UKHSA AND SLEEP CYCLE: COULD SLEEP APP DATA HELP IDENTIFY RESPIRATORY DISEASE TRENDS IN ENGLAND?

UK Health Security Agency and Sleep Cycle launch a research study focusing on how coughing and sleep-related signals can support earlier detection of respiratory trends in the UK

The UK Health Security Agency and Sleep Cycle are today announcing the beginning of a 12-week research collaboration to understand if privacy-preserved data collected through a sleep app can support traditional respiratory disease surveillance systems and early detection of respiratory virus patterns.

The study will analyse trends derived from anonymised and privacy-preserved data collected from the Sleep Cycle app between January 2023 and January 2026 – and Sleep Cycle's Cough Radar, a public visualisation tool that shows the data aggregated trends in nightly coughing intensity across different regions in England. The study then aims to explore if these signals can provide earlier visibility into respiratory disease trends, including viruses such as influenza, RSV, and Covid-19.

By analysing sleep-based signals such as nighttime cough patterns, the study will investigate how this data corresponds to the UK's existing hospital admission data and surveillance indicators, and whether it provides an earlier signal of rising infection rates.

This marks the first time that UKHSA will systematically assess sleep app data to better understand its potential as a tool for national epidemiological monitoring. It is also a significant step forward in Sleep Cycle's evolution from a consumer sleep app to a contributor in population-level health research.

Professor Steven Riley, Chief Data Officer at UKHSA, said:

"As an agency we are constantly exploring how we can use new technology, such as AI, to complement our existing surveillance systems, and this innovative partnership represents a potential important step toward integrating novel data streams into our national health intelligence.

"If successful, these insights could help us strengthen early warning systems for respiratory infections in the UK."

Erik Jivmark, CEO of Sleep Cycle, said:

"Sleep is one of the most consistent, passive windows into human health. With more than 3 billion nights across 180 countries in our library, we are excited to work with UKHSA to determine if sleep can reveal meaningful population-level signals that offer earlier visibility into respiratory trends.

"Our partnership with UKHSA reflects the strength of the nocturnal-breathing data we've gathered, and our commitment to helping public health agencies continue to build their proactive insight capability."

Traditional disease surveillance relies on data gathered from laboratories, hospitals, and community reporting systems. UKHSA also monitors a wide range of domestic and international indicators that track early signs of potential respiratory trends across the UK.

Sleep data, however, remains largely unexplored as a population-level signal.

No UKHSA data will be shared with Sleep Cycle as part of this study. Analysis will be conducted on UKHSA's secure systems by a dedicated UKHSA research team, supported by data scientists and epidemiologists from both organisations. Sleep Cycle contributes only anonymised, privacy-preserved and aggregated insights from its own technology and user-consented data library. UKHSA will compare those trends against signals from its existing surveillance ecosystem.

Sleep Cycle's data science and respiratory-signal research, including its proprietary audio-based cough detection technology, have demonstrated that nighttime cough behavior can correlate with real-world viral activity. This collaboration provides an opportunity to evaluate those findings within a national surveillance framework.

The collaboration supports both parties' commitment to advancing scientific understanding and responsible use of digital health data for public benefit.

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About Sleep Cycle
Sleep Cycle is dedicated to making healthy sleep accessible to everyone. Our app helps users to build hero habits, identify potential sleep issues, and gain valuable insights into their sleep patterns. Leveraging patented sound technology and over 3 billion analyzed sleep sessions, Sleep Cycle provides unparalleled accuracy and personalized guidance. As part of its broader partnership program, Sleep Cycle offers company partnerships including in-app promotions, tailored SDK solutions, and an extensive data library, enabling businesses to expand their offerings with sleep solutions and insights. Sleep Cycle is listed on Nasdaq Stockholm under the ticker SLEEP, with its headquarters in Gothenburg, Sweden.