3, 2009.

The purpose of this meeting was to develop a U.S. government (USG) Arctic Human Health Research Strategy that will advise the Interagency Arctic Research Policy Committee (IARPC) on the development of a USG Arctic Human Health Research Plan. Over 60 Arctic health stakeholders, including U.S. government, scientific and tribal community leaders, and international behavioral and mental health scientists met in discussions on current research knowledge and gaps in research, with a specific focus on improving our understanding of the risk factors and barriers to reducing suicide and other behavioral and mental health disorders among Arctic Circumpolar residents.

A number of issues were raised during the meeting including the need for more epidemiological studies of behavioral and mental health outcomes in the Arctic, implementation evaluations, genetic and other studies. In addition, a question of conducting an IOM study that will thoroughly examine behavioral and mental health issues and determine the necessary steps toward improving the mental health of the residents in the Arctic was raised. Specifically, the following needs in the behavioral and mental health research in the Arctic were expressed by the participants:

1. Improvement in the participation of the communities in behavioral and mental health research.
2. An increase in the numbers of highly-trained Alaskan Native Scholars.
3. An increase in the number of evidence-based, outcomes and epidemiological research projects focused on behavioral and mental health treatments.
4. Exploration of the various long-distance treatment and research approaches.
5. Seeking support for long term research grants.
6. Exploration of various research methods and designs.
7. Building research capacity among Alaska Native students, starting as early as possible, for example in high school.
8. Preparation of an inventory of research projects supported by USG and other funding sources.
9. Preparation of a strategic research agenda on behavioral and mental health in the Arctic.
10. Identification of collaborators and strategic partners.
11. Conduct of the assessments of natural experiments.
12. Leveraging of resources from various sources and stakeholders
13. Consideration of multi-agency and AK statewide initiatives.
14. Discussion and proposal to the AK State legislature of potential opportunities and resources to support behavioral and mental health research initiatives.
15. Consideration of an Institute of Medicine Study (IOM) on behavioral and mental health issues in the Arctic, with a focus on suicide.

The following document represents
the complete proceedings of this meeting.

BEHAVIORAL AND MENTAL HEALTH RESEARCH IN THE CIRCUMPOLAR ARCTIC

SUMMARY OF THE PROCEEDINGS

Opening remarks

Dorothy Cook (President, Village of Eklutna), opened the conference with a welcome address and prayer for all the participants and attendees. She reflected on the lasting effects of suicide on survivors, mentioning her own personal experience with suicide and how it continues to affect her life. Cook emphasized the importance of information and education about mental illness, citing it as an important way to save lives. In closing, Cook expressed her gratitude for being able to welcome the conference participants to Anchorage.

Roger Glass (Associate Director for International Research, NIH), began by urging the audience to think of global health in a domestic perspective. He acknowledged the great body of research on these issues of mental and behavioral health, but stated that there is a necessity for further research in this area to make tangible changes. Glass continued by reflecting on his early experiences in Alaska with the Centers for Disease Control and Prevention (CDC). The research conducted in Alaska has benefited not only those in the region, but people around the world.

Glass mentioned that the NIH-funded grants in Alaska, totaling about $25 million annually, may identify solutions in Alaska that can be applied to other regions of the world with the similar issues of long distance health care provision. This agenda is crucial for both medical and mental health problems. Glass admitted that while he isn't an expert on mental health, he hopes that by learning and listening in the coming days, the conference participants may shed light on how to proceed. He closed by emphasizing the necessity of improving the quality of life in a region where health disparities are pronounced, and research has the opportunity to make a great impact.

Mead Treadwell (Chair, USARC) opened by expressing the dedication of the Commission to seeing an effective Arctic health research program launched. This requires engagement with both the research and regional Arctic communities. He stated that support of the US Arctic Research Program totals about $400 million per year, across 15 federal agencies. The Arctic Human Health theme is one of five interagency themes represented in the Commission's report on goals and objectives, and while this has been adopted as a goal for some time, integrated Arctic health research is just getting started. Together with FIC, the Commission is working with the State of Alaska, tribal entities, international partners, and other USG agencies to achieve these goals and objectives.

Treadwell noted that the Commission has added staff to the Office of Science and Technology Policy (OSTP), to help ensure the goals and plans of the Commission and the people of Alaska are well represented and included in the funding process. Treadwell emphasized that the USG presence will increase advocacy efforts, and guarantee that the interests of the Commission are recognized by the government. He stated that Arctic policy has recently been reviewed at the cabinet level, and the government has reiterated its commitment to the Arctic region, including all indigenous people. It is the hope of the Commission that the Secretary of Health and Human Services, Kathleen Sebelius, will initiate an Institute of Medicine (IOM) study to examine and bring further insights into the issues of suicide and behavioral health in the Arctic. Treadwell closed by emphasizing that the Commission must be focused and committed to this effort of stabilizing an Arctic health research program in order to guarantee the necessary health research improvement.

Keynote address

Representative Reggie Joule (District 40, Alaska State Legislature), began by describing the unique cultural differences of Alaskan Natives. He urged the participants to understand that a discussion regarding mental well-being of Alaskan Native people cannot be undertaken without understanding the foundations of their culture. Representative Joule has served in the Alaska legislature for thirteen years, representing approximately 16,000 North Slope Alaskans. He stated that in all twenty communities in his district, he has found a familial connection, and this is representative of the personal connections between Native Alaskans. He continued by highlighting Alaska's dismal health statistics, including high rates of child, alcohol and sexual abuse, high rates of suicide, and a large prison population. Though he condemned these statistics as indicating a poor environment in which to raise children, he stated that he sees them as important opportunities for change and growth. As a member of the Inupiat tribal group, Representative Joule mentioned that he understands the high rates of suicide and violence as one expression of grieving the loss of the traditional Native American lifestyle. In his life, Representative Joule stated, the loss of the traditional lifestyle was characterized by being taught English instead of becoming proficient in his Native language. This has created a deep-seated guilt in Representative Joule's life, that he could not incorporate the values of the Inupiat people into his life.

Representative Joule asserted that there are many things that Alaskans don't discuss in their Native communities, including sexual abuse and discrimination. He noted that Alaskan's must stop "sweeping these things under the rug," and begin to get a handle on issues of mental health. He appreciates the work of those in research and the government, but stated that because those people are non-Native, they cannot be the ones to address these issues. Alaskans have much to be thankful for, in terms of government subsidies for electric bills, food, gas, and home loans. However, Alaskans must place value on other things as well, most importantly the preservation of their language and heritage, and the value of themselves as individuals and collectively as a social group.

Finally, Representative Joule embraced the necessity of science to provide evidence-based reinforcement for these issues. Empirical data is necessary in order to empower individuals and communities to make tangible changes. This empowerment, he stated, must come from the Alaskan people, not only the many academics present at the conference. He closed by emphasizing that he hopes the combination of science and community involvement will result in improved mental and behavioral health for all the people of Alaska.

Setting the agenda

Warren Zapol (Jenney Professor of Anesthesia, Harvard Medical School and Commissioner, USARC), opened by offering his appreciation to all parties involved in organizing the conference. His commitment to behavioral and mental health issues in the Arctic stems from his observation that depression and suicide, particularly youth suicide, are among the most important issues afflicting the Arctic region. He asserted that research, both biomedical and in social science, can help ameliorate these difficult problems afflicting the Arctic, and improve the quality of life overall.

After outlining the importance of research in Arctic behavioral and mental health, Zapol charged the participants with the task of reviewing the existing literature, identifying what works, and creating a comprehensive research agenda for behavioral and mental health issues in the Arctic. He urged participants to do the following:

1. Make an inventory of what has been done to improve mental health in the pan-Arctic to reduce suicide rates
2. Examine what works to reduce suicide in pan-Arctic regions, including examining work in other Arctic countries. Particularly to discuss research that has focused on Native populations, whenever possible.
3. Learn if these intervention strategies have been rigorously tested using accepted scientific methods.
4. Plan to scale up whatever works in robust tests. We must ensure that an effort to scale-up effective interventions is a sustainable effort, that the intervention is repeatedly tested for effectiveness, and that both the intervention and the analysis will receive long term funding.

Zapol admitted that although these tasks are considerable, the benefits of scaling up what works should be a sustained reduction of the Alaskan youth suicide rate. There is little doubt that with the multidisciplinary team of experts in the room, and those who can be consulted abroad, and followed by sustainable support; there could be a reduction in the suicide rate.

Epidemiology of behavioral and mental health disorders in the circumpolar Arctic

Behavioral and mental health disorders in the Arctic

Bob Chaney (Clinician, Southcentral Foundation). Chaney began by urging the participants to consider the principle of seeking the truth. He asserted that the pursuit of truth at times leads to a distortion of the truth, and that by approaching the subject of behavioral and mental health with compassion, you minimize the risk of withdrawal and distortion. Chaney's own experience as a clinician has led him to address these issues with compassion. The pursuit of compassion serves us by guiding us toward caring relationships, community and forgiveness.

However, he stated, self absorbed compassion can lead to violated boundaries and perceived disrespect. Chaney emphasized that outsiders to a community should not enter the community assuming that they are the expert, and that the individuals are victims who must be treated. Though these efforts are led out of compassion, they alienate and disrespect the communities, and lead to distorted information.

Chaney continued to examine the similarities between Native American and Alaskan Native (NA/AN) communities and how they might share risk factors for the high rates of depression and suicide. He cited three main similarities that he believes affect the mental health of these communities

1. The histories of trauma, loss, abuse and neglect. No one can deny that indigenous populations have endured overwhelming trauma, abuse and neglect. This history of trauma and abuse fosters high levels of distrust, vigilance and anxiety which contribute further to distortion of relationships.
2. Living in survival mode distorts our relationship with each other, with nature, the land, ourselves and our own lives. Living in survival mode involves the constant questioning of one's existence: Why did this happen? Why did they do that? Why did I do that?
3. Competing belief systems and the tension of acculturation. We may find ourselves lost and that is dangerous because we can lose hope. Loss of identity can lead to damaged relationships and loss of meaning, which are self-perpetuating processes.

These primary factors branch into a variety of secondary factors in the epidemiology of behavioral and mental health in the Arctic. Chaney emphasized the important interaction between the clinician and the populations at-risk. All too often, the clinician, despite good intentions, abuses his or her relationship with the Native population by asserting status as an "expert" and failing to appreciate the beliefs of the community. How researchers and clinicians enter into relationships with the first people of the Arctic is very important. He urged researchers and clinicians to appreciate that we can only be helpful when we evaluate and appreciate who we are in relation to our neighbors; we must recognize the risk of a perceived judgment and the risk of violating boundaries and prescribing meaning through our compassion.

Chaney closed by expressing his hope that clinicians and researchers could be very successful in Native populations if they approach their interactions and interventions in a constructive manner. He said that he believes that in partnership with our neighbors, we can, with compassion, find the path of truth and wellness. However, this path requires continued self-evaluation.

Mark Erickson (Medical Director, Behavioral Sciences Division, Southcentral Foundation). Erickson began by introducing the CDC Adverse Childhood Experiences study that, among other health measures, examined the correlation between child abuse and neglect and suicide attempts. The study, based on a survey of over 17,000 adults, indicated that those who had suffered one type of adverse childhood experience (e.g., physical abuse, parental alcoholism, neglect) had about a 40% increase in average suicide attempt risk. With two or more adverse childhood experiences, the percentages increased exponentially. A corresponding study examined the effects of adverse childhood experiences on alcoholism, and reported similar results). One adverse childhood experience was correlated with a ~ 50% increase in risk of alcoholism whereas multiple adverse childhood experiences increased this risk more than 700%.

Erickson suggested that based upon such data, researchers could examine how to reduce adverse childhood events as one way to approach reducing suicide and alcoholism in the target populations. By decreasing the number of adverse childhood experiences, there could be an overall improvement of mental health. The evidence base for reducing child maltreatment is divided into three areas. Firstly, research suggests that enhancing mother-child bonding shortly after birth, particularly by prolonging the nursing stage, as well as providing a generous maternity leave, can lower rates of child maltreatment. Research suggests that breast-feeding promotes an emotional bond between the mother and child, and longer periods of nursing by the mother leads to a reduction in child neglect. Secondly, the literature suggests that educating parents on child care decreases maltreatment. Finally, the power of the personal narrative to prevent the cycle of child maltreatment continuing from one generation to the next was discussed. Adults, maltreated as children, often have difficulty presenting a coherent narrative of their childhood. Gaining this ability may reduce the risk of intergenerational trauma. A program at Southcentral Foundation called Family Wellness Warriors Initiative (FWWI), created by Alaska Native and American Indian staff, facilitates this process in five day gatherings. Assessment of FWWI, using the Family Environment Scale, indicates it is improving the quality of family life for participants ($p=0.00039$, unpublished data).

Discussion

The discussion raised the topic of the relationship between alcohol abuse and parental abuse, and research examining this issue. Research on alcohol and drug use suggests that abuse often begins with alcohol and drugs as a form of self-medication.

In response to research on maternal and child bonding, the issue of children and the fetal alcohol spectrum disorder (FASD) was raised. Because many high-risk children may have some features of this disorder, the long term positive effects of maternal and child bonding may be negated. A question was raised whether researchers in this area examined identified persons where FASD was a factor.

Mark Erickson explained that while his team has not addressed FASD in particular, they would like to expand their research capacity to integrate all sources. Ideally they want to examine maternal support from preconception to age five, and expand their support services with the ultimate goal of improving overall mental health.

Spero Manson, Professor of Psychiatry at the University of Colorado at Denver and an anthropologist pointed out that while childhood physical abuse often results in mood disorders, childhood sexual abuse also often results in drug abuse. He stated he is familiar with family wellness programs, and said that while he believes they are well-conceived, the data does not support that they have effective outcomes. The discussion continued surrounding Family Wellness Programs, others noting that it may take some time to make these programs effective, and they believe that since they are currently having a positive impact, perhaps the future focus should be on strengthening the evaluation programs.

Mark Erickson closed the discussion by mentioning that assessments by the State of Alaska would be needed to determine whether the Family Wellness program is preventing child maltreatment. He also brought up the important point of variations in the definition and classification of child maltreatment across different states, as well as variations in the classification of mortality from child maltreatment. Both of these concepts may have different interpretations in different states.

Suicide

James Allen (University of Alaska- Fairbanks) and ***Jay C. Butler, Chief Medical Officer, State of Alaska (Alaska Department of Health and Social Services)***

Drs. Allen and Butler presented the rates and patterns of suicide to highlight its significance as a health disparity in Alaska. They reviewed descriptive data on suicide in Alaska from 1990-2006, from a follow –back study of suicide in Alaska from 2003-2006, and from a study of suicide in

Northwest Alaska. The results indicate that death by suicide is evenly distributed by month in Alaska with no seasonal pattern. However, important disparities in rate of suicide exist by age, ethnicity, and region. Rates in Alaska are approximately twice as high as in the general US population and about four times higher for 20-29 year olds. Alaska Native rates were about four times that of the US general population. Alaska Native 10-19 year olds experience over four times the rate of non-Natives in Alaska. However, variations exist in the rate of suicide across regions with majority populations of different Alaska Native cultural groups. Suicide rates were lowest in the Aleut/Alutiq regions of the state, and highest in regions with Inupiaq and Yup'ik majority populations, with the highest rates exceeding 90 per 100,000. Among suicide deaths where toxicological results were available, 72% tested positive for co-occurring substance use. Male gender, under age 25 years, use of firearms, and a substance abuse history predicted fatal from non-fatal suicide behavior among Inupiaq in Northwestern Alaska. In 2004, suicide was the fifth leading cause of death in Alaska, and the second leading cause of death under age 50. Existing data points to the importance of differentiating subgroups within populations, and the distinction between populations and communities in understanding causes of disparities in suicide rates. Data also points to the importance of understanding protective factors from suicide as differentiated from risk factors. Allen and Butler closed by stating that future research is needed on the impact of the environment, best methods for screening, and best methods for treatment and prevention.

Discussion

Rick Erdtmann (National Academy of Sciences), raised the issue of misclassification in suicide, specifically concerning how cases of 'injury' are classified and whether or not they are related to suicide. Jay Butler addressed this question by explaining that there is a Trauma Recording System used in sixteen States to record violent deaths, but that Alaska does not yet have a state-wide coordinated trauma system. Erdtmann's concern for misclassification stemmed from the fact that it is probable that the suicide statistics are even worse than what the data indicates if accidents are incorporated.

James Allen (University of Alaska- Fairbanks) indicated that a major issue is the different manifestations of social policy and disruption in different communities. He suggested a factors approach to understanding these differences and ultimately saving lives. ***Raul Caetano (University of Texas)*** expressed his concern about narrowing research too far, and ultimately creating instability in the data due to a microscopic approach. ***James Allen*** agreed on the dangers of a microscopic data approach, but pointed out that it is important to note that some Alaskan communities have not experienced suicide in over 30 years while other places have clusters of suicide deaths. He believes that this is a significant occurrence and is not due to chance.

Wayne Goodman, (NIMH, NIH) now Chairman, Department of Psychiatry, Mount Sinai School of Medicine, asked about the types of data and information recorded in the postmortem medical examiner's notes. Is there data regarding the toxicology of patients who were taking anti-depressants at the time of suicide? ***James Allen*** responded to this question, stating that Alaska is second to the last in our nation in conducting toxicology tests following a suicide, and this is an area which should be improved. He reported that about 33% of suicides during a four to five year period had toxicology examinations regarding the presence of alcohol. Approximately 75% of suicides were positive for alcohol and/or drug use. Goodman said that we don't have useful data on prescription drug use. Finally, Allen stated that Alaska needs more follow-up studies to examine access to psychiatric services and utilization patterns.

Spero Manson began by sharing a personal story of how traditionally Alaskan Native men go fishing and have discussions regarding male identity. This process affirms their place in society, and this is a ritual that has been disrupted by recent changes. He noted that the Southcentral Foundation's (SCF) recent SAMSHA grant presents an enormous opportunity to examine the extent to which drug abuse and drug dependence is related to suicide. Manson sees this as a unique opportunity to examine the nature of the ties between substance abuse and depression.

Additionally, Manson pointed out what he sees as the biggest challenge in this field. He suggested that the biggest challenges are not ones of novel science, but developing processes for planning, conducting, and determining the findings of this research work. This meeting should be a starting point for that process, but it will require investment and a new way of doing business that federal agencies are not prepared to engage in. Manson encouraged the participants to commit energy and focus to this special issue, so that the science, both in its rigor and application will be made better.

Epidemiology of fetal alcohol spectrum disorders

Gerald Mohatt (Professor of Psychology, University of Alaska- Fairbanks) and ***Christina Chambers (Associate Professor of Pediatrics, Departments of Pediatrics and Family and Preventive Medicine, University of California San Diego)***

Mohatt and Chambers presented data on the epidemiology of Fetal Alcohol Spectrum Disorders (FASD). They began by stating that heavy alcohol consumption by pregnant women is a health behavior that can lead to adverse pregnancy outcomes, including infants with the Fetal Alcohol Syndrome (FAS). In addition to children with the full-blown syndrome, many more children have some prenatal alcohol related effects. The full range of effects is now known as Fetal Alcohol Spectrum Disorders (FASD). Various methods have been used to estimate the frequency of the disorder in a number of countries throughout the world, With more active ascertainment methods, estimates in the U.S., including Alaska range from 1-3 per 1000 live births. Higher rates have been reported in specific subgroups, possibly due to a higher prevalence of maternal drinking. For example, among Alaska Natives, from 1995-98, reported rates of FAS were 5.8/1000. Accurate estimates of the prevalence of the full spectrum of FASD are lacking. However, cross-sectional studies in various populations in Russia, South Africa, and Italy suggest that the traditional surveillance methods fail to identify a substantial proportion of affected children. This is due to a variety of factors, including lack of adequate training to enable clinicians to make the diagnosis especially in the newborn period, difficulty in identifying the subtle structural features of FASD, and reluctance on the part of women to disclose the amount of alcohol they consumed. The public health importance of the situation is compounded by emerging evidence that a substantial proportion of women in some Arctic regions as well as other areas of the world report regular drinking in a binge pattern, and continued binge drinking during pregnancy. Prevention efforts need to be informed by a better understanding of factors that identify women who are at highest risk, by targeted intervention efforts, and by better training of clinicians who treat these patients.

Discussion

Carl Hild, Associate Professor of Health Services at Alaska Pacific University, introduced the idea of community based health research (CBHR), in particular a study that was done examining substance abuse and other health care problems of Native Alaskans. Hild stated that there is data available from this study that has not been examined, with the exception of resilience. The issue is not a lack of data, but limited investigation on both the part of the research community as well as the communities themselves. Hild stated that there is a need to engage the communities and encourage them to get involved as they need to learn what they can do to help their people.

Bernard Segal, Professor of Health Sciences at UAA, began by complementing Mohatt, CANHR, and Hild on their research by including the community in the research. Ultimately what the community wants to know is most important in driving the research forward. Segal expressed interest in learning more about the importance of a significant person in the life of an individual in recovery. He asked Mohatt to elaborate on this topic.

Gerald Mohatt addressed Segal's question by explaining that there are two parts of the developmental trajectory. These two components are critical in the child's development. The first is a person or place in the family that provides a sense of praise or value to the child, providing them with a safe place to turn. The second component is social. Research demonstrates that many important positive decisions are made during adolescence, for example, whether or not to engage in underage drinking, and the decision can be ultimately traced back to the influence of elders, religious leaders or others in the social realm.

Karen Perdue, of the University of Alaska, mentioned that where community based research exists, it is very successful. There are both rural and urban programs with local diagnostic teams. Much is and a great deal has been invested in these programs. These programs have a lot to offer both U.S., and Alaska Natives, and may be applied in other areas in the Arctic.

Raul Caetano, Professor at the University of Texas, brought up an observation that issues of mental health in Alaska Natives do not appear to be solely linked with alcohol abuse and drug abuse, but may be mental health issues related to major depression and psychosis. ***Spero Manson*** reported that there isn't adequate epidemiological data in Alaska to answer this question. The data suggests that the experience of trauma is greater than any other risk factor. ***Mohatt*** followed up on Manson's point by raising the question: Is there sufficient priority, interest and money to conduct a thorough epidemiological study of these issues? The unique set of challenges presented by the region would make an epidemiological study both costly and difficult. Mohatt believes the Alaska Native leadership must advise researchers on the cultural issues closely relating to suicide, of which Mohatt stated, loss of a significant relationship is perhaps the most important.

Roger Glass pointed out that training might be a way to bridge the gap between research and the community. He questioned the feasibility of recruiting indigenous students to schools of public health, or other training institutions, and charging them with bringing these methods back to their community of origin. ***Mohatt*** pointed out that there is currently a large focus on practice, and less on research in terms of granting academic degrees. Another related issue of importance is that while trained researchers will be helpful in defining a research methodology, integrating leaders from the community will also be enormously useful in fostering future research.

Representative Joule weighed in on this topic, relating it to the larger issue of securing employment, not only in healthcare, but in all areas, for indigenous Alaskans living in villages. Currently, research focused on sub-populations is a rarity in all areas of employment and education, and if this becomes the rule rather than the exception, research conducted in these areas will become more concrete and valuable. We need to find a way to cope with the changing roles of Native Alaskan men and women by encouraging dialogue, translating what is said, and saying what you mean to them.

Representative Sharon Cissna, a member (Anchorage) of the Alaska State Legislature, offered her opinion that as a culture, Alaskans have their head in the sand. She expressed the changing nature of research, and the urgency that the participants should feel in making changes and winning over lawmakers to their cause.

Research and the healthcare system

Don Kashevarof (Chief Executive Officer, Alaska Native Tribal Health Consortium/ ANTHC) Kashevarof provided important statistics and observations to help explain Alaska's high suicide rates as compared with the rest of the country. In Alaska, Natives comprise a fifth of the population. However, they are experiencing a loss of authority and power. It is stressful to provide for their families because they are unable to do so in a traditional way. For example, while they used to be able to hunt and fish, now they need to get a government permit to do so. He emphasized that they are also losing a sense of community and it is negatively impacting the villages.

Kashevarof expressed that the State has been very receptive to working with Natives and that ANTHC emphasizes research as one of their top five priorities, but only if it is community based and from the ground up.

Overview of the health care system and service delivery

Ileen Sylvester (Vice President, Southcentral Foundation) Sylvester spoke on behalf of the Native population and said that this generation will stop these serious issues. She shared her pride in growing up in Homer, as a Native Alaskan, and offered insights on what is important to the Native communities, from her perspective. The Southcentral Foundation has grown tremendously since it began in 1952, even adding its own healthcare program, which was introduced because of the work of the tribal leadership. Additionally, the Foundation has a research oversight committee, led by Spero Manson. The Foundation would like to develop a research team to answer the important questions that have been raised today. The Foundation has prioritized research and has policies and procedures in place, as well as strategic partnerships to guarantee its success.

Sylvester highlighted Southcentral's intern program as a way to train the tribal leaders of tomorrow. Even in research training it is important to remember the total aspect of a person, including pride in being an Alaska Native person and partnering with people around us. Southcentral is committed to partnering with many organizations and individuals as a way to make progress.

BREAKOUT SESSION I

Basic biomedical research

Wayne Goodman (Chair, Department of Psychiatry, Mount Sinai School of Medicine; formerly NIMH/NIH) Goodman said that when he's asked to give a talk on issues of mental disorders, suicide generally comes up. He thought it would be helpful to describe differences in types of translational research. The challenge is to apply basic neuro-scientific discoveries, and apply them to human populations with high rates of suicide and severe mental health problems. One of the trends that he sees being embraced at NIMH is not focusing on Diagnostic Statistical Manual (DSM) categories, but rather examining the intermediate phenotypes. For example, suicide is generally considered a symptom of an illness. This raises a question: Are there aspects of the neurobiology of suicide that occur in common among different disorders? There has been a lot of research on common denominators of antecedents of suicidal behavior. There may be mental state changes that occur that may be permanent and guide us toward an appropriate choice of interventions. Another trend is to focus on psychiatric disorders. It is hard to think of psychiatric disorders if you can't find antecedent characteristics in childhood. In the future NIMH research programs would hope to be able to identify individuals from ages 15-18 that show early manifestations, and to intervene and modify their deadly course.

Goodman outlined NIMH's new strategic plan, citing many new objectives. Firstly, NIMH should promote discovery in the brain and behavioral sciences to fuel research on the cause of mental disorders. Additionally, NIMH must look to see if we are being successful in our research, e.g. are we including a wide diverse community.

Epidemiological research

Raul Caetano (Professor of Epidemiology, University of Texas Southwestern School of Health Professions)

Problems associated with the use of alcohol and drugs in Alaska have been recently discussed. The high prevalence of such problems and of other associated behavioral problems such as suicide has been recognized. Yet, there is a lack of good epidemiological descriptions assessing the extent of such problems in a systematic manner across the state of Alaska and in important population subgroups such as Native Alaskans. This is despite the fact that epidemiological data is routinely collected, and this data could indicate the nature and extent of these problems. For instance, the CDC's Behavioral Risk Factor Surveillance System (BRFSS) has been regularly conducted in Alaska. This telephone survey inquires about alcohol use in the "past 30 days", more systematic analyses of these surveys could provide valuable cross-sectional and trend information on rates of alcohol use, binge drinking and other behavioral and physical health problems. Furthermore, there are public data files of these data available for a future analysis.

A second source of epidemiological information about alcohol use, illicit drug use and other behavioral problems is the National Survey on Drug Use and Health (NSDUH). This survey is conducted each year by the SAMHSA. It too could be analyzed with a focus upon Alaska, especially if samples from several years are conflated to provide a sufficient number of respondents for analysis. A national data set is also available for analysis. The data that are specific to Alaska would have to be obtained from SAMHSA with a specially authorized request given that the agency does not provide state-specific data to the public.

In summary, epidemiological data are available that could be analyzed to advance our understanding of alcohol abuse, illicit drug use and other behavioral problems in Alaska. Given that this exercise will focus on secondary analyses of existing data sets, any costs will be limited, which should make this exercise very attractive and well worth pursuing.

Discussion

Wayne Goodman posed the question that as imperfect as the data are, aren't we already convinced that there's a huge problem? If anything, we may be underestimating the actual rate of suicide that is occurring. Some suicides may be underreported or reported as accidents or as accidental due to substance abuse. Goodman believes that there is already enough information reported to attract attention and we should be focusing on what interventions have been proved to be effective elsewhere, and to adapting them to Native cultures in Alaska. There is also an important opportunity to learn more about both causative and protective factors, as well as exploring genetic studies.

James Berner, Director, Community Health Programs, ANTHC, offered his opinion in favor of genetic research. He pointed out that if you found two places with substantial differences and you haven't put your finger on the causes, then it's worth digging deeper. However, genetics is one important place that we haven't done studies and we will need to. There is an increasing disparity between Alaskan populations in Native mortality rates from both suicide and obesity. Genomics is an unexplored area for both of these Alaskan disparity problems.

Genetic and environmental studies

Bert Boyer (Associate Professor of Biochemistry and Molecular Biology, UAF)Boyer discussed the challenges associated with human genetic research in Alaska. He explained that 70% of "who we are" can be attributed to genetics, although multiple environmental factors influence these genes and their role in behavior. Boyer works with 1,300 Native Yup'ik Eskimos, in a cross-sectional study that has become a longitudinal one. The research group returns to the communities every two or three years to collect a wide range of information. Participation is strictly voluntary, as there is a long legacy of mistrust in the communities. In an attempt to quell some of the distrust and misinformation, Boyer's team holds a workshop led by community members to inform them of the goals and procedures of the research as well as to answer questions.

Boyer's team has three grants pending at NIH; each proposes to form a community planning group. The planning group would meet up to four times a year, to discuss research priorities, as well as the ideas and concerns of community members. The community planning group disseminates the research results, in an attempt to increase information transfer and consequently decrease fears. There is a similar setup in urban Seattle to test the effectiveness of this type of plan.

Boyer discussed the low rates of diabetes among Alaskan Natives, totaling less than half of the average rate for the rest of the United States. One possible factor to be examined is the contribution of seafood, which is rich in N15. This is one example of what the Yup'ik Eskimos can help us to learn about disease risks and protection.

Discussion

Wayne Goodman complimented Boyer's work, mentioning that it's encouraging to see how successful he has been in gathering genetic data. He asked whether Boyer would see additional challenges if the focus was on something other than obesity. For example, on a more stigmatizing issue such as drug abuse. ***Bert Boyer*** explained that because issues of mental health are very important to the indigenous community, researchers may be surprised what the communities are willing to share if the research approach is acceptable. It is highly important to establish an open dialogue with the community in order to be able to address these sensitive and potentially stigmatizing issues.

James Berner suggested a way to perform community research on stigmatized issues, which is to describe the research in terms that everyone can relate to. He offered the example of depression, a condition that affects everyone, either directly or indirectly, in the villages. ***Peggy Murray, Chief of the Health Sciences Education Branch at NIAAA***, raised the question that if a genetic component isn't found, in depressed patients for example, wouldn't that ultimately increase the stigma associated with the disease? However, ***Bert Boyer*** asserted that his research led him to believe that the Native community recognizes the problem and wants to find an explanation, no matter what the findings are.

Raul Caetano brought a public health approach into the discussion, mentioning that the issue has to be dealt with at the population level, with a population intervention. ***Marya Levintova***, a Program Officer at FIC, offered an example of a population intervention conducted in North Karelia, Finland to combat high blood pressure. The study was a success, showing population-wide effects on blood pressure levels, but the success was most likely contingent on the small size of the community in which it was studied.

James Berner raised the issue of community support systems, and how important and beneficial community support is to combating these issues. The discussion continued with a question of how to proceed with an approach to banking DNA. ***Bert Boyer*** explained the strict rules of dealing with DNA in Native populations, and the timely process of re-consenting participants. He estimated that re-consenting takes about 1500 hours but there were few difficulties getting cooperation in his experience.

Peggy Murray summarized the genetic working group by encouraging an interdisciplinary research team approach. She encouraged researchers not to accept diagnostic criteria as correct. She summarized the opportunities for research, noting that each NIH Institute and Center has a strategic plan, and applications must refer to the strategic plan when asking for funding. She emphasized that there is a large opportunity for research, particularly on suicide in young adults in Alaska because the region is so drastically different from the rest of the United States.

The discussants raised the point that the same issues are being discussed multiple times at different conferences and little progress in reducing the suicide rate has occurred. One suggestion is that a large study in Alaska should be done to bring attention to these issues, but community buy-in and local participation are essential. This approach was supported by <u>Bert Boyer's</u> success in gaining Native Alaskan community trust. The discussion then moved on to the advantages and disadvantages of focusing not on the state of Alaska as a whole, but examining individual communities and regions and their trends. The consensus is that there must be a balance between large common factor studies and diversity studies in communities to avoid fragmentation, and for both studies , extensive community based participatory research in the field will be expensive.

BREAKOUT SESSION II

Social and behavioral intervention research to establish evidence based practices for Arctic populations

Gerald Mohatt (UAF) and ***James Allen (UAF)***
They described a model of protective factors from suicide and alcohol abuse for Alaska Natives, and outlined a community based process approach to developing a prevention program. They studied Yup'ik Alaska Native youth living in remote small rural communities and presented outcomes from a feasibility study of the intervention. Fifty-four youth participated in the prevention program and completed an assessment of community protective factors at four time points before, during, and after the intervention. They reported a multifactorial protective factors model delineating variables at the individual, family and community level. The intermediate protective factors of mastery on the individual level, and support and opportunity at the community level, along with a family environment mediated by peer influences predicted the ultimate variables of reasons for life and reflective process about drinking. A process manual, the Qungasvik provides a community directed process for the development of prevention activities to foster growth in protective factors in youth and their families that are grounded to the unique local contexts and local aspects of culture in each remote, distinct community in the Yup'ik regions of Alaska. Outcome data showed medium size dose response effects (*d'* = .30-.50), with dose defined as number of intervention activities attended by each youth, and growth of intermediate protective factors and ultimate variables in response to intervention. They concluded that an intensive CBPR cultural intervention process approach is feasible in remote, rural Alaska Native communities.

Spero Manson (Director, Administrative Core Leader in American Indian and Alaska Native Programs, University of Colorado at Denver and Health Sciences Center) Manson described a study that took place in the Cook Inlet region, a region that is home to over 17,000 Alaska Natives. This longitudinal study included a multi-method assessment and consisted of a screening, brief intervention and referral for treatment. The study targeted individuals with low, moderate and high risk for substance abuse. The sample consisted mostly of Alaskan Native females seeking medical services, and the intervention utilized primary care and other staff. Various interventions were selected based upon the screening results. The interventions were either participation in up to four motivational interviews (by phone), or a referral to the Tribal Council for various types of care. Approximately 55% of the participants agreed to be referred to a behavioral health consultant. The results of the study indicated that an intervention reduced the cost of care, and caused a reduction of alcohol consumption, as well as other positive outcomes. Limitations of the study included stigma and a high staff turnover rate.

Socio-cultural, anthropological research How ethnographic approaches can inform behavioral health services: suicide in Northwest Alaska

Lisa Wexler (Assistant Professor of Community Health Studies, Department of Public Health, University of Massachusetts - Amherst)

Research documenting the prevalence and correlations associated with suicide are important for identifying high-risk populations and potentially significant antecedents; however, this kind of information does not illuminate the cultural meanings associated with suicide for diverse populations. Understanding this has profound implications for prevention and intervention when serving minority populations. It is important to articulate the culturally-situated meaning structures and practices associated with Alaska Native suicide in a rural region of Alaska. I have used a mixed methods approach using both quantitative and qualitative data to provide a venue for exploring the contributions of the latter. My results focus on the benefits of using qualitative data for contextualizing mental health statistics and for developing relevant and effective programming for indigenous and other minority populations. Simply put, qualitative data provides a way to interpret local suicide prevention practices and to begin to understand the meaning systems they respond to and create. In this case, Alaska Native youth suicide reflects social disturbances, not psychological ones. With this orientation, the people who are best able to intervene are those who are most socially tied to the suicidal person. If a close friend talks about suicide, the person who receives the information is expected to respond. Calling a counselor to intervene is impersonal at best because one's response is understood to be a personal duty that deepens the relationship. At these times, the suicidal person can "get through it" only if those around him "get him through" by mobilizing their social resources. Mental health counselors from outside the community are *not*able to assume this role, and are similarly unable to take on the intensely private responsibilities that connect friends and family. Furthermore, the standard suicide intervention protocols fit poorly into this cultural schema. These procedures include referring to a mental health counselor, who determines suicide risk based on psychological assessments, and if deemed necessary, maintains safety through isolation/hospitalization. These practices respond to the belief that suicide is psychological rather than relational, and runs counter to what many local people believe. Instead, suicide interventions should be built upon indigenous beliefs and practices. The presentation provides an example of how qualitative research can promote this endeavor by illuminating local understandings, which can then be used to develop culturally aligned services.

Health services research and evaluation studies of paraprofessional and primary care system

Albert Yeung (Associate Professor, Department of Psychiatry, Harvard Medical School)

Asian Americans under-utilize mental health services even though studies have shown that Major Depressive Disorder (MDD) is common among Asian Americans. Most Asian Americans with MDD seek help from general hospital and primary care settings, but the majority of them do not recognize their depression. Katon et al. (1995) proposed a collaborative model for treating depression in primary care, which was shown to improve depressive outcomes and improved satisfaction among patients with Major Depressive Disorder (MDD).

There are significant cultural barriers to implementing collaborative management of Chinese Americans with traditional illness beliefs. To overcome this barrier, our team designed a plan for Culturally Sensitive Collaborative Treatment (CSCT), which involves a) identifying MDD through depression screening, b) contacting those who screen positive for MDD and encouraging them to seek psychiatric assessment, and c) a culturally sensitive assessment and engagement in treatment using the Engagement Interview Protocol (EIP), and d) care management. In an earlier study, our team has shown that CSCT is both feasible and effective in improving recognition, engagement, and treatment of depressed Chinese Americans in primary care.

Wandal Winn (Telebehavioral Health Medical Coordinator, Alaska Psychiatric Institute)

Wandal Winn presented the Alaska Psychiatric Institute (API) telebehavioral health program, which is based at the State of Alaska Psychiatric hospital. In 2004, this program accounted for 1,200 patient events. The telebehavioral health program includes a broad range of services: evaluations, direct treatment, and medication management, consultation with other providers, training, such as grand rounds, and peer support for professionals. Winn pointed out the program was not intended for individuals with serious mental health issues (e.g., psychosis). Benefits of the program include allowing mental health professionals to reach out to more rural locations by connecting urban professionals with these communities. Winn reported increased satisfaction with and acceptability of behavioral health services among various groups, with the exception of older clients. Cost and technology were not barriers to implementation; however, staffing, training staff at smaller sites to use the technology, and reimbursement for these services were challenging. A thorough program evaluation is underway.

Overview and discussion: current research challenges and opportunities

Objective: to develop a list of challenges and opportunities for behavioral and mental health research in the Arctic

Questions:

- *What are the current approaches to studying mental health among Arctic peoples?*
- *What are state of the art approaches in contemporary behavioral health research in the US and internationally?*
- *Case examples of utilizing various approaching to studying behavioral and mental health issues among populations in the Arctic.*
- *Challenges and opportunities in conducting research in the Arctic using various methodologies.*

The discussion began with mention of challenges of obtaining NIH funding, including changes that are happening, or need to occur to enable funding. Suggestions for research included: naturalistic studies of interventions already taking place, inclusion of more Native Alaskan reviewers, mentoring American Indian/ Alaskan Native researchers in research, and requesting reviewers that are friendly to human field research.

The advantages and disadvantages of localized and generalized interventions were discussed. Even localized interventions should have a process and principles that can be translatable to other populations, though specifics would be tailored to the particular community of interest. Community-Based Participatory Research (CBPR) takes time, and there is a great need to tap into local resources prior to beginning research. Though communities in Alaska can be very diverse, posing difficulties, one idea raised is to use the community readiness model. Because of the great expense of CBPR, the idea of using behavioral health aides was discussed and debated.

Suicide prevention strategy in the Arctic Goals and priorities for an Arctic human health research strategy

Nathan Kotch (Administrator of Social Services, Maniilaq Association)

Suicide prevention is one of the highest priorities of the Maniilaq Association, as indicated in their Long Range Plan. Efforts have been made to examine existing research about Inupiat suicide, share these findings and secure funding for prevention programs. Research in Maniilaq's Service Area indicates that suicide attempts and deaths are common among Inupiat young people, with young men at the highest risk of dying from suicide. Alcohol use is involved in the majority of suicides overall, though over 50% of youth (ages 15-24) were sober when committing suicide. The majority of attempters and decedents did not seek or accept counseling services.

Despite several programs that were designed and implemented to support villages, families and individuals in the prevention of suicide, the Maniilaq service area has had an overwhelmingly high rate of suicide. In 2008, the service area lost 8 individuals to suicide, representing 22% of the total number of completed suicides in the area over the past 8 years.

Findings from a 2004 suicide prevention survey indicate that prevention strategies should focus on building interpersonal support for suicidal individuals. In particular, the survey indicated that suicide prevention should emphasize quality time with adult mentors, rather than programmed youth entertainment. However, many programs still focus on teen centers and game nights for youth, necessitating the spread of this information to ensure that adults understand the crucial role that they can play in saving the lives of youth.

The Alaska Youth and Family Grant was the only suicide prevention grant funded for FY2004/2005, and focused on community-based intervention with high-risk youth. The project trained Maniilaq village counselors, school personnel and community members to conduct Social Responsibility Training (SRT) with young people in the villages, as well as organized youth support teams in every village to identify youth in need. Lisa Wexler's research (vide supra), conducted in conjunction with youth, elders and traditional counselors from the area had established the need for community-based culturally relevant suicide prevention programming.

In 2007, Maniilaq received a Garrett Lee Smith[1] Grant for a program called "Project Life". This program is innovative and culturally relevant, and targets youth to help them generate healing through digital storytelling and positive reinforcement of individual strengths. Youth created CDs that tell their story and address relevant issues including acculturation and tribal heritage. Ultimately, through peer interaction, teams are formed within the communities to promote social support and interpersonal relationships.

As part of this strategy for culturally relevant programs, the Maniilaq Board of Directors in collaboration with NANA Corporation held a meeting in November 2008 to discuss the development of grass roots, culturally relevant suicide prevention strategies. Wexler and Evon Peter, a motivational speaker and wellness advocate, facilitated the discussion based on research conducted in the Maniilaq area.

Alaska Native Leadership Training: The concept of training helpers in each village to increase awareness and commitment amongst community members to work collaboratively in healing.

Research suggests that a lack of identity and cultural heritage brought on by years of governmental colonization and western norms greatly influenced the Alaska Natives by displacing their traditional values and beliefs. The intent of this training is to build and support a community among local leaders who are committed to personal and community healing. We believe we need creative and innovative approaches to revitalize culture, language, and ways of living using both traditional knowledge and modern technology.

[1]Garrett Lee Smith was the son of Senator Gordon Smith.

The Maniilaq Association, in collaboration with the NANA Corporation and the Northwest Arctic Borough, organized a local indigenous Leadership Gathering in January 2009. The retreat comprised five days of learning, healing and growth and was open to individuals from each service area. Facilitated by Evon Peter and Earl Polk, two Alaska Native leaders, the meeting aimed at enhancing the leadership capacity of the Native people, and developing a support network that could accelerate personal and community healing. The meeting focused on the following areas: history of western government, corporate and institutional impacts on Alaska; translating culture, language and traditional values into a means of healing in our lives; using community-based organizing, language and traditional values as agents for change; strategizing and visioning the helping role. This culturally- based approach is supported by research, and is the first step to prepare community leaders to effectively address challenges faced in our village.

Kotch stated that Maniilaq believes that the training retreat helped build trust, gain a common understanding of the issues, and begin creating a network of peer support. Additionally, we believe the retreat helped:

1. Raise awareness
2. Gain new tools and strategies for community change
3. Share stories of challenges, learning and success
4. Build a solid community with other young Alaskan Natives
5. Determine our needs and strategize
6. Bridge geographical isolation.

The Maniilaq Association plans to hold an additional training retreat in order to increase the support base for each community. A second phase of the strategy would encourage the participants from the two initial regional gatherings to organize a leadership retreat in their own community, training members of each community to initiate and lead community support efforts. Ideally, each community would hold three gatherings, based upon this model:

1. First Gathering: Led by outside facilitators
2. Second Gathering: Co-leadership of community members and outside facilitators
3. Third Gathering: Led by community members with outside facilitators offering mentorship

This approach may provide a greater chance of success in the prevention of suicide, simultaneously promoting self-directed healing in individuals and communities. It is Maniilaq's belief that a community- based approach raises the likelihood that culturally relevant issues will be discussed and effectively addressed. Maniilaq's goal is to use the natural resources and strengths of each community to begin an effective healing process in the region.

Challenges of analyzing existing programs: a randomized control study in an Alaskan social service setting

Debra Caldera (Past President, Alaska Public Health Association) Caldera began by describing the Healthy Families Alaska (HFAK) randomized controlled trial. HFAK was a child abuse prevention program which was established in 1995 and built upon the Healthy Families America program promoted by Prevent Child Abuse America. Its main goal was to prevent child maltreatment by promoting enhanced family functioning, positive parent child interaction and healthy childhood growth and development. Efforts included assuring a medical home for each child and supporting the family in accessing services. In 1998, the AK State Legislature mandated that HFAK conduct a randomized control trial of the program to determine its effectiveness. A contract for the study was awarded to the Johns Hopkins University School of Medicine. The study model included the use of Jacob's Five-Tiered Approach to Evaluation which includes developing a strong research-practitioner partnership to provide an opportunity for practitioners to influence research and assure the research is relevant to the program.

The study protocols were to enroll families over an eighteen month period, randomly assign these families to HFAK or usual community services, hold a baseline interview with the mother, track the families every eight months, and, finally, obtain a follow-up interview and observations of the mother and child at twenty-four months. The data collection included the use of a wide range of instruments to measure maternal mental health, family risk factors, child maltreatment, parent and child interaction, parenting behaviors, child development and the adequacy of HFAK services. The study spanned five years. Three hundred sixty-four HFAK eligible families were assigned to HFAK services or the control group; 325 completed the baseline interview (90%) and 276 completed the 2-Year follow-up interview, achieving an 85% follow-up rate.

Caldera reported that the study baseline interview confirmed that the program served families with multiple risks for child maltreatment. Of those eligible for HFAK and enrolled in the study, 48% reported drug use in the past two years; 36% of the mothers reported heavy alcohol use in the year prior to their pregnancy; 52% had depressive symptoms and almost half described recent partner violence. 85% of families had at least one major risk factor for child maltreatment, while 53% had two major risk factors; and 18% had one.

Study findings showed that the program did not retain families as long as intended. While the program intended to serve families for three to five years, half of the families had left the program by the child's first birthday; 2/3 has left by the child's second birthday. HFAK staff visits with families were lower than intended. At the end of two years, only 4% had received a high level of services. At twelve months more than 1/3 of the families enrolled and active in the program had no Family Support Plan. Another program limitation was that home visitors were uncomfortable in discussing with families the major risk factors which had made them eligible for entry into the HFAK program services.

With few exceptions, the HFAK program did not have measurable effects on most of the families. Several problems with the HFAK model were identified including a lack of the use of informed consent at HFAK program enrollment; a mismatch between those targeted for HFAK services (high risk) and the intervention itself which emphasized providing more general family support services suitable for families with lower risks; and a lack of protocols, training and clinical expertise for working with families on risk reduction.. HFAK study findings are consistent with other randomized trials of similar programs in Hawaii, San Diego and Santa Barbara. This study demonstrates the feasibility and value of doing comprehensive experimental research in ongoing community-based programs rather than demonstration projects. This study has implications for other programs that aim to help high risk families and reduce or prevent child maltreatment, reduce parental risks and build families' strengths. The causes of child maltreatment are complex with devastating short and long term consequences for the victims. What this study clearly illustrates, is that we have to work together as practitioners to develop effective interventions using field evaluation of social programs to determine what works well and what does not. We can't be afraid of negative findings. If we are to effectively reduce the rates of suicide or imprisonment we will have to work together to address the root causes, find out what works and employ it. The HFAK program was discontinued as a result of our research study.

Discussion

Peggy Murray began the discussion with a suggestion about implementation. She suggested that intervention for high risk drinking in parents is essential, by referral to treatment sources. If there is a lack of adequate treatment sources (providers), addressing excessive drinking in a home visit can be effective and is relatively easy to provide training for. ***Debra Caldera*** added that the intervention should include motivational interviewing, and focusing on the strengths of the family while still addressing the relevant risk factors.

Karen Perdue stated that the AK State Legislature was supportive of the study, though she noted that some of the conservative members believed home visits were too invasive. This example provides a lesson on how to move forward and use research wisely. ***Wayne Goodman*** questioned whether the HFAK program was a negative study or a failed study. A failed study, he said, is uninformative, where you can't conclude after the study whether the treatment was effective. In this study there were many elements that kept a researcher from concluding a positive impact. In the future it is important to address feasibility to avoid having such a problematic approach. ***Debra Caldera*** addressed Goodman's concerns by stating that they did address feasibility and found that the attrition rate was a problem in this high risk population. Although in her view the study was not a success, a lot was learned and gained from it.

Wayne Goodman replied by questioning what major lessons were learned from this study that could be applied to future interventions in this population. ***Debra Caldera*** addressed this question by stating that if you use this intervention then it needs to be applied to a lower risk population and you will need an infrastructure in place to address the issues that you want to address. What we learned is that the areas where HFAK did have an impact were areas where training for staff was provided. We had positive child development, and that's what the staff felt comfortable in addressing. What would we do differently? The process we used in the study informed us of a great deal. As we did the study and identified the problems, we noticed we weren't talking to families about the sensitive issues. We also needed to inform the clinicians. If you are going to enroll high risk patients to observe and treat, then you will have to surround the program workers with expertise. This is not only a problem for home visits, but even for visits to a general practitioner. Many practitioners don't ask patients about their drinking habits or relationships because they're not comfortable asking those questions. We will need to learn how to be comfortable talking to our clients, our neighbors and our families about these highly sensitive issues.

Wayne Goodman proposed that one of the major implications of the mental health research completed to date is the need for participatory research. He stated that he has learned this in the last two days. It is crucial to employ individuals who have established relationships with the native community when putting together a human research grant. There have to be these people on the ground. Much of this phenomenon can be explained by cultural factors. He elaborated that he believes these may well trump genetic factors. However, this doesn't mean that we should overlook studying biological and genetic factors.

John T. Walkup, Associate Professor of Psychiatry, Johns Hopkins School of Medicine, suggested that there needs to be a model of what would work and an assessment to determine which model is correct. There needs to be a strong clinical core to many of these interventions to make them successful. There is a lot of desire to do well, and he believes we can do good, but we have to build within these kinds of programs the intellectual and clinical components to make them strong.

James Berner agreed with that point and brought up the fact that recruiting psychiatrists or clinicians to come to villages is an ongoing and major difficult issue. He emphasized that you must leverage those psychiatrists to whom you do have access. Berner initiated a discussion regarding the benefits of an Institute of Medicine (IOM) study of this area. He stated that this is an unusual opportunity to use an organization of national medical experts like the IOM to take a broad look at the problems and approaches necessary to deal with them in a place like Alaska that has marked health disparities. An IOM study should not delay the onset of necessary research, but will definitely bring credibility and coherence to thinking about these complex mental health problems.

Raul Caetano replied that although you need an intervention that has a strong theoretical model, a strong theoretical model does not necessarily require a psychiatrist. You theorize and intervene on the basis of a theory and then measure what you're supposed to change. That doesn't seem to have happened with the intervention that we reviewed (See above on HFAK study).

Bernard Segal expressed interest in the idea of models. He states that the models mentioned earlier were western models, and that because the Alaska native community and the way knowledge is acquired within the native community is not western, they do not fit. He stated that if we really want to apply services that are critical for survival, we have to look at the world view of the Alaska native, as Representative Joule proposed earlier. By working with the community, we have an emerging process that is different from testing models, and Gerald Mohatt is a prime example of this emerging process translated into practical application using the storytelling nature of Alaskan native culture. In the meantime, because of the high suicide rate, we must work with partnerships to improve the quality of native life. There are a myriad of problems and we can't wait for an empirical study to learn what works.

Tracy Burke, of UAA, agreed that acknowledging local realities is important, but it's not just a matter of doing things native rather than western. There are real, practical and underlying issues that have been raised in the discussion. A lot of attendees have spoken about using local para-professionals because they are part of the Native culture. There may be some value to that, but Burke believes there are interpersonal issues that may be problematic. Having experience as a white researcher and social worker, Burke met many native para-professionals who could not ask intrusive questions, but when she needed to, she could do it, while the local personnel could not. This is an important issue to be raised and solved.

James Berner agreed with Burke, adding that in his experience as a senior medical practitioner in Alaska, he had noted a broad range of abilities for people to ask sensitive questions. There are some physicians who won't ask things that they should, and others that can do it. It's a matter of matching the capabilities of the person to the position and adding training, but, in some cases it won't work out.

Gerald Mohatt raised a question for Goodman on the genetics issue. He mentioned that his group is committed to genetics research, although their external advisory board had suggested that with native obesity we had selected too complex a phenotype. He asked whether employing genetic research on something like suicide would be picking one of the most complex phenotypes possible. ***Wayne Goodman*** addressed this concern by stating that it is a dilemma for both writing grant applications and study reviewers. Although people want to see the individual response, as an applicant, Goodman feels it would be important not to select genetic studies as the sole specific aim. They should collect the data and explore it, but there should also be a robust discussion of many other possibilities. ***James Herrington***, the Director of International Relations at FIC, suggested that if what we are observing (high suicide rate) in Alaska is an expression of the unusual as compared to the rest of the US, then we need to understand what makes Alaskan natives such a unique population.

Janis Anderson, Assistant Professor of Psychology, Department of Psychiatry, Harvard Medical School, proposed to test a model that examined the impact of restoring economic self-sufficiency to the communities of the north. She believed improving economics would be an effective suicide prevention strategy. ***Peggy Murray*** agreed that that is a good idea that is often brought up. A good economy can solve social and health problems, although NIH is unlikely to fund it. ***James Berner*** mentioned another problem, if you supply work and funding from the outside, then success is no longer community based. The community must produce something that the western economy wants to buy.

Elizabeth Hensley, a legislative aide, State of AK, brought up the point that while it's wonderful to talk about studying and data and putting money into Arctic communities, it is important for people to look at what the communities want and what their own solutions are. She explained a gathering she had attended, that Ivan and Earl organized, and one of the questions asked 'What will your community look like in 25 years?' Each person drew three community houses, where people could share who they are and their history. That is what natives want.

Carl Hild mentioned that in his belief, concerning the amount of community engagement and decision making, the more actively the community is involved, the lower the suicide rate. Research has identified six factors in Native American communities that lower suicide rates, though this finding has not been brought to Alaskan native communities. Hild continued by mentioning existing databases that the research community has not used. The first was a resilience study conducted in Alaska and two areas of Russia. The research group was lost at sea after the third year of data collection and these data have not been examined. Secondly, a longitudinal study of children and death rates in Hawaii has been continued for thirty one years and is helpful to the Hawaiian community. Some of these data have been relevant to the establishment of FAS. This study could be examined for mental health issues and possibly applied to Alaska.

James Berner asked the participants if there was anyone who would oppose an IOM study on the grounds of it being a waste of time or money. ***Denise Dillard, from SCF***, commented that it is unfortunate that the SCF learned about the IOM study in a newspaper. The SCF leadership felt like they were missing the context of the IOM study and they would like to address this issue. ***James Berner*** addressed Dillard's concern by explaining that he and Warren Zapol were on the NAS Polar Research Board five years ago, when it became clear to them how large the disparities were in mental and behavioral health in the Arctic. The IOM is a branch of the National Academies that acts as an advisor on medical science to the nation, and while it doesn't perform research, it organizes groups of experts to examine a topic, and compiles a research agenda, at times in the past it has addressed health disparities. ***Warren Zapol*** continued by explaining that a first draft for an IOM study of Arctic Mental Health was proposed five years ago, but NIH did not want to spend the 1.2 million dollars needed to fund it. He is concerned that while there is a lot of information about some of the causative and associated problems, very few interventions have been robustly tested, and there isn't much direction on what should be studied. As a physician, Zapol believes that many mental illnesses may have a depressive or genetic basis and medical therapy could help improve them. He states that while he believes it should come from the community, the IOM Mental Health Study was proposed by a federal organization , and went through a review by many US investigators and was deemed reasonable. Unfortunately there wasn't enough interest to find funds for it.

Spero Manson states that he does not oppose the IOM study. Firstly, it will promote the study of mental illness and mental health and it will go far in terms of systematic inclusion of testimony from a wide spectrum of constituents. Secondly, the 2002 report that IOM issued (Reducing Suicide- A National Imperative, 2002, National Academies Press) had a similar structure, and was an important study providing benchmarks for important things. They were distinguished studies because they provided plans to move findings forward after the initial scientific recommendations, and were clear about an action plan and how to engage potential sponsors. If an IOM report on Arctic Mental Health had the sponsorship and inclusion, as well as a structure with plans for application of findings then I'm a strong proponent for it.

Roger Glass admitted that he was challenged by Mead Treadwell and Warren Zapol. He stated that there is a huge problem of disparity and it has been documented once and again, and it is something that needs to be addressed on a national basis. These issues must be addressed so that five or ten years down the road we are not back here having the same conference again. He mentioned that while there are things that can bring focus and political power, all of it must be within native communities because they have ownership of the problem. There are things that can be done now, on the community level that should be supported through local resources and health authority. There are many NIH partners here, which might stimulate a research agenda. If an IOM report could bring light on this, then it should be a part of a ten year strategy starting with the AK health department and continuing with more research funded through NIH and CDC. Longer term opportunities such as an IOM strategy report to bring focus and political muscle to move the state and the country would be wonderful as long as there is community approval.

Data needs

Tracking health and social indicators: observations and a framework for circumpolar data

Lawrence Hamilton (Professor of Sociology, University of New Hampshire)

Chapters on demography and health in the *Arctic Human Development Report* (2004) compared conditions across 9 sub-national regions of the circumpolar North - Alaska, Greenland, Iceland, Faroe Islands, and Arctic regions of Canada, Norway, Sweden, Finland and Russia. To extend circumpolar analysis beyond simple comparisons requires data that disaggregates these large regions into smaller, less heterogeneous areas such as boroughs, counties, or even communities; and that tracks changes by means of annual time series. The framework for such a place–year database has been developed under two research projects supported by the U.S. National Science Foundation (Humans and Hydrology at High Latitudes, or H3L; and Arctic Observing Network – Social Indicators, or AON–SI), and made publicly available through the Web site of the Carsey Institute at the University of New Hampshire (http://www.carseyinstitute.unh.edu/alaska-indicators-northern.htm). The forthcoming *Arctic Social Indicators* report identifies a small set of key health and demographic indicators that are practical and important: infant and child mortality, teen pregnancy, total population, birth and death rates, sex ratios, and net migration. Where possible, such health and demographic indicators will be entered as time series, at approximately the level of counties, in the Northern Places database. One unique feature of this database is a set of numerical place codes covering 491 places that permit integration with climate and other physical-science data in the widely-used EASE-Grid format. A set of mapped and graphical examples illustrate some preliminary analyses using the Northern Places data.

Discussion

The discussion opened with the question of how reliable census data is in Alaska. ***Lawrence Hamilton*** mentioned that he thinks Alaska is one of the best measured places in the US. Due to permanent fund registry they claim about 95% the population. However, a larger point is that there is always some error in these types of data. One hopes that the measurement errors are random or have a predictable bias for each place. In terms of criterion validity, he argued that these numbers correlate with what you would expect them to correlate with. ***James Herrington*** raised the example of emigration from Ambler, AK and how the researchers said that it may not be an example of instability, but rather the fact that families might be doing well and want their kids to move elsewhere. He asked, if one did a correlation on a factor of instability, would one expect to see a correlation using the information that you included? ***Lawrence Hamilton*** responded by stating that it would be fascinating to begin a project like that. He noted that the problem with examining net population migration alone is that this might be either a good or a bad indicator. He explained that when they ask villagers why they want to leave their villages, they express some "push" factors. For example girls express views that life would be easier in other places (eg cities), and also they express "pull factors". Boys want to follow in their father's footsteps and become fishermen, and girls want to have careers.

Carl Hild asked if Hamilton's group could adjust their model to examine where services might best be provided. ***Lawrence Hamilton*** responded that the model can't shift easily as they must first define a borough and then describe it as thoroughly as they can.

James Berner mentioned that one of the ways he has tried to look at in-migration is how many children are added to a school system in a village school. It is one way that one can, individually at least, examine those trends. ***Lawrence Hamilton*** added that another way to examine in-migration is in Anchorage schools, because there are larger numbers that can be readily studied. ***Spero Manson*** adds that one project they have been doing in behavioral health is a large community-based epidemiological project using geo-coding services and utilizing service respondents, they are mapping distance and access to health care services.

Lawrence Hamilton explained that he is describing a data framework where the columns could be any data that has been collected, and the idea is to analyze them against any of the other variables in the same framework. If there is community level data, it could be added to the model. ***Spero Manson*** replied that researchers had tested hypotheses that were communicated to them by elders in the community. Social pathologies and social deviance were frequently co-located within the community. They were able to do geographical analyses of the reports of housing units within the community. Manson mentioned that what he thinks Hamilton is describing is a similar macro-perspective approach.

Gerald Mohatt raised the question of marital information. He mentioned that in 1983 the data showed that a large percent of native women were marrying non-native individuals. ***Lawrence Hamilton*** responded that he doesn't have that information in his database, but he has similar statistics. Today about 50% of native women marry non-native men. He believed that there are many different reasons for mobility, many women leave communities for greater financial support. They remain in villages during their pregnancy, but the highest attrition rates are directly after delivery, when socioeconomic pressures for support are highest.

Panel discussion: actions and next steps

William Hogan (Commissioner, Alaska Department of Health and Social Services) began by outlining the responsibilities of his Department, where Jay Butler MD is the Chief Medical Officer. The Department is responsible for public health, child welfare, juvenile justice, behavioral health programs, senior and disability programs, and all public assistance programs. Must of what they provide is through grants and contracts, as well as Medicaid. Hogan continued to explain that there is no culture of research in the department, and not much in service evaluation. The focus is upon outcomes. He noted that several years ago, they asked their suicide prevention grantees to describe what they hope to accomplish with their programs, and only half were able to respond. The department works with providers to focus on outcomes and accomplishments. Hogan continued, stating that they must triage and focus on the most important needs, and be strategic rather than simply throwing money at problems.

Hogan then brought up evidence-based programs. He mentioned that the department had tried to move towards evidence-based programs, but found a lack of information about what evidence-based programs will or do work in Alaska. Additionally, he mentioned meeting with Spero Manson and discussing international and global solutions that may work for indigenous populations. From a prevention standpoint, the solutions must come from the communities, although the department and researchers can provide some resources, guidance and technical assistance. The department supports the concept of a health community. What makes a healthy community? Hogan cited research from Canada that describes four pieces of the puzzle: economic development, community health, work force development and education. In the middle of the four are shared community values, because what constitutes a health community is much broader than just health.

Hogan cited suicide as an example, using the suicide prevention council in Wasilla. They determined that suicide was a community problem and to intervene, it was necessary to be involved in the schools, and also with people normally not associated with this issue, such as hairdressers and bartenders, who have the opportunity to identify people who are depressed. Hogan emphasized that people need to have confidence that they have an accessible resource. Hogan cited his frustration about the lack of support for the council, and problems with funding, because he sees the council as a way to move forward on this issue. Hogan emphasized that because the department presently does not have much money entering suicide grants, there is an opportunity to put more resources into these programs, and the department is open to a research agenda shaped by the participants of this conference.

Karen Perdue presented lessons on Alaska's behavioral health workforce initiative. She explained that they haven't spent much time on the training and support that they give to workers in this difficult environment. She projects that Alaska will see a huge need for these professions, and that the Mental Health Trust also assists individuals with mental illness, developmental disabilities and chronic alcoholism. The Rural Human Services Program is a two year course of study that leads to a certificate for Alaskan natives. The program is about crisis intervention and all programs involve native elders. Since 1991, two hundred people have been trained in this program.

Perdue highlighted that good CBPR takes time and talent, as well as good partnerships between major partners to set the stage for complex human subjects research. Alaska has strengths, including FASD networks, a strong telemedicine system, and research awareness in some regions. The pan-Arctic health groups can also be an asset, including the IUCH, the Arctic Council human health expert group, ICC, and other indigenous groups. We should consider building capacity here in Alaska when funding research and other activities. Local principal investigators are very important.

Spero Manson presented a talk on personal journeys, professional paths and navigating a research career in native health. He highlighted that the "leak in the pipeline" of native investigators is between their undergraduate and graduate work. The number of individuals who reach that point and transition into research is estimated at only 1 out of 55. Many are attracted to committee work, teaching students, and other responsibilities which detract from their ability to develop a successful research career. He pointed out that much of the work pursued by postdoctoral fellows or residency programs is theoretical. He emphasized the need to operationalize the training framework and create a native investigator development program. Manson asserted that the key to success is having mature native scientists as role models.

Discussion

Peggy Murray raised the question of why there aren't more Doctoral degree programs, and whether or not the participants see another program commencing soon. ***Karen Perdue*** responded that in the areas in which she works, health and human services, they have been filling in the basic needs with basic degrees. They have just gotten a nutrition program and a physician assistant program. However, it is difficult to request a PhD program because they haven't yet filled the more basic programs. In spite of this, there are a few programs that are ready to move in that direction, including the psychology PhD program.

Sharon Cissna, AK state representative from the University Medical District, mentioned that because she served as a legislator, she had observed Universities and higher education in Alaska. There is a tension between the legislature and the regions, so there has been a tendency to under-fund the University. We have to grow our own ideas, and the legislature represents a state that has a flunking grade in getting people to graduate from both high school and college. We are at the bottom of the nation, clearly we must reframe our place on earth, but it has to arise from the people. ***James Herrington*** agreed that growing intellectual capital in Alaska in order to address these mental health needs is a vital necessity, and is also a research agenda item.

James Allen made the observation that we must remember how young UAA is, as a state university, perhaps the youngest in the country. A PhD program has a maturation process. Spero Manson's talk was an excellent road map for developing Alaskan native scholars, and it is also an important way to train researchers for Alaskan native contexts. NIH can be helpful, not only with adaptation, but also for ground-up development of research programs. However, the question of epidemiological data brings up a politically sensitive research question. It can be done, but must be done very carefully with the support of community partners. Lastly, Allen stated that a strategic plan would be helpful to direct the research design. He mentioned that the communities he works with are uncomfortable with randomized trials. He doesn't know what is acceptable to NIH, but there are fascinating developments in both quantitative and qualitative work that might be helpful to bring promising methodologies to Alaska. ***James Herrington*** replied that Allen Green came to NIMH to speak about how randomized, controlled trials (RCT) are no longer the gold standard and there is some movement towards other trial methodology.

James Sellers, Chair of the Alaska Action Research Consortium, asked Spero Manson whether he'd considered studying younger students, such as high school Natives or non-Natives. ***Spero Manson*** replied that he would love to study them, and was convinced that research could study this population of students. ***Rhonda Johnson (Associate Professor of Public Health, UAA)*** focused the discussion on younger students, stating they've found that children make important decisions about their lives from the time they are five years old. We must increase our pipeline programs for research. ***Bernard Segal*** stated that children need to be motivated and see a future for themselves. By seeing a future in the long run, the suicide rate may be reduced. One thing he has achieved in his research was integrating traditional Yup'ik concepts for living by translating them into English and applying them in a treatment setting. Some efforts like these have been undertaken, and there should be studies on their effectiveness.

Jerry Jenkins, the Executive Director of Anchorage Community Mental Health Services, recommended making an inventory of mental health research that is ongoing, and capturing what is effective so that it can be translated across the state. We must look critically at what is in front of us. ***Marya Levintova*** mentioned that the NIH has its inventory of research projects, but it is limited to what is funded by the federal government, so it's a different view than what we can obtain from other organizations. ***Mead Treadwell*** added that as an inventory is conducted, we should think about mental health research done in other states including biomedical research that we need to see applied in AK. He emphasized that the call for an IOM study of Arctic Mental Health was to learn how to make best use of the resources that are available.

Mark Erickson offered a follow-up to Gerald Mohatt's comments. He noted that when we look at mental health research, it is hard to find a roadmap, and we need to have one to create an innovative program. The existing research programs are not integrative programs, he said, and he would be very grateful for an innovative program. ***Tatiana Balachova, a researcher from the University of Oklahoma***, mentioned that Debra Caldera's negative result was a good example of an evaluative study that we want to continue and extend. She stated that Debra is brave enough to stand up and say that this was a negative result. We should not want to continue to spend money if there are no useful results, and we should find something effective to spend our money on. ***James Herrington*** replied that we need to look for resources and funding to make this happen.

Panel Discussion

Delisa Culpepper (Chief Operating Officer, Mental Health Trust) introduced the Mental Health Trust (MHT), explaining that it is a public Alaskan corporation. She explained that they think of themselves as a philanthropic group that has the ability to distribute grants. There is a mental health budget group, which is involved with working with departments to determine what is needed for their beneficiaries.

Culpepper agreed that taking the successful research that's done and applying it quickly into programs and practices is difficult. While MHT wants to work with communities, we also want to help them so they can help themselves. In the past, we funded a study of suicide. Researchers examined both records and interviews to determine the contributing factors for suicide. This study eventually went on the shelf and has not been used. If we were going to make a future agenda, the Trust would want to go to the legislature with a recommendation in the bill for increments for a long term research agenda lasting at least 5 years. That would be a hard sell and we'd need a lot of people behind us, but it's not impossible. Culpepper said that it would be valuable for the State to invest some dollars and that the Trust would want to partner with the state in supporting research. The Mental Health Trust wants the State to take some responsibility for research.

Jim Sellers (Chair, Alaska Action Research Consortium) presented the mission of the Alaska Action Research Consortium, explaining that they are an informal affiliation of individuals interested in behavioral health issues in Alaska. It is affiliated with the University of Alaska, but as a community based organization it seeks to link science, practice and policy in Alaska. Sellers continued by outlining some of the research challenges in Alaska including: improving the level of understanding in non-Alaskan people, issues around random sampling in villages, and attempting to achieve statistical significance and power. Additionally, he addressed the cost of conducting research in Alaska, particularly with ethnographic interviews.

Sellers enumerated the issues he believes are important to address. Firstly, he added that we must develop an intelligent research agenda; this has been addressed in many instances at this meeting. Another thing we must do is actively identify and create opportunities to cooperate. As another integrative step, we might look toward social service providers. He stated that the approach we should be using is an integrative approach, and agreed with Lawrence Hamilton's model as the way we should be doing research.

Additionally, it is important to address sustainability, and actively develop a role for policy makers. As a research community, our roles should be expanded beyond the role of researchers, to include interpretation and popularization of the work that we report. He emphasized reframing the conversation to the extent of advocacy, and leading the way in promoting community based research.

James Berner (ANTHC) explained that his job is to keep an eye on disparities and watch for new emerging trends in mortality and morbidity. The most difficult part has been finding well trained people to focus upon Alaska's problems. He suggested finding a federal agency that shares the agenda of Alaskans. Because so many agencies have money for minority health, a key to success is finding an agenda that overlaps with the agency's agenda. Agencies prefer proposals offering collaborations among partners and with the State, especially in behavioral health. Additionally, we need to use the school systems, focusing our money on children and early interventions.

Berner urged the participants that the time is ripe to make the world aware of the problem that we in the Arctic have with suicide. There are many people here that are interested and willing to help, but there is a lot of additional external awareness that must be raised. This effort involves us putting together existing data and sharing it with others.

Discussion

Lawrence Hamilton noted that it is important to keep in mind that mental and behavioral health problems are multivariate and multidisciplinary. ***Carl Hild*** asked if Jim Sellers was funded by EPA, if so, he could leverage that into a long term observational study of behavior. ***Jim Sellers*** addressed that question, responding that in theory it is possible, and long term population studies are very important in the Alaska native population. In his cohort, he explained that they know a great deal about prenatal exposure, and long term follow-up could help. These are clear, interesting, chronic disease questions, and a longitudinal study, for example, could provide insights into the familial occurrence of depression.

Gerald Mohatt said that if an IOM study did occur over the next few years, it might be used as leverage with the State and MHT to supplement it and have a more extensive study. Mohatt inquired about the politics behind this. ***Dalisa Culpepper*** thought that it is a great idea to start asking for research support from the Trust, and to ask the state to earmark funds for research. Since it is an issue of current interest and they believe it to reflect programmatic outcomes. One of the problems with the legislature is that it is made up of members from all over Alaska, and each one is fighting for their own turf in the financial budget The legislature isn't informed well by its citizens, and I don't think that we are using democracy to ensure that the legislatures is informed and active. Our communications with each other and the legislature need to be improved. ***James Herrington*** suggested that we need greater transparency. ***Representative Joule*** agreed, commenting that the House is in session for ninety days and if you come with a request during that time then you are too late. If there are things that must be done, they must occur during the interim, and you must know your legislator and how the dynamics of support will work.

James Herrington asked Representative Joule if he suggests that the Governor host a mental health working group. ***Representative Joule*** responded that he thinks that more people must understand the politics of government. ***John Walkup*** expressed his personal dismay that the national health survey hasn't included Alaskan statistics.

Mead Treadwell said that we are set up for stress by the inequity of climate and population in the Arctic and Antarctic. He emphasized that he is glad this meeting has occurred, and will be moving forward on recommendations. He explained that the key thing he has noticed when you examine NIH funding to Alaska, it is minimal despite the enormous health disparities and problems. Roger Glass and his colleagues from NIH that are here today should see the research opportunity. This research opportunity won't happen unless all the programs work together, as they have in the past with basic sanitation or aviation safety. Roger believes we can do this with suicide and mental health research, and he looks forward to an IOM study of Mental Health in the Arctic to lead the way.

Closing remarks

Gerald Mohatt closed stating that in order to have a new generation of researchers we must increase the number of scientist-clinician role models so that young people have the opportunity to participate in research. He recommended the participants encourage young investigators to develop relationships with Alaskan natives early in their careers, and to sustain them. Additionally he recommended young investigators publish often, to increase their chances of being funded, as well as attending events such as NIH regional conferences, to increase understanding of funding mechanisms. Finally, he encouraged young investigators to locate a mentor with NIH grant PI experience, beginning with a small grant and later obtaining study section membership experience. One of the themes that became clear throughout this conference is that we must ask the question, how will this research benefit our communities? He emphasized that researchers have to be up-front about that and be clear when making presentations to Native groups. Mohatt identified the important themes of the conference as follows.

1. Develop interdisciplinary themes; employ a bio-psycho-social model
2. Social congruence
3. Develop sustainable, early interventions, and a primary prevention strategy
4. Examine genetics and biomarkers (important for grant funding)
5. Large-scale epidemiological studies
6. Fund an IOM Study

Mohatt addressed in closing the issues presented by an IOM study, and that while it would be a great opportunity, the issues of stigmatizing communities must be addressed and dealt with. How could this study be presented in a way that is acceptable to the communities and does not stigmatize?

Denise Dillard closed by stating that there needs to be better collaboration within Alaska. In general, it remains difficult to navigate both the federal and state systems. Additionally, people in rural, native Alaska believe that they have been over-researched, and researchers are not giving results back to the community. Natives want feedback about the research that has been conducted, and these conversations need to occur in the right manner. As for concerns about sustainability, the SCF decided that we will not do research that isn't sustainable, and doesn't fit in with what is already occurring. Dillard_emphasized that the most important success of this meeting was to get people talking about the research process itself, and these discussion will hopefully alter and improve the research process, thereby making it more effective.

Warren Zapol concluded the discussion, expressing hope that someday the legislature will build a medical school in Alaska to help develop physician and physician-investigator resources to study Alaskan health problems. He encouraged building bridges between institutions and developing strategic partnerships with the Native community. He encouraged more international representation and Pan-Arctic health cooperation. Zapol reminded the participants that success is possible in reducing the behavioral cluster of alcoholism, suicide, alcohol abuse and child abuse, giving the examples of the State of Maryland, and the US Army, and how their intervention strategies decreased their suicide rates. Finally, Zapol encouraged undertaking an IOM study of Arctic Mental Health, saying that the most important thing about an IOM study would be that if you did it, and you did it right, proposing, testing and spreading the correct interventions, you would never have to have another IOM study starting with the same dismal suicide rates.

The presentations and discussions of the conference expressed many needs and possible next steps. A brief list of these items follows:

1. Community-driven research: behavioral and mental health research needs to be community-based, which means that the community must play an active part in the planning and execution of the health research.
2. Development of Alaskan Native Scholars in AK and the lower 48: Funding of new investigator awards, K08 mentored awards for Alaska Natives in behavioral and mental health research is a long-term process, it will require infrastructure that can support incoming faculty, including mentors, financial and other supports. NIH has a number of these programs, and they should be fully explored.
3. Health Services Research (Evidence-based Research): the participants strongly encouraged developing and funding an Alaska Statewide epidemiology study to examine the incidence of depression and other mood disorders; and explore various treatment modalities that are employed.
4. Long-term Research Grants: there is a need for a long-term sustainable plan to build a robust Arctic behavioral and mental health research program. A number of agencies were mentioned as potential sponsors of such activities including MHT, USG, State, and others.
5. Research Designs (RCT vs. Other): Alaskan mental health researchers urge the NIH to recognize the importance of small-group study designs and the benefits of conducting such field studies in AK, as it would provide comparisons and assistance to others working with difficult to reach populations and low-resource settings.
6. Capacity Building (High School Pipeline programs, Graduate Programs, Post-Grad Programs): development of pipeline programs in behavioral and mental health research starting in High School is strongly recommended. Such programs should consider that different teaching and research models are needed due to the widely-dispersed, small isolated AK villages, where teaching people how to be effective behavioral and mental health practitioners and researchers may require different approaches than in urban settings.
7. Inventory of Current Research: NIH prepares an annual funding report of health-related research projects focused on the Circumpolar Arctic. However, there is a need to gather and track mental health research projects and funding by other Federal, State, Tribal, and phil-

anthropic organizations. In addition, an interest to learn about the behavioral and mental health research projects in the Arctic supported by foreign governments was expressed.

8. Outcomes Research: there is a need to conduct outcomes evaluations of every intervention for suicide, alcoholism and depression, as well as child abuse being implemented in ongoing and planned behavioral and mental health programs. The evaluations and related research should be ideally conducted by an external agency.
9. Strategic Research Agenda: epidemiological, risk factors (alcohol and drug abuse), genetic, telepsychiatry, and evaluation research were highlighted during this meeting, as important areas for future research. Development of a strategic research agenda needs to be further explored.
10. Identify Collaborators/ Strategic Partnerships-especially within secondary and high schools to allow testing for early interventions
11. Conduct Assessments of Natural Experiments: there are a number of opportunities to conduct research on the impact of currently occurring phenomena. One such area is the impact of migration on behavioral and mental health in both rural and urban regions of Alaska.
12. Leveraging resources is extremely important and may provide various stakeholders (governmental as well as philanthropic and private) an opportunity to contribute and participate in the research.
13. Multi-Agency Initiatives: a multi-agency approach will be necessary in order to improve the behavioral and mental health of people in Alaska. Suicide is complex phenomenon. In order to decrease its occurrence rate and associated societal burdens it will require active engagement of many agencies, partners and stakeholders, especially the AK Native communities.
14. Statewide Initiative: develop an Alaska statewide behavioral and mental health research initiative with the support from State of AK, MHT and others.
15. State Budget: there needs to be a discussion with the AK State legislature to explore potential opportunities and resources to develop behavioral and mental health research initiatives.
16. An Institute of Medicine Study (IOM) was recommended by some of the participants. Such study could focus on thoroughly exploring current knowledge and interventions being used in the Circumpolar Arctic in behavioral and mental health research with a focus on reducing suicide. The study could also provide guidance on the methods and necessary means to improve the behavioral and mental health outcomes of people throughout the Arctic.
17. Analysis of epidemiological data in mental health: much epidemiological data is available (e.g., USG surveys), but only a limited analysis of this data has been conducted. A thorough review of the available data is recommended, in particular focusing on the analysis of drug usage, alcohol abuse and depression.
18. Telepsychiatry: exploration of long-distance approaches (e.g., telepsychiatry, telemedicine) should be explored through research studies, focusing on rural settings that do not have full-time psychiatric professionals, but have a high burden of depression and behavioral and mental health concerns. Research findings from such research could be applied to other resource-limited settings around the world.

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