

# Research, Innovation and Knowledge

Annual Report 2020-2021



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# 1. Executive Summary



The NHS Fife R&D Department, now the Research, Innovation & Knowledge (RIK) Department has seen 20 years of significant sustainable progress and is increasingly able to support high quality and more complex research and innovation related activities in Fife, working with partners in the NHS, Universities, Industry and other relevant stakeholders.

Throughout these years this department has utilised a multitude of innovative models to help sustain the increasing research activities in Fife. One such example is the R&D research nurse model with research nurses located within the R&D Department, which has had acclaim due to its effective results in recruiting, establishing and communicating the research activities within various fields. This model was instrumental in Fife becoming a major recruitment site for several COVID-19 related national studies following a rapid 10-day turnaround during both lockdown periods to make Fife's very busy clinical environments research friendly and active. Another example is the Clinical Research Facility at the Victoria Hospital in Kirkcaldy enabling complex clinical trials to occur locally, again for the benefit of Fife patients.

These and other examples are only possible due to the Research, Innovation & Knowledge department's ability to work with colleagues spanning the clinical and academic divide. The delivery business model around innovation and diversity in investment and activities allow this department to move forward with confidence. Last but not least this is also a testament to the effective and responsive leadership qualities that incoming NHS Fife's R&D Assistant Director and Innovation Champion, Professor Frances Quirk who, in these challenging times sustained and further improved the credibility, professionalism and governance of this department internally to NHS staff and externally to our partners. Professor Quirk was also instrumental in establishing the first building blocks of a Fife health innovation agenda.

RIK in Fife has again utilised the principles of added value and critical mass to good effect. We look forward to next year, keen to work even more closely with neighbouring Health Boards, Universities and other agencies either under the auspices of the East of Scotland Research Node, Health Innovation South East Scotland (HISES) and/or other similar national and regional collaborations in a landscape that is continuously changing and demanding only the best for our Fife citizens that we serve with pride. We, especially, also look forward to continue to synergise our research strategic priorities with the University of St Andrews, our local university and medical school.

Many thanks to the whole RIK team for their consistent hard work and commitment towards the implementation of the Research strategy. We also thank Dr Christopher McKenna who has supported RIK even when his attention was needed urgently elsewhere.

We are all looking forward to another exciting and productive year.

**Professor Alex Baldacchino**

Research, Innovation & Knowledge Director, NHS Fife

## 2. Introduction



This report details the activities within Research, Innovation and Knowledge (RIK) across NHS Fife from April 2020 to March 2021. It details progress made over the last 12 months in relation to ongoing work, previously identified challenges and identifies the key challenges currently facing RIK.

There were significant changes over this period, not least responding to the COVID-19 pandemic and the requirements to move to working from home where possible, suspending studies and responding to the Scottish Government Urgent Public Health priorities.

The Department has also seen significant change of leadership with Assistant Director R&D, Dr Amanda Wood retiring in August 2020 and incoming Assistant Director Professor Frances Quirk commencing virtually from Australia in August 2020, arriving in Fife in November 2020.

From November 2020 the Department has grown to include Innovation and Library and Knowledge Services and been rebadged as Research, Innovation and Knowledge (RIK). Continuing significant developments within RIK include our relationships with the Universities of St Andrews and Dundee in relation to research activities and the South East Region Innovation Hub (HISES) for Innovation. The joint clinical academic appointments with the Universities of Dundee and St Andrews have produced benefits in terms of closer collaboration and contribution to an expanding NHS Fife research culture. Work has advanced particularly well with the University of St Andrews, with a renewed commitment to partnership between the University of St Andrews and NHS Fife with confirmation of St Andrews primary medical degree awarding status in March 2021.

### **Professor Frances Quirk**

Research, Innovation & Knowledge Assistant Director, NHS Fife

# 3. Activity and Income

## Research

### 1. R&D Studies and Recruitment

Research is categorised as ‘commercial’ (funded by the pharmaceutical or medical device industry) or ‘non-commercial’. Non-commercial research is further divided into “eligible” (funded by charitable organisations, research councils or Government bodies), or “non-eligible” (NEF - funded by a non-eligible organisation or is unfunded).

R&D funding is provided via NHS Research Scotland (NRS) by the Chief Scientist Office (CSO) in respect of research considered ‘eligible’ for funding, in recognition of the unfunded costs incurred by the NHS for undertaking and participating in such projects.

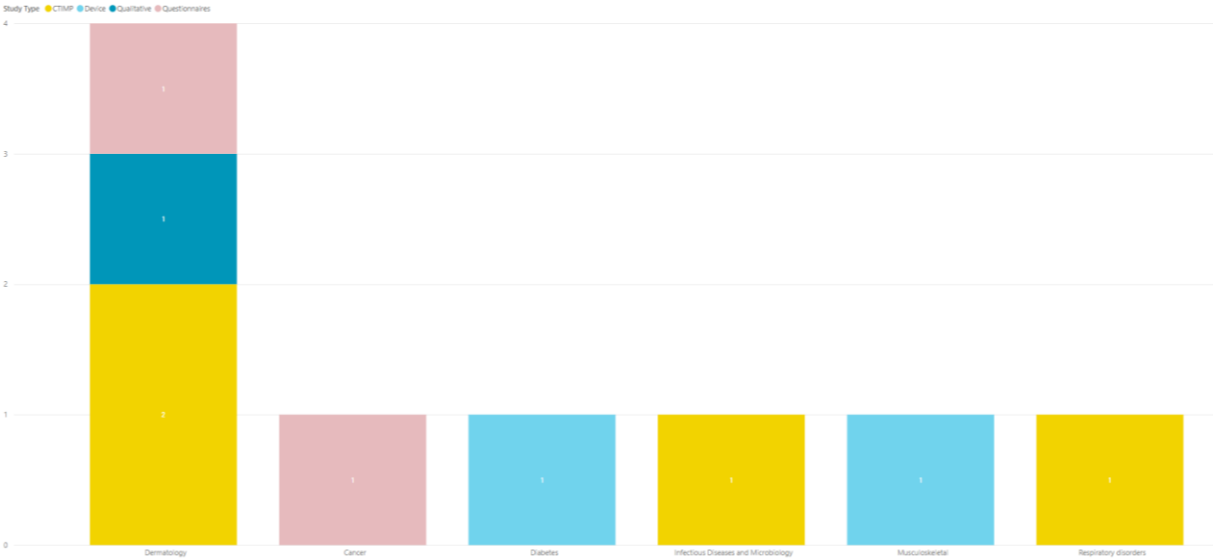
The following R&D activity summary includes the studies open to recruitment in NHS Fife at some point within the 2020-21 financial year. A further 29 studies had completed recruitment and were in follow-up during this period.

Data has been obtained from the SReDA database and excludes PIC (Patient Identification Centre) and NLI (No Local Investigator) studies.

#### Commercial/Non-commercial Studies

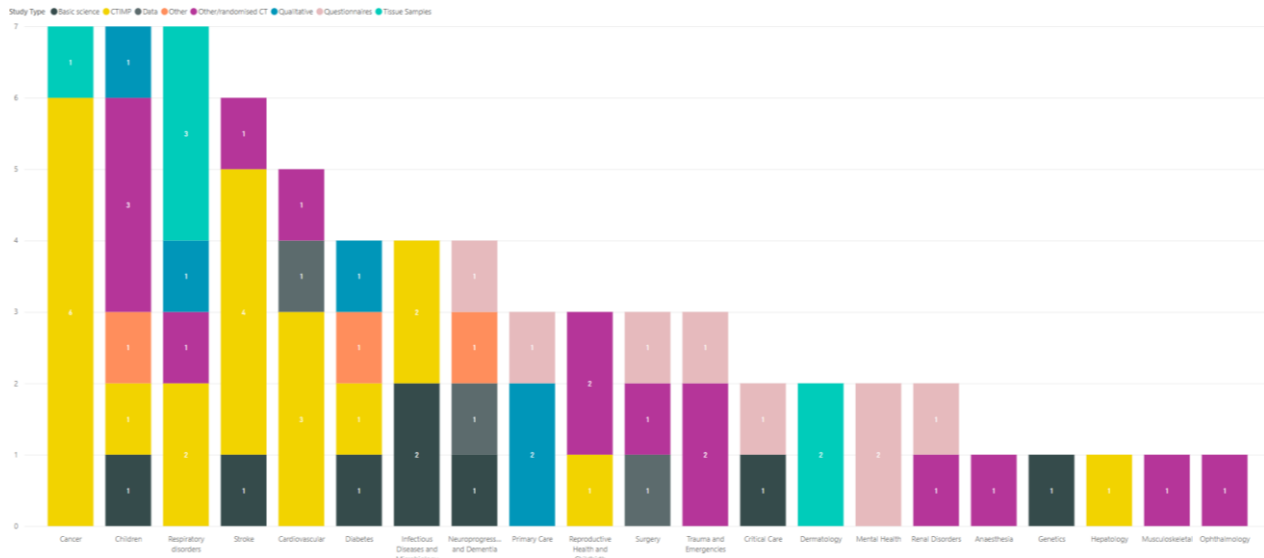
##### Commercial

The specialities which were involved in commercial studies were: Dermatology (3), Cancer (1), Diabetes (1) Infectious Diseases (1), Musculoskeletal (1) and Respiratory Disorders (1).



## Non-Commercial

The top 5 non-commercial research active areas in terms of study numbers were: Cancer (7), Children (7), Respiratory Disorders (7), Stroke (7) and Cardiovascular (5).



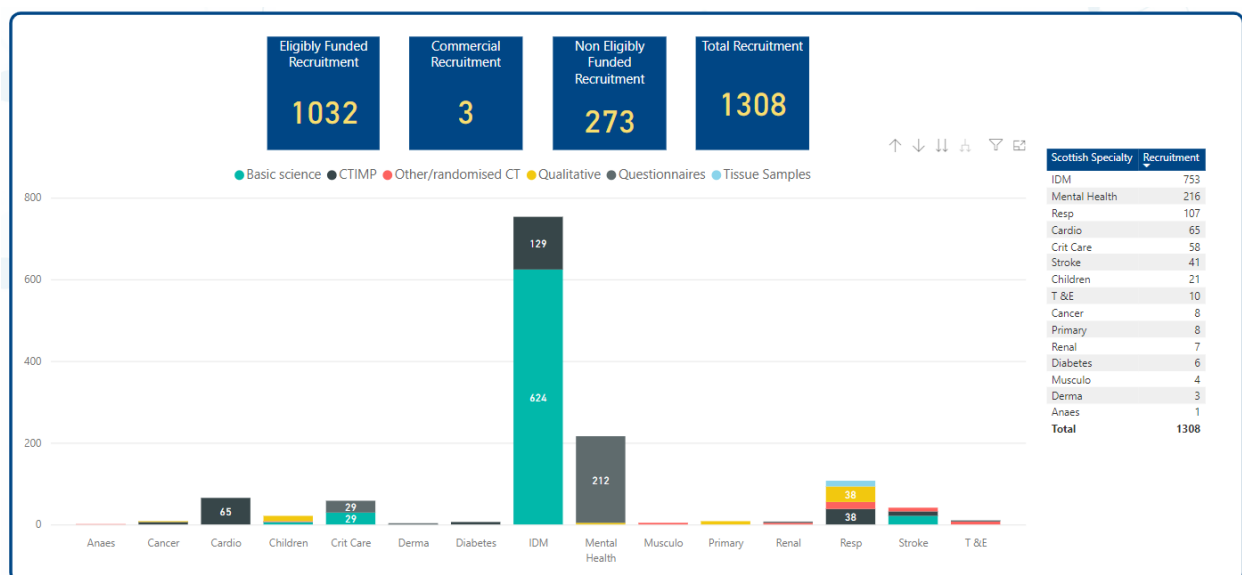
## Number of study participants

In 2020-2021 a total of 1308 new participants were recruited.

Commercial recruitment was limited due to the suspension of research activity for non-essential non-COVID 19 studies.

The top 5 non-commercial studies in 2020-2021 in terms of recruited participants were: Infectious Diseases (753), Mental Health (216), Respiratory (107), Cardiovascular (65) and Critical Care (58).

## NHS Fife Recruitment – April 2020 – March 2021



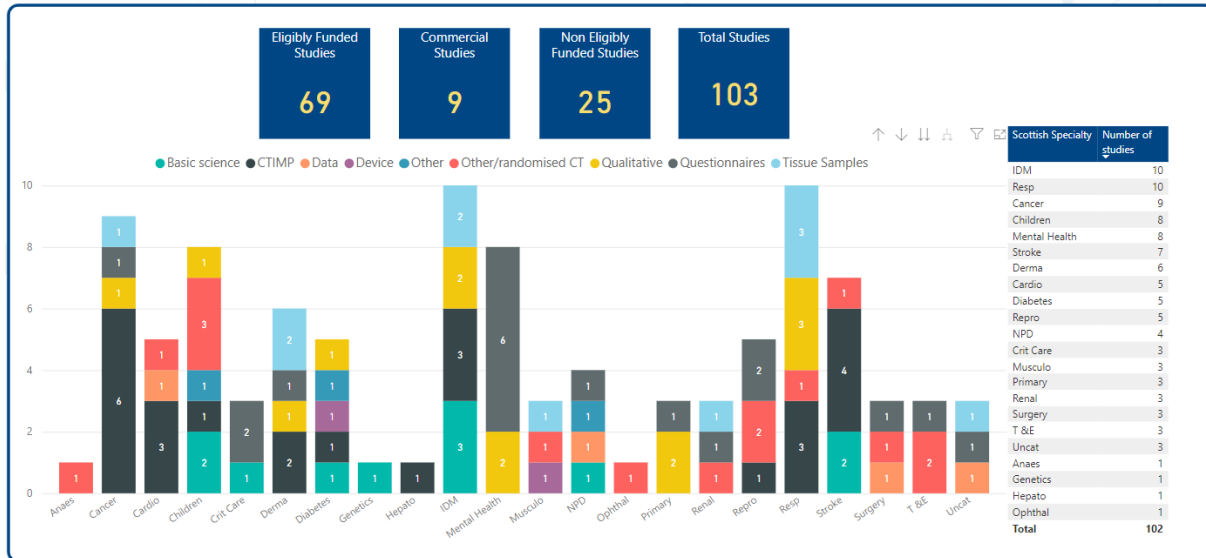


## Type of Studies

We have a balanced portfolio of studies ranging from observational to complex interventional studies across a number of therapeutic areas.

The number of studies according to study type and disease specialty, as listed on the National database is shown below.

### NHS Fife Recruiting Studies – April 2020 – March 2021



## 2. NHS Fife Research Active Staff

NHS Fife staff can be involved in the delivery of research by becoming the Chief Investigator (CI), or Principal Investigator (PI). The CI is the person designated as having overall responsibility for the design, conduct and reporting of a study, while the PI is the named individual who has responsibility for oversight of the study at a specific site.

### Chief Investigators

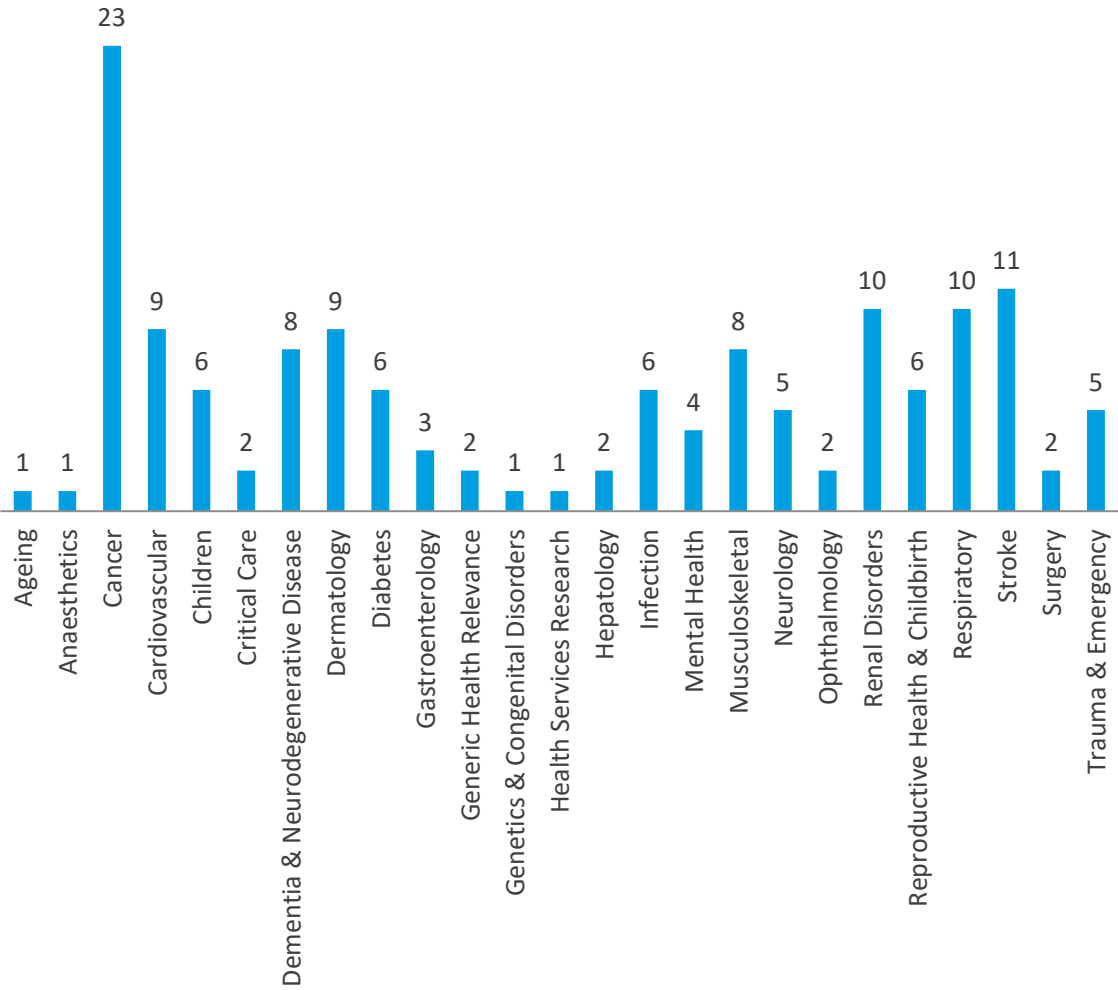
Eight NHS Fife staff members acted as Chief Investigator for a research study and 6 of these studies were sponsored by NHS Fife.

### Number of studies led by NHS Fife Principal Investigators per therapeutic area

The number of studies led by NHS Fife PIs according to therapeutic area is shown below.

The top six therapeutic areas of number of studies led by NHS Fife PIs were Cancer (23), Stroke (11), Renal Disorders (10), Respiratory (10), Cardiovascular (9), and Dermatology (9).

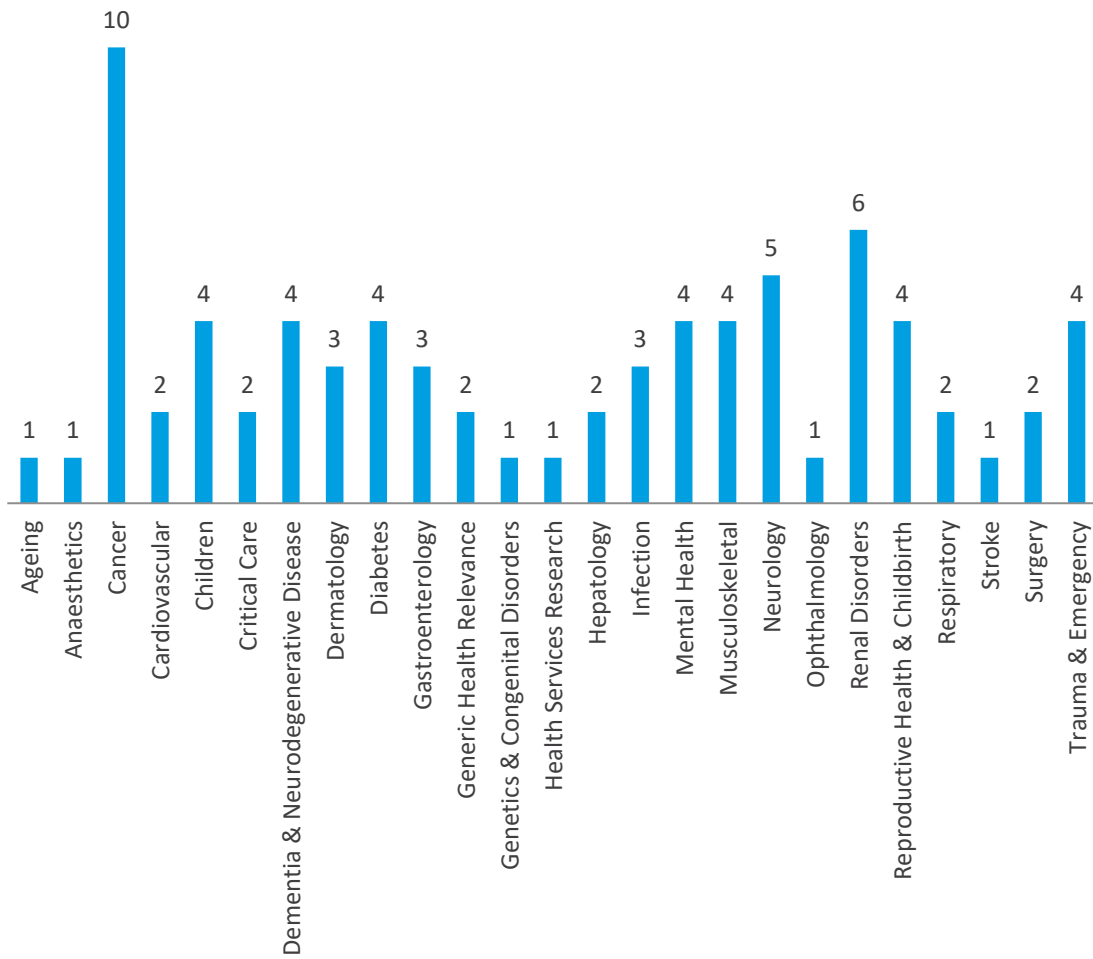
**Number Of Studies Led By NHS Fife Principal Investigators Per Therapeutic Area**



**Number of NHS Fife Principal Investigators per therapeutic area**

The number of NHS Fife Principal Investigators according to therapeutic area is shown below. There were a total of 76 NHS Fife PIs leading studies. The highest numbers of NHS Fife PIs according to therapeutic area were Cancer (10), Renal Disorders (6) and Neurology (5).

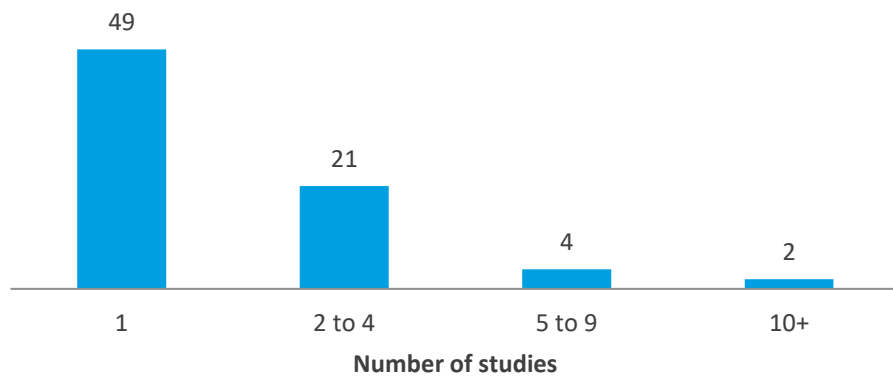
## Number of studies led by NHS Fife Principal Investigators per Therapeutic Area



## Number of Studies each Principal Investigator has responsibility for at NHS Fife

The number of studies that each PI has responsibility for at NHS Fife is shown below.

## Number of Studies each Principal Investigator has responsibility for at NHS Fife



## R&D Income

NHS Fife R&D received an allocation from Chief Scientist Office (CSO) of £826,000 in 2020-21 to support clinical research activity and general infrastructure, Commercial Income was £135,603 for this period. A combined total of **£961,603**.

This is relative to £848,000 CSO allocation and £99,850 Commercial Income for 2019/20 (Total £947,850) and £881,000 CSO allocation and £111,412 Commercial Income for 2018/19 (Total £992,412).

The provision of pharmaceuticals study drugs and supplies associated with the implementation and support of clinical trials at NHS Fife leads to significant costs savings for NHS Fife Pharmacy and Medicines. For the period April 2020 to March 2021 these cost savings were **£502,074**.

## Innovation

NHS Fife is a member of the South East Region Health Innovation Hub (HISES) and the majority of Innovation activity supported by RIK over the period of April 2020-March 2021 was focused on HISES hosted Small Business Research Initiatives (SBRI's) and supporting a range of regional Innovation projects. These were in the areas of; delayed discharge, multimorbidity, Care Home data, Diabetes and improving Hip Fracture outcomes.

### **The focus of HISES innovation activity has been directed towards:**

- the better management of long term conditions, frailty and multi-morbidity
- enabling people to benefit from healthier living in their homes and communities

NHS Fife was an SBRI Phase 1 test bed for the Kind-o-coin Challenge SBRI (seeking digital solutions to address delayed discharge through connecting volunteers to patients on a discharge pathway) from August to December 2020.

The Kind-o-coin project stemmed from an idea from a clinician in NHS Lothian to create more resilient communities able to better support each other through volunteering and reducing the increasing demands now placed on the wide range of statutory services.

The first innovation challenge was to seek prototype solutions to increase volunteering in the community to support hospital delayed discharges. The challenge was being run in collaboration with Scottish Enterprise, who funding this SBRI through the Can Do Fund (£150,000) and it was tested in five Health and Social Care areas within the East Region, including Fife H&SCP.

NHS Fife were partnered with Uppertunity a Fife based social Community Interest Company (CIC) as the lead company. Uppertunity also worked with SCIENAP (Science and Engineering Applications Ltd.) on this challenge.

NHS Fife H&SCP staff involved in supporting this SBRI included Donna Hughes (Head, Person Centred Care Relations), Belinda Morgan (General Manager), Alayne Early (Team Lead Community Nursing), Amy Walker (Volunteer Development Lead) and Torfinn Thorjborgsen (Head of Information Services).

Phase 1 aimed to develop a feasible solution that would enable people awaiting discharge from hospital, but are prevented from doing this due to the lack of someone (a friend/relative, care provider) being available, to then be securely connected with a registered volunteer who with their approval would be available to support them in safely getting settled back in their home.

Phase 1 relaunched, after being paused due to COVID-19, on the 10th August and came to an end on 30th November 2020. The 5 companies from Phase 1 submitted end of Phase 1 reports in December 2020, Uppertunity and SCIENAP proposed a digital solution, CHAI (Connected Health Administration Interface) to integrate health and social care data using a mobile data healthcare collaboration protocol to enable healthcare staff to connect more directly with volunteers.

- The 5 companies from Phase 1 submitted end of Phase 1 reports in December 2020.
- Phase 2 will run for up to 12 months, from November 2021 and will present the opportunity for two successful companies from Phase 1 to further develop and evaluate their prototype solution in a real-world setting.

## **Library and Knowledge Service**

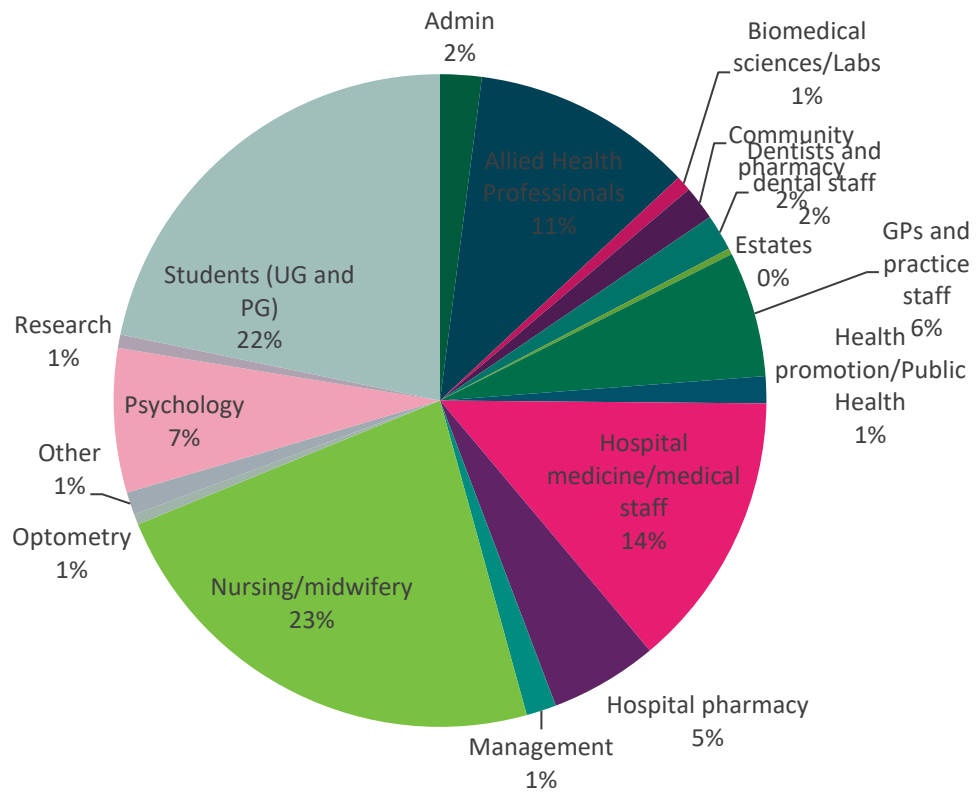
The Library and Knowledge Service continued to support NHS Fife staff during the difficult circumstances of the pandemic. Like many office-based services, Library and Knowledge Service staff worked from home for most of 2020-21 adapting to new ways of working. Core functions were maintained as far as possible and new technology such as Microsoft Teams allowed us to keep in contact with our local users, immediate colleagues and the wider NHSS library network.

## Core business activity

| Activity  | Number |
|---|--------|
| <b>Library patrons:</b>   |        |
| Total number of registered library users at 31 <sup>st</sup> March 2021 | 2,234  |
| New borrowers registered  | 402    |
| <b>Library bookstock:</b>   |        |
| Total number of books in stock  | 3,726  |
| Books added to stock  | 13     |
| <b>Book loans:</b>  |        |
| Book loans from own stock to NHS Fife patrons                           | 97     |
| Book loans from own stock to external Boards' patrons                   | 31     |
| Book loans to NHS Fife patrons supplied by external Board libraries     | 43     |
| Book renewals   | 175    |
| Book returns  | 189    |
| <b>Resource Sharing requests:</b>                                       |        |
| Journal articles requested from the British Library                     | 70     |
| Books borrowed from the British Library                                 | 22     |
| Journal articles supplied from national ejournal subscriptions          | 52     |
| <b>Literature searches / evidence searches / scoping searches</b>       | 25     |

| Number of registered individuals with a Library/Athens account at 31/3/21: | NHS Fife workforce (headcount): | % of workforce registered with library: |
|--|---------------------------------|---|
| 2,234  | 9,609                           | 23.25%                                  |

## Library/Athens accounts by profession



## NHS Fife Service Review 2020/21 – Library and Knowledge Service

| Objective   | Progress   |
|---|--|
| Ensure budgetary cost-efficiency targets are met: carry out a review of travel expenses.  | Savings have been made to the travel expenses budget by ensuring that regular visits to Stratheden Library are made by the member of staff who lives geographically closest thus incurring no additional travel costs. |
| Work with NHS Education for Scotland to avoid duplicate purchasing of journal articles by NHSS libraries from the British Library. Although BL costs are met nationally, this local action will contribute to national cost savings.  | All journal article pdfs from the British Library are now saved and recorded locally for re-use by NHSS staff. New workflows are now embedded.   |
| Work with Pharmacy Dept to provide training sessions to enable NHS Fife pharmacists to answer the full range of drug-related enquiries they receive locally.  | This has already been reported on under the “User support” heading.  |
| Participate in the Eido Inform trial for NHSS (Eido Inform is a collection of procedure-specific informed consent documents covering the most common surgical/medical procedures. The service provides up-to-date, peer-reviewed patient information on nearly 400 procedures in pdf format to be printed or emailed direct to the patient. It is both a <b>risk management tool</b> and a <b>patient information service</b> . The overall aim of the trial is to raise awareness of the service among clinicians to establish whether there is interest in a national subscription to this resource). | This trial did not go ahead due to the Covid pandemic.   |
| Review and update local documents and procedures regarding literature searching training, stock selection, and stock management to ensure a standardised and consistent approach in the department.   | Carried forward to 2021/22.  |



## 4. Clinical Researcher Career Spotlight – Devesh Dhasmana



Dr Devesh Dhasmana is a Consultant in Respiratory Medicine and was actively engaged, as a Principal Investigator, in all the COVID-19 clinical research studies over the peak period of the pandemic in 2020/21. Dr Dhasmana shared his views about his clinical research career in an interview with Professor Frances Quirk.

### Early Interest in Research

As a child Devesh really enjoyed watching Detective movies and TV series, such as Inspector Clouseau and Columbo and fancied the idea of being a Detective but didn't fancy the risk of being killed!

*“wouldn't it be great to have a job with an element of discovery”*

This early interest in discovery led Devesh to a career in clinical medicine and to incorporate research into his clinical career as soon as he could.

Devesh was only the second person on the combined MBPhD program at University College London after completing a successful intercalated BSc.

*“really enjoyed the science”*

The focus of Devesh's PhD was Neuroscience, investigating how to support the regeneration of Schwann cells in the brain. Whilst he enjoyed the topic and the basic science within he decided Neurology was not for him as a Speciality.

*Devesh's greater interest became infection and respiratory infection specifically.*

Respiratory Medicine brought Devesh to NHS Fife and he was successful in being awarded an NRS Fellowship (2015-2018). Trying to balance the 'day a week' of research time with a full clinical load proved tricky and it took Devesh 2 years to work out a model that gave him more flexibility to be clinically and research active and to add in some academic time at the University of St Andrews.

## Research Motivation and Success

Devesh is motivated by questioning the boundaries of what we know, the notion of what matters most to the patient.

*“marrying what you can do in theory with what you should do in practice”*

Devesh believes it's important to get the right information, the right test for the right person at the right time. In the context of respiratory infection, knowing when to treat and how best to treat can make a big difference.

*“want to make the most of the interface between science and clinical practice, bringing the science closer to the coal face”*

Devesh's ambition would be to have a self-contained Respiratory Unit with clinical medicine and research working alongside each other for the benefit of patients. He has a 'MasterPlan' for respiratory medicine over the next 5 years!

## Career Highlights

Devesh really enjoyed seeing his first lead author paper published, it was a long time coming!

*“it's vain but I really enjoyed it”*

## What does the Future Look Like?

Devesh's goal is to be able to provide the best care for Fife patients and citizens with respiratory infections.

*“want Fifers to get a really good deal”*

Good care is the blend of good medicine and good clinical research, ideally delivered in the context of a dedicated Clinical Respiratory Unit.

## Advice For Those Thinking About Undertaking Research

Start small and get as much exposure as you can from anywhere you can. Get involved in audit or quality improvement or if possible be a small part of a big trial.

*“can have exposure to research in so many ways in today’s healthcare”*

Devesh advises those interested in starting a research career or interest to pipe up and ask

*“show me what you do”*

The moment they see it they will know what they like and don’t like, what really fires their interest, and how they might like to take this further.

For students, if clinical research is not in the curriculum, reach out to your local scientists or clinicians who are showing an interest in clinical research. Most successful researchers are natural collaborators and would happily extend opportunities to interested students or at least just show them what they are doing. The research community is a welcoming and open community, so just ask to find out more!

# 5. Research, Innovation and Knowledge Support

## 5.1 R&D Nursing



From left to right: Lead R&D Nurse Karen Gray, R&D Nursing Support Officer Joanna Driscoll

**Nursing Team:** Lead R&D Nurse Karen Gray leads the nursing team of 21. This consists of 10 Senior Research Nurses, 5 Research Nurses, 5 Clinical Research Assistants and a Nursing Support Officer.

**Activity:** 2020/21 was an unusual year for activity within R&D and for the nursing team. With the pandemic hitting early in March 2020 we quickly had to redirect resources to Urgent Public Health (UPH) studies and suspend all non-essential research. We recruited our first Covid-19 patients in early April 2020 to the RECOVERY study.

We were fortunate to be able to keep some essential drug trials in Dermatology, Haematology and Oncology open throughout to ensure our patients on drug studies did not suffer any detriment. While we lost some staff to assist with the clinical effort, we had fantastic support from NHS Fife management to continue and deliver on urgent research priorities.

The R&D nursing team supports 95 active studies recruiting and in follow-up. This includes drug studies, non drug studies, and commercial and academic research studies.

Most of our priority studies this year have been COVID studies, including RECOVERY, ISARIC, GenOMICC, RECOVERY RS, STOP Covid and SIREN.

**Highlights:** The highlights this year has to be the fantastic response and team work the research nurses have shown in adapting to the pandemic. Suspending studies and being relocated, working with different staff and responding to urgent set up of priority studies created some anxieties for the staff. Working with Covid-19 patients in the early days of the pandemic was an uncertain time for us all but the nurses got on with the job demonstrating their professionalism and working in extremely difficult circumstances.

NHS Fife has been in the top 5 recruiting sites in Scotland several times for RECOVERY and STOP-Covid and despite many challenges; we have opened the SIREN study which was seeking to recruit over 600 NHS Fife staff to the study. This important study seeks to determine if the presence of COVID-19 antibodies is associated with a reduction in the risk of re-infection.

**Motivation:** Following such an uncertain year in research where we have had to adapt to changes several times, the teams continued enthusiasm, motivation and determination has never failed. The nursing team has pulled together and worked with new team members and sometimes on unfamiliar specialties to deliver the highest quality urgent public health research as quickly as possible in an extremely challenging environment. Once the call to prioritise UPH studies came in, the team quickly and efficiently set to work suspending non essential studies, opening Covid studies in super fast time and working round the clock to make sure all of NHS Fife patients were afforded the same opportunities as everyone else.

The nursing team has been truly amazing over the past year and continues to develop and deliver on every COVID-19 study in Fife.

## The Oncology Team



**Clinical Research Staff** (from left to right):

Fiona Adam (Senior Research Nurse), Julie Penman (Research Nurse), Sophie Iwanikiw (Clinical Research Assistant)

**Principal Investigators:** Dr Sally Clive (Colorectal), Dr Catriona McLean (Colorectal), Dr Marjory MacLennan (Breast), Dr Caroline Michie (Breast), Mr HamidRaiss-Ahmad (Breast), Dr Joanna Bowden (Palliative Care), Ms Irene Russell (Urogynae).

**Summary of Activity:** The Oncology team have been contributing to research in Fife with help from the Scottish Cancer Research Network for many years. The team support a wide variety of specialties including breast, colorectal, lung and pancreatic cancers. While collaborating closely with visiting consultants the team work hard to provide opportunities to allow Fife patients access to trials locally.

**Recruiting Studies:** ADD-ASPIRIN (3 cohorts), MENAC, POSNOC, SOCCS3, ROSELEE

**Studies in Follow-up:** SoFEA, PRIMEII, TACT2, SUPREMO, SOLE, BIG3-07, ARISTOTLE, FAST-FORWARD, EORTC 10085, TOPSY

**Highlights:** Highlights this year must include the group effort, sacrifices made and collaboration of so many, during the height of the pandemic. Our team received a Certificate of Achievement

from the TOPSY study, acknowledging that NHS Fife “completed the TOPSY paperwork to the highest standard and in the most timely manner”. This was truly welcomed after hitting our recruitment target, earlier in the year.

**Personal Statements/Motivation:** Research activity in 2020 was swiftly diverted from Oncology to facilitate study set up and recruitment for the RECOVERY and RECOVERY RS, COVID-19 studies. While essential Oncology drug trials continued we also worked alongside Infectious Disease and Respiratory colleagues helping with the COVID-19 research effort. This was a fantastic opportunity to do some very worthwhile acute research and clinical work which is very different to the team’s usual studies.

*“What motivates me (Fiona Adam) is leading a strong, dedicated, enthusiastic team, who during such uncertain times, pulled together, supported each other, and adapted without complaint...to our new normal.”*

## The Orthopaedic Team



### Clinical Research Staff (from left to right):

Claire Stewart (Senior Research Nurse), Sue Pick (Clinical Research Assistant), Julia Sutherland (Research Nurse), Zunera Ali (Research Nurse)

**Principal Investigators:** Philip Walmlsey (Orthopaedic Consultant), Mr Andy Ballantyne (Orthopaedic Consultant), Mr Adeel Ahktar (Orthopaedic Consultant) and Mr Melvin Carew (Emergency Medicine Consultant)

**Summary of Activity:** The Orthopaedic team was set up late 2019 to support a growing portfolio of Orthopaedic studies and a high level of engagement with the clinical team. The team facilitates a mixture of interventional and observational studies. The research team work closely with the clinical staff to open and set up new studies within NHS Fife and help to carry out activities such as recruitment, patient follow up and ongoing management of the studies until completed.

**Studies Recruiting:** Workwell, FAME, CRAFT, ATTUNE, SCIENCE, PROPHER 2

**Studies in Set up:** CORE Kids, HP15 Mobile Link Hip Study,

**Highlights:** The nursing team received much deserved praise for recruited the 100<sup>th</sup> patient into the FAME trail. Robert Norrie, from Glenrothes agreed to feature in our Twitter feed proudly displaying his certificate congratulating him on being their 100<sup>th</sup> patient. The nursing team received much deserved praise for recruited the 100<sup>th</sup> patient.

**Motivation:** Being such a new team has brought its challenges but the engagement from the clinical team in Orthopaedics has been fantastic and has led to a strong collaboration between research and clinical staff. The development of the new Centre for Excellence Orthopaedic Centre in Fife is an amazing opportunity to continue to deliver and expand cutting edge Orthopaedic research to the people of Fife.

## The Respiratory Team



**Clinical Research Staff (from left to right):**

Senior Research Nurse Angela Scullion, Research Nurse Amanda McGregor and Clinical Research Assistant Emma Simpson

**Principal Investigators:** Dr Devesh Dhasmana (Respiratory Consultant) Dr Jo Bowden (Palliative Care Consultant) Derek Sloan (Infectious Disease Consultant) Dr Patrick Lui (Respiratory Consultant) Dr Ian Fairbairn (Respiratory Consultant) Joe MacKenzie (Respiratory Consultant) Dr Mike McMahon (Consultant Anaesthetist)

**Summary of Activity:** NHS Fife respiratory clinical trials team was initially set up in October 2020 in response to a significant increase in our Covid-19 trials workload. The team is made up of Senior Research Nurse, Angela Scullion, Research Nurse, Amanda McGregor and Clinical Research Assistant Emma Simpson with the purpose of helping and supporting busy clinicians to undertake research in Fife. Vital medical research into possible treatments to help patients with COVID-19 is already showing encouraging results.

**Recruiting Studies:** RECOVERY, ENSEMBLE 2, ISARIC

**Studies in Set up:** MABEL, ECBS, PROSPECT

**Highlights:** During the first months working on Covid wards the team managed to recruit the 100<sup>th</sup> patient into the RECOVERY study in January 2021, recruiting 125 by March and NHS Fife are particularly pleased to be part of the ENSEMBLE 2 vaccine study working in collaboration with Tayside on the first Hub & Spoke study model in Scotland. This allowed 24 Fife patients access to the vaccine in Tayside while benefitting from local follow up in NHS Fife.

**Personal Statements/Motivation:** “As a team we are extremely motivated and work particularly hard on Covid studies to ensure that we optimise participant recruitment in order to establish new treatments quickly and effectively and offer patients every possible opportunities”.

## Study websites

<https://isaric.org/>

<https://genomicc.org/>

<https://warwick.ac.uk/fac/sci/med/research/ctu/trials/recovery-rs/>

<https://stop-covid19.org.uk/>

<https://snapsurvey.phe.org.uk/siren/>

<https://www.recoverytrial.net/>

<https://www.jnj.com/coronavirus/about-phase-3-study-of-our-covid-19-vaccine-candidate>

<https://isaric4c.net/> or <https://isaric.org/>

<https://www.hull.ac.uk/work-with-us/research/institutes/health-trials/study/morphine-and-breathlessness-study>

[www.SCIENCEstudy.org](http://www.SCIENCEstudy.org)

<https://craft-study.digital.com/>

<https://fame-study.digital.com/>

<https://www.nottingham.ac.uk/research/groups/orthopaedicsandtrauma/trauma-research/core-kids.aspx>

<https://nottinghambrc.nihr.ac.uk/take-part/live-trials/trials/1431-profher-2>

<http://www.addaspirintrial.org/>

<http://www.posnoc.co.uk/>

<https://www.supremo-trial.com/>

<https://w3.abdn.ac.uk/hsru/TOPSY>

<https://www.icr.ac.uk/our-research/centres-and-collaborations/centres-at-the-icr/clinical-trials-and-statistics-unit/clinical-trials/sofea>

<https://www.icr.ac.uk/our-research/centres-and-collaborations/centres-at-the-icr/clinical-trials-and-statistics-unit/clinical-trials/tact2>

<https://www.ibcsg.org/en/patients-professionals/clinical-trials/closed-trials/223-ibcsg-35-07-sole>

<http://www.ctc.ucl.ac.uk/TrialDetails.aspx?Trial=82>

[https://www.icr.ac.uk/our-research/centres-and-collaborations/centres-at-the-icr/clinical-trials-and-statistics-unit/clinical-trials/fast\\_forward\\_page](https://www.icr.ac.uk/our-research/centres-and-collaborations/centres-at-the-icr/clinical-trials-and-statistics-unit/clinical-trials/fast_forward_page)

[https://www.eortc.org/research\\_field/clinical-detail/10085p/](https://www.eortc.org/research_field/clinical-detail/10085p/)

<https://www.workwelluk.org/>

<https://www.hull.ac.uk/work-with-us/research/institutes/health-trials/study/morphine-and-breathlessness-study>



## 5.2 R&D Approvals Team



**R&D Approvals and Support** (from left to right):  
Aileen Yell (Research Coordinator), Roy Halliday  
(R&D Support Officer)

The R&D Approvals Team consists of Aileen Yell, Research Coordinator and Linzi Wilson, Approvals Assistant who deal with a variety of approvals related tasks including:

### Research Approvals

All research conducted within the NHS must have R&D Management Approval in order to ensure that the legal obligations of the Board are met. Approval also provided insurance/indemnity for research studies under the Clinical Negligence and Other Risks Indemnity Scheme (CNORIS).

The Approvals Team ensure that such research studies are reviewed and approved within national timelines. This can include working with researchers and staff to provide advice and assistance around what types of approval are required, reviewing documentation, checking any implications around resource and costing, information governance, risk assessment, arranging contractual reviews, processing Research Passport applications and dealing with any queries which arise during the process. During the year 2020 we received notification of 104 potential new studies. There are generally in excess of 200 research projects active and in follow up in Fife.

### Research Amendments

The majority of research projects which are approved will be subject to amendments during the period the studies are active or in follow up. The Approvals Team liaise with local study teams to ensure there are no issues around capacity or resources/costings and review and process the amendments timeously. During the year 2020 we received and processed 212 study amendments.

## R&D Support Officer

Roy Halliday, provides overall administrative support to the R&D Department, including being a primary point of contact for the R&D Team, responding to all types of enquiries, organising and minuting of meetings, regular production of R&D Bulletin, providing support to the Assistant RIK Director and other team members where required. The R&D Support Officer is also responsible for processing of feasibility requests, ordering via the e-Procurement Scotland system (PECOS), Scottish Standard Time System (SSTS) and assisting with the delivery of the R&D Education Programme.

## Highlights

The team have been involved in the implementation of the EDGE Research Management Platform, particularly in relation to the creation and modification of Approvals and Amendment Workflows, Attributes, the creation of new studies, updating and maintaining accurate records in relation to existing studies, amendments, etc.

The team have successfully transitioned from full time office work to working flexibly between home and office without any significant impact on our target timelines.

## 5.3 Quality and Performance



### Quality and Performance

(from left to right):

Julie Aitken (Quality and Performance Team Lead), Penny Trotter (Quality and Performance Assistant)

The R&D Quality & Performance Team, consisting of Julie Aitken (R&D Quality and Performance Lead) and Penny Trotter (R&D Quality and Performance Assistant), are responsible for a number of important activities including:

### Management of SOPs and Work Instructions

Standard Operating Procedures (SOPs) and Work Instructions (WIs) are vital to ensure efficient, controlled and uniform conduct across all studies. The R&D Quality and Performance Team ensure all SOPs and Work Instructions are constructed in accordance with the standard format, regularly reviewed and distributed and made available to staff as appropriate.

We work with R&D Department admin and research staff to review the content of these documents and suggest improvements, as well as identifying gaps in the existing suite of documents where new procedures are required. This is an ongoing cycle and feeds in to the continuous development of the department.

Between April 2020 and March 2021 16 SOPs and 6 Work Instructions and their associated forms and templates were reviewed, updated and re-issued. No new SOPs or WIs (version 1) were issued in this time period.

## **Audit**

The team are responsible for performing audits across all the clinical research conducted in NHS Fife. This covers a wide range of activities, looking at studies and their activities as well as procedures within the R&D Department itself. The audits are intended not only to ensure compliance to SOPs, WIs and study protocols but to assist those being audited by identifying and addressing issues and helping to identify improvements that can be made to streamline processes.

Between April 2020 and March 2021 formal audits were conducted for the following studies:

- R&D Ref: 20-092 - Obese Healthcare Workers - Physical Activity and Healthy Eating
- R&D Ref: 20-009 - COVID-19 ISARIC/WHO Clinical Characterisation Protocol for Severe Emerging Infections

## **Tracking Research Activity and Performance**

The team liaise with research teams to review study progress and timelines, collate recruitment figures and update local and national databases to track all research activity in NHS Fife.

## **Highlights**

### **Implementation of Q-Pulse**

We began implementing the use of the Document Management System Q-Pulse at the start of 2020, initially just using the Documents module. Each new/revised document is uploaded to Q-Pulse and sent for acknowledgement to appropriate staff and this has proved invaluable for keeping track of our SOPs and WIs and for distributing them to appropriate staff.

We have now extended the use of Q-Pulse to include the Assets module to record the maintenance and calibration of equipment.

We would like to thank Ken Campbell, Laboratory Service Manager, for his patience and help getting Q-Pulse set-up.

## **Implementation of the EDGE Research Management Platform**

Over the last year the team have been busy working with the R&D Approvals Team, Clinical Trials Pharmacy Team and R&D research teams to implement the use of the EDGE Research Management Platform which has helped streamline the process of tracking research activity. All R&D approvals processes and study set-up processes are recorded and tracked on EDGE, details of all recruits are added and study documentation stored on the system. This has helped improve communication between the various team and allows recruitment activity to be collated quickly.

The R&D Quality and Performance Team have delivered EDGE training sessions to assist research teams with the tracking of recruitment activity and the management of study set-up processes using workflows and entities and they are available to assist research teams with queries as they arise.

## **5.4 Education and Training**

During 2020-2021 our Senior Research Advisors gave 162 advice “events” which were delivered via email, Microsoft Teams or by telephone to 50 members of staff, plus 1 external individual. Advice sought related to study design (24%), statistics (10%), approvals – R&D, ethics, IRAS (12%), grant applications (18%), degree projects (4%), general support (22%) and writing up (10%). 12 Training sessions took place via Microsoft TEAMS with a total of 40 attendees.

Many of our training courses were cancelled during 2020/21 and while we normally offer national Good Clinical Practice (GCP) training on a quarterly basis, Covid restrictions meant that face to face training was not possible. Researchers and staff who required GCP training during this time were directed to the NIHR online resources where both an Introduction to GCP and an update course are available. GCP was re-introduced early in the year following a socially distanced model.

## 5.5 Library and Knowledge Service



### The Library Services team

(from left to right):

Wendy Haynes (Librarian),  
Missing from picture Hannah Coulston  
(Librarian)

Alan Mill, Library Assistant and  
Marie Smith (Library Services Manager)

The Library & Knowledge Service (LKS) continued to provide individual and small group training sessions to support information literacy skills development in the workforce. The sessions involve training in the use of a range of online resources including bibliographic databases, e-journals, e-books and reference management software. We carried out seven training sessions for individuals during 2020-21. This is a reduction in numbers from previous years (12 sessions in 2019-20, 24 sessions in 2018-19) but demand is increasing again as staff adapt to using Teams.

In addition, we were approached by the Senior Pharmacist for Education and Training to support the department in bringing the Medicines Information (MI) service in-house. The pharmacists who will provide this service required additional training in evidence searching to enable them to answer complex MI enquiries. The Library and Knowledge Service designed and delivered a short training programme, containing both demonstrations and hands-on elements that were well received. Sessions have been delivered to post-graduate foundation trainee pharmacists and there are plans to extend this to foundation pharmacists in future. The programme is also available as a recording for members of pharmacy staff to access as required. We received excellent feedback from participants who appreciated our friendly approach and thorough overview of resources.

### Highlights

#### New Meta Data Editor

Library resources both print and online, are catalogued using the Library Management System, Alma. One of the Library team members was involved in the national cataloguing support group which piloted new cataloguing software in late 2020. Following implementation of the new software, the LKS team member was involved in revising the workflow documentation, providing training resources and demonstrations, and providing ongoing peer support across NHSS libraries.

### **KIND course pilot**

In early 2021 a member of the library team participated in a pilot programme to assess materials for a new course that is being developed for the KIND workforce. The KIND workforce comprises staff that have the management of knowledge, information and data as a core element of their role. The four pilot modules, developed by NHS Education for Scotland, the Digital Health & Care Institute, and Public Health Scotland, were undertaken by a range of staff from the KIND workforce across Scotland. Library staff were given the opportunity to participate in the pilot and provide feedback which will enable course content to be refined and finalised.

### **Physical collection**

We undertook a review of the physical book collection to improve display and accessibility. While continuing to stock essential textbooks, we have focussed on resources to support staff well-being, research and professional development.

## 6. Research, Innovation and Knowledge Participants/User Experience

### R&D Participants Experience



**Mr Robert Norrie (pictured left) was featured in the UK FAME study newsletter recently.**

The multicentre FAME study is a clinical trial looking at two different standard care treatment types for ankle fractures in adults aged up to 60. Participants will be followed over 10 years to see the outcomes for surgical treatment (plates and screws) versus non-operative treatment (a close contact cast which is a special snug fit plaster cast). This information will help improve treatment for future patients with similar injuries.

The FAME study at NHS Fife was led by Mr Phil Walmsley and Muhammad Adeel Ahktar, and NHS Fife R&D Senior Nurse Claire Stewart, the team give a big thank you to Fife patients like Mr Norrie who are taking part. The multi-disciplinary team are invaluable in helping the R&D team produce high quality research data and immense gratitude also goes to theatre and ward staff, the radiology team, orthopaedic clinic staff and orthopaedic plaster technicians.

#### **Quote from a monitor following a visit to NHS Fife**

*"It was an absolute pleasure to visit your site in person yesterday and meet your team. They have been doing a wonderful job, working to an exceptionally high standard to ensure that all sources have been clearly documented and the protocol is being followed closely. Given the current circumstances of working in a pandemic too, along with the challenges that this study had faces with couriers and drug shipment I wanted to really stress how impressed I am with how amazing your team has done, so thank you."*

#### **Quote from Miss Caitlin Cameron, Dermatology patient**

*"The Research Staff have been amazing and extremely helpful. I was amazed they were still allowed to do the study throughout lockdown.*

*I was so happy that they were able to come to my flat instead of me risking catching COVID to come to hospital. This study has changed my life."*

## Library and Knowledge Service User Experience

### Topic - Cancer-related fatigue

“[The evidence search] allowed us to update the resources we use for training/education [of OT staff].”

“[The evidence search] allowed us to update the resources we provide to patients/carers.”

“Thank you for your help – responded very quickly and information provided was well presented and easy to access.”

### Topic - SLT interventions for adults with learning disabilities

“[The evidence search] supports our decision-making on next steps. We still have further scoping work to be done but [the] research provided will help inform future plans for service development around targeted work for adults with learning disability.”

**“I have accessed the library services several times over the years for support on literature services and always found staff extremely helpful and efficient. This is an excellent service.”**



## 7. NRS Fellowship Support Scheme Awards

### Completing Fellowship Award-Joanna Bowden

NHS Fife and the University of St. Andrews jointly sponsored a targeted call for applications, in March 2020, for a support scheme to provide recently completed or completing NRS Fellows with the equivalent of a day a week for 24 months to continue the research programme developed through their NRS Fellowship. This was a competitive call and Dr Joanna Bowden (Consultant in Palliative Care) was the successful applicant. Dr Joanna Bowden shared what motivates her to be a research engaged clinician.



#### What motivates you to fit research into your busy clinical life?

My research work is heavily informed by my clinical practice – specifically by the shortfalls in clinical interventions, pathways and systems that impact negatively on patient experiences and outcomes. Knowing that we can address these issues by developing an evidence base for practice is a powerful motivator. At a personal level, I really enjoy having variety in my working week, undertaking a spectrum of activities with colleagues with whom I share a common goal.

#### Why did you apply for the NRS Fellows Support Scheme?

I had completed a three year research fellowship (NRS Career Researcher scheme) in March 2021, during which time I grew from someone with an interest in research, who could support others' research in Fife, to someone with the skills and confidence to develop my own research ideas and to see these materialise into studies. Securing funding from the Health Foundation for a large regional study was a great boost, as was securing endowment funding for a Fife-based study of the reality of end of life care in the community during the Covid-19 pandemic. The Fellows Support Scheme will enable me to continue progress these studies and to build stronger links with academic colleagues in the University of St Andrews, aiming for a strong and effective programme of Fife-led palliative care research for the future.

## **What will be the benefits of your project for our patients and for your service?**

The research work I undertake, as part of multidisciplinary research teams, is primarily focused on improving our understanding of current experiences, pathways and outcomes, with a view to making policy and practice recommendations and influencing clinical care for the better. This should benefit future patients in Fife, but also nationally and beyond. In addition, I am the Principal Investigator for two clinical trials in Fife, both for people with advanced disease, testing new interventions for symptom management. Being a research active clinical team means that patients in Fife with advanced illnesses can participate in research, which can benefit them in a great variety of ways; including the reward that they are helping others in their position in the future (altruism) and receiving additional close support and follow-up by skilled research clinicians. It is also the case research drives higher clinical standards in the here and now, promoting a culture of critical thinking and evidence based practice. Finally, being research active is a great way of promoting the positive contribution that palliative care can make for individuals and those close to them, as well as the health and social care systems and society more generally.

## **What advice would you give to other clinicians/health professionals thinking about applying for funding for research support?**

I would greatly encourage anyone considering applying for funding to approach the R&D department for an informal discussion, and also to get in touch with clinician-academics like me, even if their proposed research is in a completely different area. A move into research alongside clinical practice can feel daunting, but with the right support can be rewarding and enriching. Research offers so many great opportunities for learning and development, as well as for working with people with completely different skill sets to your own, and all with improving patient care at the centre. What's not to like?

# Aspiring Fellowship Award – Adeel Ahktar

NHS Fife RIK sponsored a targeted call for applications, in March 2020, for a Support Scheme to provide aspiring NRS Fellows with the equivalent of half a day a week for 12 months to develop a high quality application for an NRS Fellowship. This was a competitive call and Mr Mohammed Adeel Ahktar (Consultant in Orthopaedics) was the successful applicant. Mr Mohammed Adeel Ahktar shared what motivates him to be a research engaged clinician.



## What motivates you to fit research into your busy clinical life?

I am passionate about evidence based realistic medicine with patients at the heart of any decision making process after receiving appropriate information to make a choice. I have a special interest in improving patient care with end stage arthritis in the presence of Obesity. With the development of new technologies in health care provision, we can provide personalised care to our patients to improve their quality of life. I believe in Research as a life style choice for an intriguing mind to learn from existing knowledge to develop new techniques and treatments for our patients.

## Why did you apply for the NRS Fellows Support Scheme?

Lower Limb arthroplasty in obese individuals has higher risks of complications. Weight loss may reduce the risk for developing symptomatic lower limb osteoarthritis and may also lead to the resolution of arthritic symptoms. Musculoskeletal-focused digital apps are increasingly being used for physical therapy and rehabilitation, telehealth, pain management, behavioural health, and remote patient monitoring. I wanted to find out what is available in the literature by doing a scoping review and then use the most helpful intervention in our patients. The main reason to apply for the NRS Fellows Support Scheme was to have dedicated time to develop my application further and apply for the NRS Fellowship.

## What will be the benefits of your project for our patients and for your service?

Policy makers and healthcare providers are increasingly interested in the role of Health Informatics and Digital Health in improving Musculoskeletal (MSK) services. My proposed programme of research addresses this and the information generated will be extremely useful to provide excellent MSK care to patients living in Fife and for NHS Fife to become a leader in Digital innovation in health care provision.

## **What advice would you give to other clinicians/health professionals thinking about applying for funding for research support?**

I will encourage everyone working in NHS Fife to discuss their research ideas with the R&D team who can guide you to develop it further. Once you have a clear plan of action then it is possible to apply for funding not only to conduct your research but also to polish that project further with good peer support and advice before you actually start your project like I am doing at present with the NRS Fellows Support Scheme.

## 8. Opportunities and Challenges

In order to ensure the successful implementation of the NHS Fife Research Strategy a series of annual 'priorities' have been selected from it, to be progressed. An update on identified priorities / challenges to be taken forward within Research and Development in 2019 -20 were as follows:

- a. We have continued with the long process of encouraging discussion of research as part of Personal Development Plans within the operational division and CHPs during appraisals of health care staff and this is now part of the e job planning framework
- b. R&D participation in the development of the medical and nursing clinical academic career development in Fife has been continued.
- c. Preparations for an inspection by the Medicines and Healthcare products Regulatory Agency have continued and were implemented and built upon following the inspection in October 2019.
- d. Although details of research-related academic degree programmes and bursaries, encouraging staff to apply, have been circulated there were fewer Fife applicants for NRS Research Fellowships.
- e. Liaising closely with universities and other academic institutions to establish research programmes by identifying opportunities via NHS Fife endowment funds.
- f. We have continued to support and participate in the NHS Research Scotland (NRS) East Node, establishing joint documentation and actively participating in membership of groups and committees.
- g. We have continued to support the Health Informatics Centre (HIC), consolidating and adding to the joint Tayside and Fife HIC Database to facilitate service based evaluations/research.
- h. The infrastructure and processes required for NHS Fife to act as Sponsor for increasingly complex studies is being delivered.
- i. Greater activity and collaboration with academics, pharmaceutical and medical device companies are resulting in increased utilisation of the Clinical Research Facility.

## **Challenges for RIK in 2020-21**

During 2020-21 the Research, Innovation and Knowledge teams within NHS Fife have had to adapt to the impact of COVID-19 on the clinical research profile and priorities and changes to ways of working for all areas, as well as maintained recent advances, delivering: research activity focused on COVID-19 and Urgent Public Health studies; compliance with the research governance framework, monitoring 100% of Fife Sponsored studies; the adoption of a revised R&D Education Programme to online delivery for relevant programmes, the adaptation of Library Services to primarily online support. All teams have risen extraordinarily well to these challenges but they have had an impact on productivity, staff wellbeing and ability to address non-COVID-19 related priorities.

## **R&D Strategy priorities (2020-21)**

All activities detailed in the prioritised plan of the R&D Strategy for 2020-21 are ongoing or have been achieved.

## 9. Conclusions

**Significant progress continues to be made implementing many aspects of the Research & Development Strategy, promoting the research agenda, developing a research culture and raising the profile of RIK, whilst continuing to build strong alliances with colleagues with the wider research, innovation and knowledge communities.**

The teams within RIK rose to the challenge of the impact of the COVID-19 pandemic on daily operations and priorities and the Clinical Research Team, led by Karen Gray, are to be particularly commended on their agility, flexibility and high standards of professionalism in meeting the priorities of the Scottish Governments Urgent Public Health studies, maintaining quality and adherence to MHRA guidelines throughout.

The NHS Fife Executive Lead for RIK, RIK Director and Assistant RIK Director have ensured a significant raising of the profile of NHS Fife RIK and the promotion of Fife as an important, emerging player in the current, and future Scottish research agenda

# 10. Publications

## Research and related activity: publications by NHS Fife staff

Produced by NHS Fife Library and Knowledge Service

Fife.libraries2@nhs.scot; 01592 643355 ext 28790

NHS Fife Library and Knowledge Service

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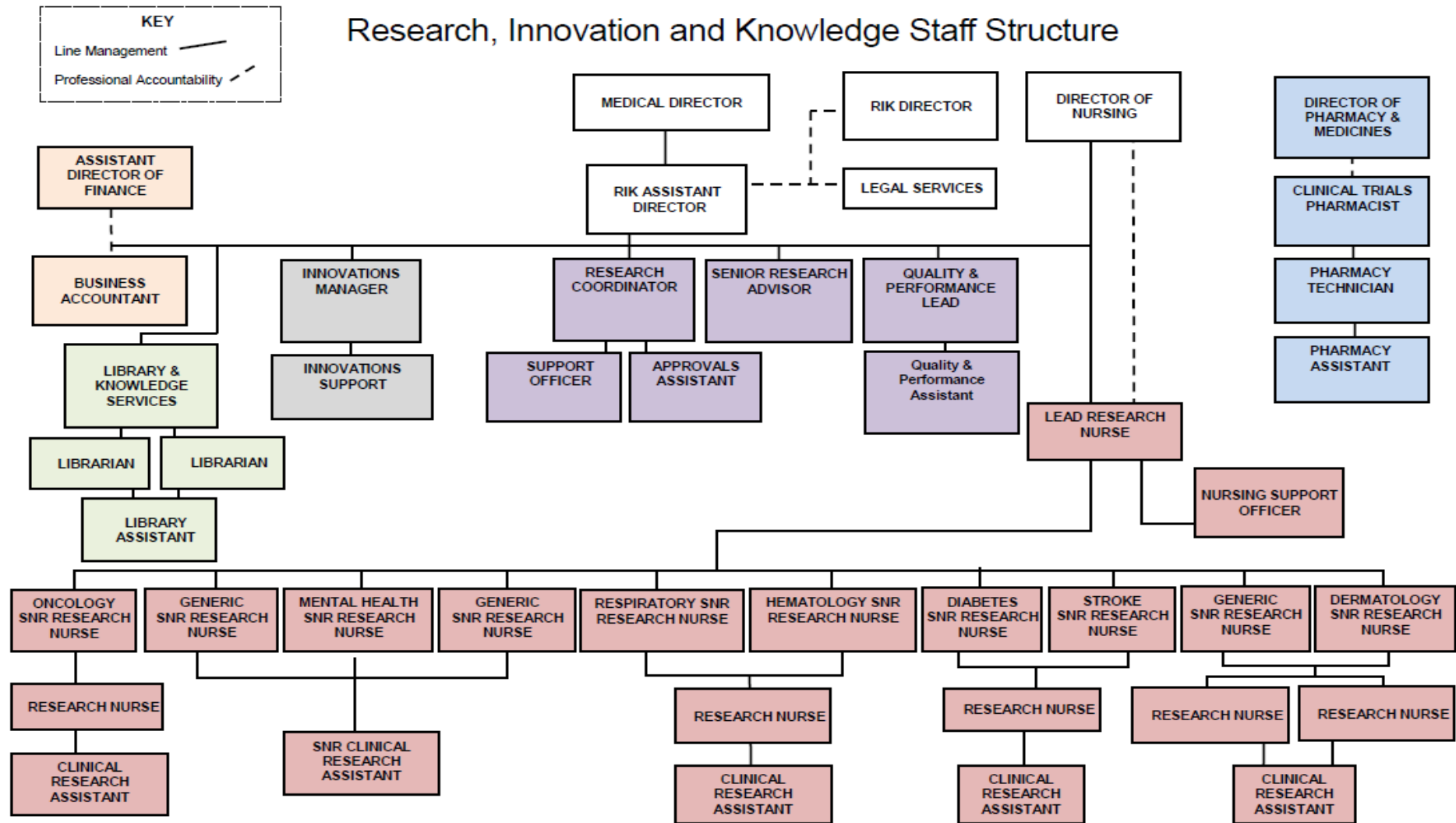
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# 11. Appendix 1 – RIK Structure



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