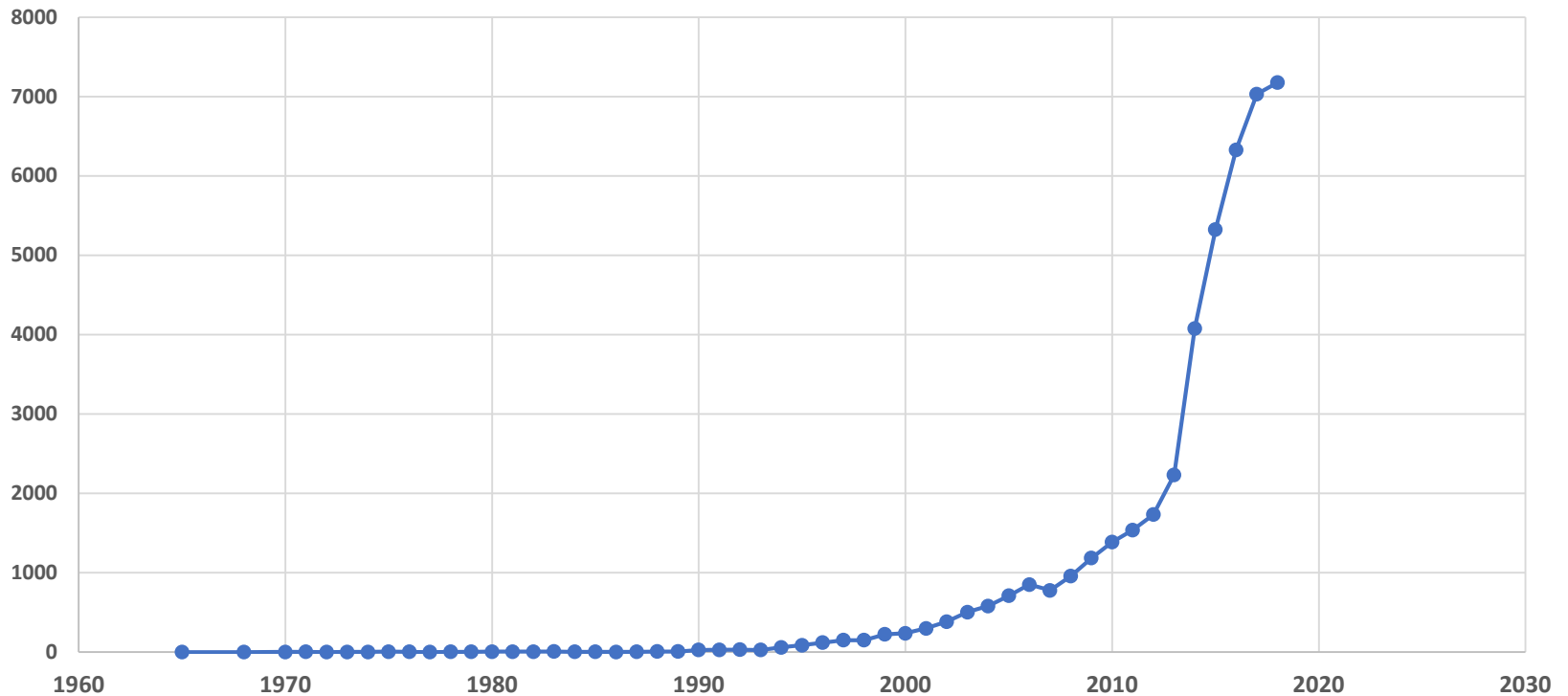


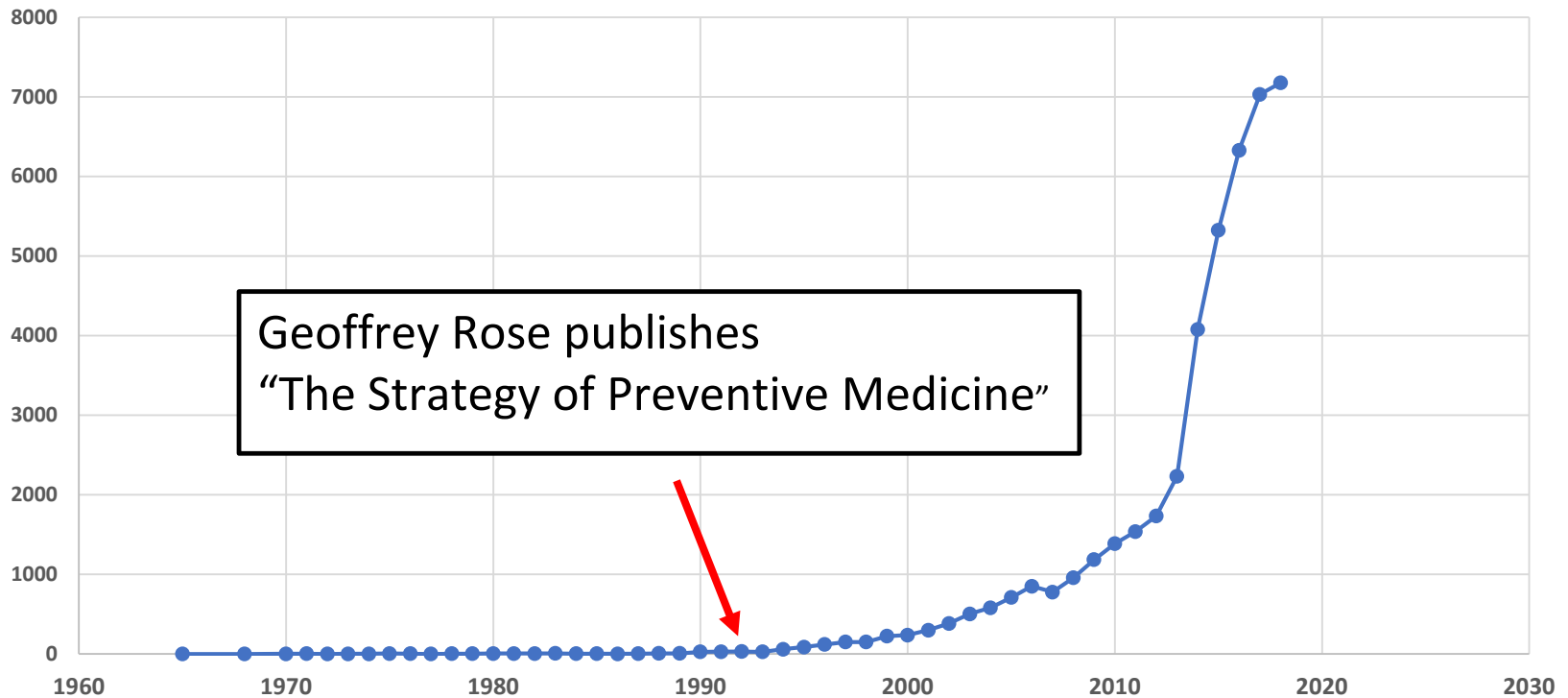
# Population health: Something new and exciting

NUMBER OF MEDLINE CITATIONS WITH THE SEARCH TERM  
"POPULATION HEALTH" (SINCE 1965)

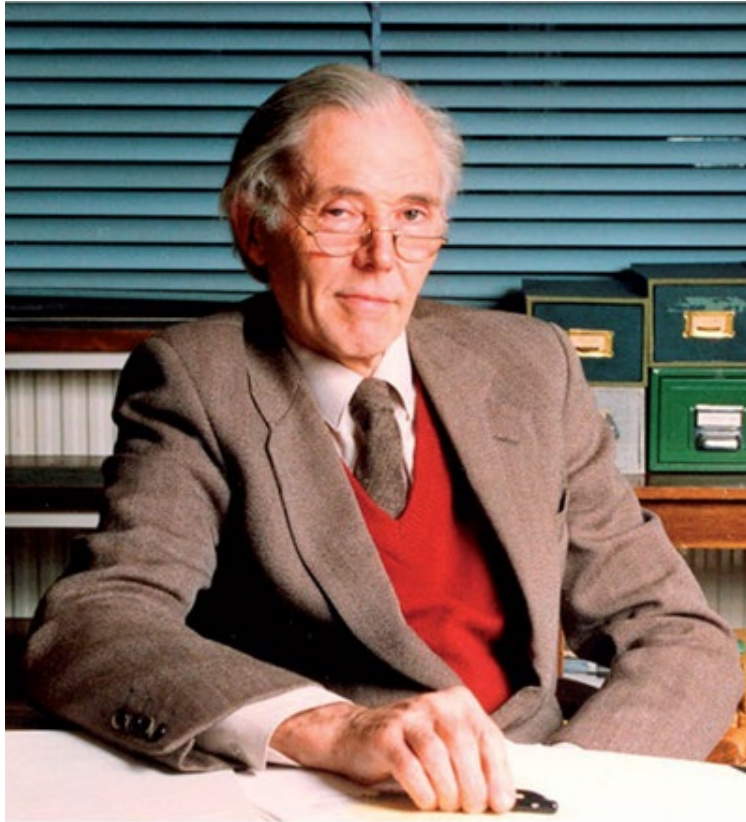


# Population health: Something new and exciting

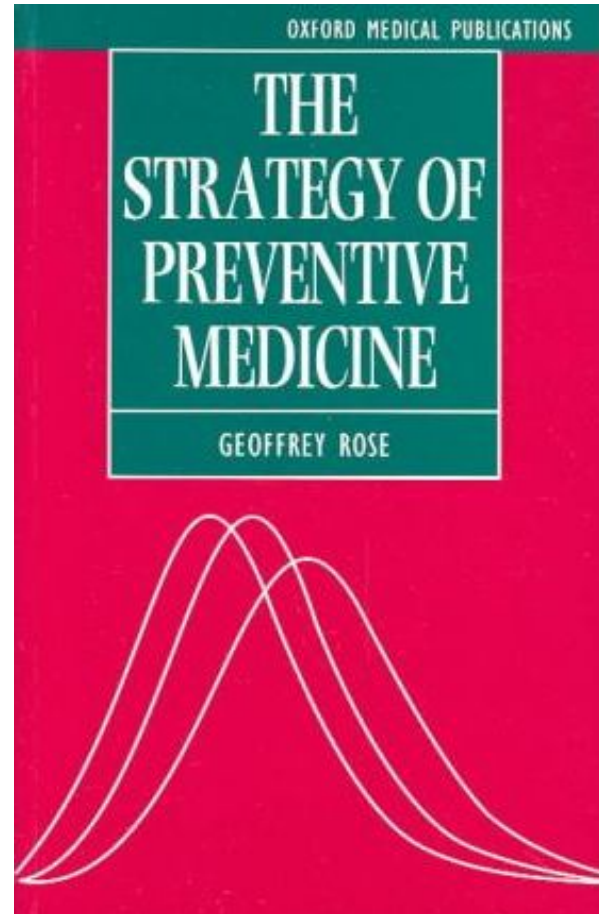
NUMBER OF MEDLINE CITATIONS WITH THE SEARCH TERM  
“POPULATION HEALTH” (SINCE 1965)



# Geoffrey Rose: The architect of the population health movement

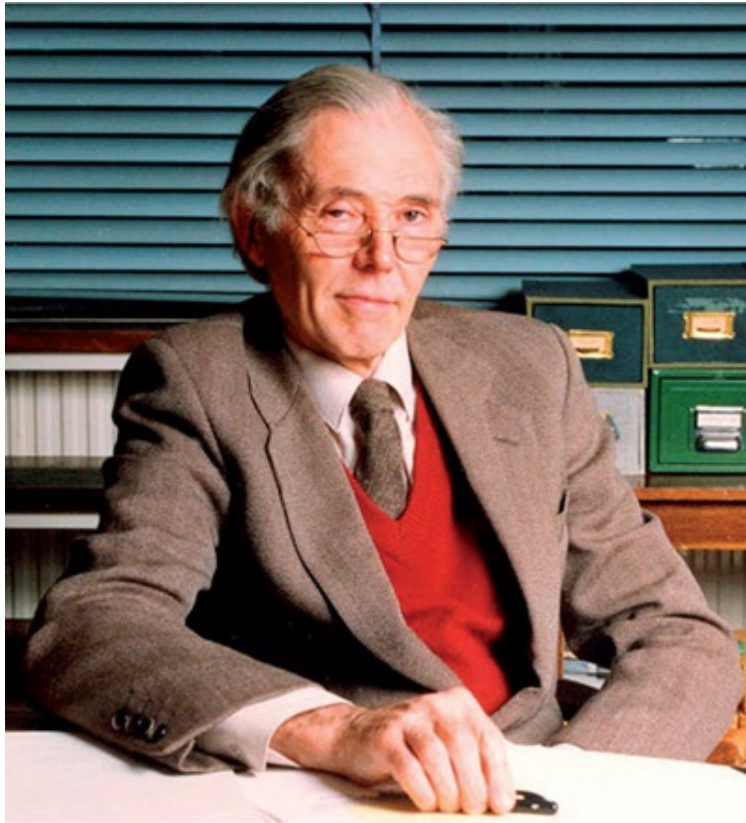


**Geoffrey Rose**



Who was Geoffrey Rose  
(1926-1993)  
and what was his theory?

# Geoffrey Rose: The architect of the population health movement



**Geoffrey Rose**

- 1926-1993
- Cardiovascular epidemiologist
- Led large international studies of cardiovascular disease in the 60s and 70s
- Had trained under George Pickering in the 1950s

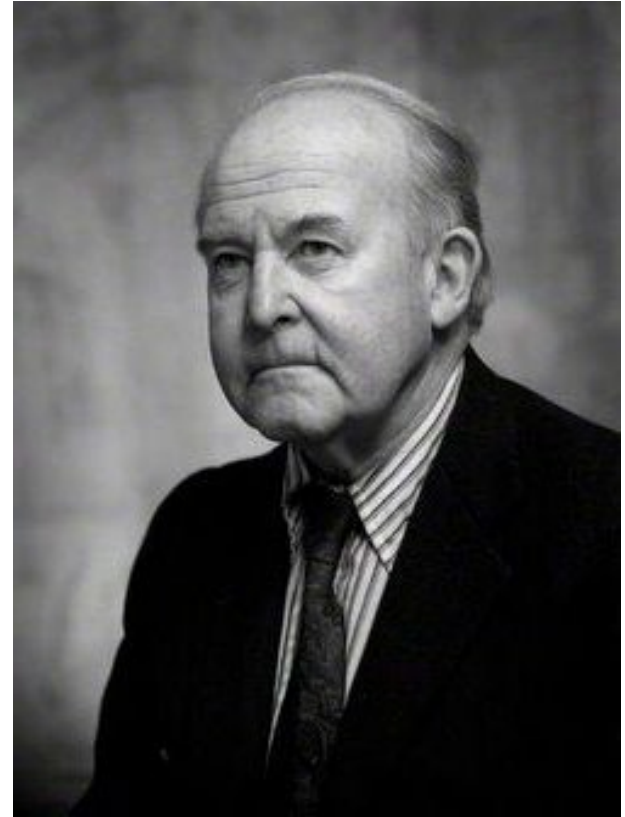
A bit of medical history...

# The Platt-Pickering Debate (1955-1968)

Lord Robert Platt (1900-1978)

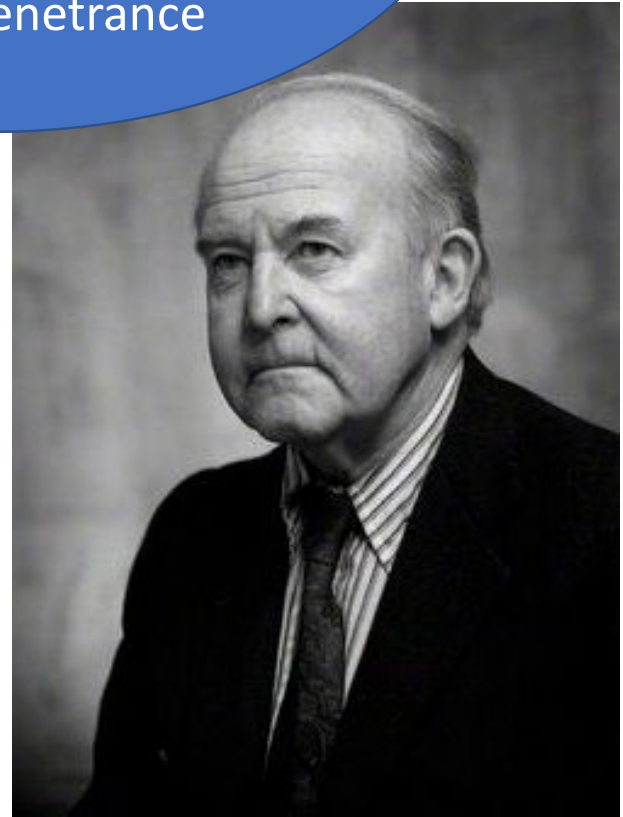


George W. Pickering (1904-1980)



# Platt-Pickerings (1955-1968)

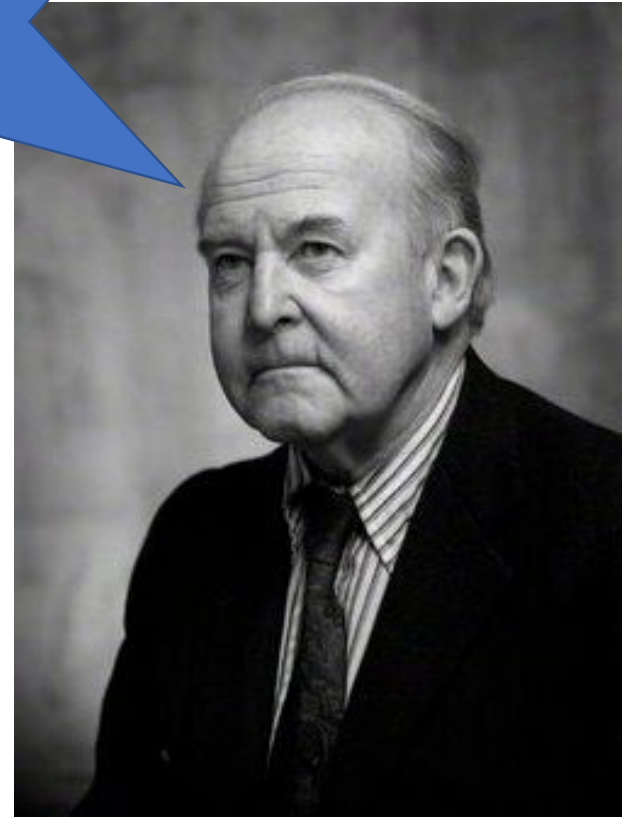
Hypertension is an inherited disorder that follows a Mendelian pattern. It is a trait transmitted by autosomal dominance with variable penetrance



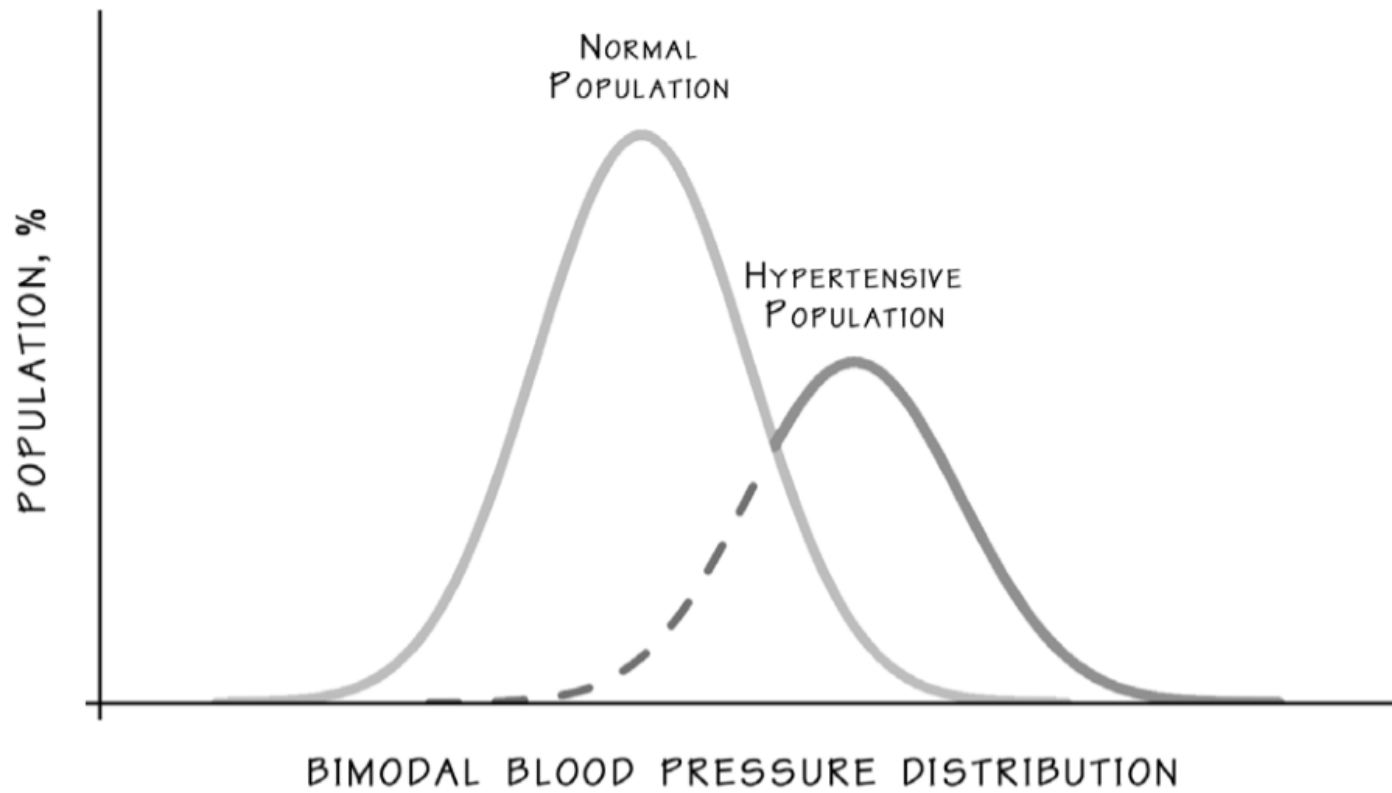


# Platt and Hulse (1955-1956)

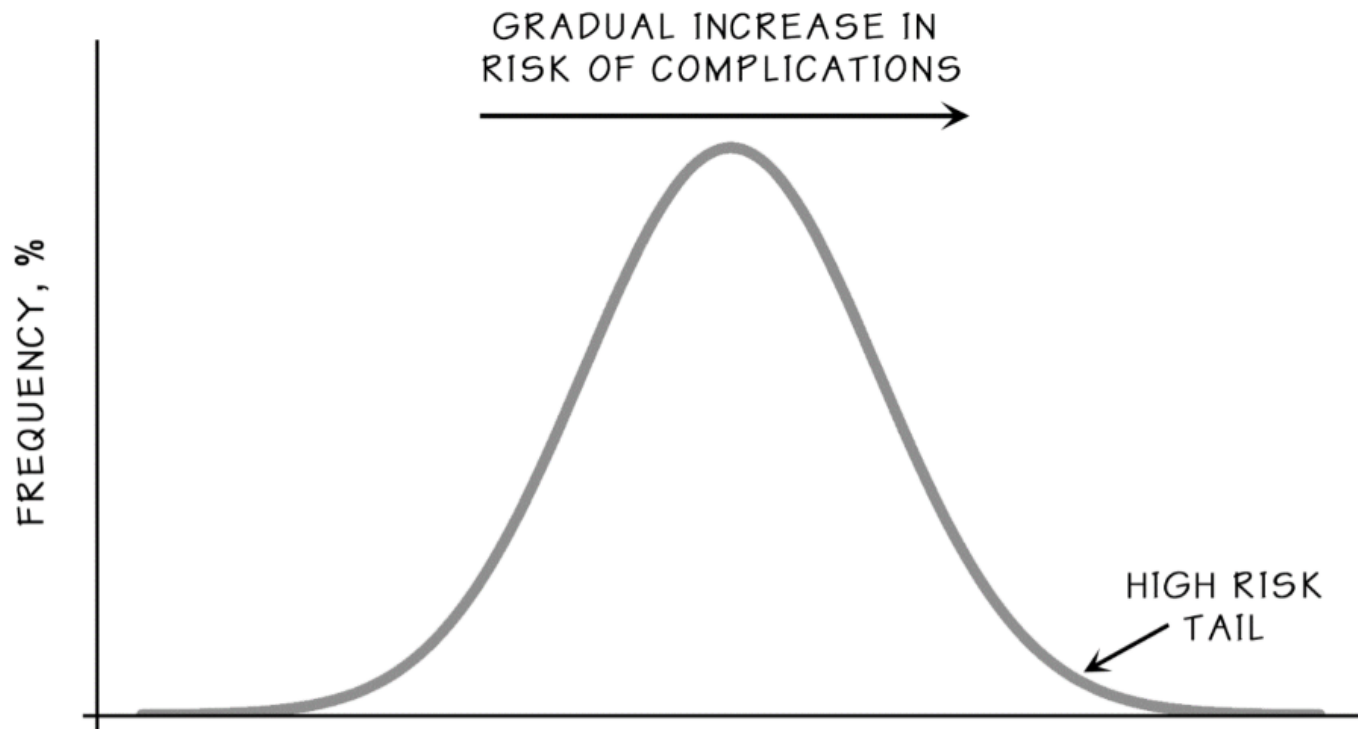
The blood pressure is determined by numerous factors and multiple genes.  
The blood pressure distribution curve is continuous



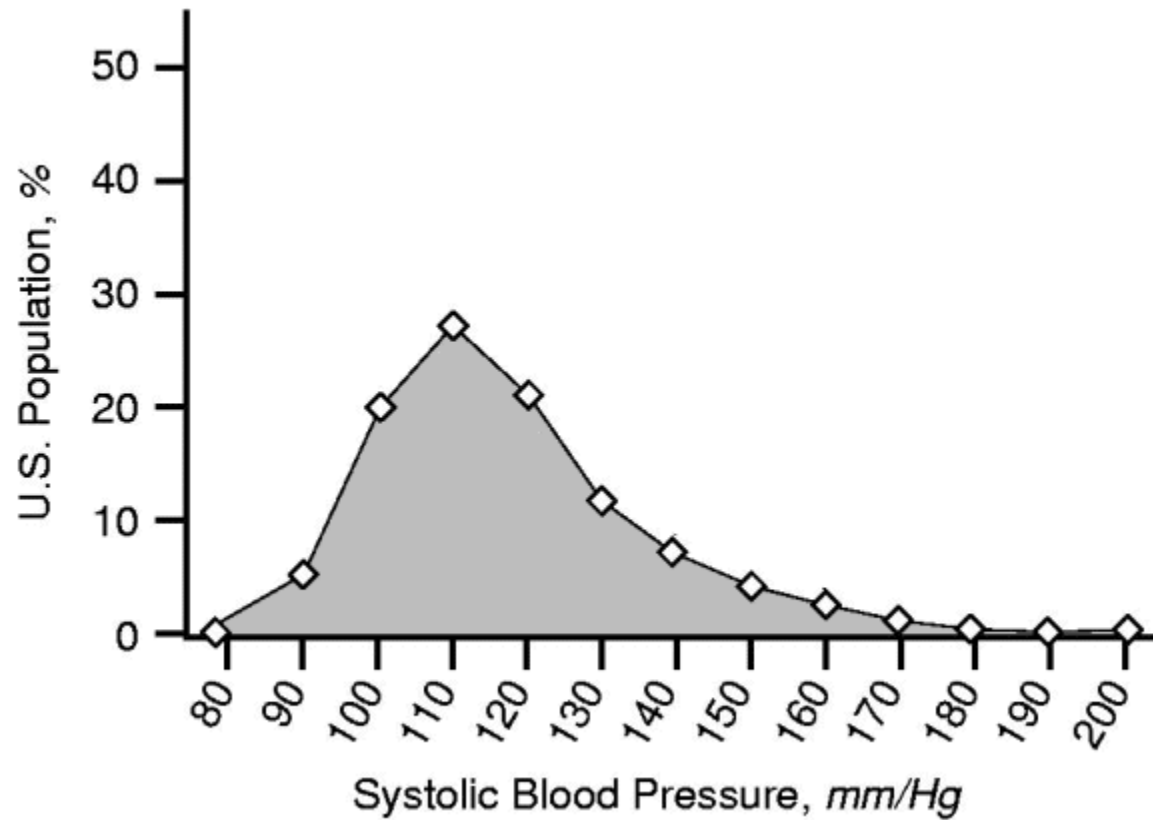
# Platt's view of hypertension



# Pickering's view of hypertension

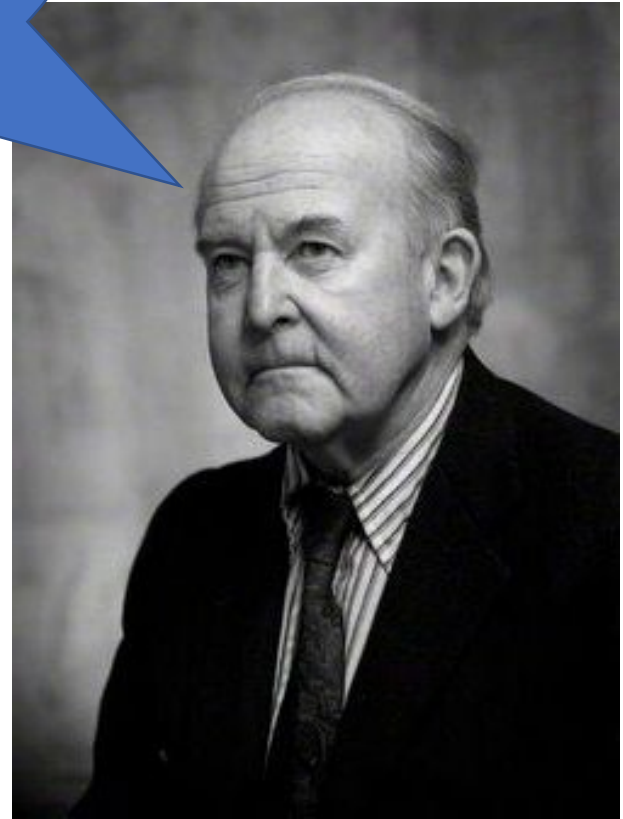


# Actual BP Distribution: Pickering vindicated?

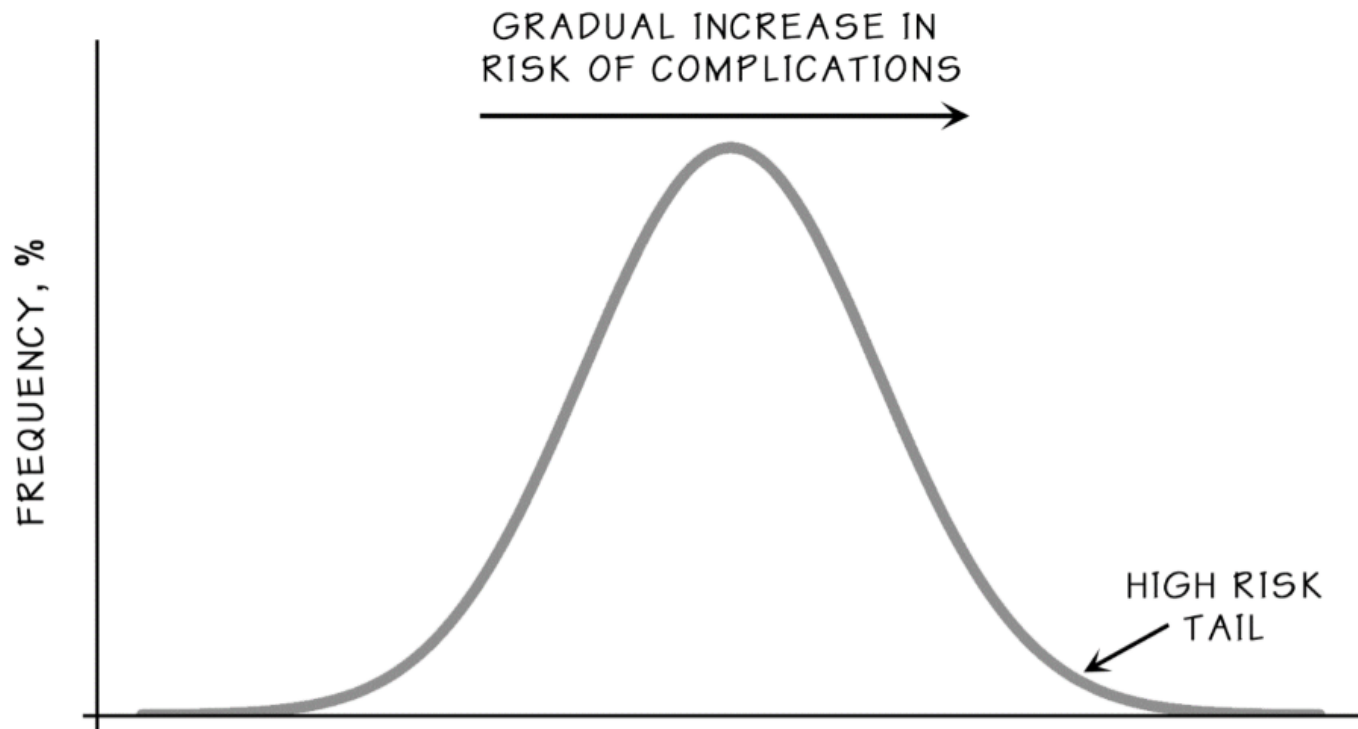


# Platt ~~and~~ White (1955- 19

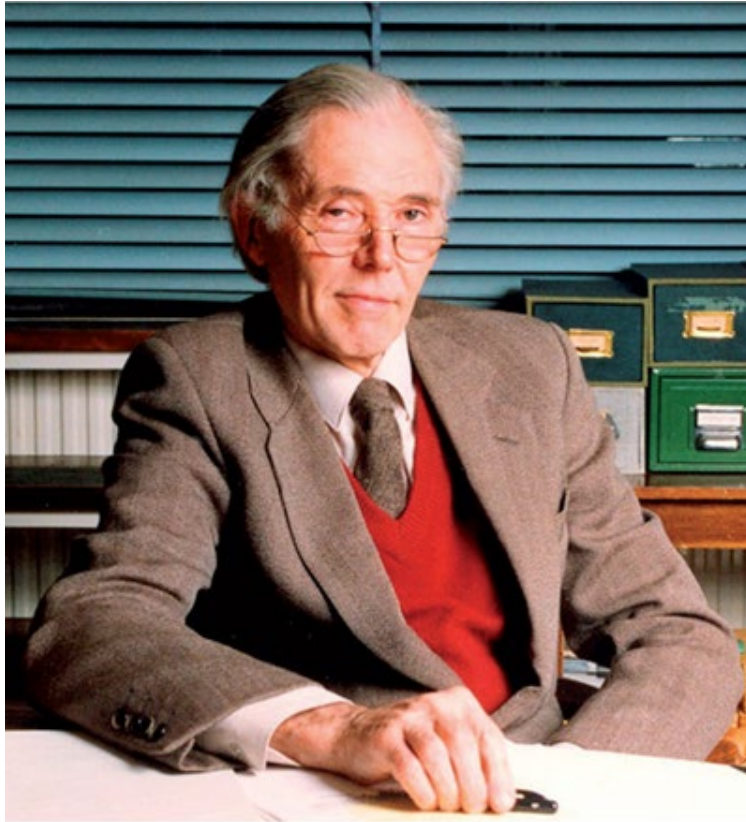
“Hypertension is thus a type of disease not hitherto recognized in medicine in which the defect is one of degree not of kind, quantitative not qualitative.”



# Pickering's view of hypertension



Rose's "insight" #1: The distinction between health and disease is blurry



**Geoffrey Rose**

“disease is nearly always a quantitative rather than a categorical or qualitative phenomenon, and hence it has no natural definitions.”

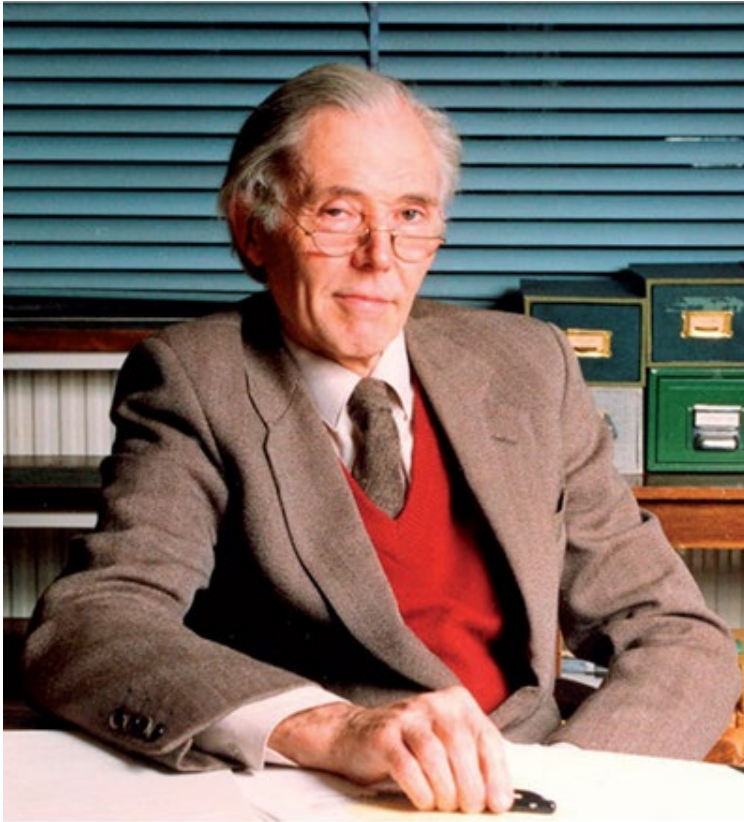


**“Infectious diseases in the population...come in all sizes, from obvious 'clinical' cases to symptomless infections that are only revealed by special laboratory tests.”**

**“Infectious diseases in the population...come in all sizes, from obvious 'clinical' cases to symptomless infections that are only revealed by special laboratory tests. The clinical illness recognized as cancer is the infrequent end-stage of a series of common changes, beginning with minor cellular abnormalities (metaplasia) and ranging through more definitely premalignant change (dysplasia), localized (in situ) malignancy, and locally invasive disease.”**

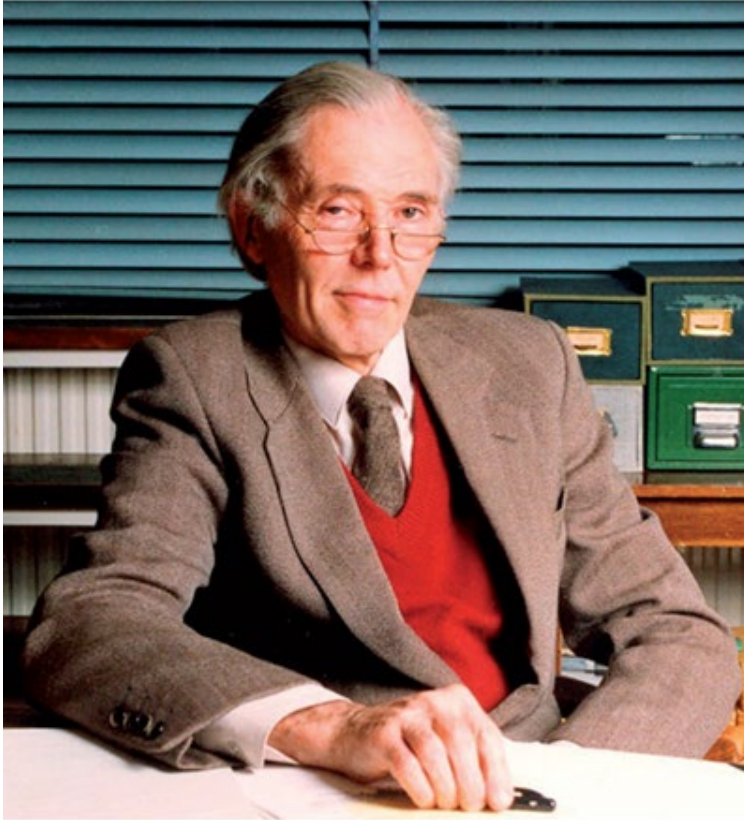
**“Infectious diseases in the population...come in all sizes, from obvious 'clinical' cases to symptomless infections that are only revealed by special laboratory tests. The clinical illness recognized as cancer is the infrequent end-stage of a series of common changes, beginning with minor cellular abnormalities (metaplasia) and ranging through more definitely premalignant change (dysplasia), localized (in situ) malignancy, and locally invasive disease. Interruption of cerebral blood flow can lead to a whole spectrum of consequences ranging from none at all, or symptoms too mild to come to medical attention, through a 'transient ischemic attack' (defined, quite arbitrarily, as a stroke that recovers with 24 hours), to a stroke with persistent disability or a dramatic and rapidly fatal illness.”**

One can even have a touch of pregnancy...



**Geoffrey Rose**

# One can even have a touch of pregnancy...

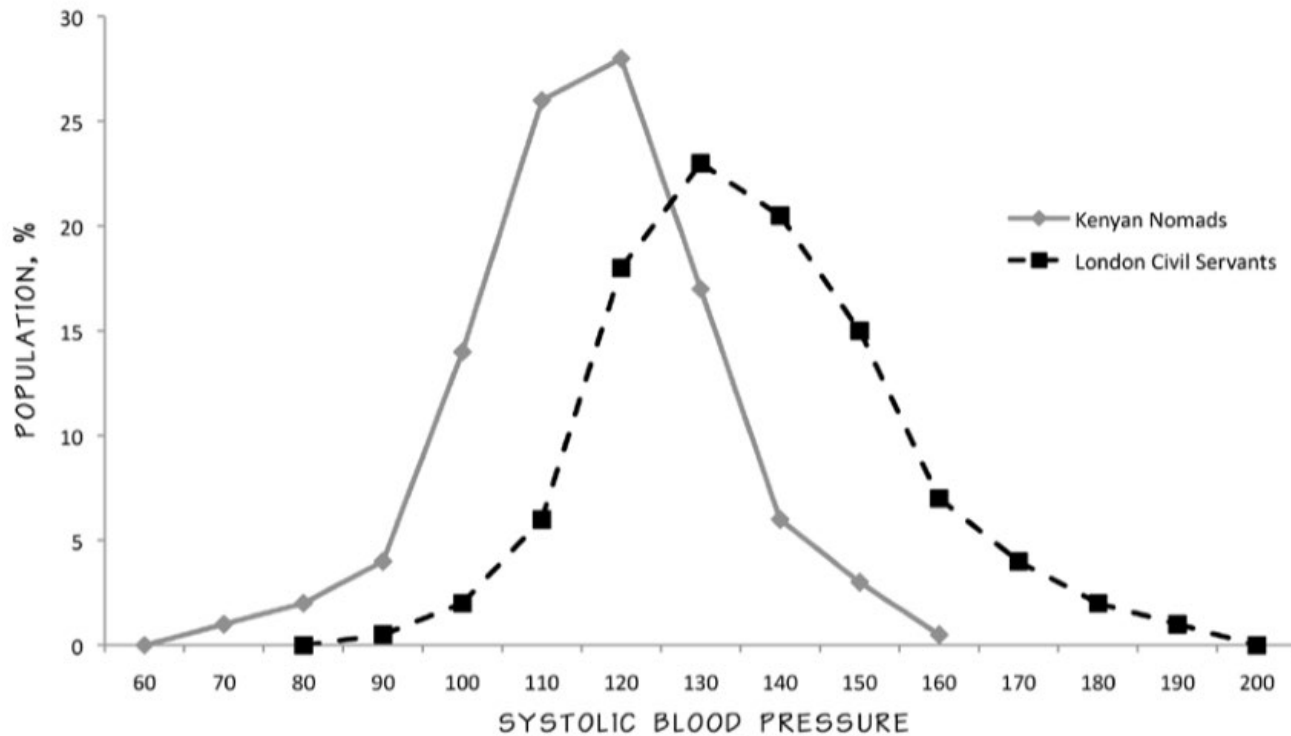


Geoffrey Rose

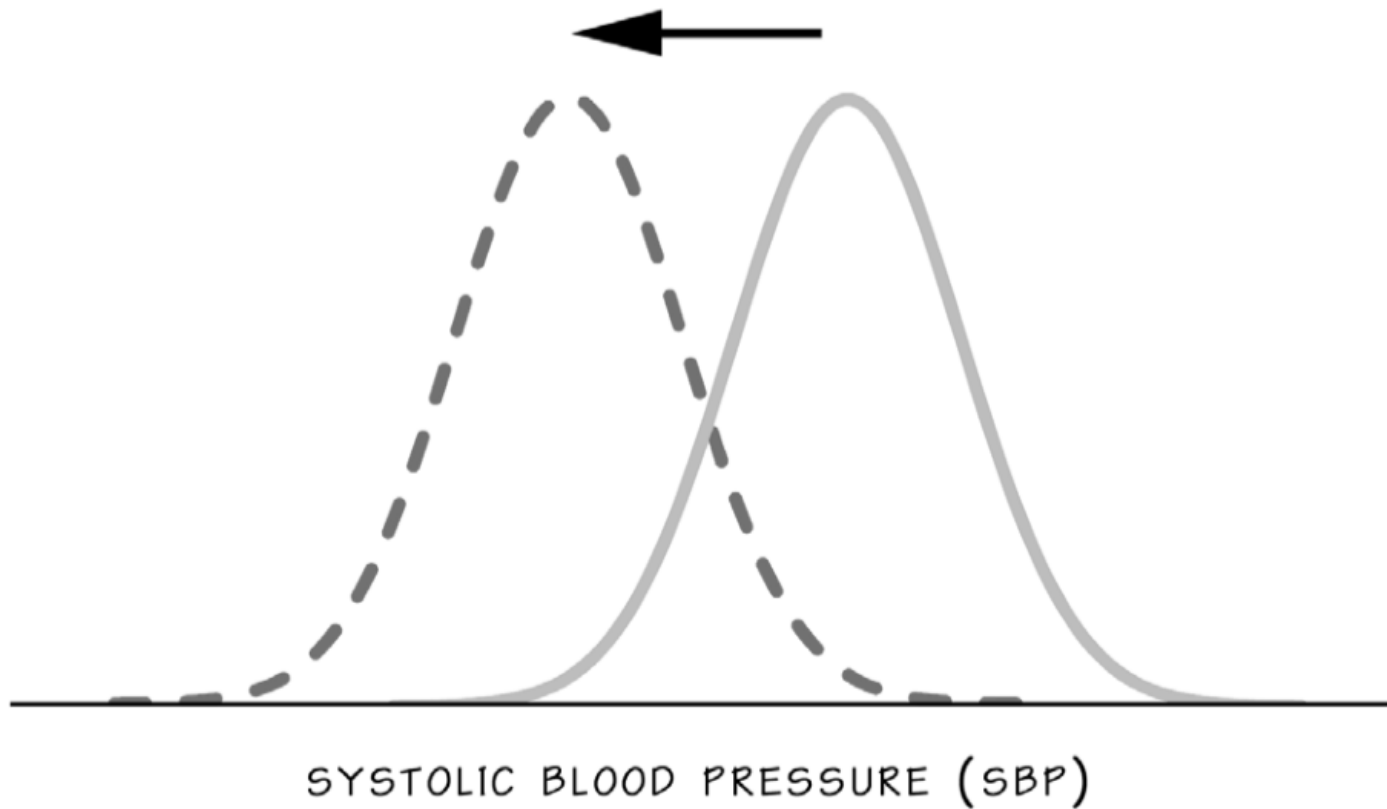
“Even pregnancy is not defined by nature, but rather it develops in a series of steps from the merely potential (a sperm swimming towards an ovum), through the stages of fertilized ovum, implantation in the uterus (apparently the legal definition), a biochemically detectable pregnancy, a clinically evident pregnancy, a recognizably human fetus, a viable fetus, and finally a live baby.”

Rose's "insight" #2: Only  
populations are distinctly *sick*

# Rose's "insight" #2: Only populations are distinctly sick

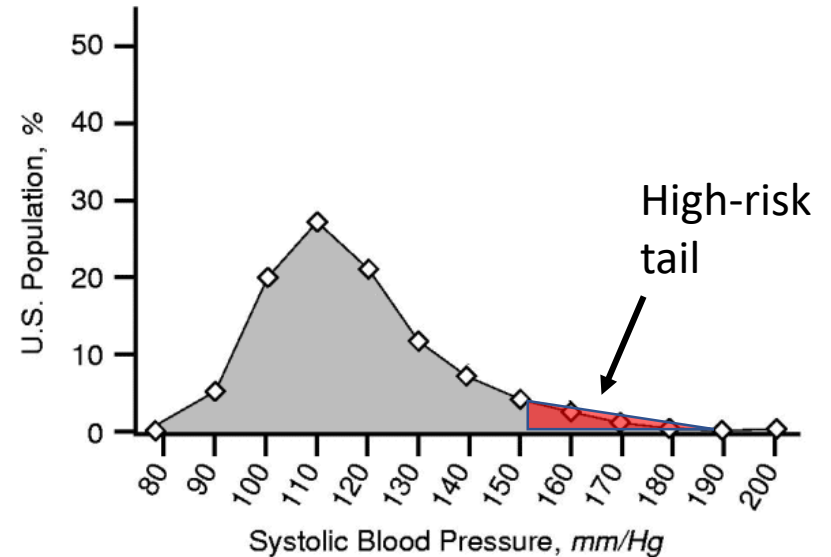
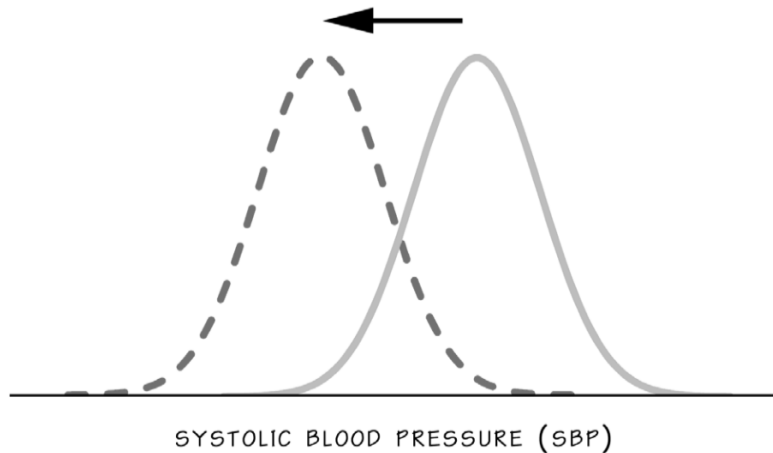


# The goal of population medicine





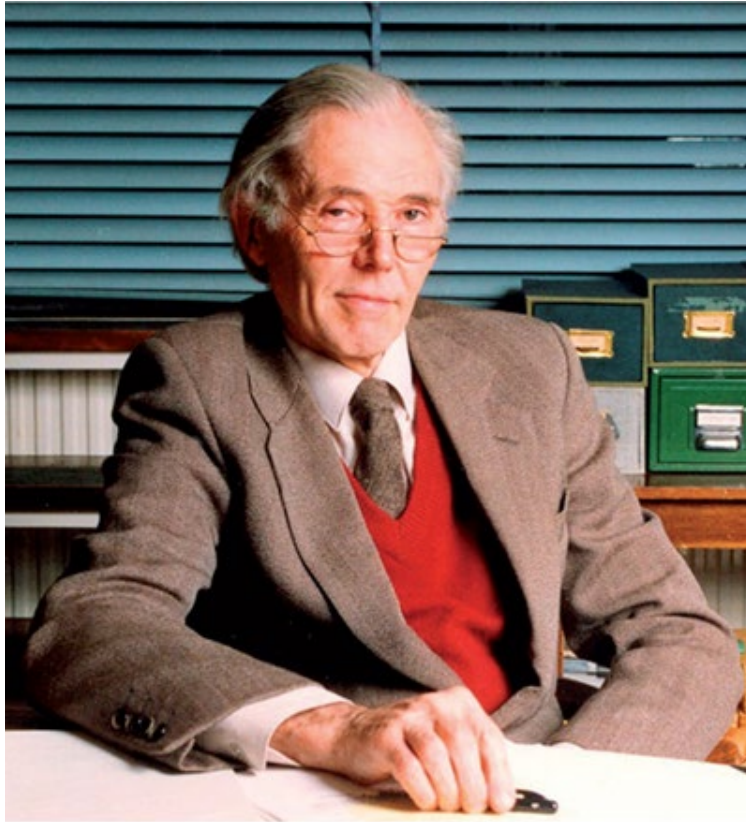
# Population approach versus the “high risk” approach



Rose's "insight" #3: Population  
sickness has *its own causes*

# The Whitehall study

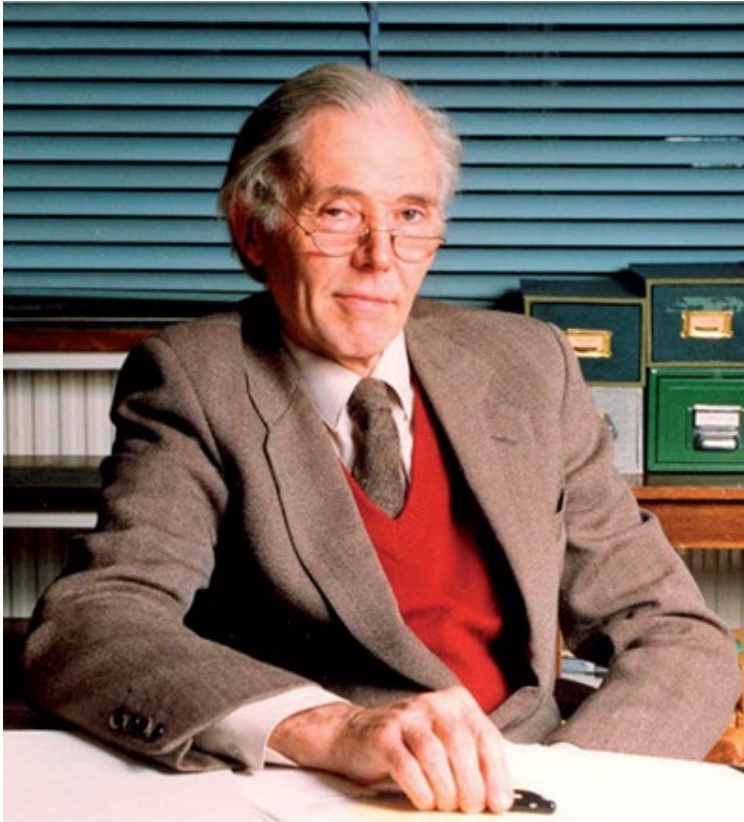
- Longitudinal study (1967-1977) of mortality among British civil servants
- Findings:
  - Civil servants in lower status jobs had poorer health habits and worse risk factors than those in higher status jobs
  - Mortality among civil servants in lower status jobs was higher
- Access to care not a barrier (NHS)
- Conclusions...



**Geoffrey Rose**

“The primary determinants of disease are mainly economic and social, and therefore its remedies must also be economic and social...”

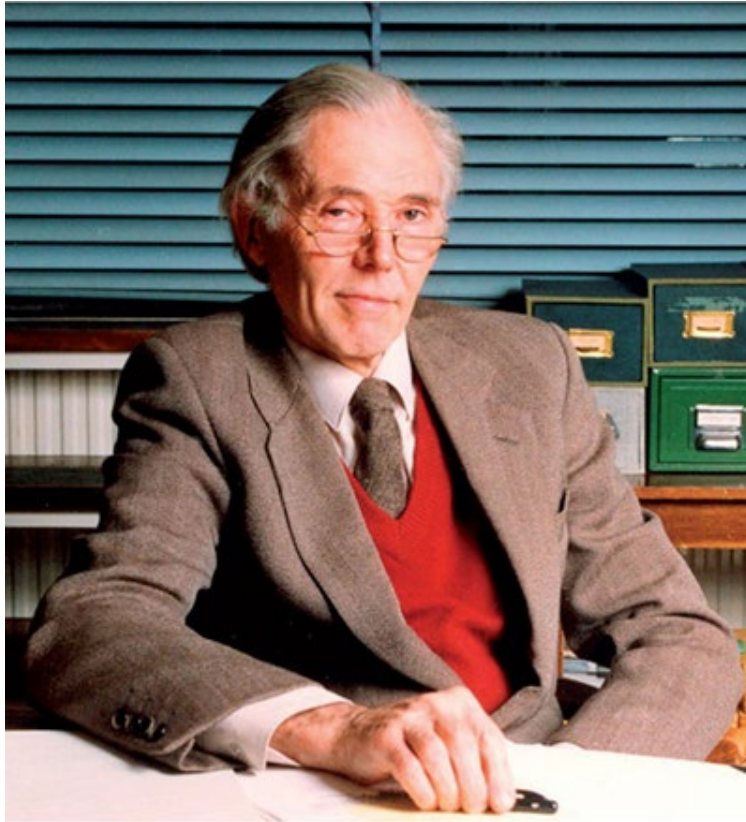
# The “social determinants of health”



**Geoffrey Rose**

“The primary determinants of disease are mainly economic and social, and therefore its remedies must also be economic and social...”

# The “social determinants of health”



Geoffrey Rose

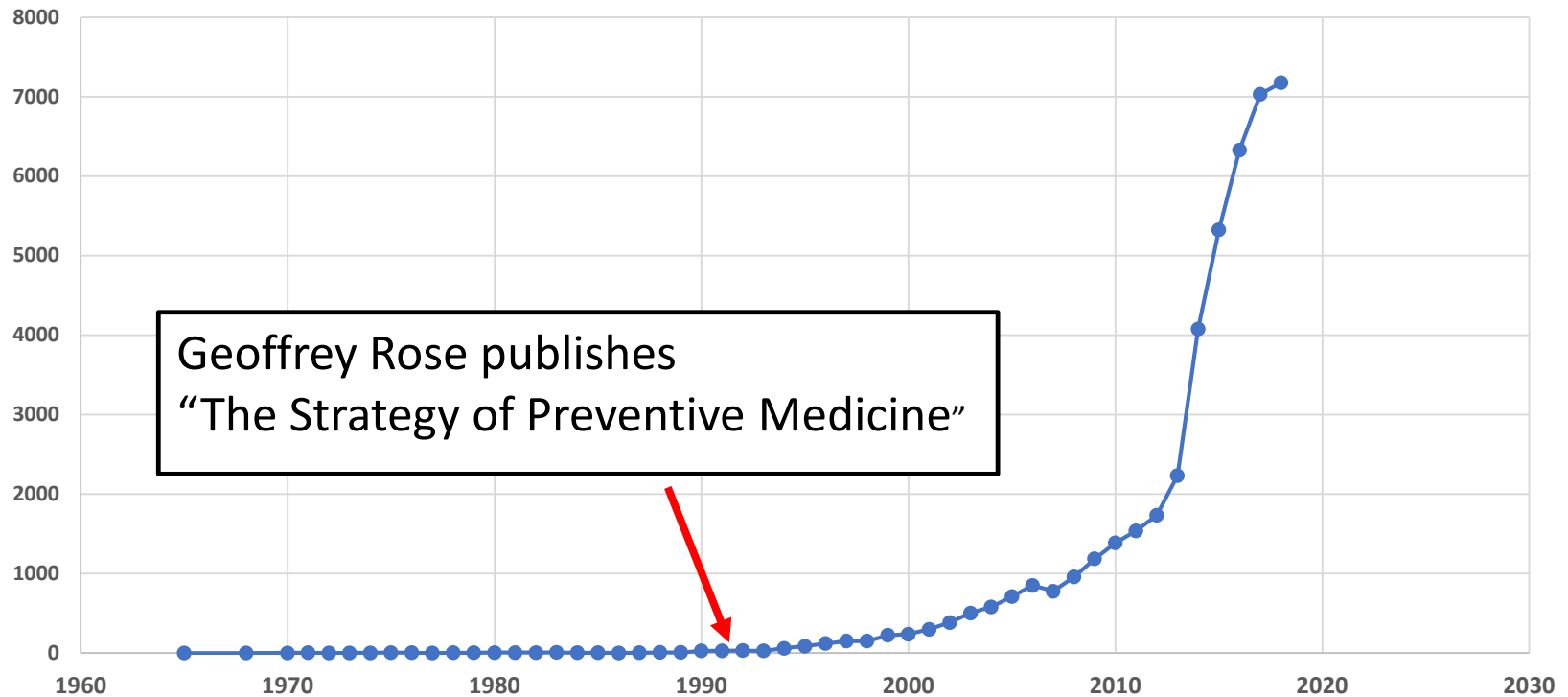
“The primary determinants of disease are mainly economic and social, and therefore its remedies must also be economic and social. **Medicine and politics cannot and should not be kept apart.**”

# What are the “social determinants of health”?

- The social determinants of health appear to be primarily one: → inequality
- Why is inequality the primary determinant of population health and not, say, poverty? The question is not usually asked...

# The population health movement is born

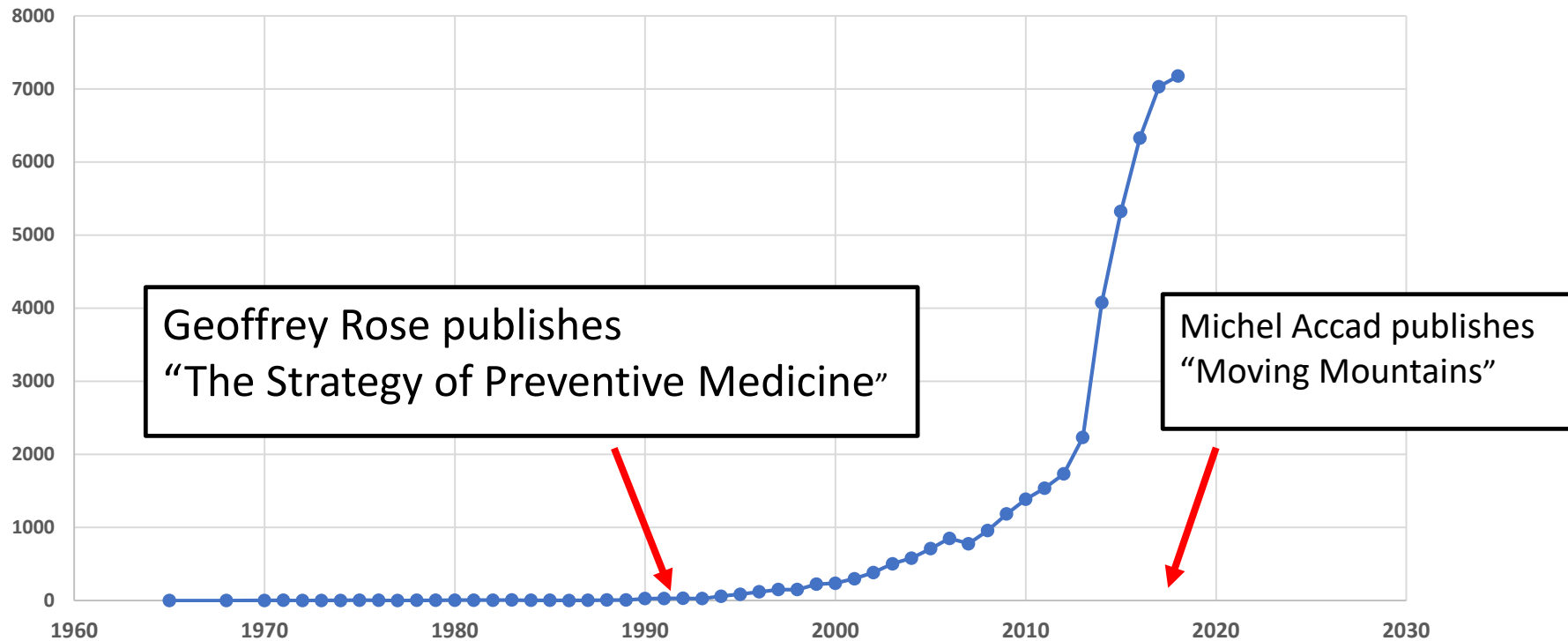
NUMBER OF MEDLINE CITATIONS WITH THE SEARCH TERM  
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# The population health movement is born

NUMBER OF MEDLINE CITATIONS WITH THE SEARCH TERM  
"POPULATION HEALTH" (SINCE 1965)



# Population health mania

- Academic departments of population health have multiplied
- Graduate programs offer degrees in population health management
- New medical school curricula explicitly train students in population medicine
- Healthcare industry positions of “chief population health officer”

# Population health mania

- Academic departments of population health multiply
- Graduate programs in population health management
- New medical school curricula explicitly training students in population medicine
- Healthcare industry positions of “chief population health officer” ???

# Trouble looming: confusion about population health

MODELS FOR POPULATION HEALTH

2003

## What Is Population Health?

Population health is a relatively new term that has not yet been precisely defined. Is it a concept of health or a field of study of health determinants?

We propose that the definition be “the health outcomes of a group of individuals, in-

David Kindig, MD, PhD, and Greg Stoddart, PhD

### ALTHOUGH THE TERM

“population health” has been much more commonly used in Canada than in the United States, a precise definition has not been

that in Canada and the United Kingdom in the 1990s, the term has taken on the connotation of a “conceptual framework for thinking about why some popula-

eral/Provincial/Territorial Advisory Committee on Population Health, write that “population health refers to the health of a population as measured by

# Confusions about insights and terms

THE  
MILBANK QUARTERLY  
A MULTIDISCIPLINARY JOURNAL OF POPULATION HEALTH AND HEALTH POLICY

Understanding Population Health  
Terminology

**2007**

DAVID A. KINDIG

*University of Wisconsin*

*Population health* is a relatively new term, with no agreement about whether it

# More confusion

POPULATION HEALTH MANAGEMENT  
Volume 18, Number 1, 2015  
© Mary Ann Liebert, Inc.  
DOI: 10.1089/pop.2015.1811

Commentaries

**2014**

## Population Health: Where's the Beef?

David B. Nash, MD, MBA

**I**N DECEMBER 2014, I had the opportunity to give a closing plenary presentation—entitled “Population Health: Where’s the Beef?”—at the Population Health Forum, the annual event sponsored by the Population Health Alliance in Washington, DC. I’d like to share aspects of that presentation with you.

To close the Population Health Forum, I decided to pose 7

one looks at recent data from the Centers for Medicare & Medicaid Services, 22 of the 29 Accountable Care Organizations that made money in 2014 were led by physicians.<sup>7</sup> Physician leadership per se does not guarantee a positive margin, but there is a tight correlation. I spoke of certain managed care organizations in the late 1990s during the ascendancy of managed care in California. Those successful organizations

# More confusion

HEALTH AFFAIRS BLOG

**2015**

## What Are We Talking About When We Talk About Population Health?

David Kindig

APRIL 6, 2015

10.1377/hblog20150406.046151

# Geoffrey Rose's untenable insights

#1 No natural distinction between individual health and disease

→ Confuses disease, disease severity, variable natural history of disease, and disease risk factors

#2 Only populations are distinctly healthy

→ The concept of health primarily applies to individuals.

#3 The causes of disease are political and act on populations

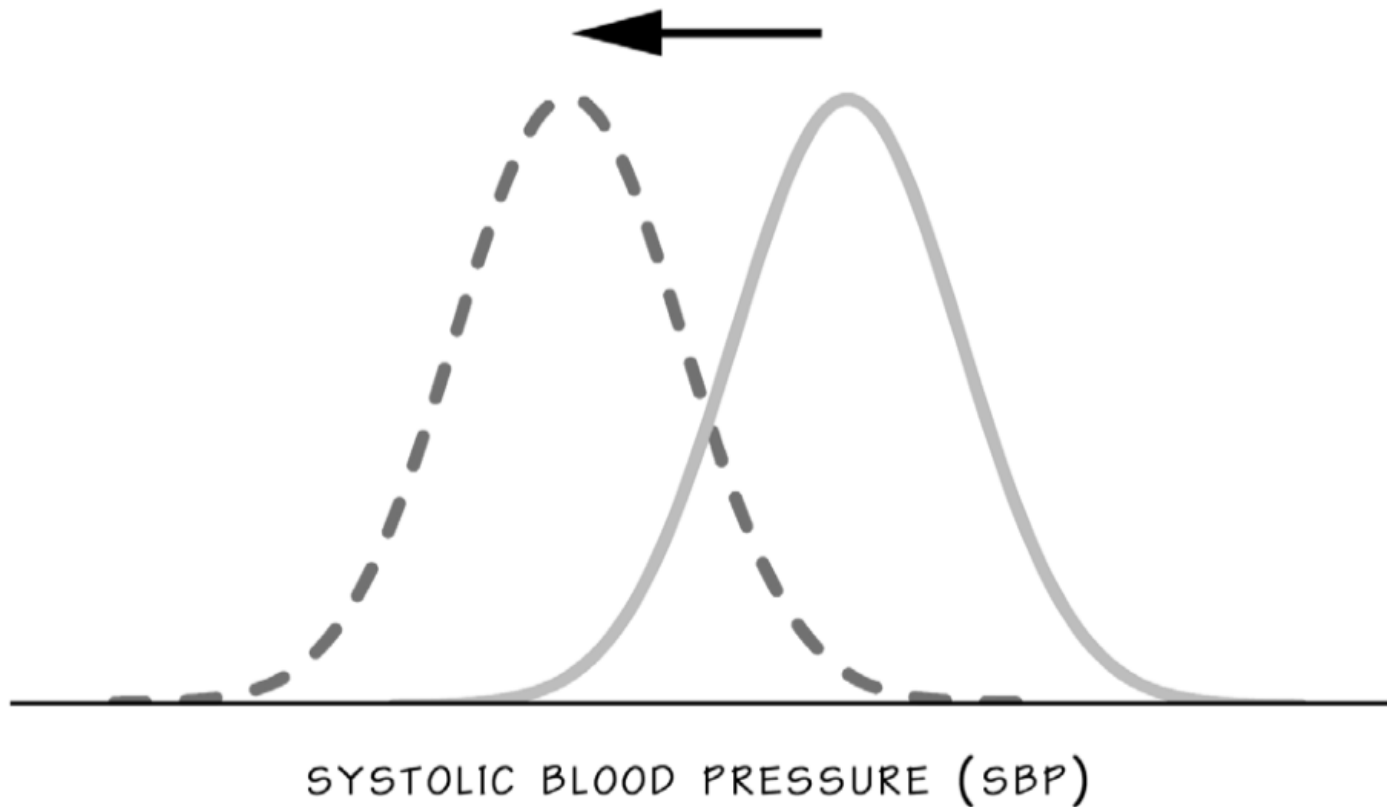
→ The causes of disease are biological and personal and act on individuals



# Population health turmoil

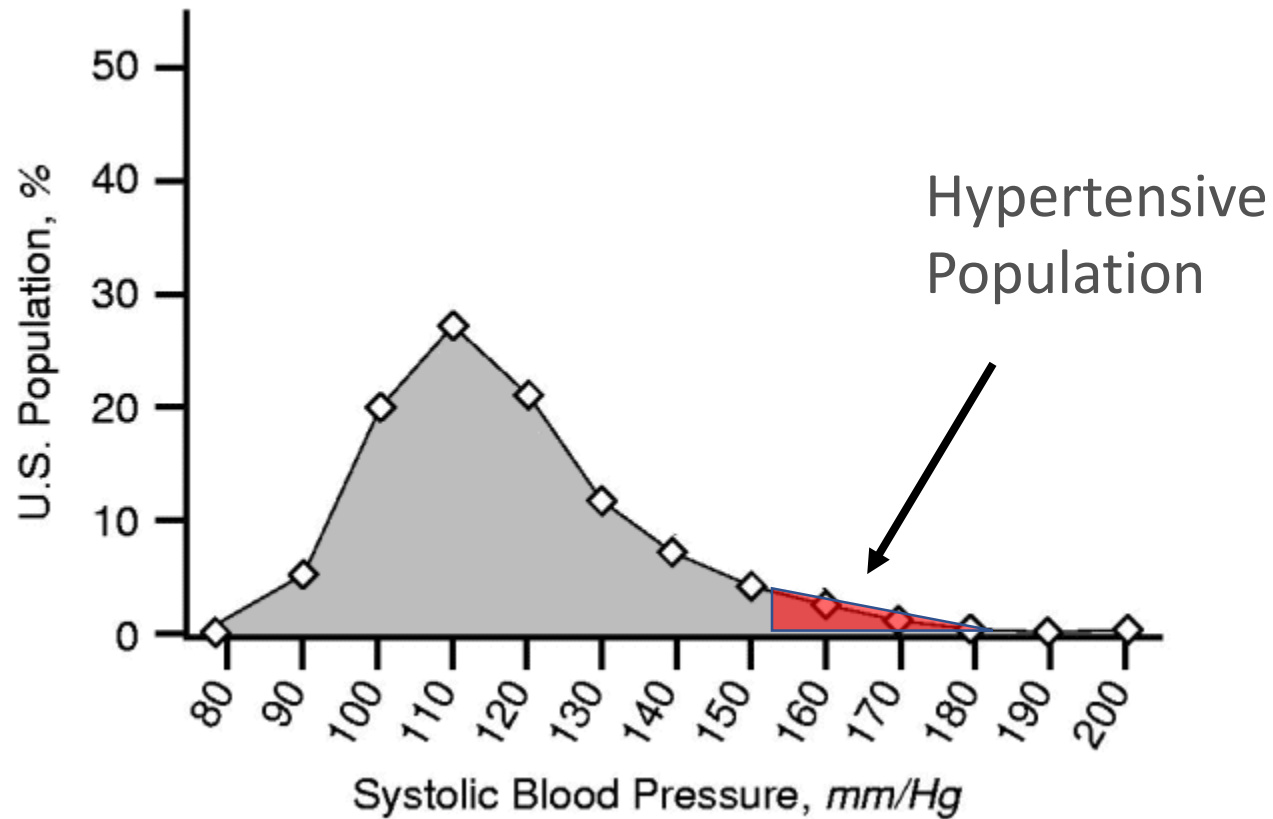
- Persistent confusion about the theory behind the social determinants of health
- A political activity that must play out in the clinic?
- Many population health advocates can't agree among themselves on what strategy to adopt
- Most clinicians are unaware of the great “insights” of population health theory
- Doctors still seek to *make decisions*, i.e., distinguish between normal/abnormal; healthy/unhealthy

Hardcore population health on the way out? (Hopefully...)

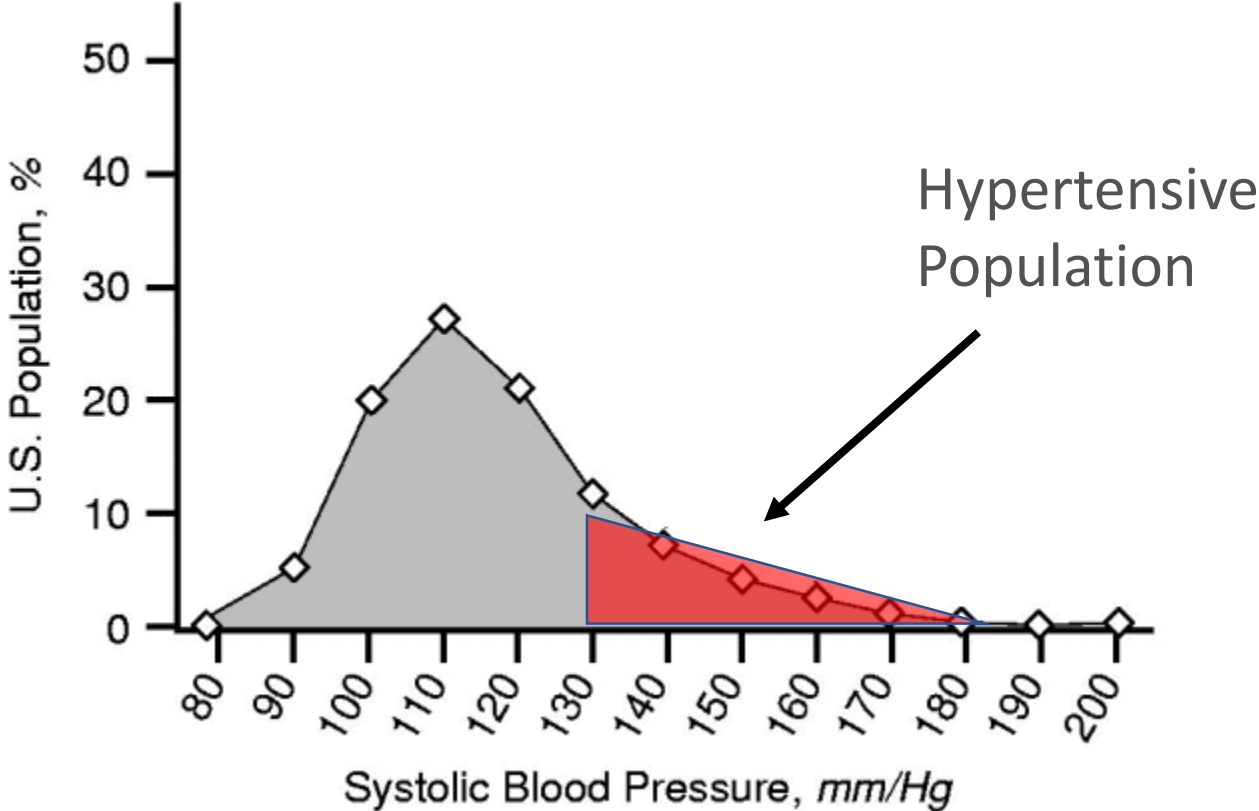


Softcore population health  
remains

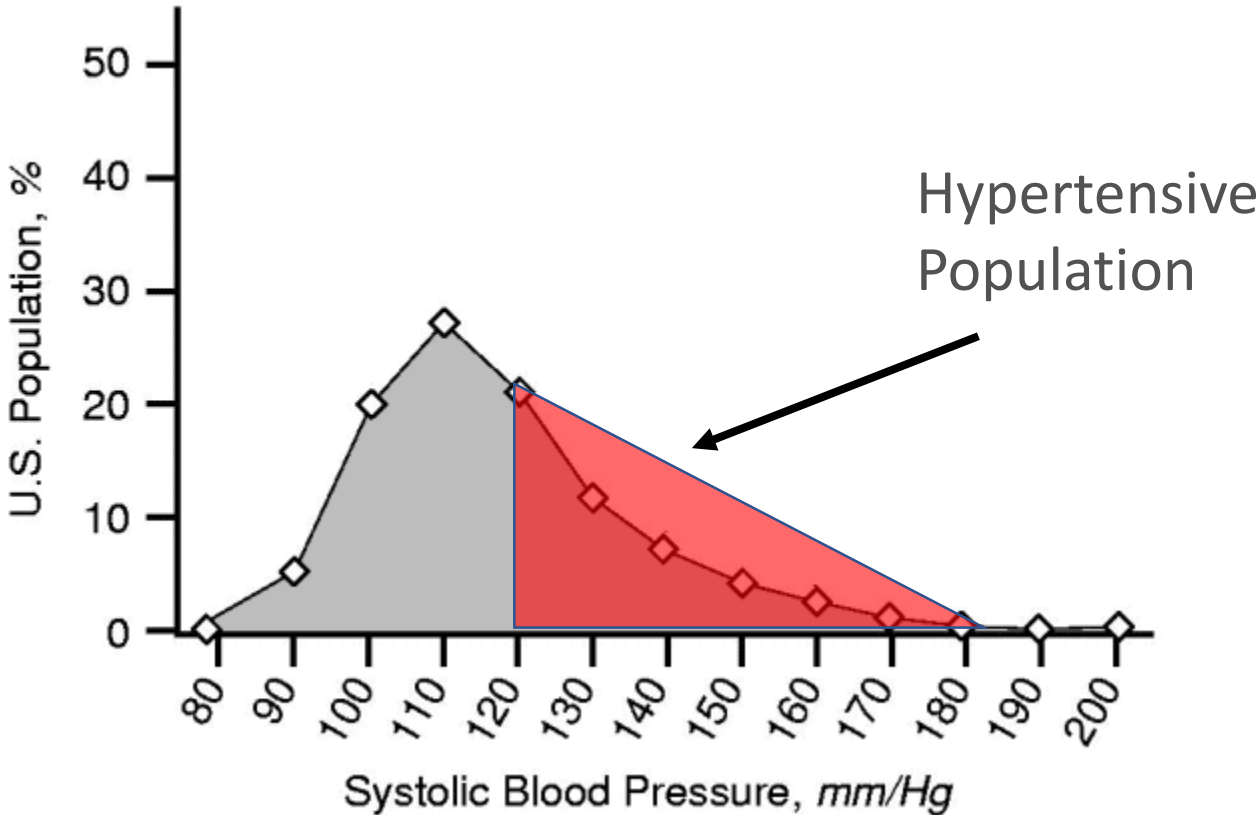
# Softcore population health remains



# Softcore population health remains



# Softcore population health remains



# Softcore population health: An *outcomes* movement

- In 2018, the population health movement continues to refer to the “social determinants of health” and lament about inequalities but...
- It focuses on improving “outcomes” which implicitly abandons Rose’s idea that “sick populations” have unique determinants of disease.
- Its activities are less overtly political, though its targets are still clearly entire populations

# Population Health Quiz (Pop Quiz!)



What should the target blood pressure be for a 76-year non-diabetic man with cardiovascular risk factors?

A) < 160

B) < 140

C) < 120

What should the target blood pressure be for a 76-year non-diabetic man with cardiovascular risk factors?

A) < 160

B) < 140

C) < 120

D) Patients are persons. Their bodies and physiologies are not **targets** for intervention.

What should the target blood pressure be for a 76-year non-diabetic man with cardiovascular risk factors?

A) < 160

B) < 140

C) < 120

D) I don't treat "a" 76-year-old \_\_\_\_\_. I treat *this* man or *that* woman. I'll use my best clinical judgment and take into account the particular circumstances.

What should the target blood pressure be for a 76-year non-diabetic man with cardiovascular risk factors?

A) < 160

B) < 140

C) < 120

D) It's none of your business. Medicine is a personal relationship, not a political activity. Get out of my examination room.

# Thank you!

WEBSITE: [AlertandOriented.com](http://AlertandOriented.com)

TWITTER: [@michelaccad](https://twitter.com/michelaccad)

BOOK: [movingmountainsthebook.com](http://movingmountainsthebook.com)

PODCAST : [The Accad and Koka Report](#)