## How Did Equity Become a Major Topic in Health Research and Public Health Policy in Belgium?

Patrick Deboosere (VUB)

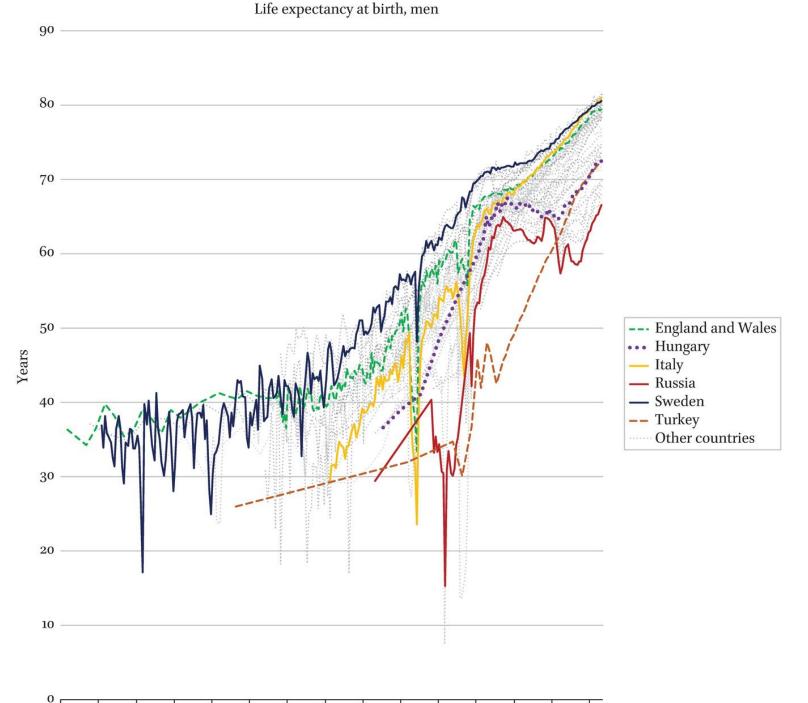
## Summary

- 1. Life expectancy as an indicator of social progress
- 2. The French revolution: 3 crucial (unfulfilled) mottos
- 3. The "normal length of life"
- 4. Inequality in health as topic for research

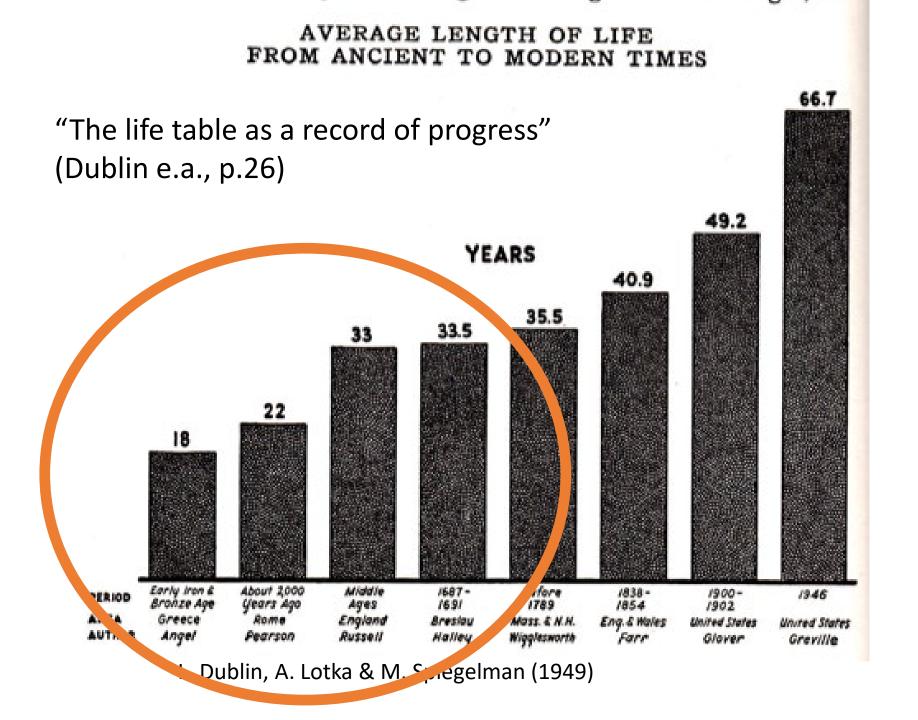
- A History of Population Health Rise and Fall of Disease in Europe Johan P. Mackenbach



Life expectancy Evolution 1730 - 2010



1730 1750 1770 1790 1810 1830 1850 1870 1890 1910 1930 1950 1970 1990 2010





1350-1500 the Golden Age of the European Proletariat



CAMBRIDGE STUDIES IN POPULATION, ECONOMY AND SOCIETY IN PAST TIME

### The Population History of England 1541-1871

A reconstruction E.A.WRIGLEY & R.S.SCHOFIELD

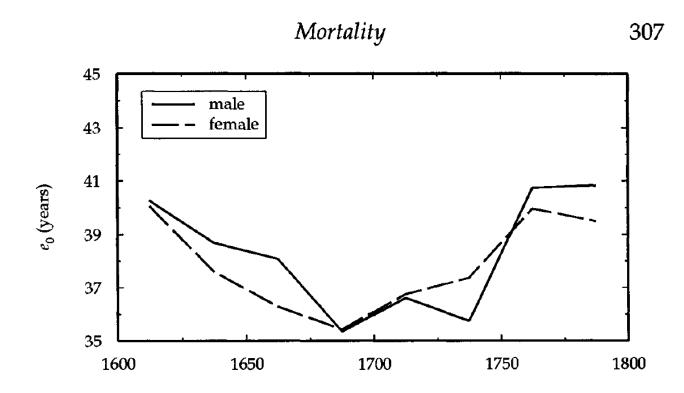


Figure 6.21 Male and female expectation of life at birth  $(e_0)$  Source: Cambridge Group reconstitutions.

Based on English parish registers



### Early Modern Europe

- The enclosure movement marked the end of a more egalitarian era and resulted in widespread poverty in rural areas. Access to essential resources was restricted as lands were enclosed, laying the groundwork for pre-industrial primitive capitalist accumulation. A pattern of appropriation extended globally through colonization and the exploitation of slavery.
- The rise of absolute monarchs and the wars of religion that plagued much of Europe during the 16th and 17th centuries led to the spread of numerous diseases such as plague and typhus, and to economic devastation, resulting in severe famine and malnutrition.

- The Scientific Revolution, which unfolded in the latter half of the seventeenth century, had a significant impact on various fields including chemistry and philosophy, revolutionizing the field of medicine.
- The Scientific Revolution marked the beginning of the Enlightenment, contributing to the French Revolution.



### The French revolution 1789

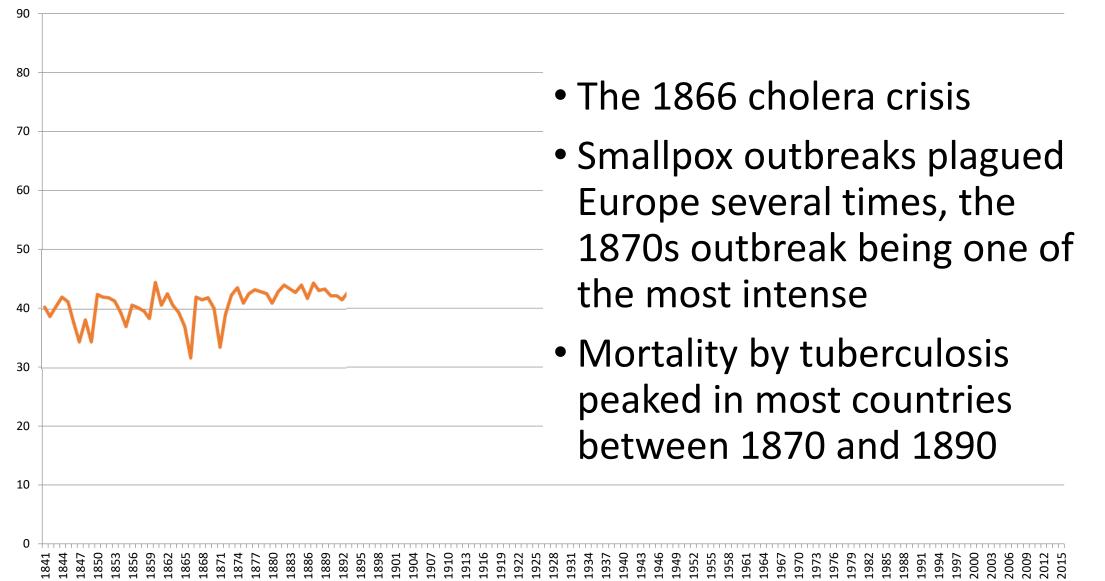
- With the downfall of the absolute monarchy a pivotal moment in the transition to modernity.
- Long before, proto-industrialization was reshaping society, giving rise to classes of merchants, industrialists, and the working class. New ideas were gaining traction, challenging the notion of an immutable world ordained by divine grace.
- Played a crucial role in popularizing the concepts of "freedom, equality, and brotherhood" among the general population and enshrined them in the "Declaration of the Rights of Man".

Slavery in the colonies was not abolished untill 1794 in the wake of the Haitian revolution. Equality was not extended to political rights for women. The right to vote was limited to males over 25 owning property

Industrialisation intensified, placing immense strain on the economic system, exarbating hardships for laborers and increasing mortality People lived in filthy neighbourhoods with inadequate sanitation. Typhus, dysentery, tuberculosis and smallpox were widespread.

Cholera, brought in by trade, found a fertile ground in the slums of the industrial cities. A first epidemic struck in 1832, several followed.

# Evolution in life expectancy of Belgian men 1841-1892





Scientists, journalists, and medical professionals pointed to the close relationship between poverty, filth and disease, recognizing the dire need to address the harsh working and living conditions and advocating for change.

### Belgium - Quetelet



- Belgium was the most densely populated country of the world and the first industrial nation on the continent.
- "La durée d'un siècle paraît limiter la carrière de l'homme. Il en est bien peu qui dépassent ce terme." Quetelet registered 16 centenarians in the Belgian population in 1831, the eldest being 111 years old.
- According to Quetelet it was remarkable how life expectancy was at a maximum at the age of 5. Life expectancy was extremely low mainly due to the dire situation of children.
- Quetelet registered differences in mortality between the city and the countryside.



**REPRODUCTION ET LA MORTALIT** 

DE L'HOMME AUX DIFFÉRENS AGES,

ET SUR

LA POPULATION DE LA BELGIQUE,

PAR

MM. A. Quetelet et Co. Smits.

Plus le nombre desindividus que l'on observe est grand, plus la volonté individuelle s'efface et laisse prédominer la série des faits généraux, qui dépendent des causes d'après lesquelles existe et se conserve la société. (Recherches sur le Penchant au Crime.)

BRUXELLES , CHEZ LOUIS HAUMAN ET Cie LIBRAIRES. --1832.



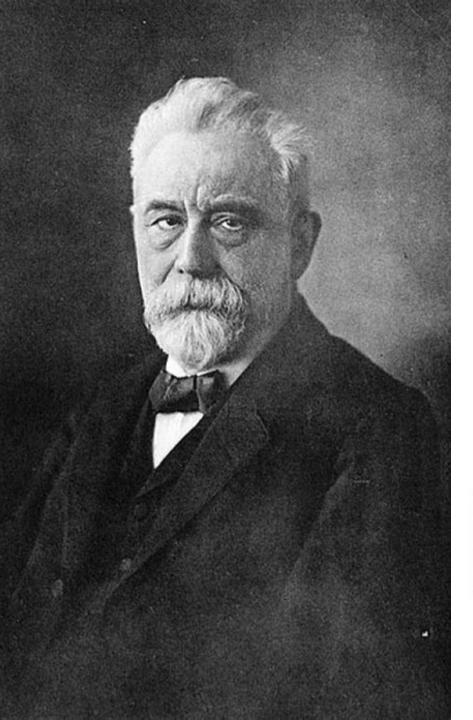
Edouard Ducpétiaux (1804-1868) Belgian journalist, fierce opponent of the death penalty, appointed as inspector-general of the prisons after the Belgian revolution.

In 1841 member of the Central Commission of Statistics.

Based on the first statistical survy of houshold budgets he published *"Budgets économiques des classes ouvrières en Belgique : subsistances, salaires, population"* (1855), largely cited by Marx in the first book of the Capital.

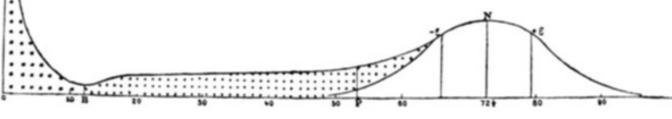
# Life expectancy and the ideals of the French revolution

- "Freedom" was mainly linked to property, "equality" and "solidarity" lost somewhere along the way
- Progress was focused on science, culture and economy, only some "radicals" were concerned with social progress
- The link between bad working and living conditions and health was not unknown, but a perspective of improving health was absent



### Wilhelm Lexis (1837-1914)

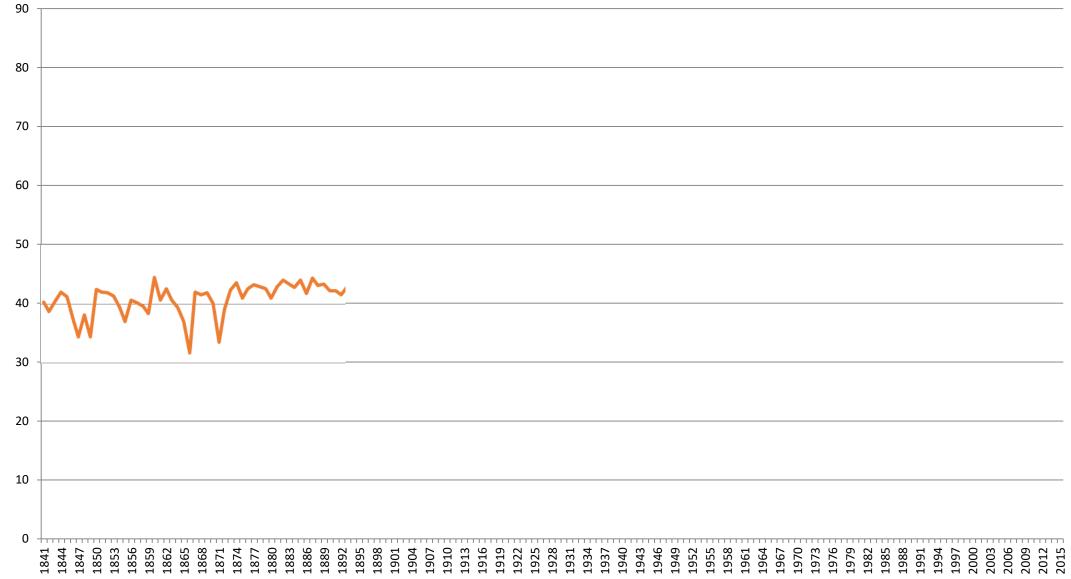
## The normal length of life as an expression of the "Nature of Things"



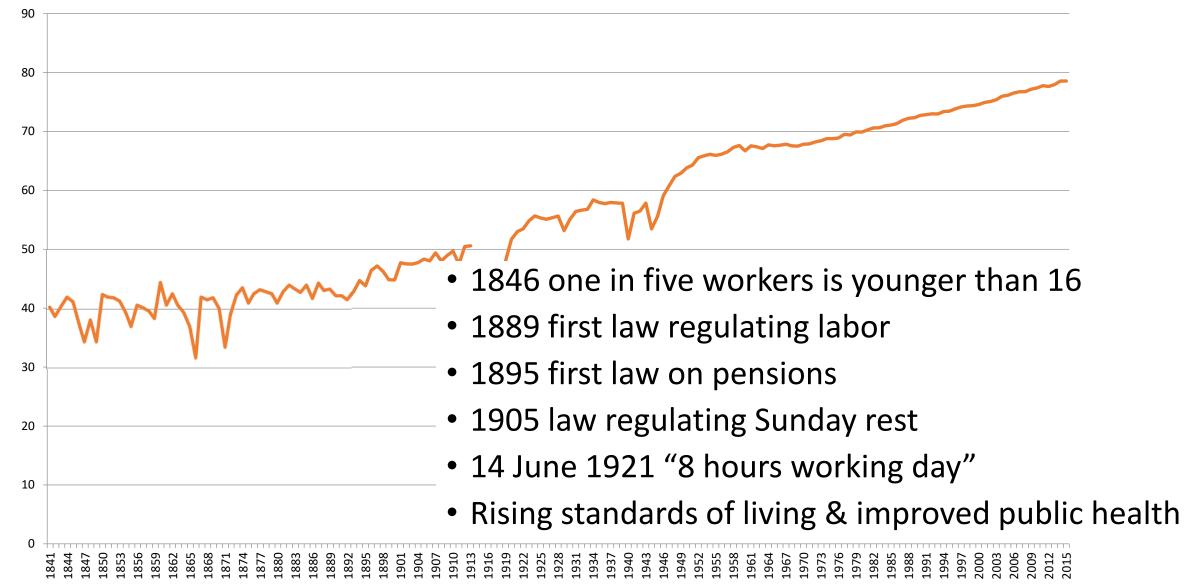
#### Figure 2.- Mortality curve by age

Note: The three groups of deaths are shown: premature child deaths (descending section of curve between birth and age B), premature adult deaths (area containing deaths shown by + sign between age B and that corresponding to – ɛ) and normal death (all those bounded by the bell-shaped curve). Source: Lexis, 1878, p. 449. 12

# Evolution in life expectancy of Belgian men 1841-1892



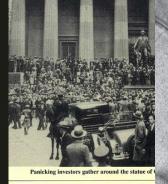
## Evolution in life expectancy of Belgian men 1841-2020











### What Went

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ks began	tried to shed their plum-	By the end of the tra
me clear	meting stocks at the	day, the ticker record
n in some	same time.	Stock Exchange trai
ries was inly be-	Chaos	tions was over hours behind the tra
oroduction	The all-consuming chaos was, in part,	which had taken pla Telephone facil
lustry.	blamed by bankers on	were also totally
nic began,	the inadequacy of the	cient during the c
simply	old ticker-tape system in	not only in Wall S
control as	processing such enor-	but also throughou

#### OTHER NEWS

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Dorothea Lange

GOOD PAY GOOD MEALS GOOD SURROUNDINGS GOOD WORKING CONDITIONS IF YOU WANT A GOOD JOB in HOUSEHOLD EMPLOYMENT APPLY AT-OR WRITE TO ILLINDIS STATE EMPLOYMENT SERVICE



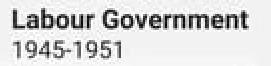
WORKS PROCRESS ADMINISTRATION



CLEVELAND METROPOLITAN HOUSING AUTHORITY



### 1936 General Strike first week of paid leave



lement 455

Ambitious plan to create a post-war welfare state

BANNISH



SQUALOR Homelessness

WANT

Poverty.

DISEASE

Beveridge's Report (1942) IGNORANCE Educational disadvantage

> IDLENESS Unemployment



### 10 December 1948

the UDHR commits nations to recognize all humans as being "born free and equal in dignity and rights" regardless of "nationality, place of residence, sex, national or ethnic origin, colour, religion, language, or any other status"



WHEREAS recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.

WHEREAS disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, and the advent of a world in which human beings shall enjoy freedom of speech and belief and freedom from fear and want has been proclaimed as the highest aspiration of the common people,

with the second and it is essential, if man is not to be compelled to have recourse. as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law,

WHEREAS it is essential to promote the development of friendly relations among nations

WHEREAS the peoples of the United Nations have in the Charter reaffirmed their faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women and have

ARTICLE 1 —All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood ARTICLE 2 -1. Everyone is entitled to all the rights and freedom:

set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion national or social origin, property, birth or other status. 2. Furthermore, no distinction shall be made on the basis of the political, jurisdictional or international status of the country or territory to which a person belongs, whether this territory be an independent, Trust or Non-Self-Governing territory, or under any other limitation of sovereignty.

ARTICLE 3 -Everyone has the right to life, liberty and the security of perso

ARTICLE 4 -No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.

ARTICLE 5 -No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishmen

ARTICLE 6 — Everyone has the right to recognition everywhere a a person before the law. ARTICLE 7 -All are equal before the law and are entitled with out any discrimination to equal protection of the law. All are entitled to equal protection against any discrimination in violation of this Declaration and against any incitement to such discrimin

ARTICLE 8 — Everyone has the right to an effective remedy by the competent national tribunals for acts violating the fundamenta rights granted him by the constitution or by law

ARTICLE 9 -No one shall be subjected to arbitrary arrest, detention or exile

ARTICLE 10 -Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligations and of any criminal charge against him.

ARTICLE 11 -1. Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defence 2. No one shall be held guilty of any penal offence on account of

any act or omission which did not constitute a penal offence, under national or international law, at the time when it was committed. Nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offence was committed

ARTICLE 12 -No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the pro-tection of the law against such interference or attacks.

ARTICLE 13 -1. Everyone has the right to freedom of movement and residence within the borders of each state. 2. Everyone has the right to leave any country, including his own and to return to his country.

2. Everyone, without any discrimination, has the right to equal pay for equal work 3. Everyone who works has the right to just and favourable remuner

other countries asylum from persecu

the right to change his nationality

during marriage and at its dissolution

as well as in association with othe

of the intending spouses

ARTICLE 15 -1. Everyone has the right to a nationality

2. No one shall be arbitrarily deprived of his nationality nor denied

METICLE 16 -1. Men and women of full age, without any limita-

tion due to race, nationality or religion, have the right to marry and

to found a family. They are entitled to equal rights as to marriage,

2. Marriage shall be entered into only with the free and full conser

3. The family is the natural and fundamental group unit of society

ARTICLE 17 -1. Everyone has the right to own property alone

MITCLE 18 -Everyone has the right to freedom of thought.

conscience and religion; this right includes freedom to change his religion or belief, and freedom, either alone or in community with

others and in public or private, to manifest his religion or belief in

ARTICLE 19 - Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without

terference and to seek, receive and impart information and idea

and is entitled to protection by society and the State

2. No one shall be arbitrarily deprived of his property

teaching, practice, worship and observance

through any media and regardless of frontiers

of peaceful assembly and associatio

ment of his perso

**UNITED NATIONS** 

tection against unemployment

MITCLE 20 -1. Everyone has the right to freedom

2. No one may be compelled to belong to an association

government of his country, directly or through freely chose

ARTICLE 21 -1. Everyone has the right to take part in the

2. Everyone has the right of equal access to public service in hi

3. The will of the people shall be the basis of the authority of gov-

ernment: this will shall be expressed in periodic and genuine ele

tions which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures.

ARTICLE 22 -Everyone, as a member of society, has the right to

social security and is entitled to realisation, through national effort and international co-operation and in accordance with the organisation and resources of each State, of the economic, social and

cultural rights indispensable for his dignity and the free develop

METICLE 23 -1. Everyone has the right to work, to free choice of

employment, to just and favourable conditions of work and to pro-

and a to enjoy in ation insuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection. 2. This right may not be invoked in the case of prosecutions as unely arising from non-political crimes or from acts contrary to the purposes and principles of the United Nations. 4. Everyone has the right to form and to join trade unions for the protection of his interests

determined to promote social progress and better standards of life in

WHEREAS Member States have pledged themselves to achieve, in co-

operation with the United Nations, the promotion of universal respect

WHEREAS a common understanding of these rights and freedoms is of

PROCLAIMS this Universal Declaration of Human Rights as a common

standard of achievement for all peoples and all nations, to the end that

every individual and every organ of society, keeping this Declaration

constantly in mind, shall strive by teaching and education to promote

respect for these rights and freedoms and by progressive measures.

national and international, to secure their universal and effective

recognition and observance, both among the peoples of Member States

themselves and among the peoples of territories under their jurisdiction.

for and observance of human rights and fundamental freedoms

the greatest importance for the full realisation of this pledge.

larger freedo

NOW THEREFORE THE GENERAL ASSEMBLY

ARTICLE 21 - Everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with

AFTICLE 25 -1. Everyone has the right to a standard of living ade-quate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemploy-ment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

2. Motherhood and childhood are entitled to special care and assist tance. All children, whether born in or out of wedlock, shall enjoy

 $_{\rm ARTICLE\ 26}$  -1. Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and profes sional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit. 2. Education shall be directed to the full development of the human 2. Eurodation shall be arrected to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, toler-ance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

3. Parents have a prior right to choose the kind of education that shall be given to their children.

ARTICLE 27 -1. Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits. 2. Everyone has the right to the protection of the moral and material

interests resulting from any scientific, literary or artistic production of which he is the author.

BITICLE 28 -Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized.

2. In the exercise of his rights and freedoms, everyone shall be subject only to such limitations as are determined by law solely for the

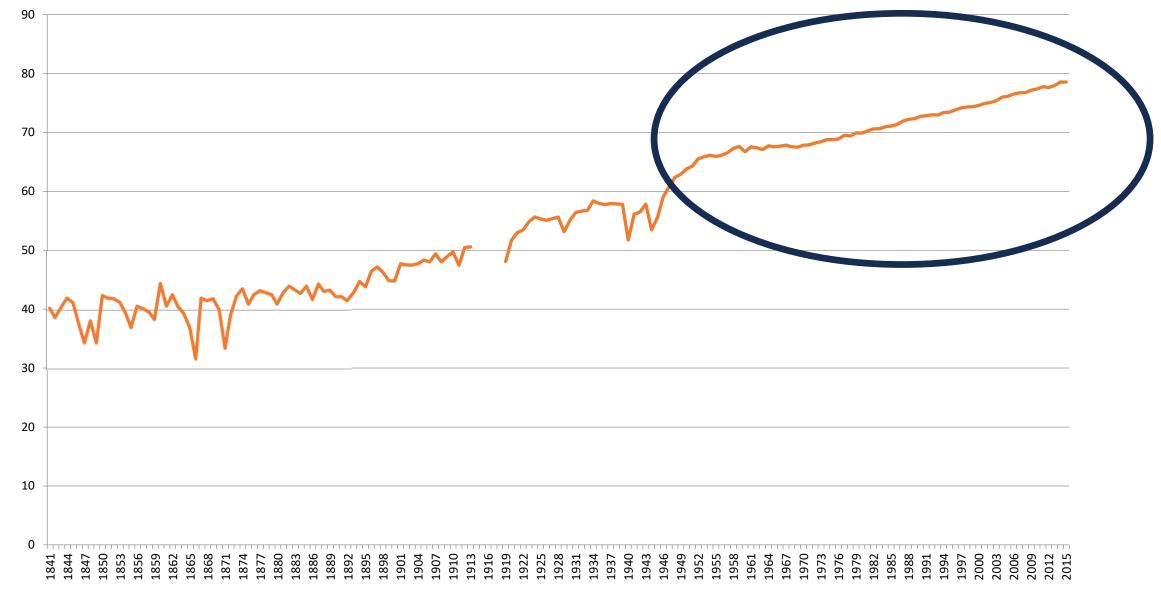
purpose of securing due recognition and respect for the rights and freedoms of others and of meeting the just requirements of morality, public order and the general welfare in a democratic society 3. These rights and freedoms may in no case be exercised contro

to the purposes and principles of the United Nations

TICLE 30 -Nothing in this Declaration may be interpreted a implying for any State, group or person any right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.



## Evolution in life expectancy of Belgian men 1841-2020



### The history of growth in life expectancy

- Was not thanks to capitalism.
- It was despite capitalism, and through a long history of continuous struggle for the two forgotten mottos of the French Revolution.
- Scientific progress needed to be coupled with social security and the pursuit of well-being for all.

A History of Population Health Rise and Fall of Disease in Europe Johan P. Mackenbach

salvaleme

"This increase in "the length of life" has been accompanied by enormous changes in people's health."

"Most diseases which were common at their peak, were uncommon centuries or decades before, and their rise was usually followed by an equally impressive decline."

### The Rise and Fall of Diseases (Mackenbach)

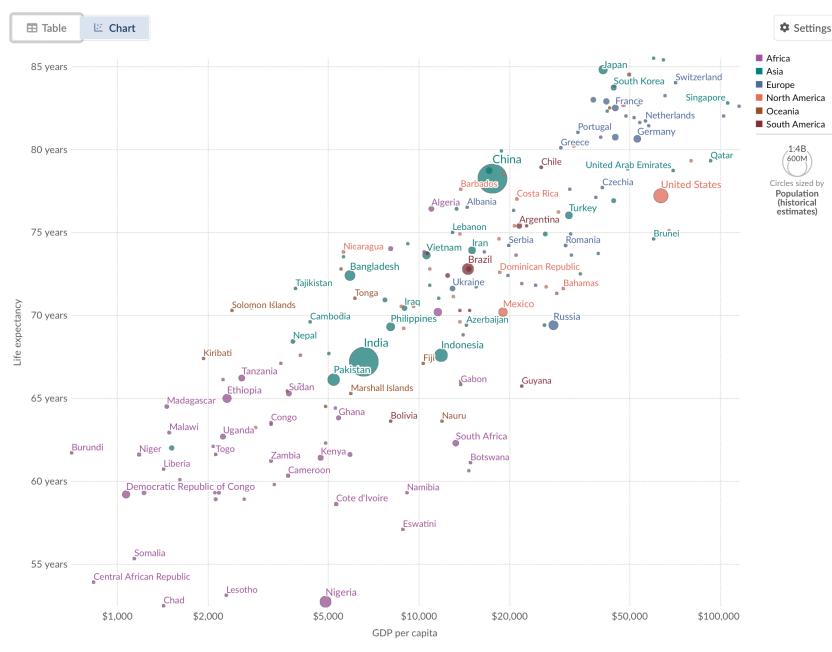
- Most diseases have followed a 'rise-and-fall' pattern.
- This clearly suggests an exogenous or environmental origin.
- The emergence of new diseases is often linked to changes in human behaviour.
- Trends in 'aggregate' population health are the net results of rises and falls of many specific health outcomes.
- The improvement of 'aggregate' population health over the past three centuries can therefore be seen as the result of a favourable change in the balance between 'rising' and 'falling' diseases.

### And what about inequality?

- The improvement in health follows a different temporal evolution based on class background creating inequalities in health and mortality between social classes
- While in the 19th century there was an awareness that poverty contributed to poor health, in the 20th century – with improving health – addressing inequality became more important
- The link between material conditions and health was obvious, but it took much longer to be aware of the gradient in inequality

#### Life expectancy vs. GDP per capita, 2021

The period life expectancy at birth, in a given year. GDP per capita is measured in 2017 international dollars, which adjusts for inflation and cross-country price differences.



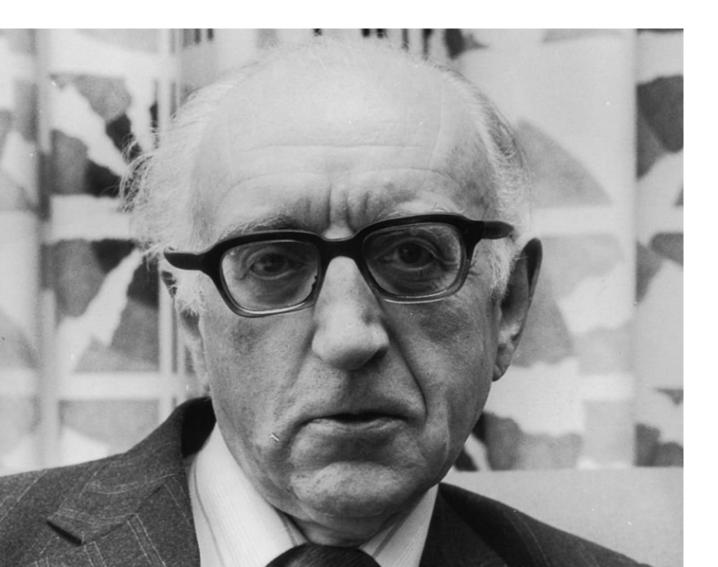


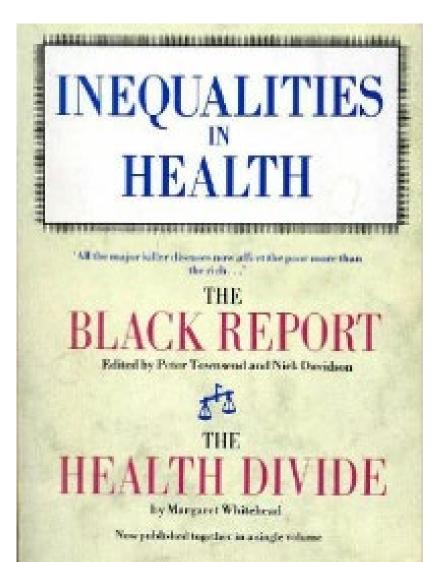
### a strong correlation

LE between 52 and 85

- GDP < 1000 \$ to >100.000 \$
- Belgium 51700 \$ 82
- Portugal 33600 \$ 81
- China 17600 \$ 78
- USA 63000 \$ 77
- Algeria 11000 \$ 76

### The Black Report UK 1980





PLoS One. 2018; 13

Inequalities in global health inequalities research: A 50-year bibliometric analysis (1966-2015)

Lucinda Cash-Gibson, Diego F. Rojas-Gualdrón, Juan M. Pericàs, Joan Benach

#### Background

Increasing evidence shows that health inequalities exist between and within countries, and emphasis has been placed on strengthening the production and use of the global health inequalities research, so as to improve capacities to act. Yet, a comprehensive overview of this evidence base is still needed, to determine what is known about the global and historical scientific production on health inequalities to date, how is it distributed in terms of country income groups and world regions, how has it changed over time, and what international collaboration dynamics exist.

#### Methods

A comprehensive bibliometric analysis of the global scientific production on health inequalities, from 1966 to 2015, was conducted using Scopus database. The historical and global evolution of the study of health inequalities was considered, and through joinpoint regression analysis and visualisation network maps, the preceding questions were examined.

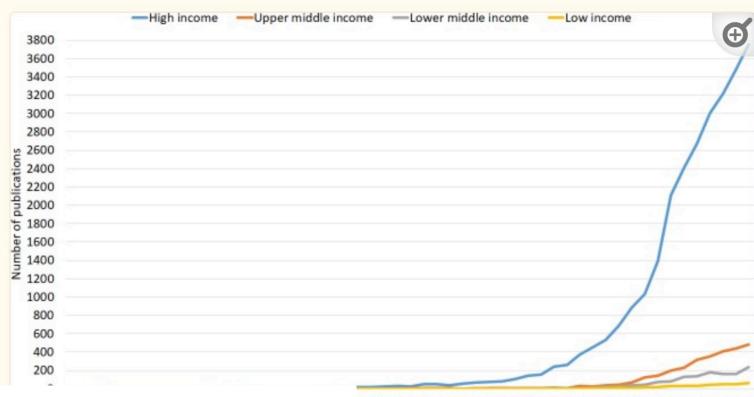
#### Findings

159 countries (via authorship affiliation) contributed to this scientific production, three times as many countries than previously found. Scientific output on health inequalities has exponentially grown over the last five decades, with several marked shift points, and a visible country-income group affiliation gradient in the initiation and consistent publication frequency. Higher income countries, especially Anglo-Saxon and European countries, disproportionately dominate first and co-authorship, and are at the core of the global collaborative research networks, with the Global South on the periphery. However, several country anomalies exist that suggest that the causes of these research inequalities, and potential underlying dependencies, run deeper than simply differences in country income and language.

#### Conclusions

Whilst the global evidence base has expanded, Global North-South research gaps exist, persist and, in some cases, are widening. Greater understanding of the structural determinants of these research inequalities and national research capacities is needed, to further strengthen the evidence base, and support the long term agenda for global health equity.

The first publication dates back to 1966, however it was not until the early 1970's (1973–1979) that publications begin to appear annually



# 1.Explosion scientific publications 2.Availability of data 3. The disperity between inequality

3.The disparity between inequality in health & the post-war ideology and goals of the welfare state

1985 1986 1987 1988 1988 1989 1989	1991	666	668	56	60	88	888	88	88	8	01	2011 2012 2013 2013	5
17.8%*			;	> <			27.2%	*		>	<	10.0%	>
><63.5%*><		7.5%	6	>	<		38.2%	*	>	<		17.3%*	>
>	<	8.5%		> <			38.39	6*		>	<	10.1%	>
ted						> <	43.69	6*	> <		1	6.7%*	>
Year													
tage change (	APC	) per ti	me	peri	od								

e group of authors' country of affiliation (1966-2015).

### THE ROAD TO SERFDOM

TEXT AND DOCUMENT The Definitive Edita F. A. HAYEK

EDITED BY Bruce Caldwell er half nillion les sold

## ILTON JEDMAN

## ND FREEDOM

Anniversary Edition

## Belgium some stepping stones

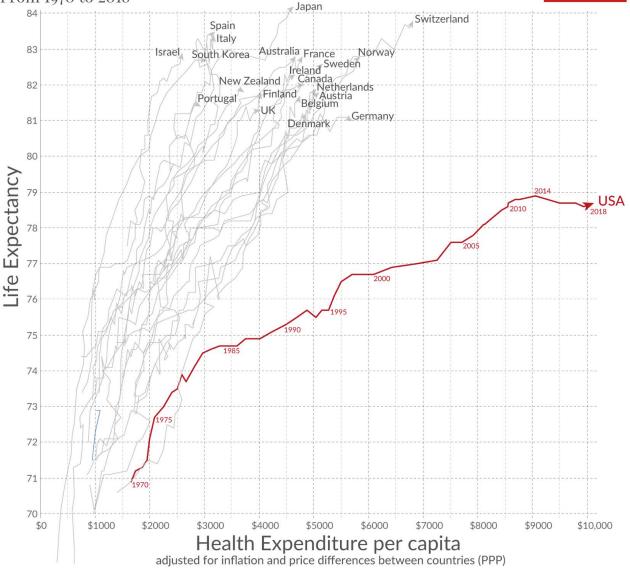
- 1963 at the ULB founding of the Ecole de Santé Publique
  - 1987 Raphaël Lagasse & Perrine Humblet "La mortalité évitable en Belgique" using mortality data of 1974-1978 by district.
  - 1989 Isabelle Godin "Maternal & child health"
- UCL Godelieve Masuy-Stroobant & Catherine Gourbin on child mortality
- VUB 1990s databank mortality: linking census data with mortality

#### Differences in Life Expectancy at age 25 by educational attainment and gender



	al Articol Top 20	Table 1 Top 20 high income country contributors to global health inequalities research (1966–2015), ranked by co-authorship affiliation.						
	HIC	Global	Country	Volume of health	Proportional	Health inequalities	Health	
1	Uni	ted		1	6495			48.58
	Stat	tes						
	Journal Article 3	2	United Kingdom	4257	12.54	0.10	65.4	
	Artici 3	3	Canada	2116	6.23	0.05	59.0	
		4	Australia	1650	4.86	0.03	69.4	
	5	5	Netherlands	741	2.18	0.02	43.8	
	6	7	Germany	713	2.10	0.02	8.7	
	7	8	Sweden	673	1.98	0.01	68.7	
	8	9	France	663	1.95	0.02	10.0	
	9	10	Spain	623	1.83	0.02	13.4	
	10	11	New Zealand	518	1.53	0.01	112.7	
	ا کے 11	12	Switzerland	453	1.33	0.01	54.7	
	11 12	13	Italy	418	1.23	0.01	6.9	
18	Belg	giun	n		334			0.98
	16	20	Denmark	292	0.86	0.01	51.4	
	17	21	Japan	253	0.75	0.01	2.0	





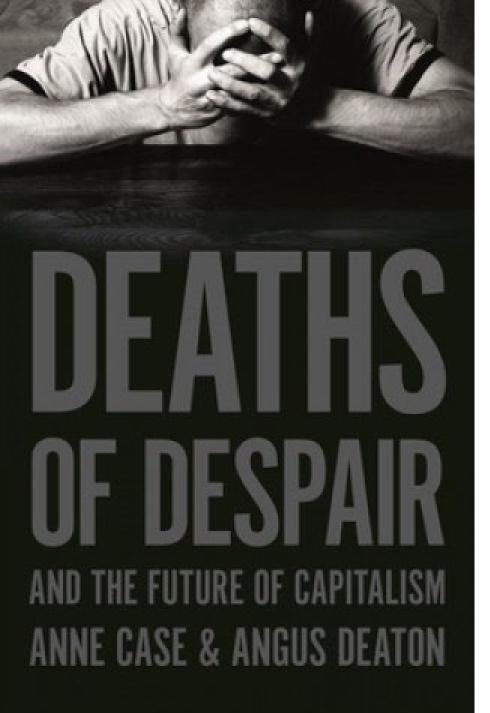
The low life expectancy of poorer Americans is a big part of why the average life expectancy in the US is lower than in other rich countries.

There are now 19 US counties where people have a lower life expectancy than the world average.

Data source: OECD — Note: Health spending measures the consumption of health care goods and services, including personal health care (curative care, rehabilitative care, long-term care, ancillary services, and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments.

Shown is total health expenditure (financed by public and private sources). Licensed under CC-BY by the author Max Roser.

OurWorldinData.org - Research and data to make progress against the world's largest problems.



THE SPIRIT LEVEL

Why Greater Equality Makes Societies Stronger

 $u=u(u)\times u \in (u,u)\times u$ 

RICHARD WILKINSON AND KATE PICKETT

"An important contribution to the debate our country needs."

-Robert B. Beick

Foreword by Robert B. Reich



### Françoise Renard on the interpretation of changes in health inequality

It is necessary to integrate the emperical results with a clear understanding of the measures of inequality and a moral assessment of the underlying values.

Until the moral values underlying the concepts are not clarified, the interpretation of changes in inequality will remain ambiguous. An extreme example is for instance reducing inequality by slowing down the progress in health from the best group.

Françoise, who was strongly in favor of improving the upstream conditions, demonstrated how this could negatively impact inequality measures of health.

### **BMC** Public Health

### **RESEARCH ARTICLE**

Monitoring health inequalities when the socio-economic composition changes: are the slope and relative indices of inequality appropriate? Results of a simulation study

Françoise Renard<sup>1\*</sup>, Brecht Devleesschauwer<sup>1,2</sup>, Niko Speybroeck<sup>3</sup> and Patrick Deboosere<sup>4</sup>

Through a simulation she illustrated how improvements in education of the population could result in higher inequality using commonly recommended measures to monitor health inequality policies. Hence the importance to use several indicators and complement RII and SII with pairwise inequality indicators and population attributable fractions (PAFs).



**Open Access** 

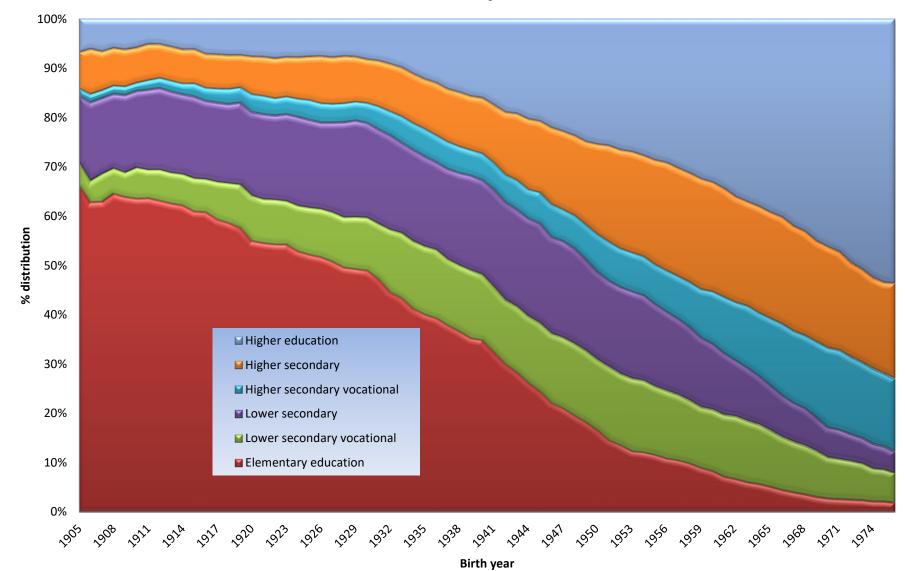
- Addressing health inequality is not only a matter of public health policy
- We have to be very carefull in our interpretation of the data, contextualize our results, and pinpoint the fundamental causes of inequality in health
- This consciousness forms the basis for the "fundamental cause theory"

# Some concluding remarks

- The emergence of studies on health inequality is rooted in a fundamental shift in moral and political values over the past centuries.
- In addition to shaping the types of research questions that are considered important, the increased acceptance of values such as freedom, equality, and solidarity has also influenced the way in which research is conducted and disseminated.
- Overall, the evolving moral landscape that has emerged in the post-WWII era has led to a more socially conscious and ethically engaged approach to scientific inquiry, resulting in research that is more relevant, impactful, and responsive to the needs and values of society.

# Thanks for your attention

### Distribution of educational level among Belgian women Evolution by birth cohort 1905-1976



### Data: 528.109 persons

Census 1991 Educational level from parents from

1972-1976 birth cohorts

(97%)

Census 2001 Educational level + health status from 1972-1976 birth cohorts

## O.R. Less than good health Birth cohorts 72-76 & their parents

	birth cohorts 72-76	Parents	
Highest educational level	O.R. LTGH	O.R. LTGH	
No formal education	7,0	4,6	
Elementary education	6,4	3,5	
Lower Secondary	3,8	2,4	
Higher Secondary	2,1	1,6	
Higher Education (Tertiary)	1,0	1,0	

## O.R. Less than good health Birth cohorts 72-76 & their parents

	birth cohorts 72-76	Parents	
Highest educational level	O.R. LTGH	O.R. LTGH	Ν
No formal education	7,0	4,6	28.405
Elementary education	6,4	3,5	98.437
Lower Secondary	3,8	2,4	140.982
Higher Secondary	2,1	1,6	104.943
Higher Education (Tertiary)	1,0	1,0	115.070

## O.R. Less than good health Birth cohorts 72-76 & their parents

	birth cohorts 72-76		Parents	
Highest educational level	O.R. LTGH	Ν	O.R. LTGH	Ν
No formal education	7,0	5.047	4,6	28.405
Elementary education	6,4	8.532	3,5	98.437
Lower Secondary	3,8	66.891	2,4	140.982
Higher Secondary	2,1	196.840	1,6	104.943
Higher Education (Tertiary)	1,0	250.799	1,0	115.070