



National Institute for  
Health Research



Research Design Service  
Annual Review  
2016/17

# Introduction

The National Institute for Health Research (NIHR) funds and delivers research to improve the health and wealth of the nation. As a key part of NIHR, the Research Design Service (RDS) provides expert advice to researchers developing funding applications for applied health and social care research in support of these aims.

## Strategic Update

Our clients are part of a valuable community of researchers that make a positive difference to patients' lives. We provide comprehensive advice and guidance to researchers on all aspects of preparing high quality grant applications. Our knowledge of the NIHR and its strategic aims enable us to provide the right advice to researchers who are developing applications with clear benefits to patients, the public and the NHS.

### How we support NIHR's strategic aims:

#### 1. Translating research ideas into grant applications

We receive a large number of enquiries each year, in 2016/17 we supported 2,859 research teams, at different stages of developing their proposals. 726 teams submitted outline/stage 1 proposals with 1,029 full/one-stage/stage 2 submissions being supported.

#### 2. Increasing the volume of applied research

Of the 1,029 full/one-stage/stage 2 submissions 38% received funding to an estimated value of £150m.

#### 3. Promoting the interests of patients and the public

We have worked hard to ensure that public involvement is well aligned to the strategic recommendations in Going the Extra Mile. This has entailed revision and implementation of the RDS national strategy for public involvement.

#### 4. Promoting efficiency and avoiding waste

A key success of the RDS is the important triage role we play to help avoid the submission of inappropriate or low quality applications. This reduces the burden on funding committees who are able to focus attention on higher quality applications.

#### 5. Supporting NIHR to act as one entity

We continue to make a significant contribution to the strategic development of 'One NIHR' through the RDS Strategy Group and its links with other parts of NIHR. We have supported many initiatives such as the implementation and evaluation of the updated NIHR Standard Application Form written from RDS advisers' and researchers' perspectives. We have also contributed to the NIHR Trainees Coordinating Centre review of future training needs.

### RDS-INVOLVE Partnership

Our strategic partnership with INVOLVE ensures public involvement activity across England is coordinated at national (strategic) and regional (operational) levels. The RDS/INVOLVE Consortium agreement enacted in October 2016, sets out the terms and conditions of the partnership, which include RDS membership on the INVOLVE Executive Group, INVOLVE Advisory Group and the NIHR PPI Senior Leadership Team.

### Collaborating with NIHR regional partners

Collaboration between regional partners is central to the development of 'One NIHR', the INVOLVE-RDS partnership and Going the Extra Mile. The RDS has played a central role in the development of regional public involvement fora in collaboration with other regional NIHR (and other) organisations. In many regions the RDS has provided leadership and support to bring together regional groups and organisations culminating in the formation of region-wide 'public involvement in research' networks.

### Exploring different ways of engaging with the NHS: Grant Writing Retreat

NHS clinicians report the difficulties they have in finding quality time with their colleagues to develop their research ideas. To address this issue, the RDS convened a national, residential, grant writing retreat in June 2016. This initiative offered an intensive way of helping NHS colleagues develop their research ideas. The retreat included 12 clinically-led research teams from across England; RDS advisers and other NIHR colleagues provided specialist advice and support throughout the week-long retreat.

*"As a busy clinician and a leader of my department it is difficult to find the time to spend with my research team and focus on developing our proposal. A typical way of working would see us spending time travelling to and from hour long meetings, where we would spend the first fifteen minutes restating what we have previously done which is a frustrating way of working. The fact that we have been given the time to work on our project and had access to the experts to inform our trial design has been fantastic."*

Marc Moncrief, Consultant Plastic Surgeon

## Working with NIHR funding programmes

We know that research active institutions deliver better quality care, have better patient outcomes and have stronger reputations and we continue to work with NHS trusts, public health and social care organisations to promote research opportunities through the NIHR and other national peer reviewed programmes. Our engagement strategy is delivered in a variety of ways through, for example, national programmes of information events such as our series of NIHR Public Health Research and Programme Grants for Applied Research workshops held in 2016/17 and locally through drop-in sessions, regular clinics and webinars, normally in conjunction with NIHR partners.

### Enhanced engagement with NIHR funding panels, translates into improved service for researchers

Observing a number of funding panels has enabled RDS advisers to gain insights into key operations and review processes. Through our strong links with NIHR Coordinating Centres we are invited to send observers to most funding panel meetings.

An up to date understanding of strengths and weaknesses of a wide range of proposals, as well as familiarity with panel views on 'fixable faults' or 'fatal flaws' provides important opportunities for learning and improved advice. RDS advisers feel better equipped to advise teams applying to the NIHR. Such information is viewed positively by researchers who acknowledge the benefits of these insights.

We have implemented a national system of information sharing across the RDS, using the NIHR Hub, to ensure learning from these panels can improve the practice nationally.

## Activity in 2016/17

This year, we supported more research projects than ever before with a total of 2,859 new projects registered on our system. Not all new projects are submitted in the same reporting year; in 2016/17 we supported 726 outline/stage 1 submissions and 1,029 full/one-stage/stage 2 submissions. 392 RDS supported projects were successful at receiving funding awards, 264 of which were funded by the NIHR.

Total new projects: **2,859**

Total outline/stage 1 submissions:

**726**, of which **585** are NIHR

Total full/one-stage/stage 2 submissions:

**1029**, of which **706** are NIHR

Outlines shortlisted: **315**, of which **247** NIHR

Fulls funded: **392**, of which **264** NIHR

## Impact of RDS

The RDS provided considerable support over two years to the clinical team behind the successful NIHR RfPB Randomised Evaluation of Valsalva Effectiveness in Re-Entrant Tachycardias (REVERT) Trial. The initial clinical team, led by a Consultant in Emergency Medicine with no academic affiliation, attended an annual RDS Residential Research Retreat where the basic idea was firmed up and considerable progress made on developing a grant application. NIHR RfPB initially rejected the application but gave strong encouragement to submit a revised version advising continuing help from the RDS.

Although valsalva manoeuvre (VM) is an internationally recommended emergency treatment for an extremely rapid heart rate it is only effective in 5-20% of cases, necessitating the use of other treatments including adenosine, which patients often find extremely unpleasant. This trial aimed to evaluate a simple postural modification to the use of VM: the patient blow into a tube against resistance as usual but at the end they are laid flat with their legs raised for 15 seconds. The trial demonstrated that this simple modification in the delivery of VM had a far higher cardioversion rate – 43.5% success rate vs 17.5% in the control group using the usual VM.

To support knowledge transfer the findings have been:

- Implemented into the NHS, supported by PEN-CLAHRC working with Trusts to identify and overcome barriers to changing practice
- Included in the Hospital Healthcare Europe, an annual publication that goes out to over 17,000 hospitals across the EU and is targeted at healthcare professionals across multiple disciplines
- Published as a synopsis in the American College of Physicians Journal Club
- Published in The Lancet

Lead applicant and chief investigator Dr Andy Appelboom says:

*"Without a doubt, the time spent with the RDS was a major factor in the success of our trial. Ensuring the methodology and many other facets of the research had been thought through in such detail meant our trial was designed fit for purpose and with the greatest chance of successful recruitment and high quality conduct. This combined with well planned and appropriate analyses, facilitated robust and reliable data which strengthened our case for publication in the highest impact and most widely circulated journal possible."*

This clinically-led project, was undertaken and successfully delivered for less than £250,000 which has also demonstrated the added value of working across NIHR to improve patient outcomes.

# 71%

of applicants to NIHR used the RDS when developing their research proposal

# 97%

satisfied or very satisfied with the service they received

# 100%

of clients would recommend us to colleagues

## Co-Production

RDS London and RDS East of England worked collaboratively to respond to an INVOLVE project order to identify whether and how the discourse, elements and principles of co-production could be used to evolve and improve PPI in research. As part of this funded project, the RDS London public involvement adviser carried out a literature review to map the various ways that the term co-production has been applied and defined and to assess how the definition and practices of public involvement relate to the literature on co-production. Interviews were carried out by RDS East of

England with 14 researchers and 6 public members who are involved in co-produced projects. A discussion paper was drafted, which summarised the key themes that emerged from the literature review and the interviews. A consensus workshop then brought together various stakeholders to explore the findings and produce a report on the key elements and characteristics of co-production and the implications for the way that research is carried out. This work will inform new INVOLVE guidance.

## Looking forward to 2017/18

**We are excited about the opportunities to further develop the service and the contribution we can make to NIHR.**

We recognise the importance of attracting and retaining highly skilled and motivated staff, and advancing their skills through development activities.

Our review of the key qualities of an RDS adviser has produced its first findings. We interviewed advisers from a wide range of backgrounds, roles and who are at different stages in their careers from across England. The interviewees were largely very positive about their role. They said how well their adviser and their research roles complemented each other and enjoyed advancing research projects aimed at NIHR funding, but also funding from research charities. Nevertheless time pressures, conflicts of demands and roles appear to be challenging for some. This will be further explored in later stages of the project; we expect to run a survey based on these qualitative findings.

Our focus is to continue sharing skills, knowledge and resources across RDS. For example in 2017/18 we will deliver: RDS Answers, an online knowledge exchange network which will give RDS advisers a secure, confidential platform for discussion; a programme of opportunities to attend funding committee meetings; and a national staff conference to debate and address the challenges involved in delivering RDS services.

We will continue to work closely with INVOLVE to build on our already successful partnership and we anticipate playing a key role in the implementation of the INVOLVE guidance on co-production.

Our Communications Community will support the implementation and delivery of the NIHR Communications Strategy within the RDS and, develop on the contribution we continue to make to digital engagement. Improvements in the way RDS use social media are aligned to the NIHR Digital Strategy and have seen greater levels of engagement, for example, publicising an RDS 'checklist for funding success' infographic using twitter was a highly successful campaign with more than 60,000 impressions, 170 retweets and 870 engagements.

Having a strong partnership with the Trainees Co-ordinating Centre will help to inform the research community of the remodelled training programmes within the NIHR Academy planned for 2018 and training our advisers accordingly. RDS will make a strong contribution to the Personal Awards implementation group which is looking to implement the recommendation from the NIHR Strategic Review of Training for a single flexible Personal Awards Programme.

The launch of our promotional film will raise the profile of our work and contribute to our objective of increasing the number of high quality applications to NIHR programmes.

We will continue to perform our intermediary role, translating the requirements of NIHR funding programmes and giving feedback (to NIHR) on applicants experiences of applying for funding, the barriers that are identified and how processes might be improved.

We have reviewed and streamlined governance systems to enable greater involvement at a strategic level within NIHR. In doing so we welcome Dr Peter Lovell into the new role of RDS Lead. Peter will take up a position on the NIHR Strategy Board from November 2017.