



My father Max Wilson and the Principles and Practice of Screening for Disease

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Principles and Practice of Screening for Disease

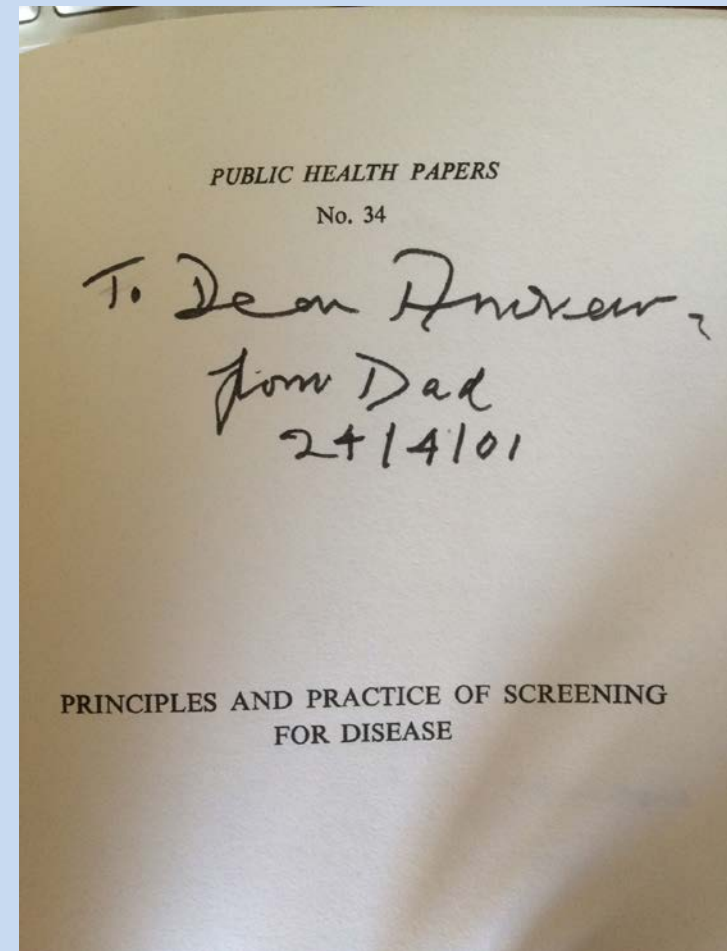


- My father, James Maxwell Glover Wilson, wrote the WHO monograph Principles and Practice of Screening for Disease with Gunnar Jungner. It has been described as a public health classic and a landmark publication¹.

¹Andermann A et alia. Revisiting Wilson and Jungner in the genomic age: a review of screening criteria over the past 40 years. Bull World Health Organ. 2008 Apr; 86(4): 317–319

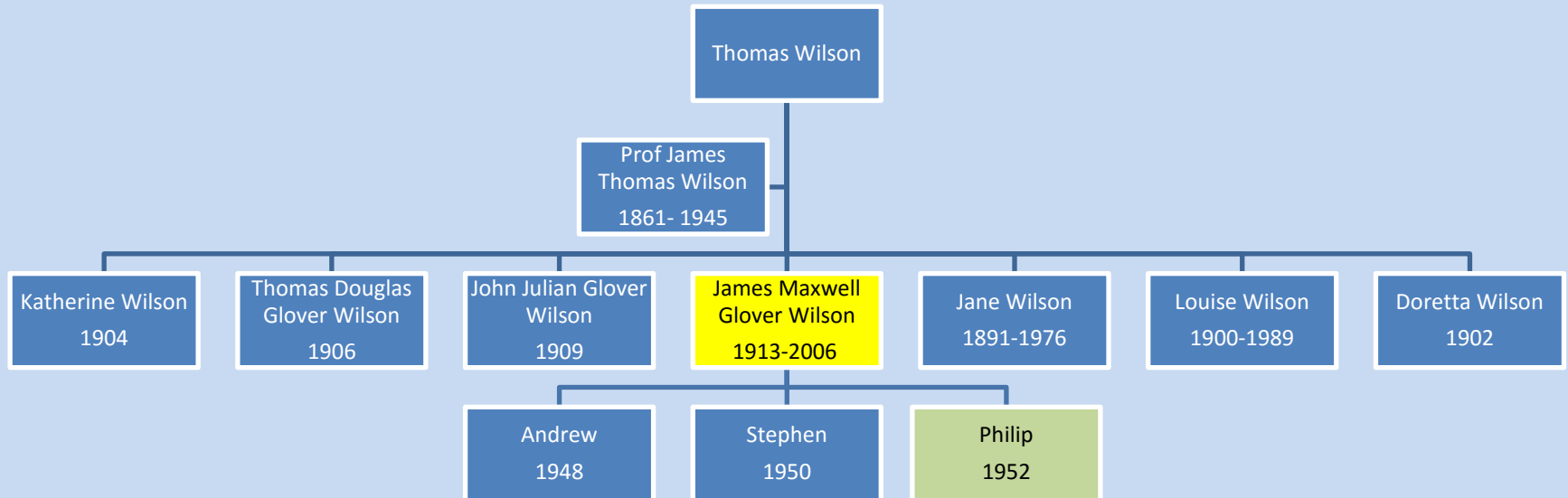
How Dad came to write the book

- We're not completely sure!
- Although it was published in 1968 my Mother Lallie, my brothers and I were not really aware of Dad's book until the 2000s. It was in 2001 that Dad gave his copy to my eldest brother Andrew.



Who was my father?

Dr James Maxwell Glover Wilson



Dad was born in Edinburgh, Scotland the youngest son of James Thomas Wilson, who was latterly Professor of Anatomy at Cambridge.

Education

- He was educated at Oundle School, like his older brothers Douglas and John.
- Douglas, John and Dad all went to St John's College, University of Cambridge where John studied law and Dad and Douglas medicine.
- Both were taught anatomy by my grandfather James Thomas. He was not easy on them.



Oundle School, Northamptonshire

Turning points



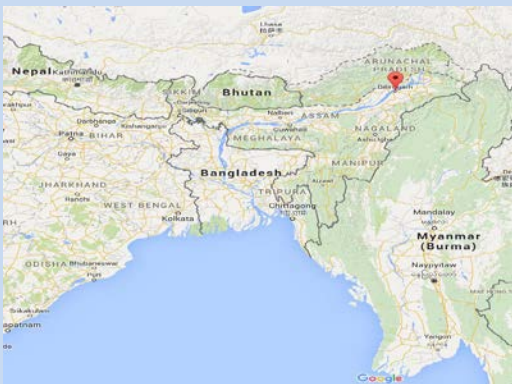
- Looking back there do seem to be some turning points in Dad's life without which he may not have written the Principles of Screening for Disease.



- In 1954 when I was 2 years old Dad had been working as a Consultant Physician at a small hospital in Edinburgh in Scotland. His career had progressed well to temporary lecturer at the Western General Hospital although not exactly as he had hoped.
- We think that this dissatisfaction may have encouraged Dad to look for work elsewhere.
- Friends with the anaesthetist Dr Harold Griffith who was born and educated in India
- Perhaps why 'elsewhere' turned out to be a job as physician for the Doom Dooma Tea Garden in Assam, India.



By sea to India - the tea gardens



- In 1954 Dad took us all on the Polish ship 'Batory' to Assam, India , where he was **Principal Medical Practitioner** for the Doom Dooma tea estates which sold tea to Brooke Bond.
- The area was once covered with jungle, mainly populated by elephants. The name, Doom Dooma, is thought to sound like the footfalls of elephants running.
- The Assam tea gardens lie in the lowlands on either side of the Brahmaputra River, south of the eastern Himalayas and are amongst the largest tea plantations in the world.

Living in India

- We lived in a bungalow on stilts not far from the Brahmaputra River where we went for picnics and swam unaware of the crocodiles lurking nearby.
- I stayed at home with Mum whilst Dad worked in the hospitals and latterly my brothers went to boarding school in Scotland.



Principal
Medical
Officer's
house



Dibru River

Me

Stephen

Mum



Introducing Axel Höjer



- Axel and his wife Signe were key figures in the construction of the Swedish welfare state
 - Director of the Swedish Medical Board 1935-52
 - In a 1948 report he argued that Swedish public health care should now shift its focus to disease prevention: monitoring the healthy rather than managing the sick
 - Höjer's report recommended setting up a pilot population health screening project
- (however government funding for screening not available until 1961 [[Värmland project](#)])



Meeting Axel in India

- In 1956 after he retired Axel had accepted a position of Professor of Preventive Social Medicine in Assam Medical College, Dibrugarh. He moved into a small house surrounded by tea plantations.



Prof Hojer looking out over the Brahmaputra with a sprig of *camellia sinensis* (tea).



Dad met Axel at the Assam branch of the British Medical Association in Panitola, Dibrugarh

Friendship

- We, the Wilsons, drank tea and spent time together with the Höjers



Axel

Signe

Me

Mum



Dad

Signe

Axel



- After 3 years in India Mum was becoming unhappy with her life there and wanted to return to England.
- Axel recommended to Dad that a **career in Public Health** would be a good one to follow
- Mum brought me home to my brothers in 1957 and Dad followed after putting his affairs in order.
- We lived south of London



The Ministry of Health, London



Alexander Fleming House designed by Hungarian architect Erno Goldfinger

- Later that year, 1957, Dad secured a post in the Ministry of Health in London as Senior Medical Officer, at Alexander Fleming House.
- His boss was [Sir George Godber, Deputy CMO](#), who 'had a habit of selecting young people, helping them in their career, and using their talents.' ^{Ref}

Ref. Memorial tribute to Sir George Godber, 1908 -2009, by Dr Geoffrey Rivett.

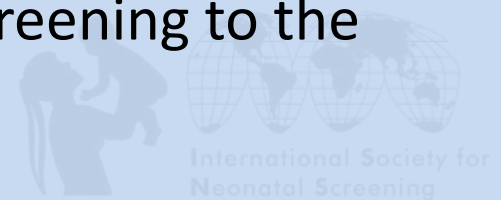
Sir George Godber



- In March 1961 George, now the CMO at the Ministry of Health, was appointed as the UK representative on the Executive Board of the World Health Organisation
- George had become aware of the importance of population screening



- The following year, 1962, Dad went on a WHO travelling fellowship to study multiphasic population screening to the USA and Canada.





Why go to North America?



- The great question for the Ministry of Health (ie the National Health Service) was how far to accept the claims being made for health screening as had developed in North America
- In April and May 1962 my father visited 97 people in 15 cities in the East, Mid-West and West and also Vancouver, Canada. Whilst too many to acknowledge in this presentation, people included:
 - Dr Lester Breslow, Division of Preventive Medical Services, California State Health Dept.
 - Dr Morris Collen from Kaiser Permanente Medical group, Oakland, California,
 - Dr Quentin Remein, Washington, D.C.
 - Dr Morton Levin, Kress Institute, Roswell Park Hospital, Buffalo, NY



Findings from the USA

- Back in 1962, mass screening has been carried out in the USA for nearly 15 years without it having been possible to make a full assessment of its value as a public health measure for the general population. In Dad's opinion the reasons for this problem were
 - a) The mobility of the population
 - b) the difficulty with welding together a public health screening programme which would be continued with private medical care (of the identified cases)
 - c) obtaining a sufficiently representative population to take part in the scheme.



JMG Wilson. Multiple screening.

Lancet July 13; 51-54: 1963



Dad reported his findings and thoughts in the *Lancet* which included:

- “Without a sound knowledge of the natural history of the conditions being screened, trouble can soon arise.
- Unless treatment reduces illness ... only harm will be done by bringing the condition to the patient’s attention”



Meetings and connections



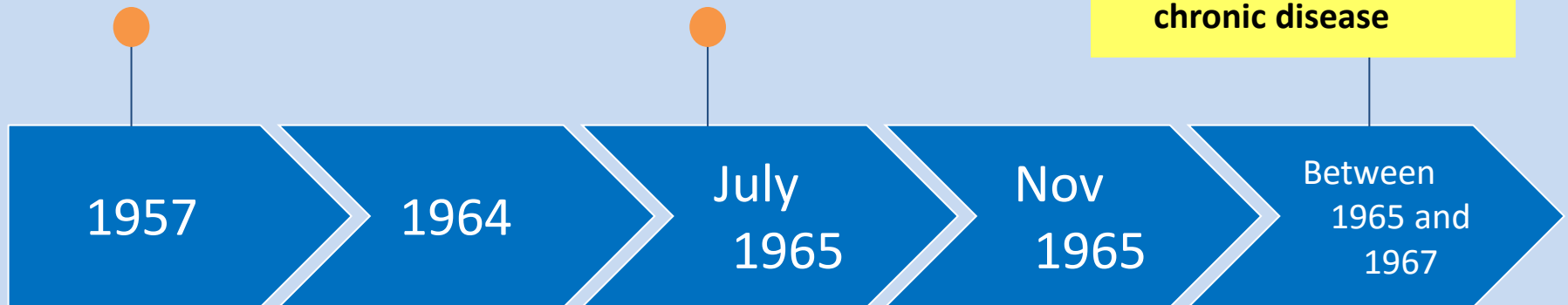
WHO meeting Amsterdam

George Godber present for UK
Lester Breslow, USA, as Consultant

NHS meeting Oxford

Wilson 'Some principles of early
diagnosis'
Jungner 'Chemical health screening'

**Dr Fred Grundy, WHO,
asked W & J for a
briefing paper on
early detection of
chronic disease**



WHO meeting Prague

George Godber chaired
Gunnar Jungner gave a paper

WHO meeting Oslo

Dr Fred Grundy present as ADG WHO
Wilson gave a report



Report from the Oxford meeting in 1965



Dad proposed the following 10 requirements:

They are *almost* identical to those *Principles of Early Disease Detection* in the 1968 WHO monograph No 34

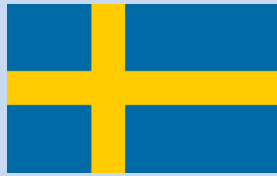
Table 3

SUGGESTED REQUIREMENTS FOR SATISFACTORY CASE-FINDING

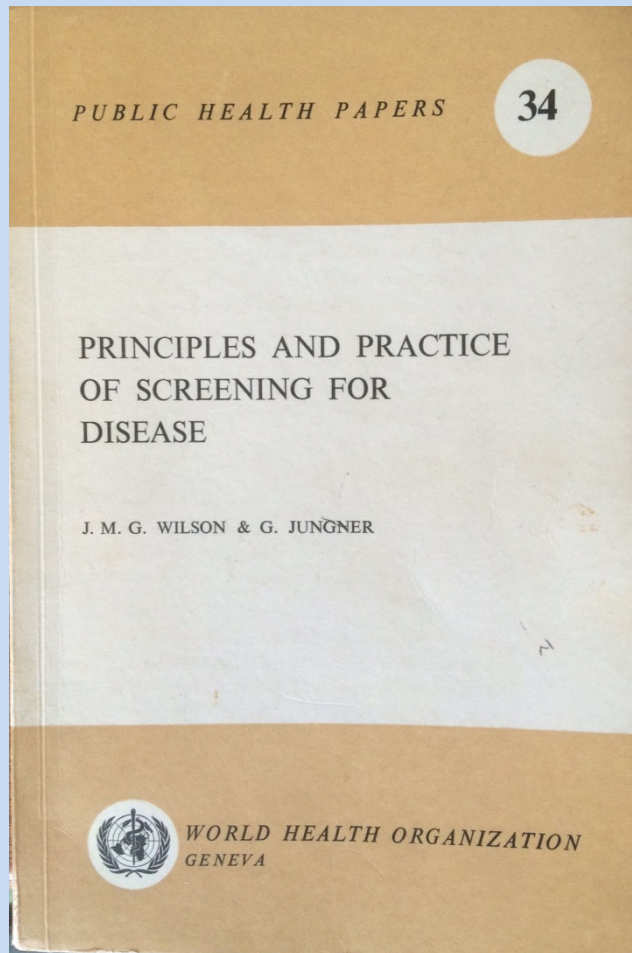
1. Important problem.
2. Accepted treatment.
3. Facilities for diagnosis and treatment.
4. Recognisable latent or early symptom stage.
5. Suitable test or examination.
6. Test acceptable to population.
7. Natural history adequately understood.
8. Agreed policy on treatment.
9. Cost related to other medical care expenditure.
10. Continuing process.

- (1) The condition sought should be an important health problem.
- (2) There should be an accepted treatment for patients with recognized disease.
- (3) Facilities for diagnosis and treatment should be available.
- (4) There should be a recognizable latent or early symptomatic stage.
- (5) There should be a suitable test or examination.
- (6) The test should be acceptable to the population.
- (7) The natural history of the condition, including development from latent to declared disease, should be adequately understood.
- (8) There should be an agreed policy on whom to treat as patients.
- (9) The cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
- (10) Case-finding should be a continuing process and not a "once and for all" project.

This is possibly the first appearance of the 10 Principles.



My father's copy



International collaboration



The screening 'Man from the Ministry'?



Whilst Dad became responsible for commissioning (others to do) health research he was also invited to give reports and briefing papers at WHO and other meetings where population health screening was discussed:

1. 1968, London, Meeting to discuss the dietary treatment of PKU
2. 1969, London, Conference on the study of inborn errors of amino acid and carbohydrate metabolism in infants
3. 1971, Geneva, WHO Technical Discussion 'Mass Health Examinations: a review of the subject' compiled and written by Dad
4. 1975, Erskine, Scotland, conference of Chief Administrative Medical Officers, scientific session on screening





Later years

- In 1976 Dad was offered the post of Deputy Chief Medical Officer in London (Sir George Godber had retired as CMO in 1973)
- Dad declined, he had become disillusioned
- Took up a research fellowship post with old friend Dr Michael Heasman at the Scottish Health Service Common Services Agency in Edinburgh
- Dad retired in 1978 aged 65
- He died in a nursing home in 2006 aged 93





Our recollections

- Dad was a quiet, studious man who loved books, music, history and outdoor activities. He loved reading stories to us in the front of the fire in our cottage in the Scottish Highlands.
- He was exceptionally hard working. During the time we lived at Redhill and Dad worked at the Ministry of Health, he left for work on the train to central London at about 7 am in the morning, returned about 7 pm, had his dinner and worked for another few hours. In sunny weather he would set up an old wall papering table in the garden, spread out all his papers and work outside.

James Maxwell Glover Wilson

