



Building Knowledge, Supporting Innovation

2016 ASMR Health and Medical Research Workforce Survey

Brief Report

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Acknowledgement by Dr Sarah Meachem, ASMR President

The ASMR would like to thank the Australian and international medical research community for taking the time to complete this survey.

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Finally, the society would like to thank Mr David Shields for his time in developing the design of the final report.

About the ASMR

The Australian Society for Medical Research (ASMR) is the peak professional body and the unifying voice representing Australian health and medical researchers. In addition to the more than 1600 direct members, ASMR represents the sector through 58 affiliated professional societies, medical Colleges and patient groups, representing an additional 18,000 people actively involved in health and medical research. Our corporate and disease related foundation memberships bring a further 100,000 Australians with an interest in health and medical research into association with ASMR. Our mission is to foster excellence in Australian health and medical research and to promote community understanding and support through public, political and scientific advocacy.

The ASMR is comprised of research active health and medical researchers from across the sector. This group is best placed to identify new trends and expectations for the next generation of research leaders. The ASMR has an unparalleled record of investigating and quantifying the engagement and benefits of research to the Australian community and economy. In 2003, the ASMR broke new ground, commissioning the first report of its kind to quantify the health and economic benefits of medical research. Since that time, the ASMR has commissioned a further five reports from Access Economics and Deloitte Access Economics that support the need for greater investment into a sector that forms one of Australia's economic pillars. Fundamental to that is a highly skilled and innovative health and medical research workforce.

About the Health and Medical Research Sector

Australians are world leaders in health and medical research, transforming global health outcomes. In the last 100 years, there have been eleven Australian recipients of a Nobel Prize, for their work and contributions to better understanding human health and disease. Recent notable discoveries by Australian scientists include the Gardasil vaccine, Cochlear implants, CPAP machines, in vitro fertilisation, the Rotavirus vaccine amongst many others. New, Australian research will change the lives of millions. But it is only with a well-supported, secure workforce that these transformative discoveries can continue.

Over many decades, Australia has developed a highly skilled health and medical research workforce, establishing a global reputation for discovery and innovation. In a climate of economic uncertainty, highlighted by the loss of manufacturing jobs across multiple sectors and a downturn in the mining boom, the health industry is poised to fill the economic gap. It is now the job of Government to make real and immediate investment into a sector that has proven health and economic returns.

Over the past three years, the Australian Government has announced new initiatives to support health and medical research.

1. The Medical Research Future Fund (MRFF), for which legislation passed through the Parliament in 2015. This \$20billion future fund aims to safe-guard funding for medical research, by providing returns of up to \$1billion per annum for health and medical research initiatives.
2. The \$250million Biomedical Translation Fund announced in 2015, which aims to support the commercial translation of biomedical research, by attracting matching funds from industry partners, bringing the total value of the fund to \$500million.

These initiatives are welcome acknowledgement of the returns on investment from health and medical research. Our concern is, these funds are not expected to be impactful until at least 2018, meaning that the sector will have received no real increase in funding for a total of almost 8 years.

Foreword

Our report has found that the health and medical research workforce has never been more volatile, with a lack of career opportunities and job security primary areas of concern. The plateau of Government investment into the peak funding agency, the National Health and Medical Research Council (NHMRC), is leading to the attrition of a skilled workforce, together with the unique and irreplaceable intellectual capital that workforce represents. Those being lost are not simply those 'on the fringe', with more and more researchers considered outstanding by their peers and by the NHMRC being lost due to lack of overall investment.

Australia has one of the world's best trained health and medical research cohorts. This is the foundation for building and supporting innovation. We are at risk of losing the knowledge, innovative capacity and intellectual property developed over many years and through hundreds of millions of dollars of Federal Government investment.

The innovations of drug discoveries, medical devices and new approaches to treating and curing diseases are not instantaneous; however, their impact on the common good of human kind is immense. Health and medical research is a continuum of discovery, validation, clinical trial, and implementation. This process needs to be underpinned by job security and a stable career structure to support long-term innovation and discovery.

A handwritten signature in black ink, appearing to read 'Sarah Meachem'.

Dr Sarah Meachem
ASMR President 2016

The 2016 ASMR Health and Medical Research Workforce Survey

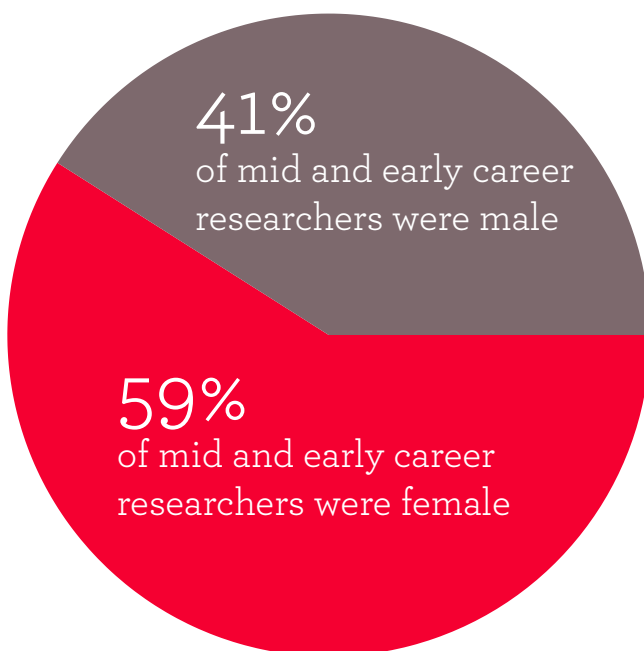
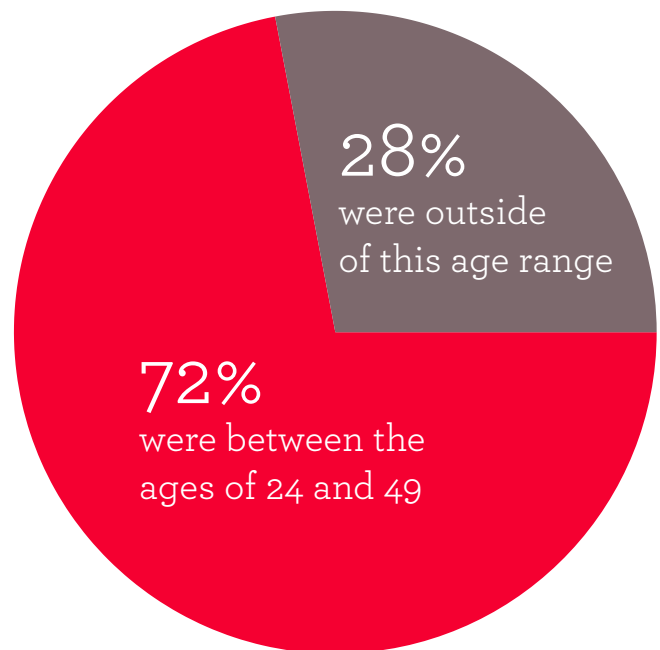
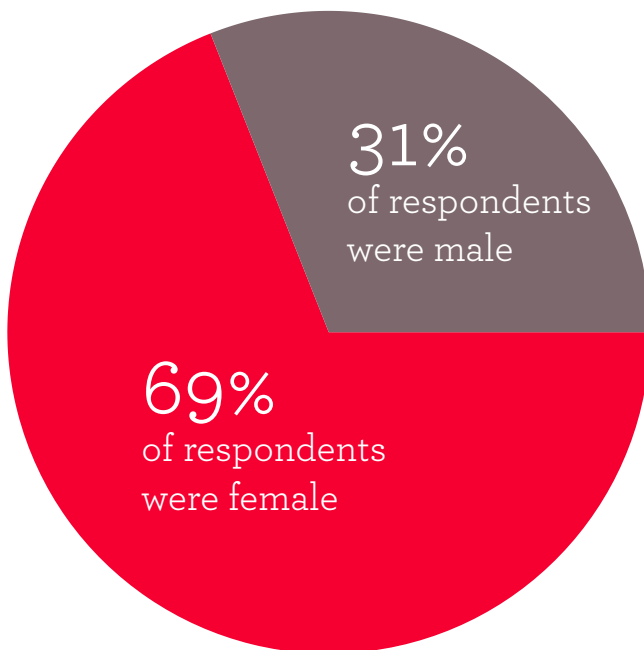
On the 6th November, 2015, the society launched the ASMR Health and Medical Research Workforce Survey. The survey was constructed in Survey Monkey, and was emailed to all members of the ASMR and its affiliated societies, as well as promoted on ASMRs social media pages.

The survey forms part of ongoing efforts by ASMR to quantify and capture the dynamics and sentiments of the Australian health and medical research workforce.

Who responded?

A total of 1251 respondents started the survey. Of those, 942 completed the survey to the very end, and these responses were used in the analysis that has been described.

Demographics



- The odds of being a male senior researcher were higher (3.28) than being a female researcher (1.46)
- 23% of respondents were over the age of 50
- 81% of respondents identified as being employed
- 14% of respondents were students
- 73% of all respondents had a PhD
- Most respondents were employed by a university or by a medical research institute aligned to a hospital or university

Results of the Survey

The science and innovation economy will collapse if the workforce is not retained

- **23% of respondents were uncertain about whether they or not they would be employed in 2016**
- Three quarters of respondents felt that the prospects for someone about to enter the field of medical research are negative with a weak and uncertain future
- 83% of respondents have considered leaving active research for another career option. The majority of these researchers are 'mid-career' researchers (6-15 years post-doctoral)

Results of the Survey

NHMRC is vital for the ongoing support and training of health and medical researchers

- 53% of respondents are directly supported by grants, and failing to maintain a grant will mean they are unemployed
- Of those respondents receiving a fellowship, 62% identified as NHMRC research fellows

NHMRC Fast Facts

- The NHMRC was established in 1926 and is the peak funding body for health and medical research
- Investment to the NHMRC now represents less than 1% of the total health budget
- The last 10 years of NHMRC funded medical research has saved almost \$6 billion to the health system costs due to increased well being
- Increasing the investment into NHMRC would lead to much higher health and economic returns

*“Funding needs to increase for ARC and NHMRC project grants and fellowships.... The current situation is unacceptable and many important projects and competitive fellowship candidates are not funded. This is the main reason for me contemplating leaving academic research in the near future.” - **Survey Respondent***

Results of the Survey

Australia faces an imminent brain drain. Without a secure research ecosystem, Australia risks losing its future prosperity.

- 61% of respondents have considered leaving Australia for a period of three years or permanently

Despite science and innovation being the platform for Australia's future economic strategy

- 81% of respondents said that commercialisation opportunities and intellectual property exploitation was a weak influencing factor in their decision to come or return to Australia
- 65% of respondents felt that they were not adequately equipped to forge links with industry
- Almost one in five respondents deemed linking with industry to be not applicable to them

Australian Innovation

- Cochlear limited has restored hearing to over 200,000 people worldwide
- In 2012/2013 Australian biotherapeutics company, CSL, contributed over \$2.5billion to the Australian economy
- Australian medical device company, ResMed, now employs over 5000 people in more than 22 countries, and holds over 3000 patents

"We want to be a culture, a national culture of innovation, of risk-taking, because as we do that, we grow the whole ecosystem of innovation right across the economy."

Malcolm Turnbull, Prime Minister of Australia

Results of the Survey

Researchers are leaving now!

- 29 respondents identified as being Australians currently living and working abroad
- 73% of those that had left were female, and 27% were male
- 31% had been living overseas for 2-10 years
- 63% said that better funding for their research had a strong to very strong influence on their reasons for leaving Australia
- **100% of respondents who were currently overseas said they would like to come back to Australia; however, more than 80% identified job insecurity and fewer career opportunities as reasons why they wouldn't return.**

"I am currently working on achieving my PhD. As soon as I am finished I will be moving overseas. If I stay in Australia I believe I have no job prospects" - **Survey Respondent**

"Unfortunately, a lot of researchers are leaving the research field due to lack of funding and job security"
- **Survey Respondent**

Results of the Survey

In an uncertain research ecosystem, low morale is having an impact on Australian health and medical researchers

- 92% of respondents identified that lack of funding was having a negative impact on their career
- 75% of respondents said that a lack of job security negatively impacted on their career
- 84% of respondents felt that over the last five years the number of employment opportunities for health and medical researchers had decreased

“Despite having my own funding the redundancies of colleagues and friends is having a very negative impact on myself and others in the sector at my level (mid-career researcher) and below (e.g. students considering doing PhDs)”

- Survey Respondent

Interim

In a volatile research environment, the ASMR makes the following recommendations for immediate implementation

1. The ASMR advocates for an immediate stabilising of the health and medical research workforce by investing new money into the NHMRC MREA, to mitigate the loss of our valuable workforce and the intellectual capital it represents. This will maintain capacity and drive the momentum of research, safeguarding Government's past and future investment.
2. In the long term, develop a predictable and sustainable investment strategy for health and medical research. It goes against sound economic wisdom to allow investment into health and medical research to falter and not keep pace with the country's increasing health burden. We know from econo-metrics that investment in health and medical research provide exceptional value to Australia; with the gains being colossal. Health and medical research improves health, benefits, grows the economy and has broader positive impacts to society and the nation's prosperity.

The ASMR looks forward to a continued engagement with all levels of Government and community and research stakeholders to ensure the continued support, growth and safeguarding of a research ecosystem that drives improved health outcomes, and underpins the future science and innovation economy.