

The Turing-RSS Health Data Lab

Project: The [Turing-RSS Health Data Lab](#) was established in August 2020 through a partnership between the Turing and Royal Statistical Society to aid the UK Health Security Agency (UK-HSA) pandemic response. This initiative bridged the gap between rapid-response analysis and longer-term research projects using an interoperable modelling approach. Projects included investigating social inequalities in COVID-19 risk, methods for de-biasing routine testing data, a rigorous assessment of biomedical acoustic markers as a diagnostic tool and the use of wastewater as a biomarker for local prevalence. With the goal to make methods and algorithms transferable, sustainable and reusable in future research, the 'Data Lab' provided independent statistical modelling and machine learning expertise to address policy-relevant research questions.

Community: The Community Building workstream of the Data Lab was established to embed open research practices and drive forward the impact of the multi-stakeholder collaboration. Dr Emma Karoune, Senior Research Community Manager (SRCM), led this workstream through collaboration at the strategic level with the Technical Directors and the operational level with the project teams. The core community included a Turing operations team, funded researchers from UK Universities and data science organisations, as well as data scientists and civil servants from the UK-HSA. The broader community also included health researchers from universities, research organisations, statistical societies, health charities and government bodies interested in COVID-19 Research

How is community management accelerating research and collaboration?

- **Respectful co-creation:** SRCM oversaw and organised the collaborative processes, events and opportunities for researchers to provide feedback on ongoing research by the Data Lab and UKHSA teams. These led to new collaborations, enabling UKHSA researchers to work with senior members and implementing Data Lab's predictive model in new contexts.
- **High-quality reproducible research:** In less than two years, the Data Lab researchers completed [7 projects and published 6 peer-reviewed research articles](#). They also published 3 preprints, including [a data paper](#) for the [Biomedical Acoustic Markers project](#) in Nature's Scientific Data journal. SRCM facilitated the co-authorship of these papers while applying open source, reproducibility and FAIR practices (Findable, Accessible, Interoperable, Reusable).
- **Accessible resources:** SRCM exemplified the initiative's commitment to making research accessible to the broader audience. She developed [lay summaries](#) for ongoing projects and supported researchers in writing [blogs](#) to go with research articles and end-of-project reports.
- **Convening capability:** The SRCM led several activities to convene researchers beyond the project. For example, the [international lecture series](#) featuring nine high-profile researchers from six countries, were attended by 1000+ attendees and 2000+ online views. Through iteratively improved communications initiatives, the Data Lab and its research have become internationally recognised as a leading initiative in this field.

How is SRCM embedding open practices in the Turing projects?

- **Transparent reporting of research outcomes:** In the Data Lab, the SRCM ensured that the outputs were open access, contained clear links to code and datasets, later archived using FAIR principles for future reuse. She extended the impact of the Data Lab's collaboration and research beyond the expected outcomes, including sharing practices in [The Turing Way](#).
- **Leadership in open research:** The SRCM's expertise has not remained limited to the Data Lab. She has provided community leadership at the organisation-level, including the [DECOVID project](#) and the broader community of the [Health Programme](#). She manages a team of RCMs in Health projects and offers specialist consultation for the various teams at the institute, including the Clinical AI special interest group, Academic Programme, Skills team and business teams.
- **Building skills for the future:** Beyond direct mentorship to RCMs in TPS, the SRCM brings knowledge in open science, inclusive collaboration and research communications. She delivers training on these skills, advocates for diverse data science roles through research and mentors early career researchers within and beyond the project at the institute and [The Turing Way](#).

"Emma has added tremendous value to the development of Turing's partnerships in the Health domain. Community Management played a pivotal role in this collaboration providing a very human context to the excellent research undertaken in the Lab. Our stakeholders continue to be impressed by Turing's mode of working and its focus on research with real-world impact and it is this which allows us to sustain the relationship with the UK Health Security Agency and DHSC." **Katrina Payne, Turing Partnerships Lead**