

THE LANCET

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

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The inverse care law re-examined: a global perspective

Supplementary appendices

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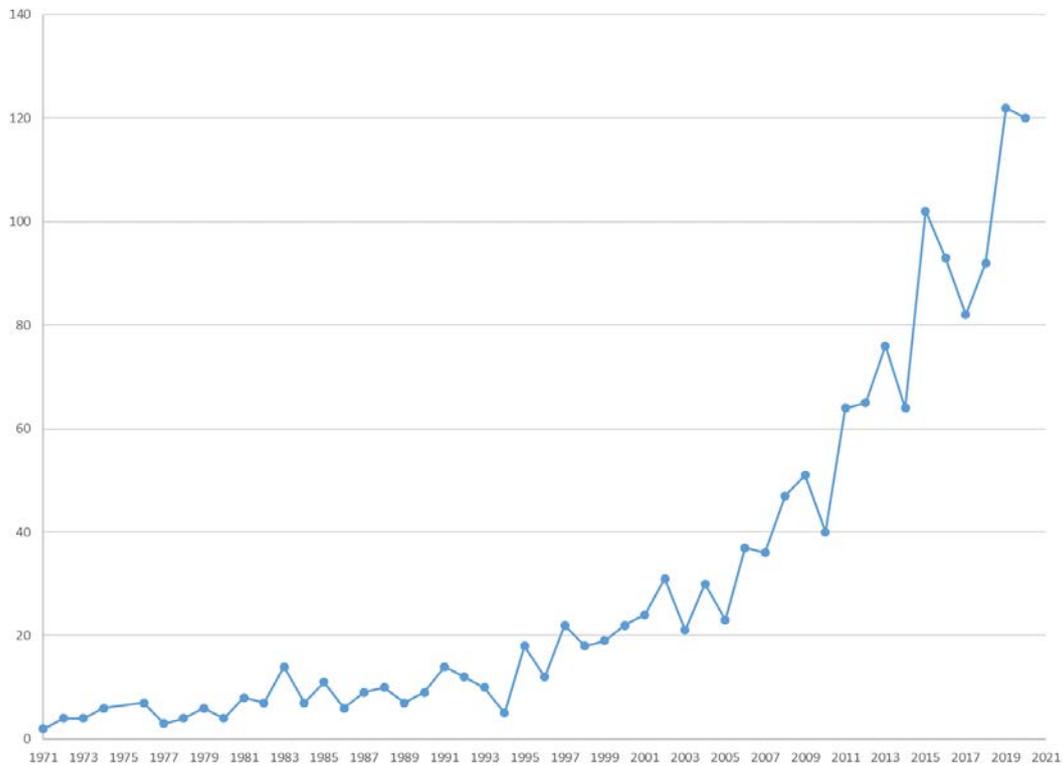
Appendix A1 : Bibliometric analysis

This appendix section presents the following bibliometric analyses:

1. Web of Science analysis of 1,463 documents citing Tudor-Hart's "Inverse Care Law" paper since 1971
2. Scopus analysis of 1,786 documents citing Tudor-Hart's "Inverse Care Law" paper since 1971
3. Google Scholar analysis of 3,694 documents citing Tudor-Hart's "Inverse Care Law" paper since 1971
4. Use of the phrase "Inverse care law" in publications since 1971 according to Google Scholar
5. Google Books Analysis of Relative Frequency of the Phrase ICL in Books since 1971

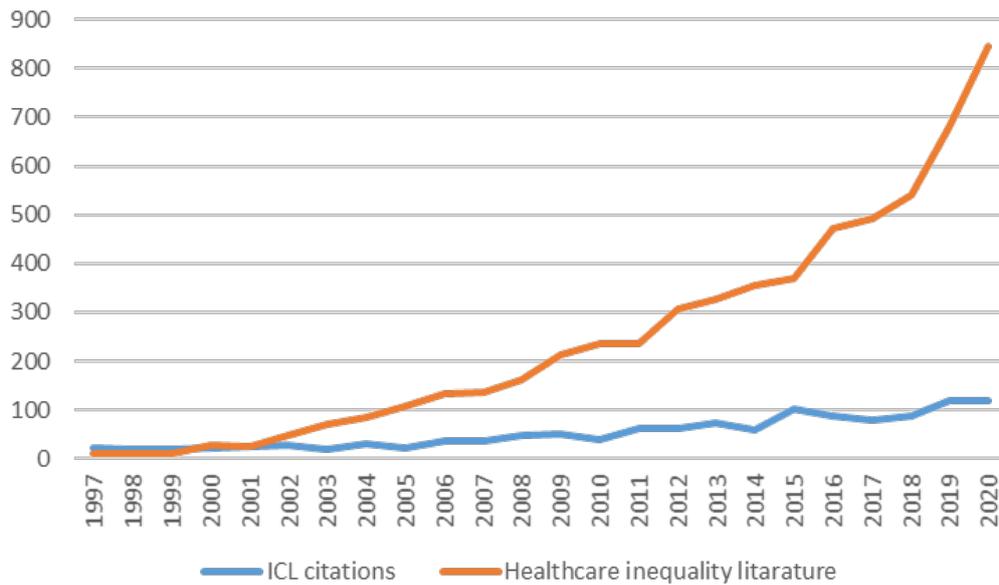
1. Web of Science analysis of 1,463 documents citing Tudor-Hart’s “Inverse Care Law” paper since 1971

Figure A1: Documents citing ICL article by year (WoS)



The growth trend may be over-estimated since electronic indexing has improved over time and only started in the mid-1990s, so indexing prior to then is based on digitisation of printed records. The Web of Science Core Collection includes Medline which has 26.4m records from 1900, the Social Sciences Citation Index which contains 8.5 million records from 1900, and the Arts & Humanities Citation Index which contains 4.6 million records from 1975 to the present (<https://clarivate.com/webofsciencegroup/solutions/web-of-science>). Web of Science claims to be “the world’s most trusted publisher-independent global citation database... [with] almost 1.9 billion cited references from over 171 million records.... [and] the only resource that provides consistent controlled indexing for all authors, addresses, funding acknowledgements, and cited references.”

Figure A2: Growth in documents citing the ICL article compared with even faster growth in the general literature on health care inequality since 1997 (WoS)



General documents on health care inequality were extracted from Web of Science using the following search query on title, abstract and keywords: (inequit* OR disparit* OR inequalit*) NEAR/2 (healthcare OR "health care" OR "health service*" OR "health provider*"). Only documents after 1996 were suitably indexed for this search. Growth in the general literature may be somewhat over-estimated by these figures, since electronic indexing has improved over time and manual screening of documents for relevance was not undertaken and many of the retrieved documents merely mention the topic in the introduction or discussion section of the abstract rather than being primarily focused on this topic. The phrase “inverse care law” is rarely mentioned in titles, abstracts or keywords – only such 193 documents were found by WoS since 1971 – but is more often mentioned in the text of articles and books as shown later in the google scholar and google books analyses.

Figure A3: Documents citing ICL article by type (WoS)

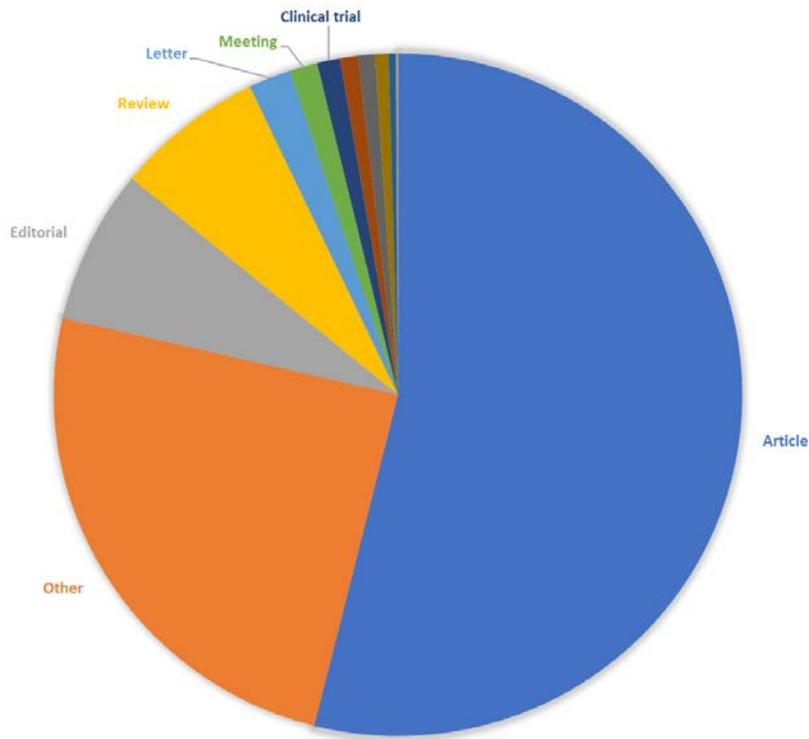


Figure A4: Documents citing ICL article by subject area (WoS)

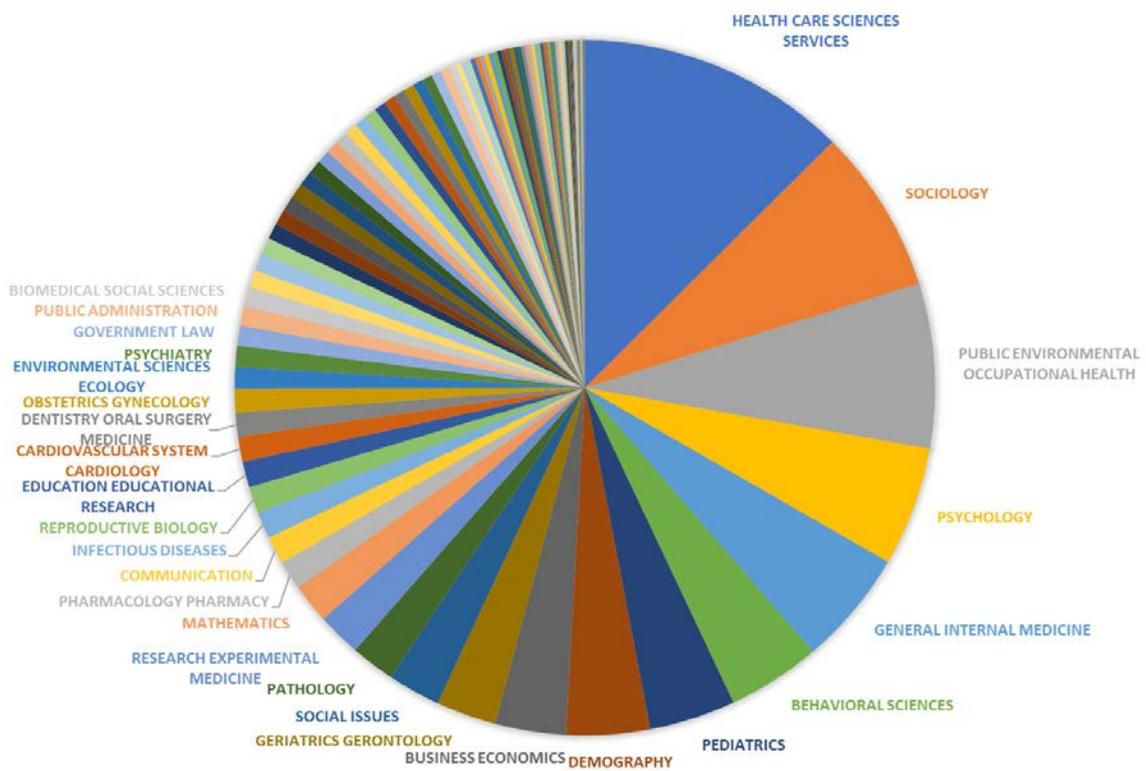


Figure A5: Documents citing ICL article by country (WoS)

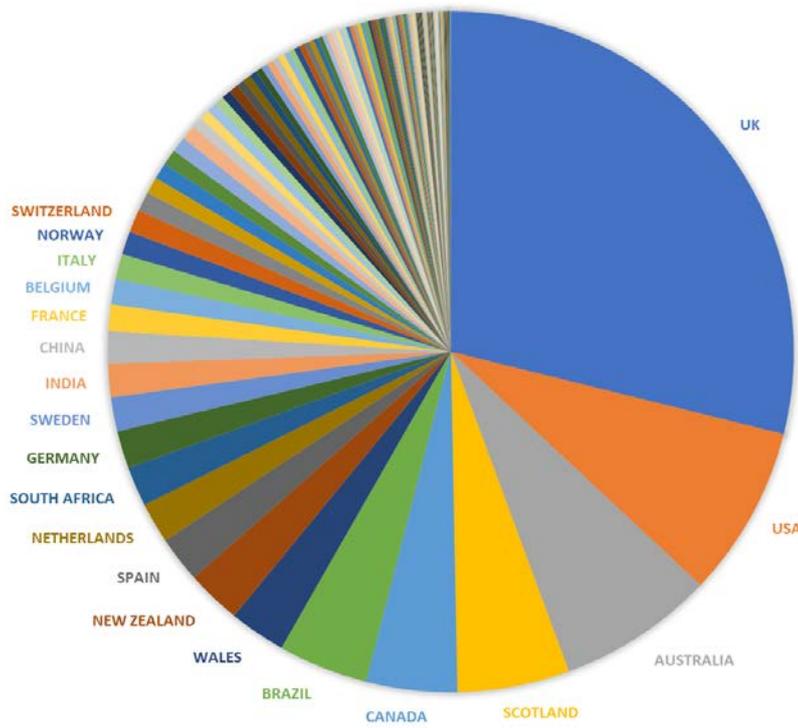
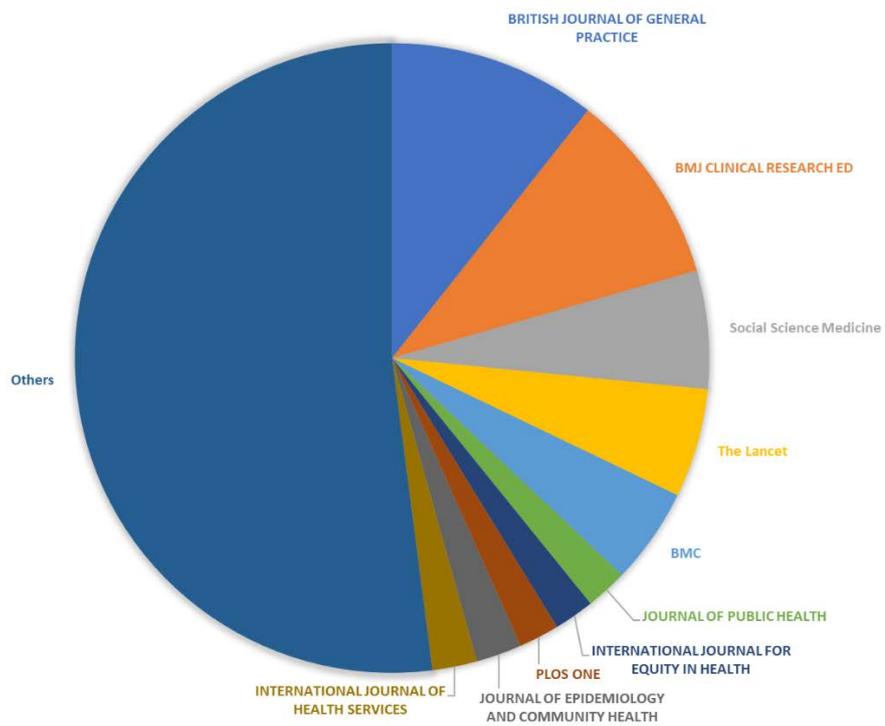
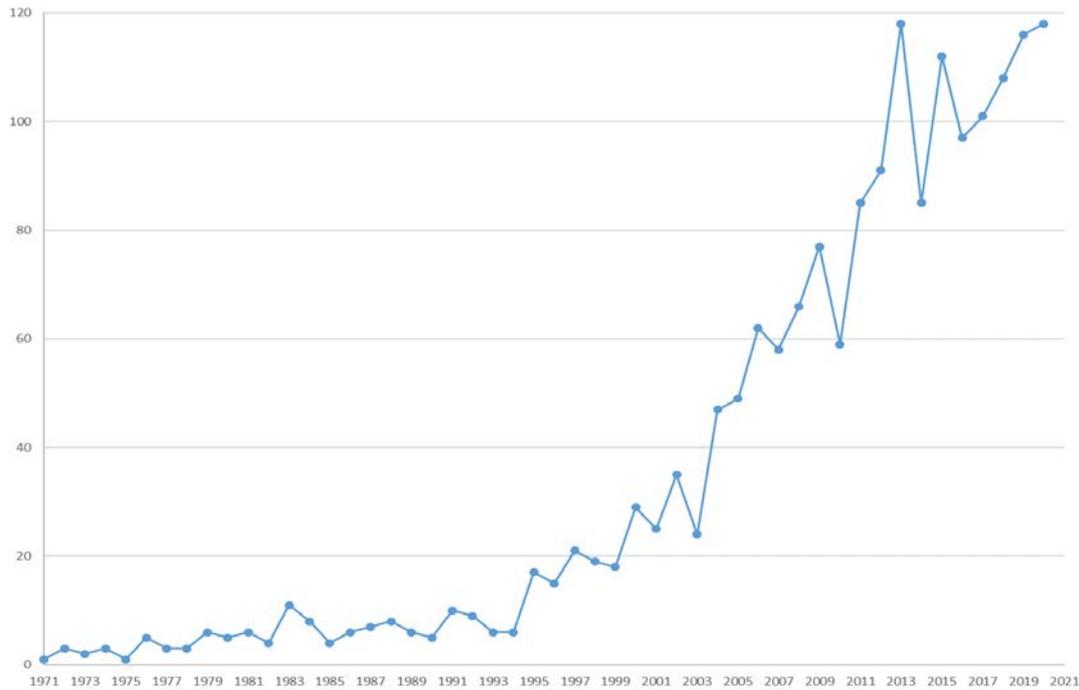


Figure A6: Documents citing ICL article by journal (WoS)



2. Scopus analysis of 1,786 documents citing Tudor-Hart’s “Inverse Care Law” paper since 1971

Figure A7: Documents citing ICL article by year (Scopus)



The growth trend may be over-estimated insofar as electronic indexing has improved over time. Scopus currently covers nearly 77m published items and covers cited references dating back to 1970 (<https://www.scopus.com>). This includes 51.3 million records post-1995 with references and 25.3 million records pre-1996 with references added for all records going back to 1970 by adding pre-1996 cited references to existing articles and adding article back files going back to Volume1/issue1 and including their cited references going back to 1970. The journal content is obtained from the archives of 60 major publishers including Springer Nature, Wiley Blackwell, Taylor & Francis, IEEE, American Physical Science and Elsevier. Scopus claims to be “the most comprehensive overview of the world’s research output in the fields of science, technology, medicine, social science, and arts and humanities”.

Figure A8: Documents citing ICL article by type (Scopus)

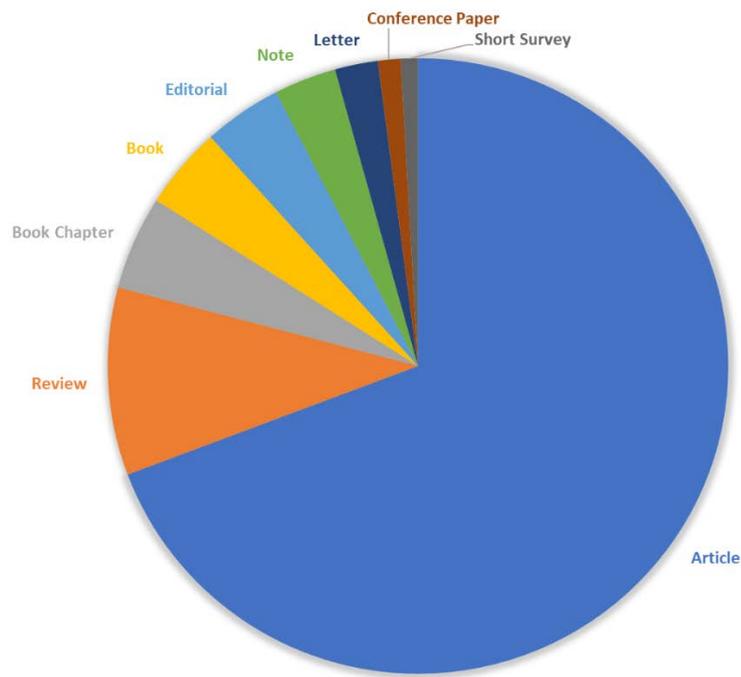


Figure A9: Documents citing ICL article by subject area (Scopus)

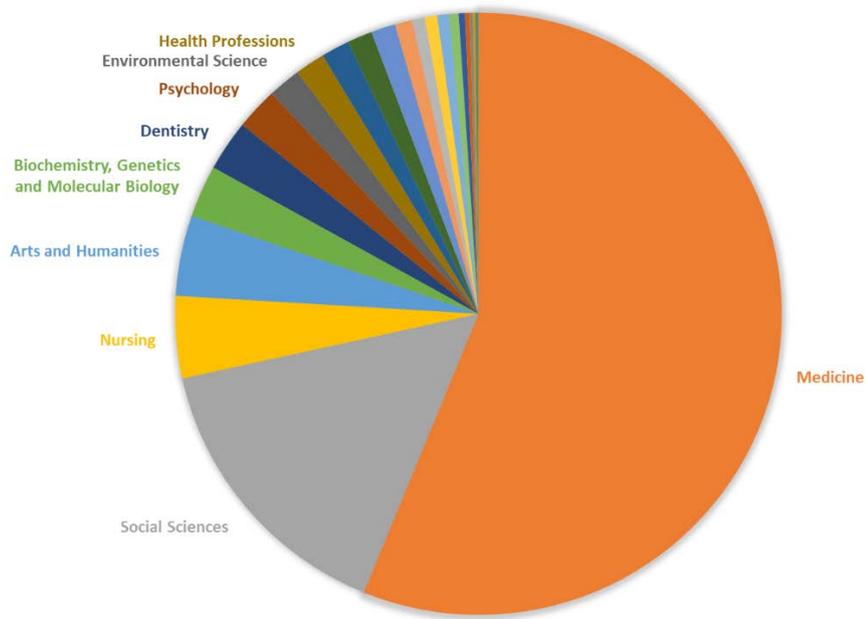
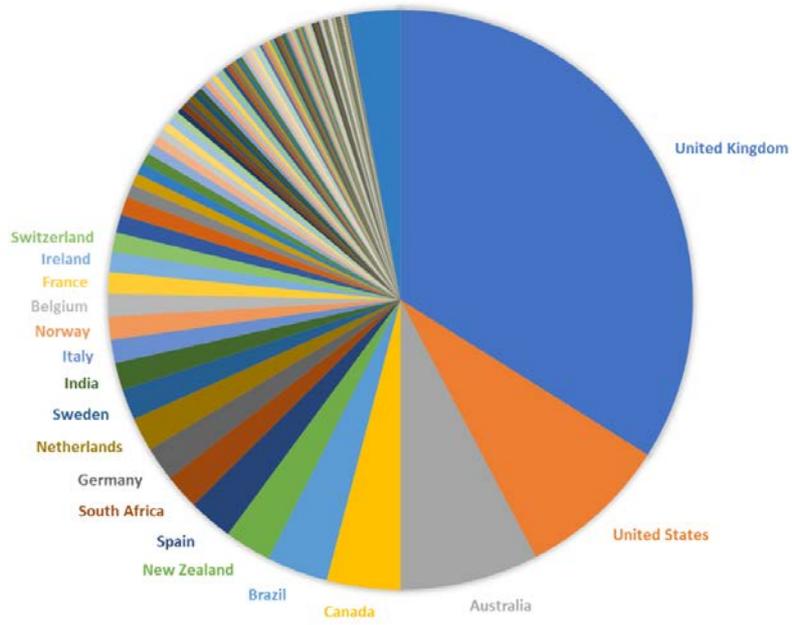
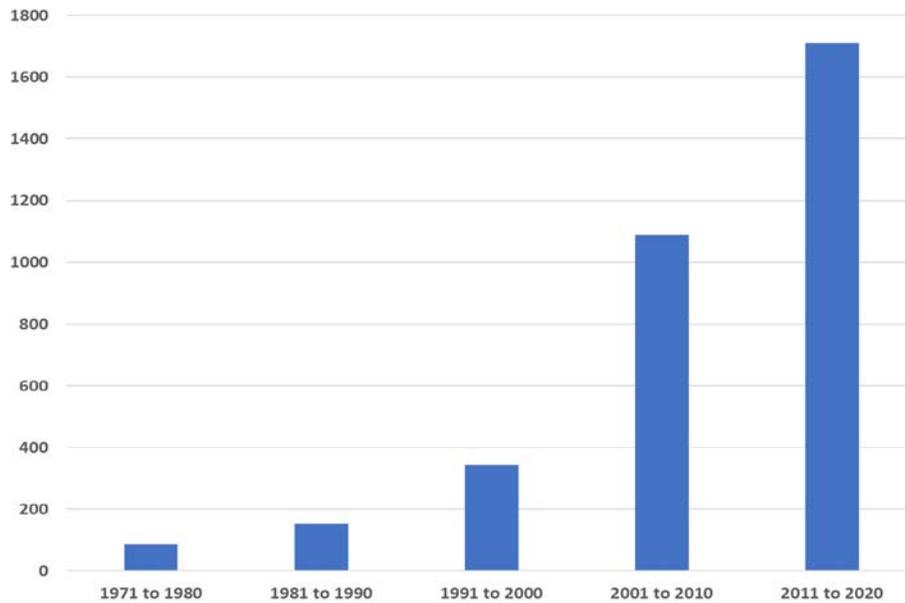


Figure A10: Documents citing ICL article by country (Scopus)



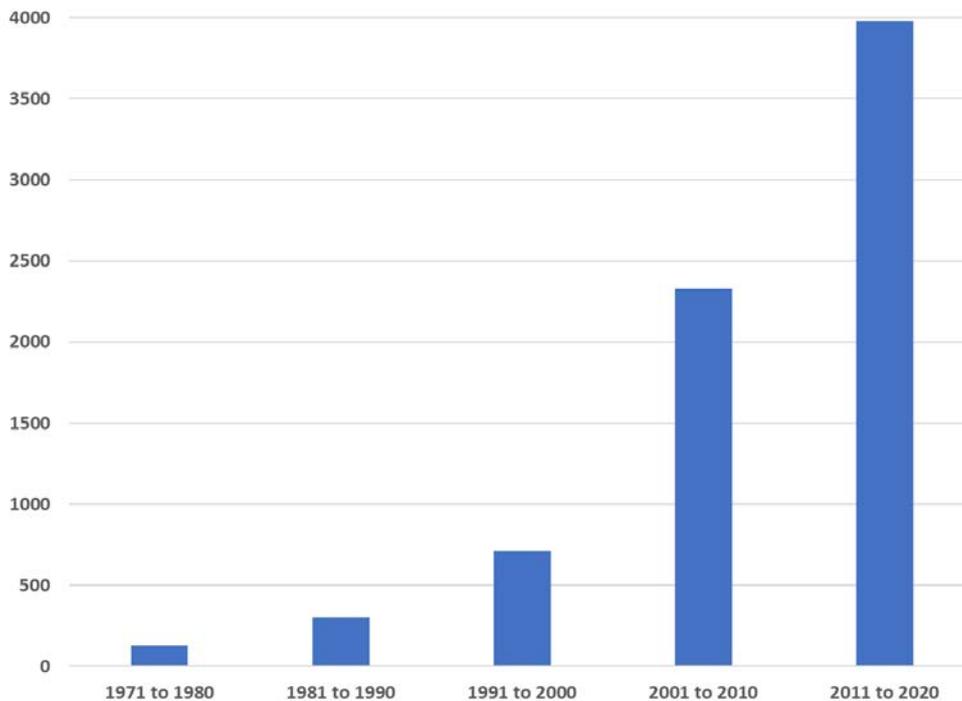
3. Google Scholar analysis of 3,694 documents citing Tudor-Hart’s “Inverse Care Law” paper since 1971

Figure A11: Documents citing the ICL article by decade (Google Scholar)



4. Use of the phrase “Inverse care law” in publications since 1971 according to google scholar

Figure A12: Documents using the phrase “inverse care law” by decade, from a total of 7,640 (Google Scholar)



5. Google Books Analysis of Relative Frequency of the Phrase ICL in Books

Figure A13: Relative frequency of the phrase “inverse care law” in books published since 1970

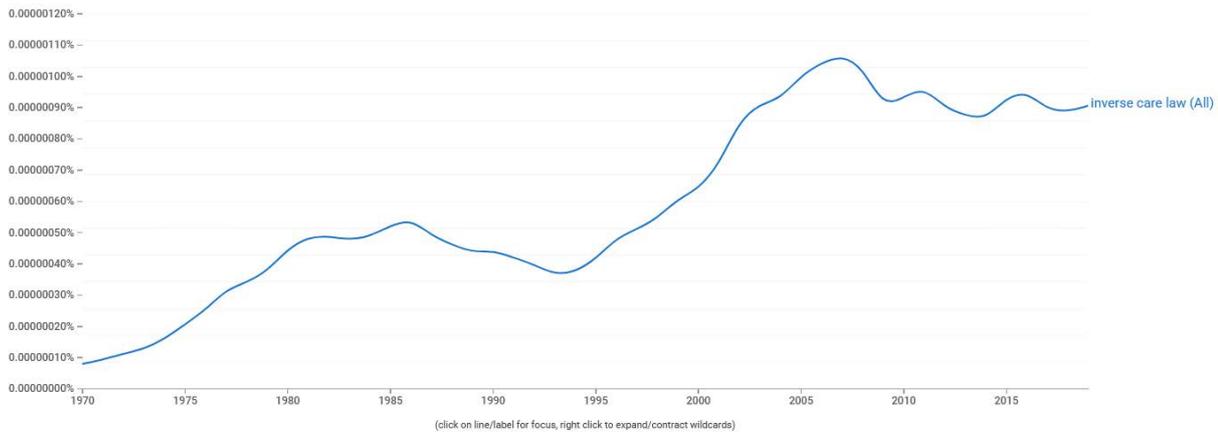
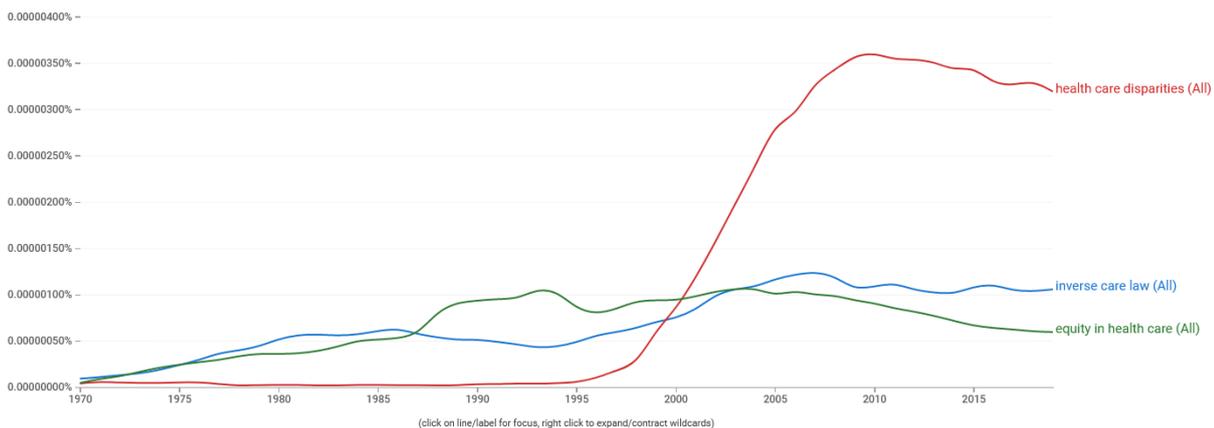


Figure A14: Relative frequency compared with two similar phrases



This analysis was produced using Google’s “NGram Viewer” tool, which provides information on the relative frequency of occurrence of phrases in millions of digitized books published in any country since 1500, predominantly in the English language. The books are mostly non-academic and include fiction. The tool does not provide information on the number of books, only the relative frequency, and does not allow export of data from specific searches – only the entire database.

Source: Jean-Baptiste Michel, Yuan Kui Shen, Aviva Presser Aiden, Adrian Veres, Matthew K. Gray, William Brockman, The Google Books Team, Joseph P. Pickett, Dale Hoiberg, Dan Clancy, Peter Norvig, Jon Orwant, Steven Pinker, Martin A. Nowak, and Erez Lieberman Aiden. Quantitative Analysis of Culture Using Millions of Digitized Books. *Science* (Published online ahead of print: 12/16/2010) <https://books.google.com/ngrams/>

Appendix A2: Further analysis of health care inequality in low- and middle-income countries

The composite coverage index (CCI)

Most of this further analysis is based on the composite coverage index (CCI), a weighted score regarding coverage of eight Reproductive, Maternal, Newborn and Child Health (RMNCH) interventions along the continuum of care: demand for family planning satisfied (modern methods); antenatal care received (at least four visits); births attended by skilled health personnel; BCG immunization coverage among one-year-olds; measles immunization coverage among one-year-olds; DTP3 immunization coverage among one-year-olds; children aged less than five years with diarrhoea receiving oral rehydration therapy and continued feeding; and children aged less than five years with pneumonia symptoms taken to a health facility. We extracted CCI data from the World Health Organisation HEAT tool. The underpinning data are from Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and Reproductive Health Surveys (RHS) micro-data. The analysis was done by the WHO Collaborating Center for Health Equity Monitoring (International Center for Equity in Health, Federal University of Pelotas, Brazil)¹.

Within each country, the CCI index is divided into ten decile groups based on a wealth asset index².

Details of other variables used in this further analysis are contained in Appendix A3.

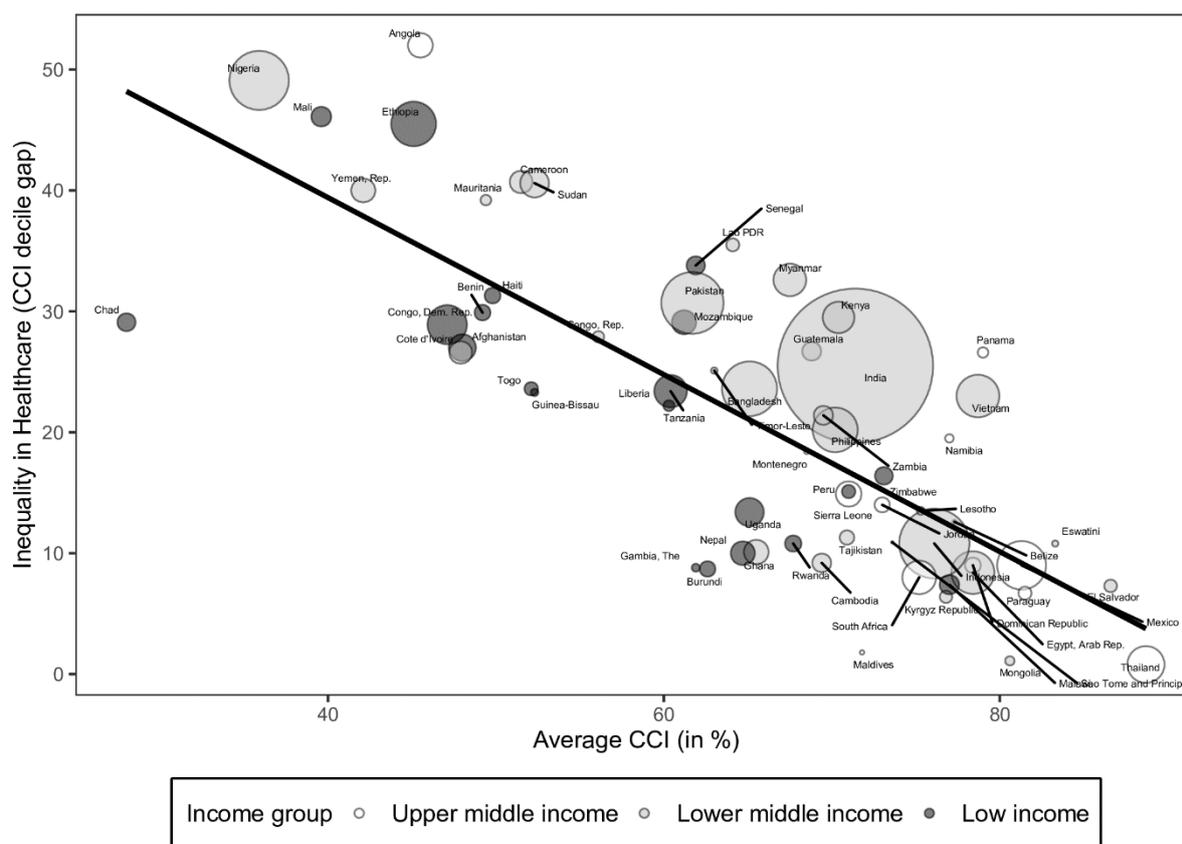
Table A1: Inequality in reproductive, maternal, newborn, and child health coverage (2013-2017) – composite coverage index (CCI)

World Bank Country Classification	Average CCI (population weighted, in %)		Difference in CCI between richest and poorest decile group (in pp)
	Poorest deciles	Wealthiest decile	
Low income	42.11	69.99	27.89
Lower middle income	53.72	79.15	25.43
Upper middle income	72.3	84.0	11.7

N° of countries: 63 (21 low-income, 29 lower middle-income, and 13 upper middle-income). Most recent available data on CCI between 2013 and 2017.

Source: Geneva: World Health Organization [WHO]. Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 4.0. 2020. <https://portal.who.int/heat/> (accessed Nov 6, 2020).

Figure A15: Mean healthcare coverage (CCI) and health care inequality (CCI decile gap)



N° of countries: 63.

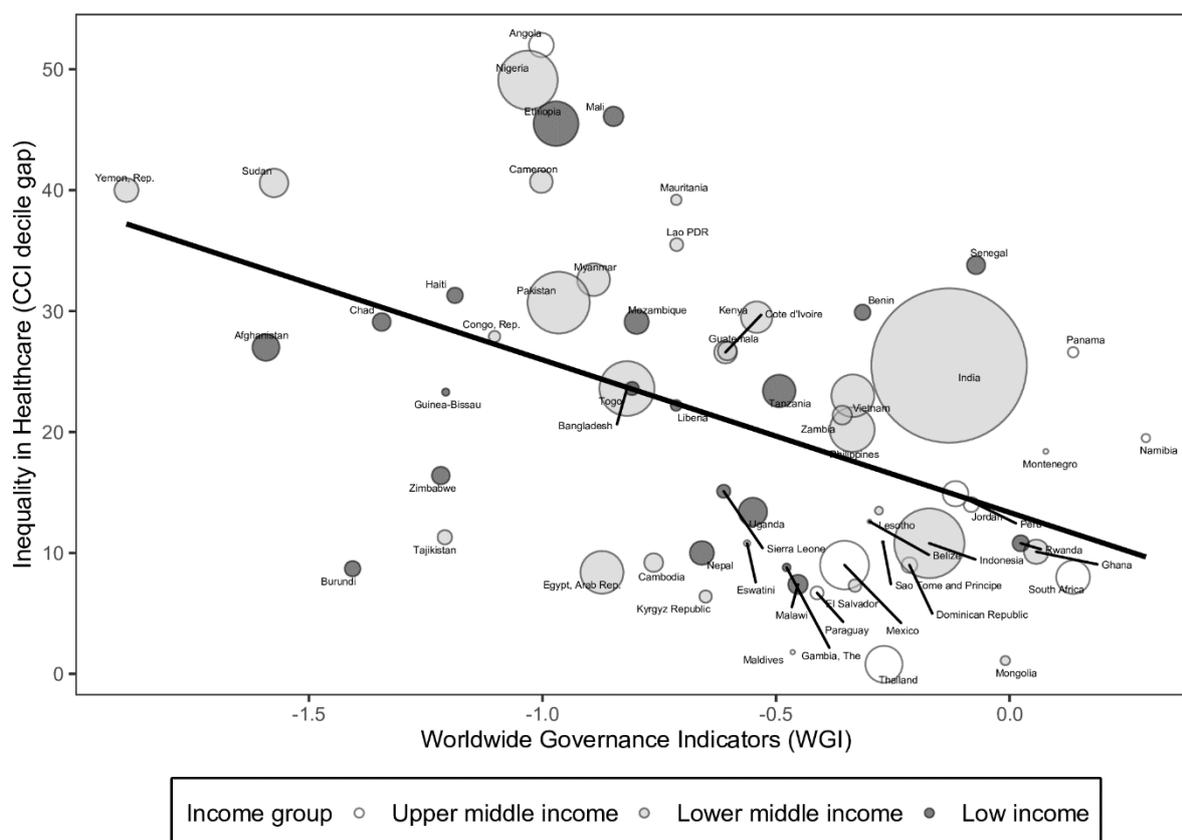
Most recent available data on CCI between 2013 and 2017. The line is a simple linear regression (no population weighting) with slope -0.73 (-0.89 to -0.58, 95% CI) and R-squared 0.59.

Sources:

World Health Organization [WHO]. Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 4.0. 2020. <https://portal.who.int/heat/> (accessed Nov 6, 2020).

World Bank. World Development Indicators. 2020. <https://datacatalog.worldbank.org/dataset/world-development-indicators> (accessed Nov 1, 2020).

Figure A16: Governance quality (mean of Worldwide Governance Indicators) and health care inequality (CCI decile gap)



N° of countries: 61

X-axis: 2017 Worldwide Governance Indicators (WGI) mean; Y-axis: Most recent available data on CCI between 2013 and 2017. The line is a linear regression (unweighted) with slope -12.62 (-18.8 to -6.4, 95% CI) and R-squared 0.22.

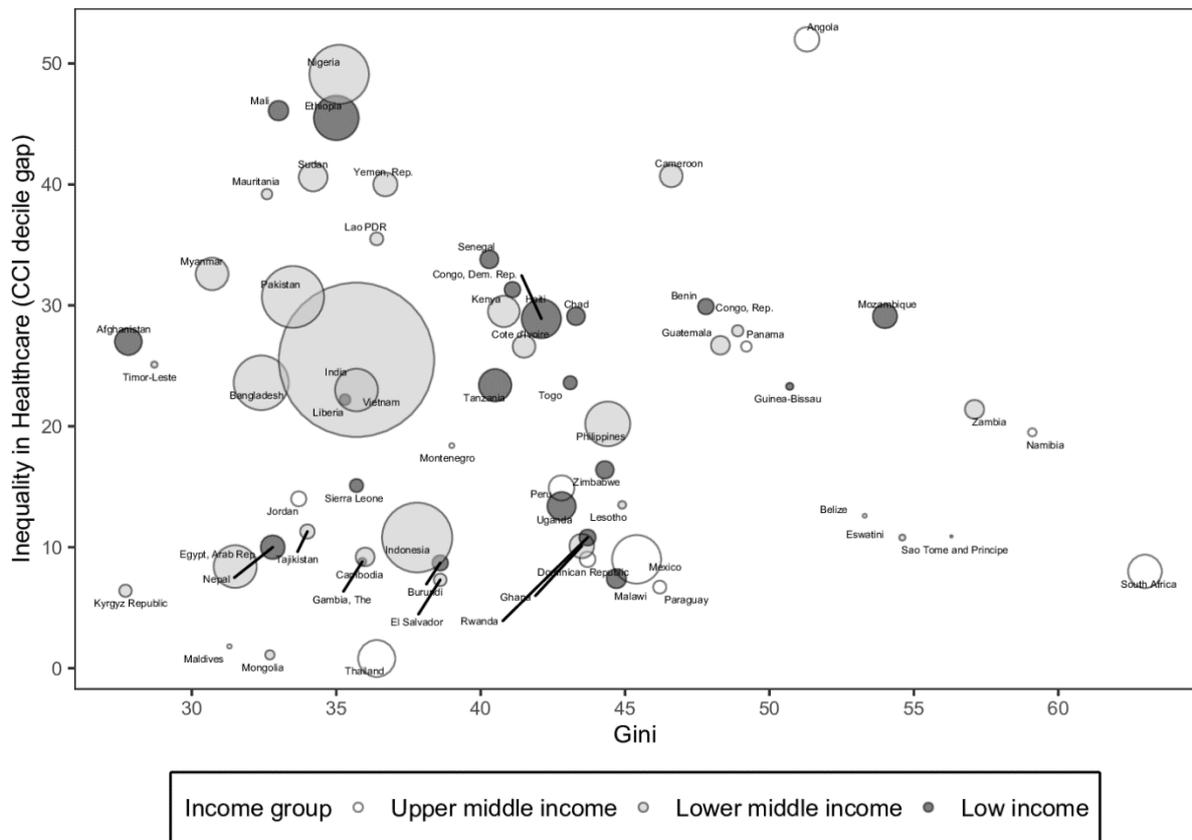
Source: World Bank. (2019). *Worldwide Governance Indicators*. <https://info.worldbank.org/governance/wgi/>

Table A2: Linear regression models of health care inequality

	Healthcare Inequality vs private expenditure	Healthcare Inequality vs WGI	Healthcare Inequality vs WGI and private expenditure
Private expenditure share	0.275**		0.151
World governance indicator		-12.62***	-9.697**
N	61	61	61

* p<0.05, **p<0.01, *** p<0.001

Figure A17: Income inequality (Gini index) and health care inequality (CCI decile gap)



N° of countries: 63.

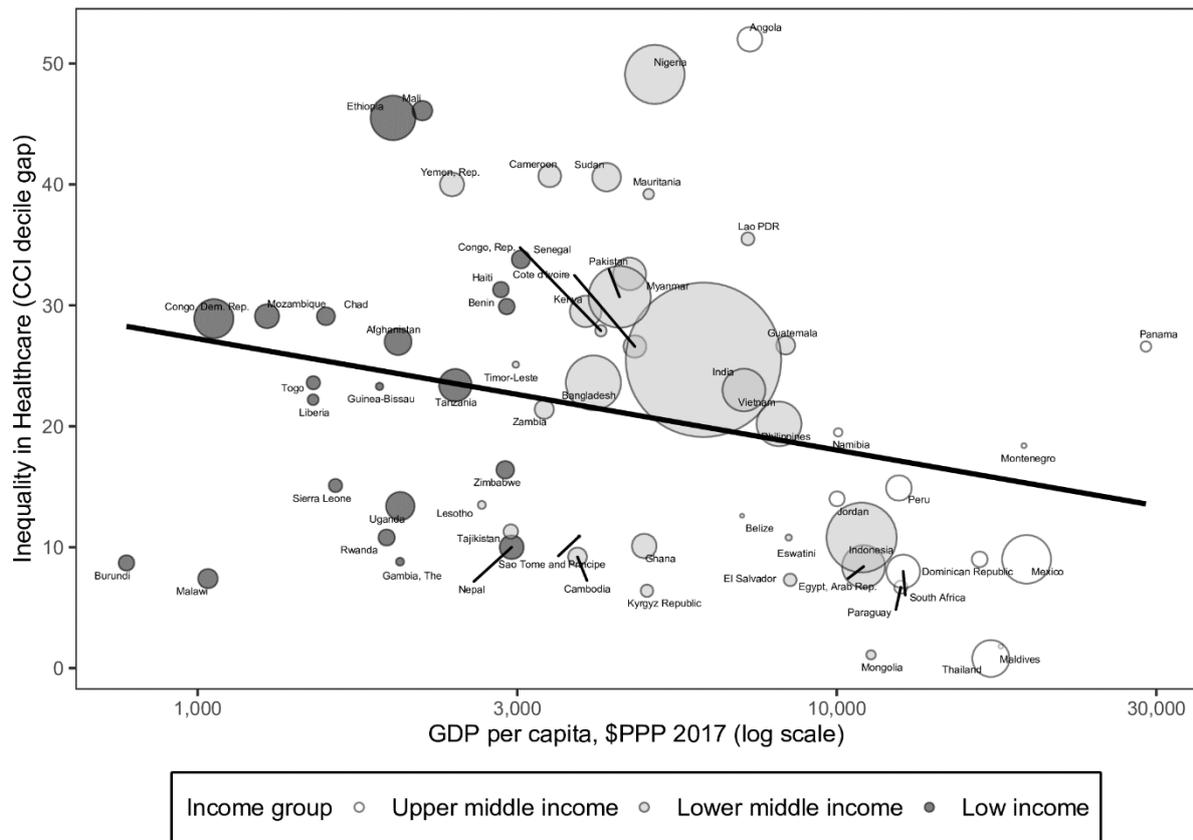
X-axis: most recent available Gini index (2005-2017); Y-axis: Most recent available data on CCI between 2015 and 2017. There is no significant linear correlation.

Sources:

World Health Organization [WHO]. Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 4.0. 2020. <https://portal.who.int/heat/> (accessed Nov 6, 2020);

World Bank. World Development Indicators. 2020. <https://datacatalog.worldbank.org/dataset/world-development-indicators> (accessed Nov 1, 2020).

Figure A18: GDP per capita and health care inequality



N° of countries: 63

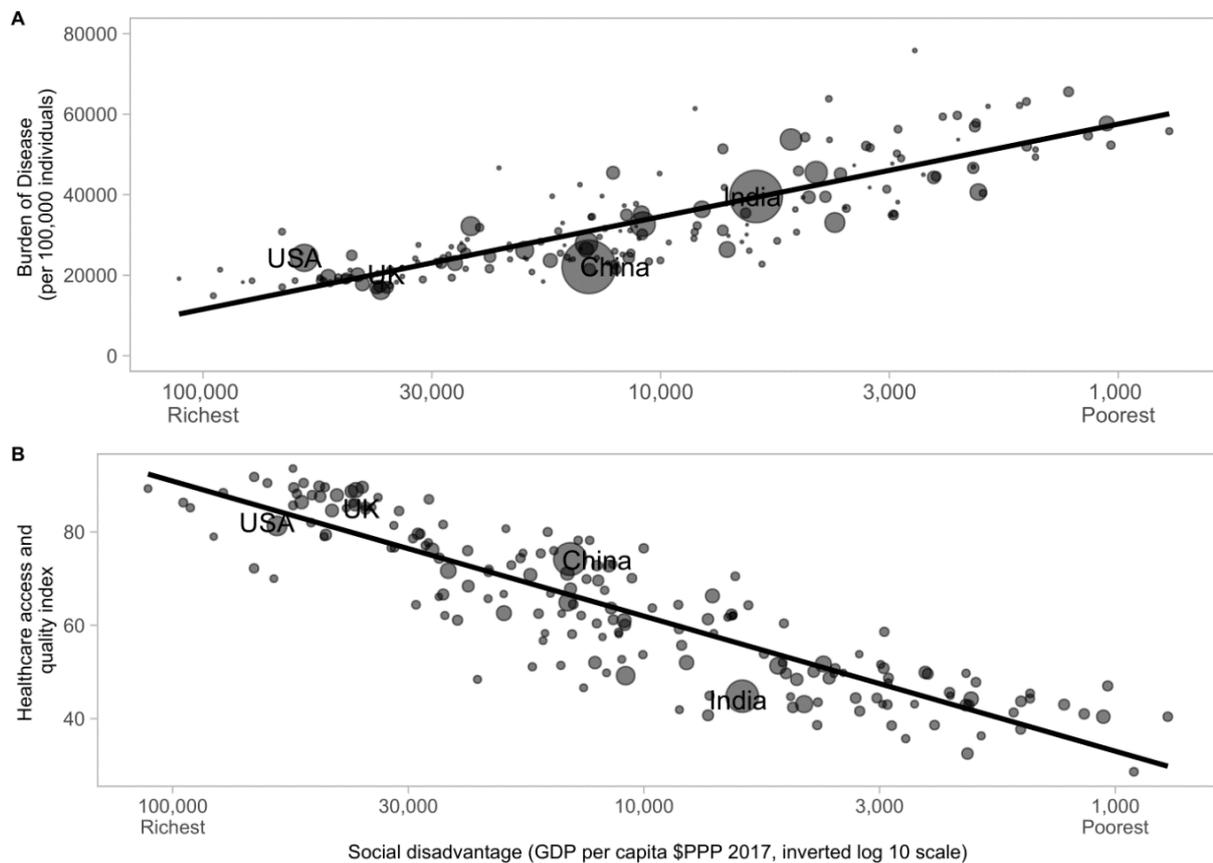
X-axis: 2017 GDP PPP (per capita); Y-axis: Most recent available data on CCI between 2013 and 2017. The line is a simple linear regression (no population weighting) with slope -9.20 (-17.83 to -0.58 , 95% CI) and R-squared 0.05

Sources:

World Health Organization [WHO]. Health Equity Assessment Toolkit (HEAT): Software for exploring and comparing health inequalities in countries. Built-in database edition. Version 4.0. 2020. <https://portal.who.int/heat/> (accessed Nov 6, 2020);

World Bank. World Development Indicators. 2020. <https://datacatalog.worldbank.org/dataset/world-development-indicators> (accessed Nov 1, 2020).

Figure A20: Between-country inverse quality law



Burden of Disease Per Capita (A) and Healthcare Access and Quality Index (B) in 2016 for 180 countries inversely ranked by the log of national income in 2017

GDP data were extracted from the World Bank Database; the original source of burden of disease and healthcare access and quality data is the Global Burden of Disease Study 2017 (GBD 2017): Institute for Health Metrics and Evaluation (IHME)³. The fitted lines are based on simple linear regressions without population weights, with slopes as follows: top -22 991 (95% confidence interval -25285.21 to -20696.76; R-squared 0,69), bottom 28.94 (26.71 to 31.18; R-squared 0,79). The health care access and quality index is a composite index of age- and risk-adjusted mortality for 32 conditions considered amenable to health care. This index is available for 195 countries but no records available in the World Bank Database for GDP PPP in American Samoa, Andorra, Eritrea, Greenland, Guam, Northern Mariana Islands, North Korea, Somalia, South Sudan, Syria, Venezuela, and United States Virgin Islands.

Appendix A3: Variable definitions and data sources

Indicator	Year	Definition	Source	License URL
GDP per capita, PPP (constant 2017 international \$)	2017	GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States.	World Bank	https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD
Domestic private health expenditure (% of current health expenditure)	2017	Share of current health expenditures funded from domestic private sources. Domestic private sources include funds from households, corporations and non-profit organizations. Such expenditures can be either prepaid to voluntary health insurance or paid directly to healthcare providers.	World Bank (retrieved from the WHO Global Health Expenditure database)	https://data.worldbank.org/indicator/SH.XPD.PVTD.CH.ZS
Population, total	2017	Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship. The values shown are midyear estimates.	World Bank	https://data.worldbank.org/indicator/SP.POP.TOTL
Burden of Disease	2016	Disability-Adjusted Life Years (DALYs) per 100,000 individuals from all causes. DALYs measure the total burden of disease – both from years of life lost due to premature death and years lived with a disability. One DALY equals one lost year of healthy life.	Institute for Health Metrics and Evaluation (IHME)	http://ghdx.healthdata.org/gbd-results-tool

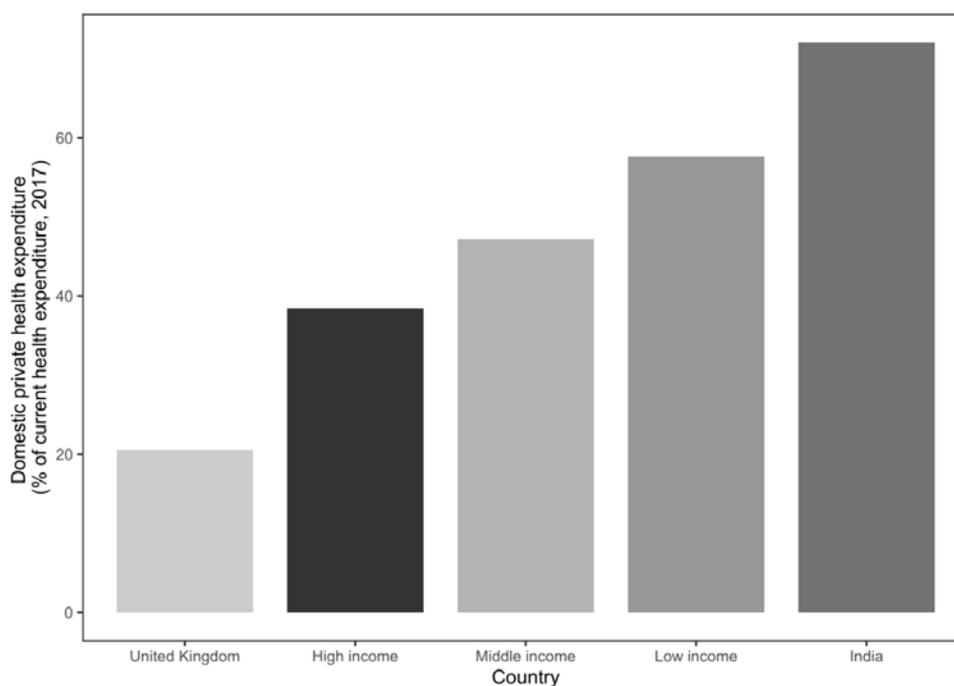
Composite Coverage Index	2013-2017 (most recent available year)	The composite coverage index is a weighted score reflecting coverage of eight RMNCH interventions along the continuum of care: demand for family planning satisfied (modern methods); antenatal care coverage (at least four visits); births attended by skilled health personnel; BCG immunization coverage among one-year-olds; measles immunization coverage among one-year-olds; DTP3 immunization coverage among one-year-olds; children aged less than five years with diarrhoea receiving oral rehydration therapy and continued feeding; and children aged less than five years with pneumonia symptoms taken to a health facility. This indicator is based on aggregate estimates.	World Health Organization	https://www.who.int/data/gho/data/indicators/indicator-details/GHO/composite-coverage-index(-)
Gini index (World Bank estimate)	2005-2017 (most recent available year)	Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.	World Bank	https://data.worldbank.org/indicator/SI.POV.GINI

Out-of-pocket expenditure (% of current health expenditure)	2017	Share of out-of-pocket payments of total current health expenditures. Out-of-pocket payments are spending on health directly out-of-pocket by households.	World Bank (retrieved from the World Health Organization Global Health Expenditure database (http://apps.who.int/nha/databases)).	https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS
Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)	2013-2017 (most recent available year)	Poverty headcount ratio at \$1.90 a day is the percentage of the population living on less than \$1.90 a day at 2011 international prices. As a result of revisions in PPP exchange rates, poverty rates for individual countries cannot be compared with poverty rates reported in earlier editions.	World Bank	https://datacatalog.worldbank.org/public-licenses#cc-by

UHC Index of service coverage (SCI)	2017	Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population). The indicator is an index reported on a unitless scale of 0 to 100, which is computed as the geometric mean of 14 tracer indicators of health service coverage. The tracer indicators are as follows, organized by four components of service coverage: 1. Reproductive, maternal, newborn and child health 2. Infectious diseases 3. Noncommunicable diseases 4. Service capacity and access See the 2019 monitoring report for the tracer indicator within each component.	WHO - Global Health Observatory indicator views	https://apps.who.int/gho/data/node.imr.UHC_INDEX_REPORTED?lang=en
Medical doctors (per 10,000)	2013-2017 (most recent available year)	Includes generalists , specialist medical practitioners and medical doctors not further defined, in the given national and/or subnational area. Depending on the nature of the original data source may include practising (active) physicians only or all registered physicians.	WHO - Global Health Observatory indicator views	https://www.who.int/data/gho/indicator-metadata-registry/imr-details/5314

Appendix A4: Further detail on the inverse care law in India

Figure A21: Private share of total health expenditure for India and the UK compared with low-income, middle-income and high-income country population-weighted averages, in 2017



Sources:

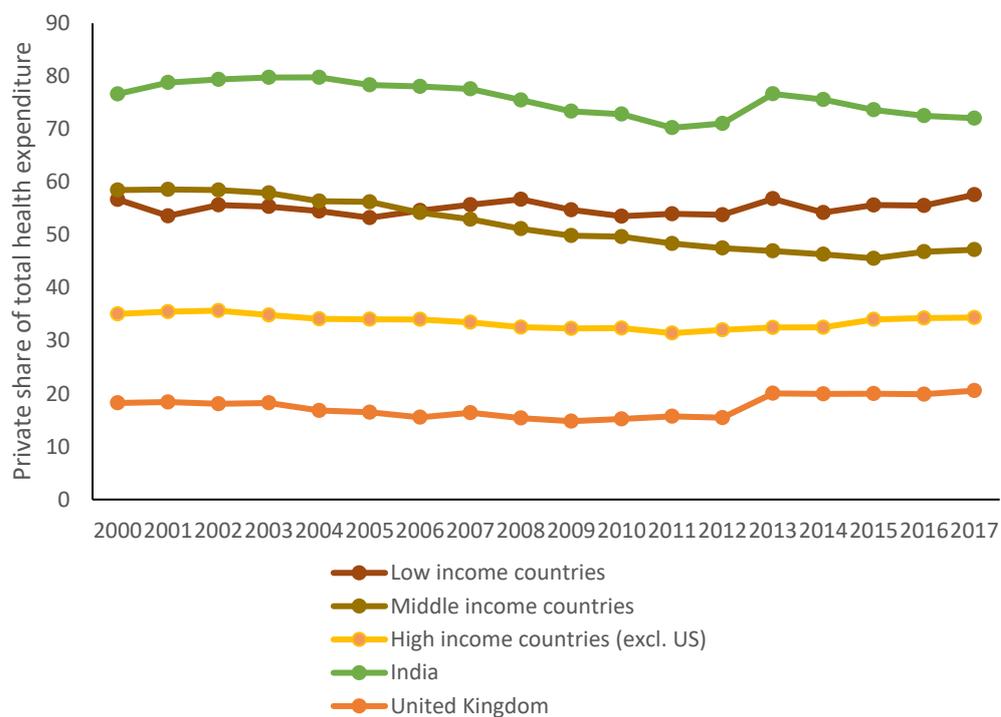
World Health Organization. Global Health Observatory data repository. WHO. 2020. <https://apps.who.int/gho/data/node.main> (accessed Nov 27, 2020).

National Health Authority 2016/17 for India; and WHO for other countries (<https://apps.who.int/gho/data/node.main.GHEDOOPSCHESHA2011?lang=en>).

Indian National Health Authority figures for 2016/17 were 63.2% of health care expenditure out-of-pocket and 68% private, including voluntary insurance.

More recent OECD figures for the UK in 2019 are similar: they show that private health care expenditure made up 22.2% of total health spending, of which 16.7% was out-of-pocket (Health spending indicator. doi: 10.1787/8643de7e-en, Accessed on 22 November 2020).

Figure A22: Private share of total health expenditure for India and the UK compared with low-income, middle-income and high-income country population-weighted averages (2000- 2017)



Source: World Bank. World Development Indicators. 2020.
<https://datacatalog.worldbank.org/dataset/world-development-indicators> (accessed Nov 1, 2020).

Table A3: Probability of using health care in India by consumption quintile and rural-urban status (1985 to 2017)

Probability of seeking care in the last 15 days												
	Round 52 1995			Round 60 2004			Round 71 2014			Round 75 2017/18		
	R	U	T	R	U	T	R	U	T	R	U	T
Quintile 1 - Poorest	4.1	4.3	4.1	6.2	8.1	6.8	6.7	7.9	7.0	4.7	6.5	5.3
Q2	4.7	5.1	4.8	7.1	8.6	7.5	7.1	10.2	8.1	5.4	8.6	6.5
Q3	5.2	5.2	5.2	8.4	9.8	8.7	8.6	12.3	9.8	6.4	8.9	7.0
Q4	5.9	5.7	5.9	9.3	10.2	9.6	9.4	12.7	10.3	7.0	10.4	8.0
Quintile 5 - Richest	7.8	6.9	7.5	13.0	13.5	13.1	13.3	15.6	14.0	10.4	11	10.6
All	5.5	5.4	5.5	8.8	9.9	9.1	8.9	11.8	9.8	6.8	9.1	7.5

Probability of inpatient hospital use (elective or emergency) in the last 12 months												
	Round 52 1985			Round 60 2004			Round 71 2014			Round 75 2017/18		
	R	U	All	R	U	All	R	U	All	R	U	All
Quintile 1 - Poorest	0.5	1.3	0.7	1.3	2.4	1.7	2.0	2.9	2.3	1.7	2.8	2.0
Q2	0.8	1.6	1.0	1.7	3.0	2.0	2.6	3.9	3.0	1.8	3.2	2.3
Q3	1.0	1.9	1.2	2.0	3.2	2.3	3.0	4.3	3.5	2.4	3.7	2.8
Q4	1.5	2.1	1.7	2.5	3.1	2.7	3.9	5.0	4.2	3.0	3.6	3.1
Quintile 5 - Richest	2.9	3.2	3.0	3.9	3.9	3.9	6.1	5.6	6.0	4.1	3.8	4.0
All	1.3	2.0	1.5	2.3	3.1	2.5	3.5	4.4	3.7	2.6	3.4	2.9

R - Rural, U – Urban, T - Total. Quintile groups based on monthly household expenditure per capita, adjusted for household composition.

Source: Government of India. Key indicators of social consumption in India: Health. *National Sample Survey Organ* 2019; 1–127.

Table A4: Health care inequality in India 2017/18

75th round, National Sample Survey							
Indicator	Monthly PC consumption	Whether ill, last 15 days	Whether covered by any insurance (%)	Treatment sought on medical advice?	Whether hospitalized	Exp on OPD visit	Exp on hosp visit
Caste							
SC/ST	1707	6.3	15.8	87.5	2.5	606	15227
OBC	2036	7.1	15.7	88.9	2.8	615	18047
Others	2871	9.4	15.1	91.4	3.4	682	26901
Residence							
Rural	1643	6.8	14.1	87.8	2.6	591	16677
Urban	3405	9.1	19.1	92.3	3.4	710	26474
Religion							
Hindu	2145	7.2	16.4	89.0	2.8	646	20573
Muslim	1998	8.1	9.4	90.4	2.9	598	15796
Christian	2769	10.5	32.5	90.2	4.6	530	22292
Others	3106	10.2	8.4	93.9	3.2	702	27228
Consumption quintiles							
1	1014	5.4	10.2	83.7	2.0	561	13046
2	1528	6.5	11.1	87.2	2.3	634	17098
3	1842	7.0	14.2	88.8	2.8	652	17786
4	2470	8.0	17.3	90.5	3.1	598	19189
5	3981	10.6	25.2	93.2	4.0	687	27767

Source: Government of India. Key indicators of social consumption in India: Health. *National Sample Survey Organ* 2019; 1–127. OPD – Outpatient Department, SC/ST – Scheduled Castes and Scheduled Tribes, OBC – Other Backward Class.

Figure A23: Probability of inpatient hospital use by consumption quintile group in India, in percentage points (1995-2014)

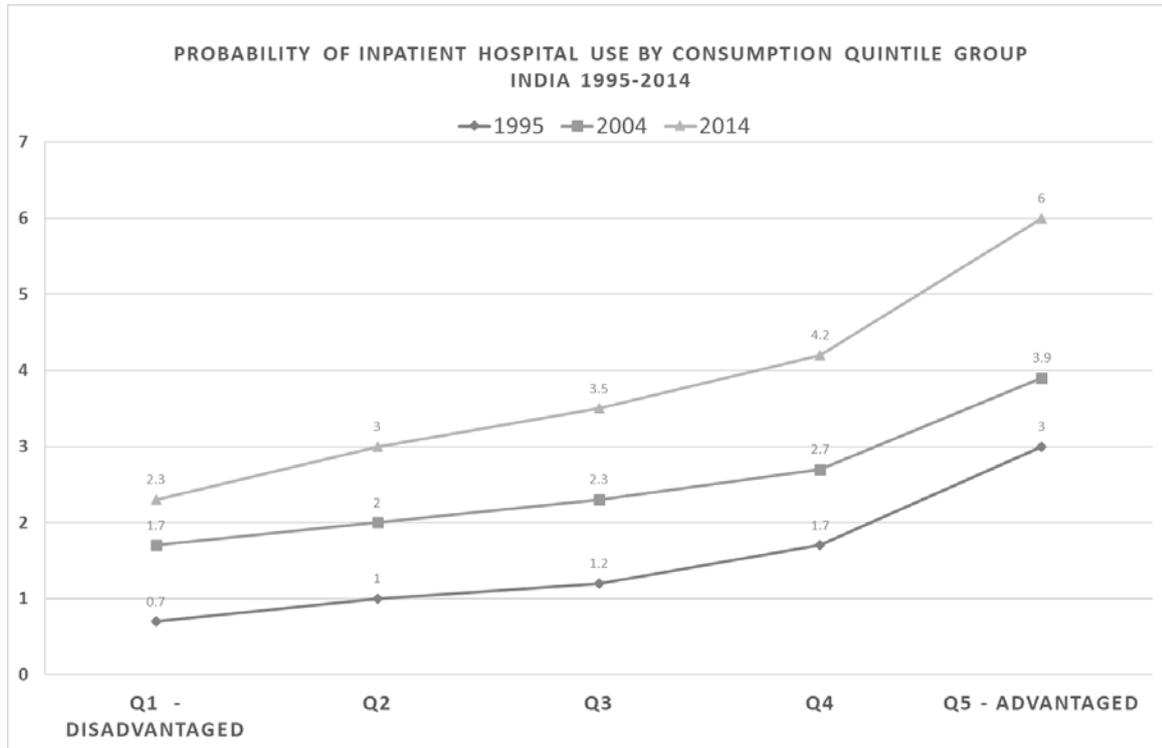
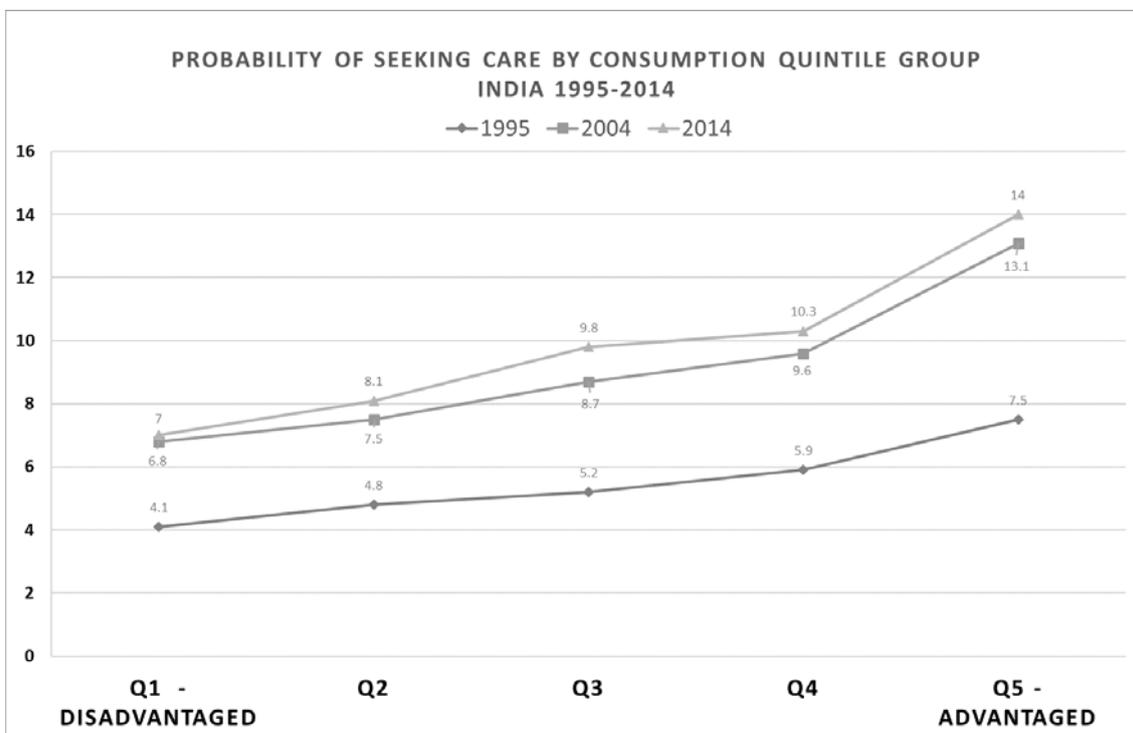


Figure A24: Probability of seeking outpatient care by consumption quintile group in India, in percentage points (1995-2014)



References

- 1 Wehrmeister FC, Restrepo-Mendez MC, Franca GVA, Victora CG, Barros AJD. Summary indices for monitoring universal coverage in maternal and child health care. *Bull World Health Organ* 2016; **94**: 903–12.
- 2 Rutstein SO, Johnson K. The DHS wealth index . DHS Comp. Reports No. 6. . 2004. <http://dhsprogram.com/pubs/pdf/CR6/CR6.pdf>.
- 3 Institute for Health Metrics and Evaluation (IHME). Global Burden of Disease Study 2017 (GBD 2017) Results. 2015. <http://ghdx.healthdata.org/gbd-results-tool> (accessed Nov 6, 2020).
- 4 Tudor Hart J. The Inverse Care Law. *Lancet* 1971; **297**: 405–12.
- 5 Cookson R, Propper C, Asaria M, Raine R. Socio-Economic Inequalities in Health Care in England. *Fisc Stud* 2016; **37**.
- 6 Fisher R, Dunn P, Gershlick B, Asaria M, Thorlby R. Level or not? 2020 DOI:10.37829/HF-2020-RC13.
- 7 STOYE G, ZARANKO B, SHIPLEY M, MCKEE M, BRUNNER EJ. Educational Inequalities in Hospital Use Among Older Adults in England, 2004-2015. *Milbank Q* 2020; : 1468-0009.12479.
- 8 Delgadillo J, Asaria M, Ali S, Gilbody S. On poverty, politics and psychology: the socioeconomic gradient of mental healthcare utilisation and outcomes. *Br J Psychiatry* 2015; published online Nov 19. DOI:10.1192/bjp.bp.115.171017.