Australian Government
National Health and Medical Research Council

ORIMA RESEARCH

Investigating clinician researcher career pathways project

Survey of clinician researchers: Survey findings Report

December 2021

NHMRC

Publication details

Publication title:	Investigating clinician researcher career pathways project Survey of clinician researchers: Survey findings Report
Publisher:	National Health and Medical Research Council
Published:	2021
NHMRC Publication Reference:	NH192
Suggested citation:	National Health and Medical Research Council (2021), Investigating clinician researcher career pathways project: Survey of clinician researchers: Survey findings Report, Canberra: National Health and Medical Research Council.

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This project has been undertaken in accordance with the International Standard AS ISO 20252, and complies with the Australian Privacy Principles contained in the Privacy Act 1988.

1. Executive summary

Clinicians who combine clinical practice with research are an increasingly important, but poorly understood, strategic resource for the translation of research into practice. There is limited information available about the career pathways of clinician researchers, and the reasons why some clinicians leave or choose not to enter research.

Who are clinician researchers?

For this project, **clinician researchers** are defined as those who:

- conduct research and provide direct clinical services, in any setting, under a formal work arrangement, although not necessarily for the same organisation; and
- are eligible to undertake clinical practice in Australia through registration with the Australian Health Practitioner Regulation Agency (AHPRA), the National Alliance of Self-Regulating Health Professionals (NASRHP), or equivalent.

The *Investigating Clinician Researcher Career Pathways Project* was initiated by the Health Translation Advisory Committee (HTAC) at the National Health and Medical Research Council (NHMRC), to investigate the career pathways that are currently available to clinician researchers in Australia, the tools and mechanisms that are available to support such individuals, and the challenges faced by this group. In June 2018, NHMRC commissioned ORIMA Research to design and conduct Stage 2 of the five-stage project – a survey of Australian clinician researchers.

Research objectives

The survey was designed to better understand:

- whether there are appropriately **clear and supported career pathways** available to clinician researchers in Australia;
- factors that enable some clinicians to **enter research**;
- factors that enable some clinicians to **maintain a career** in research;
- factors that cause some clinicians to choose **not to enter research**;
- major **support mechanisms and enablers** for clinician researchers; and
- major **barriers** and **current issues** for clinician researchers.

1.1 Key findings

Overall, the results from the Survey of Clinician Researchers suggest that clinician researchers in Australia do not have clear or well-supported career pathways, and that there is more that can be done to support this profession (see Figure 2 for a graphical overview of key overall survey results).

Statistical precision

As this survey did not utilise a probability-based sampling approach (due to lack of availability of a reliable sampling frame), the results cannot be extrapolated to the underlying population using statistical theory. Accordingly, statistical precision concepts such as sampling error and confidence intervals are not applicable.

Demographic profile of respondents

Please see Figure 3 and Figure 4 for an overview of the demographic profile of respondents.

What does a career pathway for a clinician researcher look like?

There was a high level of consistency in the career pathways followed by responding clinician researchers. The most common pathways were via an initial clinical qualification (see Figure 1 and Figure 13 for further details), with almost seven-in-ten undertaking a pathway as follows:

- Obtained clinical qualification → practised patient care → returned to university to do a **part-time** or **full-time** degree → thereafter engaged in both patient care and research.

A substantially smaller proportion (8%) had first engaged in research prior to returning to study, and thereafter engaged in both patient care and research.

While many respondents were highly passionate about being engaged in both patient care and research, various challenges have prevented them from progressing / advancing their career.

76% Of respondents reported that they had found it **difficult** to pursue the research career pathway that they desired.

Is there adequate funding available across Australia to support clinician researchers?

The results from both individuals and organisations suggested that there is not currently adequate funding available across Australia to support clinician researchers.

85% Of respondents felt it was **difficult** to obtain adequate research funding that meets their needs, and 84% felt it was **difficult** to obtain funding that spans the length of the project.

- The main **barriers** to obtaining funding included: a high level of competition for available funding; the time required to prepare applications; and a general lack of suitable funding options.
- No organisations[1] agreed that there is adequate funding available in Australia to support clinician researchers (63% of organisations disagreed and 38% strongly disagreed).

1 Please note that Organisation Survey results should be treated with caution, due to the low sample size (n=8).

Do clinician researchers have appropriate career pathway support?

Almost seven-in-ten respondents (67%) indicated that they had received advice or support in relation to planning or developing a career in research. However, under half of these respondents (46%) found the career support that they received to be highly or extremely helpful.

- Furthermore, around half of respondents (48%) indicated that they had access to work-based research career support resources (such as resources from research funding bodies), but only 19% of this group had found them highly or extremely helpful.

Overall, around one-quarter of respondents (26%) had participated in a **professional mentoring program** as a mentee, and 30% had participated as a mentor. However, almost three-in-five (57%) had not participated in a professional mentoring program in any capacity throughout their career.

Additionally, three-in-four organisations (75%) *disagreed* that:

- there are clear career pathways in Australia for clinician researchers; and
- clinician researchers in Australia generally have adequate non-financial career support.

What effect on careers does the loss, or interruption, of continuous research funding have?

The loss or interruption of continuous research funding was reported to have had a moderately negative impact on the careers of both current and former clinician researchers. Of those who had taken a break or leave from research, this reason was cited by around one-in-five.

22% Of respondents who had ever taken a break from research indicated that they had done so as they had been **unable to secure funding**.

However, interruption or loss of funding was *not* the most common reason for taking a break, or leaving research. Instead:

- a desire to focus on clinical work was a more common factor cited by respondents regarding their decision to **take a break** from research; whereas
- a lack of employment opportunities was reported most commonly by clinician researchers who are **not currently engaged in research** (left to focus on patient care).

2. Common career pathway(s), key overall results and demographic profile of respondents

Figure 1: Visual representation of the most common career pathways reported by survey respondents

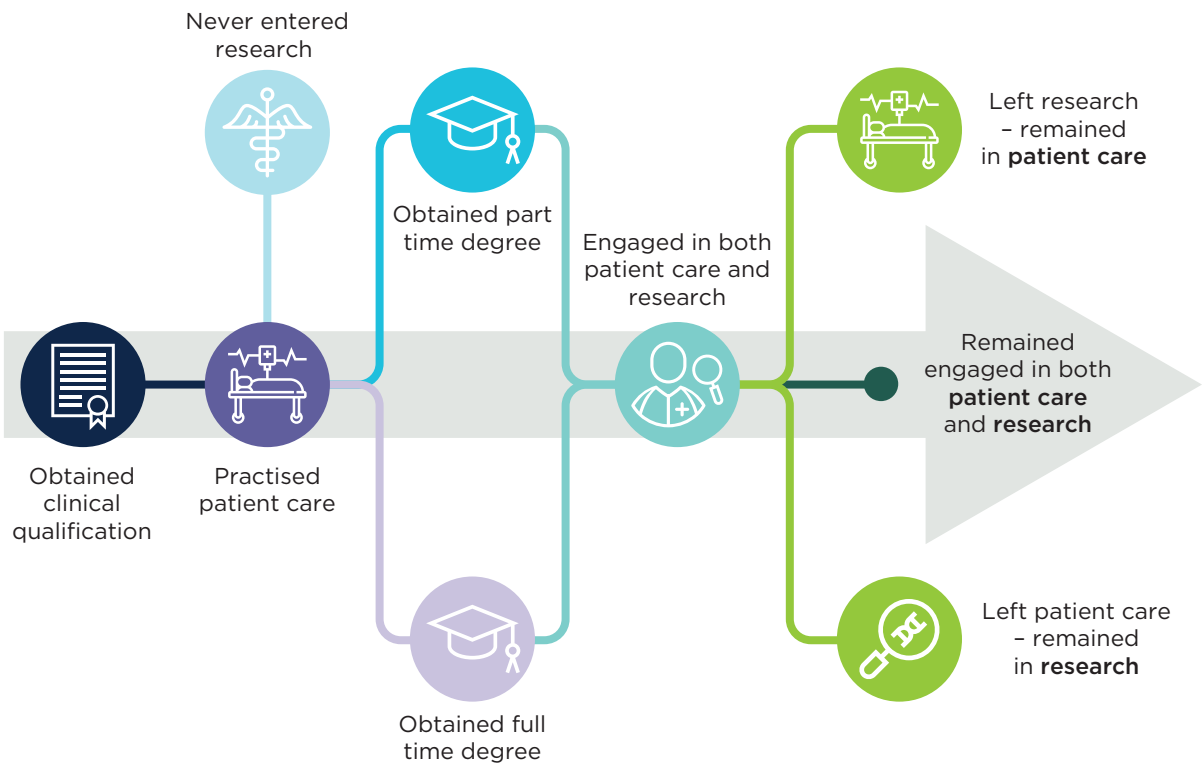


Figure 2: Key overall survey results

CAREER PATHWAY

76% found it difficult to pursue their **desired research career**

Main reasons for **not pursuing** a clinician researcher pathway:
- Unclear how to transition
- Financial cost (loss of income)
- Lack of employment opportunities

29% found it difficult to pursue their **desired clinical career**

Main reasons for **not considering** a clinician researcher pathway:
- Not interested in research
- Not qualified to do research

CAREER SUPPORT

67% had **received advice/support** when planning a research career

46% found this advice/support to be **highly or extremely helpful**

48% had access to **work-based career support resources**

19% found these resources **highly or extremely helpful**

FUNDING

85% found it difficult to obtain an **adequate level** of funding

84% found it difficult to obtain funding that **spans the length of the project**

Main **barriers** to obtain funding:
- High level of competition for available funding
- High time cost of preparing funding applications
- General lack of suitable options

Main **enablers to success** in obtaining funding:
- Partnerships with other researchers
- Strong/well-drafted funding applications
- Advice from mentors

Effect of **interrupted funding** on research:
- Research process was disrupted/ delayed
- Difficult to maintain/ advance career in research
- Difficult to access resources to support research

Main reasons participants are **not currently engaged in research:**

- Lack of employment opportunities
- Want to focus on clinical work
- Unable to secure funding

Figure 3: Demographic profile of respondents (Overall)

ROLE (n=900)

61% **Clinician researcher** – engaged in both patient care and research

7% **Former clinician researcher** – engaged in patient care, but left research

14% **Former clinician researcher** – engaged in research, but left patient care

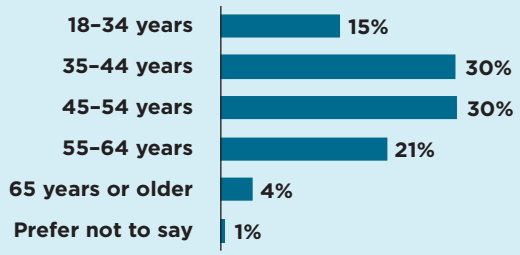
14% **Clinician** – engaged in patient care, and never entered research

GENDER (n=818)

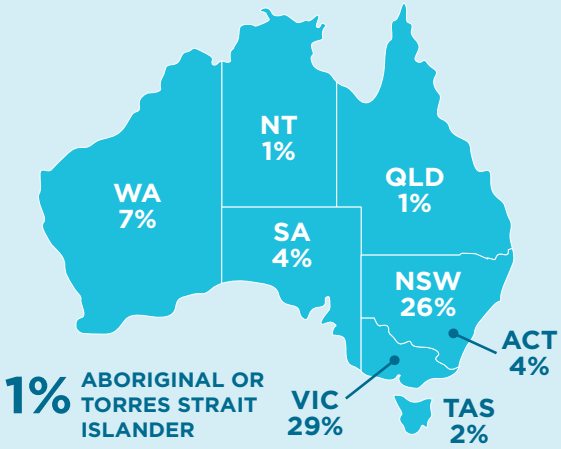
63% FEMALE

36% MALE

AGE (n=823)



STATE/TERRITORY (n=823)



1% ABORIGINAL OR TORRES STRAIT ISLANDER

EMPLOYMENT STATUS: CLINICAL PRACTICE

65% ONGOING EMPLOYEE

28% SELF-EMPLOYED

15% NON-ONGOING EMPLOYEE

(n=703)

EMPLOYMENT STATUS: RESEARCH (TOP 3)

34% ONGOING EMPLOYEE

28% NON-ONGOING EMPLOYEE

9% UNPAID POSITION

(n=633)

MAIN FIELD OF CLINICAL WORK OR MEDICAL SPECIALITY (n=803)

MEDICINE

44% (n=363)

Top 3 fields

1. Medicine / other medicine (57%)
2. Surgery (10%)
3. Psychiatry (9%)

Researcher career stage

Early	Mid	Senior
36%	27%	37%

Top 3 settings

1. Public hospital (78%)
2. Public university (47%)
3. Public medical research institute (20%)

Advanced qualification / title

✓ 87% Yes ✗ 13% No

ALLIED HEALTH

41% (n=340)

Top 3 fields

1. Psychology (60%)
2. Physiotherapy (11%)
3. Dietetics (6%)

Researcher career stage

Early	Mid	Senior
60%	31%	8%

Top 3 settings

1. Public university (36%)
2. Private clinic (32%)
3. Public hospital (30%)

Advanced qualification / title

✓ 26% Yes ✗ 74% No

NURSING

12% (n=100)

Top 3 fields

1. Hospital based nursing (75%)
2. Midwifery (14%)
3. Community based nursing (7%)

Researcher career stage

Early	Mid	Senior
64%	22%	14%

Top 3 settings

1. Public hospital (68%)
2. Public university (29%)
3. Private hospital (21%)

Advanced qualification / title

✓ 13% Yes ✗ 87% No

Figure 4: Demographic profile of respondents (By gender)

♀ FEMALE RESPONDENTS (n=523)

CURRENT ROLE

55% **Clinician researcher** – engaged in both patient care and research

10% **Former clinician researcher** – engaged in patient care, but left research

18% **Former clinician researcher** – engaged in research, but left patient care

17% **Clinician** – engaged in patient care, and never entered research

RESEARCH CAREER STAGE

Early	Mid	Senior
57%	28%	14%

MAIN FIELD OF WORK

29% MEDICINE

50% ALLIED HEALTH

19% NURSING

TOP 3 FIELDS

1. Psychology (31%)
2. Medicine / other medicine (17%)
3. Hospital based nursing (general) (13%)

TOP 3 SETTINGS

1. Hospital (Public) (50%)
2. University (Public) (36%)
3. Clinic (Private) (23%)

ADVANCED QUALIFICATION / TITLE

40% Yes

60% No

♂ MALE RESPONDENTS (n=295)

CURRENT ROLE

80% **Clinician researcher** – engaged in both patient care and research

4% **Former clinician researcher** – engaged in patient care, but left research

7% **Former clinician researcher** – engaged in research, but left patient care

9% **Clinician** – engaged in patient care, and never entered research

RESEARCH CAREER STAGE

Early	Mid	Senior
34%	27%	39%

MAIN FIELD OF WORK

72% MEDICINE

24% ALLIED HEALTH

2% NURSING

TOP 3 FIELDS

1. Medicine / other medicine (43%)
2. Psychology (13%)
3. Surgery (10%)

TOP 3 SETTINGS

1. Hospital (Public) (67%)
2. University (Public) (46%)
3. Clinic (Private) (23%)

ADVANCED QUALIFICATION / TITLE

74% Yes

26% No

3. Survey background and methodology

3.1 Background

The National Health and Medical Research Council (NHMRC) is the lead Australian Government agency for health and medical research in Australia, through the development of advice and funding of research. NHMRC develops specific guidelines on various aspects of health, health care, health research, and environmental health. NHMRC also provides funding for research through its grant program, with a transparent peer-review process to determine how funding is allocated. The Health Translation Advisory Committee (HTAC) advises the NHMRC CEO and Council on opportunities to improve health outcomes through effective translation of research into health care, clinical practice and policy.

Clinicians who combine clinical practice with research are an important, but poorly understood, strategic resource for the translation of research into practice. There is limited information available about the career pathways of clinician researchers, and the reasons why some clinicians leave or choose not to enter research.

In 2018, the *Investigating Clinician Researcher Career Pathways Project* was initiated by HTAC to investigate the career pathways that are currently available to clinician researchers in Australia, the tools and mechanisms that are available to support such individuals, and the challenges faced by this group. As shown in Figure 5 below, the project comprises five key stages, with each stage relying on inputs from the preceding stage(s). NHMRC commissioned ORIMA Research to design and conduct Stage 2 of the project – a survey of Australian clinician researchers, which was completed in March 2019. The estimated completion date for the overall project is December 2021.

Figure 5: Five key stages of the *Investigating Clinician Researcher Career Pathways Project*

Research objectives

The primary objective of the overall project is to assist HTAC in advising the NHMRC CEO and Council on training and career pathways for clinician researchers, and hence provide a clearer understanding of the career pathways for clinician researchers in Australia.

More specifically, the **survey of clinician researchers** (Stage 2) aimed to better understand:

- whether there are appropriately **clear and supported career pathways** available to clinician researchers in Australia;
- factors that enable some clinicians to **enter research**;
- factors that enable some clinicians to **maintain a career** in research;
- factors that cause some clinicians to choose **not to enter research**;
- major **support mechanisms and enablers** for clinician researchers; and
- major **barriers** and **current issues** for clinician researchers.

The target groups for this survey were clinician researchers from medicine, allied health, and nursing backgrounds.

Who are clinician researchers?

For this project, **clinician researchers** are defined as those who:

- conduct research and provide direct clinical services, in any setting, under a formal work arrangement, although not necessarily for the same organisation; and
- are eligible to undertake clinical practice in Australia through registration with the Australian Health Practitioner Regulation Agency (AHPRA), the National Alliance of Self-Regulating Health Professionals (NASRHP), or equivalent.

This report presents the findings of the survey, with comparisons between role (current or former clinician researcher) and the field of specialisation (medicine, allied health, and nursing), where relevant.

3.2 Research methodology

Human Research Ethics Application

Ethics approval was granted for this project by the ORIMA Research Human Research Ethics Committee on Wednesday 12 September 2018 (Approval Number: 0072018). An amendment was subsequently approved by the committee on Friday 19 October 2018 to account for a series of minor revisions to the questionnaire and other supporting documents.

Sample list collation

It is difficult to determine the number and types of clinician researchers in Australia, or how to contact them, as these individuals work in a range of settings and there is no central organisation under which they hold membership. There is limited published research available to estimate this population or the organisations under which they conduct their work.

NHMRC's research grants management system contains contact details for researchers and clinicians who have applied for or received funding from NHMRC. NHMRC are not able to use contact information from the research grants management system due to privacy legislation. ORIMA Research was therefore responsible for undertaking desk research to collate a sample list of potential participants to invite to complete the survey. The first step in this process involved collating a list of organisations under which clinician researchers may hold employment or membership. NHMRC then sent a hard copy primary approach letter to each organisation to invite them to participate in the research – see Figure 6 for an overview of the process.

Figure 6: Process for inviting organisations to participate in the research

Organisations were provided with the choice of using one of the following survey approaches, to maximise ease of participation:

- **Option 1 – Opt-out process:** Organisations were required to collate a list of contact details (names and email addresses) of members who did not opt-out of the survey and provide this list to ORIMA Research to facilitate the distribution of personalised survey invitations.
- **Option 2 – Opt-in process:** Organisations were required to collate a list of contact details of members who opted-in for the survey and provide this list to ORIMA Research to facilitate the distribution of personalised survey invitations.
- **Option 3 – Generic survey link:** Contact details for potential participants were not provided to ORIMA Research. Instead, a generic survey link was provided to organisations, for onward distribution directly to members.

A total of n=258 organisations were sent a primary approach letter. Of these, n=75 organisations confirmed their participation in the research through the administration portal.

Organisation Survey

Within the Organisation Portal, organisations had the opportunity to complete a short, optional Organisation Survey in relation to clinician researcher career pathways. A total of n=8 responses were received for the Organisation Survey. These results are presented in call-out boxes (like this) throughout the report. Please note that results for the Organisation Survey should be treated with caution, due to the low sample size.

Survey administration

Pilot survey

The Survey of Clinician Researchers was administered using an online self-completion methodology. As part of the questionnaire finalisation process, a pilot was conducted between Monday 19 November 2018 and Sunday 25 November 2018, to assess the suitability of survey design and content, and to test the online system.

Three organisations participated in the pilot fieldwork, each opting for a different survey distribution approach. Across these three organisations, a total of n=13 individuals provided responses to the pilot survey – n=4 via personalised survey links (Option 1 and 2) and n=9 via the generic survey link (Option 3).

A Pilot Testing Report was provided to NHMRC on Tuesday 27 November 2018, which detailed some minor suggestions for improvement in relation to:

- expanding response options, or allowing for multiple responses to be selected;
- improving the clarity of some survey questions; and
- adding prompts for response validation, and to encourage the provision of open-ended responses for key questions.

Overall, the pilot was assessed as being successful as there were no substantial criticisms or feedback provided in relation to any aspect or question of the survey, and no critical survey issues were uncovered from the pilot test.

Following the pilot survey, the questionnaire was revised to incorporate pilot feedback, and was finalised in consultation with the NHMRC project team in preparation for the main fieldwork phase.

Main survey

The main survey was conducted between Monday 3 December 2018 and Monday 4 February 2019. Participation in the survey was voluntary, and responses to the survey were anonymous.

Overall, a total of n=901 responses were received for the survey of clinician researchers (across both the pilot and main fieldwork periods), including:

- n=363 from a medicine background;
- n=340 from an allied health background; and
- n=100 from a nursing background[2].

Given the population figure and the total number of invited potential respondents are unknown, the response rate cannot be accurately calculated.

Profile of respondents

Figure 3 on page 8 presents the overall demographic profile of survey respondents. Throughout this report, comparisons have been made between different demographic groups, where there are interesting variations in the results. Any differences by *role* are a particular focus in the analysis of results. Four roles are represented within the sample:

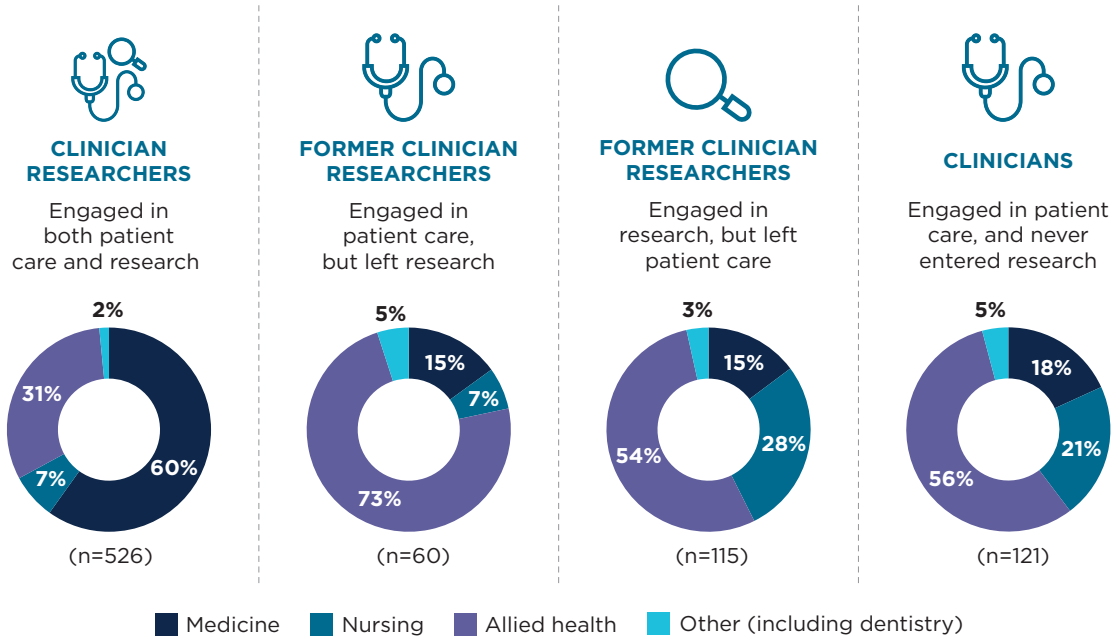
1. Current clinician researchers;
2. Former clinician researchers – currently engaged in patient care, but have left research;
3. Former clinician researchers – currently engaged in research, but have left patient care; and
4. Clinicians who have never entered research.

When interpreting results by role, it should be noted that the demographic profiles of these four groups are broadly consistent in terms of age and location. However, as shown in Figure 7, there are differences in terms of the main field of clinical work / medical specialty for each role. As such, variations in results by role may be significantly driven by this characteristic. Current clinician researchers are also more likely than other groups to be male (45% versus 17-23% across the remaining three roles).

2 n=20 respondents were from other backgrounds (e.g. dentistry), and n=78 respondents did not specify their main field of clinical work or medical specialty.

Figure 7: What is your main field of clinical work or medical specialty? (By role)

Reference sample: Current and former clinician researchers (n=822)



Statistical precision

As this survey did not utilise a probability-based sampling approach (due to lack of availability of a reliable sampling frame), the results cannot be extrapolated to the underlying population using statistical theory. Accordingly, statistical precision concepts such as sampling error and confidence intervals are not applicable.

Presentation of results

Percentages in this report are based on the total number of valid responses made to the question being reported on. In most cases, results reflect those respondents who expressed a view and for whom the questions were applicable. Percentage results throughout the report may not add up to 100% (particularly where displayed in chart form) due to rounding, or where respondents were able to select more than one response.

Weighting was not undertaken in the analysis of survey results as population data was not available.

4. What does a career pathway for a clinician researcher look like?

Key findings

- On average, clinician researchers have reportedly spent **more than half** of their career engaged in clinical work, around **one-third** in research, and around 10% in other work.
- The most common career pathway that clinician researchers had undertaken was: obtained clinical qualification → practised patient care → returned to university to do a degree (part-time or full time) → thereafter engaged in both patient care and research (see Figure 13).
  - While this was the most common career pathway across all fields, current clinician researchers who specialised in nursing were more likely than others to have elected to undertake part-time studies upon their return to university. Furthermore, those from an allied health background were the most likely to have begun their career in research, before engaging in both patient care and research.
- Current clinician researchers generally reported stable career plans for the next 3 years, and former clinician researchers (engaged in research) had the least stable plans.
- Overall, respondents found it **more difficult to pursue the research career pathway** they wanted, compared to a clinical career pathway.
- However, 52% of respondents reported that they had left clinical work for more than six months at some stage during their career, whilst only 41% had ever taken leave from research for more than six months.

Organisation survey

The most common issues / challenges that organisations identified as contributing to clinician researchers leaving research were broadly consistent with those identified by individuals:

- inability to secure funding;
- lack of employment opportunities; and
- desire to focus on clinical work.

4.1 Profile of the current clinician researcher workforce

Field of work or medical specialty

The majority of *current* clinician researchers who disclosed their main field of clinical work indicated that their speciality was **medicine** (e.g. medicine, surgery, psychiatry – 60%). Around one-third (31%) were from an **allied health** background (e.g. psychology, physiotherapy, dietetics), and 7% were in the field of **nursing** (e.g. hospital-based nursing, midwifery, community-based nursing). Less than 2% were from other backgrounds, including dentistry.

Number of years engaged in clinical work and research

Overall, current clinician researchers spent an average of 20 years engaged in **clinical work** (i.e. providing patient care), and an average of 13 years engaged in **research**.

- Furthermore, the interquartile range for clinical work was 12 – 28 years (median 20 years), whilst the range for research spanned from 5 – 20 years (median 11 years).

Table 1 illustrates how the length of engagement in clinical work and research varied by **career stage**[3].

Table 1: Number of years engaged in clinical work and research (by career stage)

Reference sample: Current clinician researchers who specified their career stage (n=515-525)

	Early career researchers (n=245-250)	Mid-career researchers (n=144-148)	Senior researchers (n=125-127)
Average number of years since first commenced working as either a clinician or researcher	**14**	**22**	**32**
Average number of years engaged in clinical work	14	21	31
Average number of years engaged in research	6	15	26

As shown in Table 2, clinician researchers in the field of medicine reported the highest average tenure in both clinical work and research, while clinician researchers in the field of nursing demonstrated the largest gap between clinical work and research in terms of length of engagement (12 years). Consistent with this, those with a **medical** background were more likely than others to assess themselves as senior researchers; and those from **allied health** or **nursing** backgrounds were more likely to be early career researchers (see Figure 9).

Table 2: Number of years engaged in clinical work and research (by field)

Reference sample: Current clinician researchers whose main field of work was medicine, allied health or nursing (n=508-518)

	Medicine (n=311-315)	Allied health (n=159-165)	Nursing (n=37-38)
Average number of years since first commenced working as either a clinician or researcher	**23**	**16**	**20**
Average number of years engaged in clinical work	23	15	19
Average number of years engaged in research	17	9	7

3 Please note that career stage was self-reported by respondents and subjective (i.e. no definition of the three career stages was provided to survey respondents to aid in the interpretation of this question).

Qualifications

Overall, the most common undergraduate degree held by *current* clinician researchers was a Bachelor of Medicine and Bachelor of Surgery (MBBS – 58% held the degree, of which 44% held the degree with honours), and the most common postgraduate degree held was a Doctor of Philosophy (PhD – 57%). Of those specialising in either allied health or nursing, the most common undergraduate degree held was a Bachelor of Science or equivalent (64% and 49% respectively), whilst almost all of those specialising in medicine had undertaken an undergraduate MBBS (96%).

The top five universities from which current clinician researchers had obtained their degree(s) were the University of Melbourne (16%), the University of Queensland (12%), the University of Sydney (11%), Monash University (7%), and the University of New South Wales (8%). Almost one-in-five had obtained their degree(s) overseas (17%).

Approximately two-in-three current clinician researchers (65%) had been awarded an advanced qualification or title. Current clinician researchers who specialised in medicine were significantly more likely to have been awarded an advanced qualification or title (90%), compared to those from allied health (26%) and nursing (14%) backgrounds. The most commonly reported advanced qualifications or titles held by current clinician researchers from a **medicine** background were Fellow of the Royal Australasian College of Physicians (FRACP – 50%), Fellow of the Royal Australasian College of Surgeons (FRACS – 9%), and Fellow of the Royal Australian College of General Practitioners (FRACGP – 9%). The primary advanced qualification / title held by current clinician researchers from an **allied health** background was Fellow of the Australian Psychological Society (APS) / APS Colleges (31%). The number of current clinician researchers from a **nursing** background who specified the advanced qualification or title they had been awarded was too low for inclusion in this report (n=2).

Work setting

Current clinician researchers were asked to identify the clinical practice and/or research setting that best described where they currently worked. Multiple responses were accepted; however, responses were not categorised into clinical workplace and research workplace.

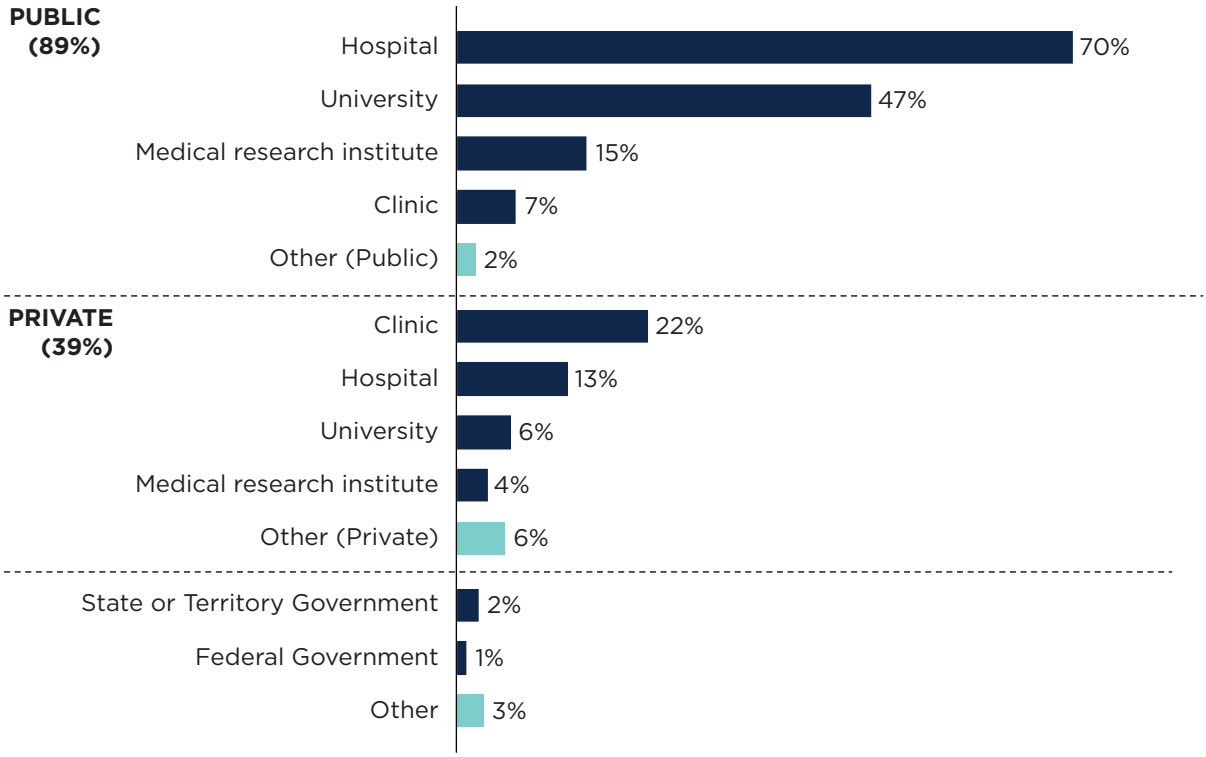
As shown in Figure 8, the majority of clinician researchers worked in a public setting (89%) – primarily in a hospital (70%) or a university (47%). Around two-in-five worked in a private setting (39%) – primarily a private clinic (22%), but 13% also worked in a private hospital.

- Clinician researchers in the field of **nursing** were *most* likely to work in a public setting (97%). This was most commonly within a public hospital (89%).
- Although those in the field of **allied health** were also highly likely to work in a public setting (83%), they were also *more likely than others* to work in a private setting (48% – compared to 37% for medicine, and 18% for nursing) – most commonly in private clinics (28%).
- Clinician researchers in the field of **medicine** were also highly likely to work in a public setting (91%), most commonly within public hospitals (82%), but also in universities (50%).

Results did not vary substantially by other demographic characteristics, including gender.

Figure 8: Which of the following best describes the setting where you work in clinical practice and/or research?

Reference sample: Current clinician researchers (n=522); multiple responses accepted



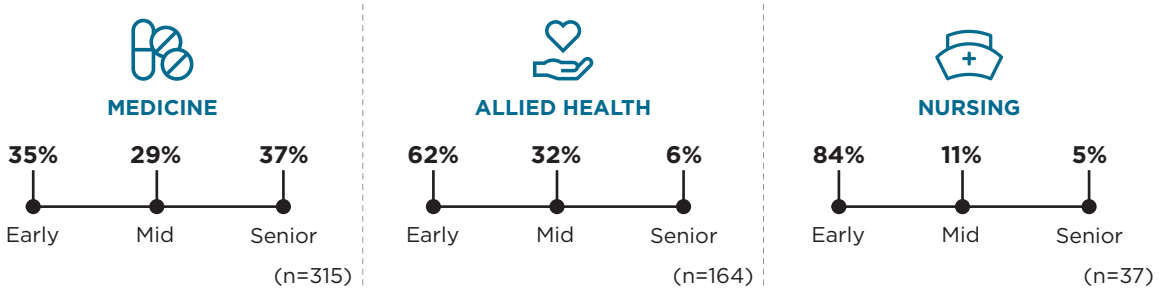
Career stage

As touched upon earlier in this Chapter, career stage was self-reported by respondents and subjective. No definition of the three career stages was provided to survey respondents to aid in the interpretation of this question. In interpreting the following results, it should be noted that respondents' definitions of their career stage may differ to others' (e.g. NHRMC, other funding bodies or their employer).

Just under half of current clinician researchers (48%) reported that they were early career researchers, 28% were mid-career researchers, and around one-quarter senior researchers (24%). Figure 9 illustrates that clinician researchers in the field of nursing were most likely to be early career researchers (84% – compared to 62% for allied health, and 35% for medicine), while those in the field of medicine were more likely than others to be senior career researchers (37% – compared to 6% for allied health, and 5% for nursing).

Figure 9: In your opinion, what career stage are you currently at? (By field)

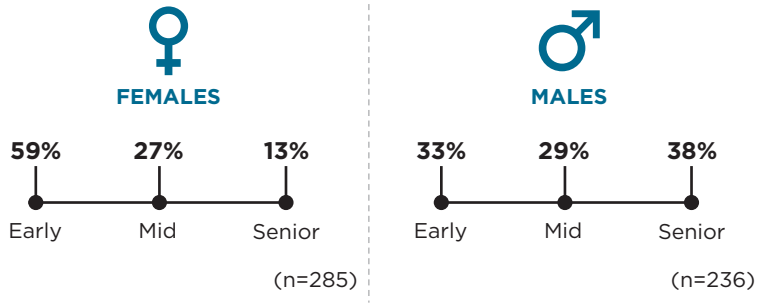
Reference sample: Current clinician researchers whose main field of work was medicine, allied health or nursing (n=516)



As shown in Figure 10, **female** respondents were more likely to indicate that they were early career researchers (59% – compared to 33% for males), while **males** were more likely to indicate that they were senior researchers (38% – compared to 13% for females).

Figure 10: In your opinion, what career stage are you currently at? (By gender)

Reference sample: Current clinician researchers who specified their gender (n=521)



4.2 Career pathways of the clinician researcher workforce

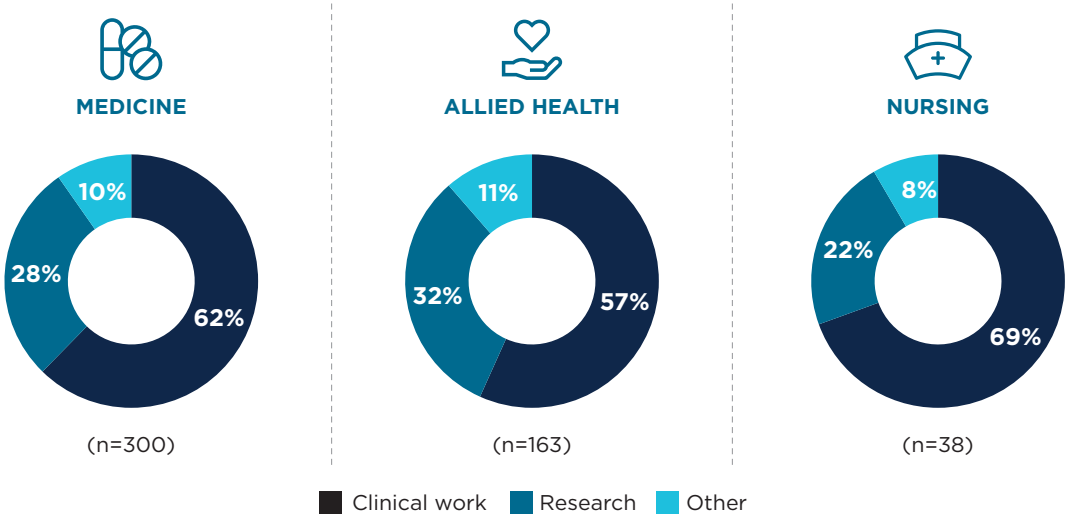
Proportion of career spent on clinical work and research

On average, *current* clinician researchers had reportedly spent more than half of their career engaged in clinical work (61%), less than one-third of their career engaged in research (29%) and around 10% of their career engaged in 'other' work[4].

As illustrated in Figure 11, current clinician researchers in the field of nursing had devoted the greatest amount of time to clinical work (69% on average), and those in the field of allied health had spent the most time on research (32% on average), relative to clinician researchers in other fields.

Figure 11: Average proportion of career time spent on clinical work, research, and other work (by field)

Reference sample: Current clinician researchers whose main field of work was medicine, allied health or nursing (n=501)

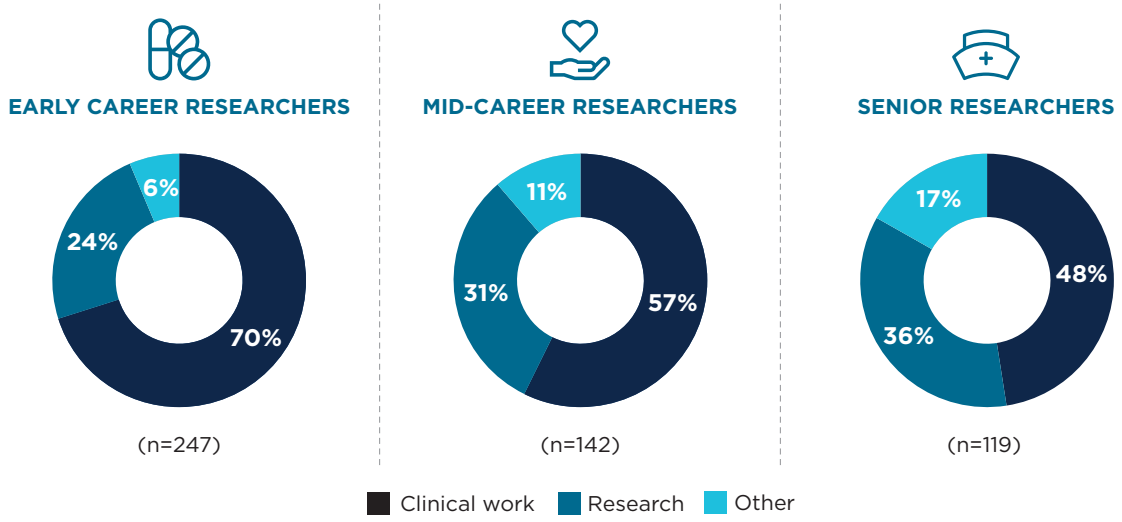


4 Respondents were not asked to specify what 'other' work they had engaged in during their career.

Results also varied by **career stage** (see Figure 12). The average proportion of career time spent on research and 'other' work tended to increase with seniority, while time spent on clinical work tended to decrease.

Figure 12: Average proportion of career time spent on clinical work, research, and other work (by career stage)

Reference sample: Current clinician researchers who specified their career stage (n=508)



Results did not vary substantially by gender.

Career pathway

When asked to identify the career pathway that best described their own, the most common pathways selected by clinician researchers were via an initial clinical qualification (see Figure 13):

- Obtained clinical qualification → practised patient care → returned to university to do a **part-time** degree → thereafter engaged in both patient care and research (35%); and
- Obtained clinical qualification → practised patient care → returned to university to do a **full-time** degree → thereafter engaged in both patient care and research (32%).

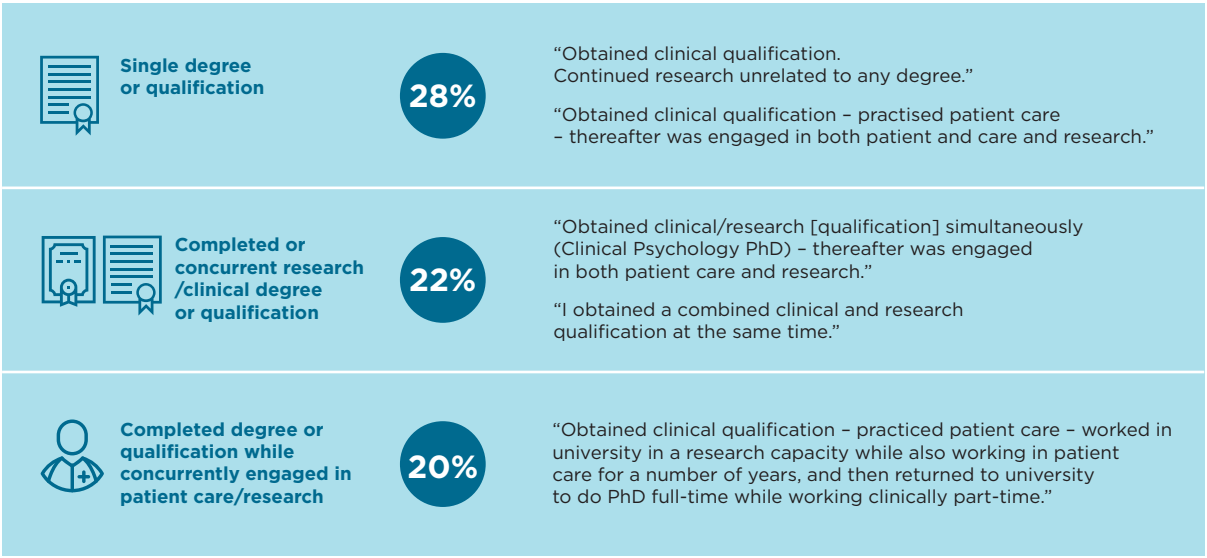
Figure 13: Which of the following career pathways best describes your own?

Reference sample: Current clinician researchers (n=541)

Just over one-in-five clinician researchers (22%) indicated through a free-text comment that they had followed a different career pathway to those specified above. Common features of 'other' pathways are shown in Figure 14.

Figure 14: Which of the following career pathways best describes your own? (Other – top 3 themes identified in open-ended responses)

Reference sample: Current clinician researchers who followed a career pathway other than those specified (n=163)



Although the top two most common career pathways did not vary by field of work, current clinician researchers who specialised in **nursing** were *more* likely than others to have elected to undertake part-time studies upon their return to university. Furthermore, those from an **allied health** background were the *most* likely to have begun their career in research, before engaging in both patient care and research (14%, compared to 8% overall).

- When looking deeper into the results reported by allied health professionals, the top two most common career pathways of **psychologists** differed slightly from the overall sample (psychology was the largest allied health profession represented in the sample). Psychologists were still most likely to have obtained a clinical qualification and practised patient care before returning part-time to university (22%), but their second most common pathway was completing an initial research degree, before completing a full-time clinical qualification (13%). Additionally, over one-third (36%) had taken a route 'other' than those mentioned, suggesting that psychologists may experience less common pathways relative to other respondents.

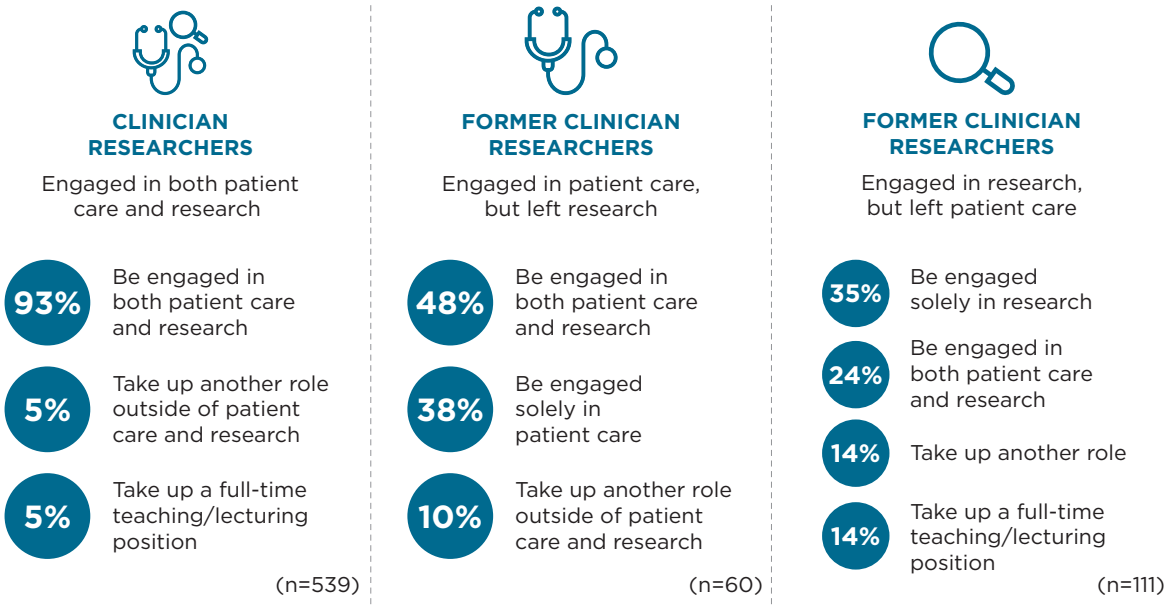
Reported career pathways also varied slightly by **gender**. Male current clinician researchers were more likely than females to have returned to university full-time (38% versus 25%). Female clinician researchers were instead more likely to report undertaking pathways 'other' than the five presented in Figure 13 (28% versus 17% of males).

Career plans

As may be expected, career plans for the next three years differed between current and former clinician researchers. Figure 15 illustrates that there was a high level of consistency in terms of short-term career plans amongst **current clinician researchers.** Over nine-in-ten current clinician researchers (93%) indicated that they would remain engaged in both patient care and research in the next three years. Although much lower compared to current clinician researchers, a notable proportion of **former clinician researchers** (who had left research) reported that they planned to return to a concurrent engagement in both patient care and research (48%) – indicating that this cohort still has an interest in pursuing research.

Figure 15: What are your career plans for the next 3 years? (Top 3 responses by role)

Reference sample: Current and former clinician researchers; multiple responses accepted (n=710)



In contrast, future plans amongst former clinician researchers who are **currently engaged in research** (but have left patient care) were more varied. Only 35% indicated they would remain engaged solely in research, and over one-quarter had plans 'other' than those listed (26%).

Consistent with the above findings, **male** respondents were more likely to indicate that they planned to be engaged in both patient care and research for the next 3 years (90% compared to 72% for females – though males were also more likely to be current clinician researchers).

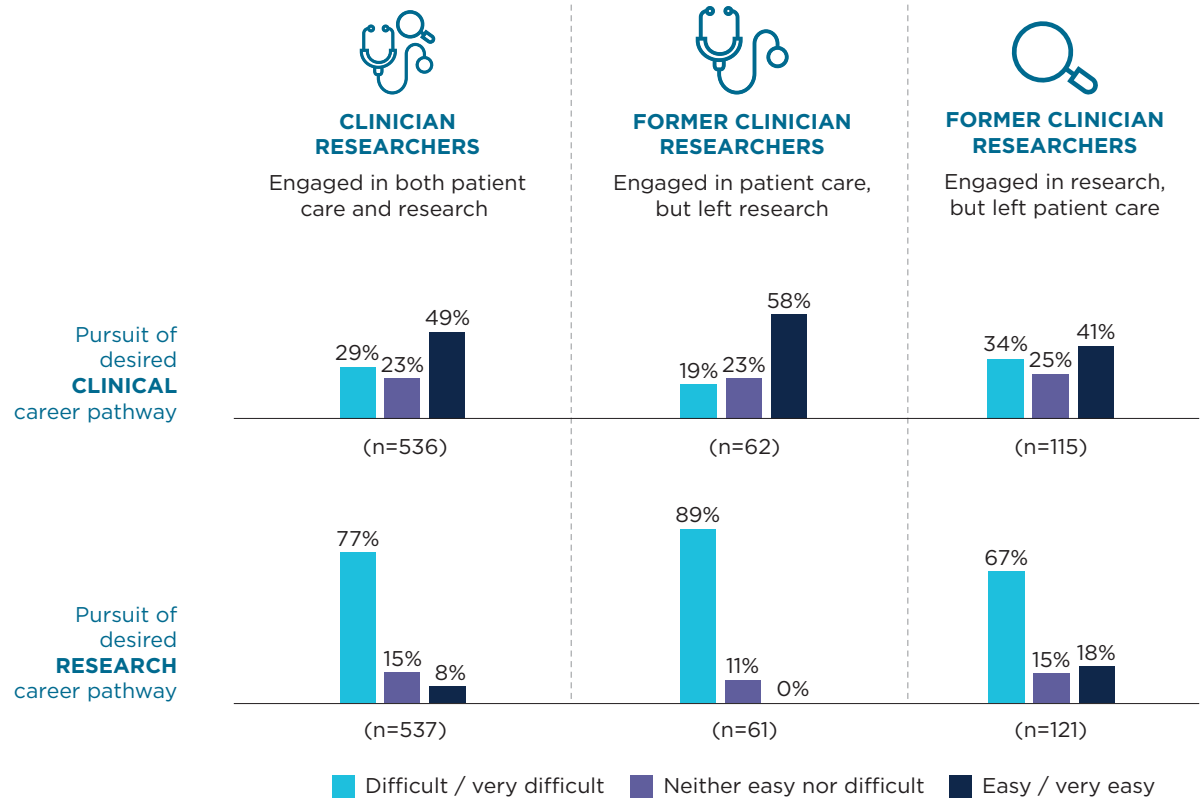
Ease of pursuing desired career pathway

Overall, respondents reported that they had found it much more *difficult* to pursue the **research** career pathway they wanted, compared to pursuing the **clinical** career pathway they wanted.

As shown in Figure 16, perhaps unsurprisingly, former clinician researchers *who have left research* were most likely to indicate that they found it easy to pursue the clinical career pathway they wanted (58%), but difficult to pursue the research career pathway they wanted (89% – none found pursuing a research career easy). Although to a lesser extent, respondents *currently engaged in research* also reported that they had found it relatively difficult to pursue the research career pathway they wanted – 77% of clinician researchers engaged in both patient care and research, and 67% of former clinician researchers who are engaged in research but have left patient care. The location demographics of these groups were similar to the overall demographic profile of respondents. Overall results did not vary substantially by demographic characteristics (e.g. field of work, career stage, or gender[5]).

Figure 16: Reflecting on your career so far, how easy or difficult have you found it to pursue the clinical and research career pathway / role / job you wanted? (By role)

Reference sample: Current and former clinician researchers (n=713-719)



5 Results were unable to be split by location due to low sample size.

Taking a break from clinical work

More than half of respondents (52%) reported that they had left **clinical work** for more than six months at some stage during their career. Around one-in-three reported that they had left clinical work on one occasion (31%), and around one-in-five left on more than one occasion (21%).

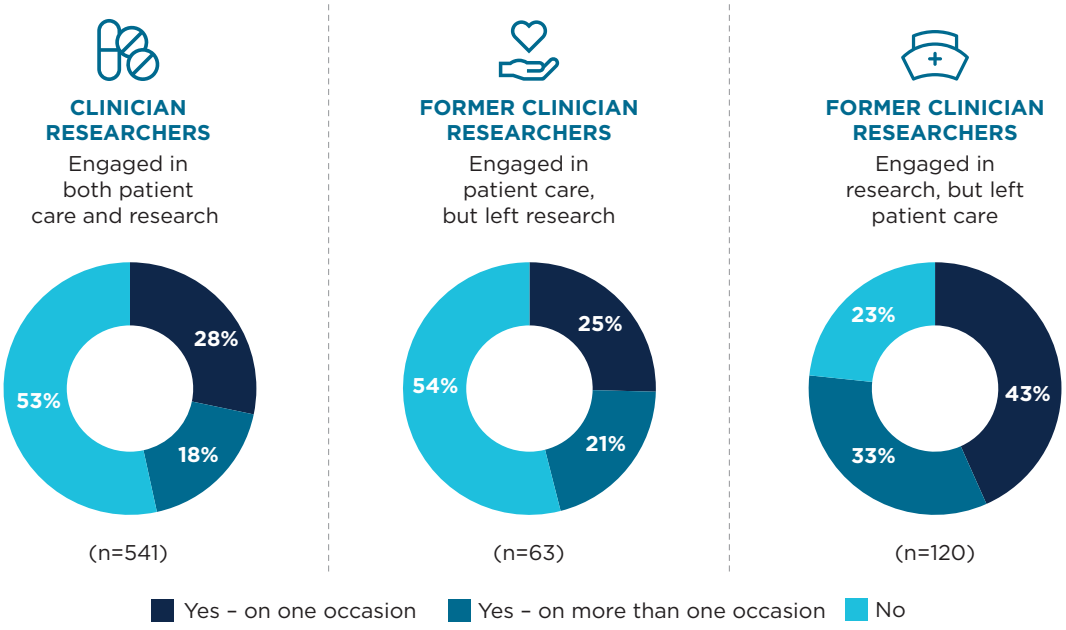
- Of those who had left clinical work on more than one occasion, the majority had left twice (56%), and over one-third had left on three occasions (37%). The maximum number of times a respondent had left clinical work was six.

Former clinician researchers who have **left patient care** were more likely than those in other roles to indicate that they had left clinical work for an extended period of time (see Figure 17). Furthermore:

- **Females** and respondents in the field of **nursing** were most likely to indicate that they had left clinical work on more than one occasion; and
- **Males** and respondents in the field of **medicine** were more likely to have *never* left clinical work.

Figure 17: Have you ever left clinical work for an extended period of time (more than 6 months)? (By role)

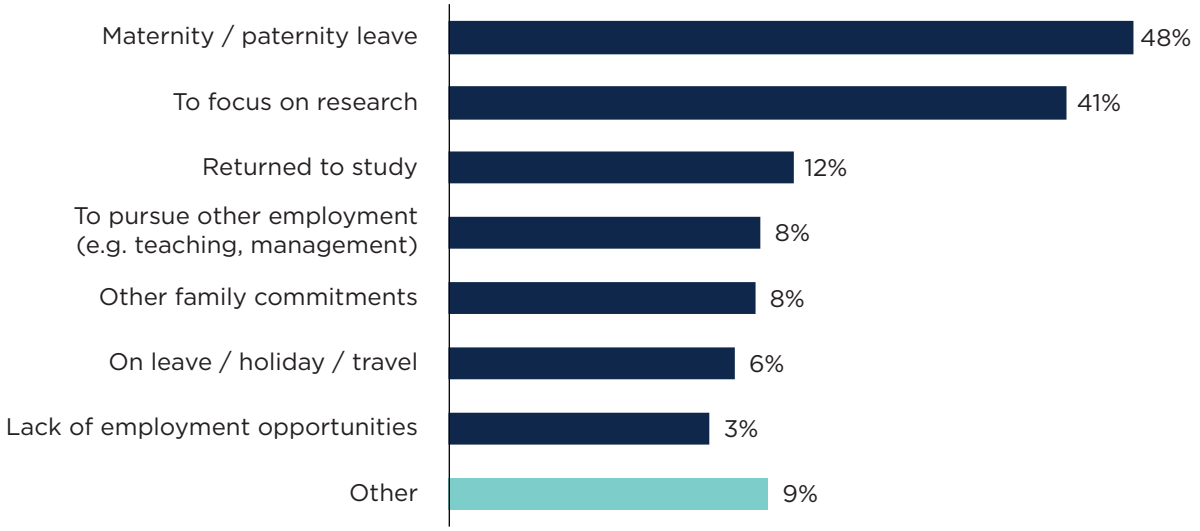
Reference sample: Current and former clinician researchers (n=724)



Those who had left clinical work for an extended period of time were asked to indicate the reasons behind their decision to take a break. Overall, the most commonly reported reasons were maternity / paternity leave (48%), and to focus on research (41% – see Figure 18).

Figure 18: Why did you take a break from clinical work?

Reference sample: Current and former clinician researchers who had left clinical work for an extended period of time (n=366); multiple responses accepted



Amongst those **currently engaged** in research, return to study was another frequently reported reason for taking a break from clinical work (15% for former clinician researchers who have left patient care, and 12% for current clinician researchers). Former clinician researchers who have **left patient care** were also significantly more likely than others to take a break from clinical work to focus on research (54%). Former clinician researchers who have **left research** instead indicated that another common reason behind their decision to take a break from clinical work was to pursue other employment, such as teaching or management (11%).

Furthermore:

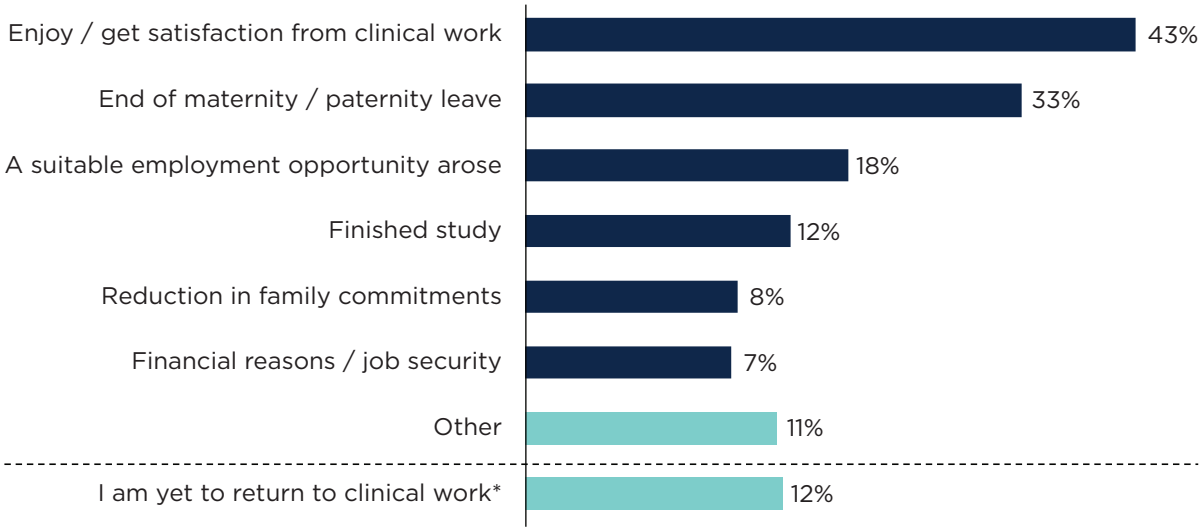
- Compared to early career researchers, **senior researchers** were *more* likely to have taken a break from clinical work to focus on research (58% versus 36%), and to pursue other employment (14% versus 9%).
- Respondents in the field of **allied health** were *least* likely to have taken a break from clinical work to focus on research (36% – compared to 46% for medicine, and 43% for nursing), and *most* likely to have taken a break to pursue other employment (14% – compared to 9% for nursing, and 4% for medicine).
- **Females** were substantially *more* likely than males to have taken a break from clinical work due to maternity / paternity leave (65% – compared to just 3% for males), and were also less likely to take a break to focus on research (31% – compared to 66% for males).

In terms of the length of time for which respondents last took a break from clinical work, the majority of those **currently engaged** in clinical work (current clinician researchers, and former clinician researchers who have left research) indicated that their break was between 6 to 12 months long (50% and 52% respectively). In contrast, former clinician researchers who have **left patient care** were most likely to indicate that their last break from clinical work was 5 or more years long (40%), and around half of this cohort were still on that break (49%). Respondents in the field of nursing were also more likely than other cohorts to have taken a long break from clinical work (24% took their last break for 5 years or more – compared to just 13% for allied health, and 9% for medicine).

When asked to indicate the reasons behind their decision to **return to clinical work**, the most commonly reported reasons *overall* were the enjoyment of clinical work (43%), the end of maternity / paternity leave (33% overall, and 44% for females), and the emergence of a suitable employment opportunity (18% – see Figure 19). Respondents in the field of allied health and medicine were more likely than those in nursing to have returned to clinical work as they enjoy / get satisfaction from the work (48% and 41%, respectively, compared to 32% for nursing). The most common reason nursing specialists returned was due to the end of maternity or paternity leave (41%).

Figure 19: Why did you return to clinical work?

Reference sample: Current and former clinician researchers who have left clinical work for an extended period of time (n=329); multiple responses accepted



** This response was only visible to respondents currently engaged in research (current clinician researchers, and former clinician researchers who have left patient care).*

Furthermore:

- Compared to senior researchers, **early career researchers** were more likely to have returned to clinical work as a suitable employment opportunity arose (20% versus 6%).
- Respondents in the field of **medicine** were more likely than others to have returned to clinical work as they had finished study (19% – compared to 8% for nursing, and 7% for allied health).
- **Male** respondents were also more likely to have returned to clinical work as they had finished study (27% – compared to 7% for females).

Taking a break from research

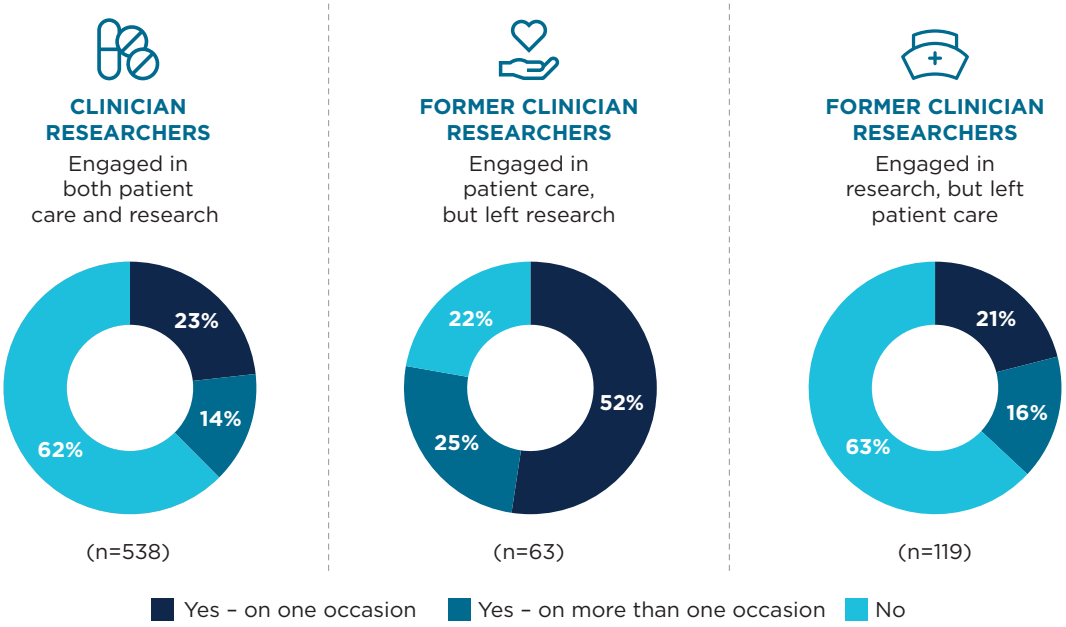
Overall, despite reporting greater difficulty in pursuing a research career (see Figure 16), respondents were more likely to have taken a break from clinical work in their career than from research work. When asked if they had ever **left research** for an extended period of time (more than six months), overall 41% reported that they had taken such leave (compared to 52% for clinical work). One-in-four respondents had left research on one occasion (25%) and just 16% had left research on more than one occasion. Of those who had left research on more than one occasion, the majority had left twice (56%), and one-quarter had left three times (25%).

As expected, former clinician researchers who have left research were most likely to indicate that they had left research for an extended period of time (see Figure 20). Furthermore:

- **Male** respondents were more likely to have *never* left research (70% – compared to 53% for females); and
- Respondents in the field of **nursing** were also more likely to have never left research (71% – compared to 65% for medicine, and 49% for allied health).

Figure 20: Have you ever left research for an extended period (more than 6 months)? (By role)

Reference sample: Current and former clinician researchers (n=720)



Those who had left research for an extended period of time were asked to indicate the reasons behind their decision to take a break. Overall, the most commonly reported reasons were:

- to focus on clinical work (46%);
- maternity / paternity leave (27%);
- lack of employment opportunities (24%); and
- loss or interruption of research funding (22%).

Of those who had left research for an extended period of time to focus on clinical work, around half reported that they held an advanced qualification, however this qualification may or may not have been gained during the extended period of leave from research.

Both former clinician researchers who left research and current clinician researchers were equally as likely to have taken a break due to loss or interruption of funding (20% versus 22%, respectively). However, former clinician researchers who have left research were more likely than current clinician researchers to report taking a break due to lack of employment opportunities (43% versus 22%); and to focus on clinical work (59% versus 46%). Furthermore:

- Respondents in the field of medicine were slightly more likely than other groups to indicate that they had left research due to loss or interruption of research funding (26% – compared to 21% for allied health, and 14% for nursing).
- Compared to senior researchers, early career researchers were more likely to indicate that they had left research due to a lack of employment opportunities (23% versus 11%).
- Compared to female respondents, male respondents were more likely to have left research to focus on clinical work (65% versus 40%), and less likely to have left research due to maternity / paternity leave (5% versus 36%).

In terms of the length of time for which respondents last took a break from research, current clinician researchers, and former clinician researchers who have left patient care were most likely to indicate that their break was relatively short, 6-12 months long (both 39%, compared to just 8% of those who have left research). In contrast, former clinician researchers who have left research were most likely to indicate that that their last break from research was for 5 years or more (45%).

Former clinician researchers who are engaged in patient care, but have left research, were asked to indicate the reasons as to why they were **no longer engaged in research**. As shown in Figure 21, the most common reason was the lack of employment opportunities in research (49%), followed by the desire to focus on clinical work (36%).

Figure 21: Why are you currently not engaged in research?

Reference sample: Former clinician researchers who are engaged in patient care, but have left research (n=47); multiple responses accepted

Respondents currently engaged in research were asked to indicate the reasons behind their decision to return to research, after taking an extended break. Responses provided did not differ substantially by role. Overall, the most commonly reported reasons were:

- a suitable employment opportunity arose (35%);
- obtained research funding (24%); and
- end of maternity / paternity leave (18%).

Many also stated that they returned to research as they enjoy / get satisfaction from it. This sentiment was also apparent in open-ended responses that were provided in relation to work satisfaction and wellbeing, with many stating they were unable to undertake as much research as they wished (see Chapter 6 for more details).

Furthermore:

- Respondents in the field of **medicine** were most likely to have returned to research as they had obtained research funding (30% – compared to 19% for allied health, and 12% for nursing). This finding, in conjunction with the previous finding that this group was also more likely than others to have left research due to funding issues, illustrates the impact that loss or interruption of funding has on research careers of medical specialists in particular.
- Respondents in the field of **nursing** were most likely to have returned to research as a suitable employment opportunity arose (47% – compared to 37% for allied health, and 26% for medicine).
- **Female** respondents were more likely to have returned to research due to the end of maternity / paternity leave (24% – compared to 5% for males), while male respondents were more likely to have returned as they had obtained research funding (34% – compared to 19% for females).

5. Is there adequate funding available across Australia to support clinician researchers?

Adequate funding

For the purpose of this research, adequacy of funding was subjectively determined by the respondent and reflects their personal opinion. The term 'adequate funding' does not represent a monetary value, is not linked to any specific project, and will vary by individual depending on their own experiences across their career.

Key findings

- Most respondents who have *ever* been engaged in research had experience seeking funding.
- The most common types of funding that had been obtained in the past were grants and scholarships.
- Very few respondents felt it was easy to obtain adequate research funding that both met their needs and spanned the length of the project.
- The main **barriers** encountered included: a high level of competition for available funding; the amount of time required to prepare applications; and general lack of suitable funding options.
- The main **success factors** / enablers reported were partnerships / collaboration with other researchers; and advice from experienced mentors.

Organisation survey

No organisations agreed with that *there is adequate funding available in Australia to support clinician researchers* (63% of organisations disagreed and 38% strongly disagreed).

5.1 Clinician researcher funding landscape

Funding applications

As discussed in Chapter 4, the ability to secure funding can be influential in terms of the career trajectory of a clinician researcher. Overall, 86% of respondents who had ever been engaged in research had sought funding[6] to enable / support their work.

As shown in Table 3, the average number of funding applications submitted by those currently engaged in research was over thirty – 32 for current clinician researchers, and 35 for former clinician researchers who have left patient care. In contrast, former clinician researchers who have left research had submitted an average of 8 funding applications in their time as a researcher.

Table 3: Number of funding applications submitted (by role)

Reference sample: Current and former clinician researchers (n=610-713)

	CLINICIAN RESEARCHERS Engaged in both patient care and research (n=468-533)	FORMER CLINICIAN RESEARCHERS Engaged in patient care, but left research (n=39-62)	FORMER CLINICIAN RESEARCHERS Engaged in research, but left patient care (n=103-118)
Proportion of respondents who had sought funding	88%	63%	87%
Average number of funding applications submitted	**32**	**8**	**35**
First quartile	5	3	6
Second quartile (median)	15	5	14
Third quartile	35	8	50

In terms of successful funding applications, former clinician researchers who have left research reported the highest average success rate (51% – see Table 4), while current clinician researchers experienced the lowest success rate (39%). Furthermore, respondents in the field of nursing had the highest average success rate (45%), followed by medicine (41%) and allied health (37%).

Table 4: Funding success rate (by role)

Reference sample: Current and former clinician researchers (n=609)

	CLINICIAN RESEARCHERS Engaged in both patient care and research (n=467)	FORMER CLINICIAN RESEARCHERS Engaged in patient care, but left research (n=39)	FORMER CLINICIAN RESEARCHERS Engaged in research, but left patient care (n=103)
Average funding success rate	**39%**	**51%**	**43%**
First quartile	22%	30%	25%
Second quartile (median)	33%	44%	38%
Third quartile	50%	75%	55%

6 For the purpose of the survey, the term funding was used broadly and included any form of financial support that was provided to respondents to enable them to conduct research, such as grants, scholarships, and financial support from employers.

Overall, these results suggest that current clinician researchers have experienced the greatest difficulty in relation to obtaining funding throughout their careers – reporting the highest number of applications made, and the lowest success rate of the three groups.

In terms of **gender**, while male respondents were likely to submit a higher number of funding applications during their career compared to female respondents, funding success rates did not vary substantially across the two cohorts (see Table 5).

Table 5: Number of funding applications submitted and funding success rate (by gender)

Reference sample: Respondents who specified their gender (n=459-522)

	Females (n=241-287)	Males (n=218-235)
Proportion of respondents who had sought funding	85%	92%
Average number of funding applications submitted	25	40
Average funding success rate	40%	38%

Types of funding

When asked what types of research funding they have obtained, the most common responses across all three roles were *grants* and *scholarships* (see Figure 22). Fellowships were another common type of funding that had been obtained by respondents currently engaged in research – 42% for current clinician researchers, and 40% for former clinician researchers who have left patient care.

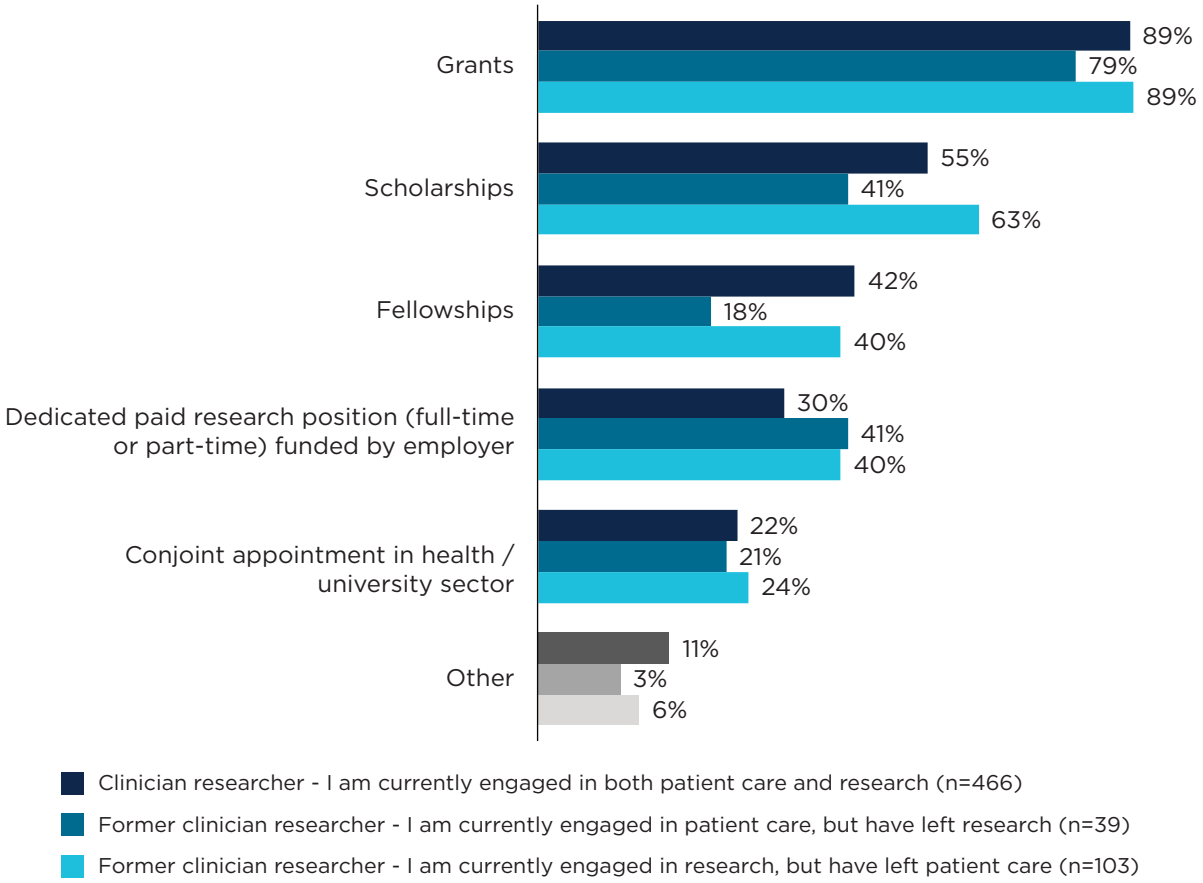
Respondents in the field of medicine were more likely than others to have obtained funding through fellowships (52% – compared to 29% for allied health, and 21% for nursing), and a conjoint appointment in the health / university sector (28% – compared to 20% for nursing, and 15% for allied health). Males were also more likely to have obtained these types of funding, though both males and those in medicine were also more likely than others to be senior career researchers.

- Compared to early career researchers, senior researchers were more likely to have obtained funding through grants (99% versus 81%), fellowships (55% versus 26%), and a conjoint appointment in the health / university sector (38% versus 12%).

Furthermore, respondents in the field of nursing are more likely than others to have obtained funding through scholarships (66% – compared to 55% for medicine, and 53% for allied health).

Figure 22: What types of funding have you obtained to support your research? (By role)

Reference sample: Current and former clinician researchers (n=608); multiple responses accepted



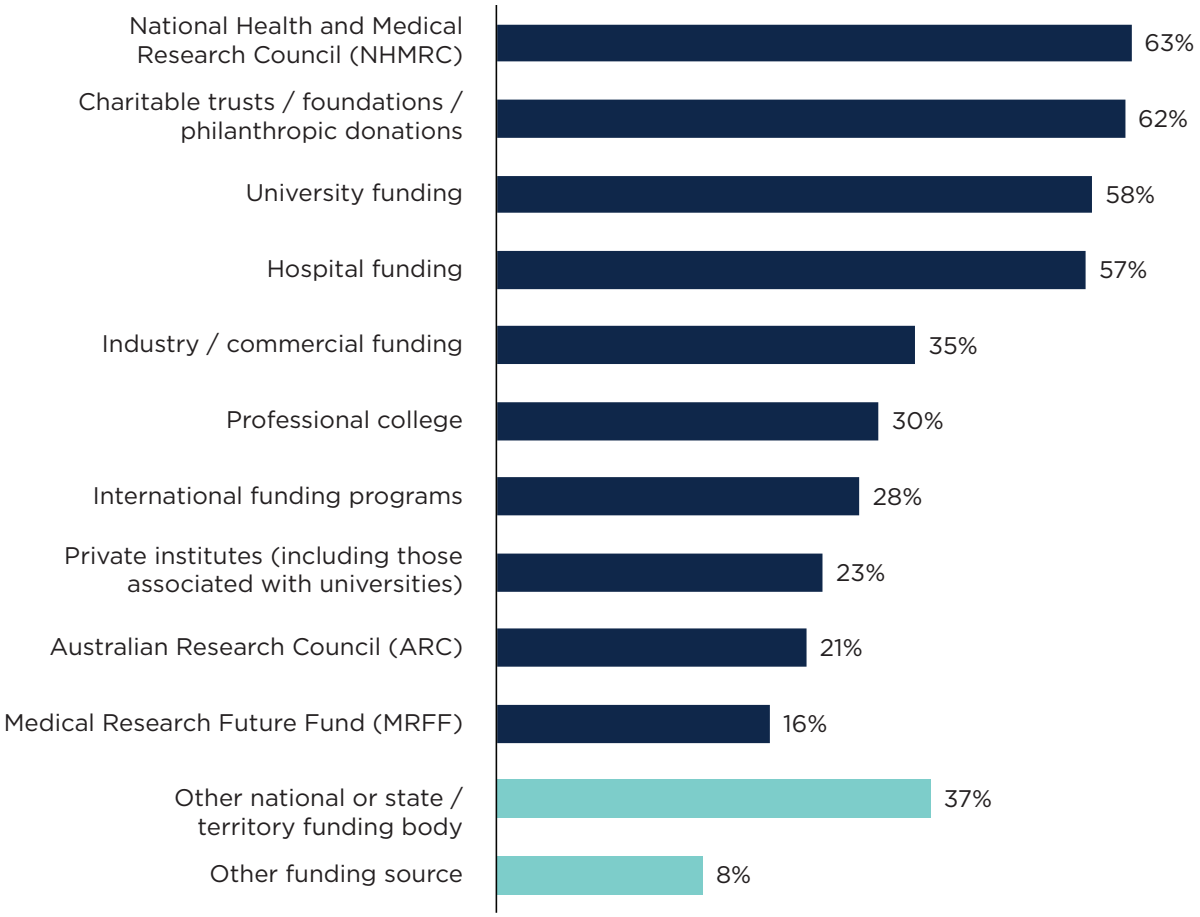
Funding sources

As shown in Figure 23, overall, the most common sources that respondents had sought research funding from were:

- National Health and Medical Research Council (NHMRC – 63%);
- charitable trusts / foundations / philanthropic donations (62%);
- university funding (58%); and
- hospital funding (57%).

Figure 23: From which sources have you sought research funding?

Reference sample: Respondents who indicated that they had sought funding for their research (n=612); multiple responses accepted



By field of work, main sources of research funding varied (though charitable trusts / foundations / donations were popular across all fields).

- Respondents in the field of **medicine** were most likely to have sought funding from NHMRC (79%), through trusts / foundations / donations (68%), and hospitals (64%).
- Respondents in the field of **allied health** were most likely to have sought funding from universities (59%), through trusts / foundations / donations (58%), and NHMRC (50%).
- Respondents in the field of **nursing** were most likely to have sought funding from hospitals (61%), universities (60%) and through trusts / foundations / donations (56%). This group were also the *least* likely to have sought funding from NHMRC (35%).

Considering other demographic cohorts:

- Compared to early career researchers, **senior researchers** were substantially more likely to have sought funding from NHMRC (90% versus 40%), industry / commercial funding (59% versus 22%), and international funding programs (56% versus 11%, though senior researchers were also more likely to have ever sought funding at all).
- **Males** were more likely than females to have sought funding from almost all listed sources.

5.2 Adequacy of funding

Ease of obtaining adequate funding

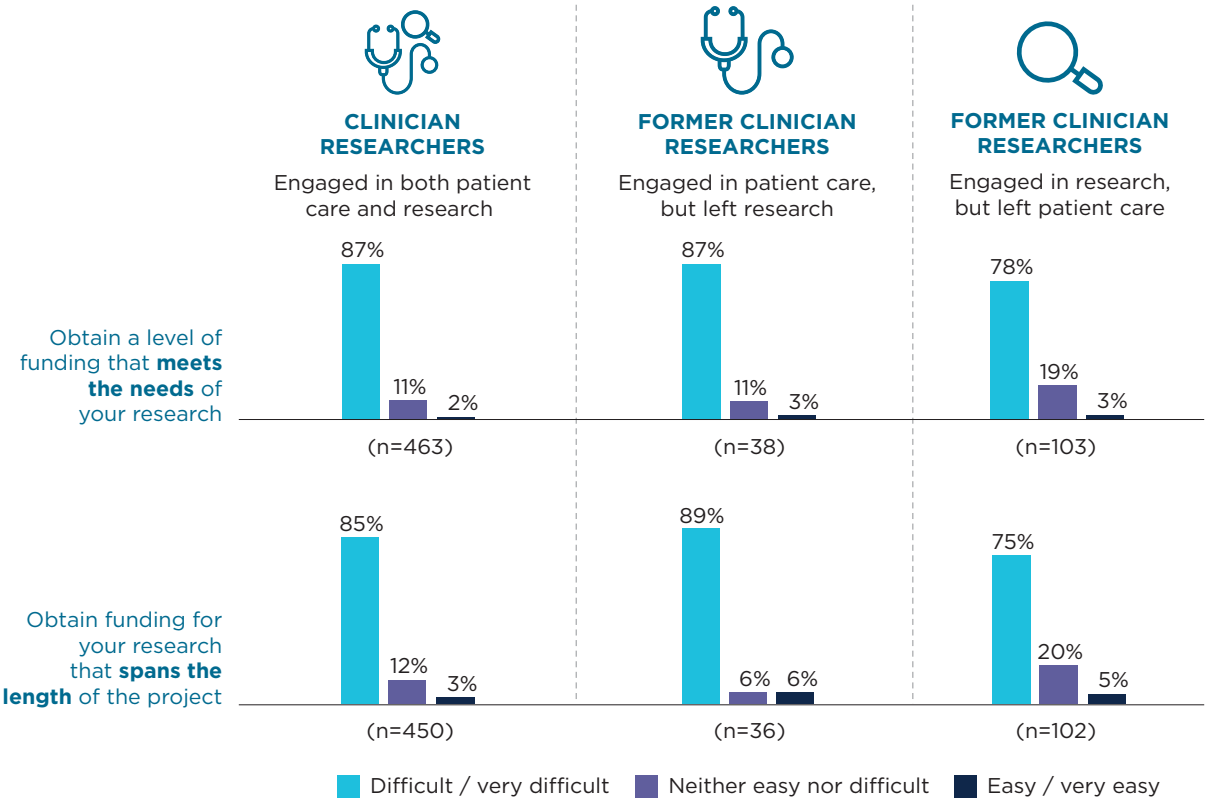
Results suggested that obtaining adequate research funding has been an issue for most respondents. More specifically, over four-in-five respondents (84-85%) indicated that they had found it **difficult** to obtain:

- a level of funding that meets the needs of their research (85%); and
- funding for their research that spans the length of the project (84%).

As shown in Figure 24, very few respondents felt it was easy to obtain adequate funding that meets their needs or spans the length of the project. Ratings did not differ substantially across roles, although former clinicians who have left patient care and retain a primary focus on research were *more* likely to provide a mixed or neutral view and were slightly *less* likely to report difficulty than others.

Figure 24: How easy or difficult have you found it to ...? (By role)

Reference sample: Current and former clinician researchers (n=588-604)



Barriers / challenges encountered in obtaining funding

When asked to identify the main barriers / challenges encountered in obtaining funding for research, the most common responses across all roles were:

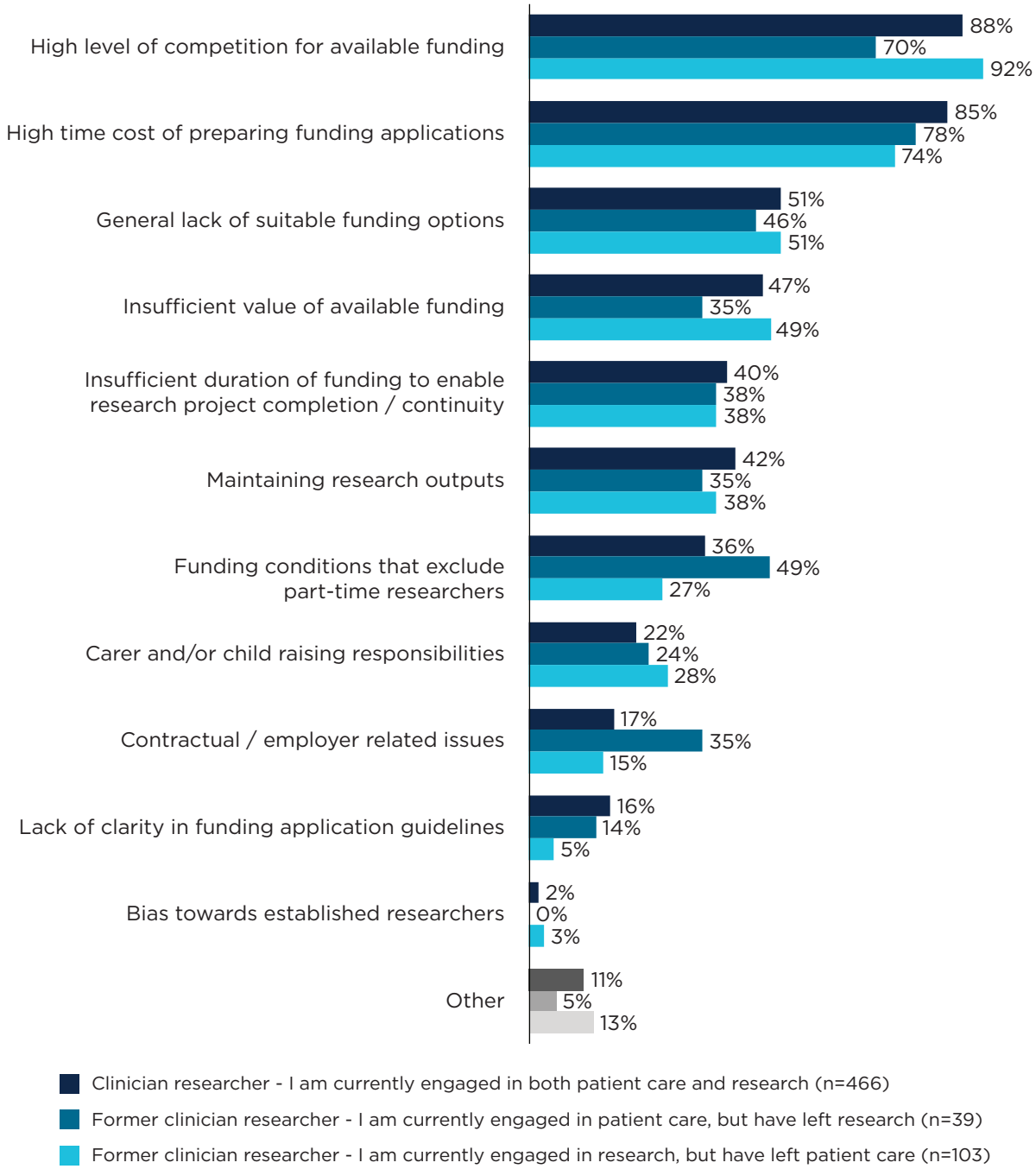
- high level of competition for available funding;
- high time cost of preparing funding applications; and
- general lack of suitable funding options (see Figure 25).

Former clinician researchers who have left research were also more likely than others to identify:

- funding conditions that exclude part-time researchers; and
- contractual / employer related issues.

Figure 25: What have been the main barriers / challenges that you have encountered in obtaining funding for your research? (By role)

Reference sample: Current and former clinician researchers who did not find it easy to obtain funding (n=592); multiple responses accepted



Furthermore:

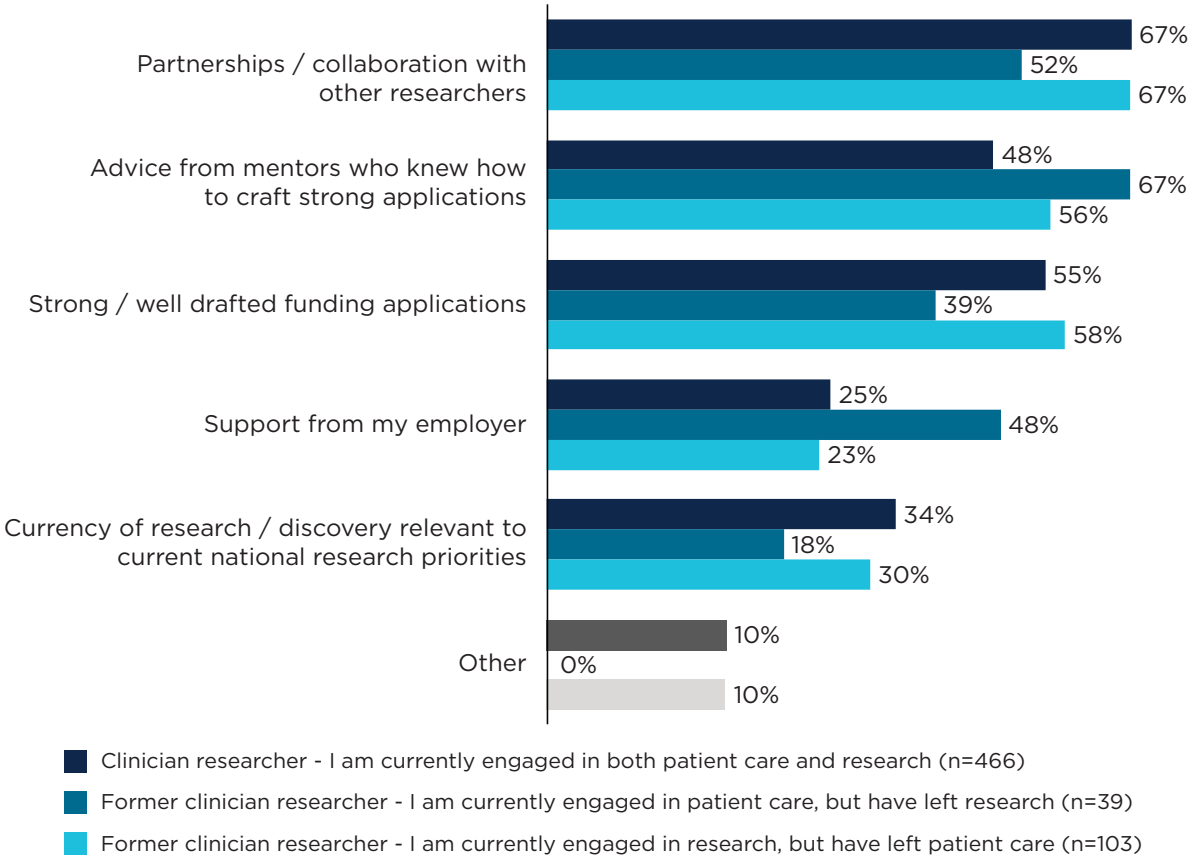
- Respondents in the field of **medicine** were more likely to report the high time cost of preparing applications (87% – compared to 80% for allied health, and 68% for nursing), and insufficient value of available funding (52% – compared to 41% for nursing, and 40% for allied health), as barriers.
- Respondents in the field of **nursing** were more likely than others to identify the general lack of suitable funding options as a barrier (59% – compared to 54% for allied health, and 46% for medicine).
- Respondents in the field of **allied health** were more likely than others to identify funding conditions that exclude part-time researchers (38% – compared to 33% for medicine, and 32% for nursing), and carer and/or child raising responsibilities (29% – compared to 20% for medicine, and 13% for nursing), as barriers.
- Furthermore, **female** respondents were also more likely than males to identify the barriers of carer and/or child raising responsibilities (30% versus 12%), and funding conditions that exclude part-time researchers (38% versus 29%).

Success factors / enablers for obtaining funding

Those who had successfully obtained funding for their research were asked to identify their key success factors / enablers. Among respondents **currently** engaged in research, common responses included partnerships / collaboration with other researchers, and strong / well drafted funding applications (see Figure 26). Former clinician researchers who have **left research** were most likely to identify advice from mentors, and more likely than others to attribute funding success to support from employers.

Figure 26: What have been your key success factors / enablers for obtaining funding for your research? (By role)

Reference sample: Current and former clinician researchers who had successfully obtained funding for their research (n=563); up to three responses accepted



Furthermore, female respondents were considerably more likely to indicate that a key success factor was advice from mentors who knew how to craft strong applications (59% – compared to 37% for males), as were early career researchers (61% – compared to 37% for senior researchers).

Organisation Survey

The most common barriers / challenges that clinician researchers face in obtaining funding for their research, as identified by organisations, were:

- high level of competition for available funding (88%); and
- high time cost of preparing funding applications (75%).

The most common success factors / enablers of obtaining funding for clinician researchers, as identified by organisations, were:

- partnerships / collaborations with other researchers (100%); and
- advice from mentors who knew how to craft strong applications (100%).

6. Do clinician researchers have appropriate career pathway support?

Key findings

- Almost seven-in-ten respondents (67%) indicated that they had received advice or support in relation to planning and developing a career in research. However, only half of these respondents (46%) indicated this advice / support highly or extremely helpful.
- Receiving *helpful* advice / support may be a key influencer in terms of career pathway chosen.
  - Former clinician researchers who have **left research** were less likely than others to have ever received research career advice from a mentor, or advice more generally (and those who had received advice, found it less helpful relative to other groups). This cohort were also the least likely to have had access to work-based research career support resources.
- Overall, around one-quarter of respondents (26%) had participated in a professional mentoring program as a mentee, and 30% had participated as a mentor. However, almost three-in-five (57%) had not participated in a professional mentoring program in any capacity throughout their career. Results suggested that there may be a positive link between following a career pathway in research and having the support of a mentor.

Organisation survey

Three-in-four organisations (75%) *disagreed* that:

- there are clear career pathways in Australia for clinician researchers; and
- clinician researchers in Australia generally have adequate non-financial career support.

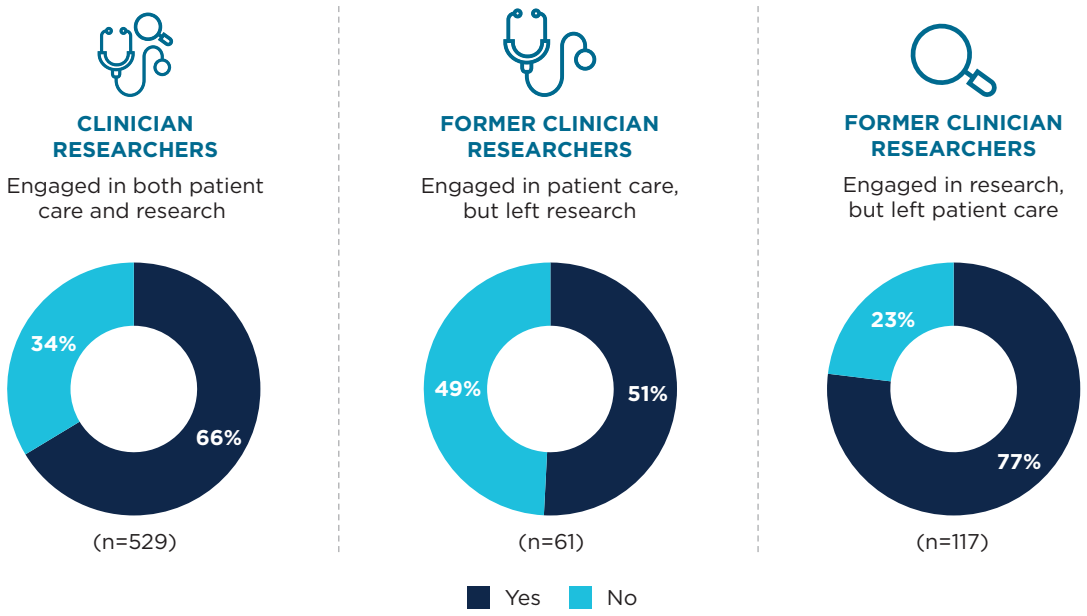
6.1 Advice / support in relation to planning and developing a career in research

Sources of advice / support

Overall, around two-in-three respondents (67%) indicated that they have received advice or support in relation to planning and developing a career in research. Receiving such advice or support may have had a positive influence on the research career of some respondents. As illustrated in Figure 27, former clinician researchers who had left patient care – and were now solely focused on research – were most likely to have received career advice or support (77%), while former clinician researchers who had left research were least likely (51%).

Figure 27: Have you ever received advice / support in relation to planning and developing a career in research? (By role)

Reference sample: Current and former clinician researchers (n=707)



Furthermore:

- Respondents in the field of allied health were most likely to indicate that they had received research career advice / support (73% – compared to 64% for nursing, and 63% for medicine).
- Early career researchers were more likely to have received research career advice / support (77% – compared to 63% for mid-career researchers, and 59% for senior researchers.

When respondents were asked to reveal the source of such advice and support, responses suggested that there were two common sources of advice. Over seven-in-ten respondents indicated that their main sources of advice / support in relation to planning and developing a career in research were **mentors** (76%) and **peers / fellow researchers** (73%). In contrast, only 28% reported that they received advice / support from their university at the time they did their research degree, and 23% from their employer.

Interestingly, former clinician researchers who have **left research** were *least* likely to have received advice / support from mentors (65% – compared to 77% for former clinician researchers who have left patient care, and 77% for current clinician researchers).

Furthermore:

- Respondents in the field of **medicine** were more likely than others to have received advice / support from mentors (82% – compared to 72% for nursing, and 71% for allied health).
- Respondents in the field of **allied health** were more likely to have received advice / support from employers (31% – compared to 21% for nursing, and 16% for medicine).
- Respondents from **nursing** and **allied health** fields were more likely than those in the field of medicine to have received support from the university at the time they did their research degree (38% each, compared to 16% for those in medicine).
- **Female** respondents were more likely to have received advice / support from their university (31% – compared to 24% for males), and employers (27% – compared to 15% for males).

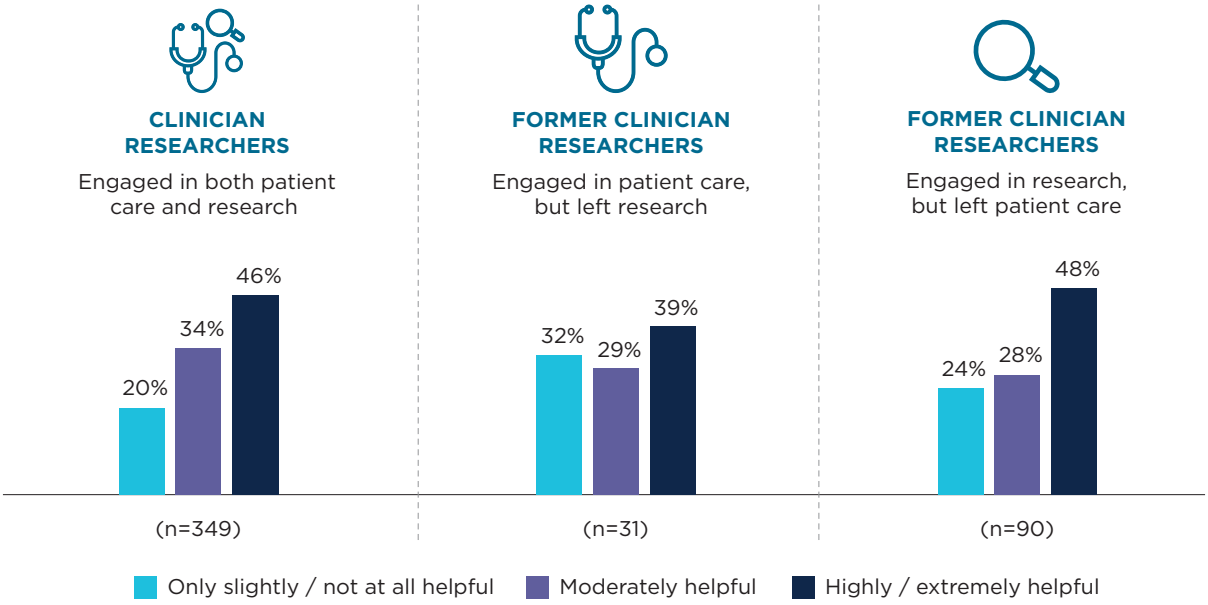
Helpfulness of advice / support

Although many respondents had reportedly received advice or support throughout their career, the results suggest that this advice may not have been particularly useful in many cases. Overall, just under half of respondents (46%) indicated that they had found the career advice / support that they received to be 'extremely helpful' or 'highly helpful'. Former clinician researchers who have left research were *less* likely than others to have found the career advice / support that they received to be 'extremely helpful' or 'highly helpful' (39% – compared to 48% for former clinician researchers who have left patient care, and 46% for current clinician researchers – see Figure 28) and more likely to say it was only 'slightly helpful'.

Male respondents were also slightly more likely than females to report that any advice that they had received was highly or extremely helpful (50% – compared to 43% for females).

Figure 28: Overall, how helpful have you found the advice / support that you have received in relation to planning and developing a career in research? (By role)

Reference sample: Current and former clinician researchers who have received advice / support in relation to planning and developing a career in research (n=470)



Those who indicated that they found the career advice / support that they received to be at least 'moderately helpful' were asked to elaborate on what advice / support they found particularly helpful, and from whom they received this advice. Responses included:

Figure 29: Types of advice that have been helpful (Top 5 themes identified in open-ended responses)

Reference sample: Respondents who found the career advice / support that they received to be at least moderately helpful (n=316)

31% General career advice and support

17% Advice about research and publication

16% Advice about expectations and planning

11% General support or positive encouragement

8% Advice about collaboration and networking

Direct mentors or supervisors were listed as the main source of helpful advice, along with peers / colleagues, and more experienced or senior colleagues.

6.2 Work-based research career support resources

Access to work-based research career support resources

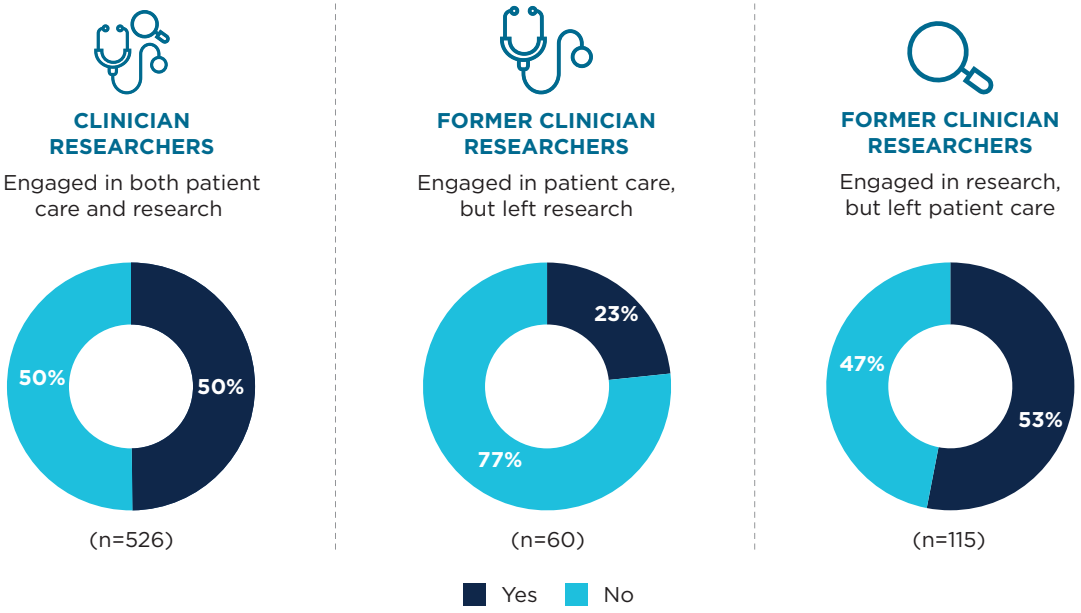
Overall, just under half of respondents (48%) indicated that they had access to work-based research career support resources, such as resources from research funding bodies (e.g. professional colleges or medical research institutes). As shown in Figure 30, former clinician researchers who have left research were substantially more likely to indicate that they did **not** have access to work-based research career support resources.

Furthermore:

- **Male** respondents were more likely to report that they had access to work-based career support resources (53% – compared to 45% for females);
- Respondents in the fields of **medicine** and **nursing** were also more likely to report having such resources (54% and 55% respectively), compared to those in the field of allied health (38%).

Figure 30: Do you have access to work-based research career support resources? (By role)

Reference sample: Current and former clinician researchers (n=701)



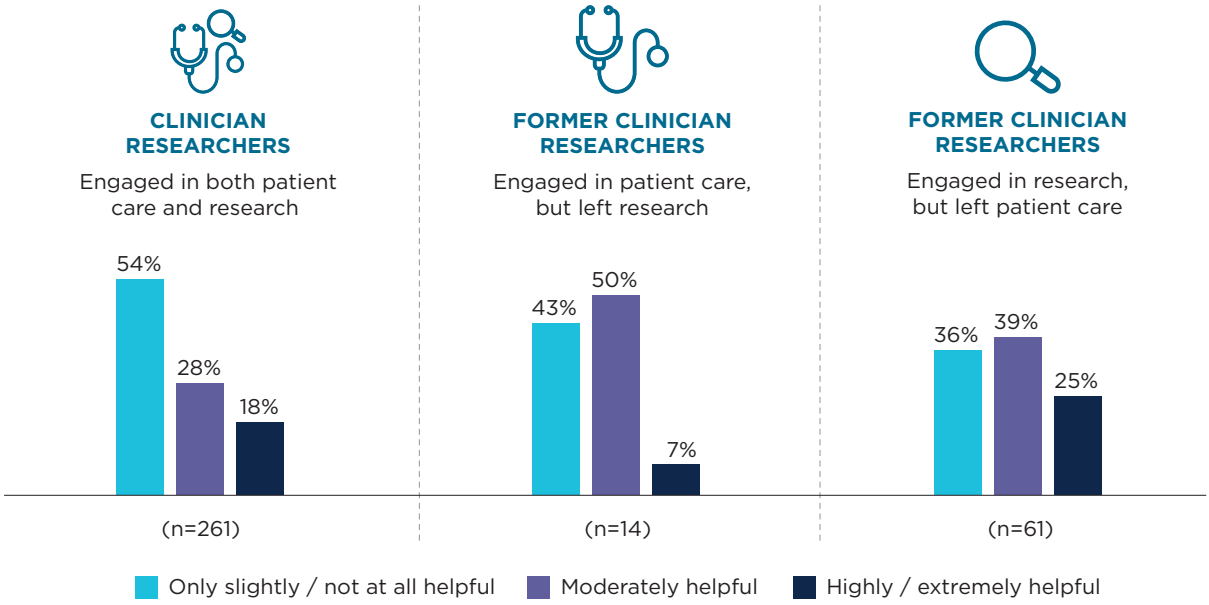
Helpfulness of work-based research career support resources

Those who had access to work-based research career support resources were asked to evaluate the extent to which they felt these resources were helpful.

Overall, only one-in-five respondents (19%) indicated that they found the resources to be 'extremely helpful' or 'highly helpful', while half of respondents (50%) found the resources to be 'only slightly helpful' or 'not at all helpful'. Although no former clinician researchers who have **left research** found the resources to be 'extremely helpful', current clinician researchers provided the most negative rating – this group being the most likely to have found the resources to be 'only slightly helpful' or 'not at all helpful' (see Figure 31).

Figure 31: Overall, how helpful have you found these work-based research career support resources? (By role)

Reference sample: Current and former clinician researchers who had access to work-based research career support resources (n=336)



Furthermore, the following groups of respondents were more likely to have found work-based research career support resources to be 'extremely helpful' or 'highly helpful':

- Respondents in the field of **nursing** or **allied health** (25% and 23% – compared to 15% for medicine);
- **Early career researchers** (24% – compared to 11% for mid-career researchers, and 18% for senior researchers); and
- **Female** respondents (21% – compared to 16% for males), despite being less likely than males to have access to such resources.

Those who indicated that they had found work-based research career support resources to be at least 'moderately helpful' were asked to elaborate on what resources they found to be most helpful in advancing their career. These included 'people' resources such as mentors and supervisors (30%), and peers and colleagues (25%); research and grant offices and support staff (17%); and formal learning forums such as seminars, workshops, conferences and programs (13%).

6.3 Mentoring

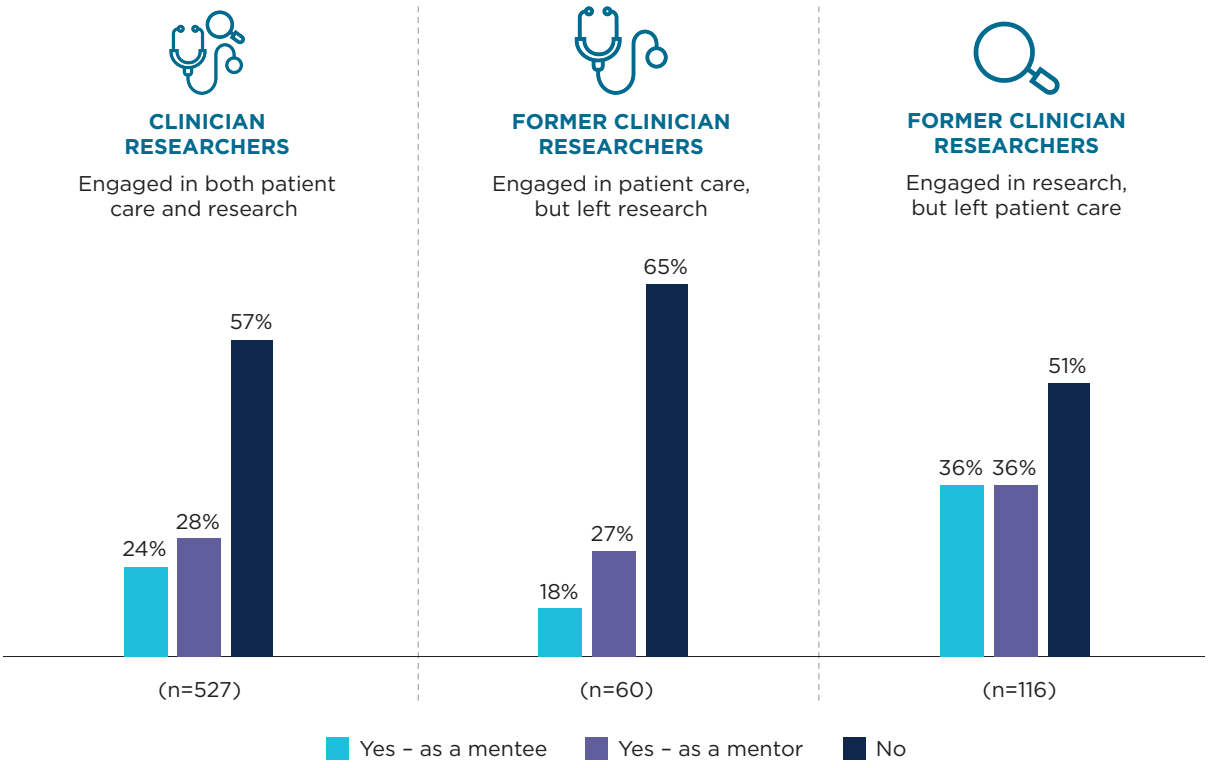
Participation in mentoring programs

Overall, around one-quarter of respondents (26%) had participated in a professional mentoring program as a mentee, and 30% had participated as a mentor. However, almost three-in-five (57%) had not participated in a professional mentoring program in any capacity throughout their career.

Results again suggested that there may be a positive link between following a career pathway in research and having the support of a mentor. As shown in Figure 32, former clinician researchers who have left patient care were *most* likely to have participated in a professional mentoring program, both as a mentee and a mentor, and those who have left research to focus on patient care were *least* likely to have ever participated.

Figure 32: Have you ever participated in a professional mentoring program? (By role)

Reference sample: Current and former clinician researchers; multiple responses accepted (n=703)



Furthermore, respondents in the field of **medicine**, **senior researchers** and **males** were more likely to have participated in a professional mentoring program than others. However, these cohorts were more likely have been a mentor, and least likely to have been a mentee.

Those who indicated that they have never participated in a professional mentoring program were asked to provide reasons behind their non-participation. Figure 33 summarises the responses provided - these included a lack of awareness or availability of programs, or a lack of time.

Figure 33: Reasons for never participating in a professional mentoring program (Top 3 themes identified in open-ended response)

Reference sample: Respondents who indicated that they had never participated in a professional mentoring program (n=214)

Formal professional mentoring is not available to me	24%	"Not specifically available for clinician researchers." "I have never worked anywhere that this was available. On the one occasion I asked someone, they were not sure what help they could offer'."
Not aware that formal mentoring programs existed/lack of knowledge	15%	"I never knew it was an option." "Didn't know they were available."
Did not have time	14%	"Clinical workload is very high, so difficult to find regular time for mentoring, and don't want to do it all in own time because I'm trying to keep a good work-life balance."

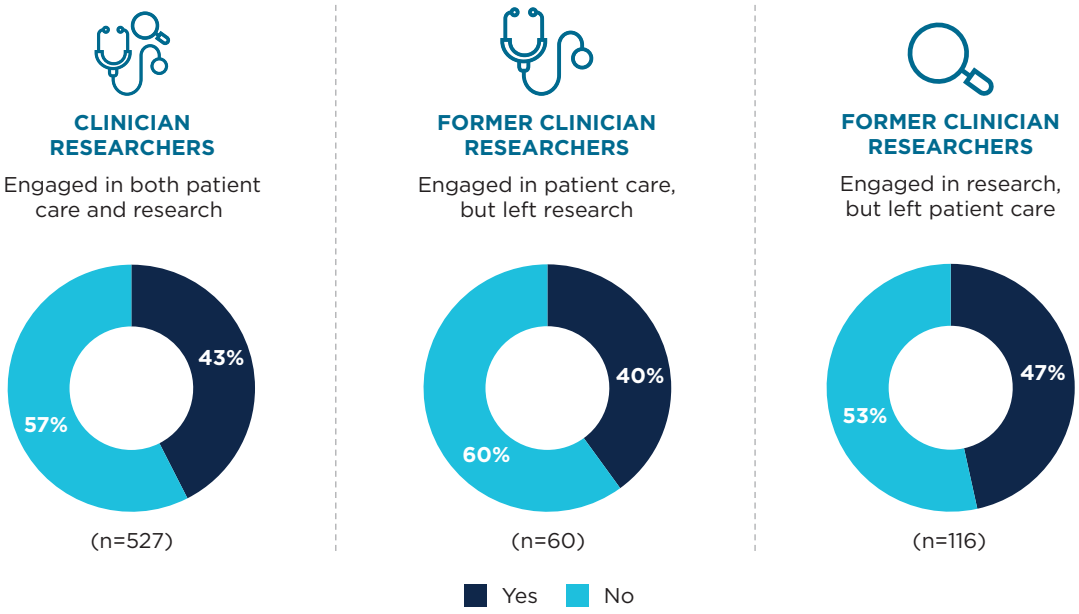
Additionally, 12% stated that they were instead involved in *informal* mentoring.

Mentorship

When asked if they currently had, or were seeking, a professional mentor, two-in-five respondents (43%) indicated 'yes', and 57% indicated 'no'. Former clinician researchers who have **left patient care** were most likely to currently have or be seeking a mentor, while former clinician researchers who have left research were least likely (see Figure 34).

Figure 34: Do you currently have or are you seeking a professional mentor? (By role)

Reference sample: Current and former clinician researchers (n=703)



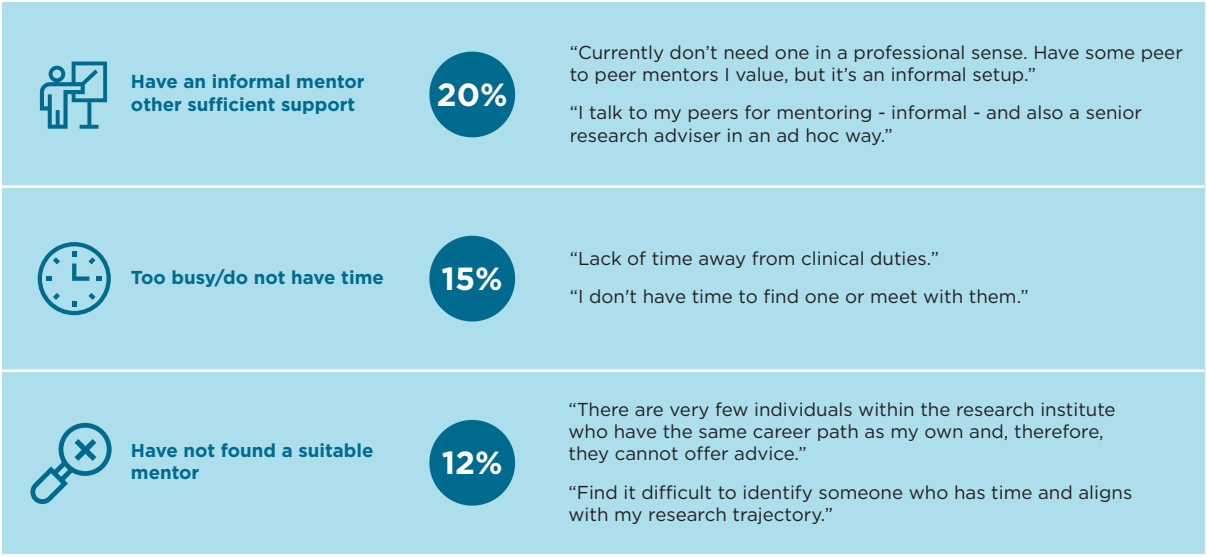
Furthermore:

- Respondents in the field of **allied health** were most likely to have or be seeking a professional mentor (49%); and those in the field of **medicine** were least likely to have or be seeking a professional mentor (38%).
- **Early career researchers** were most likely to have or be seeking a professional mentor (58% – compared to 40% of mid-career researchers, and 15% of senior researchers).
- Compared to male respondents, **female** respondents were more likely to have or be seeking a professional mentor (48% versus 34% - though this group were also more likely to be early career researchers).

Those who indicated that they did not have or were not seeking a professional mentor were asked to provide reasons as to why this was the case. Figure 35 illustrates the most common reasons.

Figure 35: Reasons for not having a professional mentor or currently seeking a professional mentor (Top 3 themes identified in open-ended responses)

Reference sample: Respondents who indicated that they did not have or were not seeking a professional mentor (n=239)



A small proportion additionally did not see the value in having a mentor generally, or that they felt a mentor would not be necessary given their senior career stage.

6.4 Work satisfaction and wellbeing

Satisfaction with current work / job and work / life balance

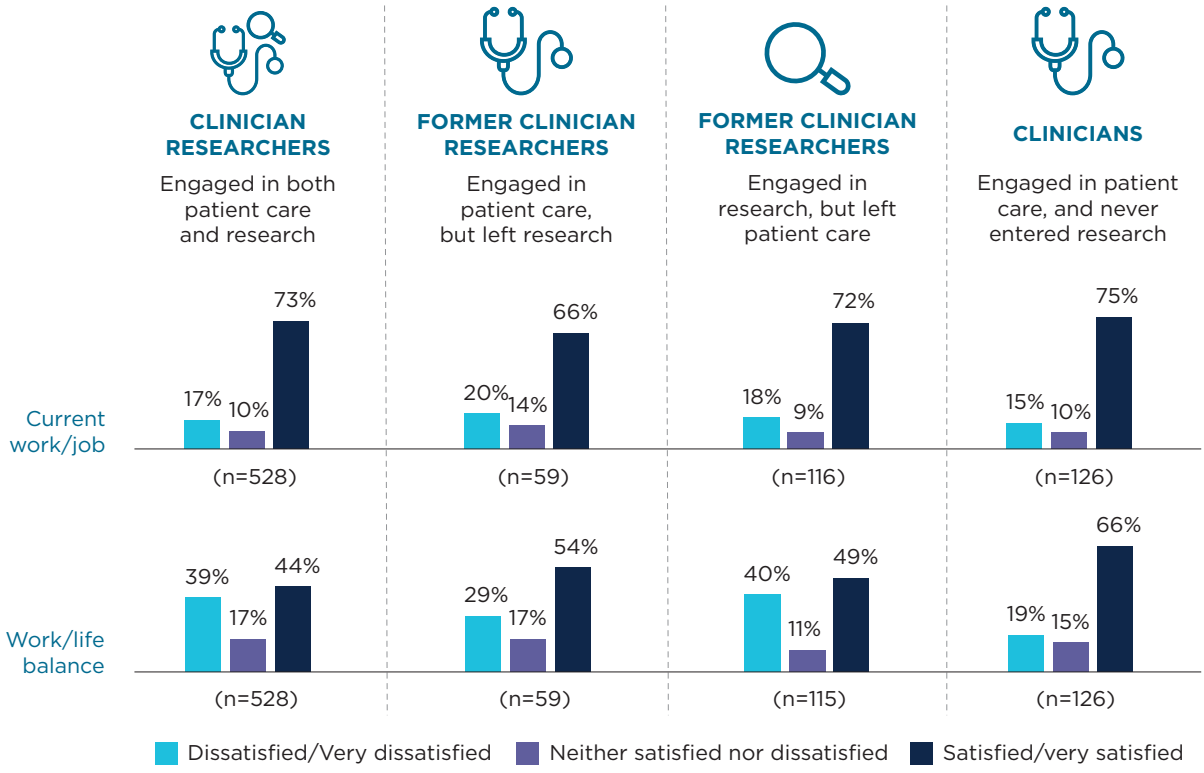
Overall, while the majority of respondents were satisfied with their **current work / job** (73%), satisfaction with **work / life balance** was substantially lower (49%). As shown in Figure 36:

- Clinicians who are **engaged in patient care**, **and never entered research**, were most satisfied with their current work / job (75%) and work / life balance (66%).
- **Current clinician researchers**, who are engaged in both patient care and research, demonstrated the largest gap in satisfaction between the two aspects – 73% were satisfied with their current work / job, but just 44% were satisfied with their work / life balance (a gap of 29 percentage points).
- Former clinician researchers who have **left research** were the least satisfied with their current role (66%).

- However, respondents **not currently engaged in research** were generally more satisfied with their work / life balance (66% for clinicians who never entered research, and 54% for former clinician researchers who left research – compared to 49% for former clinician researchers who left patient care, and 44% for current clinician researchers).

Figure 36: Overall, how satisfied are you with your ... (By role)

Base: All respondents



Furthermore:

- While satisfaction with current work / job did not vary by field of work, satisfaction with work / life balance did – respondents in the field of **medicine** were least satisfied with their work / life balance (44% – compared to 51% for allied health, and 56% for nursing).
- **Mid-career researchers** were least satisfied with both their current work / job (66% – compared to 75% for early career researchers, and 77% for senior researchers), and their work / life balance (37% – compared to 51% for early career researchers, and 43% for senior researchers).
- Satisfaction with both current work / job and work / life balance did not vary substantially by gender.

Reasons for dissatisfaction

Those who indicated that they were dissatisfied with their **current work / job** or **work / life balance** were asked to elaborate on the reasons behind their dissatisfaction. Reasons for dissatisfaction with work differed slightly from reasons for dissatisfaction with work / life balance, however, there was a common underlying theme of the workload or work hours being too high / demanding.

Figure 37 illustrates the most common reasons that respondents provided for feeling dissatisfied with their current work. Fifteen percent of the overall sample were also dissatisfied due to the demands of juggling clinical and research work.

Figure 37: Reasons for dissatisfaction with current work / job – Overall (Top 3 themes identified in open-ended responses)

Reference sample: Respondents who indicated that they were dissatisfied with their current work / job (n=138)

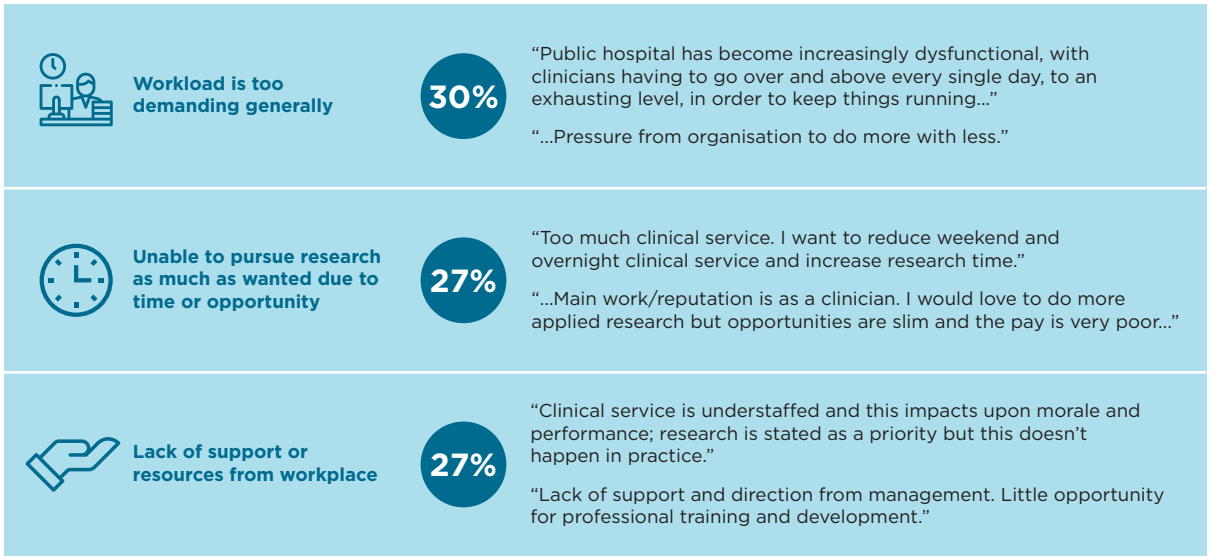


Figure 38 illustrates that the main reason provided for dissatisfaction with work / life balance was the general need to consistently work outside of core work hours, including on weekends. Almost one-quarter also stated specifically that they do not have enough time in their role to undertake research, and so they need to work longer hours to accommodate their research needs. Consequences of working longer hours were also stated as reasons, including the inability to spend time with family / friends or pursue other social / personal interests. A notable proportion also simply mentioned that their work hours were excessively long, and that their workload was too high (22% each).

Figure 38: Reasons for dissatisfaction with work / life balance – Overall (Top 3 themes identified in open-ended responses)

Reference sample: Respondents who indicated that they were dissatisfied with their work / life balance (n=290)

Overall, many comments provided throughout the survey revealed deep-seated frustrations in relation to work/life balance. Comments suggested that many respondents were truly passionate about successfully undertaking a career as a clinician researcher, despite finding it very difficult to manage such a career.

> **"... I enjoy my work and it is a privilege to be a clinician. Research is endlessly interesting. It is just that it is almost impossible to do both without getting overwhelmed...**
>
> **Clinical practice and research are really both more than full time occupations. Thus, for me, work takes 70-80 [hours per week]. When I'm not working, I'm worried about work. Despite this, I think that it is beneficial that clinicians do research (I'm talking about discovery research) because clinical experience allows them to identify certain questions that full-time laboratory researchers simply can't."**
>
> – Senior clinician researcher.

6.5 Clinicians who never entered research

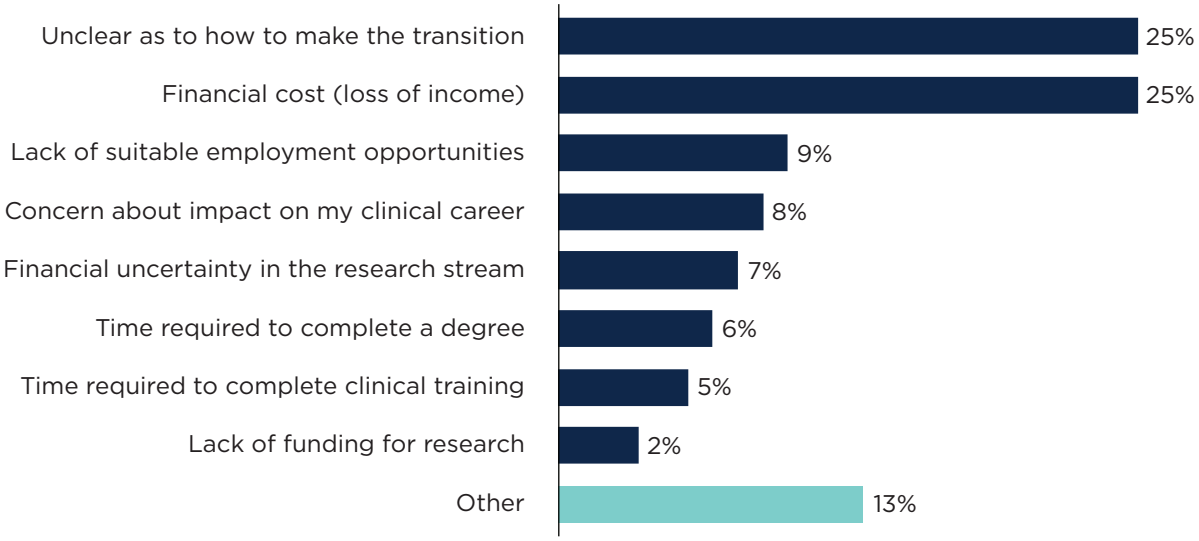
Amongst clinicians who engaged in patient care but never entered research, 70% indicated that they had considered becoming a clinician researcher. Respondents in the field of medicine were most likely to have considered becoming a clinician researcher (82% – compared to 74% for allied health, and 58% for nursing). Results did not vary substantially by gender.

Reasons for not pursuing the clinician researcher path

Clinicians who **had considered** becoming a clinician researcher were asked why they had not pursued the clinician researcher path to date. As shown in Figure 39, the most commonly reported reasons were uncertainty as to how to make the transition, and financial cost / loss of income (both 25%).

Figure 39: Why have you not pursued the clinician researcher path to date?

Base: Clinicians who never entered research, but had considered becoming a clinician researcher (n=87)



Overall:

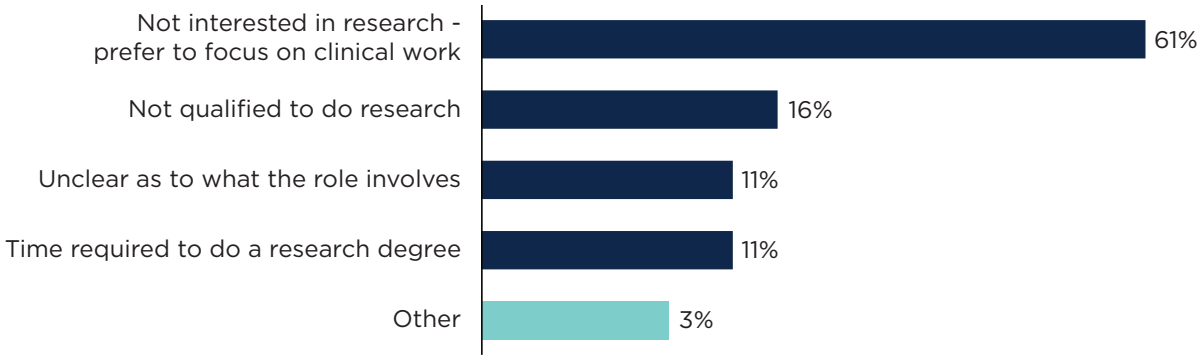
- Respondents in the field of **nursing** were most likely to indicate that they were uncertain as to how to make the transition (47% – compared to 20% for allied health, and 17% for medicine).
- Respondents in the field of **allied health** were most likely to identify financial cost / loss of income as a reason why they had not pursued the clinician researcher path to date (32% – compared to 20% for nursing, and 11% for medicine).
- **Female** respondents were more likely to be concerned about financial cost / loss of income (28% – compared to 15% for males).

Reasons for not considering / entering research

Clinicians who had **not considered** becoming a clinician researcher were asked to provide reasons as to why they have not considered such a career. The majority of respondents indicated that they had not considered entering research as they were simply not interested in it, and instead preferred to focus on clinical work (61% – see Figure 40).

Figure 40: Why have you not considered becoming a clinician researcher?

Base: Clinicians who never entered research, and had not considered becoming a clinician researcher (n=38)



Organisation Survey

The most common barriers that prevent clinicians from becoming clinician researchers, as identified by organisations, were:

- financial cost (loss of income) (63%); and
- financial uncertainty in the research stream (50%).

7. What effect on careers does the loss or interruption of continuous research funding have?

Key findings

- The loss or interruption of continuous research funding was reported to have had a **moderate negative impact** on the research careers of clinician researchers. Of those who had taken a break or leave from research, this reason was cited by around one in five.
- However, loss or interruption of continuous research funding was not the most common reason for a clinician researcher to leave or take a break from research;
- Instead, a desire to focus on clinical work was a common factor cited by respondents regarding their decision to **take a break** from research; whereas
- A lack of employment opportunities was selected most commonly by clinician researchers **not currently engaged in research** (i.e. left research to focus on patient care).

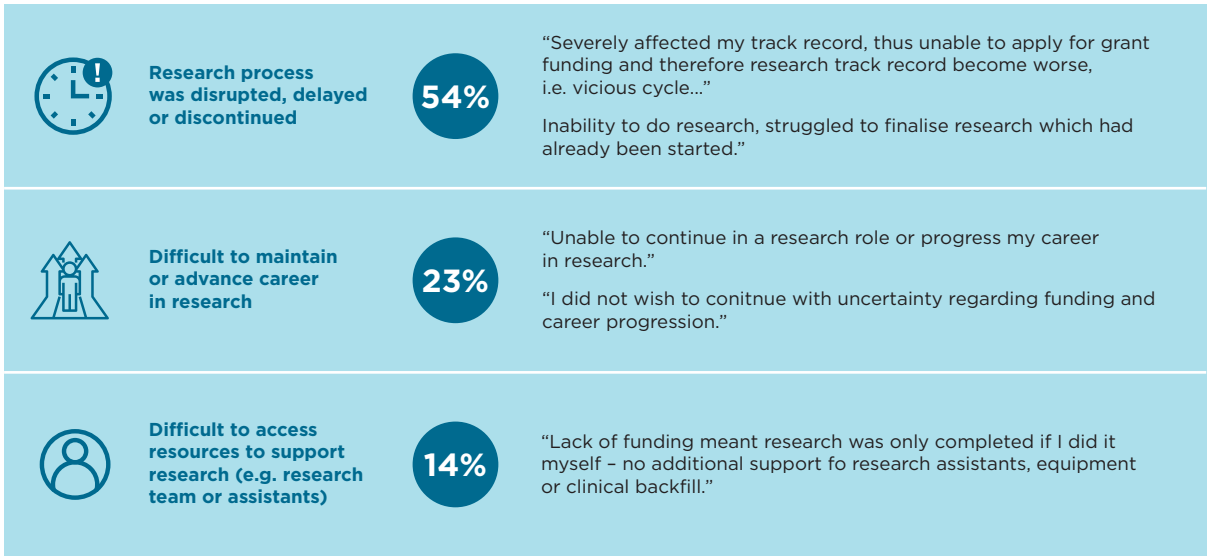
Current and former clinician researchers who had left research for an extended period of time (taken a break for more than six months) were asked to indicate the reasons behind their decision to **take a break**. Overall, just over one-in-five respondents (22%) identified the loss or interruption of research funding as a factor influencing their decision to take a break from research. More common reasons for taking a break included a desire to focus on clinical work (46%), maternity / paternity leave (27%) lack of employment opportunities (24% – see page 29 for more information).

Furthermore, former clinician researchers who were engaged in patient care, but had **left research**, were asked to indicate the reasons as to why they were no longer engaged in research. As shown in Figure 21 on page 30, a very similar proportion (23%) indicated that they were not currently engaged in research as they had been unable to secure funding. A lack of employment opportunities was instead cited as the most common reason. However, this reason was cited by a substantially larger proportion, compared to those who had simply taken a break (49% versus 24%).

Respondents who identified the loss or interruption of research funding as a factor influencing their decision to take a break from research, were asked how this had affected their research. Common responses included:

Figure 41: How loss or interruption of research funding has affected research (Top 3 themes identified in open-ended responses)

Reference sample: Respondents who identified the loss or interruption of research funding as a factor influencing their decision to take a break from research (n=65)



Furthermore, results suggested that the loss or interruption of continuous funding may have had a greater impact on those in the field of medicine.

- Respondents in the field of **medicine** were most likely to have taken a break from research due to the loss or interruption of research funding (26% – compared to 21% for allied health, and 14% for nursing). In addition, such respondents were also more likely than others to have returned to research as they had obtained research funding (30% – compared to 19% for allied health, and 12% for nursing).

Overall, the evidence suggests that although the loss or interruption of research funding may have had a moderately negative impact on the careers of some clinician researchers, a desire to focus on clinical work or a lack of employment opportunities appeared to have been of greater influence on clinician researcher careers.

8. Conclusion

The results from the Survey of Clinician Researchers indicate that while most respondents derived job satisfaction from being engaged in both patient care and research, various challenges have prevented clinician researchers from progressing / advancing their careers. Key challenges faced by respondents included:

- a lack of helpful career pathway support – including availability of support resources and professional mentoring programs;
- a lack of employment opportunities;
- poor work / life balance; and
- funding – including high competition, the time required to prepare applications, and difficulty obtaining adequate funding to meet research needs, as well as funding that spans the length of the project.

Overall, the survey findings suggest that clinician researchers in Australia do not have clear or well-supported career pathways, and that there is more that can be done to support this profession.

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