CIHR IRSC

Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

Project Grant Competition
MOCK REVIEW TOOLKIT
College of Reviewers, CIHR

Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

Canada

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INTRODUCTION

PEER REVIEW AT CIHR

Please note, while the College will continually update the Toolkit, information provided through the CIHR website will always be the most up-to-date and should be used in cases where information differs from that provided in the Toolkit

Peer review refers to the process used by CIHR to review applications submitted for funding. Applications are assigned to Reviewers who have, individually or collectively, the required experience and expertise to assess the quality and the potential impact of the proposed research and the research-related activities, within the context of the funding opportunity objectives. As applicable, CIHR invites experts with various perspectives from the health research community (e.g. health researchers, health related professionals, policy makers, community leaders, patients, citizens, etc.) to become members of a Peer Review Committee (PRC) to:

- evaluate applications submitted for a particular funding opportunity;
- rate them on their merit using a defined set of evaluation criteria so they can be ranked by CIHR in order of priority for funding; and,
- make recommendations on the budget needed to support the application.[1]

PRCs make recommendations for funding to CIHR and partners, who in turn make the final funding decisions.

For more information on Peer Review at CIHR, please visit our website.

Types of Peer Review Processes

Committees typically run using two fundamental review processes: an in-person/teleconference meeting or a virtual review.[2]

The **in-person meeting** is typical of the Project Grant competition – Reviewers are assigned applications to review at-home before they convene to discuss and rate the applications via a face-to-face meeting, teleconference, or video conference.

The **virtual review** is typical of the Doctoral Awards competition – Reviewers complete an electronic, at home review only. Virtual Reviewers do not discuss applications unless there are sufficient discrepancies in the Reviewers' scores.

1. https://cihr-irsc.gc.ca/e/39380.html
2. https://cihr-irsc.gc.ca/e/4656.html#2.2

Adjudication Models

Committees also use a variety of adjudication models to evaluate applications, with each funding opportunity usually incorporating more than one.

1. **Relevance Review** is used when it is important for applications to be relevant to, or in alignment with, targeted research components of the Funding Opportunity (FO). The relevance review process typically takes place prior to the peer review process. Applications will be assessed using specific criteria and then those deemed relevant will proceed to the next step.

2. **Scientific review** is the standard review mechanism for assessing the scientific excellence of proposals submitted to a competition. It uses a clear set of evaluation criteria to measure key aspects of the proposals in relation to the main scope and objectives of the FO.

3. **Merit review** is a type of review that uses separate scores or ratings for potential impact and scientific merit. In general, the potential impact score of an application reflects the importance of the project to the knowledge-users and the likelihood that it will have a substantive and sustainable impact on health outcomes, practice, programs and/or policy in the study context.[3]

4. **Iterative review** is a process used in the Project Grant competition to review applications with a central focus on carrying out ethical and culturally competent research involving Indigenous peoples, with the intent to promote health through research that is in keeping with Indigenous values and traditions. These applications may be reviewed by the Indigenous Health Research (IHR) Committee. The IHR Committee may deem an application eligible for the Iterative Peer Review Process. The objective of the Iterative Peer Review Process is to allow applicants whose applications have been deemed excellent, the opportunity to provide minor clarifications that would see the application improved to become outstanding.[4]

Committee Members

A CIHR review committee typically consists of Reviewers and usually a Chair and Scientific Officer, depending on the needs of the adjudication model. Individual committee members are selected for their knowledge, expertise and/or experience. PRC membership as a whole considers one or more of the following aspects:

- the need to cover the full range of research areas, relevant methodologies, key populations and experience for which the committee is responsible;
- the necessity for reviewing capability in both English and French so that applications in either official language can be evaluated by the committee; and,
- the need for regional representation and representation by gender proportionate to membership in the Canadian health research community.[5]

For more information regarding the Project Grant Competition, please visit our website.

3. https://cihr-irsc.gc.ca/e/4656.html#2.3
4. https://cihr-irsc.gc.ca/e/49564.html#4.2.4
5. https://cihr-irsc.gc.ca/e/39380.html

OVERVIEW OF THE MOCK REVIEW TOOLKIT

Purpose

Please note, that while this Toolkit focuses on the Peer Review process used in the Project Grant Competition, CIHR recognizes the need for additional resources for those who review for other funding programs at CIHR. Additional resources will be developed in the future to meet these needs.

The Toolkit was designed to raise awareness of the peer review process at CIHR and help individuals improve their peer review skills and grantsmanship. The Mock Review Toolkit contains the necessary resources to simulate the CIHR Project Grant Peer Review Process, including three suggested simulation models - a Light, Full and Internal simulation model – which can be adapted as required. In this regard, the Toolkit can stand alone as a peer review resource or be used as guide to help users run their own mock review simulation or internal peer review process. We strongly recommend that interested parties read the Toolkit in its entirety prior to running any simulation.

Resources

Unless otherwise indicated, such as the Conflict of Interest and Confidentiality Agreement, resources referenced throughout the Toolkit are optional templates that serve as suggestions to help support Facilitators during the process.

The Toolkit collates all necessary Project Competition peer review resources, as well as additional supporting materials, to allow users to conduct a mock review simulation. Additional supportive materials, such as sample emails or templates, can be found throughout the Toolkit and are clearly labelled by an accompanying icon, as shown below for the Facilitator Training Presentation. You can also find a comprehensive list of all supportive materials in the *list of resources* section, which provides users with a single, easy to access location to quickly identify and locate necessary resources. Resources include :

- template spreadsheets to plan logistics, including Reviewer and application assignments and tracking of timelines and deadlines
- template invitation emails and promotional materials for the mock review simulation
- a conflict of interest and confidentiality agreement for both facilitators and participants
- pre-simulation training materials and presentations for participants
- all materials necessary to run a Committee meeting, including support documents such as:
    - review template
    - SO note template
    - mock applications, mock reviews & mock SO notes

Intended Audience

This Mock Review Toolkit is designed for Research Institutions, CIHR Institutes, partners and others that are interested in facilitating a Committee meeting to improve understanding of how the peer review process at CIHR works. **This Toolkit is appropriate for any researchers who are looking to learn more about CIHR's peer review process – irrespective of their career stage – including Trainees (pre- and postdoctoral) and new faculty, as well as content experts and knowledge holders and users.**

Facilitator(s):

The Facilitator(s) acts as an administrator and is responsible for designing and delivering the simulation from start to finish, including: planning and organizing the simulation, coordinating applications and Reviewers, ensuring that all participants receive necessary pre-simulation training and/or materials, running the Committee meeting proper, and ensuring feedback is collected and collated. The Facilitator(s) can also take on the role of Chair or Scientific Officer if no other person has been appointed to the role(s).

Participants

Reviewers: Reviewers are the primary participant in the mock simulation. Reviewers are assigned applications to review, score, and present at the face-to-face meeting. Reviewers will also participate in general committee discussion and provide scores for all other applications.

Chair: The committee Chair has the role of moderator during the Committee meeting. It is the Chair's responsibility to ensure that the review committee functions smoothly, effectively, and objectively. The Chair maintains a positive, constructive, fair-minded environment, in which research proposals are evaluated.

Scientific Officer: The Scientific Officer (SO) is responsible for supporting the Chair in his/her role during the Committee meeting. The SO take official notes of the committee discussions for each application. The role of SO can also be fulfilled by either the Facilitator or a Reviewer who can switch between roles depending on the application being reviewed.

MOCK REVIEW SIMULATION AT A GLANCE

The graphic below provides a high-level overview of how to select, plan, train for, and run one of the three types of mock simulation covered by the Toolkit.


LIGHT SIMULATION
FULL SIMULATION
INTERNAL SIMULATION
PRE-SIMULATION TRAINING
• At-Home Learning
• (*Optional*) Pre-Simulation Training Session
• (*Optional*) Drop-In Q&A
WEEK 5
WEEK 7
WEEK 8
RUNNING THE SIMULATION
Assigning Applications and At-Home Reviews
• (*Optional*) Ability to Review Task
• Assign Applications to Reviewers
• Send Applications to Reviewers
WEEK 6
WEEK 7-8
WEEK 8-10
Committee Meeting
• Committee Meeting Agenda and Confirmation
• Run the Committee Meeting
WEEK 7
WEEK 9-10
WEEK 11-12
POST-SIMULATION
• Debrief and Post-Simulation Survey
• Feedback to Project Grant applicants – Internal Simulations
WEEK 8
WEEK 10-11
WEEK 13-15

SELECTING A SIMULATION

TASKS

- Questionnaire – Goals, Audience, and Scope of Simulation
- Select a Simulation Type

WEEK 1	WEEK 1	WEEK 1
LIGHT SIMULATION	FULL SIMULATION	INTERNAL SIMULATION

Use the questionnaire below to define the goals, audience and scope of your simulation and, based on your answers, use the proceeding descriptions of each simulation type to select a simulation.

QUESTIONNAIRE – GOALS, AUDIENCE, AND SCOPE OF SIMULATION

What are your Goals?

- A quick overview of peer review, including a short mock Committee meeting as part of a workshop?
  If so, consider the **Light Simulation**.
- To fully simulate the Project Grant Peer Review process, including a fully simulated committee meeting?
  If so, consider the **Full Simulation**.
- To conduct an internal review process for applications from your own Institution to improve quality?
  If so, the **Internal Simulation** is appropriate.

Who is your Audience and what is their Scope of Expertise?

- Are you planning for participants with a broad scope of expertise and would like to have Committees focused on a broad Themes.
  If so, consider the **Light Simulation**.
- Are you planning for participants with varying expertise and require flexibility in the form of multiple Committees focused on different Themes, Areas of Science or Project Mandates?
  If so, consider the **Full Simulation**.

How many mock applications can you dedicate to the committee meeting?

- Do you have fewer applications on hand, or only a limited time set aside for the Committee meeting itself?
  If so, the **Light Simulation** is more appropriate
- Are you planning to have many mock applications, and are looking to dedicate a half-day to a simulated Committee meeting?
  If so, the **Full or Internal Simulation** is more appropriate

What is your overall timeline?

- Do you have to run the simulation on a compressed timeline, or on short notice?
  If so, the **Light Simulation** might be preferable.

SELECT A SIMULATION TYPE

SIMULATION TYPE	GOALS, AUDIENCE AND DESCRIPTION	LOGISTICS
LIGHT SIMULATION	**Goal** This simulation is designed to provide a first glimpse of the peer review process at CIHR. **Audience** Can be used by a broad audience consisting of a broad scope of expertise and can accommodate the greatest number of participants. **Description** Reviewers are assigned 1-2 application(s) to review at home prior to attending the mock review meeting. At the meeting, participants will breakout into smaller Committees of 6-8 Reviewers with an experienced reviewer acting as Chair for each. Reviewers will discuss the mock applications in their respective Committees before reconvening as a larger group for a facilitated discussion focused on peer review. **Applications** Mock applications are provided through the Toolkit or provided by the Facilitator. Suggest 1-2 applications per simulation, where all participants across Committees review the same applications covering a broad Theme. Please note, these are simply suggestions for the number of committees and their scope. You may choose to alter the parameters of a simulation type as needed. For example, in the Light Simulation, each committee can instead focus on a specific Areas of Science or Project Mandates where each committee reviews a unique set of applications.	**Time Required** Total Length: 4-8 weeks Planning: ~4 weeks Reviewer preparation: ~1-2 hours (~3-4 with optional Pre-simulation Training Session) Committee meeting: 1.5-3 hours **based on 1-3 applications total for review* **Participants** 2 Facilitators 6-8 Reviewers per Committee (ideal) • *# of Reviewers and Committees depends on available Chairs* 1 Chair per Committee 1 or more Scientific Officers per Committee • *Reviewers or Facilitators may rotate the role of a Scientific Officer.*

SIMULATION TYPE	GOALS, AUDIENCE AND DESCRIPTION	LOGISTICS
FULL SIMULATION	**Goal** This simulation is designed to replicate a Project peer review process at CIHR. **Audience** Suited to trainees, postdoctoral fellows and early career researchers who would like to get hands-on peer review experience. Participant scope of expertise may be diverse. **Description** Reviewers are assigned 2-4 applications to review prior to attending the Committee meeting. Participants will convene as a Committee, where they will present, discuss, and score their assigned applications, with an experienced Reviewer acting as Chair. **Applications** Mock applications are provided through the Toolkit or provided by the Facilitator. Suggest 4-8 applications per Committee. Each application is reviewed by up to 3 Reviewers and each Reviewer reviews 2-4 applications. Application pool can be diverse across Committees covering various Themes, Areas of Science or Project committee Mandates Please note, these are simply suggestions for the number of Committees and their scope. You may choose to alter the parameters of a simulation type as needed. For example, in the Full Simulation, a single Committee can be run with a focus on a broad Themes instead.	**Time Required** **Total Length:** 9-11 weeks **Planning:** ~10 weeks **Reviewer preparation:** ~2-3 hours (4-5 hours with optional Pre-simulation Training Session) **Committee meeting:** 3-5 hours **Participants** 2 Facilitators 9 Reviewers per Committee (ideal) 1 Chair per Committee 1 or more Scientific Officers per Committee • *Reviewers or Facilitators may rotate the role of a Scientific Officer to gain experience.*

SIMULATION TYPE	GOALS, AUDIENCE AND DESCRIPTION	LOGISTICS
INTERNAL SIMULATION	**Goal** This simulation is designed to be used as an internal review process. The Facilitator would seek draft applications for an upcoming Project Grant competition from their institution for use in the simulation. **Audience** This simulation is applicable to both less experienced and highly experienced Reviewers. Participant expertise can be broad (all Themes) or narrow (a particular Area of Science) **Description** Follows same process as Full Simulation; however, both the Scientific Officer and Reviewer written comments will be provided to the applicant following the Committee meeting to improve their grant prior to submission. **Applications** Internal applications provided by own institution. Suggest 4-8 applications per Committee. Each application is reviewed by up to 3 Reviewers. Application pool can be broad (cover all Themes) or narrow (a specific Theme, Area of Science or Project Committee Mandate) depending on your planned Audience.	**Time Required** Total Length: 13-15 weeks • *Must begin a minimum of 16 weeks prior to the Project Grant deadline* Planning: ~12-14 weeks Reviewer preparation: ~3-4 hours (5-6 with optional Pre-simulation Training Session) Committee meeting: 3-5 hours **Participants** 2 Facilitators 9 Reviewers per Committee (ideal) 1 Chair per Committee. 1 or more Scientific Officer per Committee • *Reviewers may rotate the role of a Scientific Officer to gain experience.*

PLANNING THE SIMULATION

LOGISTICS PLANNING

TASKS	WEEK 1	WEEK 1	WEEK 1
• Draft High-Level Timelines • Select Location	LIGHT SIMULATION	FULL SIMULATION	INTERNAL SIMULATION

Draft High-Level Timelines

- Establish a promotion and invitation period, including a registration deadline, for potential participants.
- For the **Internal Simulation,** establish a call for internal applications, including a deadline for their submission.
- Establish deadlines for tasks that should be completed prior to the Committee meeting, which include Reviewer's declaring their conflict of interest, ability to review, and submitting their reviews.
- Identify the date and time for the Committee meeting and the Pre-Simulation Training Session (**optional**).

Select Location

Select the location for the Committee meeting and the Pre-Simulation Training Session (**optional**).

- If the Committee meeting and/or Pre-Simulation Training Session is in-person, select a location based on the number of Reviewers in the simulation.
- If the Committee meeting and/or Pre-Simulation Training Session is virtual, identify the conference platform to use (MS Teams, Zoom, etc.).

Resources

XLS

Master Planner (*Please contact the College of Reviewers for this resource*)
This document contains multiple worksheets to help Facilitators plan and run their simulation, including: example timelines, worksheets to track participants, conflicts of interest, and ability to review responses, as well as worksheets to help organize and assign applications.

INVITE FACILITATOR AND COMMITTEE EXECUTIVES

TASKS

- (*Optional*) Identify and invite Facilitator(s)
- Identify and Invite Committee Executives

(Optional) Identify and Invite Facilitator(s)

- Identify and invite the lead Facilitator for the simulation if it is someone other than yourself.
- If the Committee meeting is virtual, or you plan on having multiple Committees, consider inviting a second or third Facilitator.

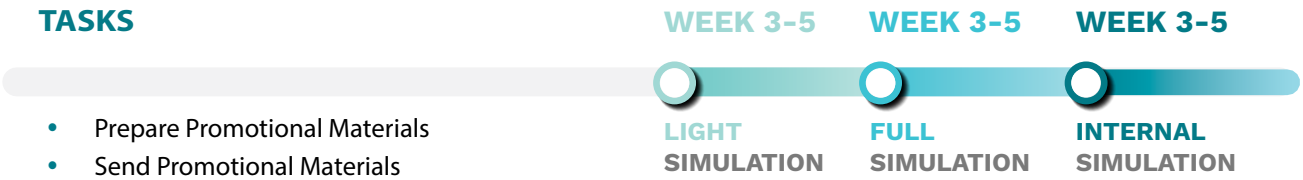
Identify and Invite Committee Executives

- Select the Chair(s) and Scientific Officer(s) based on their previous CIHR review experience.
  - The Chair should be an experienced reviewer who has participated in review for the Project Grant Competition at CIHR.
  - Scientific Officers can either be an experienced reviewer, or you can have Facilitators and/or Reviewer participants rotate through the role.
- Assign the Chair and Scientific Officer(s) to the Committee(s)
  - 1 experienced Chair, and 1-2 Scientific Officers, per Committee is suggested.

Resources

Sample Email: Invitation Committee Executives

PROMOTE MOCK REVIEW SIMULATION



Prepare Promotional Materials

- Use the Promotional Materials for Simulation sample email below to help prepare your own promotional materials to advertise the mock review simulation.
  - The promotion period should include a registration and selection process for potential Reviewers and clearly list any eligibility criteria or restrictions on participation, particularly if specific expertise is required or limited spots are available.
  - Ask potential Reviewers to indicate their expertise as part of the registration process. This will assist Facilitators in selecting applications to use in the simulation.
- For **Internal Simulations**, use the Call for Internal Applications sample email below to prepare a call for internal applications.
  - Identify how internal applications will be solicited. Who will be contacted? What are the selection criteria? What is the submission deadline? What are the constraints, if any, on Theme(s) and/or Area(s) of Science? Are there any individuals applicants would prefer not review their applications?

Send Promotional Materials

- Send promotional materials to potential mock Reviewers by email and/or advertise the simulation through a web posting.
- For **Internal Simulations**, send a call for internal applications to upcoming Project Grant applicants within your institution.
- (**Optional**) Identify and invite guest speakers for the Pre-Simulation Training Session – *see Pre-Simulation Training* for more information.

Resources

Sample Email: Promotional Materials for Simulation
You may also promote your simulation through other mediums, such as web and social media.

Sample Email: Call for Internal Applications

SELECT APPLICATIONS

TASKS

- Identify Where Applications Will be Sourced
- Select Applications

WEEK 3-5	WEEK 3-5	WEEK 5-6
LIGHT SIMULATION	FULL SIMULATION	INTERNAL SIMULATION

Identify Where Applications Will Be Sourced

- For **Light and Full Simulations**, applications can be provided by the facilitator **OR** can be chosen from a list of mock applications provided in the resources below.
- For **Internal Simulations**, applications should have been solicited during the promotional period from upcoming Project Grant applicants within your institution – see *Promote Mock Review Simulation* section.

A list of mock applications is provided below under resources. Contact *College of Reviewers for access to full mock applications. You will be required to sign a Confidentiality agreement prior to their release.*

Select Applications

Select applications in consideration of the type and scope of the simulation.

- For the **Light Simulation**, it is suggested that 1-2 applications are assigned to each Reviewer.
- For the **Full and Internal Simulations**, it is suggested that each Reviewer is assigned 2-4 applications, with up to 3 Reviewers reviewing the same application.
- Note that these are suggestions. Please take into consideration the number of participants and their scope of expertise and modify the application pool, number of committees and their scope as necessary. Please see *Select a Simulation* section for more details.

Resources

XLS

Master Planner (*Please contact the College of Reviewers for this resource*)
This resource is also listed in the *Logistics Planning* section. It is indicated here again as it contains worksheets used to organize, track and assign applications.

Resources

List of Mock Applications
We have provided a list of anonymized Mock Applications for use in the Light and Full simulations. These represent previously funded applications from the Project and Open Grant competitions across all four Pillars of Research (Biomedical, Clinical, Health Systems and Services, and Social, Cultural, Environmental and Population Health) in both French and English.

Every application includes:

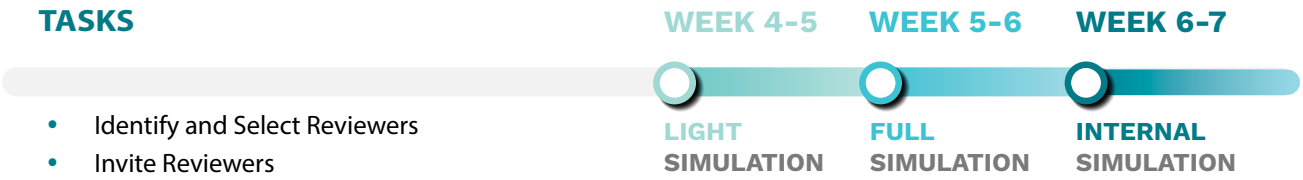
- the 10-12 page anonymized grant proposal and a section on sex and gender

Most applications include:

- the Committee (PRC) to which it was originally assigned.
- the Official Reviews and SO Notes from the original assessment as an additional resource.

The PRC denotation is meant to help Facilitators better assign applications, as well as give participants a better perspective of how an application matches to a Project Committee Mandate. The Official Reviews and SO Notes can be used as additional educational tools to provide participants with real examples of these items in practice.

SELECT AND INVITE REVIEWERS



Select Reviewers

Identify and select Reviewers who have applied or registered for the simulation. Take into account any eligibility criteria and/or space limitations.

- Be sure all potential Reviewers have provided you with their expertise. This will be particularly helpful if you do not plan on having Reviewers complete an Ability to Review task – see *Assigning Applications* section for more details.

Invite Reviewers

MANDATORY: *As part of the welcome email, include the Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers form (found below) for Reviewers to complete.*

- Send the welcome email to selected and/or registered Reviewers, which will include relevant information, such as the date, time, and location for the Committee meeting.
- For **Internal Simulations**, we recommend using this time to identify any possible conflicts between the Reviewers and the owners of the applications, both from the Reviewer and applicant's perspectives.

Resources

Sample Email: Welcome to Reviewers
Includes important information on the Committee meeting

MANDATORY: Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers Form
Must be attached to the Welcome Email to Reviewers. Facilitators MUST NOT distribute any CIHR Mock Applications to a Reviewer until said Reviewer has completed and returned a signed copy of the agreement form.

PRE-SIMULATION TRAINING

PRE-SIMULATION TRAINING MATERIALS

TASKS

- At-Home Learning
- (*Optional*) Pre-Simulation Training Session
- (*Optional*) Drop-In Q&A

The Pre-Simulation Training materials are designed to help prepare Reviewers for the mock review simulation and to provide information related to the peer review process at CIHR. The at-home learning materials should be sent as a package shortly after Reviewers receive their *welcome email*. There is also the option to include a Pre-Simulation Training Session, which is highly recommended for Reviewers participating in the Full and Internal simulations.

At-Home Learning

Reviewers should receive clear instructions as part of the Pre-Simulation Training Package (see resources below) on learning expectations, which include reading through the *Pre-Simulation Training* section of the Toolkit from page 22 (*CIHR Peer Review: From Submission to Decision*) to page 26 (*How to Review an Application*), as well as completing the Learning Modules listed below.

1. Conducting Quality Reviews (7 minutes)
2. Bias in Peer Review (30 minutes)
3. Complete one of the following modules based on your methodological expertise:
   - **a.** Introduction to Sex and Gender Considerations in Basic Science (8 min.)
   - **b.** Introduction to Sex and Gender Considerations in Clinical and Epidemiological Research (11 min.)

   If your role does not require methodological expertise (e.g., knowledge user, patient), we recommend you complete:
   Assessing Sex and Gender Integration in Peer Review (5 min.)

   Optional learning module:
   Project Grant Competition: Peer Review Process Overview (26 minutes)

Resources

Sample Email: Pre-Simulation Training Package
Informs participants to read the *Pre-Simulation Training* section of the Toolkit and refers to additional learning modules for completion.

Pre-Simulation Training Reading Materials
Must be attached to the Pre-Simulation Training Package. Includes portion of the Toolkit Reviewers must read as learning expectations.

(Optional) Pre-Simulation Training Session

During the training session, Facilitators will guide Reviewers through the Pre-Simulation Training materials using the Participant Pre-Simulation Training Presentation that can be provided upon request. This training session can be offered virtually or in-person. We encourage Facilitators to include guest speakers with significant CIHR review experience, or expertise in a specific area, such as Sex and Gender Based Analysis (SGBA), to support the presentation.

Resources

Participant Pre-Simulation Training Presentation
(*Please contact the College of Reviewers for this resource*)
This presentation was built to help prepare Reviewers for reviewing applications at home and attending the mock Committee meeting.

Pre-Simulation Training Session Agenda Template
Attach as part of the Pre-Simulation Training Package, found under *At-Home Learning*",
if an in-person training session is planned

Note, a pre-recorded Pre-Simulation Training Session presented by the College of Reviewers is also available upon request.

(Optional) Drop-In Q&A

Facilitators can also offer to host brief half-hour drop-in sessions, either virtually or in-person, for participants to ask any questions that may arise once they begin reviewing applications. These sessions can occur any time between the Pre-Simulation Training and the Committee meeting.

CIHR PEER REVIEW: FROM SUBMISSION TO DECISION

Peer Review Process[6]

The Project Grant peer review process involves the evaluation of applications by a group of reviewers who have (individually or collectively) the required experience and expertise to assess the quality and the potential impact of the proposed research as well as the research-related activities, within the context of the funding opportunity objectives. These reviewers are grouped into Peer Review Committees based on their expertise and the topics of applications submitted to these committees.

Peer Review Committees (PRCs) are responsible for:

- evaluating individual applications;
- rating each application;
- discussing applications at the face-to-face Committee meeting and voting on applications;
- recommending a budget and term to support the proposed research if the application is approved

Note, providing a budget recommendation is only included for the purposes of the Internal Simulation or if the Facilitator decides to include budget discussions as part of the simulation.

For a step-by-step walk through of the peer review process and for information about the roles and responsibilities of committee members, please consult the Peer Review Manual – Project. Applicants may wish to consult this document to better understand how reviewers will be instructed to evaluate their application(s).

Sex- and Gender-Based Analysis (SGBA) and Health Research

CIHR expects that all research applicants will include sex and gender into their research designs, methods, analysis, and interpretation, and/or dissemination of findings within their research proposal, when appropriate. SGBA is an approach that systematically examines sex-based (biological) and gender-based (socio-cultural) differences between men, women, boys, girls and gender-diverse people. The purpose of SGBA is to promote rigorous and reproducible science that is sensitive to sex and gender and therefore has the potential to expand our understanding of health determinants for all people. The SGBA section of the CIHR website contains helpful resources for applicants and peer reviewers alike, providing CIHR's definitions for sex, gender and SGBA, as well as information on applying SGBA to the development and assessment of research proposals.

Recruitment to Peer Review Committees (PRCs)

CIHR will extend invitations to members of the health research community to join specific Project Grant Peer Review Committees (PRCs), based on their area(s) of expertise. Reviewers will be recruited based on a set of selection criteria and in consultation with Committee Chairs and Scientific Officers. The Chairs also have a role in the selection of Scientific Officers.

Standing peer review committees have been established for the Project Grant competition. Committee core membership will be recruited for a term of service (typically 3 years, or 6 competitions). To maintain stability in membership, while providing a mechanism for membership renewal, a rotational system will be established for one third of the membership on a yearly basis. The membership may also be supplemented by additional members as required for a specific competition, based on the applications received and expertise needed for their review.

These terms will also address the benefits of renewing the membership so that new perspectives are continually incorporated into the peer review process.

6. https://cihr-irsc.gc.ca/e/49807.html

Application Assignments to PRCs

Applications are initially assigned to the applicant's first choice committee. Based on information provided at registration, CIHR staff review the initial committee assignments; if the application pressure is too high in a particular committee, the committee will be split in two, in consultation with the Committee Chair and the two Scientific Officers.

For the purpose of the simulation, only a single Scientific Officer is required per Committee.

Chairs and Scientific Officers are then asked to review the assignment of applications to their committee based on the committee mandate. Applications may be reassigned if they are more appropriate (or more closely aligned) to the mandate of another committee and can be better assessed by that committee. The final authority for the assignment of applications to a peer review committee rests with CIHR.

Application Assignments to Reviewers

After confirming the assignment of applications to PRCs, applications are assigned to reviewers who identify any conflicts of interest that they may have and declare their ability to review the applications, in accordance with the Conflict of Interest and Confidentiality Policy of the Federal Research Funding Organizations. The Committee Chair and Scientific Officers, along with CIHR staff, assign each application to three reviewers based on their declared level of expertise.

For the simulation, Reviewers must sign the Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers form included in the Toolkit prior to receiving their applications to review. Reviewers may also be asked to declare their Ability to Review as part of the application assignment process if warranted.

Peer Review Recruitment

The Chairs of the College of Reviewers have endorsed selection criteria for the recruitment of Committee Chairs, Scientific Officers and peer reviewers for the Project Grant competition. CIHR will recruit Chairs, Scientific Officers and reviewers based on the criteria outlined below.

Committee Chairs and Scientific Officers[7]

Significant* Peer Review Experience

- Previous experience as a grant program Committee Chair or Scientific Officer; or significant previous experience as a peer review committee member for a grant program; and
- Past peer review performance met high standards (Chairs and Scientific Officers were engaged, followed appropriate policies, fulfilled their role well).
- **Independent Investigator** status at a University or Research Institution.
- **Tri-council funding (or equivalent)** has been held within the last 5 years

**Significant experience includes participation in multiple review activities. To meet the requirement of knowledge translation applications, a Committee Chair and the Scientific Officers may be recruited using a combination of the criteria above, as appropriate.*

7. https://cihr-irsc.wgc.ca/e/49807.html

Peer Reviewers

Research Experience

- Independent Investigator status at a University or Research Institution
- At least one recent federally funded (or equivalent) peer reviewed grant as a Principal Investigator

Review Experience

- At least two peer review roles at CIHR or other recognized organization
- Completion of a training module on bias in peer review
- Completion of a training module on review quality
- Completion of learning modules on sex- and gender-based analysis in health research

Knowledge, Expertise and Lived Experience

- Expertise within CIHR's mandate

Knowledge Users will be recruited using a combination of the criteria above, as appropriate. Applications that are identified as having an integrated knowledge translation (iKT) component will be assessed by both researcher and knowledge user reviewers.

Peer Review Committee Membership Lists

Peer Review committee membership lists for Project Grant competitions are posted online approximately 60 days after the competition funding decisions have been published on the CIHR website.[8]

CIHR STANDARDS OF PRACTICE FOR PEER REVIEW

When reviewing for CIHR, all Reviewers must sign and abide by the Standards of Practice for Peer Review (SPPR). For the purpose of the mock review simulation, it is sufficient that participants simply read through and understand the expectations laid out in the SPPR by following the link at the end of this section.

CIHR seeks to achieve the highest standards of excellence and integrity in the practice and management of peer review and has put in place mechanisms to ensure that peer reviewers receive the ongoing support necessary to meet these standards.

The objective of the CIHR Standards of Practice for Peer Review agreement is to promote transparency and support review quality excellence by clearly outlining peer reviewer responsibilities. The Agreement consolidates all CIHR Peer Review Principles and Policies, providing individuals with the necessary information to participate in peer review in accordance with CIHR standards of excellence.

Competition Chairs, Scientific Officers and Reviewers will be asked to consent to the CIHR Standards of Practice for Peer Review Agreement prior to participating in peer review. Similar to the Conflict of Interest and Confidentiality Agreement, committee members who do not consent will not be able to participate in peer review for that competition.

As part of this Toolkit exercise, Facilitators, Chairs, Reviewers and all other participants should read through the Standards of Practice for Peer Review in its entirety, available on the CIHR website.

8. https://cihr-irsc.gc.ca/e/49807.html

REVIEW QUALITY ASSURANCE (RQA) CHECKLIST

The integrity of the peer review system relies on the ability of reviewers to exercise fair and rigorous judgement. The following checklist was developed as a practical tool to assist reviewers to apply the review quality criteria, which helps ensure consistent and fair reviews. Please refer to this checklist as you are writing your reviews.[9]

CRITERION	INTERPRETATION
APPROPRIATENESS **Review comments are fair, understandable, confidential and respectful.**	☐ Review respects the Conflict of Interest and Confidentiality Policy ☐ Absence of comments that suggest bias against the applicant(s) due to sex, ethnicity, age, language, career stage, institutional affiliation, or geographic location ☐ Review is original, and written in clear and understandable language ☐ Absence of comments that can be construed as sarcastic, flippant or arrogant
ROBUSTNESS **Review is thorough, complete and credible**	☐ Review contains a detailed justification of each rating, including meaningful and clearly expressed descriptions of both the application strengths and weaknesses ☐ Comments align with the given rating ☐ Review addresses all applicable adjudication criteria and does not include information that is not relevant to the adjudication criteria ☐ All comments on grant content are factually correct ☐ Absence of statements which could put into question the reviewer's scientific knowledge or expertise
UTILITY **Review provides feedback that addresses the needs of reviewers, applicants and funders.**	☐ Review comments are constructive and may help applicants to improve their future submissions and/or advance their research ☐ Review contains information that allows other reviewers to understand the reviewer's rating(s) ☐ Review is detailed enough to be used by CIHR to evaluate and refine review process elements

9. https://cihr-irsc.gc.ca/e/50788.html

HOW TO REVIEW AN APPLICATION

Elements of a Review

Summary of the Research Proposal

Reviewers provide a summary of the project to demonstrate their understanding of the research work that is being proposed.

Summary of Progress

Note, some mock applications provided through the Toolkit do not include a Summary of Progress as this section was recently introduced to the Project Grant competition.

Reviewers must also assess the Summary of Progress. This two-page document supports the research proposal by allowing applicants to:

- Contextualize any results from research activities that support the current application;
- Describe how the application fits within their overarching research program and why the requested funds are needed
    - This should include a clear outline how the current budget request is distinct from funds currently held (as applicable) or overlaps and/or differs from applications submitted to other funding agencies/organizations (pending grants).
- Outline the impact of specific factors (e.g. leave, the COVID-19 pandemic) on their research progress.

Please note that the Summary of Progress is a narrative and not a detailed accounting of progress and funding. Details on funding can be found in the applicant's CV and the Summary of Progress is complemented by other components of the application.

Rating

Reviewers provide their initial rating for each application to one decimal place in advance of the peer review committee meeting. Note that reviewers are not bound by the initial rating and can change it during the peer review committee meeting.

Strength and Weaknesses of the Proposal

Reviewers also highlight the strengths and weaknesses of the proposal based on the evaluation criteria. Reviewers are encouraged to provide strengths and weaknesses for each evaluation criterion; strengths and weaknesses that contributed to the application rating **must be clearly articulated**, as they will be used to:

- provide the other reviewers assigned to the application with a justification for the rating given to the application
- provide applicants with feedback

Integration of Sex and/or Gender in the Research Proposal

Reviewers comment on whether the integration of sex (as a biological variable) and/or gender (as a socio¬cultural determinant of health) is a strength, a weakness or not applicable to the proposal. Reviewers will also be asked to provide recommendations to the applicants on how they might improve the strength of their applications with respect to the integration of sex and/or gender. Resources to support this assessment can be found on the CIHR website.[10]

Rating Scale

The rating scale ranges from 0.0-4.9. The table below outlines the rating scale and definitions. Reviewers are encouraged to use the full range of the scale.

DESCRIPTOR	RANGE	OUTCOME
Outstanding	4.5 – 4.9	The application excels in most or all relevant aspects. Any short-comings are minimal.
Excellent	4.0 – 4.4	The application excels in many relevant aspects, and reasonably addresses all others. Certain improvements are possible.
Good	3.5 – 3.9	The application excels in some relevant aspects, and reasonably addresses all others. Some improvements are necessary.
Fair	3.0 – 3.4	The application broadly addresses relevant aspects. Major revisions are required.
Poor	0.0 – 2.9	The application fails to provide convincing information and/or has serious inherent flaws or gaps.

10. http://www.cihr-irsc.gc.ca/e/49564.html

Adjudication Criteria

In this section, each of the sub-criteria related to the concept and feasibility are described in more detail. A set of interpretation guidelines and considerations have been summarized for each sub-criterion. These are intended to provide guidance for the assessment of the application.

Of note, in the interpretation of the adjudication criteria, it is important to keep in mind that the research proposal may exert only a basic/mechanistic impact, which is as important as the translational impact. The impact does not only mean near-future clinical relevance. Reviewers should evaluate whether the work proposed will significantly advance the proposed area of research.

Reviewers provide one score that reflects all three evaluation criteria: (1) significance and impact of the research, (2) approaches and methods, and (3) expertise, experience, and resources. Our intention is to provide reviewers with flexibility to weight the criteria as appropriate based on their judgement given the context of the application being reviewed.

Criterion 1. Concept

- Significance and Impact of the Research

Criterion 2. Feasibility

- Approaches and Methods
- Expertise, Experience and Resources

Reviewers should take into consideration the career stage, research field and institution setting of the applicants when assessing each criterion. The evidence should be notable compared to peers in similar fields and career stages.

Criterion 1. Concept

Sub-criterion: Significance and Impact of the Research

1. Is the project idea creative?
   - The project idea is among the best formulated ideas in its field, stemming from new, incremental, innovative, or high-risk lines of inquiry; new or adapted research in Practice science, or health care, or health systems or health outcomes. When applicable, knowledge translation/commercialization approaches/methodologies should be considered, as well as opportunities to apply research findings nationally and internationally.
2. Is the rationale of the project idea sound?
   - The project rationale is based on a logical integration of concepts.
3. Are the overall goals and objectives of the project well-defined?
   - The overall goal and objectives of the project are well-defined and clear.
   - The goal states the purpose of the project, and what the project is ultimately expected to achieve.
   - The objectives clearly define the proposed lines of inquiry and/or activities required to meet the goal.
   - The proposed project outputs (i.e., the anticipated results of the project) are clearly described and aligned to the objectives.
4. Are the anticipated project contributions likely to advance basic health-related knowledge, or health care, or health systems or health outcomes?

- The context and needs (issues and/or gaps) of the project are clearly described.
- The anticipated contribution(s) (e.g. publishing in peer-reviewed journals) are clearly described, and should be substantive and relevant in relation to the context of the issues or gaps.
- The anticipated contribution(s) are realistic, i.e., directly stemming from the project outputs, as opposed to marginally related.

Considerations

This sub-criterion is not intended to assess feasibility of the project, expertise of the team or the potential of success. These will be assessed under Criterion #2: Feasibility

Research should focus on addressing an issue (e.g., hypothesis or question, problem, need or gap) in any area across the spectrum of health (basic biomedical, health-related knowledge, health care, health systems, and/or health outcomes).

Depending on the nature of the project, it may have a research and/or knowledge translation/commercialization focus. Also, depending on the nature of the project, the rationale may be well-supported by evidence (e.g., literature review, previous findings, environmental scan, market analysis, stakeholder or partner input). However, this level of justification is not required for all types of projects (e.g., high-risk lines of inquiry).

In cases where projects have a primary implementation, or knowledge translation / commercialization (application and uptake of research findings) focus, the importance of the research should be validated as being substantive and relevant by stakeholders and partners, i.e., by those who could directly benefit from, or make use of, the project outputs.

Indigenous Health Research (IHR) committee Considerations

The proposed research must be relevant to First Nations, Inuit and/or Métis priorities and have the potential to produce valued outcomes from the perspective of First Nations, Inuit and/or Métis participants and Indigenous peoples more broadly.

Global Health Research

Projects that have a global health research focus, or include international collaborations, are eligible for support through the Project Grant program. CIHR welcomes all research, from fundamental to applied, with the potential to advance health-related knowledge, and/or improve health outcomes for Canadians and the broader global community.

Criterion 2. Feasibility

Sub-criterion: Approaches and Methods

1. Are the approaches and methods appropriate to deliver the proposed output(s) and achieve the proposed contribution(s) to advancing health-related knowledge, health care, health systems, and/or health outcomes?
   - The research and/or knowledge translation/commercialization approaches, methods and/or strategies are well-defined and justified in terms of being appropriate to accomplish the objectives of the project.
   - Is sex (as a biological variable) and/or gender (as a socio-cultural factor) taken into account in the research design, methods, analysis and interpretation, and/or dissemination of findings?
   - Opportunities to maximize project contributions to advance health-related knowledge, health care, health systems and/or health outcomes should be proactively sought and planned for, but may also arise unexpectedly.

2. Are the timelines and related deliverables of the project realistic?
   - Timelines for the project should be appropriate in relation to the proposed project activities. Key milestones and deliverables should be aligned with the objectives of the project, and be feasible given the duration of the project.

3. Does the proposal identify potential challenges and appropriate mitigation strategies?
    - Critical scientific, technical, or organizational challenges should be identified, and a realistic plan to tackle these potential risks should be described. An exhaustive list is not expected.

Sex and Gender Considerations (if applicable)

Evidence demonstrates that biological and social differences between women and men contribute to differences in health risks, health services use, health system interaction and health outcomes. Accounting for sex and gender in health research has the potential to make health research more rigorous, more reproducible, and more widely applicable. CIHR expects that all research applicants will integrate sex and gender into their research designs when appropriate, as indicated on the Sex, Gender and Health Research webpage. Resources to assist reviewers in their assessment of the integration of sex and gender in the research design are available on CIHR's website.

Indigenous Health Research (IHR) committee Considerations

In addition to demonstrating scientific excellence (Western, Indigenous, or both), the proposed research approaches and methods must respect Indigenous values and ways of knowing and sharing, and abide by the Tri-Council Policy Statement Chapter 9: Research Involving the First Nations, Inuit and Métis Peoples of Canada, and/or Indigenous partnering community / organizational ethical guidelines, or clearly explain why other guidelines have been developed and agreed upon with the study governance body.

Other Considerations

- Applications submitted to the Project Grant competition may include an integrated knowledge translation approach or may have a knowledge translation focus, with at least one knowledge-user and one researcher. CIHR defines a knowledge user as an individual who is likely to be able to use the knowledge generated through research to make informed decisions about health policies, programs and/or practices. A knowledge user can be, but is not limited to, a practitioner, policy-maker, educator, decision-maker, health care administrator, community leader, or an individual in a health charity, patient group, private sector organization or media outlet.
- CIHR defines integrated knowledge translation as a way of doing research with researchers and knowledge users working together to shape the research process – starting with collaborations on setting the research questions, deciding the methodology, being involved in data collection and tools development, interpreting the findings and helping disseminate the research results.
- Designs, approaches, and methodologies will vary by project (e.g., field of research, target audience) and should include a knowledge translation approach, when applicable, that is appropriate to the nature of the project outputs.

Sub-criterion: Expertise, Experience and Resources

1. Does the applicant(s) bring the appropriate expertise and experience to lead and deliver the proposed output(s), and to achieve the proposed contribution(s)?
    - The applicant(s) should demonstrate the combined expertise and experience needed to execute the project (i.e., deliver the proposed outputs as well as achieve the proposed contribution(s)).
    - The roles and responsibilities of each applicant should be clearly described and linked to the objectives of the project.

2. Is there an appropriate level of engagement and/or commitment from the applicant(s)?
    - The level of engagement (e.g., time and other commitments) of each applicant should be appropriate to the roles and responsibilities described.

3. Is the environment (academic institution and/or other organization) appropriate to enable the conduct and success of the project?
    - Project applicants should have access to the appropriate infrastructure, facilities, support personnel, equipment, and/or supplies to:
        > Carry out their respective roles, and;

- As a collective, manage and deliver the proposed output(s), and achieve the proposed contribution(s).

4. Does the applicant adequately demonstrate productivity and progress of their research program?
   - In their Summary of Progress, the applicant should:
     - Outline the most relevant accomplishments
     - Demonstrate their productivity

Note, this element of the sub criterion is only applicable to applications that contain the Summary of Progress section. Mock applications provided through the Toolkit do not include a Summary of Progress as this section was recently introduced to the Project Grant competition.

Reviewers must assess productivity broadly (i.e., not just based on publications) and consider the applicant's context (e.g., career stage, leave history). CIHR has signed San Francisco Declaration on Research Assessment (DORA), which recognizes that scholarly outputs are not limited to published journal articles but can include a broader range of outputs. Reviewers are encouraged to include these in their assessments.

Indigenous Health Research (IHR) Committee Considerations

- Appropriateness of the team based on their overall scientific experience (Western, Indigenous, or both) and skills as well as their Indigenous community-based research experience, track record, relevance of past experience, including expertise related to Indigenous lived experience(s).

Other Considerations

- The required complement of expertise will vary by project. Applications with an integrated knowledge translation approach or knowledge translation focus must include knowledge users in defining/refining research questions, informing the research plan, conducting research, interpreting research findings, understanding the receptor community, leading dissemination activities, etc. Knowledge users may also be responsible, and accountable for the application/uptake of the project outputs. The nature, breadth and depth of the applicants' experiences and contributions should be assessed in the context of the applicants' career stages.
- Applicants that have taken leaves of absence in the past seven years (e.g., parental, bereavement, medical, or administrative leave) may include a PDF document (no page limits) to supplement the publication information for that equivalent period of time. Whatever length of time an applicant has taken off from research in the past seven years is the amount of time that they may include in the attachment. Note that leaves of absence should also have been included in the appropriate section of the CV. Reviewers should therefore review this document in order to ensure that they have an accurate profile of applicants' research activities and achievements.
- Project environments should be assessed according to their ability to support the proposed project activities. Institutions often function as "networked" environments or interdisciplinary networks, which means there may be multiple satellite environments contributing to the support environment. Reviewers should consider that for smaller institutions, or affiliated research facilities where resources and/or services may be obtained through networks, or may be contracted out.

Budget Recommendation

Note, the simulation includes similar activities to those done in an actual peer review context. However, the budget and term ***will not be evaluated as part of the simulation****, unless participating in an Internal Simulation in which real applications were provided by your institution.*

The budget assessment must not be factored into the scientific assessment and must not influence the rating of applications. However, CIHR will seek the recommendation from the reviewers on the budgets and terms requested. For additional information, please see section 4.2.3 of the Project Peer Review Manual. CIHR reserves the right to determine the final amount awarded to the grants.

Sex and Gender Based Analysis (SGBA)

CIHR expects that all applicants will integrate sex and gender into their research designs, when appropriate. SGBA is an approach that systematically examines sex-based (biological) and gender-based (socio-cultural) differences between men, women, boys, girls and gender-diverse people. The purpose of SGBA is to promote rigorous science that is sensitive to sex and gender and therefore has the potential to expand our understanding of health determinants for all people.

What is Expected of Reviewers?

When assessing an application for the integration of sex and/or gender, Reviewers should:

- **Complete one of the training modules provided on the integration of sex and/or gender:**
  - Introduction to Sex and Gender Considerations in Basic Science (8 min.)
  - Introduction to Sex and Gender Considerations in Clinical and Epidemiological Research (11 min.)
- **Access the following resource for additional information on the integration of sex and/or gender:**
  - CIHR YouTube Video: Assessing Sex and Gender Integration in Peer Review
- **Read the section entitled "Other Project Information"** of the application to gain general insight into the applicants' consideration of sex and/or gender. Applicants use this section to indicate whether they have taken sex and/or gender into account in the research design, methods, analysis and interpretation, and/or dissemination of their findings, and to provide a brief justification for their decision. Please note, this section only appears in more recent Project applications.
- **Critically assess the full** proposal to determine whether sex and/or gender was appropriately integrated throughout the application or if the exclusion of sex and/or gender was justified.
- **Indicate whether the integration of sex and/or gender was a strength, a weakness or not applicable to the proposal**, as well as provide recommendations to the applicants on how they might improve their applications with respect to the integration of sex and/or gender.
- **Incorporate your assessment into the application's overall grant score (if applicable)**. While there is no separate score associated with the assessment of sex and/or gender, reviewers should take sex and/or gender into consideration for the **Approaches and Methods sub-criterion** (if the reviewer deems sex and/or gender is applicable).

When in committee, reviewers should discuss the proposal's integration of sex and/or gender **prior to reaching a consensus score**.

The SGBA section of the CIHR website provides helpful resources for applicants and peer reviewers alike, including CIHR's definitions for sex, gender and SGBA, as well as information on applying SGBA to the development and assessment of research proposals. It also provides key considerations for the assessment of appropriate integration of sex and/or gender in a research proposal.

- How to integrate sex and gender into research
- Key considerations for the appropriate integration of sex and gender in research

Assessing French Language Applications

CIHR, as Canada's federal funding agency for health research:

- Is committed to supporting the development of official language minority communities (OLMCs) through investigator-initiated and priority-driven research funding programs. These programs may:
    - support research that studies the health determinants and specific needs of OLMCs;
    - support the generation and mobilization of knowledge on issues related to OLMCs (for example, access to health care/health services in the preferred official language, health status of OLMC populations); and
    - support health research projects led by OLMC researchers.
- Is committed to supporting the development of OLMCs by encouraging researchers to consider issues related to official languages and OLMCs in developing their research projects, whatever their research field.
- Encourages researchers to submit their funding applications in the official language of their choice.

As of 2019:

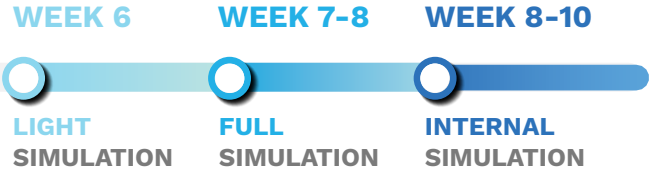
Applications submitted in French are allowed two additional pages of research proposal in the Project Grant Competition. This provision will ensure an equitable amount of space for applications written in either official language, as evidence demonstrates that documents written in French require approximately 20% more space than similar documents in English.

RUNNING THE SIMULATION

ASSIGNING APPLICATIONS AND AT-HOME REVIEWS

TASKS

- (*Optional*) Ability to Review Task
- Assign Applications to Reviewers
- Send Applications to Reviewers



After signing the Conflict of Interest and Confidentiality agreement and receiving all Pre-Simulation Training materials, Reviewers are assigned applications for review. Reviewers can either be assigned a set of pre-selected applications **OR** applications that fit, as best as possible, the Themes or Areas of Science they indicated during the *promotion period* **OR** Reviewers may be provided with application summaries and asked to complete an Ability to Review task.

(Optional) Ability to Review Task

This **optional** Ability to Review task allows Reviewers to indicate the extent to which their expertise aligns with provided applications. Facilitators may decide to conduct the Ability to Review task to both better replicate CIHR's Peer Review process and/or to try and best match Reviewer expertise to an application.

***It is important to note**, even if the Ability to Review process is conducted, Reviewer expertise does not need to align perfectly as this is a training exercise. Remind participants that reviewers often underappreciate their Ability to Review when reading application summaries, and that they will likely have much more to contribute than they would initially believe.*

Resources

Sample Email: Application Assignment
If the Ability to Review process is conducted, this email is sent to Reviewers and lists application summaries for Reviewers to indicate their expertise alignment

Ability to Review Template
Reviewers will complete the Ability to Review task using this template, which should be attached to the Application Assignment Email.

Assign Applications to Reviewers

We recommend each Reviewer in a **Light Simulation** be assigned 1-2 applications, while in the **Full or Internal Simulation** we recommend 2-4 applications per Reviewer.

The Facilitator will also have to balance the number of Reviewers assigned to each application. In a typical Project competition, **each application is assigned three Reviewers: a primary and to two secondary**. The primary Reviewer is the first to give their assessment at the Committee meeting, including a brief synopsis, while secondary Reviewers concentrate on points of agreement or disagreement.

While we recommend following the standard model (1 Primary and 2 Secondary Reviewers/application), we recognize that there will many instances where the size of the committee or the number of applications available necessitates that more than 3 Reviewers be assigned to an application. We encourage the Facilitator to adapt application assignments as necessary to fit their simulation – be it having more than three Reviewers per application, having multiple primary Reviewers, or even having Reviewers with specific tasks for a given application (e.g. providing a detailed perspective on the incorporation of Sex and Gender). For additional details on the roles played by primary and secondary Reviewers during Committee, please see the *Roles, Responsibilities and Scripts* section later in the Toolkit.

Use the Master Planner resource to help track and assign applications.
Please contact the College of Reviewers for this resource.

Send Applications to Reviewers

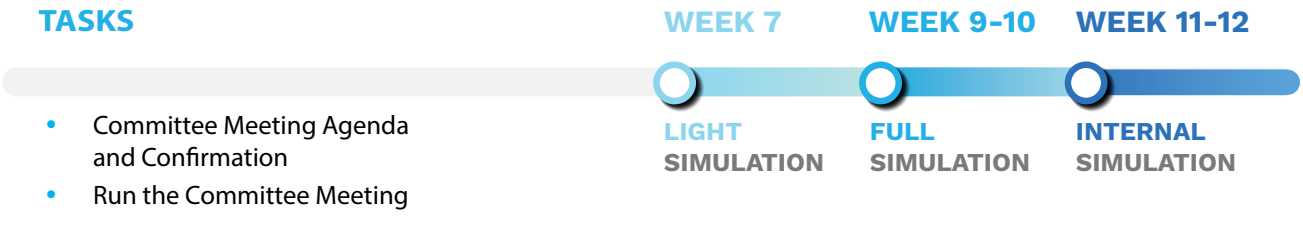
Mock Review Templates must be provided to Reviewers along with their assigned applications. Reviewers will conduct their reviews at-home using the provided Mock Review Templates prior to the Committee meeting. The Mock Review Template allows Reviewers to; summarize the application, provide an overall score, note strengths and weaknesses, assess sex and gender considerations, and provide a budget recommendation.

Resources

Sample Email: At-Home Reviews
Details instructions on completing at-home reviews using the Mock Review Template

Mock Review Template

COMMITTEE MEETING



Committee Meeting Agenda and Confirmation

An email should be sent out to participants in advance of the Committee meeting to confirm the meeting's date/time/location and provide a meeting agenda. Facilitators can adapt the sample email and agenda provided below to fit their specific timelines. If the meeting is virtual, we recommend Facilitators include items listed under *Preparation and Room Setup* below as part of their communication to participants.

Resources

Sample Email: Confirmation of Committee Meeting

Meeting Agenda Template
Must be attached to the Confirmation of Committee Meeting email. If the Committee meeting is in-person, this must also be printed for all participants – see *Preparation and Room Setup* below

Run the Committee Meeting

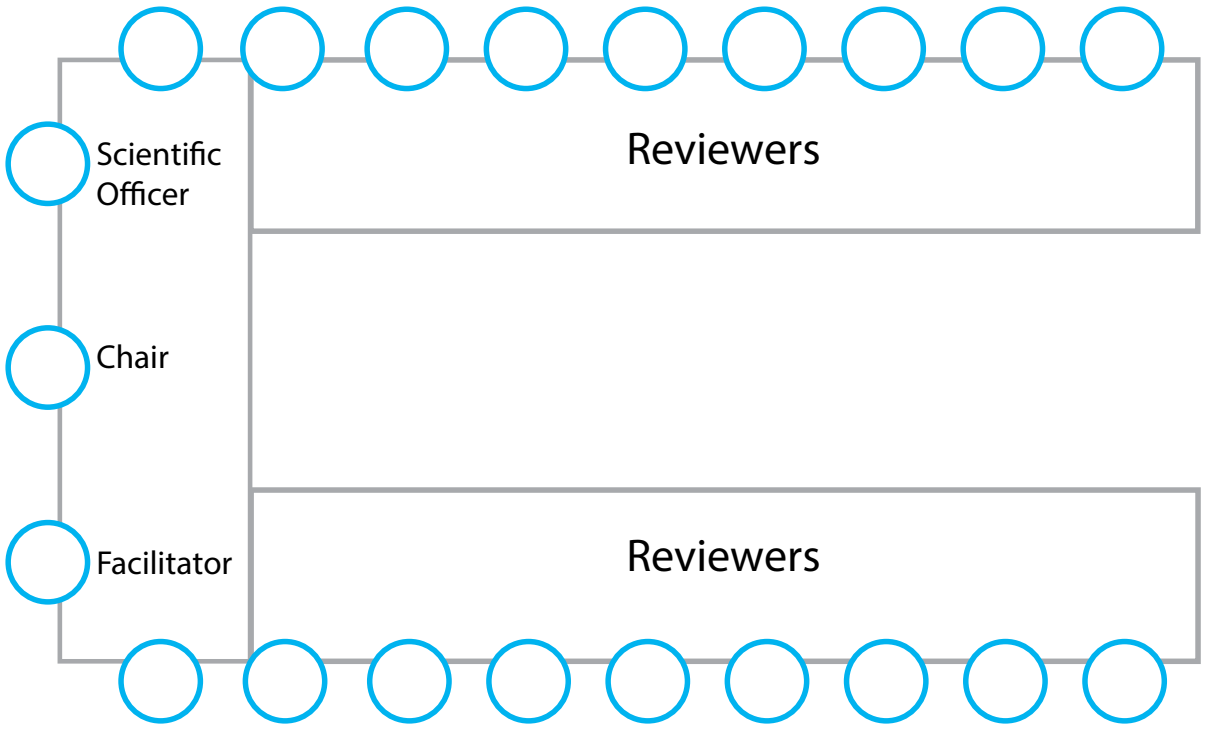
Preparation and Room Setup

Note, these are suggestions for room setup; please adapt as necessary.

If the Committee meeting is in-person, these items should be printed ahead of the meeting. If the Committee meeting is virtual, these resources can be sent to participants prior to the virtual meeting as part of the *Confirmation of Committee Meeting* package above.

IN-MEETING RESOURCES		
NO.	**DOCUMENT NAME**	**DESCRIPTION**
1 per participant	Sequence of Steps for Committee Meeting	A step-by-step description of the Committee meeting. Useful for all participants.
1 per participant	RQA Checklist	A practical tool to assist Reviewers in writing quality reviews. Useful for entire committee.
1 per Facilitator	Scoring Sheet	A scoring sheet that allows for tracking of scores for Facilitators OR all participants.
1 per application	SO Notes Template	A template for Scientific Officers to write their notes.
1 per Chair and Scientific Officer	Executive Roles, Responsibilities and Scripts	Scripts to assist committee executives in their role.
1 per Reviewer	Reviewer Roles, Responsibilities and Scripts	Scripts to assist Reviewers in their role.

If the Committee meeting is to be in-person, we suggest the table be setup as depicted below to better facilitate discussion.



Sequence of Steps for Committee Meeting

STEPS FOR COMMITTEE MEETING

1. Overview of Process

- Facilitator(s) to provide an overview of the simulation, including the steps outlined below and a *refresher on quality reviews*
- **(For Light Simulation)** Participants break out into smaller Committees of 6-8 Reviewers with a Chair and one or more Scientific Officers for each.
- All participants engage in a round table introduction

2. Application Initial Ratings

- The Chair announces the application that is to be reviewed.
- The Chair announces Reviewers in conflict who then subsequently leave the room **(may not be applicable for all simulations)**.
- The Chair announces the Reviewers.
- The assigned Reviewers announce their initial rating. Facilitator(s) use the *Scoring Sheet* to keep track of the assigned Reviewers' initial ratings **OR** all participants are provided with a *Scoring Sheet* for tracking.

3. Reviewers present the application and their reviews

- The primary Reviewer (i.e., Reviewer # 1) provides a brief synopsis (~ 5 minutes) of the proposal and presents their assessment, describing strengths and weaknesses of the proposal, including comments on the integration of sex and/or gender in the research design, methods, analysis, and/or dissemination of findings, when appropriate.
- The secondary Reviewers (i.e., Reviewer # 2 and # 3) follow, concentrating on points of agreement or disagreement with the other Reviewers, and elaborating on points not already addressed.

4. Committee discussion

The Chair opens and moderates the committee discussion:

- Reviewers are encouraged to participate in the discussion.
- The discussion should focus on aspects of the application raised in the reviews, especially those aspects that are contributing to its rating.
- Differences of opinion between Reviewers should be discussed.
- If the assigned Reviewers have not commented on the sex and/or gender components of the application, the Chair will ask the Reviewers and other committee members to comment on the integration of SGBA into the proposal, if applicable. Those comments should be recorded in the Scientific Officer notes, using the *SO Notes Template*, and should occur prior to the consensus score being discussed.

STEPS FOR COMMITTEE MEETING

5. Scientific Officer

- Scientific Officer takes notes of the key elements of the discussion using the *SO Notes Template*. The notes are read to the committee for validation/approval.

6. Consensus rating by reviewers

- The Chair asks the Reviewers assigned to the application to come to a consensus rating. Reviewers can refer to the *Rating Scale* to help guide their rating.
- If a consensus cannot be reached, the Chair will determine the consensus rating by averaging the ratings from the Reviewers after the discussion.
- Facilitator(s) use the *Scoring Sheet* to keep track of the assigned Reviewers' consensus rating **OR** all participants are provided with a Scoring Sheet for tracking.

7. Committee individual ratings

- All committee members are asked to rate the application, they are permitted to vote +/- 0.5 from the assigned Reviewers' consensus score.
- The Facilitator(s) use the *Scoring Sheet* to keep track of the Committee individual ratings **OR** all participants are provided with a Scoring Sheet for tracking.
- The Chair and Scientific Officers do not vote.

8. Matters to be flagged

- Ethics issues, eligibility, use of human stem cells, other concerns, research of general interest (especially the applications highly rated and ranked by the committee).

9. Scientific Officer

- Scientific Officer reads final notes, for validation/approval by the committee.

10. (*Optional*) Debrief

- Participants discuss lessons learned and ask questions of the more experienced reviewers (Chairs). All committees (if more than one) should reconvene for this discussion.

Roles, Responsibilities and Scripts

Facilitator

The Facilitator is responsible for organizing the Committee meeting(s) and ensuring that everyone has the appropriate documentation.

The Facilitator will:

- provide all necessary documentation
- discuss conflicts of interest
- clarify policies and/or administrative processes
- keep track of the time
- ensure Chair knows when it is time to take a break

Chair

It is the Chair's responsibility to ensure that the review committee functions smoothly, effectively and objectively, and that a positive, constructive, fair-minded environment in which research proposals are evaluated is established and maintained.

The Chair will:

- provide opening remarks to the committee, including an outline of the structure and agenda of the day.
- explain the meeting process to the committee, including the review of SGBA considerations in the applications.
- briefly discuss the budget and term components and remind Reviewers that they are not part of the Committee meeting.
- ensure that all committee members who are in conflict with an application leave the meeting room before the discussion of the application.
- appoint a delegate as Chair or Scientific Officer when either individual leaves the meeting room due to a conflict of interest with an application or for any other reasons.
- fulfill an oversight role – does not rate applications nor vote during the Committee meeting.
- ensure the involvement of the entire committee in evaluating each application.
- work with the Scientific Officers, as required, to summarize the discussion around each application, before the consensus rating is reached.
- ensure that a consensus rating is reached by the assigned Reviewers.
- ensure that specific ethical concerns and other CIHR requirements are addressed, and that any related discussion is captured in the Scientific Officer notes.

Scientific Officer

Reviewers can rotate the role of an SO to gain experience. If this is the case, ensure that all "SO Reviewers" receive a copy of the SO Note Template (available in Preparation and Room Setup above). You can also include a Mock SO Note (included with some, but not all Mock Applications) to provide Reviewers with an example.

The Scientific Officer (SO) assumes the role of note taker.

The SO will:

- take official notes of the committee discussions for each application (SO Notes). The SO Notes should provide the applicants with insight into the committee discussion of their applications. They should be clear and concise and give objective and constructive feedback to the applicants. They should:
    - include the strengths and weaknesses of the applications discussed by the committee.
    - address the issues that had the greatest impact on the evaluation, as they relate to the program's evaluation criteria.
    - address aspects of the committee discussions that were not captured in the Reviewers' reports.
    - describe how Reviewer disagreements, as seen in the individual Reviewer reports, were reconciled by identifying which view was favored by the committee.
- read back the SO Notes to the committee for validation and for additional input before a consensus rating on each application is reached by the assigned Reviewers, and all the members' votes are cast.
- ensure that special considerations related to ethics and/or other issues are also recorded in the SO Notes, if applicable.

Reviewers

The Reviewer evaluates each of the applications assigned to them by providing a critical assessment of the applications, as well as constructive feedback based on the program's objectives and adjudication criteria described in the funding opportunity.

The Reviewer will:

- consider all factors and the strengths and weaknesses of the applications in relation to each adjudication criterion.
- focus their comments on the factors most relevant to their ratings.
- provide comments on the integration of sex (as a biological variable) and/or gender (as a socio-cultural determinant of health) in the applications, if applicable.
- provide comments on the budgets requested and a formal recommendation to CIHR in the "Budget" section, including clear and detailed reasons for any recommended budget or term cuts, if applicable (**Note: discussion of budget and term support is not currently within scope of this Mock Review Toolkit*).
- provide comments on issues that they feel should be flagged, as required. These concerns should not influence the rating or budget recommendations, unless they bear on the scientific merit of the applications.
- provide their initial ratings to one decimal place using the provided Mock Review Templates
- familiarize themselves in advance of the Committee meeting with the applications to be assessed by their committee as this will facilitate discussions at the face-to-face Committee meeting.
- present to the committee the review of their assigned applications.
- participate in the committee discussions.
- vote on all the applications discussed by the committee and for which they are not in conflict with.

Reviewer Scripts

Primary Reviewer(s) Script

- Once Chair introduces Reviewers, present initial scores to committee.
- Present a brief overview of the application, premise of the research, study design etc.
- Discuss strengths and weaknesses.
- Listen to other reviews.
- Following Secondary Reviewer(s) discuss consensus score.
- Discuss further if necessary.
- Confirm content of notes from Scientific Officer at the end of the discussion.

Secondary Reviewer(s) Script

- Once Chair introduces Reviewers, present initial scores to committee.
- Listen to Primary Reviewer(s) overview of the application and comments.
- Present strengths and weaknesses not mentioned by previous Reviewers.
- Once all discussion has taken place, Reviewers discuss consensus score.
- Discuss further if necessary.
- Confirm content of notes from Scientific officer at the end of the discussion.

POST-SIMULATION

TASKS

- Debrief and Post-Simulation Survey
- Feedback to Project Grant applicants – Internal Simulations

WEEK 8 — **LIGHT SIMULATION**

WEEK 10–11 — **FULL SIMULATION**

WEEK 13–15 — **INTERNAL SIMULATION**

DEBRIEF AND POST-SIMULATION SURVEY

Following the simulation, a discussion about review quality should follow, using the Standards of Practice for Peer Review. CIHR bases its funding decisions on peer review, the internationally accepted standard for determining excellence in scientific research. The integrity of the peer review system relies on the ability of Reviewers to exercise fair and rigorous judgement. Reviewers demonstrate this judgement through written reports (or reviews), which normally consist of the rating and explanatory comments.

Reviewers are also encouraged to discuss and reflect on the overall experience and lessons learned. Please use the Review Quality Checklist provided in the pre-simulation training materials to help discuss or evaluate the quality of reviews and discussions that took place during the simulation.

In the weeks following the simulation, Reviewers should also be sent the Post-Simulation Survey to evaluate the utility and effectiveness of the simulation. The Post-Simulation Survey seeks to assess the effectiveness of the CIHR Mock Review Toolkit. Please note that the feedback provided should be anonymous and that the results of the survey should be amalgamated and shared with CIHR and the participants of the program.

Resources

PDF **Post-Simulation Survey**

FEEDBACK TO PROJECT GRANT APPLICANTS – INTERNAL SIMULATIONS

Note, this step is only for Internal Simulations and should be conducted a minimum of 4 weeks prior to the actual Project Grant application submission deadline.

Facilitators should collect reviews and SO Notes from Reviewers/Executives to provide to Project Grant applicants. The Project Grant applicants can use this feedback to improve their proposals prior to submission.

LIST OF RESOURCES

RESOURCE	SECTION – SUBSECTION OF THE TOOLKIT
Master Planner *(Please contact the College of Reviewers for this resource)*	**Planning the Simulation –** **Logistics Planning and Select Applications**
Sample Email: Invitation Committee Executives	**Planning the Simulation –** **Invite Facilitator and Committee Executives**
Sample Email: Promotional Materials for Simulation	**Planning the Simulation –** **Promote Mock Re-view Simulation**
Sample Email: Call for Internal Applications	**Planning the Simulation –** **Promote Mock Review Simulation**
List of Mock Applications	**Planning the Simulation –** **Select Applications**
Sample Email: Welcome to Reviewers	**Planning the Simulation –** **Select and Invite Reviewers**
Conflict of Interest and Confidentiality Agreement for Peer Reviewers and Peer Review Observers Form	**Planning the Simulation –** **Select and Invite Reviewers**

RESOURCE	SECTION – SUBSECTION OF THE TOOLKIT
Sample Email: Pre-Simulation Training Package	**Pre-Simulation Training – Pre-Simulation Training Materials**
Pre-Simulation Training Reading Materials	**Pre-Simulation Training – Pre-Simulation Training Materials**
Pre-Simulation Session Agenda Template	**Pre-Simulation Training – Pre-Simulation Training Materials**
Participant Pre-Simulation Training Presentation *(Please contact the College of Reviewers for this resource)*	**Pre-Simulation Training – Pre-Simulation Training Materials**
Sample Email: Application Assignment	**Running the Simulation – Assigning Applications and At-Home Reviews**
Ability to Review Template	**Running the Simulation – Assigning Applications and At-Home Reviews**
Sample Email: At-Home Reviews	**Running the Simulation – Assigning Applications and At-Home Reviews**
Mock Review Template	**Running the Simulation – Assigning Applications and At-Home Reviews**
Sample Email: Confirmation of Committee Meeting	**Running the Simulation – Committee Meeting**
Meeting Agenda Template	**Running the Simulation – Committee Meeting**
Sequence of Steps for Committee Meeting	**Running the Simulation – Committee Meeting**

RESOURCE	SECTION – SUBSECTION OF THE TOOLKIT
RQA Checklist	**Running the Simulation – Committee Meeting**
Scoring Sheet	**Running the Simulation – Committee Meeting**
SO Notes	**Running the Simulation – Committee Meeting**
Executive Roles, Responibilities and Scripts	**Running the Simulation – Committee Meeting**
Reviewer Roles, Responibilities and Scripts	**Running the Simulation – Committee Meeting**
Post-Simulation Survey	**Post-Simulation**

For more information about

Project Grant Competition Mock Review Toolkit, College of Reviewers,
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The Mock Review Toolkit is designed to simulate the Project Grant competition review process. The material in this document does not replace existing material online. The applications provided within the Toolkit are for information and learning purposes only, and serve as examples of what an application could contain.

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For more information or to obtain copies, please contact college@cihr-irsc.gc.ca.