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European Trainee Forum

The CIRSE European Trainee Forum's survey on international mobility



Cardiovascular and Interventional Radiological Society of Europe

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Executive summary

The European Trainee Forum subcommittee (ETFS) of the Cardiovascular and Interventional Radiology Society Europe (CIRSE) conducted a worldwide survey in 2021 regarding the interest of young interventional radiologists (IR), IR fellows and residents in working abroad. The survey showed that a majority of participants were highly motivated to work or to do a rotation abroad. Better working conditions, professional achievements and research opportunities are the most important motivators for moving abroad for work. The most common expectations from a rotation are hands-on experiences and learning specific IR procedures.

Introduction

The European Trainee Forum (ETFS) is a subcommittee of the Cardiovascular and Interventional Radiology Society Europe (CIRSE) that focuses on the interests of IR trainees, residents and young interventional radiologists. An important part of its work is to facilitate international mobility and create opportunities for the exchange of knowledge and practical skills. For this purpose, the subcommittee is currently developing a fellowship programme. To gauge the interest in such a programme and what expectations need to be met, a survey was conducted worldwide. Here we present the results of the survey.

Methods

A survey was created by the working group on international mobility in the ETFS using an online survey software tool, Alchemer, that provides individuals, teams, and enterprises with flexible, easy to set up and use surveys and feedback (www.alchemer.com, previously known as SurveyGizmo). The survey was online during the summer of 2021.

The target groups were young interventional radiologists, IR fellows and radiology trainees interested in IR. To maximise recruitment and the spread of the survey worldwide, it was promoted in several channels available to the ETF. All potential participants who previously attended CIRSE meetings were sent the survey via email. The survey was promoted on the ETF's social media accounts and in medical universities of ETF member countries. The survey consisted of 24 multiple choice questions, which were divided into three categories: 1) Demographics 2) International mobility and 3) Current working environment. For a copy of the survey, please refer to **appendix 1**.

Results

Demographics

217 replies were received, with participants scattered around the globe (figure 1). Most replies were received from India and Italy, together accounting for 25%. 71% of participants were male and 47% were between the ages of 31 and 35. 43% of participants were interventional radiologists, 27% IR fellows and 30% trainees interested in IR. The fields of most interest among participants were aortic and arterial interventions (76%), oncological interventions (82%) and venous interventions (48%) (Figure 2). Most participants work at a public hospital (71%) that is also an academic institution (78%) and have teaching responsibilities (77%) (Figure 3). 48% also have parental responsibilities. For demographic information, please refer to table 1.

International mobility

Only 32% of participants had previous experience working abroad, and even fewer (18%) had received a mobility grant in the past. Most were very motivated (78%) or somewhat motivated (18%) to do an IR rotation abroad, and 65% would accept an unpaid rotation. During a rotation most participants expect to do hands-on practical work (84%) and be able to perform specific IR procedures within their area of interest (86%). More than half of the participants also have research ambitions (55%) (figure 4).

65% were very interested and 25% somewhat interested in moving abroad for work. Better working conditions (71%), professional achievements (70%), research opportunities (54%), better living conditions (53%) and higher income (51%) were all important motivators for working abroad (figure 5).

The three countries of most interest are the United States (17%), United Kingdom (17%) and Canada (13%) (figure 6). Regarding the duration of the rotation, the participants were quite evenly dispersed from less than three months to 1-3 years, with most undetermined (26%) (figure 7). For information on international mobility, see tables 2 and 3.

Current working environment

The average working hours per week were most commonly 36-50 hours (46%) followed by 51-70 hours (38%) and over 70 hours (12%). Even so, almost half of the participants (44 %) felt they have enough time for family and friends and a majority (85%) managed to maintain some level of balance between work and personal life. Almost all (89%) experienced some level of stress in their working environment.

When asked about their current working environment the majority of participants felt they were safe (65%), involved in direct patient care (61%) and had the necessary equipment to do their job (54%). On the other hand, the replies showed the sense of a lack of quality assurance (26%) and lack of involvement in the development thereof (16%), as well as a feeling of one's rights not being respected (28%) and the lack of merit-based advancement (22%) (figure 8). For information on current working environment, see table 4.

Table 1. Demographic information

Gender	N	percent
Male	171	79%
Female	46	21%

Age		
25-30	43	20%
31-35	102	47%
36-40	72	33%

Occupation		
Trainee	66	30%
IR fellow	58	27%
Interventional radiologist	93	43%

Place of work		
Public hospital	154	71%
Private hospital	31	14%
Both	28	13%
Other	4	2%

Parental responsibilities		
Yes	104	48%
No	113	52%

Table 2. Information on international mobility

Do you work in a multinational environment?		
Yes	88	41%
No	129	59%

Did you already move abroad for work?		
Yes	70	32%
No	147	68%

Did you receive a mobility grant in the past?		
Yes	39	18%
No	178	82%

If offered, would you accept an unpaid rotation?		
Yes	142	65%
No	75	35%

Table 3. Interest and motivation

How motivated are you to do an IR rotation abroad?		
Very motivated	169	78%
Somewhat motivated	39	18%
Not motivated	6	3%
Other	3	1%

How motivated are you to practice IR (as a specialist) in a different country?		
Very motivated	142	65%
Somewhat motivated	55	25%
Not motivated	20	10%

Table 4. Information on current working environment

Working hours per week	N	percent
25-35	9	4%
36-50	100	46%
51-70	83	38%
>70	25	12%

Do you feel that you have enough time for your family and friends?		
Yes	96	44%
Not enough	111	51%
Not at all	10	5%

Do you consider your working environment stressful?		
Yes	45	21%
To some extent	147	68%
Not at all	25	11%

Do you consider your personal life to be		
Perfectly balanced between work and personal life	20	9%
Somewhat balanced between work and personal life	185	85%
I care only about work life	12	6%

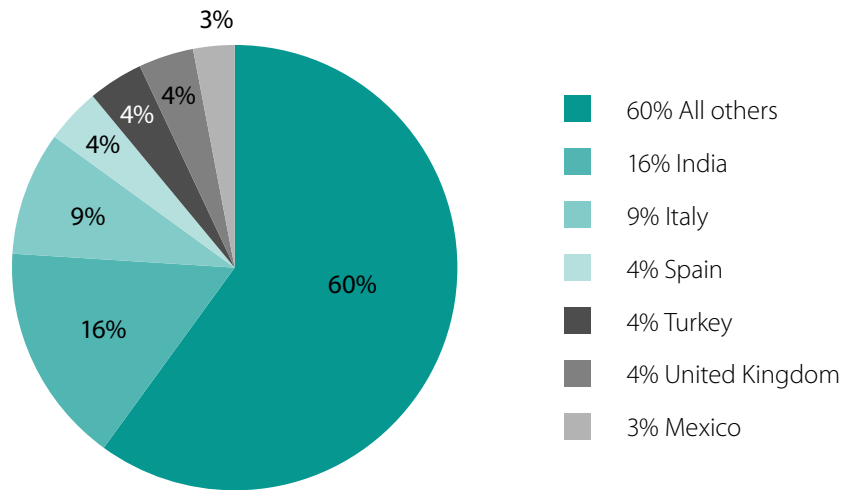
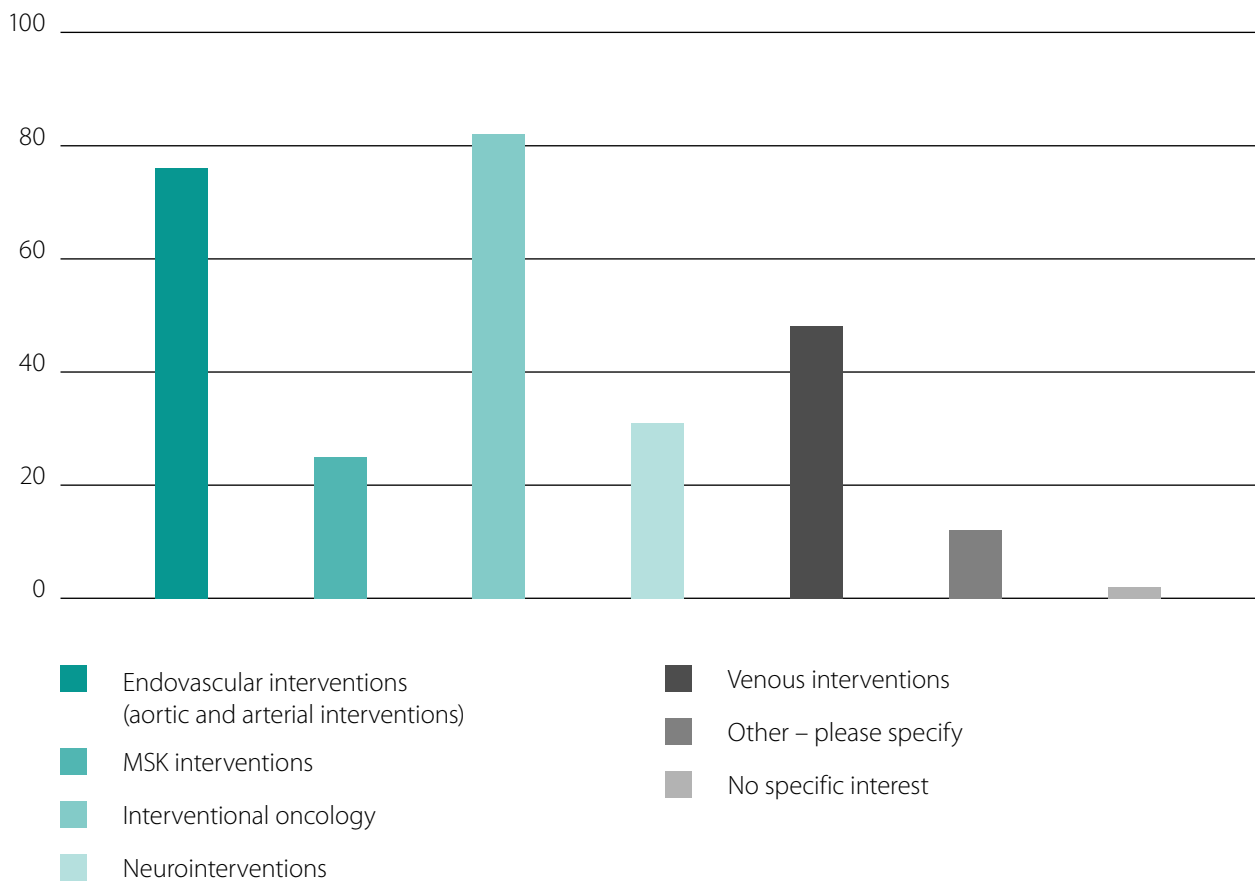
Which country do you work in?***Figure 2: What fields in interventional radiology are you interested in?**

Figure 3: Do you have teaching responsibilities?

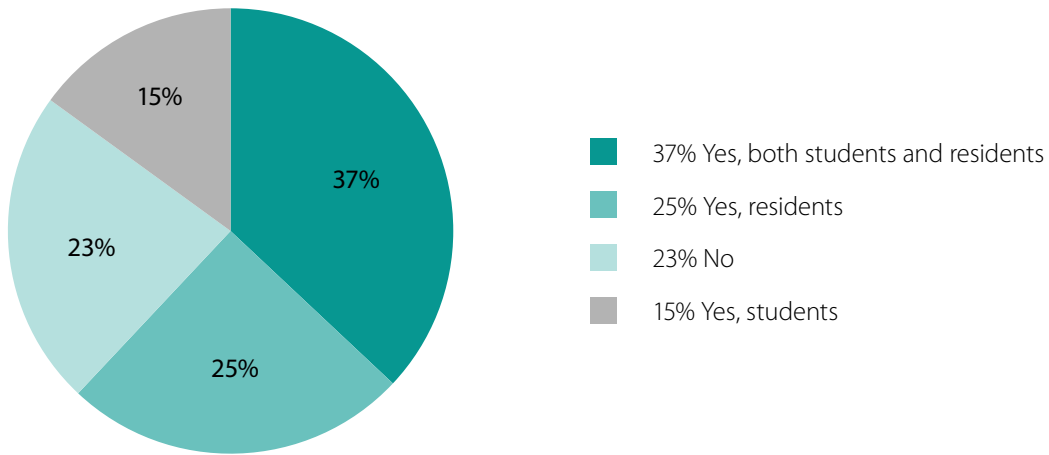


Figure 3: Is your workplace a university / academic institution?

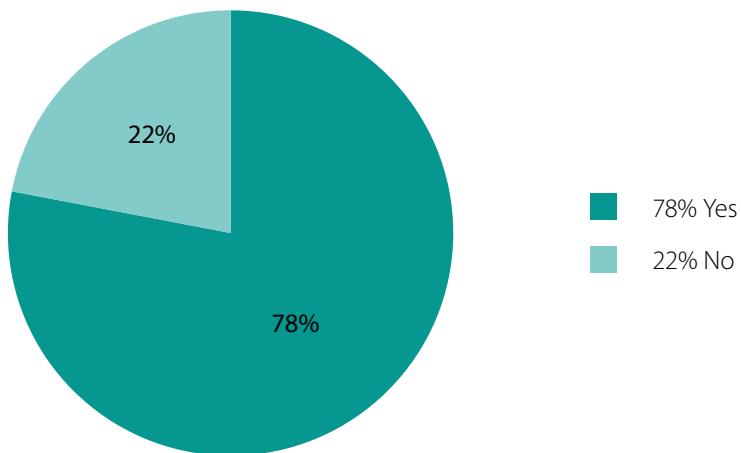


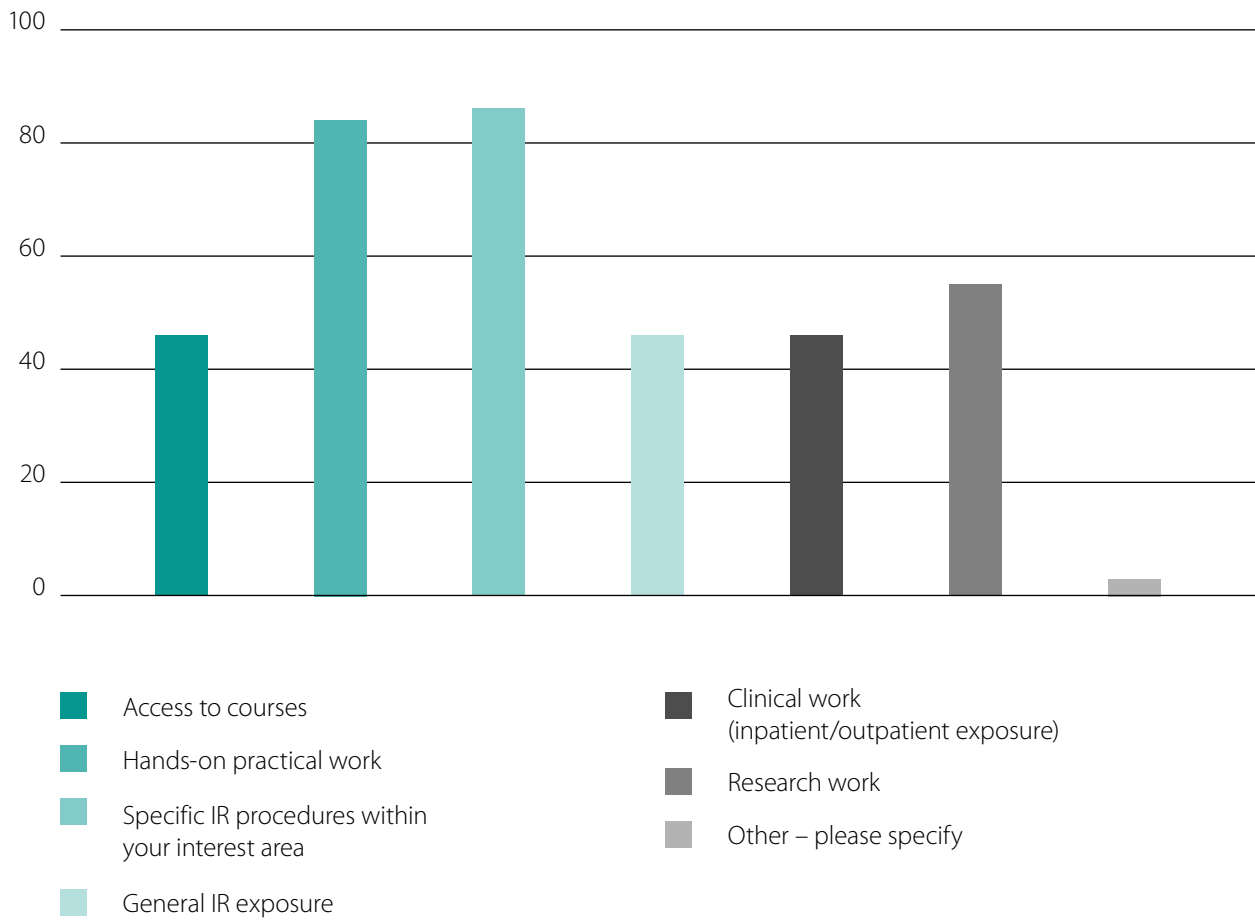
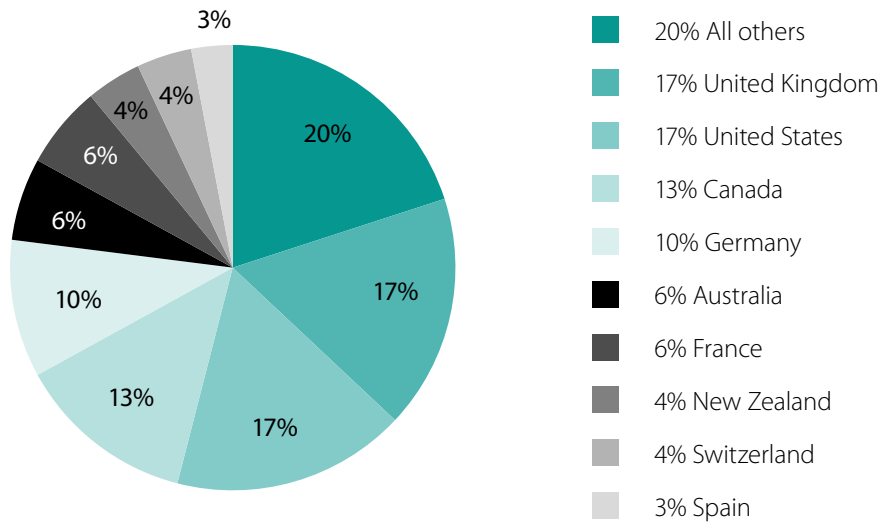
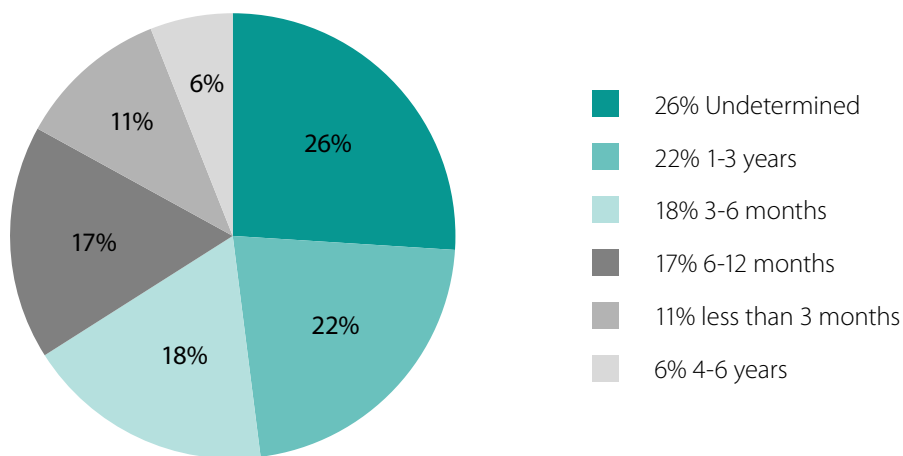
Figure 4: What would you expect from an IR rotation abroad?

Figure 5: For what reasons would you consider migrating to another country for work?



Figure 6: What country would you like to practice in?**Figure 7: For what duration would you be willing to work abroad?**

Discussion

Online surveys are a well-established modern method of attitude examination of radiology professionals, making it possible to reach a large percentage of the targeted group. (1). There are survey-based publications involving interventional radiologists (2, 3), publications on the attitudes of radiology residents (4) and medical students regarding IR (5) which are similar to our survey in structure and methods, but also different, as our survey targeted young interventional radiologists, IR fellows and trainees and focused on the issue of international mobility.

The strength of our report is the worldwide character of the survey and the high number of replies received. The geographic distribution of the participants (a majority from India and Italy) of course influences the results of the survey and limits the general worldwide applicability of the answers. Men are overrepresented in our survey, which accurately reflects the gender distribution in the targeted group (6, 7, 8).

The results of our survey show that there is a wide interest among young and future interventionists in working and gaining experience, both practical and academical, abroad. The most common reason to work at foreign institutes is to gain hands-on experience and learn new IR procedures. These results are congruent with the results of the similar but more limited survey carried out in Canada (4). Also, opportunity to do research abroad is a popular motivator, being a general trend in Europe and regarded as a cornerstone for current and future radiology research (9). It is important that rotations and fellowship programmes under development cater to these expectations.

Common motivators for working abroad are also factors that may make work and personal life different from the participants current working environment, as shown in the survey. The hope of better working and living conditions, possibilities for professional achievements and higher income are all motivators for working abroad and may be a reflection of a harsh current working environment with limited possibilities. The majority of participants are used to a high work load with at least some level of stress, but are mostly satisfied with the balance between professional and personal life (10). However, almost half of the participants report a lack of adequate modern equipment in their current institution and many also report a lack of quality assurance and merit-based advancement.

The most popular countries for short and long-term work seem to be the United States, the United Kingdom and Canada. These countries are probably attractive due to the well-established role of interventional radiology in patient care and the relative accessibility due to the English language. The survey shows that 65% of participants would accept an unpaid rotation, which could indicate limitations among the interested in funding the rotation. National and local hospital grants as well as the new ETF mobility grant are possible ways of receiving funding for the visit.

Our survey shows that only 32% of participants had experience of working abroad, even though the interest is very high. One important limitation of this survey is that the specific obstacles to international mobility were not thoroughly elaborated, and further investigation is needed. We might speculate regarding the obstacles and possible ways to facilitate international mobility, but a complementary survey would pinpoint the areas to focus on. A concentrated database of hospitals from different countries willing to host a colleague from abroad might be helpful, and ETF is currently working on the matter. Conditions required for working abroad (EU/non-EU countries) should be clearly defined and stated so the interested interventionists and trainees can easily find what they need and what they can expect from fellowship programmes. Our survey shows the need for further investing in interventional radiologists, and trainees' mobility, promoting international and interinstitutional collaboration among centers and developing networks that can be used for career advancement.

Conclusion

- The survey showed that a majority of participants were highly motivated to work or to do a rotation abroad.
- Better working conditions, professional achievements and research opportunities are the most important motivators for moving abroad for work.
- The most common expectations from a rotation are hands-on experience and learning specific IR procedures.

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Appendix 1 – Survey questions

Part 1 – Demographics

1. Which country do you work in? (list of countries to select)
2. Please select your occupation
 - Trainee interested in IR
 - IR fellow
 - Interventional radiologist
3. Fields of interest in interventional radiology (multiple choice)
 - Endovascular interventions (aortic and arterial Interventions)
 - MSK interventions
 - Interventional oncology
 - Neurointerventions
 - Venous interventions
 - Other (please specify)
 - No specific interest
4. You work at:
 - Public hospital
 - Private hospital
 - Both
5. Is your workplace a university / academic institution?
 - Yes
 - No
6. IF THE 5TH QUESTIONS IS YES: Do you have teaching responsibilities?
 - Yes, students
 - Yes, residents
 - Yes, both students and residents
 - No
7. Gender
 - Female
 - Male
8. Age
 - 25-30
 - 31-35
 - 36-40
9. Do you have parental responsibilities?
 - Yes
 - No

Part 2 – International mobility

Education

10. Do you work in a multi-national environment?
- Yes
 - No
11. Did you already move abroad for work?
- Yes
 - No
12. How motivated are you to do an IR rotation abroad?
- Very motivated
 - Somewhat motivated
 - Not motivated
13. Did you receive a mobility grant in the past?
- Yes
 - No
14. If offered, would you accept an unpaid rotation?
- Yes
 - No
15. What would you expect from an IR rotation abroad? (multiple choice)
- Access to courses
 - Hands-on practical work
 - Specific IR procedures within your interest area
 - Specific IR procedures no matter the area
 - General IR exposure
 - Clinical work (inpatient/outpatient exposure)
 - Research work
 - Others – please specify

Working abroad

16. How motivated are you to practice IR (as a specialist) in a different country?
- Very motivated
 - Somewhat motivated
 - Not motivated
17. For what reasons would you consider migrating to another country for work? (multiple choice)
- Higher income
 - Professional achievements
 - Research possibilities
 - Social integration
 - Patients' respect
 - Better working conditions (including technology)
 - Better living conditions
 - Quality of medical services
 - Others – please specify

18. What country would you like to practice in?

19. For what duration would you be willing to work abroad? (list to select)

- <3 months
- 3-6 months
- 6-12 months
- 1-3 years
- 4-6 years
- Undetermined

Part 3 – Your current working environment

20. How many hours do you work a week?

- 25- 35
- 36 – 50
- 51 – 70
- more than 70

21. Do you feel that you have enough time for your family and friends?

- Yes
- Not enough
- Not at all

22. Do you consider your working environment stressful?

- Yes
- To some extent
- Not at all

23. Do you consider your personal life to be

- Perfectly balanced between work and personal life
- Somewhat balanced between work and personal life
- I care only about work life
- I only care about personal life

24. What do you think about your working environment? (multiple choice)

- I feel safe in my current work place
- I have the necessary equipment
- I have the ability to in-fluence management and professional decisions in my workplace
- I work in an environment where advancements are merit-based
- I am involved in research work
- I am aware of my legal rights and obligations regarding my profession
- I feel that my rights and the current legislation are respected at my current job
- I am aware of the existence of a quality assurance programme in my department
- I am involved in the development and implementation of the quality assurance programme
- I am involved in direct patient care
- Others – please specify

