



NORTHERN  
IRELAND  
CLINICAL  
RESEARCH  
NETWORK  
ANNUAL  
REPORT



2019/20



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## 1.0 EXECUTIVE SUMMARY

Clinical research is essential for better understanding of disease processes and for the development of new tests, treatments and interventions. The purpose of NICRN is to provide and manage the infrastructure necessary to support high quality clinical research in the Health and Social Care (HSC) Trusts and in primary care across N. Ireland.

2019/20 has been a productive 12 months with 200 active studies in the network portfolio and 1886 participants recruited. There continues to be a move toward more interventional studies and which now comprise 71.5% of the network portfolio.

2019/20 saw the start of transition for NICRN from a delivery model supported through individual Clinical Specialty Groups to a model delivered through four separate Clusters, each incorporating related disease areas. The aim of the Cluster delivery model is to increase efficiency of working, facilitate collaboration between existing Clinical Specialty Groups and to enable support for disease areas that fell outside existing Clinical Specialty Groups. The Covid-19 pandemic posed major challenges from February 2020 onward with disruption of clinical services across N. Ireland and a shift of network focus towards the support of Urgent Public Health Covid-19 studies which will continue throughout 2020. Major challenges in the year ahead will be the need to support the increasing portfolio of Urgent Public Health studies, including Covid-19 vaccine studies, while at the same time restarting the paused activity in other disease areas. Inevitably the impact of Covid-19 pandemic has disrupted the timetable for the establishment of the new Cluster delivery model.

2019/20 has been a busy and productive 12 months for NICRN and I commend all NICRN staff, Clinical Specialty Group Leads and investigators for their hard work dedication in delivering clinical research. A number of leads of the NICRN Clinical Specialty Groups have stood down in 2019/20 (Prof Danny McAuley, Prof Peter Maxwell and Dr Seamus Murphy) and I wish to thank them all for their commitment and leadership in developing research within their clinical specialties.

Finally I particularly wish to thank all those patients and members of the public who have contributed to NICRN either as research participants or in an advisory capacity and who have given so generously of their time and energy.

Dr Maurice O’Kane

NICRN Director

October 2020

# Northern Ireland Clinical Research Network

## 2 BACKGROUND



The Northern Ireland Clinical Research Network (NICRN) was established in 2008 to support the staff and service users of the five Health and Social Care (HSC) Trusts and the primary care sector to participate in high quality clinical research studies. Clinical research is essential to improve understanding of disease processes and the development of new tests and treatments. From a patient perspective, involvement in clinical research offers the opportunity of prioritising research questions of most relevance to patients or carers and the possibility of contributing to and participating in high quality research studies. Patient needs are placed at the centre of NICRN activities and this is informed by Patient and Public Involvement (PPI) through representation on the Steering Committee and at Clinical Specialty Group management committee level. For health care organisations active participation in clinical research helps foster an organisational ethos of intellectual rigour and enquiry all of which go and in hand with excellence in the delivery of care.

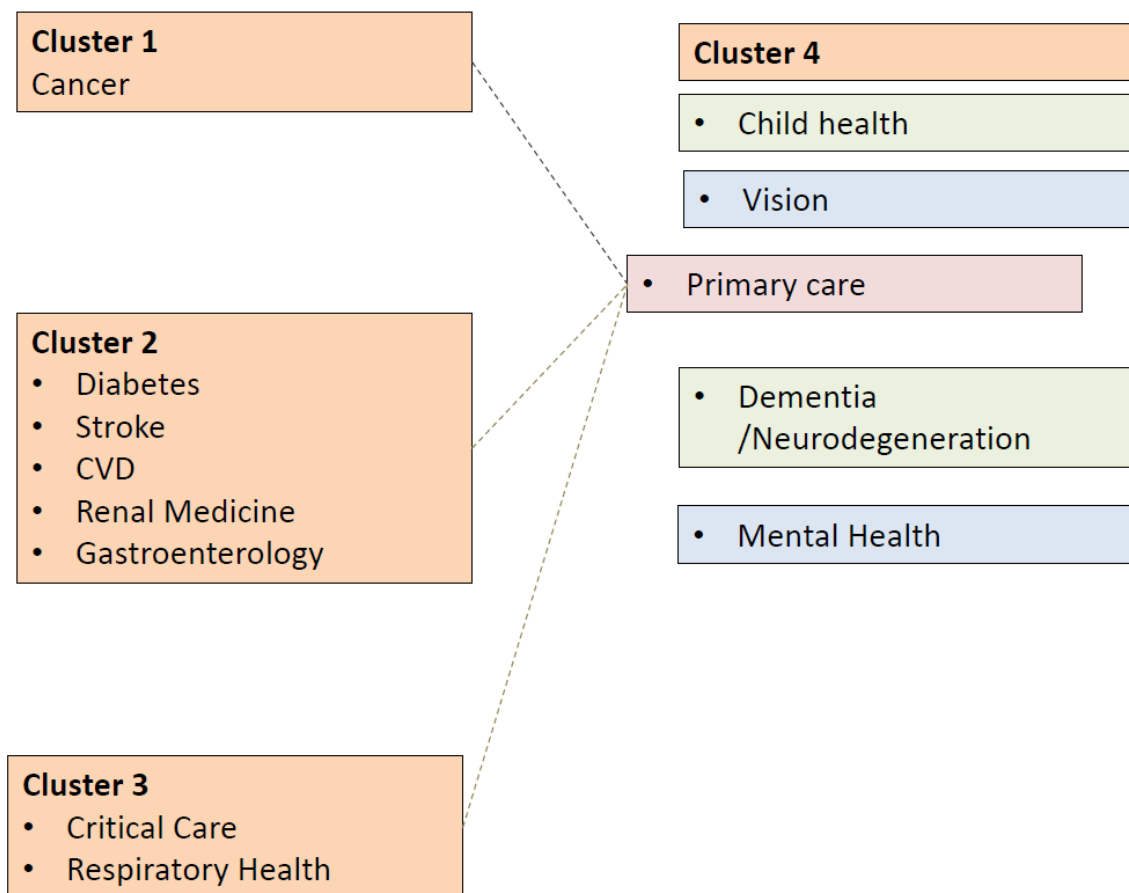
NICRN provides the staffing infrastructure (including clinical research nurses, Allied Health Professionals [AHPs] along with and managerial and administrative staff) to support studies within each of the five Health and Social Care Trusts in N. Ireland.

NICRN comprises 12 Clinical Speciality Groups (CSGs) which are focussed on areas of existing excellence in clinical research: Cardiovascular, Child Health, Critical Care, Dementia, Diabetes, Gastroenterology, Mental Health, Primary Care, Renal, Respiratory Health, Stroke and Vision. The NICRN Co-ordinating Centre provides management and administrative support to ensure effective management and co-ordination of regional activity with good communication and connectivity between the stakeholders throughout N. Ireland. The NICRN Co-ordinating Centre is hosted by the Belfast Trust and comprises the NICRN Director, Senior Manager, Senior Nurse and administrative staff.

Each CSG is directed by a Lead, or more commonly two Co-leads, who chair a clinical management group comprising research active clinical staff from across N. Ireland, including HSC Trusts, Queens University and Ulster University. There may also be patient and public representation. The responsibility of the clinical management group is to direct and oversee the activity of the specialty group by prioritising and adopting new studies onto the NICRN portfolio taking into account study quality, local capacity and capability. The CSG Leads are listed in **Appendix 1**.

In 2019 a decision was taken to transition towards a Cluster model of delivery by end March 2021 in which research support will be delivered through four separate Clusters rather than through the Clinical Specialty Groups as is the case at present. Each Cluster will incorporate a range of related disease areas (existing Clinical

Specialty Groups); the existing N. Ireland Cancer Network will form one of the four Clusters. The rationale for moving to the new delivery model is that it will allow more efficient use of network resource, enhance collaboration between clinical research teams and will allow for support in a broader range of clinical specialty areas than under the existing model. Transition towards the Cluster model has been considerably delayed by the Covid-19 pandemic.



### 3 MAJOR DEVELOPMENTS IN REPORTING YEAR

#### 3.1 STAFFING

NICRN currently deploys 80 staff members (46.38 Whole Time Equivalents [WTE]) funded by the PHA Research & Development Division and an additional 6.3 WTE staff funded from other sources, distributed across the five Health and Social Care (HSC) Trusts and primary care. The primary care research nurses who support studies throughout N. Ireland, are employed by the Belfast HSC Trust. Staffing levels have increased slightly from 2017/18 (Table 1).

The NICRN Co-ordinating Centre is based in the Belfast Health and Social Care Trust and comprises: a 1.0 WTE senior manager, 1.0 WTE regional staff manager, 1.0 WTE regional portfolio manager, 0.6 WTE adoption/co-ordinator and 1.0 WTE administrator.



	2017 - 2018	2018-2019	2019-20	2019-20
Clinical Specialty Group	WTE <sup>1</sup>	WTE <sup>1</sup>	PHA Funded	Non-PHA Funded
			WTE	WTE
Cardiovascular	6	6.2	5.5	0
Child Health	3.5	3.5	2.5	0.8
Critical Care	6.8	7.8	7.8	0.5
Dementia	2.00	2	2.5	2
Diabetes	3.53	3.53	3.53	0
Gastroenterology	1.50	2.5	2.5	1.0
Mental Health	1.00	1.5	1.5	0
Primary Care	2.50	2.5	2.5	0
Renal	3.03	3.1	3.3	0
Respiratory Health	7.10	7.4	6.0	2
Stroke	3.85	4.35	3.5	0
Vision	5.00	5	5.0	0
<b>Total</b>	<b>45.81</b>	<b>49.38</b>	<b>46.13</b>	<b>6.3</b>

Table 1. Staff resource supporting each of the Clinical Specialty Groups [CSG]. WTE-Whole Time Equivalent

<sup>1</sup> Figures Includes both PHA and non-PHA funded staff.



Of the PHA funded NICRN total staff complement, 59.6% are based in Belfast HSC Trust and 40.4% % in the other four HSC Trusts (Table 2).

HSC Trust	2017 – 2018 <sup>1</sup> WTE Deployed	2018-2019 <sup>1</sup> WTE Deployed	2019-2020 <sup>1</sup> WTE Deployed
BHSCT	28.63	29.43	29.83
WHSCCT	5	5	4.5
NHSCT	3.85	4.85	4.0
SEHSCT	4.8	5.3	3.8
SHSCT	3.53	4.8	4.0
<b>Total</b>	<b>45.81</b>	<b>49.38</b>	<b>46.13</b>

Table 2. PHA funded Staff resource allocation across the five HSC Trusts. WTE – Whole Time Equivalent

## 3.2 STAFF TRAINING

Ongoing training of staff is essential in developing staff skillsets appropriate to the rapidly changing clinical research environment.

Locally delivered Staff training events in 2019/20 included:

- GCP Auditing Principles & Practice
- NICRN winter conference [Dec 2019] with topics on change management, industry engagement, capacity and capability assessment, intensity tool, compassionate self care
- Research Finance training
- Why do we need large randomised trials?
- Edge training

NICRN staff also attended a range of national symposia, workshops and conferences:

- UK Critical Care Research Forum (UKCCRF) Leeds, 6<sup>th</sup> – 7<sup>th</sup> June 2019
- RCN International Nursing Research Conference 2019 – 02/09/2019 – 05/09/2019
- National Heart and Lung Institute Steering Group Committee Meeting – London 09/10/19
- Baby Oscar Collaborators Meeting – Birmingham
- UK Stroke Forum, International Centre, Telford 3<sup>rd</sup> - 5<sup>th</sup> December
- Critical Care Reviews Meeting 2020 (CCR202016<sup>th</sup>) & 17<sup>th</sup> January 2020
- EDGE Conference 2020 - Take Research to New Heights – Farnborough, 10 -11<sup>th</sup> March 2020

Staff continuously update and maintain their statutory and mandatory training through e learning.

### 3.3 PORTFOLIO ACTIVITY: ADOPTED STUDIES

The number of active studies across the network has been broadly static over the last four years (Table 3).

Year	Total active studies across NICRN Portfolio
2016/17	204
2017/18	203
2018/19	185
2019 /20	200

**Table 3. Active studies across the NICRN portfolio from 2015 to 2019**

The number of active studies varies between Clinical Specialty Groups and over time within individual Clinical Specialty Groups (Tables 4a and 4b).

Year	Cardiovascular	Child Health	Critical care	Diabetes	Dementia	Gastroenterology
2016/17	39	16	17	17	7	1
2017/18	35	19	24	10	8	6
2018/19	38	11	18	9	7	8
2019/20	37	14	28	9	7	10

**Table 4a. Number of active studies by Clinical Specialty Group**

Year	Mental Health	Primary Care	Renal	Respiratory Health	Stroke	Vision
2016/17	-	13	22	31	14	28
2017/18	5	7	21	27	17	24
2018/19	6	11	21	27	12	17
2019/20	8	9	14	32	14	18

**Table 4b. Number of active studies by Clinical Specialty Group**



There is NICRN supported research activity all five N. Ireland HSC Trusts. As in previous years the Belfast HSC Trust accounts for just under half (48%) of the total active study sites delivering the NICRN portfolio (**Table 5**). The greater activity at Belfast HSC Trust reflects a number of factors which include the size of the Trust, the co-location of the Queen’s University Medical School with research active academic staff and the range of specialist regional clinical services not delivered at the other Trust sites. Patients from throughout N. Ireland receiving care from a regional clinical speciality service in the Belfast HSC Trust will therefore have an opportunity to participate in clinical trials.

Of the 325 General Medical Practices in N. Ireland, 21 (6.5%) recruited to new portfolio studies with a further X General Medical Practices supporting portfolio studies in active followup phase.

HSC Trust	2016/17	2017/18	2018/19	2019/20
<b>Belfast</b>	133	135	125	125
<b>Northern</b>	35	41	40	29
<b>South Eastern</b>	32	37	32	28
<b>Southern</b>	40	39	44	44
<b>Western</b>	41	45	37	36

**Table 5. The number of NICRN adopted studies active in each HSC Trust**

### 3.4 PORTFOLIO ACTIVITY: PARTICIPANTS SCREENED AND ACCRUED

Recruitment into a clinical research study requires initial screening to ensure that the potential participant fulfils the required study inclusion and exclusion criteria. Screening may be a time consuming process for both participants and staff. NICRN has been supporting the direct clinical care teams in ensuring that screening procedures are as efficient as possible. Accrual rates will be affected by the complexity of an individual study and the stringency of the inclusion and exclusion criteria.

The number of participants recruited in 2019/20 was down from 2018/19 [although higher than the in 2017/18]; this reflected reduced recruitment across a range of clinical specialty groups. There was evidence of increased efficiency in screening with recruitment of 42% of all screened participants (**Table 6**).

	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>
<b>Screened</b>	<b>9149</b>	<b>5570</b>	<b>8931</b>	<b>4437</b>
<b>Recruited</b>	<b>2814</b>	<b>1532</b>	<b>2115</b>	<b>1868</b>
<b>% Accrual</b>	<b>30.8%</b>	<b>27.5%</b>	<b>23.7%</b>	<b>42%</b>

**Table 6. Number of participants screened and recruited across the NICRN Study portfolio.**

Recruitment within individual Clinical Specialty Groups is given in **Supplementary Table 1**.

### 3.5 PORTFOLIO ACTIVITY: RECRUITMENT TO TARGET

Across the NICRN portfolio the median percentage recruitment to target for studies closed to recruitment was lower in 2019/20 than in the three previous years (**Tables 7**). This reflected lower recruitment rates in a number of clinical specialty groups (**Supplementary Table 2**).

	Median % Target Recruitment
2016/17	90.5%
2017/18	91.7%
2018/19	92%
2019/20	75.2%

**Table 7. Median % recruitment to target attained across the NICRN portfolio for studies that have closed to recruitment.**

For individual HSC Trusts the median percentage target recruitment varied from 49.8% to 100% (**Table 8**). The variation between HSC Trusts may reflect in part the different portfolio of studies active at each HSC Trust site.

	2016/17		2017/18		2018/19		2019/20	
HSC Trust	No of active studies	Median % <sup>1</sup> TR	No of active studies	Median % <sup>1</sup> TR	No of active studies	Median % <sup>1</sup> TR	No of active studies	Median % <sup>1</sup> TR
Belfast	133	90%	135	90%	125	82%	138	78.7%
Northern	35	78.3%	41	78.3%	40	80.4%	37	49.8%
South Eastern	32	86.4%	37	104.2%	32	107.2%	28	100%
Southern	40	57%	39	51.4%	44	71.8%	44	96.9%
Western	41	98.5%	45	85.4%	37	78.9%	36	85.4%

**Table 8. The median % recruitment to target attained at each HSC Trust.**

1 Median % recruitment to target

### 3.6 PORTFOLIO BREAKDOWN: COMMERCIAL V. NON-COMMERCIAL SPONSORSHIP

NICRN recognises the essential role the commercial sector plays in developing new therapies and interventions. While NICRN prioritises high quality, national publicly funded studies (e.g. NIHR, MRC etc. ) it does seek to strike a balance between commercial and non-commercial sector studies. Over the past four years the proportion of commercial sponsored studies has been broadly static between 35% and 40% (**Table 9**). The great majority of the commercial sector studies have been pharmaceutical industry sponsored studies of Investigational Medicinal Products (IMPs). Between Clinical Specialty Groups the proportion of commercial sponsored studies varied markedly from 3.6% (Critical Care) to 60% % (Gastroenterology), (**Supplementary Table 3**); this wide variation reflects the pipeline of new product development in different disease areas.

Year	Commercial	Non-commercial	% commercial
2016/17	82	123	40%
2017/18	72	131	35.5%
2018/19	67	118	36.2%
2019/20	69	131	34.5%

**Table 9. Breakdown between commercial and non-commercial sponsor studies across the entire NICRN portfolio**



### 3.7 PORTFOLIO BREAKDOWN BY STUDY TYPE

Different types of clinical study design may be deployed to answer clinical research questions and which fall into two broad categories: Interventional studies (most commonly involving using an investigational medicinal product or medical device) and Observational studies. NICRN seeks to maintain a balanced portfolio of study types that can address problems relevant to patients; in the reporting year over two thirds of studies were interventional (**Table 10**). The proportion of interventional studies varies between specialty groups, from 42.9% in renal medicine to 78.6% in Stroke (**Supplementary Table 4**).

	<b>Interventional</b>	<b>Observational</b>	<sup>1</sup> <b>Not specified</b>
<b>2018/19</b>	121 [65.4%]	60 [32.4%]	4 [2.2%]
<b>2019/20</b>	143 [71.5%]	56 [28%]	1 [0.5%]

**Table 10. Study breakdown by type interventional, and Observational**

<sup>1</sup>**Not specified** indicates that the study type was not recorded in the portfolio database as being either Interventional or Observational

### 3.8 PORTFOLIO ACTIVITY: TIME FROM STUDY SET UP TO FIRST PATIENT RECRUITED

The time interval from study set up to first patient recruited is an important measure of performance as it indicates the speed with which research teams can recruit participants to the study. The time measurement commences when a study has received all relevant approvals to proceed and when the study sponsor has put in place all other arrangements necessary for the study to commence (e.g. the provision of study investigational medicinal product, study specific training etc).

Across the NICRN portfolio the median time to first participant recruited has fallen both for commercial and non-commercial contract studies (**Table 11**); the % of participants recruited in < 30days has been broadly static for both commercial and non-commercial contract studies (**Table 11**). The performance varied significantly between clinical specialty groups (**Supplementary Table 5**); for some clinical specialty groups, performance was impacted by reduced availability of PIs /Leads during the reporting year.

	Commercial contract studies	Non - commercial contract studies
<b>2017/18</b> % of studies meeting 30 day target	33.1%	46.7%
<b>2017/18</b> Median time (days) to first patient recruited	51 days	34 days
<b>2018/19</b> % of studies meeting 30 day target	35.1%	47%
<b>2018/19</b> Median time (days) to first patient recruited	41 days	44 days
<b>2019/20</b> % of studies meeting 30 day target	35.2%	46%
<b>2019/20</b> Median time (days) to first patient recruited	28 days	35.3 days

**Table 11. Time to first patient recruited for commercial contract and non-commercial contract studies across the NICRN portfolio.**

There was significant variation between Trusts in both the median time to first patient recruited and in the proportion of studies with first patient recruited < 30 days (**Table 12**); this variation may reflect differences the study portfolios between Trusts.

<b>2018/19</b>	Commercial Contract		Non-Commercial contract		<b>2019/20</b>	Commercial contract		Non-commercial contract	
	Median time (days)	% < 30 days	Median time (days)	% < 30 days		Median time (days)	% < 30 days	Median time (days)	% < 30 days
<b>BHSCT</b>	64	35.8%	43	41.2%	<b>BHSCT</b>	69	36.4%	37	59.5%
<b>NHSCT</b>	177	44.4%	90	41.4%	<b>NHSCT</b>	116	75.0%	57	64.3%
<b>SEHSCT</b>	47	5.0 %	172	52.8%	<b>SEHSCT</b>	37	40.0%	106	60%
<b>SHSCT</b>	95	16.7%	57	46.7%	<b>SHSCT</b>	87	45.0%	64	53.5%
<b>WHSCT</b>	22	77.8%	131	57.7%	<b>WHSCT</b>	36	56.3%	74	56.7%

**Table 12. Median time to first participant recruited (days) and percentage of NICRN studies recruiting first patient < 30 days in HSC Trusts for commercial and non-commercial contract studies**

### 3.9 COMPARISON WITH NIHR HIGH LEVEL OBJECTIVES

NIHR reports annually on performance against NIHR CRN High Level Objectives (HLO) with the most recent report available for 2018/19 (National Institute for Health Research, NIHR CRN High Level Objectives Year End Performance report-2018/19). Direct comparison of NICRN performance with NIHR HLOs is hampered by the use of differing definitions for the various items measured. The recent development of an agreed set of consistent UK-wide metrics is therefore welcome and should allow more meaningful comparison.

**HLO 1**            ***Participant recruitment target.***

No recruitment target is set for N. Ireland.

**HLO2 A and B**    ***Proportion of commercial contract studies and non-commercial contract studies achieving recruitment to time and target. The NIHR HLO is 80% of studies recruiting to time and target. (The NIHR attainment was 67% for commercial and 82% for non-commercial contract studies in 2018/19).***

Across the NICRN portfolio the median % target recruitment attained was 70.12% for commercial contract studies and 93.2% for non-commercial contract studies in 2019/20.

**HLO3A**            ***Number of commercial contract studies undertaken (Target 700 new studies, attained 740).***

NICRN added 69 commercial contract studies in 2019/20. No NICRN target is set for this.

**HLO3B**            ***The percentage of commercial contract studies supported by NIHR CRN when compared to the total number of commercial MHRA Clinical Trial Authorisation approvals for Phase II-IV studies (Target 75%, attained 75%).***

No NICRN target is set for this and it is difficult to compute for N. Ireland.

**HLO4**              ***The percentage of studies which achieved NHS set up at all sites within 40 calendar days (from 'Date Site Selected to Date Site Confirmed).***

Data are not currently collected in this format.

**HLO5A**            ***The percentage of commercial contract studies which achieved first participant recruited within 30 calendar days (Target 80%, attained 33%).***

For NICRN the proportion of commercial contract studies recruiting the first participant within 30 days was 35.2% in 2019/20.

**HLO5B** *The percentage of non-commercial contract studies which achieved first participant recruited within 30 calendar days (Target 80%, attained 46%)*

For NICRN the proportion of non-commercial contract studies recruiting the first participant within 30 days was 46% in 2019/20.

**HLO6A.** *The proportion of Trusts recruiting into portfolio studies (Target 99%, attained 99%).*

All N. Ireland Health and Social Care Trusts i.e. 100% recruited into NICRN portfolio studies.

**HLO6b.** *The proportion of Trusts recruiting to commercial contract studies. (Target 70%, attained 79%).*

All N. Ireland Trusts i.e. 100% recruited to commercial contract studies.

**HLO6C** *The proportion of General Medical Practices recruiting to portfolio studies. (Target 45%, attained 38%)*

In N. Ireland 21 of 325 [6.5%] of General Medical Practices recruited to new portfolio studies in 2019/20 with a further X of 325 Genral Medical Practices with studies in follow up mode.

**HLO7** *The number of patients recruited into Dementias and Neurodegeneration Specialty Studies.*

No recruitment target is set for N. Ireland.



#### 4. NICRN STEERING COMMITTEE

The NICRN Steering committee did not meet during the reporting period. It was planned that a new steering committee would be established in reflecting the new 'Cluster model' for network delivery but this has delayed because of the impact of the Covid-19 pandemic.

##### Membership of the NICRN Steering Committee

Maurice O'Kane	NICRN Director (Chair)
Paul Biagioni	NICRN senior manager
Margaret McFarland	BSHCT pharmact
Judy Bradley	Clinical Specialty Group lead
Sonia McKenna	NICRN senior staff manager
Trevor Lyttle	PPI
Sonia Patton	PPI
Frances Johnston	Research Manager NHSCT
Melanie Morris	NICTN senior manager
Janice Bailie	PHA R&D Division
Clive Wolsley	PHA R&D Division
Colette Donaghy	Venn Life Sciences
Dermot Hughes	Medical Director WHSCT
James McElnay,	QUB
Cherie Armour,	Ulster University
Danny McAuley,	Clinical Specialty Group lead
Collette Goldrick	APBI
Shane Jackson	NICRN Co-ordinating Centre
Roisin Kerr	NICRN Co-ordinating Centre
Ciara McKenna	NICRN Co-ordinating Centre

In line with HSC Research and Development Division policy, NICRN wishes to ensure that Patient and Public Involvement (PPI) is integrated into the research cycle so that researchers prioritise topics that are important to service users and carers and formulate questions, processes and outcomes that are meaningful to people other than just the researcher.

For each of the Clinical Specialty Groups, the management committee must be able to demonstrate appropriate Personal and Public Involvement (PPI) in the decision making process but there is no mandated approach to PPI and committees are free to choose the most appropriate way to involve patients, carers and the public. Five of the 12 clinical management groups currently have PPI members and have full voting rights as regards study adoption.

## APPENDICES

### APPENDIX 1: CLINICAL SPECIALTY GROUP LEADS

Clinical Specialty Group	Lead(s)
Cardiovascular	Professor Donna Fitzsimons (QUB) / Dr Patrick Donnelly (SEHSCT)
Child Health	Dr David Sweet (BHSCT) / Dr Anthony McCarthy (BHSCT)
Critical Care	Dr Jon Silversides (BHSCT) / Dr Peter McGuigan <sup>1</sup>
Dementia	Professor Peter Passmore (QUB) / Dr Bernadette McGuinness (QUB)
Diabetes	Dr Alyson Hill (UU) / Dr John Lindsay (BHSCT)
Gastroenterology	Dr Patrick Allen (SEHSCT) <sup>2</sup>
Mental Health	Professor Gerry Leavey (UU) / Dr Ciaran Mulholland (NHSCT)
Primary Care	Mrs Claire Leathem (BHSCT) / Dr Nigel Hart (QUB)
Renal	Dr Neal Morgan (SHSCT) / Dr Chris Hill (BHSCT) <sup>3</sup>
Respiratory Health	Professor Judy Bradley (QUB) / Professor Lorcan McGarvey (QUB)
Stroke	Dr Patricia Fearon (BHSCT) <sup>5</sup> / Mrs Carolee McLaughlin (BHSCT)
Vision	Professor Julie Silvestri (BHSCT) / Professor Jonathan Jackson (BHSCT)

<sup>1</sup> Replacing Prof Danny McAuley (QUB) from November 2019

<sup>2</sup> Dr Seamus Murphy (SHSCT) stood down in January 2020.

<sup>3</sup> Replacing Prof Peter Maxwell (QUB) from November 2019

**Supplementary Table 1**

**Number of patients screened [S] and recruited [R] by Clinical Specialty Group**

Year	Cardiovascular		Child Health		Critical Care		Diabetes		Dementia		Gastro – enterology	
	S	R	S	R	S	R	S	R	S	R	S	R
2016/17	825	553	196	75	1723	479	1136	287	689	412	6	0
2017/18	785	283	261	73	1262	427	371	96	137	93	33	8
2018/19	521	243	133	65	2057	201	341	43	551	276	45	28
2019/20	361	259	74	35	327	241	279	271	344	341	57	55

Year	Mental Health		Primary Care		Renal		Respiratory Health		Stroke		Vision	
	S	R	S	R	S	R	S	R	S	R	S	R
2016/17			1175	111	247	213	1439	154	1320	205	393	325
2017/18	16	7	358	48	331	177	1489	195	366	61	161	64
2018/19	15	13	459	317	456	181	1322	234	411	214	2620	300
2019/20	3	1	2224	145	184	109	176	126	77	63	313	222

**Supplementary Table 2**

**Median % attainment of recruitment target by Clinical Specialty Group in studies closed to recruitment**

Year	Cardiovascular	Child Health	Critical Care	Dementia	Diabetes	Gastro - enterology	Mental health
2016/17	97%	40%	77%	100%	100%	-	-
2017/18	88%	76%	155%	102%	91.7%	60%	-
2018/19	100%	94.8%	81.5%	60%	89.1%	100%	12.7%
2019/20	80%	78.9%	70%	60%	58.3%	100%	29.8%

Year	Primary care	Renal	Respiratory Health	Stroke	Vision
2016/17	106%	84%	100%	77%	80%
2017/18	100	75%	100%	68%	105%
2018/19	103%	75%	100%	45%	102.5%
2019/20	108%	65.4%	100%	71.4%	102.5%

### Supplementary Table 3

#### Proportion of commercial sponsored studies by Clinical Specialty Group

Year	Cardiovascular	Child Health	Critical Care	Dementia	Diabetes	Gastroenterology
2016/17	56.4%	18.8%	5.9%	14.3%	82.4%	-
2017/18	54.3%	15.8%	8.3%	25%	70%	66.7%
2018/19	50%	9.1%	5.6%	43%	66.7%	50%
2019/20	46%	14.3%	3.6%	14.3%	55.6%	60%

Year	Mental Health	Primary Care	Renal	Respiratory Health	Stroke	Vision
2016/17	-	38.5%	13.6%	58%	21.4%	42.9%
2017/18	20%	42.9%	23.8%	51.9%	17.7%	37.5%
2018/19	33.3%	36.4%	19.1%	51.9%	33.3%	29.4%
2019/20	25%	22.2%	28.4%	53.1%	21.4%	50%

**Supplementary Table 4**

**Study type (i.e. interventional or observational) breakdown by Clinical Specialty Group in 2019/20**

<b>Clinical Specialty Group</b>	<b>Interventional N [% of total]</b>	<b>Observational N [% of total]</b>	<b>Not stated N [% of total]</b>
Cardiovascular	29 [78.4%]	8 [21.6%]	0 [0%]
Child Health	10 [71.4%]	4 [28.6%]	0 [0%]
Critical Care	20 [74%]	7 [26%]	0 [0%]
Diabetes	7 [78%]	2 [22%]	0 [0%]
Dementia	4 [57.1%]	3 [42.9%]	0 [0%]
Gastroenterology	7 [70%]	3 [30%]	0 [0%]
Mental Health	6 [66.7%]	3 [33.3%]	0 [0%]
Primary Care	7 [77.8%]	1 [11.1%]	1 [11.1%]
Renal	6 [42.9%]	8 [57.1%]	0 [0%]
Respiratory health	23 [71.9%]	9 [28.1%]	0 [0%]
Stroke	11 [78.6%]	3 [21.4%]	0 [0%]
Vision	13 [72.2%]	5 [27.8%]	0 [0%]

**Supplementary Table 5: Time to first patient recruited by Clinical Specialty Group**

	Commercial		Non-commercial	
	Median	% < 30 days	Median	% <30 days
<b>Cardiovascular</b>				
2017/18	19	50%	34	37.5%
2018/19	40	44%	32	50%
2019/20	40	36.8%	20	55%
<b>Child Health</b>				
2017/18	65	33.3%	15	36.1%
2018/19	0	100%	58	37.5%
2019/20	0	100%	58	37.5%
<b>Critical Care</b>				
2017/18	42	0%	8	36.2%
2018/19	-	-	55.5	37.5%
2019/20	-	-	18.5	59.1%
<b>Diabetes</b>				
2017/18	65	30%	11	100%
2018/19	52	25%	41.5	50%
2019/20	36	33.3%	41.5	50%
<b>Dementia</b>				
2017/18	164	0%	52	50%
2018/19	164	0%	78	14.3%
2019/20	164	0%	78	0%
<b>Gastroenterology</b>				
2017/18	85	0%		
2018/19	85	0%	27	66.7%
2019/20	108.5	0%	143	33.3%
<b>Mental Health</b>				
2017/18	-	-	45	0%
2018/19			68	40%
2019/20			71	40%
<b>Primary Care</b>				
2017/18	21	66.7%	30	75%
2018/19	30	75%	22	75%
2019/20	27	92.9%	20	100%
<b>Renal</b>				
2017/18	31	50%	49	44.7%
2018/19	114	16.7%	46	42.5%
2019/20	77	0%	29	50%
<b>Respiratory health</b>				
2017/18	51	40%	20	71.7%
2018/19	38.5	50%	27	58.8%
2019/20	28	58.3%	20	61.5%
<b>Stroke</b>				
2017/18	19	50%	83	22.5%
2018/19	42.5	25%	85	33.3%
2019/20	2	66.7%	42	44.4%
<b>Vision</b>				
2017/18	58	44.4%	35	40%
2018/19	39.5	50%	20.5	58.3%
2019/20	28	57.1%	19.5	75%

