

What have we learned from the Renfrew and Paisley Study and the Midspan Family Study in the past 10 years?

A quick recap of the studies

The Renfrew and Paisley Study started in 1972. Over the next four years, more than 8,300 women and 7,000 men living in the two towns and aged between 45 and 64 volunteered to take part. They provided a lot of information about their circumstances and health, various measurements and medical tests were done and a blood sample was taken.

The Midspan Family Study began in 1996. A lot of married couples had taken part in the original Renfrew and Paisley Study; we asked their adult offspring if they would like to join a Family Health study. 1,298 daughters and 1,040 sons kindly said yes. Everyone answered lots of questions, underwent tests and gave a blood sample.

Over the years since the studies began, the NHS has been sending information to the study teams, securely and confidentially, about all the hospital admissions, cases of cancer or deaths of everyone taking part in either study who gave their consent. This has allowed us to learn about the links between people's health and circumstances earlier in life and the illnesses and causes of death they later experience. It helps us understand why some people die young and others live well into old age. This information is vital for persuading the government to take action to improve health and guiding doctors to give their patients the best treatment.

What have we learned?

The studies show that smoking has caused more damage to people's health in Renfrew and Paisley than anything else. Some of the first reports showed how common lung cancer was in the towns, almost all of it due to smoking. Since then, we've shown that people who keep smoking live on average about 10 years less than those who have never smoked, regardless of whether they're rich or poor. On the other hand, anyone who stops smoking can expect



their health to improve and to live longer. We have also found that non-smokers who live with a smoker are more likely to get diseases caused by smoking, because they're breathing in someone else's smoke. This helped persuade the Scottish Government to ban smoking in public places in 2006. Most people agree the ban has been a huge success.

Measurements of outside air pollution were made across Scotland in the 1970s, around the time the Renfrew and Paisley Study started. Using these, it's been shown that people living in areas where pollution was high, mainly due to smoke from factories and coal fires, were more likely to die early from lung and heart diseases. Many people in the study, especially men, also had jobs where they were exposed to smoke, dust or fumes. It was perhaps to be expected, therefore, that even many non-smokers in the Renfrew and Paisley Study had signs of lung damage. Both studies have shown that the people with weaker lungs were more likely to die earlier, whether they were smokers or not. As far fewer people are smoking these days, and coal fires, belching factory chimneys and dusty or smoky workplaces are a thing of the past, the air we breathe is much cleaner than it was. This is good for us all. For those who are still smoking, the studies' message is clear: quitting is the best way to improve your health.

There is constant talk in the news these days about how the population is getting fatter and the negative effect this is having on our health. The Renfrew and Paisley Study showed that being overweight was already common in the 1970s. It found that the more overweight you were, the more likely you were to get diabetes or die earlier. The Family Study showed that the children of overweight parents were more likely to be overweight themselves. Finding a solution to the problem of obesity is one of the biggest health challenges Scotland is facing.

The studies have shown that, on average, people who had the humblest backgrounds and lowest paid jobs and who lived in the poorest areas had the worst health. However, there is good news from the Family Study. Very few of the offspring did worse than their parents, with almost a third having jobs of a higher status, improving their prospects of better health. On the other hand, we found that some people in the Renfrew and Paisley Study lived to a ripe old age, despite being relatively badly off. They were most likely to be women who had never smoked and didn't become overweight. There's an important lesson there for everyone.

Thanks

Many researchers have worked on the Renfrew and Paisley and Family Studies over the years. None of this would have been possible without the generosity of the people of Renfrew and Paisley who gave up their time (and a little bit of their blood!). Many thanks.

More information

You can learn more about these studies on the University of Glasgow's Midspan website at www.gla.ac.uk/midspan