

# Health Research Council of New Zealand (HRC)

## Peer Review Overview

SPEAR Quality Research Workshop, 27 June 2008

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## About the HRC

- Crown agency responsible for investment in health research
- Supports biomedical, clinical, health services and public health research
- Special interest in Maori and Pacific peoples health research
- Establishes joint ventures and partnerships with private and public sector agencies to fund health research



## **Mission**

“benefiting New Zealand through health research”

## **Vision**

“improved health & quality of life for all”

# 2008 Funding Round



- Investigator initiated research
- \$63M allocated for:
  - Programmes (\$29.3M)
  - Projects (\$31.4M)
  - Feasibility Studies (\$1.0 M)
  - Emerging Researchers (\$1.3M)

# Projects



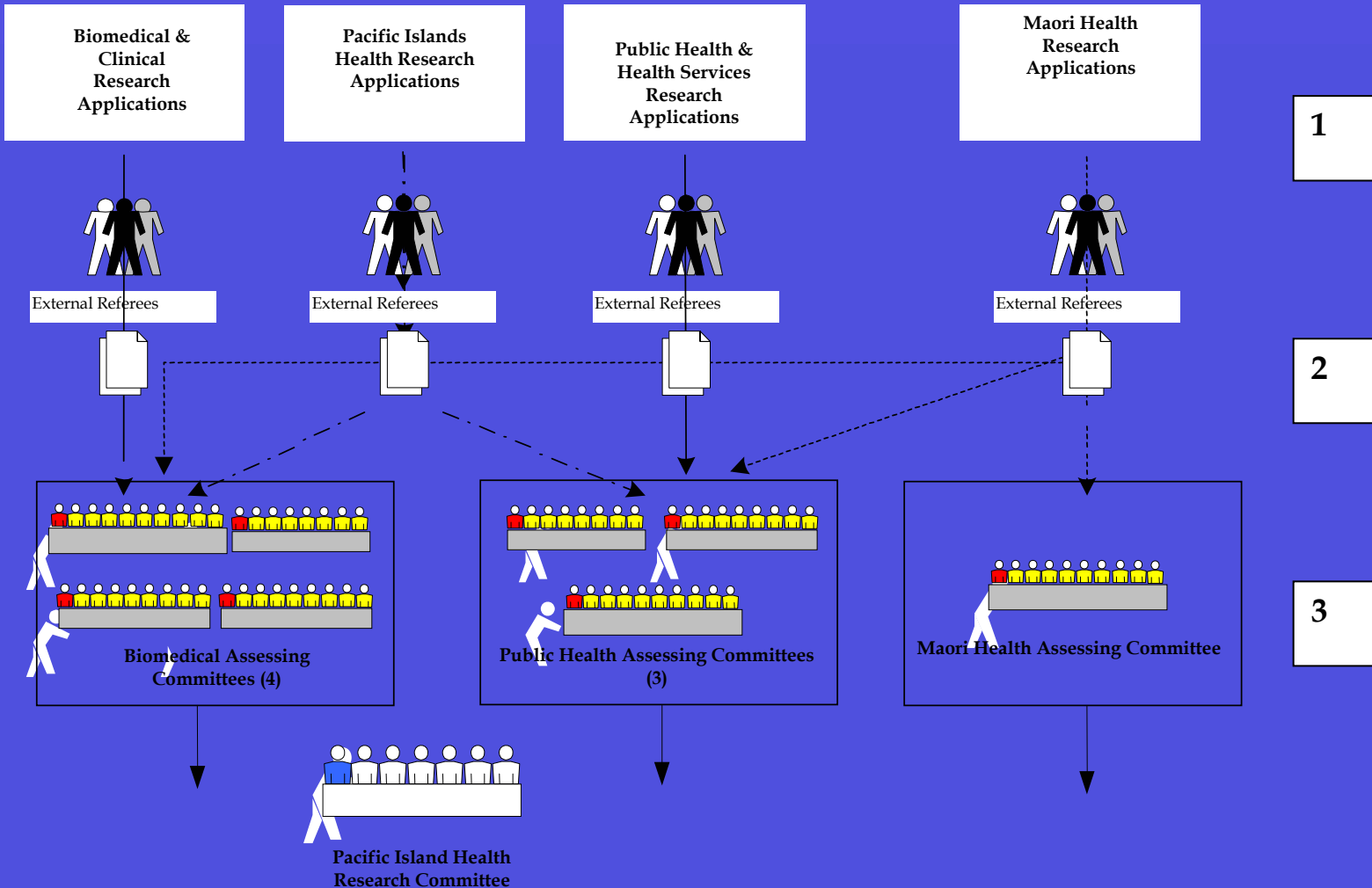
- Available for an individual or group of researchers
- Typical duration is three years
- Average contract for 2008 is \$1 M

# What is Peer Review?

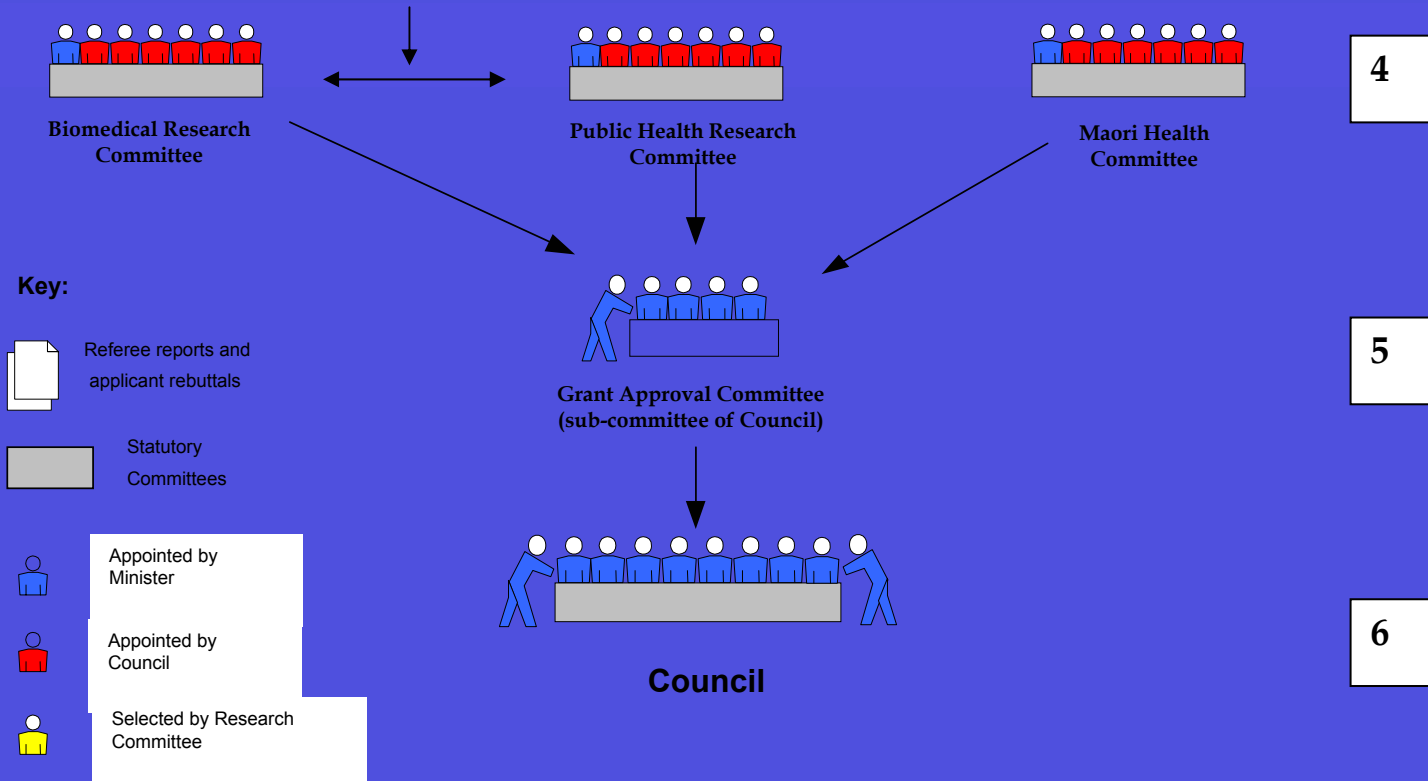


- A process of subjecting a person's work/research/ideas to the scrutiny of other experts
- “a rational and fair tool to manage the allocation of scarce research resources”
- “stifles innovation, encourages cronyism and pilfering of ideas”
- “the worst system except for all the others”

# HRC Assessment Process Steps: Levels of Peer Review



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1. Assignment to assessing committee by research committee
2. External referees assessment and score
3. Assessing committee scoring and ranking
4. Research committee review of assessing process and selection for grant approval committee
5. Grant approval committee review of science score and relevance criteria; final selection for funding
6. Council (Board) approval

# Assessment Process



- Discipline based Assessing Committees suggest referees
- 3 – 4 referees for each application
- Rebuttal period (February)
- Triage based on referee reviews and preliminary scoring by Assessing Committees
- Assessing Committees meet and score (April)
- Research Committees identify applications for Grant Approval Committee (May)

## SAC Process

- AIM: to discuss, score and rank research proposals on the basis of their scientific quality.
- Discussion informed by members topic-based expertise and general knowledge of research methods, and by external review and applicants' response to that review.
- Review of budget requests is encouraged
- Committee may recommend funding specific objectives.
- Committee ultimately draw line through the ranking to define: **FUNDABLE vs NOT-FUNDABLE**

## SAC Process

- Proposals will be discussed in random order
- CR1 report (5 min) – Scientific Merit
- CR2 report (5 min) – Summary of Referee Reports & Rebuttals
- Committee discussion (10 - 15 min)  
*(Chair to facilitate FULL participation)*
- Discussion of budget & scoring (5 min)
- CR1 summarises discussion and notes for Review Summary (1 min)

# CR1 & CR2 Responsibilities

## CR1 (5 mins)

- Introduces scientific discussion of the proposal
- Discusses applicant's track record
- Discusses other relevant issues as appropriate
- Notes significant points for the Review Summary (provided as feedback to applicant)

## CR2 (5 mins)

- Summarises external referee and CR1 reports
- Summarises applicant's rebuttal
- Leads budget discussion

## Assessment & Scoring of Proposals

- HEALTH SIGNIFICANCE
- SCIENTIFIC MERIT
- DESIGN AND METHODS
- EXPERTISE AND TRACK RECORD OF RESEARCH TEAM

A Score of 1-7 (whole numbers) is allocated for each of the above areas with **1 (poor)** being the **LOWEST** score, **4 (average)** the **MIDPOINT** score, and **7 (outstanding)** the **HIGHEST** score possible.

ANCHOR POINT DESCRIPTORS are used to provide reference points for these scores, the following illustrate the 7 point (outstanding) descriptor:-

# Health Significance

7=

- Convincingly demonstrated that research addresses a very significant health issue.
- Potential to significantly advance knowledge relevant to health.
- Expected to contribute substantively to major improvements in health or important health outcomes.

## Scientific Merit

7=

- Rationale for research is **extremely** well made.
- Aims and (where appropriate) hypotheses are **excellent**.
- Highly original and innovative approach to addressing the health question.
- Original findings are **highly** likely to result.

## Design And Methods

7=

- Study design is excellent.
- Methods and proposed analyses are very comprehensive and clearly appropriate.
- Full awareness of the relevant technical issues.
- Statistical power (as appropriate) is sufficient for definitive outcomes and analysis is well developed.
- Difficult to suggest improvements.

# Expertise & Track Record of Research Team

7=

- Outstanding academic qualifications, excellent topic based knowledge and experience to undertake the proposed research.
- Outstanding publication track record in major peer reviewed scientific journals as well as other professional publications.
- Key networks for dissemination of results.

# Scorecard



**Health Research Council of New Zealand  
2008 Funding Round**

**Proposal Reference Number 08/ \_\_\_\_\_**

**Committee Member \_\_\_\_\_**

*Please score each of the following assessment criteria on  
the scale of 1 (poor) – 7 (outstanding)*

**Health Significance \_\_\_\_\_**

**Scientific Merit \_\_\_\_\_**

**Design and Methods \_\_\_\_\_**

**Expertise and Track Record  
Of the Research Team \_\_\_\_\_**

# Personal Score Sheet



**PERSONAL SCORE SHEET**

HRC Ref	Applicant	Research Title	Proposal type	Health significance	Scientific merit	Design & method	Track record	TOTAL
07/316	Jane Doe	Project title of a research proposal designed to improve the health of New Zealanders	PROJECT					
07/288 D	Joe Bloggs	Project title of a research proposal designed to improve the health of New Zealanders	PROJECT within Programme					
07/429 R	Jerry Smith	Project title of a research proposal designed to improve the health of New Zealanders	PROJECT resubmitted from last year					
07/229	Jack Jones	Project title of a research proposal designed to improve the health of New Zealanders	PROJECT					
07/388	Jolly Rogers	Project title of a research proposal designed to improve the health of New Zealanders	PROJECT					
07/451	Hank Mack	Project title of a research proposal designed to improve the health of New Zealanders	PROJECT					

# Scoring Review



- Scoring is **confidential**.
- Statistical outliers or scores with a differential of  $\geq 10$ -points are identified and justified. SAC has option to rescore at the time the proposal is discussed.
- At the end of the process
  - Average scores for the SAC are ranked
  - **Line drawn to delineate Fundable vs Not Fundable**
  - Rescoring is not allowed
  - Any concerns (*e.g. re-ranking*) should be conveyed by SAC chair to the Research Committee

# Review Summary

- Review Summary should include:
  - Perceived key strengths and weaknesses of the proposal
  - Summary of referee comments and applicant response
  - Issues important enough to influence scoring
  - Other comments, including significant budget recommendations
  
- Write compassionately and constructively. Include information that *you would want to know if you were to receive it yourself.*

# Further dimensions of assessment

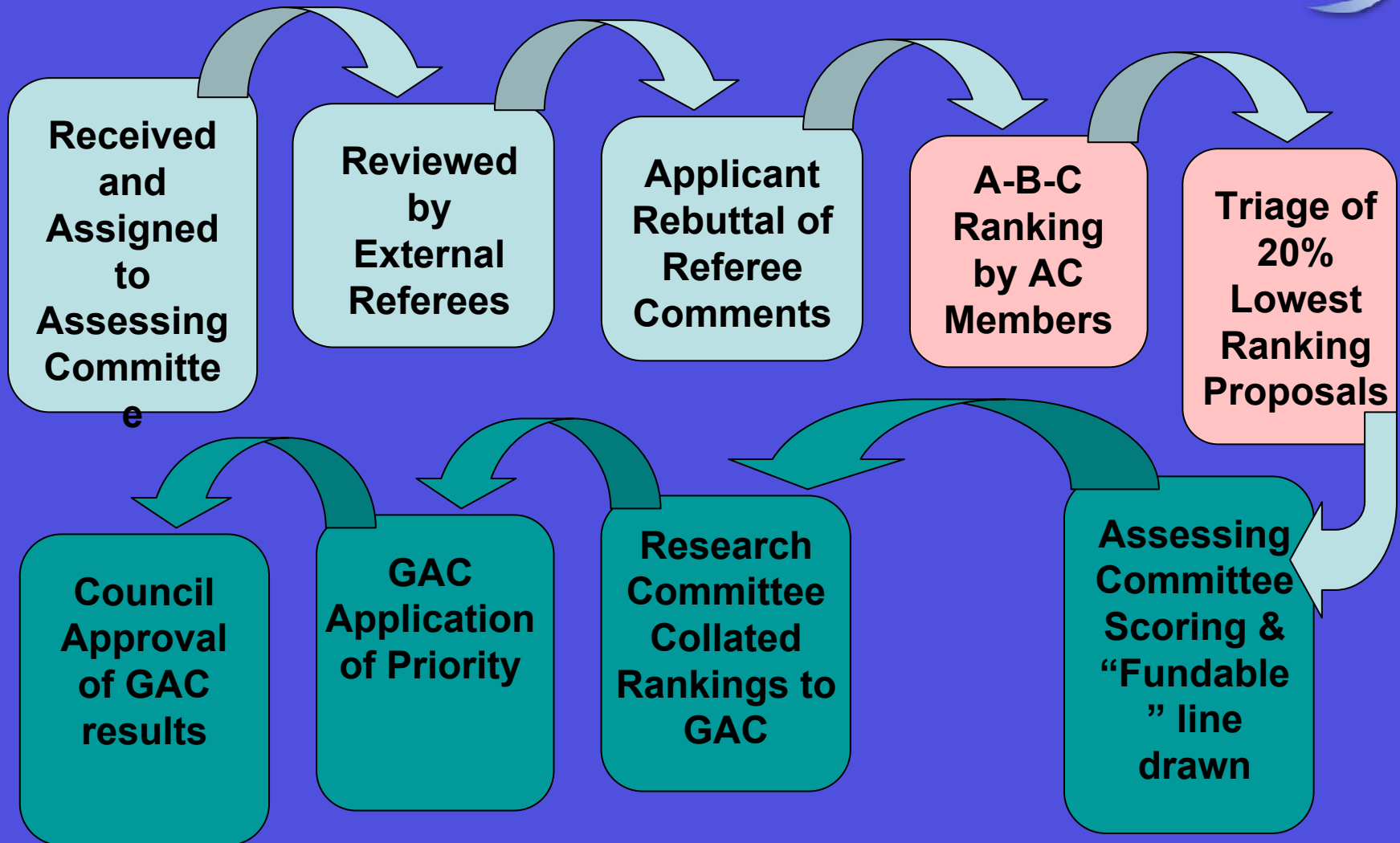
- Science quality is just one dimension of the grant assessment process
- Top tier fundable applications are further assessed for fit within the HRC priority framework
  - A priority score is awarded depending how the proposed research fits the framework

# Priority Score



- **The maximum score for Priority Score is 16**
- ✓ **HRC research portfolio priorities (3 points)**
- ✓ **HRC priority population groups (3 points)**
  - Māori, Pacific peoples, children & youth, older adults, people with disability
- ✓ **Research aligning with Vision Mātauranga (2 points)**
- ✓ **Ministry of Health strategies (4 points)**
  - New Zealand Health Strategy
  - New Zealand Disability Strategy
  - He Korowai Oranga
- ✓ **Development and retention of HRC workforce (3 points)**
- ✓ **Translational research (1 point)**

# Application Assessment Process



# Reading



- “Analysis of the external costs of peer review: A Final Report”, RCUK, 2006
- “Peer review for improving the quality of grant applications”, The Cochrane Collaboration, 2008
- “Peering at peer review revealed high degree of chance associated with funding of grant applications”, Mayo et al, J Clin Epidem, 59, 842, 2006
- “Bibliometric indicators to assist the peer review process in grant decisions”, Lewison et al, Research Evaluation, 8, 47, 1999