

Compilation of the ALF 3 survey in region Stockholm

Background - general

In order to obtain information from clinical researchers and PhD students in their respective ALF region, a survey was conducted to gather their views on the present prerequisites for clinical research for the ALF 3 evaluation. The survey was divided into two parts, with an initial mapping survey to establish the respondents for the main survey. The mapping survey was sent to all clinical researchers and clinical PhD students in the ALF regions, based on compiled respondent lists from registrars etc. made by the ALF regions. The list of respondents were divided on clinical researchers and PhD students for each ALF region, and the two respondent groups received separate questionnaires.

The mapping survey included questions on the respondent's status as clinical researcher/PhD student, academic affiliation, health care profession, academic title and area of research. Based on the results from the mapping survey, a stratified and randomised sample of respondents was selected with a 5 percent margin of error and a confidence interval of 95 percent for the main survey. The respondents have been stratified on the variable "Academic title", which reflects the academic age and level of the respondents regarding their current status as:

- PhD students
- Clinical researchers
 - PhD level (PhD with approved dissertation)
 - Associate professor
 - Professor

The response rate from the mapping survey and the result from the stratified sample is presented in Table 1.

Table 1. Response rate from first (mapping) survey, and the selection of respondents for the second (main) survey based on a stratified and randomised sample.

ALF- Region	Respondents from ALF regions (number)		Responserate mapping (no/%)		Respondents to main survey (number)		Responserate main survey (no/%)	
	RES	PhDstud	RES	PhDstud	RES	PhDstud	RES	PhDstud
Skåne	784	651	493/61	301/48	339	166	258/79	109/66
Stockholm	1620	1430	1066/68	764/56	536	249	393/78	166/71
Uppsala	727	545	569/79	342/65	368	178	295/84	129/76
Västerbotten	406	194	301/76	135/72	230	90	181/83	60/71
Västra Götaland	1447	532	836/62	283/56	464	161	320/75	96/64
Örebro	339	168	191/60	107/70	156	83	111/76	61/79
Östergötland	383	263	252/68	142/57	200	102	157/81	65/66
Total	5706	3783	3708/68	2074/61	2293	1029	1715/79	686/70

RES – researcher, PhDstud - doctoral student

The main survey consists of questions related to the background of the clinical researchers and the PhD students and their present situation for performing research. There are also questions on their opinions on the present prerequisites regarding access to research infrastructures, time for research, career models for clinical research and incentives in the organisation promoting a clinical research career.

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1. ALF region

This compilation concerns the ALF region in Stockholm.

2. Response rate

The overall response rate for the main survey was 79 percent (Clinical researchers) and 70 percent (PhD students), and for the ALF region Stockholm, the response rate was 78 percent (Clinical researchers) and 71 percent (PhD students).

Background of the respondents

Respondents were asked what their academic title/level is. We use the response (PhD; Associate professor; Professor; NA; or PHD student) to this question as a stratifying variable.

3. Gender, research background and area of research

We asked the respondents to indicate their gender, with the option to decline to answer. The table below (Table 2) shows the gender breakdown by different academic levels in the ALF region. We note that females are a majority among PhD Students and PhDs, while Associate professors are close to 50-50, and males are a majority among professors. In total, females are a small majority among the respondents; it is close to 50-50.

Table 2. Respondents by gender and academic title (n=366)

	PhD student	PhD	Associate professor	Professor	NA	Total
<i>Female</i>	62.7%	63.4%	50.4%	35.9%	66.7%	53.7%
<i>Male</i>	36.7%	36.6%	48.9%	64.1%	33.3%	46.0%
<i>Don't wish to answer</i>	0.6%	0.0%	0.7%	0.0%	0.0%	0.4%
<i>Total</i>	166	123	139	128	3	559

We also asked the researchers when they had finished their dissertation, in order to establish their research career year, see Figure 1.

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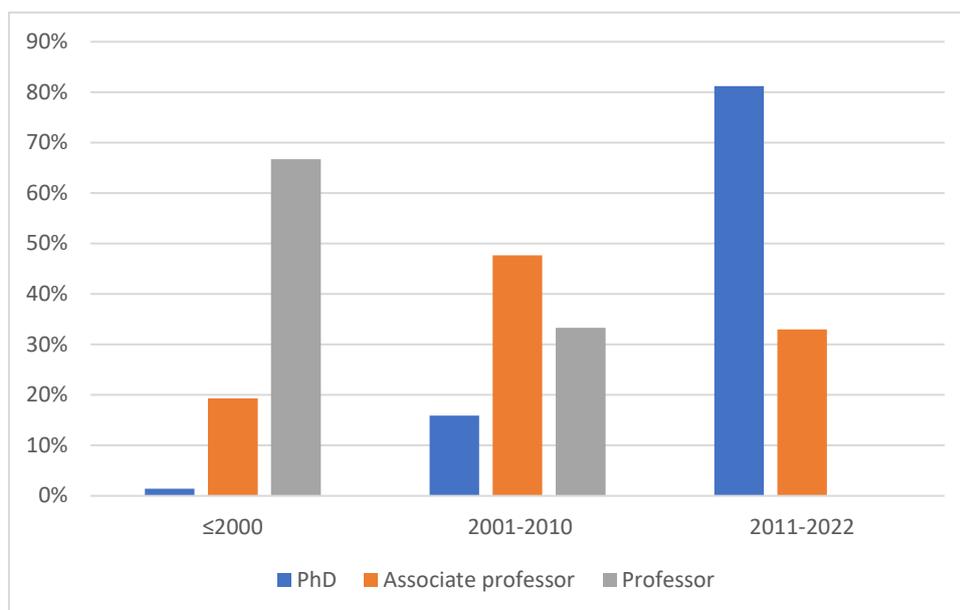


Figure 1. Year of doctoral degree grouped by academic title. (n=258) Responses binned in three periods: up until 2000; 2001-2010; and 2011-2020.

Further, PhD students were asked when their dissertation is planned. Very few of the respondents have less than a year left (1.8 percent), while the largest group have 1-2 years left (29.5 percent). A majority however has at least 2 years left, with 15.7 percent responding they have 2-3 years left, 19.9 percent have 3-4 years, an 18.1 percent have 4-5 years left. 11.4 percent have more than 5 years left.

Most of the respondents consider themselves clinical researchers in an ongoing research project. It ranges from 97.1 percent of the associate professors, via 95.1 percent for PhDs, to 94.5 percent of the professors. Some respondents indicate they consider themselves clinical researchers, but they have no current research project (2.9 percent of the associate professors, 4.9 percent for PhDs, and 5.5 percent of the professors).

In the table below (Table 3), we present the shares for top five research areas among the respondents, by academic title. Note that the top five research areas are calculated based on the total (not included in the table).

Table 3. Top five categories in the responses to "In which area of research are you mainly engaged today?" (n=222 for these five)

	PhD student	PhD	Associate professor	Professor
Cancer and Oncology	9.0%	10%	14%	8%
Psychiatry	14.5%	11%	9%	6%
Cardiac and Cardiovascular Systems	9.6%	5%	7%	8%
Pediatrics	9.0%	8%	6%	5%
Neurology	3.0%	6%	5%	7%

4. Employment, healthcare profession and research funding

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We asked the respondents to indicate their current employer(s). Multiple choices were allowed. A rather large share of the PhD students (27.1 percent) gave the response “not applicable”, which might be due to technicalities in their funding, e.g. stipend rather than a salary. For all academic titles, a large majority are employed by the region, while for those with a PhD or higher academic title many are also employed by a university. (See Table 4.)

Table 4. Respondents by academic title and current employer. Column sums may add to more than 100 % since multiple choices were allowed. (n=367)

	PhD student	PhD	Associate professor	Professor
Region	68.1%	75.6%	74.1%	68.8%
University	0.0%	31.7%	43.9%	78.1%
Private sector	4.8%	1.6%	5.0%	2.3%
Municipality	0.0%	0.0%	0.7%	0.0%
Other	1.8%	1.6%	1.4%	1.6%
NA	27.1%	0.8%	0.7%	0.8%

Table 5 presents the responses to “What healthcare profession do you currently practice?”. Medical doctors dominate, and increasingly so for associate (68.3 percent) and full professors (67.2 percent).

Table 5 Respondents by academic title and healthcare profession.

	PhD student	PhD	Associate professor	Professor
Medical doctor	53.0%	54.5%	68.3%	67.2%
Not a healthcare personnel/NA	16.3%	26.0%	16.5%	14.1%
Physioth, Occ therap, Naprapath, Chiropr	4.2%	3.3%	5.8%	2.3%
Psychologist, Psychotherapist	15.1%	8.9%	4.3%	7.8%
Midwife, Spec Nurse, Radiogr	5.4%	1.6%	2.2%	4.7%
Pharmacist, Dietitian, Audiol, Opticia, Speech therap.	1.2%	0.8%	2.2%	2.3%
Biomedical analyst, Prescriptionist, Orthop engin, Medical physicist	1.8%	4.9%	0.7%	0.8%
Dentist	2.4%	0.0%	0.0%	0.8%
Dental Hygienist	0.6%	0.0%	0.0%	0.0%

We also asked respondents whether it is possible for clinical researchers to apply for ALF-funding in their ALF-region.¹ A large majority give a yes to this question, ranging from 99.2 percent of professors, via 96.4 percent of associate professors, to 87.8 percent of PhDs.

Table 6 presents the responses to “Are you currently (2021) receiving ALF-funding for clinical research?”. We note that access to ALF-funding is more prevalent for professors. This is especially true for indicator based, with the share of professors having access to this type of ALF-funding being more than three times the share for associate professors, and nearly six times that of PhDs.

¹ For more on this, please see the background report for this ALF region, available in the Box-folder.

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Table 6. Respondents by academic title and current access to ALF-funding. Column sums may add to more than 100 % since multiple choices were allowed. (n=390)

	PhD	Associate professor	Professor	Total
Yes, indicator based	4.1%	7.2%	23.4%	11.5%
Yes, open call	19.5%	41.7%	52.3%	37.9%
Yes, other	3.3%	5.8%	4.7%	4.6%
No	70.7%	51.1%	39.8%	53.4%
NA	4.9%	2.2%	0.0%	2.8%

Figure 2 presents average annual funding by academic title. Among PhDs, it is most common to reply “not applicable”, followed by the lowest bin (1-499 999 SEK per year). Professors, on the other hand, typically have annual funding in excess of 1 million SEK.

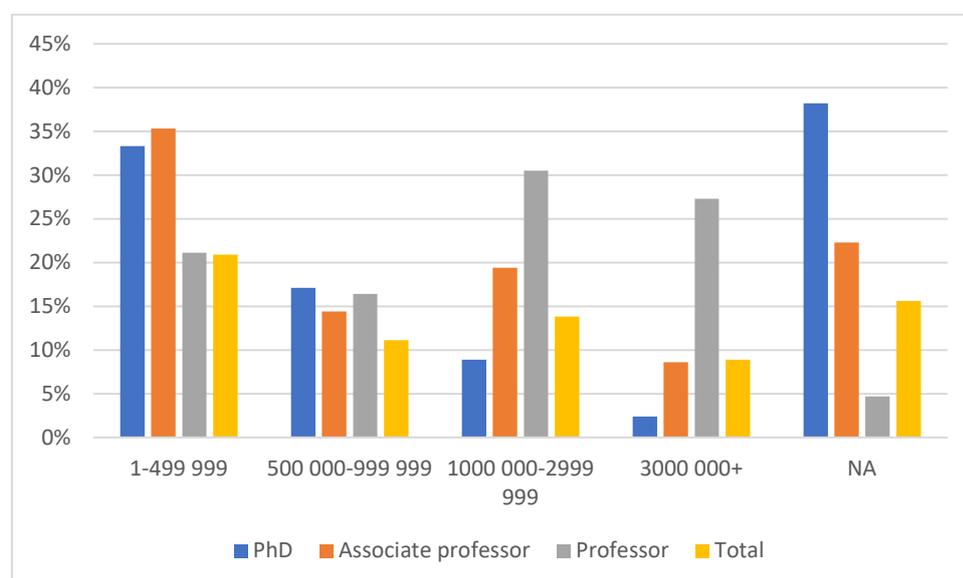


Figure 2. Average annual funding by academic title. Responses binned in four monetary categories, plus one category for “not applicable”. (n=390)

5. Supervising PhD students

Table 7 summarises the responses to four questions on supervision. We asked the respondents how many PhD students they are currently supervising, as well as how many they have supervised in total throughout their career, and in both timeframes separately for main or co-supervision. We note that in general female researchers supervise more, with few exceptions. One such exception is that a larger share of male professors are currently co-supervising.

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Table 7. Supervising PhD students by academic title and gender, separately for main or co supervisor as well as currently or throughout their career (past). Responses binned as 1-5; 6-10; and 11 or more for current, and as 1-5; 6-10; 11-20; 21-40; and 41 or more for past. (female n=194, male n=195)

Supervision	PhD		Associate professor		Professor	
Main Current (No.)	Female	Male	Female	Male	Female	Male
1-5	44.9%	35.6%	82.9%	76.5%	76.1%	61.0%
6-10	0.0%	0.0%	0.0%	1.5%	4.3%	3.7%
NA	55.1%	64.4%	17.1%	22.1%	19.6%	35.4%
Co Current (No.)	Female	Male	Female	Male	Female	Male
1-5	69.2%	73.3%	81.4%	77.9%	73.9%	81.7%
6-10	1.3%	0.0%	2.9%	4.4%	10.9%	13.4%
11+	0.0%	0.0%	2.9%	2.9%	0.0%	1.2%
NA	29.5%	26.7%	12.9%	14.7%	15.2%	3.7%
Main Past (Total No.)	Female	Male	Female	Male	Female	Male
1-5	21.8%	28.9%	70.0%	64.7%	45.7%	30.5%
6-10	0.0%	0.0%	2.9%	2.9%	41.3%	32.9%
11-20	0.0%	0.0%	0.0%	1.5%	4.3%	30.5%
21-40	0.0%	0.0%	0.0%	0.0%	6.5%	4.9%
41+	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%
NA	78.2%	71.1%	27.1%	30.9%	2.2%	0.0%
Co Past (Total No.)	Female	Male	Female	Male	Female	Male
1-5	50.0%	64.4%	74.3%	70.6%	52.2%	26.8%
6-10	5.1%	4.4%	11.4%	13.2%	32.6%	32.9%
11-20	0.0%	0.0%	0.0%	2.9%	8.7%	29.3%
21-40	0.0%	0.0%	0.0%	0.0%	2.2%	7.3%
41+	0.0%	0.0%	0.0%	0.0%	0.0%	3.7%
NA	44.9%	31.1%	14.3%	13.2%	4.3%	0.0%

PhD students were asked if they have access to their main supervisor regularly as well as if they need more time with their supervisor(s). Nearly all responded that they have access regularly or to some extent. This holds for both genders.

However, 37.5 percent of female PhD students respond that they to some extent need more time with their supervisor(s). This is a bit puzzling. 23.0 percent of male PhD students give this response, so here we do see a gender difference. (See Figure 3.)

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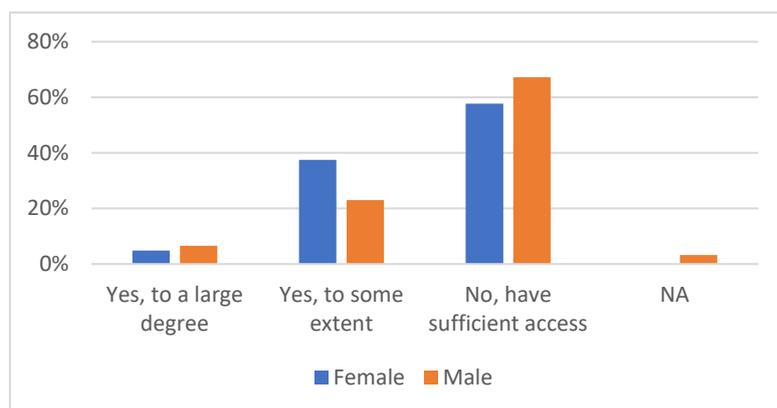


Figure 3. PhD students need more time with supervisor(s), by gender. (Female=104, male=61)

6. Contracted and allocated time for research

We asked two questions about contracted and allocated time to research. Given the responses, it seems either the respondents did not read these questions as we intended them, or many do not have research time specified in their contracts. The two questions are: (i) How much of your time has been contracted for research within your current employment?; and (ii) How much time have you allocated overall, to clinical research on an average year? The responses are summarized in Table 8.

Table 8. Contracted and allocated time by academic title and gender, with shares of full time equivalents (FTE) binned in quarters. (female n=194, male n=195)

	Share of FTE	PhD		Associate professor		Professor	
		Contracted	Allocated	Contracted	Allocated	Contracted	Allocated
<i>Female</i>	1-25	14.1%	44.9%	22.9%	28.6%	19.6%	10.9%
	26-50	17.9%	23.1%	20.0%	47.1%	34.8%	69.6%
	51-75	1.3%	3.8%	1.4%	5.7%	26.1%	15.2%
	76-100	20.5%	12.8%	15.7%	4.3%	8.7%	4.3%
	NA	46.2%	15.4%	40.0%	14.3%	10.9%	0.0%
<i>Male</i>	1-25	17.8%	51.1%	22.1%	39.7%	12.2%	22.0%
	26-50	22.2%	26.7%	22.1%	36.8%	39.0%	46.3%
	51-75	0.0%	4.4%	4.4%	8.8%	24.4%	17.1%
	76-100	15.6%	4.4%	11.8%	1.5%	15.9%	11.0%
	NA	44.4%	13.3%	39.7%	13.2%	8.5%	3.7%

We asked PhD students how much time has been allocated to their PhD studies on an average year and over the last year during the pandemic. It seems there might be a small pandemic effect; a slightly larger share of PhD students have less than 50 percent of their time allocated to their studies during the pandemic than on average.

For a majority of the PhD students, time was allocated according to their study plan, but for about one quarter, less time was allocated. (See Figure 4

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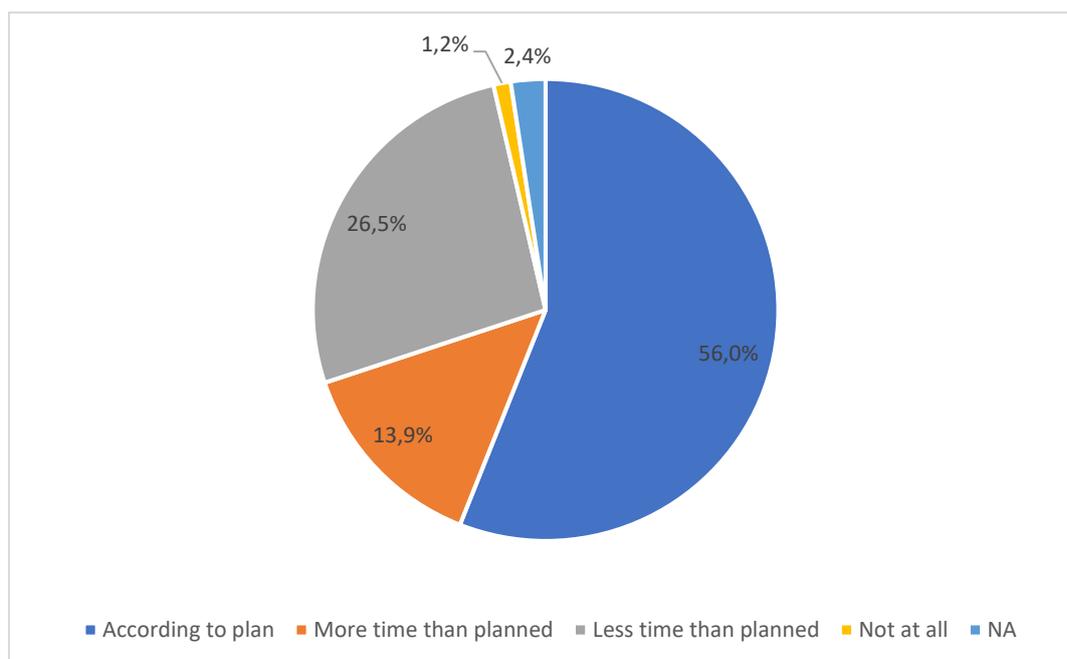


Figure 4. Response to the question: Has the time for your Ph.D. studies been allocated in accordance with your individual study plan (on an average year)?(n=166)

The pandemic had non-negligible effects on research time for all respondents. Less than ten percent, across all academic titles, had more time than planned, while relatively large shares had less time than planned. PhD students were the least affected. (See Figure 5.)

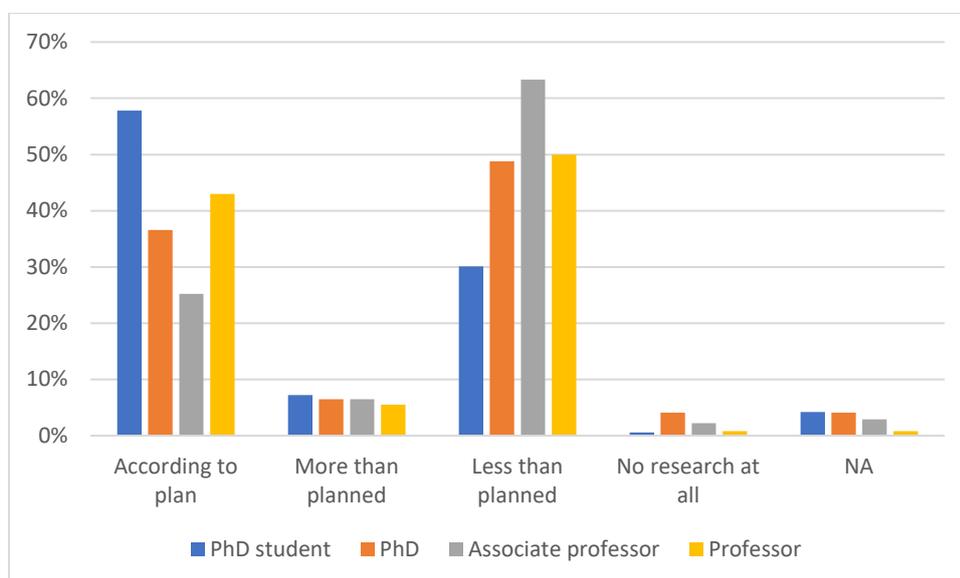


Figure 5. Responses to how the pandemic has affected research time and PhD studies, by academic title.(n=556)

7. Mobility

Most of the respondent have done a postdoc or (for PhDs) are currently on postdocs; more than 70 percent of both associate and full professors have done a postdoc. For PhDs, the corresponding share is more than 40 percent, while nearly one in five (19.5 percent) is currently on a postdoc.

In order to establish to what extent the researchers had been pursuing their PhD studies in the same region as they are in now, or elsewhere in Sweden or abroad, we asked the respondents “Where did you pursue your PhD education?”. A large majority did their PhD in the same ALF region, ranging from 76.4 percent for PhDs, via 74.1 for associate professors, to 67.2 for professors. Nearly one in five professors (18.8 percent) did their PhD in another ALF region, and it is not rare among associate professors either (12.2 percent), while relatively few of the PhDs (4.9 percent) did their PhD in another ALF region. For international mobility, we note that 14.6 percent of the PhDs pursued their PhD abroad. For associate professors the corresponding number is 7.2 percent, and for professors 9.4 percent. (See Table 9, top panel.)

The pattern is similar for location of post doc, with about two out of five PhDs (42.3 percent) having done their post doc in the same ALF region. The same holds for nearly one-third of the associate professors (31.7 percent), and about one in five of the professors (21.9 percent). Having done a post doc abroad is however much more common among professors (44.5 percent), than among associate professors (15.3 percent) or PhDs (13.8 percent). (See Table 9, lower panel.)

Table 9. Where the researchers did their PhD education and postdoc, by academic title. (n=390)

Location PhD degree	PhD	Associate professor	Professor
<i>Same ALF region as current</i>	76.4%	74.1%	67.2%
<i>Another ALF region</i>	4.9%	12.2%	18.8%
<i>Other university in Sweden</i>	3.3%	4.3%	2.3%
<i>University abroad</i>	14.6%	7.2%	9.4%
<i>Both Sweden and abroad</i>	0.8%	2.2%	2.3%
Location postdoc			
<i>Same ALF region as current</i>	42.3%	31.7%	21.9%
<i>Other ALF region</i>	0.0%	6.5%	4.7%
<i>Other university in Sweden</i>	1.6%	2.9%	0.8%
<i>Abroad</i>	13.8%	15.8%	44.5%
<i>Sweden and abroad</i>	5.7%	17.3%	8.6%
<i>NO</i>	36.6%	25.9%	19.5%

For length of postdoc periods, see Figure 6. Most did a postdoc of more than two years (26.2 percent) or up to half a year (23.3 percent).

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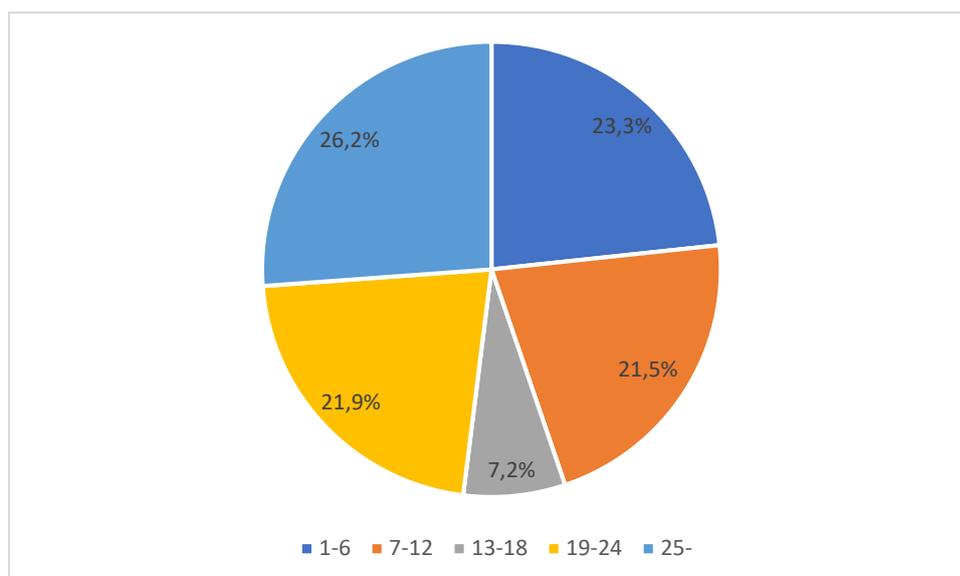


Figure 6. Responses to the question: How long did your postdoc period(s) last in total? Excluding zeros (n=249)

We also asked researchers whether they had been on a sabbatical during the last four years. Few had, ranging from 8.6 percent of the associate professors, via 7.8 percent of professors, to 3.3 percent of PhDs. Among those who had been on a sabbatical, there was a great variety in length, with a peak at one month (28.1 percent) or two months (18.8 percent). Being away for a year is also slightly more common than other periods (15.6 percent). Three and ten months are also rather common periods (both 9.4 percent). These shares are calculated excluding the 91.9 percent who were away zero months.

Opinions on the necessity and the implementation of prerequisites for clinical research in the ALF region

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Access to RI for clinical research	Time for clinical research	Career model for clinical research	Incentives for clinical research
Easy access to RI, such as core facilities, biobanks, registers, technical equipment/platforms, clinical trial units and competence centers.	The ALF region has developed schemes and programs to enable clinical research in combination with clinical duties.	A career model that enables a clinical research career alongside clinical work.	Academic merits are rewarded throughout the career.
Activities in order to assist clinical researchers in using National RI such as SciLifeLab, MaxIV and ESS.	The ALF region has developed specific positions to enable clinical research in combination with clinical duties.	A career progression model for clinical researchers, with steps at all levels moving from a PhD education position to a higher academic rank or equivalent within the health care sector.	Specific incentives to encourage healthcare professionals to become PhD students .
	The management of the ALF region takes responsibility for ensuring that allocated time for research is used as intended in combination with clinical practice.	Gender equality and gender perspectives are addressed to ensure that research opportunities are equal for all eligible researchers.	Specific incentives to encourage healthcare professionals to pursue a clinical research career .
		There are mobility and research exchange opportunities, e.g. post docs and sabbaticals.	Diversity (i.e. age, gender, background etc.) among clinical researchers is promoted at all levels in the healthcare organisation.
		There are opportunities for continuous research training and education throughout your career.	

The grading scale for assessing the necessity and implementation of the prerequisites are presented in the table below:

Table 10. Grading scale.

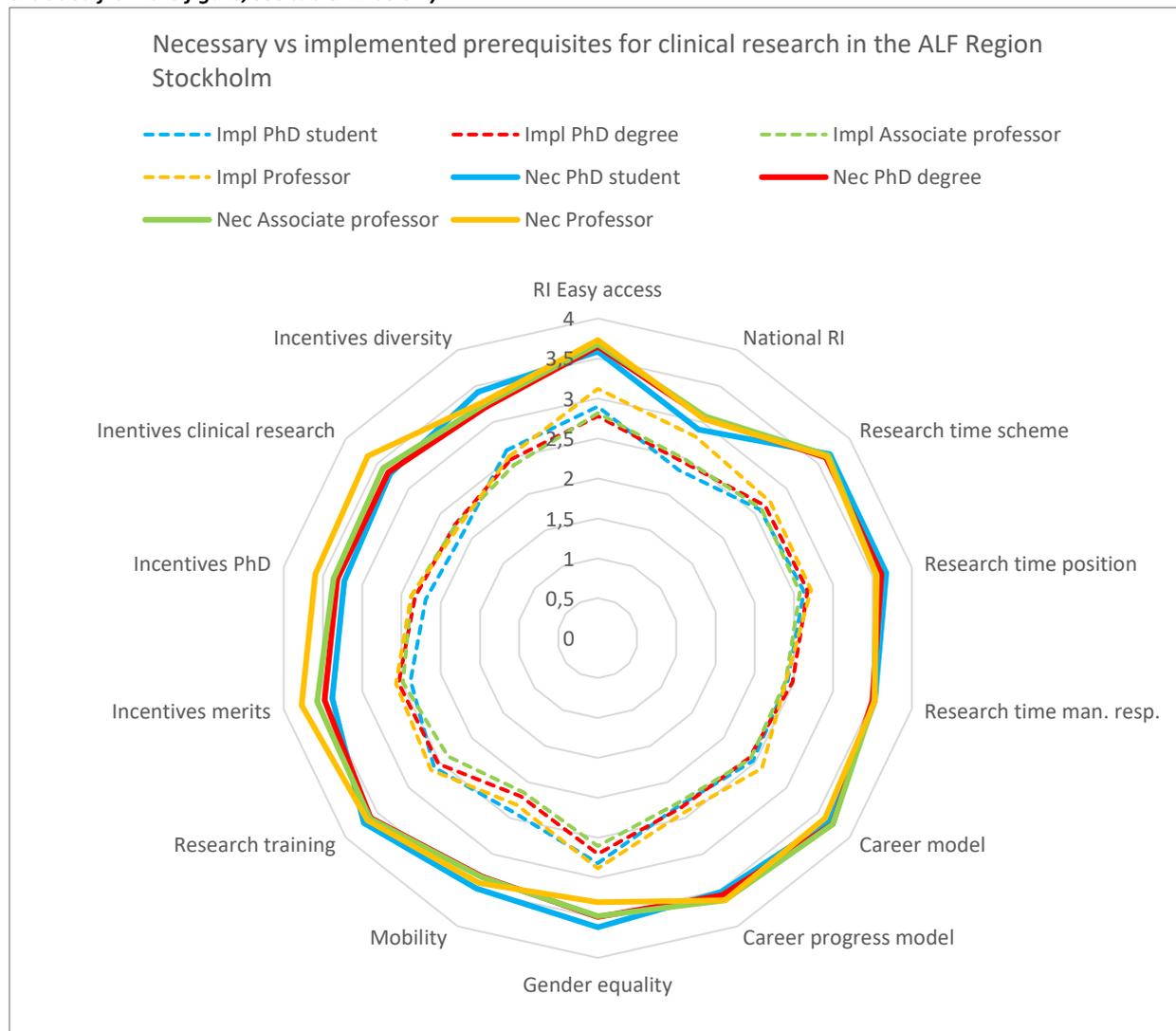
Grading scale	1	2	3	4	0
<i>Necessity of prerequisite</i>	Not at all	Not really necessary	Quite necessary	Essential	NA
<i>Implementation of prerequisite</i>	Not at all	To some extent	To a large extent	Completely	NA

Mean values of the opinions of PhD students and researchers have been calculated, in order to present them by respondent group in a spider plot. The spider plot shows how their opinion on the necessity of having access to specific prerequisites coincides with their opinion on to what extent the prerequisite has been implemented in their own ALF region.

Figure 7. Spider plot for the opinions of respondents, by academic level, on the necessity of the prerequisites and to what degree these have been implemented in the ALF region. (Maximum n=556, but n varies since NA-responses are

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excluded from the figure, see table 12 below)

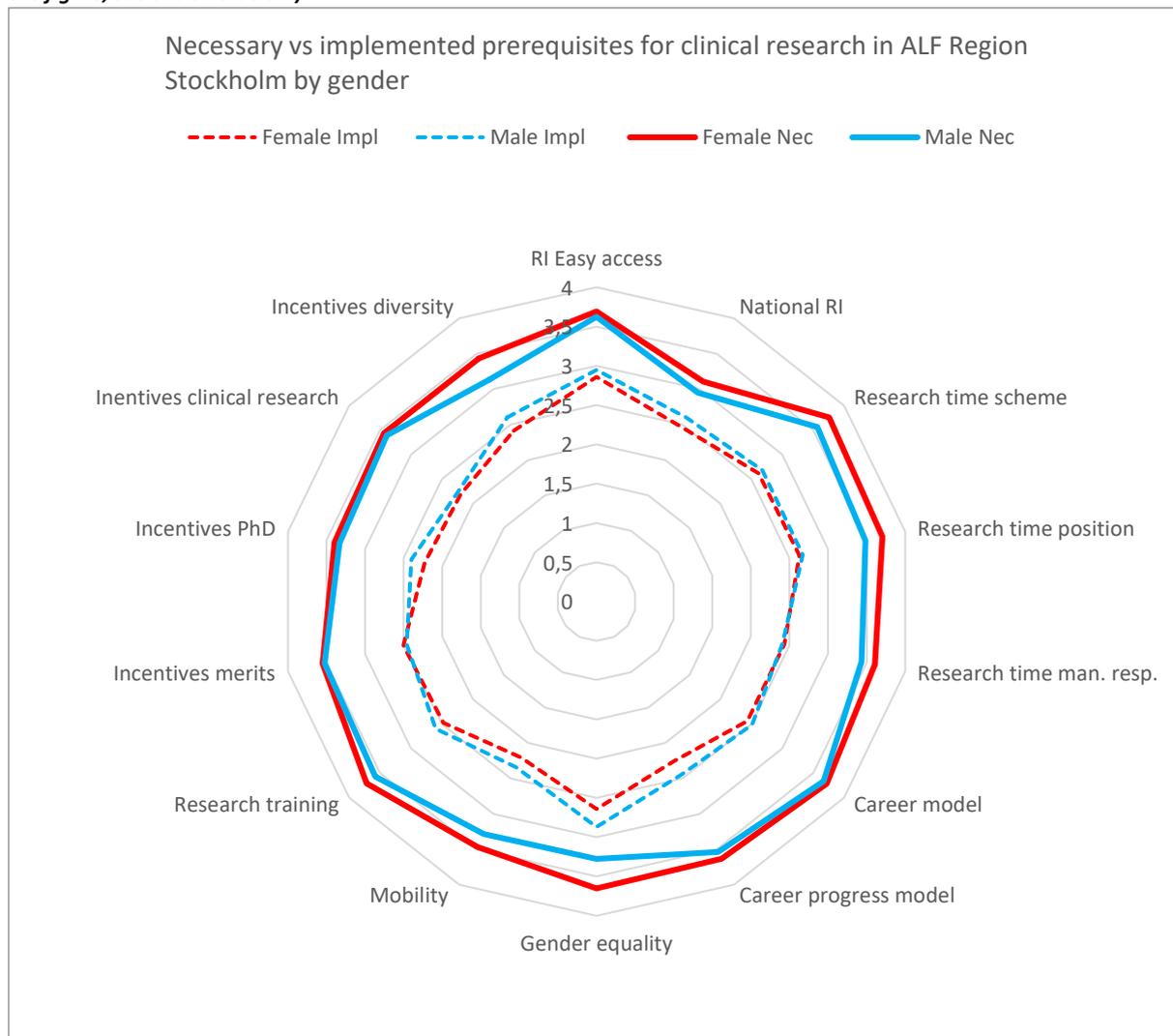


The spider plot needs to be analysed with caution, since the number of respondents that abstain from giving an opinion varies for some of the prerequisites presented in figure 7. The proportions of "Not Applicable (NA)" responses is presented in table 12 in the appendix below.

Overall, the spider plot shows a discrepancy between how the researchers and the PhD students view the necessity of the prerequisites and to what extent these has been implemented in their work place. The professors show the greatest discrepancy between the necessity of having incentive structure in place for clinical research (except for diversity of the workforce) and to what extent these have been implemented in the organisation. The prerequisites for having easy access to research infrastructures, and support for using national research infrastructures, seem more important to professors, and they tend to respond to a greater extent that this has been implemented in the organisation. The professors seem to consider gender equality less of a necessary prerequisite, and that this already is implemented in the organisation, whereas PhD students put more weight on this prerequisite. In terms of career models, having support for furthering your career as a clinical researcher is a necessary prerequisite for all researchers including PhD students, and they have all indicated that this has been implemented to a lesser degree in the Stockholm ALF region. PhD students are in general more reluctant to give an opinion as to what degree the prerequisites have been implemented in the organisation.

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Figure 8. Spider plot for the opinions of respondents, by gender, on the necessity of the prerequisites and to what degree these have been implemented in the ALF region. (Maximum n=557, but n varies since NA-responses are excluded from the figure, see table 13 below)



The spider plot needs to be analysed with caution, since the number of respondents that abstain from giving an opinion varies up to a third for some of the prerequisites presented in figure 8. The proportions of "Not Applicable (NA)" responses is presented in table 13 in the appendix below.

The gender difference in views on the necessity and implementation of the prerequisites for clinical research are most visible for gender equality and incentives for diversity among clinical researchers. Females, in general, think that gender equality is a necessary prerequisite for clinical research, and that this prerequisite to a lesser extent has been implemented in the organisation. We find the same pattern for the prerequisite for promoting diversity among the clinical research workforce at all levels in the organisation. These results should however be interpreted with caution, since nearly a fifth of the women has abstained from giving an opinion on to what extent this prerequisite has been implemented. Why this is so, could either be interpreted as them not having a problem regarding their own opportunities as female researchers in the organisation, but perhaps other women have, or- they might be concerned about the organisation's performance in this respect and, how this should be looked upon in this evaluation.

Female and male researchers at all level agree on the necessity of having easy access to research infrastructures, career models for clinical research, access to research training and incentives for

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clinical research regarding valuing merits, and encouraging PhD studies and clinical research careers. They all report lower levels of implementation of these prerequisites in the ALF region of Stockholm.

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Appendix 1

Table 11. Proportions of respondents that has indicated Not Applicable (NA) when giving their opinions on the necessity of the prerequisites, and to what extent they think these have been implemented in their ALF region, by academic title. (n=556)

Prerequisite/ Academic level	PhD students		PhD degree		Associate professor		Professor	
	Necessity	Implemented	Necessity	Implemented	Necessity	Implemented	Necessity	Implemented
RI Easy access	0,13	0,18	0,02	0,05	0,01	0,03	0,02	0,02
National RI	0,37	0,45	0,20	0,24	0,12	0,17	0,07	0,11
Research time scheme	0,28	0,41	0,15	0,26	0,07	0,16	0,03	0,10
Research time position	0,30	0,43	0,14	0,25	0,08	0,15	0,07	0,09
Research time man. resp.	0,34	0,51	0,15	0,34	0,09	0,22	0,07	0,14
Career model	0,02	0,15	0,03	0,15	0,01	0,09	0,02	0,08
Career progress model	0,06	0,18	0,08	0,15	0,04	0,10	0,06	0,08
Gender equality	0,07	0,25	0,05	0,19	0,05	0,12	0,05	0,09
Mobility	0,04	0,24	0,08	0,17	0,03	0,12	0,04	0,09
Research training	0,04	0,18	0,05	0,11	0,02	0,08	0,02	0,09
Incentives merits	0,04	0,12	0,03	0,09	0,02	0,06	0,01	0,04
Incentives PhD	0,07	0,21	0,06	0,11	0,03	0,07	0,02	0,07
Incentives clinical research	0,05	0,22	0,06	0,13	0,02	0,09	0,01	0,07
Incentives diversity	0,07	0,29	0,06	0,21	0,03	0,12	0,05	0,11

Table 12. Proportions of respondents that has indicated Not Applicable (NA) when giving their opinions on the necessity of the prerequisites, and to what extent they think these have been implemented in their ALF region, by gender. (n=557)

Prerequisite/ Gender	Female		Male	
	Necessity	Implemented	Necessity	Implemented
RI Easy access	0,07	0,11	0,03	0,04
National RI	0,26	0,32	0,13	0,18
Research time scheme	0,18	0,29	0,11	0,19
Research time position	0,19	0,31	0,12	0,17
Research time man. resp.	0,22	0,38	0,13	0,25
Career model	0,08	0,13	0,05	0,10
Career progress model	0,07	0,16	0,05	0,09
Gender equality	0,05	0,18	0,05	0,14
Mobility	0,06	0,20	0,03	0,11
Research training	0,04	0,14	0,02	0,09
Incentives merits	0,03	0,10	0,02	0,05
Incentives PhD	0,06	0,15	0,02	0,08
Incentives clinical research	0,05	0,17	0,02	0,09
Incentives diversity	0,05	0,23	0,05	0,14