News Release
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€1.5m diabetes data study to spot signs of linked health problems

A major research initiative using cutting edge data analysis techniques to better understand health complications experienced by people with diabetes launches today.

The €1.5 million (£1.3m) research programme at the University of Edinburgh is being supported by the AXA Research Fund.

It aims to identify symptom patterns that might indicate if people with diabetes are likely to develop complications, such as heart disease or blindness.

Patients could then be offered therapies to prevent or delay their illness, experts say.

The programme - which looks at both type 1 and type 2 diabetes - aims to improve care offered to patients and ultimately reduce strain on medical resources.

Around 4 million people in the UK are living with diabetes, a lifelong health condition that occurs when the body is unable to regulate levels of sugar in the blood.

In some people, it can lead to further health problems including heart disease, stroke and blindness. Estimates indicate the NHS spends around £14 billion each year treating the disease and its complications.

Not all people with diabetes experience complications. The ability to identify those most at risk is limited, experts say.

Researchers will securely access anonymised healthcare data from people with diabetes living in Scotland to investigate potential warning signs.

The project will use the latest big data analysis techniques to spot patterns that could provide early indications of a complication.

These insights will be used to develop computer algorithms that help predict which people are most at risk and likely to benefit from a targeted intervention.

The AXA Research Fund, a unique global Science Philanthropy initiative backed by the global insurer, is providing €1.5m support for the programme. The AXA Research Fund has committed nearly €150m in close to 500 leading fundamental research projects on risks in order to foster scientific exchanges and knowledge-sharing in society and enlighten decision making on risk related issues.
The project is being led by Professor Helen Colhoun, AXA Chair in Medical Informatics and Life Course Epidemiology at the University of Edinburgh. She said: "Quantifying, understanding and predicting risk in diabetes is important to our ability to optimise disease management and prevention of complications. The research funding we have received will allow us to focus on this important aspect of diabetes research."

Sonia Wolsey-Cooper, Head of Corporate Responsibility, AXA UK, said “Professor Colhoun’s project will use cutting edge big data analysis, which has the potential to lead to a greater understanding of diabetes, and other diseases, and has the possibility to open up countless opportunities to better manage diabetes. The potential benefits of the project both for patients and for the NHS could be significant.”

The project is being launched at a scientific symposium at the University of Edinburgh. Experts will discuss how using healthcare data can help them to better treat diabetes and other diseases – including cancer and psychiatric disorders.

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