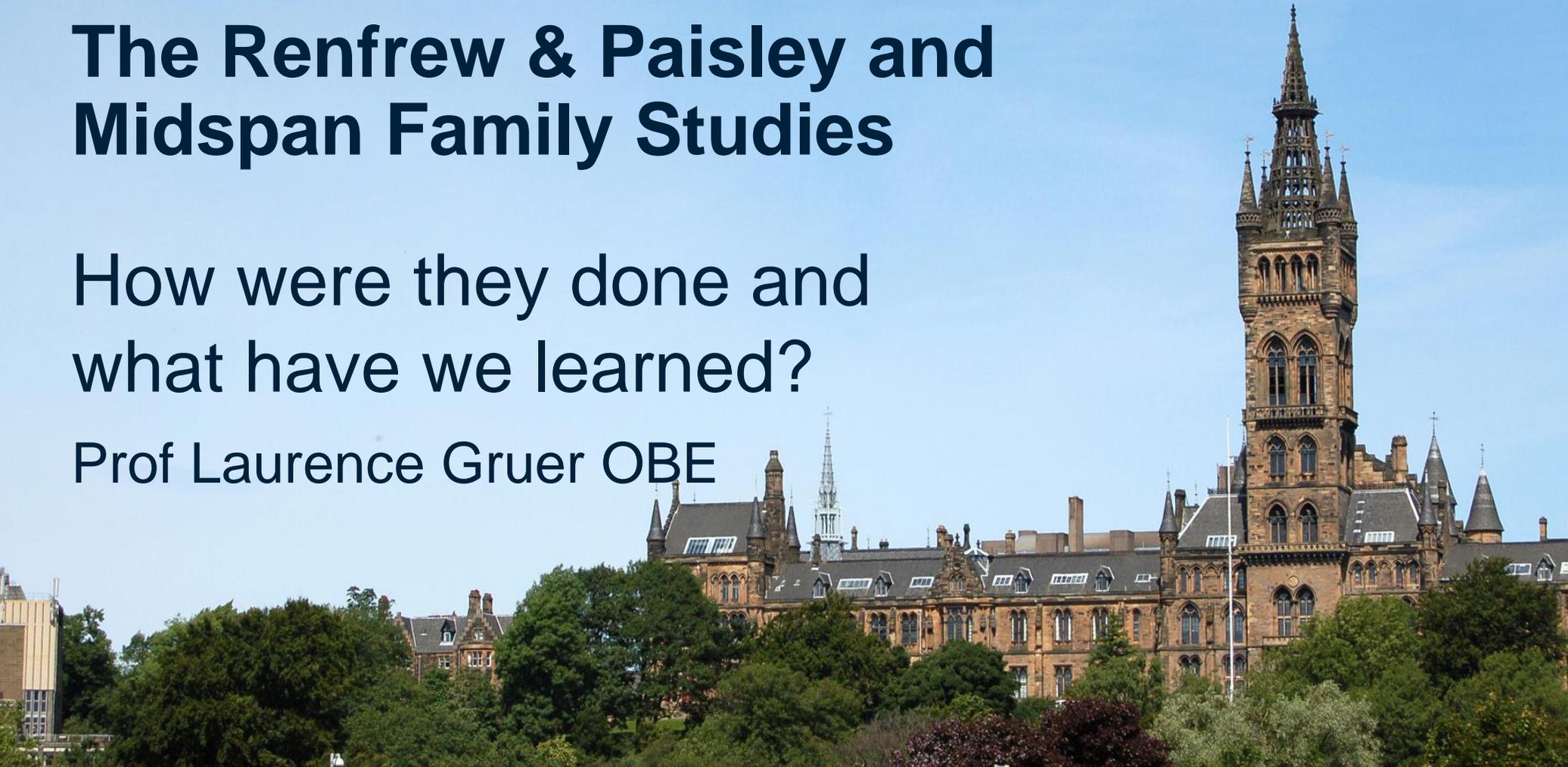


# The Renfrew & Paisley and Midspan Family Studies

How were they done and  
what have we learned?

Prof Laurence Gruer OBE



- **Brainchild of Dr Victor Hawthorne, a public health doctor and researcher. Now aged 93!**



- He had started in the 1960s doing research aimed at helping to control **tuberculosis**
- He wanted to find out more about why **heart and lung diseases** were so common in the west of Scotland, so that more could be done to prevent them
- To do that he needed to get **information from a lot of people** about many aspects of their lives, while they were still fairly healthy, then find out what happened to them in the years to come.

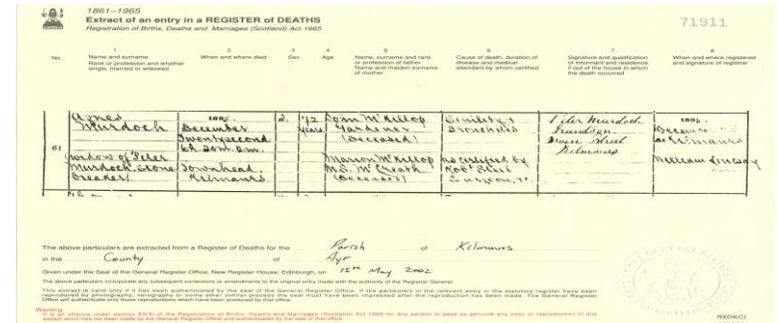
- He chose **Renfrew and Paisley** as typical Scottish towns
- He wanted to recruit as many people as possible **aged 45-64** – not too young and not too old!
- First he got the **Boy Scouts** to go round all the houses and find out where all the people aged 45-64 lived
- 97% of households replied to his invitation
- Recruitment went on from **1972-1976**, using a team of **40 workers**

- Over **8300 women** and **7000 men** volunteered
- **80%** of all 45-64 year olds in the towns!
- One of the first studies like this to have so many **women**
- A **good cross-section** of middle-aged Scottish people
- A fantastic response
- A tribute to the local





- Agreement with NHS to get **secure and confidential notification** of dates and causes of death, hospital admissions and cancers



1891-1965  
Extract of an entry in a REGISTER OF DEATHS  
Registration of Births, Deaths and Marriages (Scotland) Act 1965

71911

1	2	3	4	5	6	7	8	
No.	Name and surname Place of birth and usual residence, married or widowed	When and where died	Sex	Age	Name, surname and rank of informant or other name and relation surname of relative	Cause of death, duration of disease and medical attendance by whom certified	Signature and qualification of informant and residence, if at all of the house in which the death occurred	When and where registered and signature of registrar
61	James Murdoch Warden of Green Murdoch Stone Breaker	1892 December Greenhead Edinburgh	M	72	John Malloy New Edinburgh (Greenhead)	Stroke Stroke no certified by M.D. or other Surgeon	John Murdoch Greenhead James Murdoch Edinburgh	1892 as Registrar William Gray

The above particulars are extracted from a Register of Deaths for the  
County of Perth of Kilmara

Given under the Seal of the General Register Office, New Register House, Edinburgh, on  
15<sup>th</sup> May 2002

The above particulars (including any independent certificate or certificate in the original entry made after the ordinary of the Register Office)

This extract is valid only if it has been authenticated by the seal of the General Register Office, if the particulars in the abstract entry in the statutory register have been  
authenticated by a corresponding certificate of some other public officer the year in which they have been registered after the registration has been made. The General Register  
Office is not liable for any error in the particulars of any entry in the register.

Warning: This extract is valid only if it has been authenticated by the seal of the General Register Office and is not to be used for any other purpose.

- Able to find out **who got what diseases** and when
- Then **link this to the information everyone provided** at the beginning.
- Now followed up for around **40 years!**

- **The Midspan Family Study**
- **4064 married couples** in the R&P study
- In **1996**, their offspring invited to take part in new study



# PAISLEY

24p

## Daily Express

YOUR LOCAL NEWS

No. 37088

TUESDAY, SEPTEMBER 7, 1993

# SEARCH FOR 3000 'GUINEA PIG' KIDS

## Children of 70s families sought for new health tests

**A MASSIVE search has been launched to find thousands of people who took part in a unique health study carried out in Paisley and Renfrew more than 20 years ago.**

They are wanted to help in a new survey which will investigate why some families experience heart disease and cancer more than others.

The move comes as findings of the first survey, carried out between 1972 and 1976, show that for a given level of smoking the rate of lung cancer in Paisley

By Anne Dalrymple

and Renfrew is twice as high as in other populations.

Results also show that the statistics are the same for heart attacks and cholesterol count.

This time round, however, it's the children of the 4000 parents involved in the original study who are desperately wanted by researchers at Glasgow University.

"Out of the 15,000 people who originally took part there are just over 4000 married couples," said Dr Graham Watt one of the research team.

"The problem for us is trying to contact them. We need their help to establish the whereabouts of their children so that we can go on and ask them if they would be willing to take part in this new study some 20 years on.

"On the basis of our own pilot study it is estimated that there are about 2000 to 3000 children still living in the Paisley, Renfrew and Glasgow areas."

"Our task is to try and find them."

Dr Watt added: "Despite all the advances in molecular biology, a huge limiting factor in understanding major diseases is the problem of finding populations which are suitable to study.

"There is probably nowhere else in the world just now where it is possible to carry out a study of the type that we propose.

"It would take other researchers 20 years to establish a similar opportunity to the one which exists at present in Paisley and Renfrew."

Between 1972 and 1976 when the original study was carried out 80 per cent of the population in Paisley and Renfrew took part. Measurements of blood pressure, cholesterol, glucose, height, weight and lung function were all taken.

It is the only study of cardiorespiratory disease and risks whose results can be

applied directly to health problems of people in the West of Scotland.

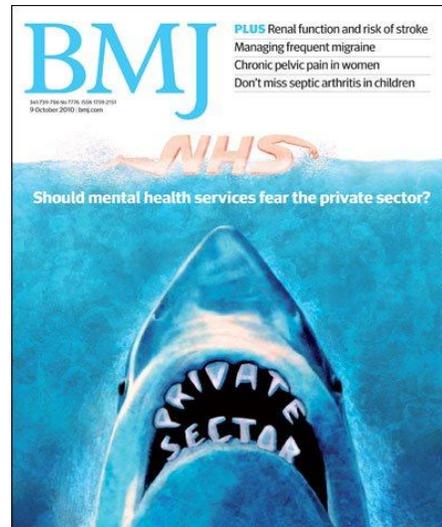
Dr Watt said: "The results have been very useful in explaining why there is so much heart disease and cancer in this part of the world. What we want to look at now is why some families suffer from these diseases more than others."

"The only people who can help us today with the vital information we need are the children of the couples involved in the original study."

If you know where they are now you can contact the research team on 041-946-7120 extension 1446 for more information.

- **The Midspan Family Study**
- **1298 daughters** and **1040 sons** agreed
- Same questions, measurements and samples as R&P study
- Followed up for **18 years**

- **Many researchers over the years.**
  - Charles Gillis, Carole Hart, Graham Watt, Phil Hanlon
- **200** papers in **79** different medical and health journals



Sharing knowledge  
from which **all can  
benefit**

- How do you do this sort of research?
- Ask questions, e.g.
  - **Who** is most likely to get **a heart attack** and **why** ?
  - After many years of waiting and watching, the number of people getting heart attacks grows

## Compare groups

- Smokers and non-smokers
  - People with high and low blood pressure
  - People in manual or non-manual jobs
- 
- Using computers, can do statistical tests to see which groups are more likely to get heart attacks.
  - Then carefully interpret the results

- **Other questions the researchers have asked**
  - Is smoking bad for our health?
  - Does air pollution cause health problems?
  - Does your job or where you live affect your health?
  - Do tall people live longer than small people?
  - Does job dissatisfaction lead to heart disease?

- **Here are some of the main things we've learned from this research.**

- **Renfrew and Paisley Study**
- **Died**
- **91%** of men and **84%** of women
- **Lived to at least 80**
- **36%** of men and **55%** of women



## MAIN CAUSES OF DEATH OVER 40 YEARS

### MEN

Heart Disease	31%
Cancer	28%
Stroke	11%
Respiratory	11%
Other	19%

### WOMEN

Cancer	25%
Heart Disease	23%
Stroke	16%
Respiratory	11%
Other	25%

RENFREW AND PAISLEY FOLLOW UP TO 2012



- **Thumbs down for smoking!**
- Almost all lung cancers were in smokers
- Smokers got lots of other nasty diseases
- On average, smokers lived about 10 years less than non-smokers – rich or poor
- Non-smokers who live with a smoker more likely to get lung cancer and other diseases



**This research helped to get the smoking ban in 2006**

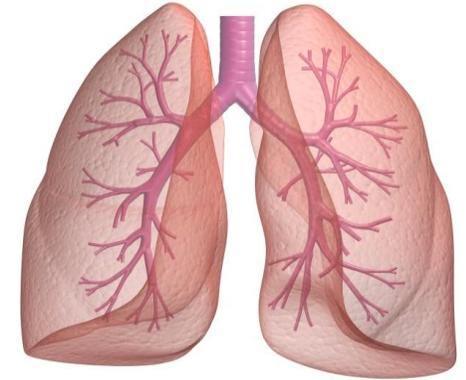
- **Air pollution is bad for your health!**



- Regular measurements of **black smoke** air pollution around Scotland in 1970s.
- Estimates of air pollution levels close to where study members lived.
- Where **air pollution was higher**, study members more likely to **die early** from heart or lung disease

- **Importance of healthy lungs**

- People with weak lungs die younger.
- Poor nutrition in womb and infancy?
- Lung damage very common due to smoking, air pollution, dust and fumes at work
- Asthma more common in offspring than parents



- **Air quality much better now**
- **Smokers: quitting the surest way to improve health**

- **R&P study**
  - 60% men and 52% women **overweight** in 1970s
  - The more overweight, the more likely to get **diabetes or die early**
- **Family study**
  - Children of overweight parents more likely to be overweight themselves
- One of the **biggest** problems Scotland faces





- **Who have lived the longest?**



- Women who didn't smoke or get overweight, whether rich or poor!

- These are just a few of the many things the Midspan Studies have found.
- They show just how much can be learned from research like this
- **Impossible without the help of so many generous people in Renfrew and Paisley**

