



## Results from the 2018 **Intern Tracking** and **NCHD Retention** surveys

21<sup>st</sup> meeting of the MacCraith Strategic Review of Medical  
Training and Career Structures  
Implementation Monitoring Group

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Baseline survey of Final Med students, all 6 medical schools, Nov 2016 - Febr 2017.  
focus on: migration intentions, specialty choice, contact details for follow-up

483 responses from circa 725 Irish / EU-EEA students (66% response rate)

Follow-up survey, June 2018 (final month as interns): 232 responders (48% resp rate)

**Aim:** measure and explore interns' (i) **migration intentions** and (ii) **specialty intentions**

## Migration

- 119 (57%) leave but return
- 76 (36%) remain in Ireland
- 15 ( 7%) leave Ireland permanently

## Study 1 – Medtrack Intern Survey: Migration Intentions

Multinomial logistic regression analysis of interns intending to migrate (n=134).  
Comparison group: n=76 interns intending to **Remain** in Ireland

	Leave but return (n=119)		Leave permanently (n=15)		$\chi^2$ †	p
	RRR [95% CI]	p	RRR [95% CI]	p		
<i>Unadjusted</i>						
<b>Entry method</b> - GEM entry (v. DEM)	0.20 [0.11-0.39]	<b>0.000</b>	0.31 [0.09-1.06]	0.062	0.4	0.507
<i>Adjusted for GEM/DEM</i>						
Sex - Male (v. Female)	0.86 [0.47-1.60]	0.642	1.19 [0.38-3.74]	0.761	0.3	0.564
Age	0.88 [0.76-1.01]	0.078	0.82 [0.57-1.17]	0.272	0.2	0.691
Debt - €10K+ (v. <€10K)	1.01 [0.51-1.99]	0.977	1.18 [0.33-4.23]	0.802	0.1	0.806
Specialty (reference GP)						
Medicine	3.01 [1.09-8.34]	<b>0.034</b>	0.89 [0.13-6.13]	0.904		
Surgery	1.85 [0.66-5.22]	0.246	1.59 [0.27-9.32]	0.605		
Other	1.82 [0.60-5.56]	0.291	1.20 [0.17-8.60]	0.855		
<b>Experience as an intern</b>						
Overall negative experience	1.16 [1.00-1.34]	<b>0.043</b>	1.54 [1.15-2.04]	<b>0.003</b>	4.1	<b>0.043</b>
Emotional exhaustion (burnout)	1.08 [0.89-1.32]	0.410	1.57 [1.08-2.27]	<b>0.017</b>	4.1	<b>0.042</b>
Depersonalization (callousness)	1.23 [1.03-1.46]	<b>0.023</b>	1.77 [1.24-2.53]	<b>0.002</b>	4.3	<b>0.037</b>
<b>Perception of training in Ireland</b>						
Overall positive perception	0.94 [0.73-1.19]	0.589	0.50 [0.26-0.94]	<b>0.032</b>	3.9	<b>0.048</b>
Overall negative perception	1.16 [1.01-1.34]	<b>0.037</b>	1.15 [0.89-1.50]	0.284	0.0	0.952
Don't know	0.87 [0.72-1.05]	0.144	0.83 [0.58-1.20]	0.516	0.1	0.816



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## Study 1 – MedTrack Intern Survey: Specialty Intentions



Multinomial logistic regression analysis of doctors choice of specialty (n=184). Comparison group is n=95 doctors choosing **Medicine** (Adjusted for age and sex unless stated otherwise).

		General Practice (n=28)			Surgery (n=61)		
		RRR [95% CI]		p value	RRR [95% CI]		p value
<b>Age</b> (adj for sex)		1.27	[ 1.03 - 1.46 ]	<b>0.001</b>	0.94	[ 0.81 - 1.08 ]	0.374
<b>Sex</b> (adj for age)	Female (v. Male)	1.17	[ 0.46 - 3.03 ]	0.738	0.44	[ 0.22 - 0.86 ]	<b>0.017</b>
<b>Study pathway</b>							
	GEM entry (v. DEM)	1.35	[ 0.39 - 4.66 ]	0.640	3.13	[ 1.00 - 9.86 ]	<b>0.051</b>
<b>Migration intention</b>							
	Go abroad (LBR & LP) v. Remain	0.61	[ 0.23 - 1.61 ]	0.319	0.54	[ 0.26 - 1.13 ]	0.102
<b>Factors influencing career choice</b>							
	Work-life balance	3.41	[ 0.97 - 12.00 ]	0.056	0.60	[ 0.34 - 1.06 ]	0.076
	Career prospects	0.37	[ 0.17 - 0.78 ]	<b>0.009</b>	1.08	[ 0.63 - 1.84 ]	0.782
	Amount of patient contact	1.39	[ 0.67 - 2.89 ]	0.370	0.56	[ 0.33 - 0.95 ]	<b>0.033</b>
	Continuity of patient contact	3.20	[ 1.59 - 6.41 ]	<b>0.001</b>	0.63	[ 0.39 - 1.02 ]	<b>0.061</b>
	Wanting a career that fits my domestic circumstances	3.19	[ 1.27 - 8.02 ]	<b>0.014</b>	0.76	[ 0.46 - 1.23 ]	0.258
	Working hours/conditions	4.61	[ 1.03 - 20.60 ]	<b>0.045</b>	0.55	[ 0.31 - 0.96 ]	<b>0.035</b>
	Self-appraisal/ own skill	0.61	[ 0.27 - 1.37 ]	0.230	1.82	[ 0.99 - 3.34 ]	0.055
	Future financial prospects	0.89	[ 0.42 - 1.87 ]	0.760	1.68	[ 0.98 - 2.88 ]	0.059
	Particular teacher/department	0.17	[ 0.08 - 0.38 ]	<b>0.000</b>	0.80	[ 0.49 - 1.29 ]	0.364
	Experience of jobs so far	0.40	[ 0.18 - 0.87 ]	<b>0.021</b>	0.93	[ 0.54 - 1.62 ]	0.81

## Intern survey take-home messages

- Over half of surveyed interns planning to leave but return
  - Need to address the emigration drivers, especially among those planning to specialise in medicine, and ensure they have return pathways to permanent posts in Ireland
  - Negative experiences start in internship: **50% reported burnout** and **54% callousness** ‘a few times a month or more often’ – need to better protect intern wellbeing – we are losing them
  - Negative perceptions – but also low levels of awareness – of training in Ireland
- Few interns (7%) planned to leave permanently – but they have more negative experiences and perceptions
- Those choosing General Practice are older, more likely to remain in Ireland, and consider work-life balance and continuity of patient care as important influences on their choice of specialty.
- Increasing GEM places might help retain doctors in Ireland after internship and might boost intake into general practice training

## Study 2 – Medtrack NCHD survey, February 2018

- Structured survey of all NCHDs. N=1148 responses: trainees (n=752) NTSDs (n=396)

**Research Question 1: what are the levels, patterns and predictors of NCHDs' career intentions?**

4 options:

520 (45%) Remain in Ireland	399 (35%) Go abroad and Return
196 (17%) Go and Stay abroad	33 (3%) Leave Medicine

**Research Question 2: To what extent have the following training / working conditions become better or worse since you began working as an NCHD in Ireland?**

### Training conditions

- \* protected training time
- \* training supervision
- \* mentoring supports
- \* costs of training

### Working conditions

- \* staffing levels in workplace
- \* stress in working environment
- \* bullying in the workplace
- \* non-core tasks

See pp 3-4 of handout for highline points

# R.Q.1: Associations of demographic characteristics with career intentions

Variable	Value	Remain No. (%)	Go abroad and return No. (%)	Go and stay abroad No. (%)	Quit medicine No. (%)	TOTAL No. (100%)	P value
TOTAL		520 (45%)	399 (35%)	196 (17%)	33 (3%)	1148	<0.001
Age	< 30 years	150 (37%)	186 (46%)	51 (13%)	16 (4%)	403	<0.001*
	≥ 30 < 35	167 (42%)	140 (35%)	78 (20%)	14 (4%)	399	
	≥ 35 < 40	73 (54%)	29 (22%)	29 (22%)	3 (2%)	134	
	≥ 40	56 (72%)	10 (13%)	12 (15%)	0 (0%)	78	
Sex	Female	280 (48%)	218 (37%)	67 (11%)	21 (4%)	586	<0.001
	Male	192 (41%)	154 (33%)	111 (24%)	12 (3%)	469	
Marital status	Married/cohab	295 (49%)	176 (29%)	110 (18%)	24 (4%)	605	<0.001
	Single	182 (40%)	193 (43%)	69 (15%)	9 (2%)	453	
Dependents	Yes	142 (57%)	49 (20%)	51 (20%)	9 (4%)	251	<0.001
	No	331 (41%)	326 (40%)	129 (16%)	24 (3%)	810	
Nationality	Irish	328 (44%)	321 (43%)	78 (10%)	24 (3%)	751	< 0.001*
	Non-EU	91 (44%)	31 (15%)	78 (38%)	6 (3%)	206	
	Other EU	39 (63%)	9 (15%)	12 (19%)	2 (3%)	62	

# Associations of training characteristics with career intentions

Variable	Value	Remain No. (%)	Go abroad and return No. (%)	Go and stay abroad No. (%)	Quit medicine No. (%)	TOTAL No. (100%)	P value
TOTAL		520 (45%)	399 (35%)	196 (17%)	33 (3%)	1148	<0.001
Undergraduate pathway	DEM	230 (40%)	270 (47%)	60 (10%)	19 (3%)	579	<0.001
	GEM	102 (50%)	64 (31%)	36 (17%)	4 (2%)	206	
	Not applicable	97 (49%)	38 (19%)	59 (30%)	3 (2%)	197	
Training status	Non Trainee	205 (52%)	90 (23%)	89 (22%)	12 (3%)	396	<0.001
	Trainee	315 (42%)	309 (41%)	107 (14%)	21 (3%)	752	
Training grade	BST	134 (44%)	112 (37%)	48 (16%)	12 (4%)	306	0.13*
	HST	120 (41%)	130 (45%)	38 (13%)	3 (1%)	291	
	Run through	61 (39%)	67 (43%)	21 (14%)	6 (4%)	155	
Specialty	GP	53 (63%)	20 (24%)	8 (10%)	3 (4%)	84	<0.001*
	Surgery	120 (47%)	78 (30%)	48 (19%)	11 (4%)	257	
	Medicine	211 (43%)	184 (38%)	78 (16%)	16 (3%)	489	
	Anesthesiology	41 (34%)	60 (49%)	19 (16%)	2 (2%)	122	
	Psychiatry	58 (53%)	22 (20%)	29 (26%)	1 (1%)	110	



## R.Q 2: Perceptions of Training and Working Conditions: overall

Item	Worse	Same	Better	New to Post	Total
<b>TRAINING</b>					
Costs associated with training in my specialty	492 (44%)	378 (34%)	79 (7%)	171 (15%)	1120
Protected training time	371 (33%)	395 (35%)	219 (20%)	136 (12%)	1121
Mentoring supports within my training programme	231 (21%)	416 (37%)	324 (29%)	151 (13%)	1122
Level of supervision of my training	223 (20%)	467 (42%)	295 (26%)	136 (12%)	1121
<b>WORKING CONDITIONS</b>					
Level of stress in my working environment	520 (46%)	348 (31%)	178 (16%)	74 (7%)	1120
Staffing levels in my workplace	518 (46%)	356 (32%)	168 (15%)	79 (7%)	1121
Non-core task allocation	322 (29%)	476 (43%)	223 (20%)	98 (9%)	1119
Level of bullying in the workplace	220 (20%)	542 (48%)	243 (22%)	115 (10%)	1120

See pp 6 of handout for summary of findings

## Associations of **training** experiences with **migration plans (1)**

Migration level 1	Migration level 2	Better No. (%)	Worse No. (%)	New to post No. (%)	Same No. (%)	TOTAL No. (100%)	P value
<b>1. Training costs</b>	Remain Ireland	49 (10)	200 (39)	92 (18)	167 (33)	508	<0.001
	Leave Ireland	28 (5)	272 (47)	73 (13)	203 (35)	576	
	Leave but return	18 (5)	175 (45)	55 (14)	140 (36)	388	
	Leave permanently	10 (5)	97 (52)	18 (10)	63 (34)	188	0.31
<b>2. Protected training</b>	Remain Ireland	118 (23)	145(28)	77(15)	169(33)	509	<0.001
	Leave Ireland	97 (17)	206(36)	57(10)	216(38)	576	
	Leave but return	74(19)	116(30)	42(11)	156(40)	407	
	Leave permanently	23(12)	90(48)	15(8)	60(32)	191	<0.001
<b>3. Supervision</b>	Remain Ireland	161 (32)	90 (18)	73 (14)	184 (36)	508	<0.001
	Leave Ireland	130 (23)	118 (20)	61 (11)	268 (46)	577	
	Leave but return	90 (23)	57 (15)	47 (12)	194 (50)	388	
	Leave permanently	40 (21)	61 (32)	14 (7)	74 (39)	189	<0.001
<b>4. Mentoring supports</b>	Remain Ireland	168 (33)	86 (17)	84 (17)	171 (34)	509	<0.001
	Leave Ireland	152 (26)	126 (22)	65 (11)	234 (41)	577	
	Leave but return	114 (29)	51 (13)	49 (13)	174 (45)	388	
	Leave permanently	38 (20)	75 (40)	16 (8)	60 (32)	189	<0.001

## Associations of **working** experiences with **migration plans** (2)

Migration level 1	Migration level 2	Better No. (%)	Worse No. (%)	New to post No. (%)	Same No. (%)	TOTAL No. (%)	P value
<b>5. Non-core tasks</b>	Remain Ireland	107 (21)	137 (27)	54 (11)	213 (42)	511	0.28
	Leave Ireland	109 (19)	167 (29)	44 (8)	252 (44)	572	
	Leave but return	84 (22)	97 (25)	33 (9)	172 (45)	386	0.006
	Leave permanently	25 (13)	70 (38)	11 (6)	80 (43)	186	
<b>6. Stress levels</b>	Remain Ireland	100 (20)	205 (40)	42 (8)	161 (32)	508	0.001
	Leave Ireland	75 (13)	287 (50)	32 (6)	182 (32)	576	
	Leave but return	59 (15)	169 (44)	25 (6)	134 (35)	387	<0.001
	Leave permanently	16 (8)	118 (62)	7 (4)	48 (25)	189	
<b>7. Bullying</b>	Remain Ireland	126 (25)	81 (16)	63 (12)	238 (47)	508	0.007
	Leave Ireland	111 (19)	124 (22)	51 (9)	290 (50)	576	
	Leave but return	81 (21)	64 (17)	38 (10)	204 (53)	387	<0.001
	Leave permanently	30 (16)	60 (32)	13 (7)	86 (46)	189	
<b>8. Staffing levels</b>	Remain Ireland	93 (18)	208 (41)	41 (8)	167 (33)	509	0.01
	Leave Ireland	72 (12)	283 (49)	38 (7)	183 (32)	576	
	Leave but return	49 (13)	184 (48)	28 (7)	126 (33)	387	0.66
	Leave permanently	23 (12)	99 (52)	10 (5)	57 (30)	189	

# Associations of **training and working** experiences with **continue versus Quit Medicine**

	Better	Worse	New to post	Same	TOTAL	P value
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	
<b>1. Training costs</b>						
Continue	77 (7)	472 (43)	165 (15)	370 (34)	1084 (100)	0.5
Quit	1 (3)	17 (53)	6 (19)	8 (25)	32 (100)	
<b>2. Protected training</b>						
Continue	215 (20)	351 (32)	134 (25)	385 (35)	1085 (100)	= 0.016
Quit	4 (12)	19 (59)	2 (6)	6 (7)	32(100)	
<b>3. Supervision</b>						
Continue	291 (27)	208 (19)	134 (12)	452 (42)	1085 (100)	= 0.005
Quit	4 (12)	14 (44)	2 (6)	12 (37)	32 (100)	
<b>4. Mentoring supports</b>						
Continue	320 (29)	212 (19)	149 (14)	405 (37)	1086 (100)	<0.001
Quit	4 (12)	18 (56)	2 (6)	8 (25)	32 (100)	
<b>5. Non-core tasks</b>						
Continue	216 (20)	304 (28)	98 (9)	465 (43)	1083 (100)	0.028
Quit	6 (19)	16 (50)	0 (0)	10 (31)	32 (100)	
<b>6. Stress levels</b>						
Continue	175 (16)	492 (45)	74 (7)	343 (32)	1084 (100)	0.009
Quit	3 (9)	24 (75)	0 (0)	5 (16)	32 (100)	
<b>7. Bullying</b>						
Continue	237 (22)	205 (19)	114 (10)	528 (49)	1084 (100)	0.005
Quit	6 (19)	14 (44)	1 (3)	11 (34)	32 (100)	
<b>8. Staffing levels</b>						
Continue	165 (15)	491 (45)	79 (7)	350 (32)	1085 (100)	0.008
Quit	3 (9)	24 (75)	0 (0)	5 (16)	32 (100)	

Multivariable Model Odds Ratios for factors significantly associated with  
**Go abroad to practice medicine** versus **Stay in Ireland**

	Odds ratio	2.5%	97.5%	P value
Age (<30)	1.08	1.05	1.12	<0.001
Irish				
Non-EU	1.56	1.02	2.37	0.039
Non-Irish EU	0.59	0.31	1.12	0.107
Specialty: General practice				
Specialty: Medicine	2.9	1.64	5.11	<0.001
Specialty: Surgery	3.12	1.69	5.76	<0.001
Specialty: Anaesthesiology	5.11	2.57	10.17	<0.001
Specialty: Psychiatry	2.61	1.32	5.15	0.006
Non trainee				
Trainee	1.53	1.07	2.2	0.02
Training costs: same	1.89	1.01	3.57	0.048
Training costs: worse	2.35	1.27	4.37	0.007



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## Multivariable Model Odds Ratios for factors significantly associated with Stay Abroad versus Return to Ireland

	Odds ratio	2.5%	97.5%	P value
Age (years > 30)	1.15	1.07	1.24	<0.001
Irish				
Non-EU / non-EEA	9.91	4.31	22.75	<0.001
Non-Irish EU and EEA	3.15	0.89	11.18	0.076
Entry: Direct Entry Medicine				
Entry: Graduate Entry Medicine	2.36	1.15	4.86	0.02
Entry: Not applicable	1.31	0.54	3.19	0.551
Specialty: General practice				
Specialty: Medicine	0.68	0.18	2.61	0.573
Specialty: Surgery	0.71	0.17	2.9	0.632
Specialty: Anaesthetics	1.06	0.26	4.34	0.937
Specialty: Psychiatry	4.73	1.04	21.53	0.044
Mentoring: new to post				
Mentoring: same	0.71	0.2	2.47	0.591
Mentoring: worse	4.42	1.25	15.55	0.021
Mentoring: better	0.6	0.16	2.24	0.45

Multivariable model odds ratios for 3 career / migration options

Variable	Leave v Remain odds ratio	Stay away v return odds ratio	Quit v Continue Medicine Odds ratio
Age (<30 years)	1.08****		1.14
Age (>30 years)		1.15****	
Married / cohabiting			2.98 *
Non-EU/EEA	1.56*	9.91****	
Non-Irish EU/EEA	0.59	3.15	
Graduate Entry Medicine		2.36*	
Specialty: General practice			
Specialty: Medicine	2.9****		
Specialty: Surgery	3.12****		
Specialty: Anesthesiology	5.11****		
Specialty: Psychiatry	2.61**	4.73*	
Trainee	1.53*		
Training costs: same	1.89*		
Training costs: worse	2.35**		
Mentoring: worse		4.42*	6.97*

\* p<0.05    \*\* p<0.01    \*\*\* p<0.005    \*\*\*\* p<0.001



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## Predictors significantly associated with reporting training and working conditions worse

Variable	Item	Costs of training	Protected training	Mentoring	Supervision	Stress levels	Staffing levels	Non-core tasks	Bullying
Age	< 30 years	X							
	>= 30 years								
Sex	Male		X						
	Female								
Nationality	Irish	X							
	Non-Irish EEA								
	Non-EEA			X	X	X			X
Country of BMCQ	Irish	X							
	Non-Irish EEA								X
	Non-EEA			X	X	X			X
Undergrad path	DEM								
	GEM			X					
Training status	Trainee	X							
	Non-trainee		X	X	X				X
Training grade	BST			X	X		X		X
	HST	X							
	Run-through Training								
Specialty (v GP)	Surgery		X	X	X	X	X		X
	Medicine		X	X	X	X	X		
	Obs and Gynae		X		X	X			
	Psychiatry	X					X		

see pp 6-10 of handout for associations between demographic & training characteristics and specific training and working conditions experiences



# NCHD survey take-home messages (1)

- The surveyed NCHDs (later in their careers than interns) were less likely to leave, but more likely to remain abroad
- Training dimensions getting worse: costs of training, protected training time
- Working conditions getting worse: stress at work, staffing levels
- Consistently more negative reports of training and working conditions:
  - from remainers (least negative)  to leavers
  - to those staying abroad   to those quitting medicine (most negative)
- Characteristics of **NCHD who is planning to leave** (multivariable analysis):
  - is younger, non-EU, undertaking hospital specialty training (esp Anaesthesiology),
  - is a trainee, and reports training costs as worse

## NCHD survey take-home messages (2)

- Characteristics of NCHD who is planning to **stay abroad**:
  - older, non-EU / non-Irish EU, training in Psychiatry
  - reports mentoring as worse
- Characteristics of NCHD who is planning to **quit medicine**:
  - older, married, reports mentoring worse
- **Policy / strategy implications**
  - i. Research findings strengthen the case against international recruitment
  - ii. Trainees more easily lost, but we could get them back
  - iii. Importance of mentoring relationship between senior colleague / trainer and trainee
  - iv. Specialty-specific issues – general practice and psychiatry

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**Further evidence on medical workforce research in Ireland**

See: <http://www.healthworkforceireland.com/> for outputs / publications.  
For policy responses for retaining the doctors that Ireland trains, see *Retaining Our Doctors: Medical Workforce Evidence, 2013-18*

