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The National Health Index: developing a reliable measure of the nation's health

What happened?

ASG-funded researchers from The Alan Turing Institute collaborated with the Office for National Statistics (ONS) to assess the statistical rigour of its National Health Index. The ONS has been developing the index since 2019 as a simple and consistent way of measuring England's health through time and across geographical boundaries. It provides annual scores for health at national and local levels by assembling data on specific aspects of health, from air pollution to chronic disease to mental wellbeing. The Turing's involvement focused on ensuring the index is put together using the most statistically sound methods.

What are the real-world impacts?

- The Turing's <u>rigorous statistical analysis</u> assessed the appropriateness of 56 separate indicators for health selected by the ONS, and the methods for incorporating them into the overall composite index.
- Following the assessment, the Health Index can be more reliably used for measuring health, understanding the health impacts of policy-making, targeting new policy interventions and furthering public understanding of the state of our health.
- As the ONS continues developing the index, it is taking on board the Turing's recommendations to improve it by, for instance, adjusting how each component is weighted so that it does not exert too much or too little influence on the overall score.
- The <u>2020 results</u> from the index show the early effects of the COVID-19 pandemic. In the coming years, the index will help to facilitate a deeper understanding of the long-term impacts of shocks such as pandemics on multiple aspects of our health.
- The Turing-ONS team is engaging with experts on other indices, such as the United Nations Development Programme's <u>Human Development Index</u>, to gather advice on how results from the Health Index can be communicated to support policy-making.

Why was the Turing's ASG programme uniquely placed to do this?

- The potential for high-profile and far-reaching use of the Health Index within policy-making demanded a level of statistical rigour that, as a renowned national institute offering impartial expertise, the Turing was well-placed to provide.
- ASG's focus on impact and the Turing's agility in assembling a dedicated team led to a fast turnaround, meaning the ONS could start implementing the recommendations and improving the Health Index at an earlier stage in its development.
- The Turing provides a trusted source of expertise and continuity for use of similar methods in the future, either after refining them for future versions of the Health Index or extending them to other collaborative projects.

What's next?

- Ongoing development and improvement of the Health Index by the ONS based on the final recommendations of the Turing's statistical analysis, published in late 2022.
- The ONS is currently in conversation with public health agencies in Scotland and Wales about extending the Health Index to the rest of the UK.

"It's so important that we get the methods behind the National Health Index right, and that's exactly the type of information we got from the Turing's critical review."

Greg Ceely, Head of Health Index and Projections, Office for National Statistics

