

# D2

**FINANCE  
INNOVATION  
FORUM**

## INTEGRATED ACTIVITY ENGAGEMENT TOOL

**ST GEORGE'S UNIVERSITY HOSPITALS NHS FOUNDATION TRUST**

**LONDON, ACUTE**

With special thanks to this team of innovators for taking part in the pilot of this programme and contributing to its development.



**FOR INFORMATION ON THE  
INNOVATION PROGRAMME  
CLICK HERE**

# THE INNOVATORS

A small team of finance professionals who are passionate about patient level data and have the ability to design, engage and provide solutions to support and facilitate good decision making. The team includes, Kirk Jones, Adrian Harlow and Prabah Senn from St George's University Hospitals NHS FT.

## THE PROBLEM

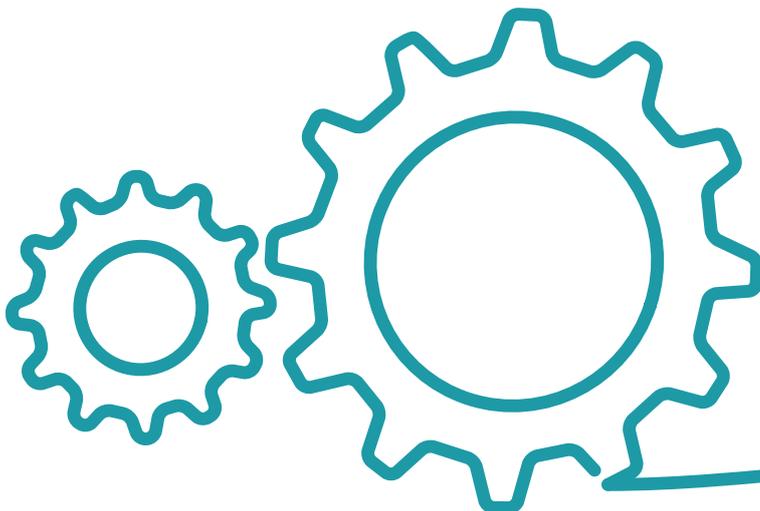
NHS managers need to understand patient throughput, types of activity being delivered and how these vary over time. They need reliable, timely and trusted information which is available in a range of formats to suit the relevant audiences and support to navigate and understand the information provided.

Despite healthcare resource group (HRG) activity and financial information becoming largely redundant at the start of the pandemic, there is still a demand to see activity information by speciality, HRG and at patient level to help manage clinical services.

The frequency of reporting has switched from monthly to weekly and the emphasis turned to tracking patient pathways rather than income. Clinical specialities need to understand the type of patient activity that they are seeing in order to plan their resources appropriately.

## THE CHALLENGE

How might we adapt the rich source of information that was previously used for income reporting so that clinicians and managers have easy access to activity information at a patient level to make informed decisions to help manage their service?



# THE INNOVATION

We implemented reporting on a weekly basis using both Excel and Tableau which can compare activity to prior periods, with drill down capabilities to patient level without having to carry the huge datasets that usually support Excel pivot tables. We have developed bespoke reports for individual teams of clinicians and managers so that they did not have to spend time organising relevant information.

## THE LESSONS LEARNT

- We would not assume that one platform or format would be suitable for everyone. There is not a 'one size fits all' approach, because each service often has different requirements.
- We learned how to use Excel 'power pivot' and its associated data model. This allows us to import and store large volumes of data (circa 5 million records) in the Excel workbook, without compromising the performance of the application as the file was kept to a manageable size. However, because the data is in Excel, it is immediately available to users who are familiar with the reporting and analysis tools that come with this software.
- Using the data model functionality in Excel allows us to take advantage of a relational data structure and the DAX formula expression language for calculations.
- Behind the scenes we used SQL tables and views to create the underlying datasets which are imported into the Excel data model. These can be updated and refreshed with ease, and it also means that we have a single data source available to be used by both Excel and Tableau applications.

## THE OUTPUTS

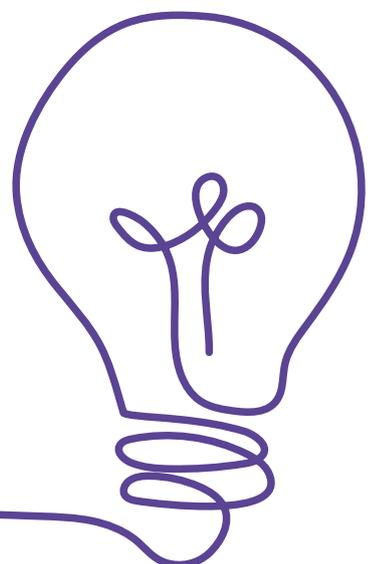
Monthly and weekly activity reporting with full patient level drill down including a rich and easily accessible pool of information. These are designed in a way to suit individual clinical teams and made available in familiar software such as Excel and Tableau, without compromising performance.

## THE OUTCOMES

- Strong clinical and management engagement in activity and finance data which could be used to highlight patient pathways, areas of low attendance, weak recording processes and indicate where resources could be re-directed.
- The product is able to be continually adapted to meet the pace of change of the external environment e.g. elective recovery fund requirements.

## THE QUICK WINS

Make use of the rich data source that was used to underpin income reporting by redesigning it in a way that can be used by clinical teams to suit other requirements and meet the demands of the external environment.



# THE REVIEWERS SAID

**“CLINICAL SPECIALITIES WERE ABLE TO VIEW DATA ON A WEEKLY/ MONTHLY BASIS WITHOUT THE REQUIREMENT FOR SPECIALIST SOFTWARE MEETING THE DEMANDS OF THE ORGANISATION.”**

**“THIS IS A FANTASTIC INNOVATION USING TECHNOLOGY TO GIVE ALMOST REAL TIME DATA, FOR THE BENEFIT OF THE PATIENT PATHWAY/ FUTURE PLANNING.”**

**“THIS IS MY FAVOURITE INNOVATION AS IT’S GOT A HUGE BENEFIT FOR THE PATIENT PATHWAY AND PLANNING OF CARE. I WOULD BE INTERESTED IN SEEING THIS BENEFIT THE WIDER NHS.”**



# WHAT YOU CAN DO NOW

## SUBMIT INNOVATION

**If you recognise the problem stated and have implemented your own innovation** to overcome it please submit this innovation to the programme and give others more examples to learn from.

## REGISTER INTEREST

**If you recognise the problem stated and would like to know more details about this innovation in particular**, we will be hosting showcase and workshop sessions throughout the year, so all interested staff can gain ideas and inspiration from innovators in a manageable one-to-many format.

## SUBMIT PROBLEM

**If you have a problem but don't currently know of a solution to it**, then please submit it here and in 2022 the Forum intends to crowdsource solutions to problems that don't currently have known innovations.

## LEARN MORE

**If you would like to learn more about about the innovation programme** please click for more details.

## ENDORSEMENT DISCLAIMER

The Finance Innovation Forum's Innovation Programme asks NHS Finance peer reviewers whether the "Innovation overcomes, successfully addresses, or solves the problem identified". The programme does not endorse, recommend or provide any assurance of software used or mentioned in any of the published innovations. If you think a published innovation is being used to falsely validate a commercial product or company please contact [finance.innovation@nhs.net](mailto:finance.innovation@nhs.net)



## IN SEPTEMBER 2021 THE FORUM LAUNCHED...

- A national Innovation Programme for NHS Finance staff to submit their innovations for peer review. Successful innovations will be published and accessible to all on the One NHS Finance website
- A 'Software Skills For Finance Staff' event series taught by NHS Finance for NHS Finance including MS Excel, PowerBI, SQL etc.
- An 'Art of the Possible' briefing which explains two new technologies AI & Blockchain and discusses the opportunity for NHS Finance
- An Automation Group to review and improve the efficiency of existing national processes and returns

## WHAT YOU CAN DO NOW

- Submit your innovations for peer review
- Sign up to be an innovation peer reviewer
- Read Art of the Possible
- Sign up for Software Skills for Finance
- Register your interest in automation and all things innovative

### Innovation Programme



### Software Skills



### Automation sign up



### Be a peer reviewer



### Art of the Possible



## FURTHER INFORMATION

Website: [FinanceInnovation.nhs.uk](https://financeinnovation.nhs.uk)

Email: [FinanceInnovation@nhs.uk](mailto:FinanceInnovation@nhs.uk)

LinkedIn: [One NHS Finance](#)

Twitter: [@OneNHSFinance](#)



One NHS Finance brings together the Future-Focused Finance, National Finance Academy, and the Finance Innovation Forum programmes and networks to make sure that everyone working in NHS Finance has access to skills, knowledge, methods, and opportunities to influence and enhance patient services.



Identifying and developing innovative ways of working and new areas of improvement.