

Dr Nicola Davies outlines how you can trace your family health history and identify potential risks to your mental, physical, and social well-being.

What ailed your ancestors?

Housing conditions bred disease in the Glasgow slums, photographed in 1861 by Thomas Annan.

Many factors that influence or determine our health and well-being have been inherited from our ancestors. Indeed, it has been estimated that about 3,000 of the 10,000 known diseases have a genetic basis. Wouldn't it be great if we could identify our risk of disease without the arduous process of genetic testing?

Researching your family health history

Most genealogical research is motivated by the sheer curiosity of piecing together a puzzle that unearths family secrets. Increasingly,

however, the medical relevance of the family tree is gaining some well-deserved attention. Medical genealogy, as this area of family history research is known, is becoming a popular pastime. It is even being used as a preventative tool for those illnesses that we have some control over through lifestyle or health screening.

The importance of medical genealogy can be seen within the Human Genome Project, which is the largest international collaboration ever undertaken specifically to establish the role of genes in health. As part of this project, scientists have

identified the BRCA2 and MSH2 genes, which are associated with an increased risk of breast and colon cancer, respectively. It was also found that the FAD gene comprises five variants, which together indicate an almost 100 per cent risk of developing Alzheimer's disease. With breakthroughs such as these, there is no doubt that learning about the health of our ancestors can be beneficial.

The good news is that you don't have to undergo genetic testing in order to identify your risk of certain diseases. Using your genealogy research skills and a decent helping of sheer determination, it is possible to uncover records that illuminate medical secrets once hidden in the shadowy branches of your family tree. Here are four simple steps to help you.

1 Start with what you know

Researching your ancestry to determine possible genetic ailments is significantly more complex than merely finding out where your great-grandfather was born. However, just as when you are tracing your descendants, the best place to start is with what you know. Start by recording your own medical and health information, and then go back a generation at a time. Remember that since distant relatives share less genetic material than first degree relatives, your risk is reduced the further back you go.

Key health information to record:

- Birth date and location – this provides important environmental information to establish if an ancestor's illness might be environmental rather than genetic; could that persistent wheezing be down to working in the mines or is it a symptom of undiagnosed asthma?
- General health and lifestyle information – such as diet, smoking, alcohol use
- Sensory problems – such as vision and hearing
- Ethnicity – some genetic illnesses are more likely in particular ethnic groups
- Past and present major illnesses – such as

