

Insights into Community Experiences with Research License Review Across Nunavut

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ABSTRACT. Nunavut is one of the three northern territories in Canada. Under Nunavut's *Scientists Act*, the Nunavut Research Institute (NRI) administers research licenses in the territory. The research license review (RLR) process includes community organizations in reviewing applications, ensuring Nunavummiut (people of Nunavut) priorities are considered. RLR organizations can recommend approval, rejection, or conditions for research licenses. To better understand RLR organizations' experience with the NRI's research licensing process, we undertook a survey to learn about: i) the annual volume of RLR requests; ii) RLR organizations' review protocols and practices; iii) opportunities and challenges associated with RLR; and iv) recommendations for improving the NRI's consultation process. Survey results showed that RLR organizations receive up to 64 applications annually, with most (40%) receiving one to 10 applications per year. Over half (55%) of RLR organizations review all applications received. Some (35%) reviewers are financially compensated for time spent reviewing, and 45% of organizations assign different reviewers for each application. Only 10% of reviewers provide feedback for all applications reviewed. Reviewers reported a need for increased community support and resources for the RLR process, more direct engagement with researchers, and improved access to research outcomes and reports. This survey is the first time Nunavut RLR organizations were consulted on their experiences with the license review process. Their feedback is critical in refining RLR administrative processes, strengthening community–researcher communications, and informing the NRI's efforts to ensure research is more accessible to Nunavummiut. Taken together, improvements in the RLR process can contribute enhancing Inuit self-determination in Nunavut research.

Keywords: research license review; community experiences with research; science policy; Inuit governance of research; research regulations and protocols; Nunavut Research Institute; Inuit self-determination; community consultation; community-engaged research

RÉSUMÉ. Le Nunavut est l'un des trois territoires du Nord canadien. Selon la *Loi sur les scientifiques* du Nunavut, l'Institut de recherche du Nunavut (IRN) gère les permis de recherche pour ce territoire. Le processus d'examen des permis de recherche (EPR) fait appel à des organismes communautaires pour analyser les demandes, ce qui garantit la prise en compte des priorités des Nunavummiuts (le peuple du Nunavut). Les organismes responsables de l'EPR peuvent recommander l'approbation ou le rejet des permis de recherche, ou encore, l'imposition de certaines conditions. Pour mieux comprendre l'expérience des organismes d'EPR concernant le processus d'octroi de permis de recherche de l'IRN, nous avons mené une enquête pour éclairer les points suivants : i) le volume annuel des demandes d'EPR; ii) les protocoles et pratiques d'examen des organismes d'EPR; iii) les occasions et défis liés à l'EPR; et iv) les recommandations en matière d'amélioration du processus de consultation de l'IRN. Selon l'enquête, certains organismes d'EPR peuvent recevoir jusqu'à 64 demandes par an. Toutefois, la majorité d'entre elles, soit environ 40 %, reçoivent entre une et dix demandes par année. Plus de la moitié (55 %) de ces entités examinent chaque demande qu'elles reçoivent. Certains examinateurs (35 %) sont rémunérés pour leur travail, et 45 % des organismes affectent un examinateur différent à chaque demande. Seuls 10 % des évaluateurs donnent leur avis sur chacune des demandes de permis qu'ils examinent. Les examinateurs ont exprimé le besoin d'un appui communautaire accru, de ressources supplémentaires pour le processus d'EPR, d'une interaction plus directe avec les chercheurs et d'un meilleur accès aux résultats et aux rapports de recherche. Cette enquête marque la première consultation des organismes d'EPR du Nunavut sur le processus d'examen des permis. Les observations qu'ils formulent sont essentielles à l'amélioration des processus administratifs de l'EPR et au renforcement des échanges entre les chercheurs et la communauté. Elles permettent également d'éclairer les efforts de l'IRN visant à accroître l'accès aux travaux de recherche par les Nunavummiuts. Ensemble, les améliorations au processus d'EPR peuvent favoriser l'autodétermination inuite en matière de recherche au Nunavut.

Mots-clés : examen des permis de recherche; expérience de la communauté en matière de recherche; politique scientifique; gouvernance inuite en matière de recherche; règlements et protocoles de recherche; Institut de recherche du Nunavut; autodétermination inuite; consultation communautaire; recherche avec engagement communautaire

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INTRODUCTION

For many decades, northern Indigenous Peoples have been ignored or inadequately involved in the consultation and engagement processes related to research due to colonial legacies of research throughout Inuit Nunangat (Inuit homelands in the Canadian Arctic) (Government of Canada, 2016; ITK, 2018a; MacDonald, 2018; Carter et al., 2019; Polidoro et al., 2024). Historically, researchers used institutional and public funding to conduct curiosity-driven research on Inuit and often ignored Inuit knowledge systems and methodological research approaches (Castleden et al., 2012; Healey and Tagak, 2014). Inuit endured an imbalance in power dynamics, and colonial policies limited their ability to govern research activities in their homelands and address their own questions (ITK, 2018a; Polidoro et al., 2024).

Initial efforts to monitor research and ensure it would do no harm began in 1984, when the Government of the Northwest Territories adopted research licensing. In 1995, the research licensing division of this territorial government merged with Nunavut Arctic College, creating the Nunavut Research Institute (NRI) (Polidoro et al., 2024; NRI, 2025). Additional Inuit efforts to regain control over western scientific research began with Nunavut land claims negotiations, continuing through implementation, which recognized Inuit decision-making authority about research on their land (*Nunavut Land Claims Agreement Act* S.C. c. 29, 1993). With the Nunavut Agreement, co-management institutions (i.e., Nunavut Wildlife Management Board) and institutions of public government (e.g., Nunavut Planning Commission, Nunavut Impact Review Board, Nunavut Water Board) were established and involved in research regulatory regimes. They assess all land- and water-based research in the Territory before projects can proceed (NWMB, n.d). Research undertaken on Inuit-owned lands must first be approved by designated Inuit organizations (Nunavut Tunngavik Incorporated, Qikiqtani Inuit Association, Kivalliq Inuit Association, and Kitikmeot Inuit Association) (Government of Nunavut, 2003). All research is also subject to licensing under one or more territorial acts, such as the *Scientists Act* and the *Wildlife Act*, alongside federal legislation like the *Fisheries Act* (among others) pre-dating the Nunavut Agreement (*Fisheries Act*, RSC 1985, CF-14; *Nunavut Act*, SC 1988, c.S-4; *Wildlife Act*, SNU 2003, c26).

The agencies authorizing and licensing research in Nunavut and throughout Inuit Nunangat all undertake some form of consultation with northern communities, Inuit rightsholders, and other stakeholders prior to approving a research request. Although consultation measures vary across authorizing agencies, all aim to provide northern communities with some degree of direct influence in decision-making processes (*Scientists Act*, 2011; GTC, 2011; Aurora Research Institute, 2019; Cadman et al., 2022; Nunavut Research Institute (NRI), 2021; Polidoro et al., 2024). This consultation process, referred to as research

license review (RLR), aims to increase community awareness and decision-making ability over research. It provides opportunities for community organizations (e.g., municipal government, hunters and trappers organizations, community research organizations) to raise questions, share concerns, and recommend to licensing authorities whether or not projects are approved (or not). Research approval is granted following a successful evaluation of project relevance, community engagement, and potential risks and benefits (Lavoie et al., 2022). Through community consultation, licensing authorities gain important input from organizations in a joint effort to reduce physical or social harm in communities where research takes place (*Scientists Act*, SC 1988; NRI, 2021). However, some Inuit organizations have raised concerns about RLR. This suggests that northern research licensing, including consultation measures, should be revisited to better support Inuit, among other northern Indigenous Peoples (ITK [Inuit Tapiriit Kanatami], 2018a; CCA [Council of Canadian Academies], 2023).

The NRI is responsible for administering scientific research licenses under the *Scientists Act* (NRI, 2021; Polidoro et al., 2024). Research licensing ensures research activities do not harm physical or social environments in Nunavut (NIR, 2025; Polidoro et al., 2024). The *Scientists Act* applies only to physical and social Inuit Qaujimagatuqangit (IQ), and health science research conducted in, or related to, Nunavut. These areas of inquiry comprise approximately 60% of research happening in Nunavut (Polidoro et al., 2024). Research involving wildlife, fish, species at risk, migratory birds, national parks, wildlife areas, archaeology/paleontology, and access to Inuit-owned lands is not licensable under the *Scientists Act* and requires separate licenses or permits administered by other federal or territorial government departments (NRI, 2021; Polidoro et al., 2022, 2024). In administering scientific research licenses, the NRI facilitates a RLR process involving direct consultation with community and regional organizations that could be most significantly impacted by proposed research, including Nunavut Tunngavik Incorporated, the Government of Nunavut, hunters and trappers organizations and associations (HTO/HTA), and local hamlet offices. Therefore, community organizations that receive licenses to review vary on a case-by-case basis according to the proposed research.

Analyses of research trends in Nunavut (Polidoro et al., 2022, 2024) have revealed an exceptionally high volume of RLR requests going to High Arctic communities, such as Resolute Bay and Grise Fiord (Polidoro et al., 2022). These small communities are frequently requested for RLR occurring across High Arctic islands, as they are in closest proximity to remote field research. To date, no research has investigated community experiences of RLR requests, or potential impacts of a high volume of requests on community organizations' ability to provide meaningful feedback on projects occurring in their homelands. Therefore, we undertook a survey to learn

about community organizations' experiences with RLR in Nunavut. Survey responses provide insights into: i) the volume of research license review requests received by RLR organizations across Nunavut; ii) different approaches to RLR organizations' structures and responsibilities in reviewing research license applications; iii) ways to improve community interactions with the NRI in the licensing review process; and, iv) community perspectives on opportunities and challenges associated with RLR processes. We aim to enhance understanding of RLR processes and community research priorities to better serve the interests of the NRI, review organizations, researchers, and Nunavummiut.

Background on Research License Review in Nunavut

Researchers planning for research in Nunavut can submit a research license application at any time of year; however, they must allow for a 45-day review period (NRI, 2021). A complete application requires proof of prior engagement with communities involved or impacted by the proposed research, plain language project summaries in both English and Inuktitut (Inuit language), and specific details that vary according to the research discipline (NRI, 2021; Polidoro, 2022; Polidoro et al., 2024). Additional approvals and authorizations may need to be attached, such as proof of a Nunavut Impact Review Board screening, institutional ethics clearance certificates, and field site coordinates, among others (NRI, 2021; Polidoro et al., 2024).

When the NRI receives an application for a scientific research license, regardless of discipline, the licensing manager confirms application completeness and compliance with relevant regulations and guidelines. The manager liaises with the applicant as needed, then circulates the application to the appropriate community and regional RLR organizations based on the nature, location, and discipline of the research. For example, proposals involving health research are distributed to Nunavut Tunngavik Incorporated, the Government of Nunavut Department of Health, and the Qaujigiartiit Health Research Centre, while proposals focusing on social sciences or IQ research are sent to the local hamlet office, HTO, community research organization (CRO), or Government of Nunavut Department of Education (if taking place in a school). Land- and water-based (physical or natural science) license applications must undergo review by the Nunavut Planning Commission and are then subject to further screening and approvals from various institutions of public government (e.g., Nunavut Impact Review Board, Nunavut Wildlife Management Board, Nunavut Water Board) prior to obtaining an NRI license (NRI, 2021).

As part of RLR, applications are expected to be thoroughly reviewed by individuals with appropriate expertise and knowledge to provide meaningful feedback. RLR organizations “may also recommend terms and conditions [for a research license] to mitigate potential impacts” of proposed research (NRI, 2021:22). A recent

review of research trends in Nunavut (Polidoro et al., 2024) identified a high intensity of review requests circulated to hamlet offices and HTO/HTAs. This has caused some scholars and others to highlight a concern about the potential review burden faced in Nunavut communities, where research capacity limitations and high staff turnover rates are common (Pigford et al., 2018; Polidoro et al., 2024). Tracking reviewer comments and feedback also poses logistical challenges, particularly when multiple organizations are involved in a review. Establishing a standardized system for tracking review comments and ensuring they are addressed is essential for maintaining transparency and accountability in research (Gearheard and Shirley, 2007; Marley, 2019; Native American Centre for Excellence Substance Abuse Program, n.d).

Since 2019, the NRI has partnered with Nunavut Tunngavik Incorporated, the Qaujigiartiit Health Research Centre, and McMaster and Carleton Universities to investigate research trends in Nunavut (Polidoro et al., 2024) and redesign their administrative licensing database, called *Isirvik* (meaning “an entrance” in Inuktitut). The *Isirvik* research portal (released in December 2023) is the first public digital and searchable online repository of research licensing information in Nunavut. *Isirvik.ca* enables community members, researchers, and decision makers, among others, to identify who is leading research in Nunavut, in what locations, on what topics, using which methods and reporting mechanisms (Polidoro et al., 2024). Although currently *Isirvik*'s focus is making research licensing data available, work is ongoing to develop mobile functionality and possibilities of portal enhancement, including integration of research license application, reporting, and review interfaces.

Our efforts to learn about Nunavut RLR experiences provide unique opportunities for RLR organizations to collectively identify strategies for administrative and operational improvement. Gathering this feedback can inform decision making about a potential legislative review of the Nunavut *Scientists Act*. It can also inform new approaches to facilitating RLR and the refinement of *Isirvik*, while highlighting key opportunities for researchers, RLR organizations, and the NRI to align research with Inuit priorities. Our work also complements initiatives underway to develop a Nunavut-specific vision for implementation of the National Inuit Strategy on Research (NISR), which aims to enhance Inuit self-determination in research (ITK, 2018a).

METHODS

Licensing Review Data

License review requests are tracked by the NRI as it shares research license applications with review organizations. Since 2004 this information has been stored digitally in the NRI's internal Microsoft Access database,

and was recently transferred to Isirvik (Polidoro et al., 2024). First author Beltrano (formerly Polidoro) supported the NRI with importing and cross-checking all research licensing information for accuracy and completeness as part of their Master's thesis (Polidoro, 2022; Polidoro et al., 2024). Cross-checking was done by comparing database entries with original license materials provided by the NRI (i.e., full license applications, reports, and annual research compendia), and making corrections where information was truncated or missing (Polidoro et al., 2024). Database entries were also edited by the first author to correct spelling mistakes and standardize formatting (e.g., organization names, affiliations, locations, etc.) (Huxley, 2020). Isirvik data was exported to an Excel file used to conduct descriptive statistical analysis and identify trends (Loeb et al., 2017) in RLR requests. Frequency counts of review requests by the NRI to RLR organizations were applied and analyzed by organization type, year, and community (including Bathurst Inlet and Umingmaktok, although no longer officially recognized communities; see Polidoro et al., 2024). Descriptive statistics were collaboratively analyzed by all authors and disseminated broadly via one Nunavut-wide and 25 community-specific research trends reports (Polidoro et al., 2022). Some licenses were missing relevant RLR information and thus were omitted from the analysis.

Survey of Community Review Experiences

Survey Co-development: The survey was co-developed with project partners (NRI, McMaster University, Qaujigiartiit Health Research Centre, Aqqiumavvik Arviat Wellness Society, Nunavut Tunngavik Incorporated, and Carleton University) to align objectives and questions with NRI and Inuit priorities. In summer 2022, as part of their PhD research, Beltrano drafted, refined, and finalized questions based on an iterative review and feedback from all authors. Feedback was also incorporated from project partners, including representatives from Qaujigiartiit Health Research Centre and Nunavut Tunngavik Incorporated. In Fall 2022, all feedback was compiled, and questions were finalized in person with the remaining co-authors. We chose to conduct a survey to follow up on our initial research trends analysis, as a useful method to gain a broad range of feedback from RLR organizations, and to inform the development of interview questions for more in-depth discussions (Ponto, 2015; Taherdoost, 2022). To keep survey length reasonable and yield strong response rates (Coughlan et al., 2009), the final questionnaire included 19 of the most pertinent questions. Questions were organized into thematic sections for clarity and flow (Bree and Gallagher, 2016), including: i) RLR organization details; ii) RLR, including processes and protocols; iii) communications with the NRI; and, iv) opportunities and challenges. We used clear, plain language and non-leading open and closed-ended questions. Response options included both Likert (five-point scale from strongly

disagree to strongly agree) and multiple choice (a list of options to select from). The survey also included five open-ended questions enabling respondents to elaborate on their RLR experiences and provide more context.

Survey Instrument: We chose Qualtrics software for ease of connecting with a broad audience across Nunavut (Cushman et al., 2017). We also selected Qualtrics for its Canadian servers, which are important for ethical protocols and privacy assurances. For six survey questions we used display logic, where questions appear conditionally based on subsequent responses, and for three questions we used skip logic, which sends respondents to a future point in the survey based on subsequent response (Qualtrics, 2025a, b). We displayed only relevant questions to make completing the questionnaire as time efficient as possible for respondents (University of Wisconsin-Whitewater n.d) and to relieve the burden of answering questions not considered relevant. We distributed the online survey in English with a reusable, anonymous link. Given the slow, unreliable, and often prohibitively expensive internet service in Nunavut (Arctic Council Secretariat, 2017), we provided survey options, including a fillable PDF document and telephone or video call-based interviews (Ponto, 2015). Participants could complete the survey in English or Inuktitut and return the survey by email or fax. Translated surveys were available in Inuktitut or Inuinnaqtun (depending on the Inuktitut dialect used in the reviewing organization's community).

Survey Recruitment: We used a purposive sampling strategy to obtain results from a target group (Etikan et al., 2015; Palinkas et al., 2015) of 60 organizations who are currently and regularly involved in Nunavut scientific license review, including: hamlets, HTO/HTAs, the Government of Nunavut departments of Education and Environment, Inuit organizations (Nunavut Tunngavik Incorporated and all three regional Inuit associations), community-based research organizations (e.g., Qaujigiartiit Health Research Centre, Kitikmeot Heritage Society, Aqqiumavvik Arviat Wellness Society), and institutions of public government (e.g., Nunavut Wildlife Management Board) (**Fig. 1**). Multiple phases of recruitment included initial invitation emails, follow-up emails, and telephone calls (**Fig. 2**). Data collection took place over seven months (November 2022 to June 2023). Of the 60 RLR organizations invited to complete the survey, 20 questionnaires were received from representatives of 17 organizations. Of the 20 questionnaires, 10 came from the Qikiqtani Region and five in Kitikmeot and Kivalliq Regions, respectively. Most surveys (60%) were completed by one person (as opposed to a group response), and none discussed their responses with others in their organization. Among those invited to participate in the survey (referred to as participants), the 20 individuals who completed the survey are referred to as respondents throughout the paper (Carter et al., 2023). Ten additional surveys were started but not completed and were omitted from our analysis to avoid skewing results. Two organizations submitted multiple

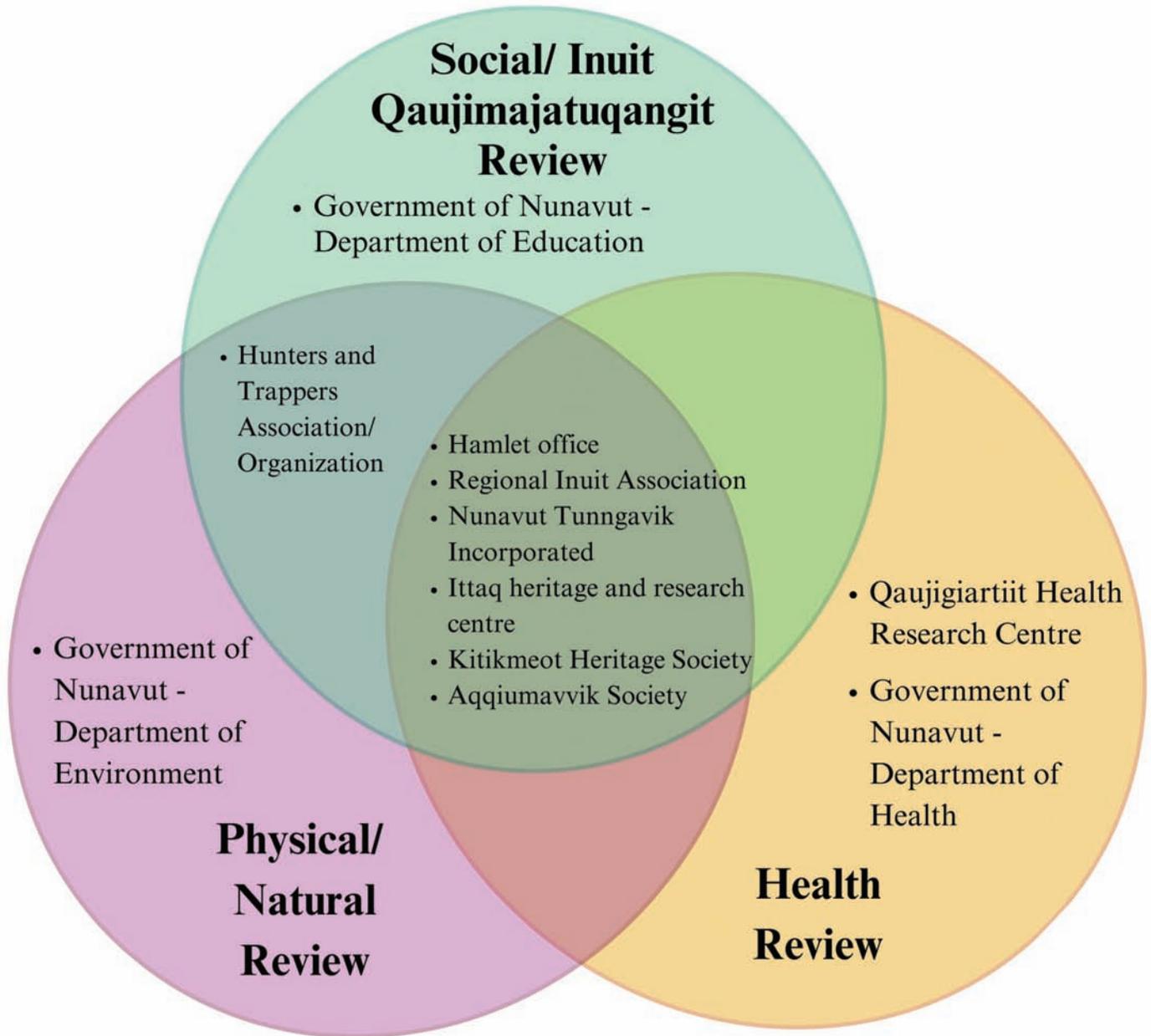


FIG. 1. List of organizations that review applications to conduct research in Nunavut. These organizations review particular disciplines of research, including those in the physical and natural sciences, health, and social and Inuit Qaujimagatuqangit.

responses (from two and three different individuals, respectively). Data were anonymized according to participant preference, as indicated in their consent responses (see Supplementary Material).

Survey Response Rate: When conducting surveys, low response rate is a common challenge, and a 30% response rate is generally anticipated (Burgard et al., 2020). Our response rate was particularly impacted by difficulties following up with participants resulting from participants’ duty travel, staff shortages, as well as time of year, and inclement weather resulting in office closures (McComber, 2010; Polidoro et al., 2024). We also followed up multiple times with invited participants who did not respond (Coughlan et al., 2009).

Data Analysis

Descriptive Statistics: To analyze RLR requests by year, community, and organization, Isirvik data was exported into CSV format for use in Excel. Data were compiled and visualized with descriptive statistics and graphs (frequency counts and percentages) to represent findings (Polidoro et al., 2024). To analyze RLR experiences, survey responses were exported from Qualtrics into CSV format for use in Excel. We used descriptive statistics (measures of central tendency and dispersion) to analyze responses from closed-ended questions (multiple choice and Likert-scale) and developed summary figures representing proportions (bar and pie charts).

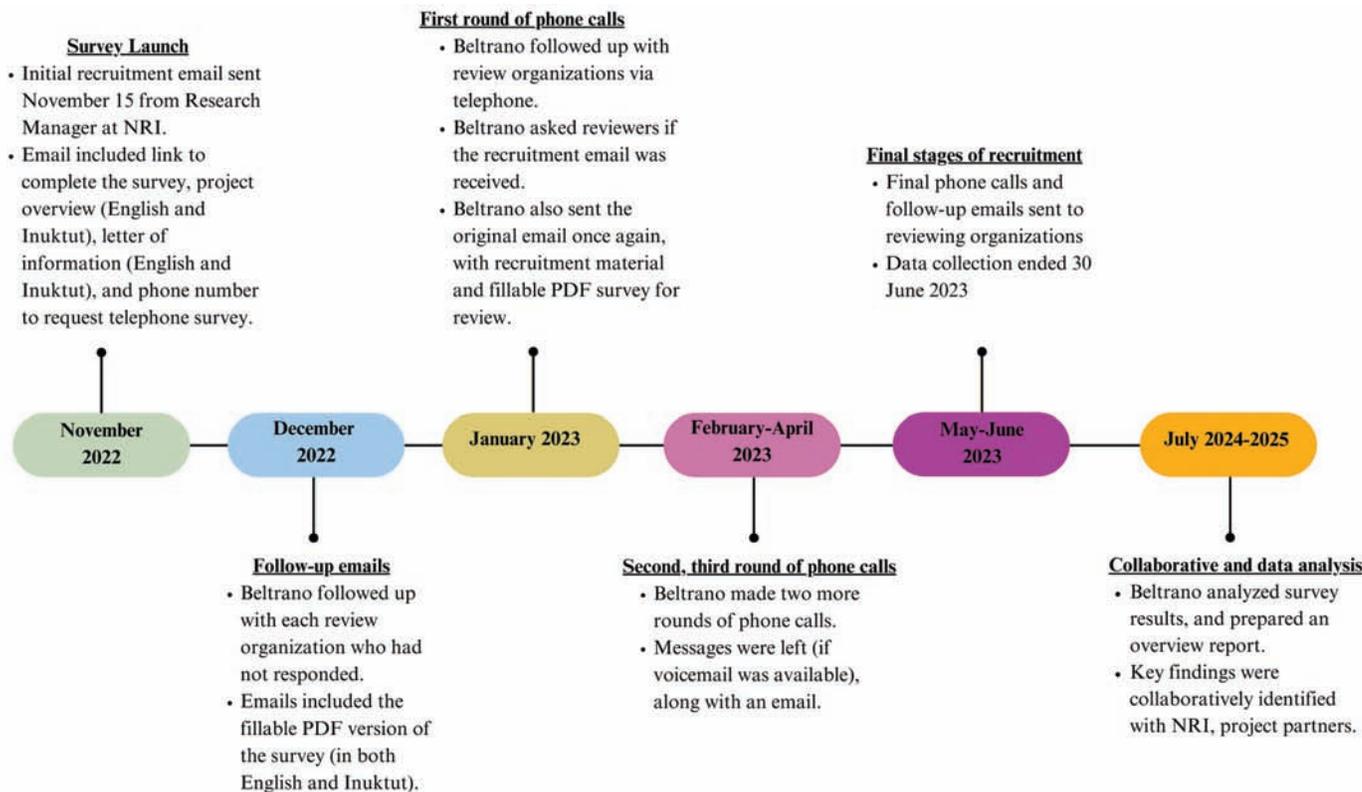


FIG. 2. Survey implementation timeline.

Thematic Analysis: Thematic analysis involves identifying themes within text (Dunn, 2010; Friese et al., 2018). Open-ended survey responses were exported into Excel, where similar responses were grouped manually based on themes identified within interview responses. As the number of responses was relatively small (n=20) and open-ended questions were limited, a formal coding structure was not applied. Rather, themes were identified directly from survey responses by grouping responses focused on common themes. For example, responses to a question about requesting terms and conditions on a research license were grouped into themes based on compensation and improved communication. Canva online graphic design software was used to visually represent thematic groupings. Thematic analysis supported identification of emerging themes and contributed to our baseline understanding of RLR experiences (Bree and Gallagher, 2016).

RESULTS

Research License Review Requests

From 2004 to 2019 there were 17,968 RLR requests and 2132 licenses (with RLR information available) issued across 10 different types of RLR organizations. The total number of review requests ranged from 1–64 per license issued. On average, this is 8.43 reviews per license issued (i.e., eight organizations are invited to review each

license application). One research project can occur in multiple communities, and therefore can require multiple reviews (Polidoro et al., 2024). Research occurring in one community can also require review from multiple local organizations (i.e., the hamlet office, HTO/HTAs, and the Regional Inuit Association, at minimum). Hamlet offices, including the City of Iqaluit, received the highest number of review requests (n=5299), followed by institutions of public government (n=3693), HTOs (n=2642), regional Inuit associations (n=1909), Nunavut Tunngavik Incorporated (n=1796), and the Government of Canada (n=1530) (Fig. 3). The Government of Nunavut received some of the fewest review requests (n=470), followed by non-government organizations (Nunavut-based and non-Nunavut-based, within Canada) (n=418), and district education authorities (n=207). Nunavut Arctic College received the least number of review requests (n=4) (Fig. 3).

Out of the total 1909 review requests sent to regional Inuit associations, the Qikiqtani Inuit Association received the majority (n=1212). The Kitikmeot and Kivalliq Inuit Associations received 372 and 325 review requests, respectively (Fig. 4).

The City of Iqaluit received more (10.95%) RLR requests than any other review organization. Out of review requests sent to the city and other hamlet offices (n=5299), the next largest number went to: Resolute Bay (9.62%), Grise Fiord (7.51%), Cambridge Bay (6.91%), and Pond Inlet (4.79%). Coral Harbour (2.09%), Sanikiluaq (1.76%), and Whale Cove (1.43%) received the fewest RLR requests (Fig. 5).The

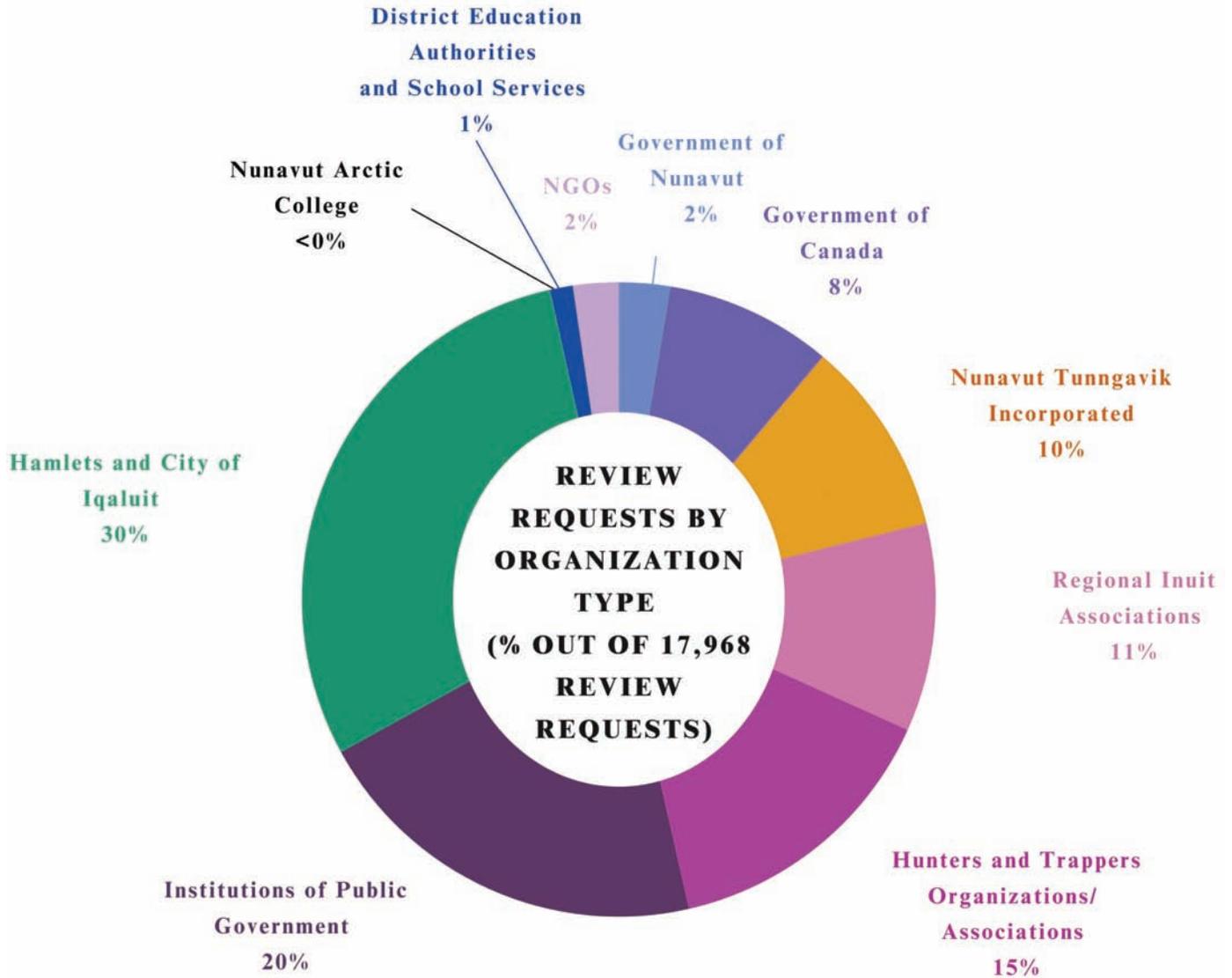


FIG. 3. Distribution of Nunavut Research Institute research license review requests (sent to reviewing organizations 2004–19).

volume of review requests received by hamlets fluctuated over the 16-year period (Fig. 6), with the lowest number of RLR received in 2006 (n=257) and the most in 2008 (n=428) (Fig. 6).

Resolute Bay HTA (16.61%) and Grise Fiord (Iviq) HTO (11.98%) received the highest number of requests among HTO/HTAs, followed by Cambridge Bay (Ekaluktutiak) (9.30%), Iqaluit (Amaruq) (7.63%), and Pond Inlet (Mittimatalik) (4.96%). The Whale Cove (Issatik) HTO (1.18%), Bathurst Inlet (Burnside), and Umingmaktok (Omingmaktok) HTA received the least review requests (Fig. 7). Review requests received by HTO/HTAs increased until 2009 (n=272), then declined to the fewest RLR requests in a year in 2016 (n=97) (Fig. 8).

Research License Reviewer Experiences

License Review Volume: Eight respondents indicated that their organization reviews between one and 10

applications annually. Four reviewed 21–40 requests, two reviewed 41–60 requests, and one reviewed 11–20 requests. Five respondents did “not know” how many applications their organization receives each year (Fig. 9).

Most respondents (55%; n=11) review all research license applications received from the NRI (Fig. 10). Of those who review only a proportion of applications received, five said they review “some” (1–39%) and two said they review “most” (61–99%) of applications received. One respondent indicated that their organization reviews “about half” of research license applications received, while one participant “did not know” what proportion are reviewed (Fig. 10). Time constraints (n=6 respondents) and prioritization of climate change–related applications (n=2 respondents) were the reasons given for why they are selective in license review.

Respondents identified two main factors impeding their ability to review license applications, including: time of year and capacity limitations due to other responsibilities.

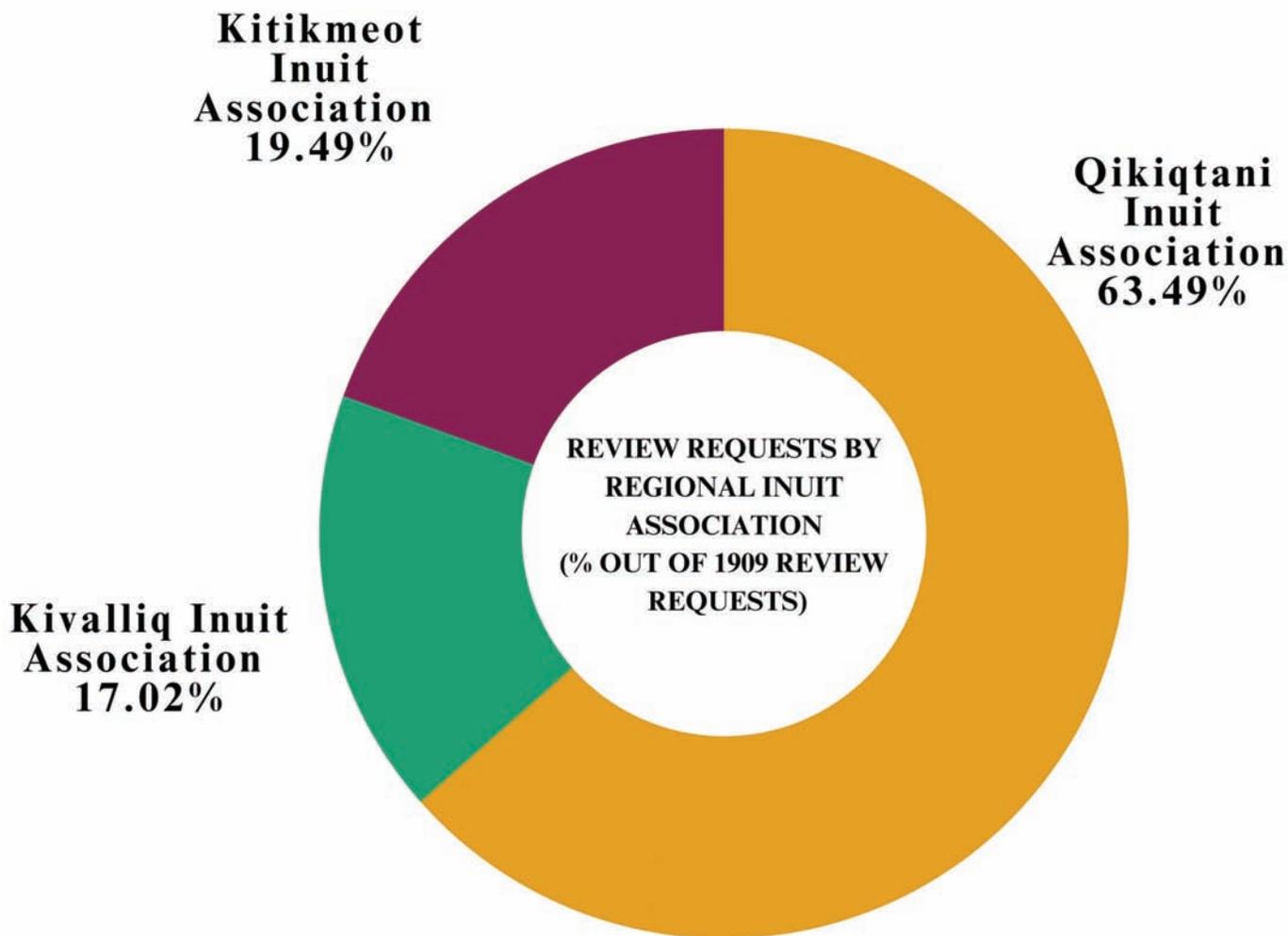


FIG. 4. Nunavut Research Institute research license review requests (sent to regional Inuit associations 2004–19).

“We always get slammed in the spring when researchers want to come for the warm summer months. We never get slammed in November,” said one representative from a CRO. Another said, “balancing the time needed to review with other priorities [makes it hard to review license applications].” Two respondents did not answer this question. Eight respondents did not elaborate on why they did not review licenses.

License Review Process: Survey respondents described a range of approaches supporting their review. Nine respondents said they review applications by email. They noted that they use email to both review the application package provided by NRI and share their viewpoints with one another via email until consensus is reached. Seven respondents said they review applications as part of a regularly scheduled meeting to discuss various matters, and five said they review applications as part of a specific meeting organized to review and discuss license applications (Fig. 11). Of those who responded “other” (n=2), alternative methods for reviewing applications included “Email and I present it to my board” (HTO

representative), and “no group review for physical/natural and social science applications” (Inuit organization representative).

Review organizations mostly gather as needed (n=9) to review research license applications, while others meet bi-weekly (n=6), weekly (n=1), or monthly (n=1). Four respondents do not meet as a group to review applications, as it is part of their individual role within the organization (e.g., as a senior administrative officer or HTO/HTA manager).

Time Spent Conducting Research License Reviews: Respondents reported a range in duration of time spent reviewing license applications. Of the 13 respondents who provided a quantifiable response, most (n=5) stated that their review time per application is “30–59 minutes” (Fig. 12). This was followed by “1–29 minutes” (n=4), 1–2 hours, and “more than 2 hours” (n=2, respectively). One respondent “did not know” how long it takes to review an application (Fig. 12). Respondents who selected “it depends on the application” reported that factors impacting review include whether:

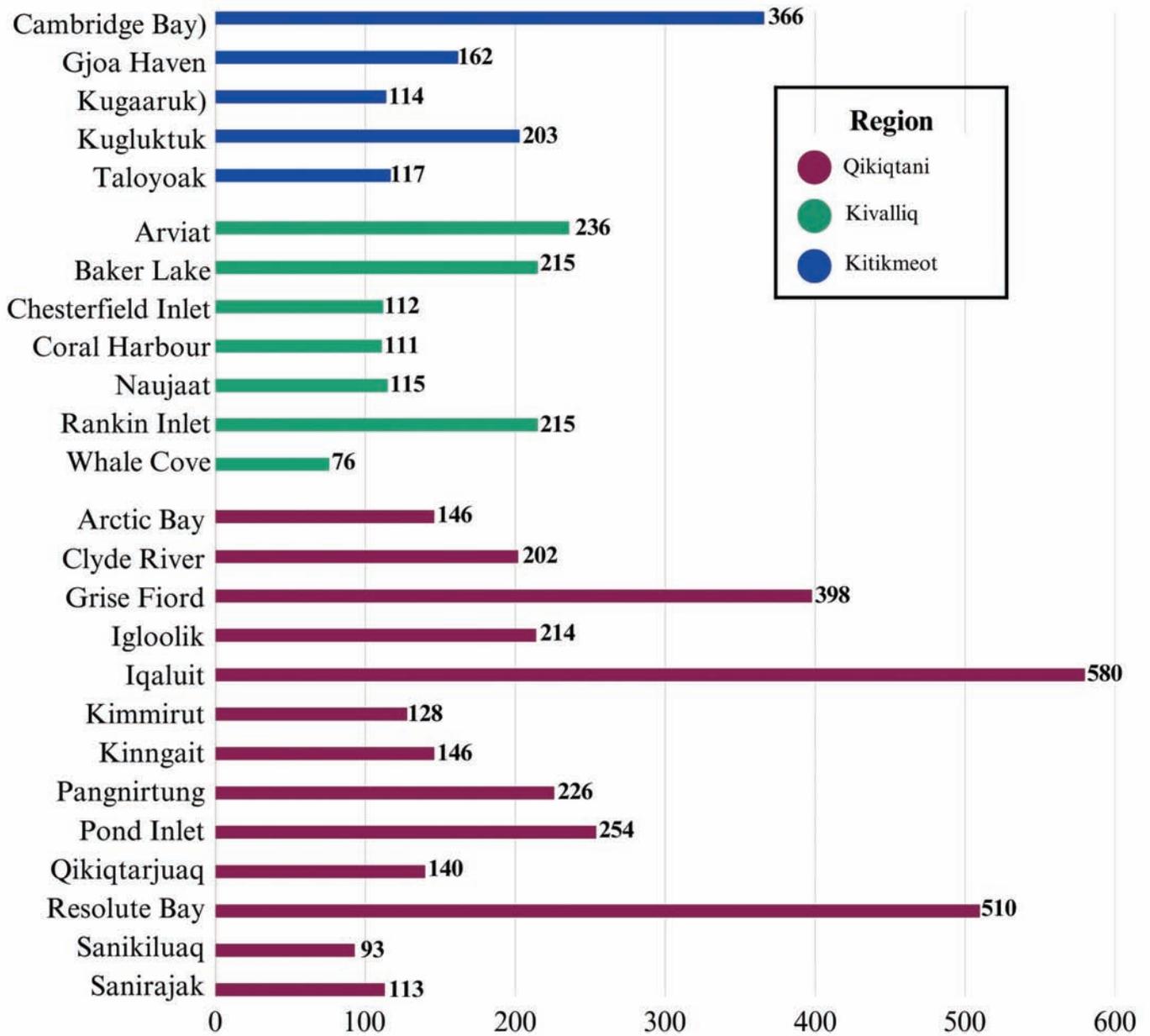


FIG. 5. Distribution of Nunavut Research Institute research license review requests sent to hamlet offices (2004–19).

“legal representation [is required]”
(HTO representative);

“the research is happening near/around the community”
(HTO representative);

there are “environmental concerns”
(CRO representative);

and, incomplete applications will be sent back “for more information”
(CRO representative).

Review Responsibility: Almost half (45%) of respondents indicated that there are multiple reviewers

at the organization. They noted that their own role in reviewing a particular application depended on a variety of factors, including: expertise, conflicts of interest, or capacity of senior administrative staff. (Fig. 13). Two thirds (35%) of respondents stated that all members of the organization review applications, while 20% stated that one person representing the organization reviews research license applications.

Review Criteria

Most respondents (n=11) do not use a set of criteria or guidelines when evaluating research license applications, while some (n=8) do. One respondent did not know if criteria or guidelines are used or not. Criteria included a

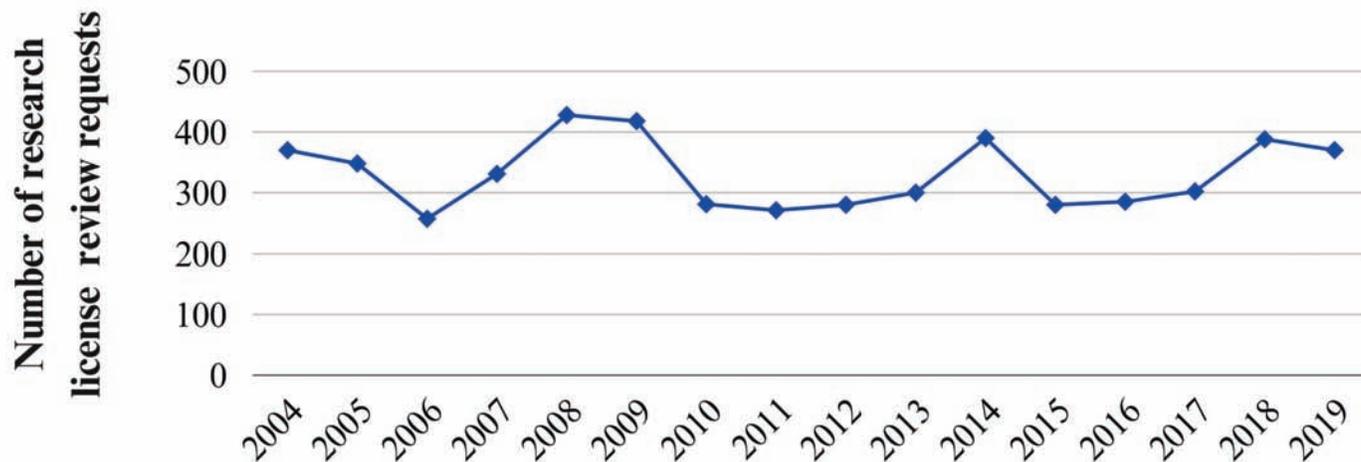


FIG. 6. Nunavut Research Institute research license review requests to hamlet offices over time (2004–19).

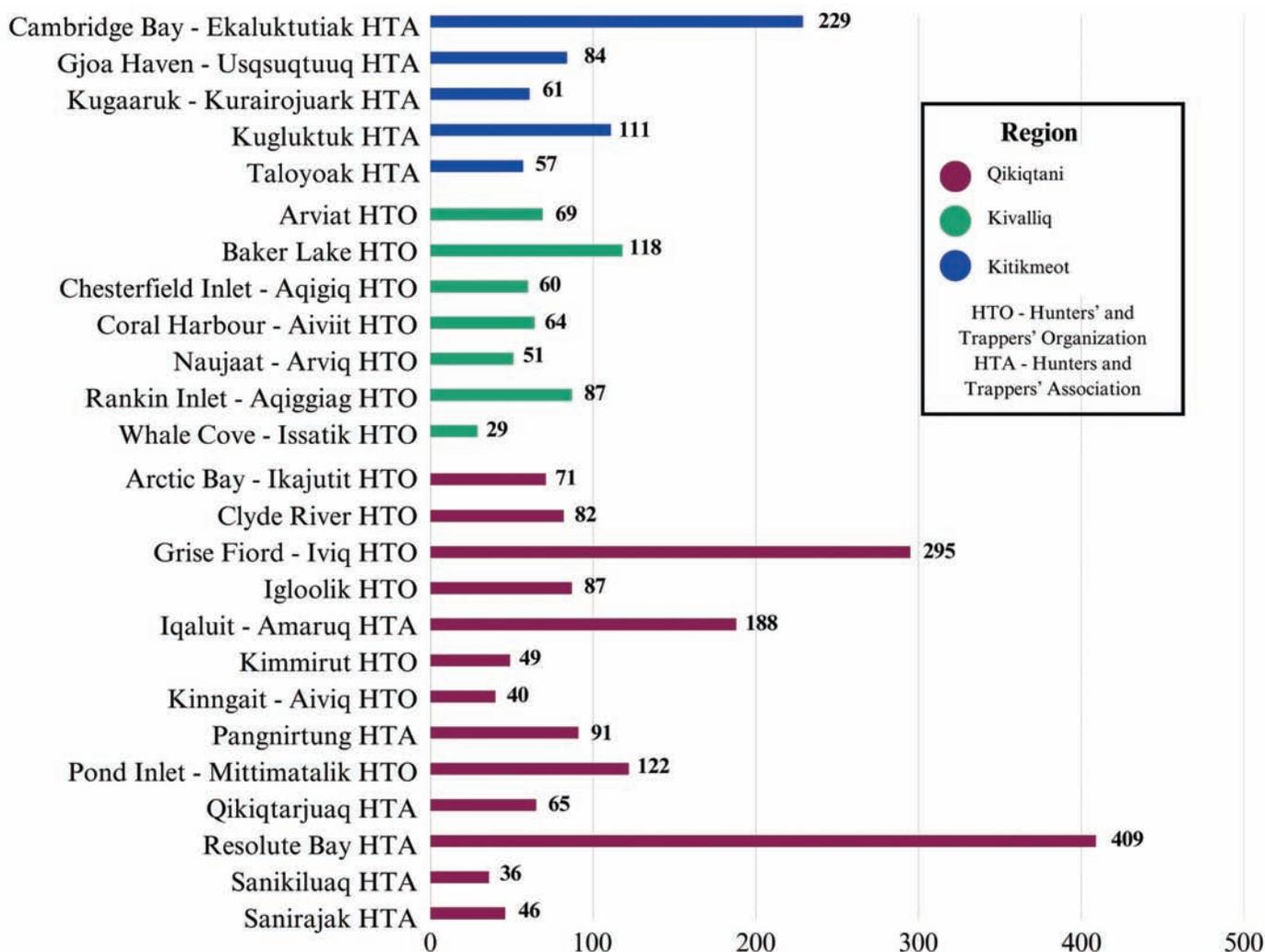


FIG. 7. Distribution of Nunavut Research Institute research license review requests sent to hunters and trappers organizations/associations (2004–19). Note that Bathurst Inlet (Burnside) and Umingmaktok (Omingmaktok) are no longer recognized communities, therefore the HTO offices no longer exist and are not included in this study.

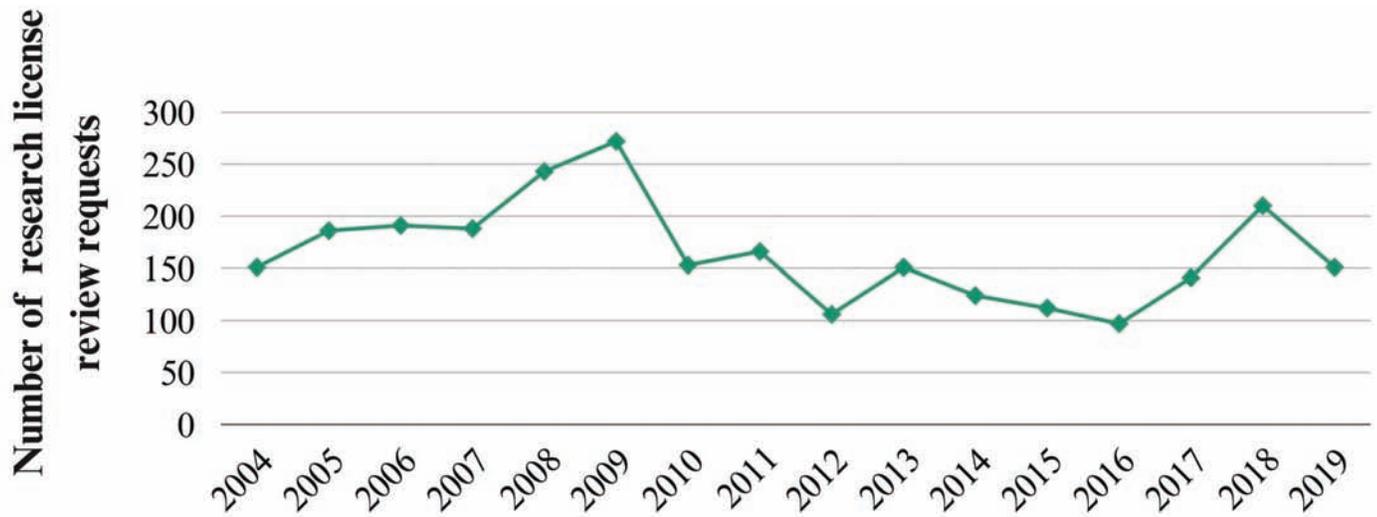


FIG. 8. Nunavut Research Institute research license review requests to hunters and trappers organizations/associations over time (2004–19).

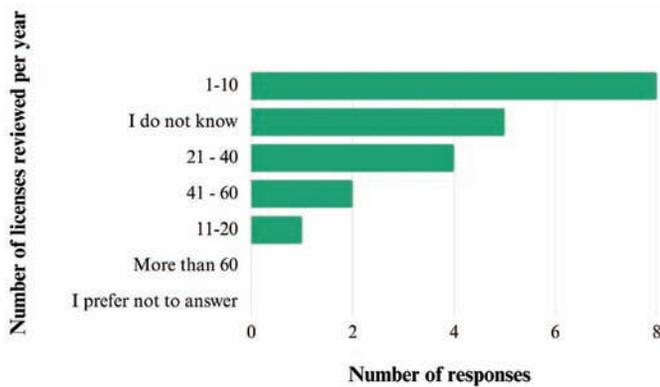


FIG. 9. Number of licenses reviewed by survey respondents per year.

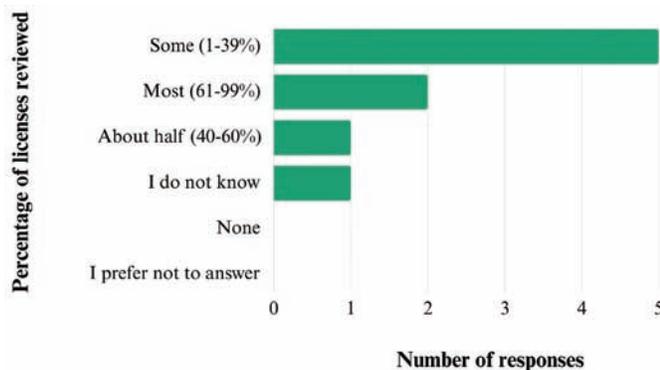


FIG. 10. Percentage of licenses reviewed in a year, as reported by nine survey respondents who do not review all applications received from the Nunavut Research Institute.

checklist of community-based approaches obtained by the organization, basic guidelines created by the organization, and summary forms that must be completed at the request of the organization. Some organizations evaluate applications based on potential benefits to the community (such as training and economic incentives).

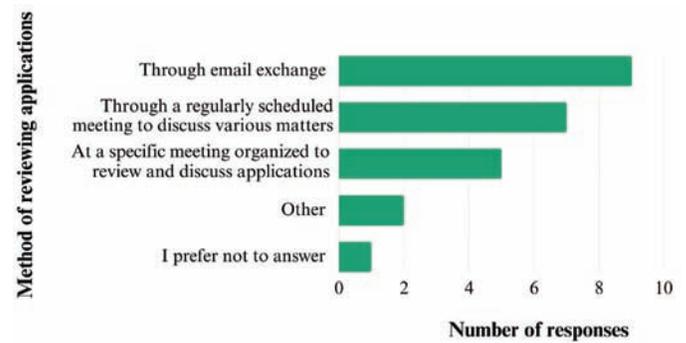


FIG. 11. Review process for survey respondents.

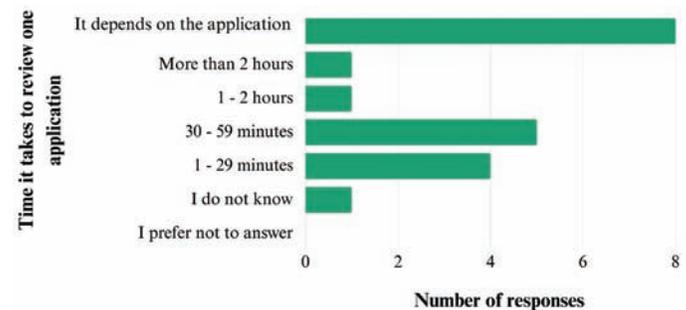


FIG. 12. Time it takes for organizations to review a single license.

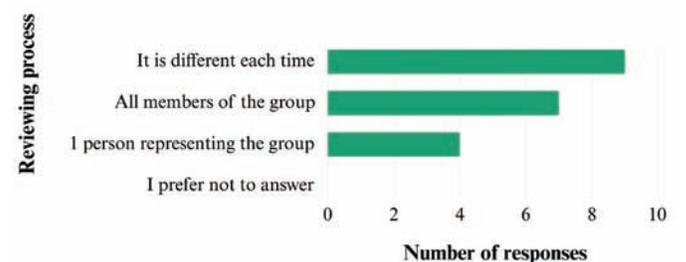


FIG. 13. Reviewing practices within the organization.

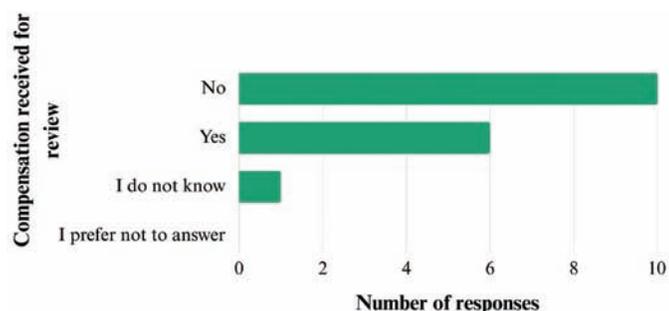


FIG. 14. Compensation for reviewing research licenses, as reported by 17 survey respondents.

Of nine respondents who answered “yes” or “I do not know” to questions about the use of guidelines, six (66.67%) indicated that they coordinate with other organizations in their community when reviewing applications for health research–related applications. Some organizations involved in the coordinated review of health projects include the Government of Nunavut Department of Health, Qaujigiartiit Health Research Centre, Nunavut Tunngavik Incorporated, and hamlet health committees. Other organizations consulted include regional Inuit associations, schools, Elders, and community-specific organizations.

Review and Compensation

Most respondents (n=10) do not receive compensation for their time in RLR (Fig. 14). Six said they are compensated for their time, and one “did not know” if they were being compensated to review research licenses. Of the six respondents who received compensation, half said it is part of their job (i.e., their regular salary, so no additional compensation is provided) and half did not provide details.

Communications with the Nunavut Research Institute

The NRI provides a deadline of 45 days for an organization to complete and return the reviewer recommendation form (NRI, 2021). Half of respondents (n=10) said this is “usually enough time to review” (Fig. 15), three said this is “sometimes enough time to review,” and two said this is “always enough time to review” (n=2). Three respondents selected “other,” and no one selected “never enough time to review” (Fig. 15).

Once they review the license application, nearly half (45%) of respondents indicated that they “sometimes” provide feedback to the NRI. Seven respondents “usually” provide feedback, and two respondents “always” provide feedback to the NRI after review. One respondent said they “never” share feedback (Fig. 16) and one “did not know.”

Of the respondents who provided feedback to the NRI, most respondents said they use email to share their written comments (n=13; Fig. 17). Other means of providing feedback included filling out the reviewer recommendation form (n=8) and in person (n=2). Respondents who do not use the reviewer recommendation form described the

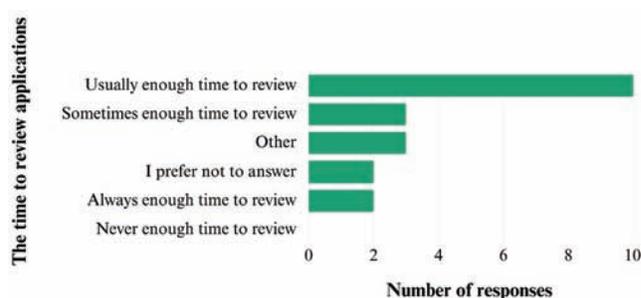


FIG. 15. Sufficiency of time given to review licenses.

process of completing the form as an extra step, and “[It is just] more convenient to email [feedback to the NRI]” (CRO representative). One respondent also mentioned that the form is not always included with the application packages emailed by the NRI.

Nearly half of respondents (n=9) “sometimes” share concerns with the NRI about a research license application. Fewer respondents “always” or “usually” share concerns (n=3, respectively). One reviewer “never” shares concerns with the NRI, and four respondents (20%) do not know how often concerns are shared (Fig. 18). Reports of concern shared with the NRI varied across respondents. Concerns identified by community research organization representatives included:

“insufficient engagement with community [by researchers]”;

“overlap with work already being carried out”;
 “[the need for improved] methodological design”; and
 “knowledge sharing requirements.”

Half of respondents (n=10) reported that they “always” have their feedback addressed by the NRI. Four respondents said they “sometimes” or “usually” have their feedback addressed. In most cases the concerns need to be addressed directly by the researcher(s) in terms of providing more detail or adjusting plans according to RLR feedback. One respondent also articulated that their concerns go beyond the licensing process itself, as there are “more systemic challenges around how research is conducted in Nunavut” (Government of Nunavut representative).

Six respondents said they either “sometimes” or “never” request terms and conditions as part of a research license, while five respondents did “not know.” Two respondents said they six terms and conditions, and one reviewer “usually” requests terms and conditions. (Fig. 19). Those who do request terms and conditions expressed the need for “more detailed plans [to be included in the applications]” and said they would like to see researchers “providing confirmed support from communities” (Inuit organization representative). Other examples of terms and conditions requested by RLR organizations included for applications to:

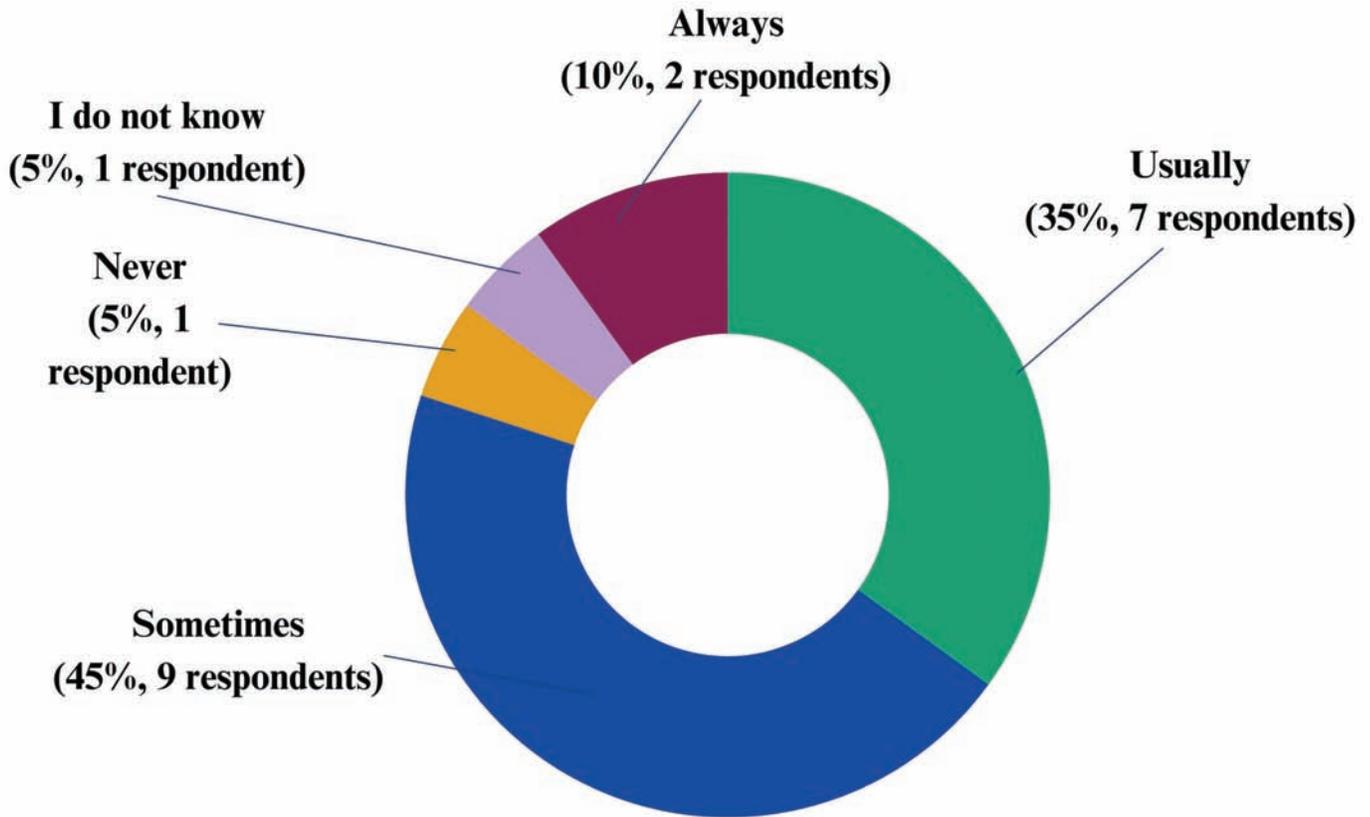


FIG. 16. Frequency of feedback shared with the Nunavut Research Institute.

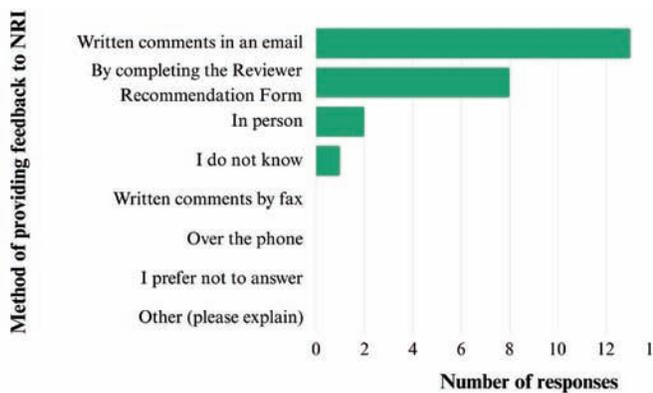


FIG. 17. Method of providing feedback to the Nunavut Research Institute.

“Have HTO directors and its [board] members [participate in projects]”

(HTO representative);

Plan for “proper compensation for participants”

(CRO representative);

Have a “ensuring research will benefit community”

(CRO representative);

Have a “requirement to have written letters of support”

(CRO representative);

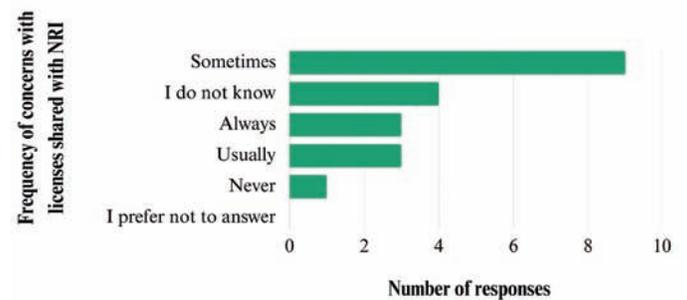


FIG. 18. Frequency with which respondents shared concerns about license applications with the Nunavut Research Institute.

and plan for sharing a “final report [at the end of a project]”

(CRO representative).

Respondents varied in whether they felt their terms and conditions were being met. Some RLR organizations were satisfied and mentioned that the “NRI does a great job” (CRO representative), while others were unsure whether terms and conditions are met, or “if there is any follow-up to ensure it has been met” (Inuit organization representative).

As part of the NRI’s licensing requirements for research license renewal, researchers are required to submit an annual report on their research activities by December 31 of each year (NRI, 2021). Eight respondents did not know how often their organization receives annual reports

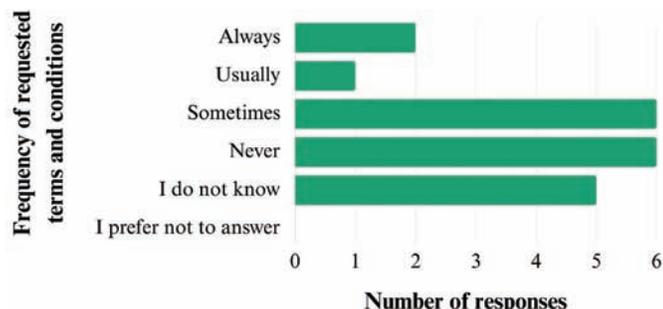


FIG. 19. Frequency with which respondents requested terms and conditions from license applicants.

from the NRI (Fig. 20). Four respondents each said they “sometimes” and “usually” receive reports, while two respondents said they “always” and “never” receive annual reports, respectively (Fig. 20).

Among respondents 18 ranked their level of agreement with a series of statements about their experience with the RLR process. They identified two strengths in the RLR process: timely responses from the NRI and sufficient information provided by NRI for each project (Fig. 21). A weakness observed in the RLR process was the need to seek expertise for technical applications. Additionally, most respondents said they “somewhat disagree” with the helpfulness of the reviewer recommendation form (over other possible responses, from “Not applicable” to “Strongly Agree,” Fig. 21). The accuracy of Inuktitut translations received the highest responses of “I do not know,” but most respondents were satisfied with translation (Fig. 21).

Opportunities and Challenges

Respondents identified several opportunities and challenges with the RLR process. One opportunity was for researchers to “explain about the research in person with my board” (HTO representative). Additionally, respondents identified an opportunity for researchers to communicate “what difference the research is going to make [for the community]” (hamlet representative). As for challenges, respondents described needing more coordination in responses with other organizations reviewing the same application (Fig. 5). Respondents also called for more quality control at the NRI, including application completeness, readability, and less technical jargon to help ensure applications are “actually written appropriately for community review” (CRO representative).

DISCUSSION

Our exploration of RLR organization experiences across Nunavut was valuable to deepen collective understanding of the intensity of research review requests and the diverse ways RLR organizations manage the review process internally. Survey responses provided important insights

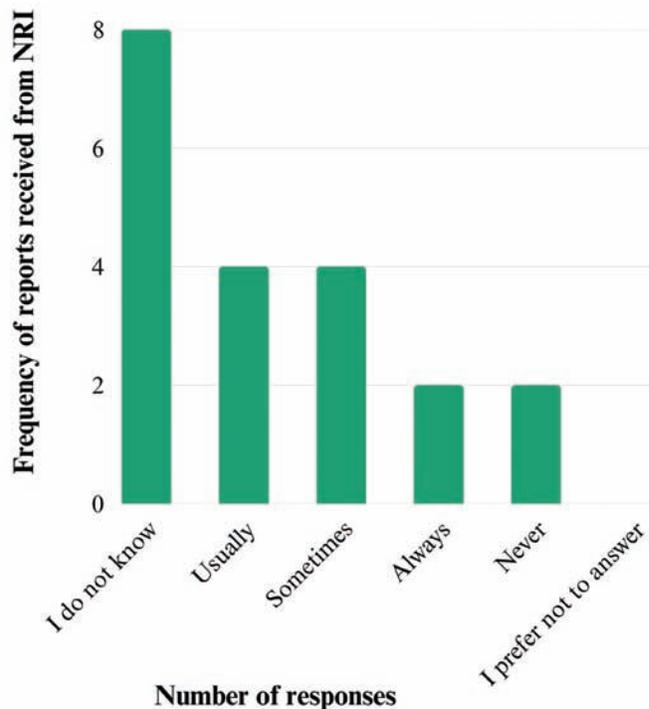


FIG. 20. Frequency with which respondents receive researchers’ annual reports from the Nunavut Research Institute.

into challenges RLR organizations face, and ways the NRI and researchers could help ease the burden of review.

Refining Research License Review Processes

Resources and Funding for Licensing Review: Our results concur with the existing literature (Nickels and Knotsch, 2015; Kuokkanen, 2020) in identifying the need for enhanced community capacity to support RLR. Our study thus emphasizes the importance of sufficient resources (human and funding) to enable meaningful RLR. The challenges experienced by RLR organizations, such as lack of funding and compensation for RLR, provide a unique opportunity to improve community experiences with this process. Long-term funding for hiring and training individuals could increase local capacity to facilitate RLR, and therefore, could reduce challenges experienced by these organizations (Itchuaqiyaq et al., 2023). Our findings in Nunavut support the work of Perrin, Ljubicic, and Ogden (2021), who suggested that long-term funding for hiring and training could increase the number of individuals who can facilitate RLR and, therefore, reduce local capacity burdens. The need for more funding to support Indigenous-led initiatives is also prominent at national (ITK, 2018a; Government of Canada, 2024) and territorial levels (ITK and NRI, 2007), while international Inuit organizations, such as the Inuit Circumpolar Council, are calling for appropriate compensation for community involvement in research (Inuit Circumpolar Council, 2022). Considering the inconsistencies in compensation they received to review applications (Fig. 14), RLR organizations may need to use

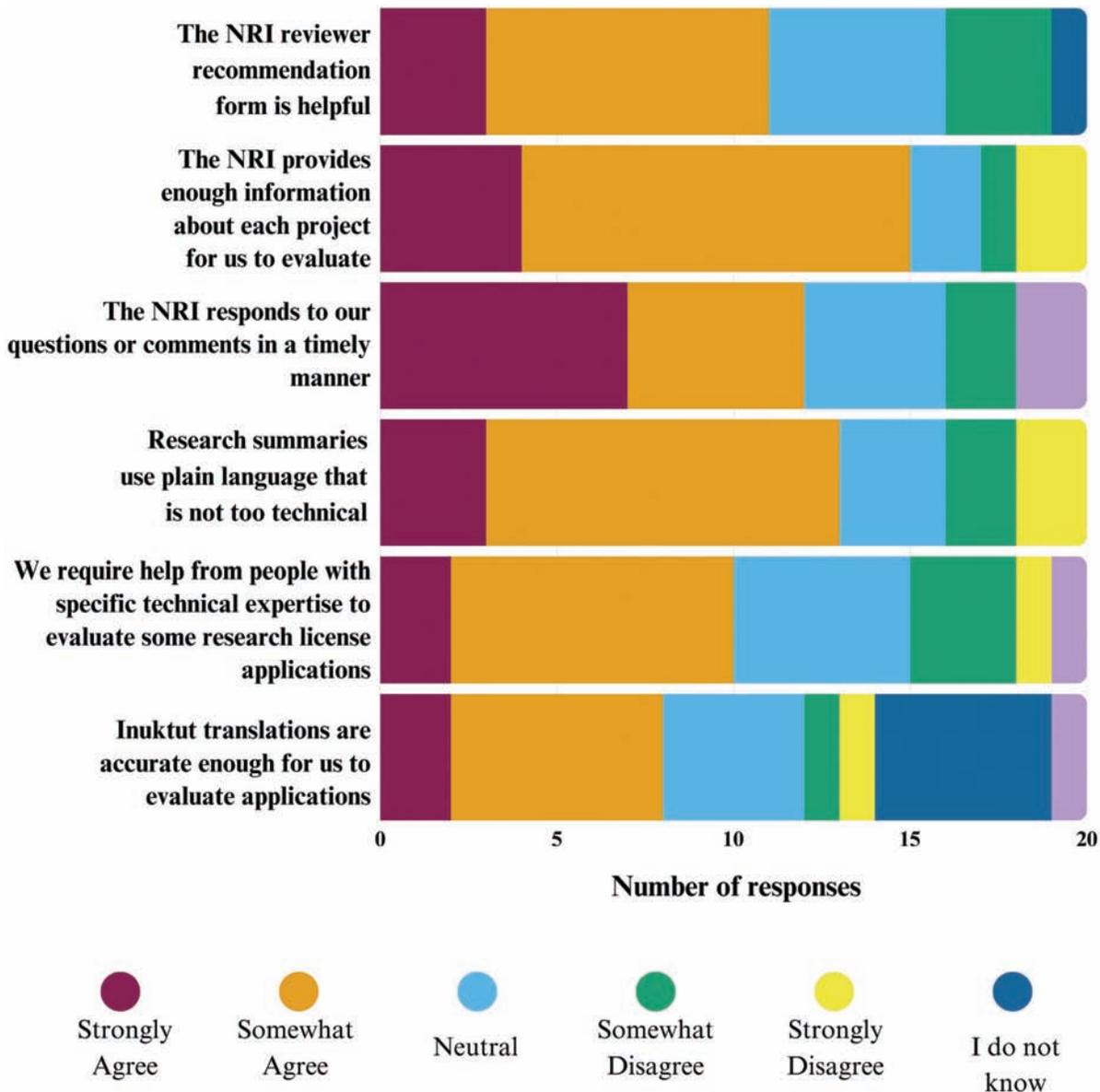


FIG. 21. Series of responses for levels of agreement with the RLR process.

their own funding to ensure adequate funding for staff to focus on RLR review. For example, they could apply to targeted funding calls, such as the Government of Canada (2024:1) Indigenous Capacity Support Program, designed to “support the development of local and regional capacity” for project and environmental impact assessments. The website for Inuit Tapiriit Kanatami’s displays funding opportunities from various organizations and offers community development grants tailored to individual community needs and priorities (ITK, 2025). For communities that do not have the experience or time to draft a funding proposal, research organizations like ArcticNet offer resources to help draft and refine such applications (ArcticNet, 2025). Additionally, as research interest and demand on RLR time grow, securing core funding will be essential to the capacity and continuity of RLR organizations, for example, through specialized research support, or specific RLR

positions funded by the territorial government or through the land claim organizations.

Technical Support for Applications: Some RLR organizations highlighted the importance of ensuring completeness of applications and improving plain language components. Our survey results indicate that methodological techniques described in license applications are sometimes too technical for RLR organizations to understand, and they can request assistance from external experts to understand the proposed activities. These challenges may contribute to RLR organizations not reviewing certain applications because they do not have time to understand the technical language or ask for assistance, or because they do not feel they can return the applications. As a result, after the 45-day review window (NRI, 2021), applications are approved by the NRI without feedback or thorough review.

Although the NRI requires researchers to submit plain language research summaries as part of the application and reporting process (NRI, 2021; Polidoro et al., 2024), our findings show RLR organizations still do not find application language and research methods descriptions accessible enough. The Aurora Research Institute (2019) in the Northwest Territories also calls for researchers to use plain language as a tool for effective communication, as reviewers do not always have technical expertise. This aligns with recommendations from Pedersen et al. (2020) and Prno et al. (2021) that encourage researchers to consider language barriers and avoid jargon when conducting research in Inuit communities. Given these findings, researchers can work on developing their plain language writing skills through independent training and consultation with licensing agencies to ensure appropriateness of the language used in applications. This would, in turn, result in a streamlined review process (avoiding the need to return applications for clarification) and ensure a higher quality of translated materials into Inuktitut. Additionally, researchers could conduct research planning visits to initiate consultation, explain methods and local benefits, and address concerns with community members or organizations involved (Held, 2020). This could help close communication gaps between community members and researchers with respect to understanding methodological approaches and appropriate language. When thinking about long-term goals and priorities for research in Nunavut, current legislation, such as the *Scientists Act*, could be amended to give more power and control to RLR organizations to withhold license approval until language is refined to be accessible and understandable to RLR organizations.

Criteria for License Review: Over half of RLR organizations that completed the survey indicated they do not use a set of criteria when reviewing applications. Also, most respondents do not use the reviewer recommendation form to support their review. Respondents reported that administrative workloads and inconsistencies in receiving the reviewer recommendation form (from the NRI) are key barriers to using supporting documentation in the review process. There may be benefits to establishing regional and community-specific guidelines for research, but there are also challenges with creating standardized criteria when each community or region seeks to address their own unique priorities. Existing guidelines provide common considerations in working with community partners, including: consultation, research agreements, methodology, informed consent, compensation, data ownership, funding, and next steps for the project (Table 1; NRI, 2021; Panel on Research Ethics, 2022; CCA, 2023; Itchuaqiyaget al., 2023; Aqqiumavvik Society, 2024; QHRC, 2025). These guidelines could be used by reviewers as a starting point to create their own checklist to help them evaluate research license applications or inform the development of organization-specific guidelines. Establishing clear review criteria could make it easier for

RLR organizations to manage the review process and make reviews more efficient, and could help researchers to know what to include in their licensing applications. By following the considerations articulated by RLR organizations in our survey, researchers can also propose and facilitate projects more relevant to the community (Jull et al., 2020; Cadman et al., 2022). If researchers are unsure about specific guidelines, the NRI could liaise with them and review organizations, ensuring relevant criteria are clearly communicated to researchers.

Terms and Conditions: According to our study, most respondents requested terms and conditions (Fig. 19). However, not all respondents knew if their terms and conditions were met. To help address this challenge, the NRI could work towards co-developing and monitoring the implementation of terms and conditions. In this way, they could more effectively share responsibility with RLR organizations. Giving more authority to community organizations supports a research agenda better aligned with Inuit priorities (Cram et al., 2013; Snow et al., 2016). This is already being done in the Yukon, where self-governing associations are developing their own research guidelines, criteria, and approval processes (GTC, 2011). Additionally, a First Nations University, University nuhelot'ine thiyots'i nistameyimâkanak Blue Quills (UnBQ), in Alberta facilitates a review process involving external reviewers, such as Elders or knowledge holders, to avoid misrepresentation of cultural knowledge (CCA, 2023). In the United States, the Indigenous Research Protection Act (Indigenous People's Council on Biocolonialism, n.d.) has led to the creation of research review committees within Indigenous communities. These committees are responsible for coordinating with researchers and negotiating their own terms and conditions for research activities on their land (Indigenous People's Council on Biocolonialism, n.d.). This contrasts with the current legislation in Nunavut where, under the *Scientists Act*, RLR organizations can only make recommendations (NRI, 2021). It is the Nunavut science advisor, acting on behalf of the Minister (RSNWT (Nu) 1988, c S-4), who has the decision-making power to deny a research license application. Updating current legislation is a key starting point towards increasing Nunavummiut governance and decision-making power over research conducted in their homelands (Ogden and Schmidt., 2016; Jull et al., 2020; Perrin et al., 2021). Nevertheless, more work needs to be done to increase communication between RLR organizations and the NRI with respect to implementation and follow-up of terms and conditions on a research license.

Reimagining Research Design

In our survey, RLR organizations reported key concerns with incoming research license applications, including: i) a lack of confirmed support and community involvement throughout the project; ii) duplication of projects; and iii) poor quality of, and limited or no access to, translated

TABLE 1: Compilation of research considerations outlined in five community, regional, and National Inuit research guidelines

	Supporting resources and documentation				
	Aajiqatigiingniq Research Methodology (Aqquimavvik Society 2024)	National Inuit Strategy on Research (ITK 2018a;b)	Obtaining a Research License under Nunavut’s Scientists Act: A Guide for Applicants (NRI 2021)	Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, Chapter 9 (Panel on research ethics 2022)	Qaujigiartiit Health Research Centre health research ethics checklist (QHRC n.d)
Is the community being consulted?	X	X	X	X	X
Is there a community- research agreement?	X	X		X	X
Are the methods appropriate?	X	X	X	X	X
What are the risks and benefits?	X		X	X	X
What are the recruitment strategies (if any) ?			X	X	X
Confidentiality			X	X	X
Is informed consent upheld?		X	X	X	X
Will there be compensation, for whom, and how much?			X		X
Is reporting effective?	X	X	X	X	X
Are there any conflicts of interest (if so, how are they addressed)?				X	X
Is there institutional ethics approval?		X	X	X	X
Is there a data ownership agreement?		X	X	X	
Are the next steps of project discussed?	X				
Is the funding source and allocation clearly communicated?		X	X	X	

materials. To reimagine how research is designed, conducted, and implemented across Nunavut, these concerns indicate three opportunities.

The first opportunity to reimagine research design is for researchers to provide confirmed support and participation from community members in the proposed projects (Fig. 15). Communities in the High Arctic experiencing some of the greatest review burden (Fig. 5) have minimal community involvement, mainly because licenses they review are for projects in remote field camps far away from communities (Holm et al., 2012; Willis, 2018; Isirvik, 2025). As a result, communities are unaware of the research in and around their homelands, as well as the outcomes of such projects (ITK and NRI, 2007; Polidoro et al., 2024). This lack of transparency in research conduct and reporting is regarded by Inuit as harmful and reflects the ongoing influence of colonial approaches of research in Canada’s Arctic regions (Healey and Tagak, 2014; Riddell et al., 2017; Perrin et al., 2021). To address such legacies, researchers must acknowledge the importance of involving Inuit in their research and discuss this in their research license applications. The NISR (ITK, 2018a) calls for improved transparency in the research process to increase Inuit governance in research. The intent is to ensure that the Inuit have the more complete and clearly articulated information researchers can share to help support decision making around proposed projects. Pedersen et al. (2020) highlight that one effective collaborative approach to research is to involve Inuit youth. They drew this insight from their analysis of Ikaarvik, a research program that gives Inuit communities the opportunity to answer their own research questions. Held (2020), meanwhile, in a reflection on lessons learned from fieldwork, points to the importance of co-developing research questions in person. Others (Itchuaqiyaaq et al., 2023; Carter et al., 2025) encourage

researchers to collaborate with communities very early in the research process, as this supports the co-creation of new knowledge and informs decision making.

A second opportunity to reimagine research design is to work towards reducing the duplication of research, thus reducing research fatigue. Researchers may ask questions about, or propose work on, topics similar to previous work without knowing so. Duplication also occurs when community feedback is not adequately considered in research proposal development or the research license approval process. Fatigue may be reflected in the reluctance of community members to take part in research projects, or low participation in research consultation and engagement activities (Brunet et al., 2016; Rink and Reimer, 2019). In these cases, fatigue stems from the perception that research is not producing meaningful local benefits, or from specific experiences of this lack of benefit (CCA, 2023). Additionally, fatigue is also about the sheer volume of licenses received (Fig. 1) and not having the capacity (accessible language, time, funding, or people) available to facilitate RLR (Wong et al., 2020). The three territorial governments have called for improved coordination between researchers and communities to prevent research duplication (Governments of Nunavut, Northwest Territories, and Yukon, 2016). Within the licensing process, the Council of Canadian Academies (2023) recognizes the importance of feedback to inform research outcomes; however, current policies limit community decision-making powers. In Nunavut, the Isirvik research portal (Isirvik, 2025) can be a valuable tool to help reduce research fatigue. This interactive database can be used by researchers to search for research topics, locations, principal investigators, methods, and reporting tools (Polidoro et al., 2024) related to their areas of interest. Isirvik helps to improve research transparency, as researchers can identify existing

concentrations of areas (in a community, or at remote field sites), topics, and researchers already engaged in similar research questions. Due diligence by researchers carried out to better understand the research landscape and define local needs and priorities up front (Snook et al., 2018; Henri et al., 2020; Itchuaqiyag et al., 2023) aids in identifying potential overlaps. Where overlaps are identified, researchers can address them by either reaching out to community organizations or other research groups to collaborate, or by adjusting topics or geographic areas to address research gaps.

The third opportunity is to improve the quality of translated materials in applications and ensure they are accessible to RLR organizations. Although project summaries and reports are required to be translated into Inuktitut (NRI, 2021), RLR organizations continue to express their concerns with the quality of translations in license applications they receive. The NRI licensing manager cannot be responsible for checking translation accuracy and completeness. With only one licensing manager, there is limited capacity to consistently follow up with researchers about missing materials from the application package, or translation concerns. The need for translated research materials is recognized by other community research organizations, such as Ikaarvik (for any outputs being left with the community) (Pedersen et al., 2020) and Exchange for Local Observations and Knowledge of the Arctic (Pulsifer et al., 2012; Johnson et al., 2021). Similarly, communities across Inuit Nunangat may not have the capacity to support translation of research licensing materials (Snook et al., 2018; Wong et al., 2020). This must be strengthened to support effective engagement in the research process (CCA, 2023; Carter et al., 2025). The NRI could contribute to translation improvements by recommending translators known to be experienced with research, along with specific terminology related to project contexts. It is also important to seek translators who work in the appropriate local dialect of Inuktitut (Carter et al., 2025), as this can greatly enhance the relevance of translated materials. However, the researcher is also responsible for assuring accuracy of translations through:

Use of plain-language English or French for easier translation into Inuktitut;

Efforts to seek NRI and community guidance on skilled interpreters who are comfortable working with research terminology relevant to the specific project;

Work with interpreters to ensure concepts are clear and understandable, so that underlying meanings are effectively conveyed (and not just literal translation, which often doesn't make sense in Inuktitut); and

Allotment of enough time and funding dedicated to effective translation.

Improving Research Reporting

Research reporting is regarded as the final stage of a research project. It is critical for researchers to follow up with RLR organizations when reporting their findings (Polidoro et al., 2024; Carter et al., 2025). Currently, researchers are required to submit an annual report to the NRI of their findings and progress and are also expected to disseminate results to the community. However, RLR organizations indicated in survey responses that they do not always receive these reports (Fig. 20). Despite significant emphasis on research reporting over the past decade or more (ITK, 2018a, b; Pedersen et al., 2020; Polidoro et al., 2024), RLR organizations still feel there is insufficient engagement between research groups and communities, and concerns remain about researchers not sharing their findings with communities (Fig. 20; NRI, 2021; Polidoro et al., 2024).

To maintain community relationships after the completion of a research project, it is important to maintain contact with the community and share results. Indigenous community organizations, such as the Aqqiumavvik Arviat Wellness Society (Carter et al., 2025), Gwich'in Tribal Council (2011), and Ikaarvik (Pedersen et al., 2020), among others, recommend that researchers return to the community to present findings in a culturally relevant manner. University-based researchers tend to favour the use of academic reporting methods, like journal articles and conference presentations (Polidoro et al., 2024). However, it is necessary for researchers to respond to the concerns expressed by RLR organizations and adopt more community-specific reporting methods, such as posters or community presentations (ITK and NRI, 2007; Henri et al., 2020; Polidoro et al., 2024). Other creative and community-engaged approaches to celebrating completed research and sharing results include hosting a community event or feast, presenting in schools, and radio shows (Snow et al., 2016; Henri et al., 2020; Pedersen et al., 2020; NRI, 2021; Ljubicic et al., 2022; Carter et al., 2025).

CONCLUSIONS

Research license review in Nunavut is essential for engaging with, and consulting communities (including local and regional organizations) in planning and reporting on research projects. To better understand community experiences with RLR, and to help enhance current licensing practices in Nunavut, it was important to understand organizational volume of review requests received, current review protocols and practices, opportunities and challenges associated with RLR, and recommendations for improvement. Through sharing their experiences, RLR organizations also identified strategies to support the NRI's research licensing practices, and opportunities for researchers to update their applications based on community needs and priorities. Improvements in

TABLE 2: Recommendations for Research License Review Organizations, the Nunavut Research Institute, and those conducting research in Nunavut, to improve license review processes

Recommendation	Potential Impact
<i>What can Research License Review organizations do?</i>	
Establish quarterly deadlines to review applications	<ul style="list-style-type: none"> • Helps alleviate review burden throughout the year (summer vs winter) • Encourages researchers to submit applications well ahead of field season • Creates less pressure on review organizations to complete a license review in a short period of time (especially in high volume seasons)
Coordinate regularly scheduled meetings with the Nunavut Research Institute (NRI)/ researchers	<ul style="list-style-type: none"> • Improves communications with NRI and researchers to gain clarification on applications as needed • Increases researcher accountability through communicating directly with RLR organizations
<i>What can the Nunavut Research Institute do?</i>	
With research license review organizations, co-develop a summary outlining expectations for reviewers	<ul style="list-style-type: none"> • Contributes to a shared understanding of expectations for reviewers/the review process between reviewers and the NRI
With research license review organizations, co-develop training resources and guidelines for reviewers	<ul style="list-style-type: none"> • Provides support to RLR organization staff to complete a thorough review
Implement training for researchers and reviewers to use Isirvik research portal, and the application process	<ul style="list-style-type: none"> • Raises awareness about Isirvik research portal to increase the number and type of groups accessing it • Reduces duplication of research, and thus research intensity and fatigue in some communities • Creates potential opportunities to increase capacity in under-researched areas (through community involvement, training/ skills development within the projects)
Initiate consultations with legislative experts to update the Nunavut Scientists Act	<ul style="list-style-type: none"> • Amending the Scientists Act can increase the decision-making authority of community RLR organizations
<i>What can researchers do?</i>	
Incorporate plain language (ex: simplified descriptions of methods and no technical jargon)	<ul style="list-style-type: none"> • Results in greater understanding of applications and less need for RLR organizations to seek external expertise to help clarify application content • Reduces burden and expenditure of resources to ensure thorough review of license applications
Foster partnerships and meaningful relationships with communities	<ul style="list-style-type: none"> • Responds to calls from Inuit organizations (such as the National Inuit Strategy on Research (TK, 2018a for co-developed and partnered research • Leads to improved clarity and efficiency in developing and reviewing research license applications, because researchers have already worked with community partners in preparing the application • Leads to more meaningful, community-relevant projects having a positive impact, benefit communities, and build on existing capacity
Share research results with community members and organizations, and other relevant decision-makers in Nunavut	<ul style="list-style-type: none"> • Puts the results in the hands of those most affected by the research, and those positioned to make decisions on the topic (i.e. provides evidence they can use) • Improves research communication, as most reviewers do not receive project outputs (including annual license reports) from projects.

the RLR process can contribute to efforts to enhance Inuit self-determination in research.

Using a survey, we identified organizational processes in RLR organizations that participated in the study. The concerns expressed by our respondents are indicative of systemic challenges in how research is conducted in Nunavut in relation to community engagement, consultation, and reporting. Reflecting on our results, we identified several opportunities for researchers, reviewers, and the NRI to help streamline reviewing processes, increase researcher accountability, and strengthen communications (Table 2). These recommendations aim to enhance research conduct, support Inuit self-determination in research, and align with the NISR implementation plan (ITK, 2018b).

What Organizations Could Do

To alleviate the burden of review requests throughout the year, RLR organizations can work in consultation with the NRI to establish regularly scheduled review deadlines (quarterly, monthly, etc). This can benefit RLR organizations because it can help them plan accordingly. They can predict the exact date they will receive applications, which will help them anticipate their deadline to review. In addition, specific review dates will ensure researchers submit their applications well in advance of their research and travel dates to allow time for review completion (Table 2). These efforts contribute to the development and operation of Inuit-led review processes (NISR action 2.2). We also

recommend that RLR organizations schedule meetings with the NRI and researchers as needed to strengthen communications between parties and gain clarification on applications. Additionally, improved coordination between the NRI and RLR organizations can also facilitate researcher accountability, as both parties can coordinate on the approval and review of their applications (Table 2).

What the Nunavut Research Institute Could Do

To support RLR organizations, the NRI can collaborate with RLR organizations directly to co-develop training resources and guidelines for reviewers, outlining expectations and developing checklists to conduct a thorough review (Table 2). Through this training, the NRI can promote and share resources for the Isirvik Research Portal as a tool to identify the research landscape in Nunavut (Polidoro et al., 2024) and reduce research duplication. The reviewer guidelines can resemble the current guidelines the NRI established for researchers (NRI, 2021). This will help RLR organizations better understand what is expected of them in the decision-making process of RLR. The implementation of training resources and materials directly supports NISR Goal 1.2.3, to “develop accredited research training for Inuit including capacity building tools and guidelines for research methodologies, evaluation” (ITK 2018b:8).

One key pillar of the NISR is to advance Inuit governance in research (ITK, 2018a,b), where objectives include the reform of research-related legislation and policies impacting Inuit Nunangat. To help reach this objective, the NRI can initiate consultations with key individuals (policy analysts) to begin a legislative review of Nunavut’s *Scientists Act* to consider updating and clarifying requirements and standards for Inuit engagement in the licensing process. If changes are made to the Act, this can help define and reinforce scopes of authority Inuit organizations and communities hold in determining whether research license approval should be granted (along with power to reject applications or withhold approval until all conditions are met).

What Researchers Could Do

Recommendations for researchers amplify existing calls for researchers to improve ethical research practices, community engagement, and results reporting (ITK, 2018a, b; Truth and

Reconciliation Commission of Canada, 2015; Wong et al., 2020; Itchuaqiyag et al., 2023; Carter et al., 2025). We recommend that researchers use only plain language in their research license applications. Although plain-language summaries are required as part of the NRI application (NRI, 2021), our results indicate a need for less technical jargon throughout all sections of a license application (Fig. 21). This will reduce the RLR burden and

expenditure of resources needed to bring in experts to help clarify applications.

NISR Action 2.6.1 calls for “Community engagement to inform the development of community-based research review processes” (ITK, 2018b: 12). Our recommendations echo those of others emphasizing the importance of researchers working to foster meaningful relationships and engagement in communities well in advance of submitting their research license applications (Gearheard and Shirley, 2007; Pedersen et al., 2020; Carter et al., 2025). By developing strong, trusting, mutually beneficial research relationships, RLR organizations will already have familiarity with the researcher, know the researcher’s context and values, and will have developed the rapport needed for communication and collective decision making (Table 2).

Working to improve the efficiency, transparency, and coordination of RLR processes contributes to ongoing efforts to increase the positive impacts of research throughout Inuit Nunangat (Polidoro et al., 2024) and enhance Inuit self-determination in research (ITK and NRI, 2007; ITK, 2018a; NRI, 2021). This research directly responds to the NISR Calls to Action to create enhanced community review processes and develop a database to increase Inuit access to research information (ITK, 2018a, b). Through our exploration of RLR experiences, we gained a baseline understanding of reviewers’ practices. However, more research is required to understand the nuances of each organization, and the similarities and differences of their individual review processes. By continuing to explore and refine RLR processes, we can ensure research within Inuit Nunangat is not only more effective and inclusive, but also reflective of Inuit values and priorities.

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REFERENCES

- Aqqiumavvik Society. 2024. Aajiiqatigiingniq: An Inuit research methodology.
<https://www.aqqiumavvik.com/aajiiqatigiingniq-research-methodol>
- Arctic Council Secretariat. 2017. Telecommunications infrastructure in the Arctic: A circumpolar assessment.
<https://oaarchive.arctic-council.org/server/api/core/bitstreams/08f2791c-5157-48f2-a340-917d1ec3cfd6/content>
- ArcticNet. 2025. Call for proposals.
<https://arcticnet.ca/call-for-proposals/>
- Aurora Research Institute. 2019. Doing research in the Northwest Territories: A guide for researchers. Inuvik: Aurora Research Institute.
- Bree, R., and Gallagher, G. 2016. Using Microsoft Excel to code and thematically analyse qualitative data: A simple, cost-effective approach. *All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J)* 8(2):2811–2814.
<https://ojs.aishe.org/index.php/aishe-j/article/view/281>
- Brunet, N., Hickey, H., and Humphries, M. 2016. Local participation and partnership development in Canada’s Arctic research: Challenges and opportunities in an age of empowerment and self-determination. *Polar Record* 52(3):345–359.
<https://doi.org/10.1017/S003224741500090X>
- Burgard, T., Bošnjak, M., and Wedderhoff, N. 2020. Response rates in online surveys with affective disorder participants. *Zeitschrift Für Psychologie* 228(1):14–24.
<https://doi.org/10.1027/2151-2604/a000394>
- Cadman, R., Snook, J., and Bailey, M. 2022. Ten years of Inuit co-management: Advancing research, resilience, and capacity in Nunatsiavut through fishery governance. *Regional Environmental Change* 22(127):1–15.
<https://doi.org/10.1007/s10113-022-01983-3>
- CCA (Council of Canadian Academies). 2023. Northern research leadership and equity, expert panel on the future of Arctic and northern research in Canada. Ottawa.
<https://www.cca-reports.ca/reports/the-future-of-arctic-and-northern-research-in-canada/>
- Carter, N., Dawson, J., Simonee, N., Tagalik, S., and Ljubicic, G. 2019. Lessons learned through research partnership and capacity enhancement in Inuit Nunangat. *Arctic* 72(4):381–403.
<https://doi.org/10.14430/arctic69507>
- Carter, N., Buttle, C., Sinclair, R., Paquette, E., and Ljubicic, G. 2023. Results of a community survey on environmental forecasting uses and needs in Nunavut. Hamilton and Arviat: McMaster University and Aqqiumavvik Society.
<https://straightupnorth.ca/community-wwic-uses-and-needs/>
- Carter, N., Tagalik, S., and Ljubicic, G. 2025. Applying the Aajiiqatigiingniq research methodology: Approaches and lessons learned through collaborative survey development and analysis. *Arctic Science* 11:1–33.
<https://doi.org/10.1139/as-2023-0057>
- Castleden, H., Morgan, V.S., and Lamb, C. 2012. “I spent the first year drinking tea”: Exploring Canadian university researchers’ perspectives on community-based participatory research involving Indigenous peoples. *The Canadian Geographer* 56(2):160–179.
<https://onlinelibrary.wiley.com/doi/10.1111/j.1541-0064.2012.00432.x>
- Coughlan, M., Cronin, P., and Ryan, F. 2009. Survey research: Processes and limitation. *International Journal of Therapy & Rehabilitation* 16(1):9–15.
<https://doi.org/10.12968/ijtr.2009.16.1.37935>
- Cram, F., Chilisa, B., and Mertens, D.M. 2013. The journey begins. In: Mertens, D.M., Cram, F., Chilisa, B., eds. *Indigenous pathways into social research: Voices of a new generation*. New York: Leaf Coast Press.11–40.
- Cushman, J., Kelly, M.R., Fusco-Rollins, M., and Faulkner, R. 2017. Resource review—Using Qualtrics Core XM for surveying youth. *Journal of Youth Development* 16(1):1–7.
<https://doi.org/10.5195/jyd.2021.886>
- Dunn, K. 2010. Interviewing. In: Hay, I., ed. *Qualitative research methods in human geography*. Oxford: Oxford University Press. 101–138.
- Etikan, I., Abubakar Musa, S., and Alkassim, R.S. 2015. Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics* 5(1):1–4.
<https://doi.org/10.11648/j.ajtas.20160501.11>
- Fisheries Act 1985. R.S.C., 1985, c. F-14.
<https://laws-lois.justice.gc.ca/eng/acts/f-14/>
- Friese, S., Soratto, J., and Pires, D. 2018. Carrying out a computer-aided thematic content analysis with ATLAS.ti. Göttingen: Max Planck Institute for the study of Religious and Ethnic Diversity. Working Paper 18-02.
https://pure.mpg.de/rest/items/item_2582914/component/file_2582912/content
- Gearheard, S., and Shirley, J. 2007. Challenges in community-research relationships: Learning from natural science in Nunavut. *Arctic* 60(1):62–74.
<https://doi.org/10.14430/arctic266>

- Government of Canada. 2016. Pathfinders and passageways: The exploration of Canada.
<https://www.bac-lac.gc.ca/eng/discover/explorationsettlement/pathfinders-passageways/Pages/arctic-and-more.aspx#ex>
- . 2024. Indigenous capacity support program.
<https://www.canada.ca/content/dam/iaac-acei/documents/public-participation/indigenous-capacity-support-program/Indigenous-Capacity-Support-Program-Brochure.pdf>
- Government of Nunavut. 2003. Guidelines for applicants and holders of Nunavut Territory archaeology and palaeontology permits.
https://www.gov.nu.ca/sites/default/files/forms/2022-01/Guide_English.pdf
- Governments of Nunavut, Northwest Territories, and Yukon. 2016. A pan-northern approach to science.
<https://emrlibrary.gov.yk.ca/eco/pan-northern-approach-to-science-2016.pdf>
- GTC (Gwich'in Tribal Council). 2011. Conducting traditional knowledge research in the Gwich'in Settlement Area: A guide for researchers.
https://nwtsp.or.ca/sites/default/files/2011_tk_research_policy_gwich-in-social-and-cultural-institute_copy.pdf
- Healey, G., and Tagak., A. 2014. Piliriqatigiinniq “working in a collaborative way for the common good”: A perspective on the space where health research methodology and Inuit epistemology come together. *International Journal of Critical Indigenous Studies* 7(1):1–14.
<https://doi.org/10.5204/ijcis.v7i1.117>
- Held, M.B.E. 2020. Research ethics in decolonizing research with Inuit communities in Nunavut: The challenge of translating knowledge into action. *International Journal of Qualitative Methods* 19:1–7.
<https://doi.org/10.1177/1609406920949803>
- Henri, D., Carter, N.A., Irkok, A., Nipisar, S., Emiktaut, L., Saviakjuk, B., Salliq Project Management Committee, et al. 2020. Qanuq ukua kanguit sunialiqpitigu? (What should we do with all of these geese?): Collaborative research to support wildlife co-management and Inuit self-determination. *Arctic Science* 6(3):173–207
<https://doi.org/10.1139/as-2019-0015>
- Holm, L., Grenoble, L.A., and Virginia, R.A. 2012. A praxis for ethical research and scientific conduct in Greenland. *Études/Inuit/Studies* 35(1-2):187–200.
<https://doi.org/10.7202/1012841ar>
- Huxley, K. 2020. Data cleaning. In: Atkinson, P., Delamont, S., Cernat, A., Sakshaug, J.W., and Williams, R.A., eds. *Thousand Oakes: SAGE Research Methods Foundations*.
<https://doi.org/10.4135/9781526421036842861>
- Indigenous Peoples Council on Biocolonialism. 2000. *Indigenous Research Protection Act*. <http://www.ipcb.org/publications/policy/files/irpa.html>
- Inuit Circumpolar Council. 2022. Circumpolar Inuit protocols for equitable and ethical engagement.
<https://iccalaska.org/wp-icc/wp-content/uploads/2022/06/EEE-Protocols-LR-1.pdf>
- ITK (Inuit Tapiriit Kanatami). 2018a. National Inuit strategy on research. Ottawa: ITK.
<https://www.itk.ca/wp-content/uploads/2020/10/ITK-National-Inuit-Strategy-on-Research.pdf>
- . 2018b. National Inuit strategy on research-implementation plan. Ottawa: ITK.
<https://www.itk.ca/national-inuit-strategy-on-research-implementation-plan/>
- . 2025. Funding resources: General.
<https://www.itk.ca/projects/nuluaq-mapping-project/canadian-inuit-hunger-resources/funding-resources/>
- Isirvik. 2025. Isirvik Nunavut research portal.
<https://isirvik.ca/index.html>
- ITK and NRI (Inuit Tapiriit Kanatami and Nunavut Research Institute). 2007. Negotiating research relationships with Inuit communities: A guide for researchers. Nickels, S., Shirley, J., and Laidler, G., eds. Ottawa and Iqaluit: ITK & NRI.
- Itchuaqiyaaq, C.U., Lindgren, C.A., and Kramer, C.Q. 2023. Decolonizing community-engaged research: Designing CER with cultural humility as a foundational value. *Communication Design Quarterly* 11(3):12–20.
<https://doi.org/10.1145/3592367.3592369>
- Johnson, N., Druckenmiller, M.L., Danielsen, F., and Pulsifer, P.L. 2021. The use of digital platforms for community-based monitoring. *BioScience* 71(5):452–466.
<https://doi.org/10.1093/biosci/biaa162>
- Jull, J., King, A., Graham, I.D., Morton Ninomiya, M.E., Jacklin, K., Moody-Corbett, P., and Moore, J. 2020. A principled approach to research conducted with Inuit, Métis, and First Nations People: Promoting engagement inspired by the CIHR guidelines for health research involving Aboriginal People (2007–2010). *International Indigenous Policy Journal* 11(2).
<https://doi.org/10.18584/iipj.2020.11.2.10635>
- Lavoie, J., Stoor, J.P., Cueva, K., Healey Akearok, G., Rink, E., Viskum Lytken Larsen, C., and Gladun, E. 2022. Indigenous engagement in health research in circumpolar countries: An analysis of existing ethical guidelines. *The International Indigenous Policy Journal* 13(1).
<https://doi.org/10.18584/iipj.2022.13.1.10928>

- Ljubicic, G.J., Mearns, R., Okpakok, S., and Robertson, S. 2022. Nunami iliharniq (Learning from the land): Reflecting on relational accountability in land-based learning and cross-cultural research in Uq̄suqtuuq (Gjoa Haven, Nunavut). *Arctic Science* 8(1):252–291. <https://doi.org/10.1139/as-2020-0059>
- Loeb, S., Dynarski, S., McFarland, D., Morris, P., Reardon, S., and Reber, S. 2017. *Descriptive analysis in education: A guide for researchers*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. <https://files.eric.ed.gov/fulltext/ED573325.pdf>
- Macdonald, J. 2018. Stories and representation: Two centuries of narrating Armiturmiut history. In: MacDonald, J., and Wachowich, N., eds. *The hand's measure*. Iqaluit: Nunavut Arctic College Media. 44–81.
- Marley, T.L. 2019. Indigenous data sovereignty: University institutional review board policies and guidelines and research with American Indian and Alaska Native communities. *The American Behavioral Scientist* 63(6):722–742. <https://doi.org/10.1177/0002764218799130>
- McComber, L. 2010. Eleven years later: Inuit leadership and governance in Nunavut. http://www.cms.fss.ulaval.ca/recherche/upload/cura/fichiers/mccomber_ceiisc201_01.pdf
- Native American Centre for Excellence Substance Abuse Program. n.d. Steps for conducting research and evaluation in Native communities. U.S. Department of Health and Human Services. <https://www.samhsa.gov/sites/default/files/nace-steps-conducting-research-evaluation-native-communities.pdf>
- Nickels, S., and Knotsch, C. 2015. Inuit perspectives on research ethics: The work of Inuit Nipingit. *Études Inuit Studies* 35(1-2):57–81. <https://doi.org/10.7202/1012835ar>
- NRI (Nunavut Research Institute). 2021. Obtaining a research license under *Nunavut's Scientists Act*: A guide for applicants. Nunavut Arctic College. <https://www.nri.nu.ca/news/nunavut-research-license-applicationguidelines>
- . 2025. Obtaining a research license under *Nunavut's Scientists Act*: A guide for applicants. https://www.nri.nu.ca/sites/default/files/License%20Application%20Guidleines_May2025_2.pdf
- Nunavut Land Claims Agreement Act. 1993. S.C. 1993, c. 29. <https://laws.justice.gc.ca/eng/acts/N-28.7/FullText.html>
- NWMB (Nunavut Wildlife Management Board). n.d. Home. <https://www.nwmb.com/en/>
- Ogden, A.E., Schmidt, M., van Dijken, B., and Kinnear, L. 2016. Science in the Yukon: Advancing a vision for evidence-based decision making. *Arctic* 69(2):210–221. <https://doi.org/10.14430/arctic4571>
- Palinkas, L.A., Horwitz, S.A, Green, C.A, Wisdom, J.P., Duan, N., and Hoagwood, K. 2015. Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health and Mental Health Services Research* 42(5):533–544. <https://doi.org/10.1007/s10488-013-0528-y>
- Panel on Research Ethics. 2022. TCPS 2: CORE-2022 Course on research ethics. <http://tcps2core.ca/welcome>
- Pedersen, C., Otokiak, M., Koonoo, I., Milton, J., Maktar, E., Anaviapik, A., Milton, et al. 2020. SciQ: An invitation and recommendations to combine science and Inuit Qaujimagatuqangit for meaningful engagement of Inuit communities in research. *Arctic Science* 6(3):326–339. <https://doi.org/10.1139/as-2020-0015>
- Perrin, A., Ljubicic, G., and Ogden, A. 2021. Northern research policy contributions to Canadian Arctic sustainability. *Sustainability* 13(21): 12035. <https://doi.org/10.3390/su132112035>
- Pigford, A., Darlmg, S., and Hickey, G. 2018. The need to better unpack the transaction costs associated with northern research in Canada. *Arctic Yearbook* 491.
- Polidoro, A. 2022. What is happening where? An evaluation of social science research trends in Nunavut (2004–2019). M.A. thesis, McMaster University, Hamilton, Ontario.
- Polidoro, A., Perrin, A., Buttle, C., Sinclair, R., Ljubicic, G., and Shirley, S. 2022. Research trends in Nunavut based on scientific research licenses (2004–2019). McMaster University, Carleton University, and Nunavut Research Institute. https://straightupnorth.ca/wp-content/uploads/2022/06/nri-regional-report_en_final.pdf
- Polidoro, A., Carter, N., Ljubicic, G., Perrin, A., and Shirley, J. 2024. What is happening where? An evaluation of social sciences research trends in Nunavut (2004–2019). *Facets* 9:1–20. <https://doi.org/10.1139/facets-2023-0087>
- Ponto, J. 2015. Understanding and evaluating survey research. *Journal of Advanced Practical Oncology* 6(2):168–171. <https://doi.org/10.6004/jadpro.2015.6.2.9>

- Pulsifer, P.L., Gearheard, S., Huntington, H.P., Parsons, M.A., McNeave, C., and McCann, H. 2012. The role of data management in engaging communities in Arctic research: Overview of the exchange for local observations and knowledge of the Arctic (ELOKA). *Polar Science* 35(3-4):271–290.
<https://doi.org/10.1080/1088937X.2012.708364>
- Prno, J., Pickard, M., and Kaiyogana, J. 2021. Effective community engagement during the environmental assessment of a mining project in the Canadian Arctic. *Environmental Management* 67:1000–1015.
<https://doi.org/10.1007/s00267-021-01426-5>
- QHRC (Qaujigiartiit Health Research Centre). 2019. Health research ethics checklist.
<https://www.qaujigiartiit.ca/wp-content/uploads/2019/09/Ethics-Review-Checklist-OCT-2019.pdf>
- . 2025. Our research model: Piliriqatigiinniq partnership model for community health research.
<https://www.qhrc.ca/our-approach/our-research-model/>
- Qualtrics. 2025a. Display logic.
<https://www.qualtrics.com/support/survey-platform/survey-module/question-options/display-logic/>
- . 2025b. Skip logic.
<https://www.qualtrics.com/support/survey-platform/survey-module/question-options/skip-logic/>
- Riddell, J.K., Salamanca, A., Pepler, D.J., Cardinal, S., and McIvor, O. 2017. Laying the groundwork: A practical guide for ethical research with Indigenous communities. *The International Indigenous Policy Journal* 8(2).
<https://doi.org/10.18584/iipj.2017.8.2.6>
- Rink, E., and Reimer, G.A. 2019. A toolkit for community based participatory research in Greenland.
https://uni.gl/media/8004652/greeland_cbpr_toolkit_november2019.pdf
- Scientists Act. 1988. RSNWT (Nu) 1988, c S-4.
<https://www.nunavutlegislation.ca/en/consolidated-law/scientists-act-consolidation>
- Snook, J., Cunsolo, A., and Dale, A. 2018. Co-management led research and sharing space on the pathway to Inuit self-determination in research. *Northern Public Affairs*:52–56.
https://www.researchgate.net/profile/Jamie-Snook/publication/328808144_Co-management_led_research_and_sharing_space_on_the_pathway_to_Inuit_self-determination_in_research/links/5be43190a6fdcc3a8dc6ed49/Co-management-led-research-and-sharing-space-on-the-pathway-to-Inuit-self-determination-in-research.pdf
- Snow, K.C., Hays, D.G., Caliwagan, G., Ford, D.J., Mariotti, D., Mwendwa, J.M., and Scott, W. E. 2016. Guiding principles for Indigenous research practices. *Action Research* 14(4):357–375.
<https://doi.org/10.1177/1476750315622542>
- Taherdoost, H. 2022. Data collection methods and tools for research: A step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management (IJARM)* 2021 10(1):10–38.
<https://hal.science/hal-03741847/document>
- Truth and Reconciliation Commission of Canada. 2015. Calls to action. Winnipeg: The commission.
https://www2.gov.bc.ca/assets/gov/british-columbians-our-governments/indigenous-people/aboriginal-peoples-documents/calls_to_action_english2.pdf
- University of Wisconsin-Whitewater. n.d. Best practices in survey design.
<https://www.uww.edu/documents/ir/Survey%20Research/Best%20Practices%20in%20Survey%20Design.pdf>
- Wildlife Act. 2003. SNu 2003, chapter 26.
<https://www.nunavutlegislation.ca/en/media/1924>
- Willis, K. 2018. The impact of the fly-in, fly-out workforce. Edmonton: University of Alberta Faculty of Science.
<https://www.ualberta.ca/science/news/2018/september/fly-in-fly-out-workforce-study.html>
- Wong, C., Ballegooyen, K., Ignace, L., Johnson, M.J., Swanson, H. 2020. Towards reconciliation: 10 calls to action to natural scientists working in Canada. *Facets* 5(1):769–783.
<https://doi.org/10.1139/facets-2020-0005>