National Institute for Health and Care Excellence

Science, Evidence and Analytics (SEA) progress report

1. This report provides an update on key issues and developments in the Science, Evidence and Analytics directorate in the period September and October.

Summary of activity

A summary of the work of the teams is described below:

Information Resources

In addition to work on COVID-19, the information resources team provided information expertise and searches for the development of 77 NICE products, produced 26 current awareness bulletins, sourced 641 documents and provided information skills training to 21 NICE staff.

Science Policy and Research

The Science Policy and Research programme continues to deliver activity to 9 projects aligned to NICE’s research priorities funded by the European Union’s Innovative Medicines Initiative (IMI) and Horizon 2020 grants. A number of policy-related projects are progressing, including: Extending the QALY, Children’s Quality of Life, EQ 5D 5L Valuation Set for England and plans for a new approach for deliberative public engagement. The team is also working closely with the MHRA to develop the joint Innovative Licensing and Access Pathway.

Data and Analytics

The data and analytics team are working on using real world data to support the development of our guideline on long term effects of COVID-19, and preparing our data and analytics methods and standards programme, which will come to the next board meeting.

Notable issues and developments

Ongoing response to COVID-19

Supporting the COVID-19 response remains a central focus of our work.

The information services team continues to support the trial tracking, systematic literature searching activity, document supply and copyright advice that underpins development of NICE guidance on all COVID-19 topics across NICE and supports the surveillance and monitoring processes to ensure these guidelines are kept up to date. The team is working with the diagnostics assessment team to establish a process for identifying published evidence for the new COVID-19 diagnostic medtech innovation briefings. We also held a workshop with information scientists at PHE to share our knowledge and experience on identifying evidence on COVID-19 including pre-publications.

Data & Analytics are supporting the COVID-19 team identify suitable sources of evidence for their guidance on the management on the long-term effects of COVID-19, including close to real time data on patients' symptoms.

Science, Policy and Research continues to support NICE’s response to the COVID-19 pandemic through various activities, particularly in close liaison with the MHRA. This includes collaborating with NICE Scientific Advice to develop strategies to handle the impact of COVID-19 on clinical trials and technology appraisals.

Information Resources Developments

The tender documents for suppliers to join NICE's national procurement framework for electronic and print content will be published in November 2020 and the new framework will be in place from April 2021. The Framework incorporates England, Wales, Scotland and Northern Ireland supporting the purchasing of journals, databases and books at national, regional and local levels across the NHS and healthcare related organisations.

Working with Health Education England, we agreed a plan for the retirement of the Health Care Database Advanced Search service in March 2022, following the introduction of a new national resource discovery system due in 2021.

A key objective for the team is to articulate and promote the value propositions associated with the international reuse of NICE content. During September/October, 5 international content licences were signed. The total income invoiced for September and October was £44,330.

Science Policy and Research Developments

SP&R is supporting NICE’s business objectives relating to maintaining NICE’s global leadership role in HTA and guidelines development through active participation in research. The latest addition to our portfolio is [HARMONY PLUS](https://www.harmony-alliance.eu/en/harmony-plus), which launched in October 2020 - a large international collaborative project funded by the Innovative Medicines Initiative. It builds on the success of [HARMONY](https://www.harmony-alliance.eu/en/visions/story) in using big data and analytics to deliver knowledge that will improve the care of patients with several blood cancers. The project will expand the focus to additional blood diseases that were not covered by HARMONY and will further deploy artificial intelligence techniques on an expanded big data platform. NICE is leading work that influences what clinical outcomes are embedded into the evidence generation pipelines that will underpin development of new treatments for blood cancers. NICE will also provide signposting and decision tools to the project’s clinical researchers to help ensure appropriate evidence is generated for regulatory and HTA assessments. At later stages in the project, NICE Scientific Advice will provide its early scientific advice procedure on one or more novel therapeutic product.

NICE has clear guidance on how to measure and value health-related quality of life in adults, but very little guidance on children and young people. This is a challenge for several programmes including highly specialised technologies, clinical guidelines, and technology appraisals. Working with the Decision Support Unit, the team has established that the academic literature is not yet mature enough to support a fixed policy from NICE. A light-touch clarification has therefore been included within the CHTE methods review and we are supporting longer-term research with international HTA agencies.

EUnetHTA and International Relationships

The Managed Access team led a EUnetHTA project to develop a tool (REQueST) to support HTA organisations and other actors in guiding and evaluating registries for effective usage in HTA. Originally developed in Excel, the team have been working with EUnetHTA over the last 2 months to upgrade the tool into an online Sharepoint version. Discussions with regulatory agencies are ongoing about whether the tool could also provide a useful resource for their work.

Innovative models for the evaluation and purchase of antimicrobials project

NICE is working with NHS England and NHS Improvement and DHSC to develop and test innovative models that pay companies for antimicrobials based primarily on a health technology assessment of their value to the NHS, as opposed to the volumes used. Such purchasing models, if developed and adopted internationally, will lead to more predictable payments to companies based on value and have the potential to achieve much-needed pull incentives for increased investment in antimicrobial product development.

Over the past two months, the project team has been engaged in a series of commercial dialogue meetings with companies as part of the procurement exercise for selecting 2 antimicrobials for the project. Progress has also been made in recruiting a special NICE Committee for the project and in preparing for and resourcing the health technology assessment part of project. Project team members also participated in an AMR Alliance Japan seminar with Dame Sally Davies (UK Special Envoy on AMR) to support work in Japan on potential pull incentives for antimicrobials.

MHRA and NICE Core Strategic Group

 Building on the long-standing Partnership Agreement between NICE and MHRA, the Core strategic Group was launched in Spring 2020 to support even closer collaboration. Current work is focused on the development of new medicines regulatory arrangements for the UK from 2021 onwards. Over the past two months, intensive work has been on-going to support the development of an Innovative Licensing and Access Pathway. A separate paper detailing NICE and MHRA partnership working is included in the November Board agenda.

Data and Analytics Developments

The data and analytics team continue to support the Accelerated Access Collaborative and NHSX with their Artificial Intelligence Award to ensure that NICE develops its central role in evidence evaluation in the Digital Health Technology space.

The team have also recruited new staff to lead the development of the data and analytics methods and standards programme, which will work collaboratively with industry and academia. The team will bring the full programme outline and proposed implementation plan to the January Board for consideration.

Overall Direction

Finally, as a new directorate, the SEA team continues to work towards developing an innovative and creative culture - working collaboratively across the organization to support the other directorates to develop and use the latest scientific approaches.

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