Addressing the loss of women from medical research – NHMRC’s plans

Professor Warwick Anderson and Dr Saraid Billiards
What is the issue?

Retention and progression of women in Australian health and medical

2014 NHMRC Fellowship applications

<table>
<thead>
<tr>
<th>Fellowship Type</th>
<th>% women applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECF</td>
<td>63%</td>
</tr>
<tr>
<td>CDF</td>
<td>54%</td>
</tr>
<tr>
<td>SRF A</td>
<td>27%</td>
</tr>
<tr>
<td>SRF B</td>
<td>37%</td>
</tr>
<tr>
<td>PRF</td>
<td>30%</td>
</tr>
<tr>
<td>SPRF</td>
<td>11%</td>
</tr>
</tbody>
</table>
Fellowship applications 2014

*similar trend across BRAs
Why is it an issue for NHMRC?

- Largest funder of health and medical research in Australia
  - >$800M of new grants will be awarded in 2014
    - Approximately 12% of the total funding for the Australian health and medical research effort

- NHMRC funded researchers employed by wide diversity of organisations
  - Universities
  - Hospitals
  - Independent Medical Research Institutes

- Obligation to ensure that Commonwealth funds are well spent
**NHMRC’s Funding Schemes**

**CREATING KNOWLEDGE**
- Project Grants
- Program Grants
- Targeted Calls for Research

**BUILDING AUSTRALIA’S HEALTH AND MEDICAL RESEARCH CAPACITY**
- Postgraduate Scholarships - biomedical, clinical & public health
- Early Career Fellowships (≤ 2 years post PhD) – biomedical, clinical & public health
- Career Development Fellowships (2-12 years post-PhD) – biomedical, clinical & public health
- Research Fellowships – biomedical, clinical, public health
- Practitioner Fellowships

**TRANSLATING KNOWLEDGE**
- Development Grants (proof of principle)
- Partnerships for Better Health – Centres and projects
- Centres of Research Excellence – clinical, population health & health services
- Translating Research Into Practice (TRIP)
What have we done?

- Career disruptions and relative to opportunity;

- Part-time NHMRC fellowships;

- Better balanced representation between men and women on peer review committees;

- Elizabeth Blackburn Fellowship to recognise outstanding women scientists;

- NHMRC Women in Health Science Committee; and

- Proposed revision of NHMRC’s Administering Institution Policy to place greater emphasis on gender equity.
My journey thus far...

- BSC (Hons) - UNE
- Research Assistant - CMRI
- PhD - Monash
- Postdoc - Harvard
- Postdoc – Melbourne Uni
- NHMRC
- Child # 1
- Child # 2 & 3
- Honorary Fellowship - Harvard
- Honorary Fellowships – ANU & Harvard

My ‘tipping’ point
National Health & Medical Research Council

• Funding research in knowledge creation, knowledge translation and capacity building
  – Through competitive merit-based review processes

• Provide evidence based health advice to the public, health professionals and government
  – Guidelines, public evidence based statements
    • e.g. Australian Dietary Guidelines; Clinical Practice for the Management of Borderline Personality Disorder

• Provide advice on ethical behaviour in health and medical research
  – Guidelines, statements
    • e.g. National Statement on Ethical Conduct in Human Research 2007; Australian Code for the Responsible Conduct of Research
NHMRC Women in Science Committee

- **AIM:**
  - to provide advice to NHMRC on possible solutions to address the issue of progression and retention of women in health and medical research.

- **Membership:**
  - Professor Caroline Homer (UTS) - CHAIR
  - Dr Suzie Miller (Monash University)
  - Professor Louisa Jorm (UNSW)
  - Professor Jenny Martin (Institute for Molecular Bioscience)
  - Professor Bob Graham (Victor Chang)
  - Professor Bob Williamson (University of Melbourne)
  - A/Professor Tania Winzenberg (University of Tasmania)
  - Professor Carola Vinuesa (ANU)
Women in Science Committee – What have we done so far?

- Career disruptions and relative to opportunity
  - Guidance for applicants
  - Guidance for peer reviewers
  - Consistency across all schemes
- Part-time options across all schemes
- Elizabeth Blackburn Fellowships – recognition of outstanding women
- Gender balance on peer review panels
- Timing of rebuttals/documentation release by NHMRC to applicants
- Revised opening/closing dates of funding schemes
- Funding outcome data by gender – collation and review
Research Funding - 2013

Proportion of 2013 funding - total

Men

Women

*2014 data not yet available
Research Funding - 2013

*2014 data not yet available
NHMRC Project Grant applications – 2014*

<table>
<thead>
<tr>
<th>Project Grants</th>
<th>Women - CIA</th>
<th>Men - CIA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Apps</td>
<td># Funded</td>
</tr>
<tr>
<td>Project Grants - all</td>
<td>1375</td>
<td>184</td>
</tr>
<tr>
<td>New Investigator Project Grants only</td>
<td>142</td>
<td>20</td>
</tr>
</tbody>
</table>

* Data presented by chief investigator A (CIA) only

NB: 8 applicants did not identify their gender (none of these received funding)

**Overall funded rate = 14.9%**
# NHMRC Project Grant applications (all) - CIA only

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<tbody>
<tr>
<td></td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
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<tr>
<td># Apps</td>
<td>1174</td>
<td>2052</td>
<td>1245</td>
<td>2124</td>
<td>1339</td>
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<tr>
<td># Funded</td>
<td>248</td>
<td>510</td>
<td>254</td>
<td>517</td>
<td>243</td>
</tr>
<tr>
<td>Funded rate (%)</td>
<td>21.1%</td>
<td>24.9%</td>
<td>20.4%</td>
<td>24.3%</td>
<td>18.1%</td>
</tr>
</tbody>
</table>

*NB: 8 applicants did not identify their gender (none of these received funding)
### NHMRC Project Grant applications by BRA - 2014

<table>
<thead>
<tr>
<th>Broad Research Area</th>
<th>Women - CIA</th>
<th></th>
<th></th>
<th>Men - CIA</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Apps</td>
<td>Funded</td>
<td>Funded Rate</td>
<td># Apps</td>
<td>Funded</td>
<td>Funded Rate</td>
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<td>--------------------------------------</td>
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<td>--------</td>
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<tr>
<td>Basic Science</td>
<td>644</td>
<td>93</td>
<td>14.4%</td>
<td>1345</td>
<td>235</td>
<td>17.5%</td>
</tr>
<tr>
<td>Clinical Medicine and Science</td>
<td>436</td>
<td>53</td>
<td>12.2%</td>
<td>758</td>
<td>106</td>
<td>14.0%</td>
</tr>
<tr>
<td>Health Services Research</td>
<td>95</td>
<td>10</td>
<td>10.5%</td>
<td>52</td>
<td>2</td>
<td>3.8%</td>
</tr>
<tr>
<td>Public Health</td>
<td>203</td>
<td>28</td>
<td>13.8%</td>
<td>167</td>
<td>26</td>
<td>15.6%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1378</strong></td>
<td><strong>184</strong></td>
<td><strong>13.4%</strong></td>
<td><strong>2322</strong></td>
<td><strong>369</strong></td>
<td><strong>15.9%</strong></td>
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## Fellowship applications 2010-14

<table>
<thead>
<tr>
<th>Fellowship Type</th>
<th>% women applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>ECFs</td>
<td>62</td>
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<tr>
<td>CDFs</td>
<td>46</td>
</tr>
<tr>
<td>SRF A</td>
<td>33</td>
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<tr>
<td>SRF B</td>
<td>31</td>
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<tr>
<td>PRF</td>
<td>27</td>
</tr>
<tr>
<td>SPRF</td>
<td>18</td>
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</table>
## NHMRC Fellowships – 2014

<table>
<thead>
<tr>
<th>Funding Scheme</th>
<th>Women</th>
<th></th>
<th></th>
<th>Men</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Apps</td>
<td>Funded</td>
<td>Funded Rate</td>
<td># Apps</td>
<td>Funded</td>
<td>Funded Rate</td>
</tr>
<tr>
<td>Early Career Fellowships</td>
<td>350</td>
<td>73</td>
<td>20.9%</td>
<td>208</td>
<td>52</td>
<td>25.0%</td>
</tr>
<tr>
<td>Career Development Fellowship</td>
<td>235</td>
<td>24</td>
<td>10.2%</td>
<td>196</td>
<td>34</td>
<td>17.3%</td>
</tr>
<tr>
<td>Research Fellowship</td>
<td>75*</td>
<td>17</td>
<td>23%</td>
<td>171</td>
<td>57</td>
<td>33%</td>
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<tr>
<td>Practitioner Fellowship</td>
<td>16</td>
<td>7</td>
<td>44%</td>
<td>41</td>
<td>10</td>
<td>24%</td>
</tr>
</tbody>
</table>

*only 4 women applied as SPRF in 2014
# NHMRC Early Career Fellowships – 2014

<table>
<thead>
<tr>
<th>Broad Research Area</th>
<th>Women</th>
<th></th>
<th>Men</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Apps</td>
<td>Funded</td>
<td>Funded Rate</td>
<td># Apps</td>
</tr>
<tr>
<td>Basic Science</td>
<td>143</td>
<td>29</td>
<td>20.3%</td>
<td>106</td>
</tr>
<tr>
<td>Clinical Medicine and Science</td>
<td>95</td>
<td>22</td>
<td>23.2%</td>
<td>59</td>
</tr>
<tr>
<td>Health Services Research</td>
<td>24</td>
<td>4</td>
<td>16.7%</td>
<td>13</td>
</tr>
<tr>
<td>Public Health</td>
<td>88</td>
<td>18</td>
<td>20.5%</td>
<td>30</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>350</strong></td>
<td><strong>73</strong></td>
<td><strong>20.9%</strong></td>
<td><strong>208</strong></td>
</tr>
</tbody>
</table>
## NHMRC Career Development Fellowships – 2014

<table>
<thead>
<tr>
<th>Broad Research Area</th>
<th>Women</th>
<th></th>
<th></th>
<th>Men</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Apps</td>
<td>Funded</td>
<td>Funded Rate</td>
<td># Apps</td>
<td>Funded</td>
<td>Funded Rate</td>
</tr>
<tr>
<td>Basic Science</td>
<td>108</td>
<td>10</td>
<td>9.3%</td>
<td>118</td>
<td>20</td>
<td>16.9%</td>
</tr>
<tr>
<td>Clinical Medicine and Science</td>
<td>63</td>
<td>5</td>
<td>7.9%</td>
<td>46</td>
<td>10</td>
<td>21.7%</td>
</tr>
<tr>
<td>Health Services Research</td>
<td>13</td>
<td>0</td>
<td>0.0%</td>
<td>8</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Public Health</td>
<td>51</td>
<td>9</td>
<td>17.6%</td>
<td>24</td>
<td>4</td>
<td>16.7%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>235</td>
<td>24</td>
<td><strong>10.2%</strong></td>
<td>196</td>
<td>34</td>
<td><strong>17.3%</strong></td>
</tr>
</tbody>
</table>
Women in Science – What is next?

• Revision of NHMRC’s Administering Institution Policy – consideration of gender equity
  – Have greater emphasis on ‘gender equity’
In 2013, Administering Institutions (AIs) asked to provide detail of:
- activities and approaches in place to support gender equity within their institutions

46 (56%) responded

ONHMRC Published examples of best practice:
- Career Interruption Fellowships, in recognition that there are key points in female staff members lives which require an infrastructure of employer policies and programs.
- Mentoring support provided at Faculty level for academics at various points in their career; voluntary and varied in nature and design.
- Technical support to continue work while maternity leave is taken.

Review showed wide variability
Institutional Gender Equity Policies and Practices

• ONHMRC undertook analysis of Institutional submissions on 10 key criteria:
  1. Availability of targeted packages and programs/Leadership development
  2. Availability of transition point support
  3. Travel/childcare assistance
  4. Mentoring/skills training
  5. Parental/maternity leave
  6. Flexible working arrangements
  7. Availability of family rooms
  8. Salary gaps and financial support in critical times
  9. Monitoring and reporting of outcomes
  10. Formal Recognition (awards)
## Institutional Gender Equity Policies and Practices

<table>
<thead>
<tr>
<th>Rating</th>
<th># Criteria Met</th>
<th># Institutions*</th>
<th>% Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding</td>
<td>9 or more</td>
<td>2</td>
<td>4%</td>
</tr>
<tr>
<td>Good</td>
<td>6 to 8</td>
<td>13</td>
<td>28%</td>
</tr>
<tr>
<td>Unsatisfactory</td>
<td>3 to 5</td>
<td>16</td>
<td>35%</td>
</tr>
<tr>
<td>Poor</td>
<td>2 or less</td>
<td>15</td>
<td>33%</td>
</tr>
</tbody>
</table>

*out of 46
Institutional Gender Equity Policies and Practices

- Institutions asked to prove advice on:

  1. The appropriateness of the criteria that we have used to analyse and assess current policies, as a basis for the future.

  2. How NHMRC’s Administering Institution policy should be strengthened to ensure that institutions that receive NHMRC funding play their role in overcoming the underrepresentation of women in health and medical research?
Institutional Gender Equity Policies and Practices

• Appropriateness of criteria?
  – 10 criteria appropriate
  – need to include additional detail with each criterion
  – two additional criteria needed:
    • institutions must have gender equity committees
    • institutions must have a commitment in their strategic/corporate plan
ten to address gender equity
Institutional Gender Equity Policies and Practices

• How to strengthen NHMRC’s AI Policy?
  – Concern that changes to AI policy will require over-reporting (burden)
  – All agreed it was important
  – Recommended changes include:
    • Objectives of the AI Policy - provide further detail to ensure institutions are able to provide the same opportunities for women and men
    • General Criteria: include an additional criterion that ensures institutions have policies and guidelines in place to support gender equity in participation of women in health and medical research at all levels
    • Appendix A – Comments on Additional Strategic Intentions of this Policy: include an additional section on ‘Fostering Gender Equity’ which would include the 12 criteria with additional detail

• NHMRC’s Council will discuss changes to AI Policy tomorrow
Institutional Gender Equity Policies and Practices

• Proposed revision to NHMRC’s AI policy
  – Any changes similar to the ‘Code’ etc – ie it is a requirement but without reporting
    • Note: All universities and some MRIs are required to report against Workplace Gender Equality Agency indicators
  – Recommendations to Research Committee and Council
  – Consultation
  – Changes implemented – 2015/16?
Women in Science – What is next?

• Revision of NHMRC’s Administering Institution – consideration of gender equity

• Closer alliances with other key organisations

• Continue to provide advice to applicants and peer reviewers to ensure career disruptions and relative to opportunity are considered
  – Implicit bias training?
  – Streamline the application process for career disruptions

• Re-entry fellowships for 2016

• Continue work with Women in Science Committee
Women in Science

• There is still much more that needs to be done
• Change will require:
  – Organisational change
  – Behavioural change
  – Structural change
  – Cultural change
saraid.billiards@nhmrc.gov.au