Impact of Political Economy on Population Health: A Systematic Review of Reviews

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Background. Although there is a large literature examining the relationship between a wide range of political economy exposures and health outcomes, the extent to which the different aspects of political economy influence health, and through which mechanisms and in what contexts, is only partially understood. The areas in which there are few high-quality studies are also unclear.

Objectives. To systematically review the literature describing the impact of political economy on population health.

Search Methods. We undertook a systematic review of reviews, searching MEDLINE, Embase, International Bibliography of the Social Sciences, ProQuest Public Health, Sociological Abstracts, Applied Social Sciences Index and Abstracts, EconLit, SocINDEX, Web of Science, and the gray literature via Google Scholar.

Selection Criteria. We included studies that were a review of the literature. Relevant exposures were differences or changes in policy, law, or rules; economic conditions; institutions or social structures; or politics, power, or conflict. Relevant outcomes were any overall measure of population health such as self-assessed health, mortality, life expectancy, survival, morbidity, well-being, illness, ill health, and life span. Two authors independently reviewed all citations for relevance.

Data Collection and Analysis. We undertook critical appraisal of all included reviews by using modified Assessing the Methodological Quality of Systematic Reviews (AMSTAR) criteria and then synthesized narratively giving greater weight to the higher-quality reviews.

Main Results. From 4912 citations, we included 58 reviews. Both the quality of the reviews and the underlying studies within the reviews were variable. Social democratic welfare states, higher public spending, fair trade policies, extensions to compulsory education provision,

microfinance initiatives in low-income countries, health and safety policy, improved access to health care, and high-quality affordable housing have positive impacts on population health. Neoliberal restructuring seems to be associated with increased health inequalities and higher income inequality with lower self-rated health and higher mortality.

Authors' Conclusions. Politics, economics, and public policy are important determinants of population health. Countries with social democratic regimes, higher public spending, and lower income inequalities have populations with better health. There are substantial gaps in the synthesized evidence on the relationship between political economy and health, and there is a need for higher-quality reviews and empirical studies in this area. However, there is sufficient evidence in this review, if applied through policy and practice, to have marked beneficial health impacts.

Public Health Implications. Policymakers should be aware that social democratic welfare state types, countries that spend more on public services, and countries with lower income inequalities have better selfrated health and lower mortality. Research funders and researchers should be aware that there remain substantial gaps in the available evidence base. One such area concerns the interrelationship between governance, polities, power, macroeconomic policy, public policy, and population health, including how these aspects of political economy generate social class processes and forms of discrimination that have a differential impact across social groups. This includes the influence of patterns of ownership (of land and capital) and tax policies. For some areas, there are many lower-quality reviews, which leave uncertainties in the relationship between political economy and population health, and a high-quality review is needed. There are also areas in which the available reviews have identified primary research gaps such as the impact of changes to housing policy, availability, and tenure. (Am J Public Health. 2019;109:e1-e12. doi:10.2105/AJPH. 2019.305001)



See also Bambra, p. 833.

PLAIN-LANGUAGE SUMMARY

We wanted to know the health and health inequality impacts of a wide range of political and economic factors. We searched for existing reviews of studies that looked at these relationships, assessed the quality of those reviews, and then integrated their results to summarize what is known in this area. We found 58 relevant reviews, although the

quality of the reviews and the studies they included was variable. Taking account of the quality of the evidence found, we are able to say that countries with social democratic institutional arrangements, higher public spending, lower income inequalities, and policy to ensure safe workplaces and access to education and housing generally have populations with better health.

The determinants of population health may be different from the determinants of health of individuals. Although we know that people who lose their jobs² and have lower incomes³ have higher mortality, this does not necessarily mean that populations with higher unemployment or with lower mean incomes have higher mortality. ^{4,5} It is therefore important to understand the health of populations at societal level by considering the overall context in which populations live.

Societies are complex and dynamic systems shaped by their historical contingencies as well as their contemporary economics, production and consumption activities, power relations, governance, policies, polities (or institutions), legal rules, culture, values, and ecology. We use the term political economy to describe these aspects of societies, their interrelationships and power dynamics.^{6–8} There are several theories linking political economy and population health, 9-12 as well as some attempts to systematically evaluate the relationship between them. 13 A political economy understanding of societies makes clearer why and how specific policies are implemented in different places and times.

Many aspects of political economy and health have been extensively studied. One of the longest running themes has been the study of the extent to which economic growth and economic development have been responsible for the reduction of mortality rates. 14-18 In general terms, economic development measured in a variety of ways has been associated with improved health across time and place, but the causal mechanisms have been disputed. Some have argued that medical developments have been particularly important in explaining the health trends, while others have stated that greater consumption and production (as approximated by gross domestic product), the building of social institutions such as the welfare state and social services, or public health measures have been more important. 14,19-21 It has also been noted that many measures of health, including happiness, well-being, and life expectancy, have not consistently improved in tandem with economic growth, 22-24 and that mortality rates continue to improve in some countries such as Japan and Cuba that experienced prolonged periods without growth.25

In addition to this work on economic development and health, there are many studies that have considered the health impact of short-run recessions and the interaction with different economic policy responses. It seems that some health outcomes such as road-traffic fatalities and alcohol-related mortality tend to decline in the short run following recessions, but others such as suicide and cardiovascular disease worsen.²⁴ Given that there is very strong evidence that people who lose their jobs experience substantial increases in subsequent mortality,² understanding the differential impacts and the contextual interactions with economic and social policy is important. This has led to the finding that a combination of austerity policies in response to recession and recessions in countries with minimal welfare state provision exacerbates the negative health impacts of recession.²⁶⁻²⁹ Indeed, countries that have pursued more neoliberal approaches to economic policy have been found to have worse health inequalities and higher mortality rates, among high-income countries. 13,30-32

By neoliberalism, we refer to that suite of theories and policies that advocate individualism, marketization, and privatization of industry, goods, and services, and the financialization of large sections of the economy. 33-35 Income inequality has been proposed as an important cause of health and social problems across high-income countries.⁵ The association is much stronger at country level and for states in the United States than it is for analyses at smaller scales. 36,37 There remains substantial debate about the extent to which the association is attributable to worse health (and social) outcomes for those living in poverty, attributable to a variety of mechanisms between wider inequalities and health outcomes (e.g., psychosocial stress), or whether both income inequalities and the health (and social)

outcomes are attributable to other political economy factors. ^{38–40}

Another focus of study has built upon Esping-Andersen's classification of European nations into different welfare state types. 41 By extending the classification and identifying the common features of how different countries provide public services and the extent to which government uses taxes and benefits to (re)distribute incomes, several authors have found that Nordic welfare states tend to have lower overall mortality rates than do other European types, 42 but greater health inequalities. 4,43 However, this is not the case if inequalities are measured via life span variation.⁴⁴ The impact of welfare state regimes on health is now a well theorized and studied phenomenon globally. 45-48

The experience of democracy has been extensively considered as potentially important factor in explaining differences in population health. 49-51 In Europe, from the 1970s, the democratization of Greece, Spain, and Portugal from fascist dictatorships was associated with faster improvements in life expectancy, but the relationship with democracy was less clear across Eastern Europe after 1990 as that period of democratization was also associated with substantial economic restructuring and rapidly increasing income and wealth inequalities. 13,52 Although only cross-sectional data were used, an association has been identified between greater democratization and higher population selfrated health (SRH).53

Despite this wide range of research, the extent to which the different aspects of political economy influence health, and through which mechanisms and in what contexts, is only partially understood. Furthermore, there is no overall picture of the field whereby policymakers and academics can reliably know the areas that have seen extensive study or where there are gaps. There is also no review in which studies of sufficient quality have been synthesized to clarify which

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This article was accepted December 27, 2018.

doi: 10.2105/AJPH.2019.305001

relationships are causal and generalizable across populations or where there remains substantial uncertainty or debate. This review of reviews seeks to understand the extent to which political economy, and important aspects of it, explain differences in health outcomes within and between populations

METHODS

We undertook a systematic review of review studies. The protocol for the review was published on the PROSPERO Web site (https://www.crd.york.ac.uk/prospero/ display_record.php?RecordID=65352). We report our results in line with the PRISMA guidelines for the reporting of systematic reviews, including the additions in relation to review focusing on the impacts of equity.54

Inclusion and Exclusion Criteria

We included studies that were a review of the literature; included any overall measure of health as an outcome such as self-assessed health, mortality, life expectancy, survival, morbidity, well-being, illness, ill health, and life span; and included at least 1 aspect of political economy as the exposure. Following our understanding of the nature of political economy, we defined political economy exposures in terms of a difference or change in policy, law, or rules; economic conditions; institutions or social structures; or politics, power, or conflict. We excluded book reviews; reviews that looked only at specific conditions, diseases, or causes of death; specific interventions within services rather than overall policy, practice, institutions, legal rules, or political economy exposures, or where the exposures were not linked to political economy processes; reviews that simply used a measure of social position to describe a gradient in an outcome rather than used an aspect of political economy as an exposure; protocols for reviews; and those in which the health outcomes were limited to a subset of the population (except age-sex strata —i.e., we would include reviews pertaining to, for example, women, children, or adults aged 35-70 years). There were no restrictions

on the countries of interest or on the publication date.

Search Strategy

We searched the following research databases in May 2017 for relevant citations: MEDLINE, Embase, International Bibliography of the Social Sciences, ProQuest Public Health, Sociological Abstracts, Applied Social Sciences Index and Abstracts, EconLit, SocINDEX, and Web of Science. We searched the gray literature by using similar terms in Google Scholar. The full database search strategy, including the search terms and combinations, is available at https:// www.crd.york.ac.uk/prospero/display_ record.php?RecordID=65352. We did not put in place language restrictions to the search, but, in practice, the search terms we used would have been unlikely to identify relevant papers not published in English, and we had to exclude some potentially relevant studies because we did not have access to translations. These are noted in the Results section.

Screening, Critical Appraisal, Data Extraction, and Synthesis

We screened studies identified via the gray literature by copying the relevant citation information into a document, which 2 authors then independently screened. All citations from the research databases were uploaded to https://www.covidence.org (Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia) for independent screening by GM and WH. We resolved all disputes by discussion. We undertook critical appraisal of all studies deemed to meet the inclusion and exclusion criteria by using modified Assessing the Methodological Quality of Systematic Reviews (AMSTAR) criteria⁵⁵:

- Was an a priori design for the review provided?
- Was a comprehensive search undertaken (including relevant search terms and at least 2 databases)?
- Were the studies selected for inclusion by at least 2 independent researchers?
- Were there clear inclusion and exclusion criteria? Was the status of publication

- (e.g., gray literature) ignored in the inclusion and exclusion criteria?
- Were the data extracted independently by at least 2 researchers?
- Was the scientific quality of the included studies assessed and documented?
- Was the scientific quality of the included studies used appropriately in formulating conclusions?
- Were the methods used to combine the findings of studies appropriate?
- Was the likelihood of publication bias assessed?
- Were there important conflicts of interest that may have had an impact on the conclusions?

We tabulated data from the reviews back to the original studies to prevent duplication across reviews. Given the mix of narrative and quantitative data, we synthesized these narratively, giving greater weight to the data from higher-quality reviews and higherquality original studies. Following Kim, in which a review provided insights across multiple themes, these have been disaggregated for synthesis.⁵⁶ The results are presented by theme to synthesize across political economy types rather than synthesizing by country or time period, which would have made the findings much more contextspecific.

RESULTS

We screened a total of 4912 references to identify the 58 review studies that were included in this systematic review (Figure A, available as a supplement to the online version of this article at http://www.ajph.org). There was substantial overlap in the underlying primary studies that were used by reviews in the same thematic area; thus, care was taken to avoid double-counting the insights that arose from the same primary sources. There were only 3 relevant reviews that were classified as very high quality and only a further 7 as high quality. Although we assessed each review to ascertain whether they had looked for and identified publication bias in the studies they included, this was found not to be a relevant criterion for any of the included studies, and it did not help to discriminate between higherand lower-quality reviews.

Economic Recession

Eight reviews considered the health impacts of economic recession (Table 1). There was little high-quality evidence in this area for the reviews to draw upon—reflecting an absence of evidence in some areas (relating to resilience to economic crises⁵⁷ and the impacts on child mortality ⁶⁰) and a combination of low-quality systematic reviews or low-quality studies in others. The reviews also tended to focus on specific aspects of recession (e.g., on 1 specific recession) or a specific

9-11

TABLE 1—Reviews That Considered the Health Impacts of Economic Recession

outcome (e.g., mental health). The available evidence did, however, suggest that mental health, ^{58,59,61,64} SRH, and mortality ^{61–63} worsened in many populations in association with recession.

Health Care Policy

Changes to health care policy form another substantial area for systematic reviews, although there was only 1 of high quality (Table 2). The impact of changes to health

care insurance coverage^{65,68–71} and conditional cash transfer schemes^{66,69,72} were the most common subjects for reviews. The only high quality review found an absence of evidence of the health impacts of changes to health insurance coverage for prescription drugs.⁶⁵ The other reviews in this area were of lower quality, and the studies on which they relied were either low or unclear.^{68–71} One reported that becoming health care insured was associated with increased SRH and reduced mortality⁶⁵ while others reported

was associated with a worsening of mental health outcomes and mixed impacts on other

observed (in Greece and sub-Saharan Africa)

in association with recession, but not in Spain. SRH worsened in adolescents in the

Author	Critical Appraisal ^a	Review Quality Summary ^b	Reported Quality of Included Studies	Context	Summary of Insights
Glonti et al. ⁵⁷	2–4, 6, ^c 7–10, 11 ^c	High	Mixed	Mostly drawn from Europe, United States, and southeast Asia	There was an absence of evidence of political economy factors that increase resilience to economic crises.
Parmar et al. ⁵⁸	2-5, 7-11	High	Low	Mostly southern Europe and	The post-2008 recession in southern Europe

United Kingdom

Saharan Africa and Bangladesh, but most

studies from high-income nations

					health outcomes.
Frasquilho et al. ⁵⁹	, , ,		Most studies were from high-income countries, especially Europe and North America	Periods of economic recession in high-income countries may be associated with worsening mental health.	
Palma et al. ⁶⁰	2, 8, ^c 9, 10,	Low	High	Not clearly reported	There was an absence of evidence of the

Rajmil et al. ⁶¹	2, 3, ^c 4, 5, 7,	Low	Mixed	Wide range of countries including sub-	Infant mortality increased or an excess was
	11 ^c				impact of economic factors on child mortality.
Palma et al.ºº	2, 8, ^c 9, 10,	Low	High	Not clearly reported	There was an absence of evidence of the

					United States and inequalities in SRH worsened in Catalonia.
Simou and Koutsogeorgou ⁶²	2, 3, 4, ^c 6, ^c 9–11	Low	Not reported	Greece	SRH worsened in 2007–2009 in Greece in association with the recession and austerity.
Falagas et al. ⁶³	2, ^c 4, 5, 9, 10,	Low	Not reported	South Korea, Peru, Madagascar, Mexico,	Periods of economic recession were associated

Falagas et al. ⁶³	2, ^c 4, 5, 9, 10, 11 ^c	Low	Not reported	South Korea, Peru, Madagascar, Mexico, Bulgaria, Russia	Periods of economic recession were associated with an increase in all-cause mortality in a selection of countries.
Downing ⁶⁴	2, ^c 4, 7, ^c 9, 10, 11 ^c	Low	Not reported	Not clearly reported, but many from the United States	Housing foreclosure in the United States was associated with mental health problems and violence with an absence of evidence for other health outcomes.

Note. SRH = self-rated health.

^aCritical appraisal criteria: 1 = an a priori design for the review was provided; 2 = a comprehensive search was undertaken (including relevant search terms and at least 2 databases); 3 = studies were selected for inclusion by at least 2 independent researchers; 4 = there were clear inclusion and exclusion criteria; 5 = the status of publication (e.g., gray literature) was ignored in the inclusion and exclusion criteria; 6 = the data were extracted independently by at least 2 researchers; 7 = the scientific quality of the included studies was assessed and documented; 8 = the scientific quality of the included studies was used appropriately in formulating conclusions; 9 = the methods used to combine the findings of studies was appropriate; 10 = the likelihood of publication bias was assessed (if possible); 11 = there were no important conflicts of interest that may have had an impact on the conclusions.

^bQuality assessment: all (very high); at least 2, 4, 7, 8, 9 (high); at least partially 2, 4, 7, 8, 9 (moderate); all others (low).

^cDenotes a partially fulfilled criterion.

mixed,⁶⁸ uncertain,^{68,70} or an absence⁶⁹ of evidence. A conditional cash transfer scheme in India was associated with decreased perinatal, neonatal, and maternal mortality in some, but not all, reviews. 69 Two low-quality reviews reported that the impacts of changes to health care governance were contextually dependent, but notable in some countries. 67,73 There was also low-quality review evidence that increased primary care provision⁷⁴ and increased public health spending could have positive health impacts.⁷⁵

Income Inequality

Table 3 details all the reviews that considered the impact of income inequality on health. Despite there being some 13 reviews in this area, none were high quality and only 2, both of which were based on the same review process, were moderate quality (having been downgraded for insufficient detailing of the quality of the included studies, lack of incorporation of their quality into the synthesis, and a lack of explicit inclusion of the gray literature). 76,77 These showed that income inequality was detrimental for health, especially where the Gini coefficient (an indicator of income inequality where 1 represents all income going to 1 person and zero complete equality) is greater than 0.3, when analyzed with larger population units, after 1990, and where adjustment is made for time lags. The low-quality reviews in this area did not report a sufficiently robust approach to searching and selecting relevant studies and frequently did not make any attempt at critical appraisal of the individual studies they relied upon. 39,56,78–86 The strengths of some of these reviews lie instead in the theoretical elaboration they offer rather than in the quality of the reviews and synthesis. 39,84

Housing and Physical Environment

There is strong evidence from a veryhigh-quality review that warmth and energy-efficiency measures have positive health impacts, although the impact of general housing condition improvement is unclear. There was an absence of evidence on the health impacts of differences in, or changes in, housing tenure, 87,88 although housing rent assistance was found to be beneficial for health (Table A, available as a supplement to the online version of this article at http://www.ajph.org).89 There was an absence of evidence of the impacts on health of interventions to improve slums in low- and middle-income countries. 90 Within highincome countries, there was evidence that moving people to areas with lower poverty improves SRH, but that the impacts of regeneration programs in poor areas are mixed, with evidence of no greater improvement in mortality in regenerated areas. 91-93

Welfare State

Table 4 summarizes the 6 reviews that considered the health impacts of differences and changes in welfare states. None of these were high quality, and, thus, the conclusions that can be drawn in this area are more tentative. There is a substantial body of evidence arising from the rapid economic restructuring in Eastern Europe, which suggests that its rapid transition ("shock therapy") to capitalism increased health inequalities. 13 How welfare states were classified and the consequent associations with health outcomes are inconsistent across papers, and this is not helped by 3 of the 4 reviews being low quality. Mortality rates were lower in social democratic welfare states, as defined by Esping-Andersen, but the relationship with health inequalities is rather inconsistent. 13,94 Social democratic states also seem to be able to mitigate against the negative health impacts of precarious employment. 97 There is some evidence from a lower-quality review that higher social security payments to unemployed workers can reduce the negative impacts of unemployment. 98 Political incorporation of subordinated racial/ethnic, indigenous, and gender groups reduced health inequities, and dual-earner family models and greater public spending were associated with lower mortality. 94-96

Income, Employment, and Workplaces

There were 6 reviews that considered the impacts of income, employment, or workplace policy on health (Table B, available as a supplement to the online version of this article at http://www.ajph.org). Despite a veryhigh-quality review being available, there were very little data on the impact of changes in income on health, with only 1 study reporting health outcomes. This study found

a 74% decline in child mortality in drought areas in response to an unconditional cash transfer. 99 Furthermore, job insecurity and unemployment arising from privatization was evidenced as being negative for health, particularly mental health. 100,101 However, there was mixed evidence on the impact of background unemployment rates on the health of those who become unemployed. 102,103 Health and safety legislation and legislation to reduce legal blood alcohol levels for driving were all found to be effective means of improving population health.89

Other Aspects of Political Economy

There are reviews across several different themes presented in Table C (available as a supplement to the online version of this article at http://www.ajph.org). The evidence for the association between trade and trade agreements and health was mixed and varied across study designs and reviews. 104,105 There was some evidence from a low-quality review that fair trade was associated with higher well-being and lower child mortality. 106 Within low-income countries, microfinance interventions were associated with lower infant and maternal mortality, and especially among the poorest groups. 107 Extensions to compulsory education were associated with consistent reductions in mortality and improved SRH. 108 One review examined the health impacts of female empowerment in low-income countries, but did not find any relevant studies. 109 Finally, 1 review considered the health impacts of food subsidies and food programs on health in the United States and the United Kingdom. There was some limited evidence of small improvements in SRH in 1 study but little evidence of consistent impacts across interventions and settings. 110

DISCUSSION

We identified 58 reviews that measured the health consequences of changes or differences in political economy within or across populations. There was substantial variation in the quality of the reviews, with 10 assessed as high or very high quality, and in the reported quality of the underlying studies. There were clusters of reviews that considered

Author	Critical Appraisal ^a	Review Quality ^b	Included Study Quality	Context	Summary of Insights
Kesselheim et al. ⁶⁵	2-4, 6, ^c 7-10, 11 ^c	High	Low	United States	There was an absence of evidence on the impact of changes to insurance coverage for prescription drugs on health in the United States.
Gopalan et al. ⁶⁶	1, ^c 2, 3, ^c 4, 5, 7, ^c 8–10	Moderate	High	India	The Janani Surakha Yojana conditional cash transfer for skilled birth attendance in India was associated with a change of –14.2 (95% CI = –2.7, –31) perinatal deaths per 1000 pregnancies and a reduction of 6.2 (95% CI = –8.1, 20.4) neonatal deaths per 1000 live births.
Sumah et al. ⁶⁷	2–4, 6, ^c 7, 8, ^c 9–11	Moderate	High	Spain and Canada	There was evidence that inequalities in self-rated health were smaller in Spain and Canada in association with decentralization of health care governance.
Liang et al. ⁶⁸	2-6, 7, ^c 8-11	Moderate	Mixed	Rural China	The health impact of the Chinese NCMS health care insurance scheme varied widely across the available studies and so the overall impacts were unclear.
Yuan et al. ⁶⁹	2-4, 5, ^c 6, ^c 7, ^c 8, ^c 9-11	Moderate	Not reported	India and Philippines	There was an absence of evidence in relation to the impact of conditional cash transfers and health insurance policies on maternal mortality.
Acharya et al. ⁷⁰	2, 4, 5, 9, 10, 11 ^c	Low	Not reported	Wide global coverage of low- and middle-income countries	Health care insurance schemes in the informal sector had uncertain impacts on health.
Hadley ⁷¹	2, ^c 4, 5, 7, ^c 8, ^c 9	Low	Unclear	Not clearly reported, but many from the United States	A change to becoming health care insured was associated with a reduction in mortality ranging between 4% and 25% across studies and improved SRH.
Murray et al. ⁷²	1–5, 7, ^c 9, 10, 11 ^c	Low	High	India, Nepal, Mexico, and Tanzania	Different studies of conditional cash transfers have been associated with an 11% reduction in maternal mortality, no change in neonatal mortality, and 17% and 2% reductions in 2 studies of infant mortality. Some studies have associated payments to offset the costs of health service access with declines in neonatal mortality, while others have shown no change. Maternity service vouchers were associated with a 1 percentage point decline in stillbirths but no effect on neonatal deaths compared with comparison areas.
Ciccone et al. ⁷³	2, 3, ^c 9, 10, 11 ^c	Low	Not reported	Mostly Africa, with some from Asia and 2 in South America	Different aspects of governance in low- and middle-income countries were associated with health outcomes, but the exposure and outcome measures and contexts were highly variable as was the degree of association and extent to which the effect was mediated through other factors.
Kruk et al. ⁷⁴	2–5, 9, 10, 11 ^c	Low	Not reported	Wide range—Caribbean, Latin America, Central America, sub-Saharan Africa, and Asia	There was some evidence that primary care programs in middle- and low- income countries have reduced child mortality and in some cases wealth- based mortality inequalities.
Singh ⁷⁵	2, ^c 3, ^c 4, 5, 8, ^c 9, 10, 11 ^c	Low	Not reported	United States	There was consistent evidence that public health spending in the United States was associated with better population health outcomes.

Note. CI = confidence interval; NCMS = New Co-operative Medical Scheme; SRH = self-rated health.

^aCritical appraisal criteria: 1 = an a priori design for the review was provided; 2 = a comprehensive search was undertaken (including relevant search terms and at least 2 databases); 3 = studies were selected for inclusion by at least 2 independent researchers; 4 = there were clear inclusion and exclusion criteria; 5 = the status of publication (e.g., gray literature) was ignored in the inclusion and exclusion criteria; 6 = the data were extracted independently by at least 2 researchers; 7 = the scientific quality of the included studies was assessed and documented; 8 = the scientific quality of the included studies was used appropriately in formulating conclusions; 9 = the methods used to combine the findings of studies was appropriate; 10 = the likelihood of publication bias was assessed (if possible); 11 = there were no important conflicts of interest that may have had an impact on the conclusions.

the impacts of economic recession, income inequality, welfare state type, some aspects of employment policy, urban regeneration, housing, health care policy, and trade. We identified single reviews that investigated the impacts of food subsidies and female

empowerment. When we compared the coverage of these reviews with our underlying theoretical framework of political economy and health, there were widespread gaps including the contingency of population health on historical and ecological context,

culture, and societal norms, and some areas of social and public policy (e.g., the impacts of housing policy in relation to availability and tenure). The impact of changes and differences in governance, polities, power, and macroeconomic policy on health has been partially

^bQuality assessment: all (very high); at least 2, 4, 7, 8, 9 (high); at least partially 2, 4, 7, 8, 9 (moderate); all others (low).

^cDenotes a partially fulfilled criterion.

	Critical	Poviou Quality	Included Study		
Author	Appraisal ^a	Review Quality Summary ^b	Quality	Context	Summary of Insights
Kondo et al. ⁷⁶	2–4, 6, 7, ^c 8, ^c 9–11	Moderate	Unclear	Mostly high-income countries, but some Latin American and Eastern European countries and China	There was an adverse effect of income inequality on health, especially when the Gini was > 30 and after 1990 and where time lags were accounted for.
Kondo et al. ⁷⁷	2-4, 6, 7, ^c 8, ^c 9-11	Moderate	Unclear	Mostly high-income countries, but some Latin American and Eastern European countries and China	The health–income inequality relationship was stronger with larger population units (for SRH), and lag, threshold, and period effects all remained important explanatory factors after adjusting for area size.
Adjaye- Gbewonyo and Kawachi ⁷⁸	2, ^c 4, 5, 9, 10, 11 ^c	Low	Not reported	United States, Great Britain, China, Japan, Australia, and South Africa	Greater relative deprivation was associated with higher mental ill health, higher mortality, and lower SRH.
Furnee and Pfann ⁷⁹	2, ^c 5, 9 ^c	Low	Not reported	Europe (mostly northern Europe) and United States	Self-rated health at lower income levels was worse in more unequa countries.
Judge et al. ⁸⁰	4, ^c 9, ^c 10, 11 ^c	Low	Not reported	Large range of countries included in panel data, including low- and middle-income nations	Greater income inequality in high-income countries was associated with higher mortality and lower life expectancy but the sample and measures were limited.
Lynch et al. ³⁹	9, ^c 10, 11 ^c	Low	Not reported	Wide range of countries, but most were high-income	There was little evidence that income inequality is a major generalizable determinant of population health difference within or between rich countries, but there was stronger evidence that greater poverty is.
Macinko et al. ⁸¹	2, 4, ^c 9, ^c 10, 11 ^c	Low	Not reported	Not clear	The relationship between income inequality and health was unclear.
Pickett and Wilkinson ⁸²	10	Low	Not reported	High-income countries	There was sufficient evidence to conclude that income inequality causes lower life expectancy in high-income countries.
Spencer ⁸³	4, 7, ^c 8, ^c 9, 10, 11 ^c	Low	Unclear	Mostly Europe and North America, with some studies of Australia and Japan	Greater income inequality and less redistribution were associated with higher infant mortality rates in high-income countries.
Wilkinson and Pickett ⁸⁴	7, ^c 8, ^c 9, ^c 10, 11 ^c	Low	Not reported	Wide range of countries, but mostly high-income	There were more studies than not showing a strong association between income inequality and mortality when large population units were compared and where potential mediators were not adjusted for.
Rowlingson ⁸⁵	10, 11	Low	Not reported	Not clear	There was evidence of a link between income inequality and worse health.
Kim ⁵⁶	2, 4, 9–11	Low	Not reported	Higher-income countries, especially Nordic countries	In high-income counties, income inequality was associated with worse infant and child mortality, but not at other ages. The Scandinavian welfare regime was associated with better infant and child mortality but not at other ages.
Lago et al. ⁸⁶	2, ^c 9–11	Low	Not reported	Not clear	Income inequality was associated with greater health inequality across the population and worse population health.

Note. SRH = self-rated health.

^aCritical appraisal criteria: 1 = an a priori design for the review was provided; 2 = a comprehensive search was undertaken (including relevant search terms and at least 2 databases); 3 = studies were selected for inclusion by at least 2 independent researchers; 4 = there were clear inclusion and exclusion criteria; 5 = the status of publication (e.g., gray literature) was ignored in the inclusion and exclusion criteria; 6 = the data were extracted independently by at least 2 researchers; 7 = the scientific quality of the included studies was assessed and documented; 8 = the scientific quality of the included studies was used appropriately in formulating conclusions; 9 = the methods used to combine the findings of studies was appropriate; 10 = the likelihood of publication bias was assessed (if possible); 11 = there were no important conflicts of interest that may have had an impact on the conclusions.

addressed by the available reviews, particularly in relation to the importance of the welfare state, but there remain substantial gaps.

On the basis of relatively weak evidence, it seems that social democratic welfare states and states with greater public spending have better overall population health, but there is no clear relationship between welfare state type and health inequalities. In societies where there is systematic discrimination against particular groups (e.g., voting restrictions by race in the

^bQuality assessment: all (very high); at least 2, 4, 7, 8, 9 (high); at least partially 2, 4, 7, 8, 9 (moderate); all others (low).

^cDenotes a partially fulfilled criterion.

TABLE 4—Rev	views That Co	onsidered the He	ealth Impacts o	of Welfare State Type	
Author	Critical Appraisal ^a	Review Quality Summary ^b	Included Study Quality	Context	Summary of Insights
Beckfield and Krieger ¹³	2, 3, ^c 4, 7, ^c 8, ^c 9–11	Moderate	Mixed	Mostly Eastern Europe, United States, and New Zealand, with sparser data across other countries	The transition to a capitalist economy and neoliberal restructuring probably increases health inequalities. Welfare state regimes were inconsistently related to health inequalities. Political incorporation of subordinated racial/ethnic, indigenous, and gender groups reduced health inequities.
Bergqvist et al. ⁹⁴	2, ^c 4, ^c 9, ^c 10, 11	Low	Not reported	High-income countries	There was substantial diversity in how welfare states were classified with contradictory classifications across different schemes and authors. The institutional approach showed the most consistent results where more generous policies and benefits were associated with better mean population health. Greater expenditure on health and social services was associated with better health and lower inequalities.
Brennenstuhl et al. ⁹⁵	2, 4, ^c 6, ^c 9–11	Low	Not reported	Not clear	Mortality was lower in social democratic regimes and where spending was greater on some specific policies (health care, public health, dual-earner family policies, benefit generosity), but there was little support for the thesis that socioeconomic inequalities in health are smaller in social-democratic regimes.
Borrell et al. ⁹⁶	2-4, 9-11	Low	Not reported	Mostly Europe and United States	Nordic social-democractic welfare regimes and dual-earner family models best promoted women's health. Enforcement of reproductive health policy across the United States and longer paid maternity leave were associated with better mental health in women.
Kim et al. ⁹⁷	2, 4, 9, 10, 11 ^c	Low	Not reported	Mostly high-income countries	Precarious workers in Scandinavian states did not suffer from worsening of self-rated health in contrast to those in other welfare state types.
O'Campo et al. ⁹⁸	2-5, 6, ^c 8, ^c 9, 10, 11 ^c	Low	Not reported	Not clear	There was weak evidence to suggest that generous unemployment insurance schemes can mitigate the harmful consequences of unemployment.

^aCritical appraisal criteria: 1 = an a priori design for the review was provided; 2 = a comprehensive search was undertaken (including relevant search terms and at least 2 databases); 3 = studies were selected for inclusion by at least 2 independent researchers; 4 = there were clear inclusion and exclusion criteria; 5 = the status of publication (e.g., gray literature) was ignored in the inclusion and exclusion criteria; 6 = the data were extracted independently by at least 2 researchers; 7 = the scientific quality of the included studies was assessed and documented; 8 = the scientific quality of the included studies was used appropriately in formulating conclusions; 9 = the methods used to combine the findings of studies was appropriate; 10 = the likelihood of publication bias was assessed (if possible); 11 = there were no important conflicts of interest that may have had an impact on the conclusions.

United States), political incorporation and inclusion contributes to reduced health inequalities. Neoliberal restructuring of states is associated with increased health inequalities, and privatization leads to worse mental health for workers. The best-quality evidence shows that income inequality is an independent determinant of SRH and mortality, with greater income inequality being detrimental. There is some low-quality evidence that economic recession is damaging for mental health, SRH, and mortality, but it is not clear how generalizable this is. There is some

limited evidence that fair trade policies are beneficial to well-being and child health.

Extensions of health care insurance coverage in countries where no comprehensive universal system exists were generally associated with health improvements, in particular for lower-income groups. Similarly, increases in primary care provision, public health spending, and cash transfers conditional on health care engagement in some low-income countries all had positive population health impacts. There is compelling evidence that housing rent assistance and

improving the physical housing infrastructure, particularly for low-income groups and those living in cold homes, improves health. The evidence on the impact of regeneration programs is mixed with no clear positive health impact in high-income countries. Health and safety policies in the workplace and prohibition of driving under the influence of alcohol were found to improve health. Within low-income countries, microfinance initiatives were associated with lower infant and maternal mortality, particularly among those living in poverty. Finally,

^bQuality assessment: all (very high); at least 2, 4, 7, 8, 9 (high); at least partially 2, 4, 7, 8, 9 (moderate); all others (low).

^cDenotes a partially fulfilled criterion.

extensions to compulsory education have been associated with reductions in subsequent mortality rates.

There are several areas in which there are multiple reviews, and in reviews investigating similar research questions there were marked differences in the conclusions drawn. This is particularly the case in the reviews that addressed the mean population health impacts of income inequality and in the reviews that considered the impacts of economic recession. Many of the reviews in that area were low quality because they lacked a comprehensive search, independent dual screening, critical appraisal of included studies, and clarity in reporting their methods. Many reviews also addressed subtly different questions or used data from different time periods or populations to draw less generalizable lessons. The lower-quality reviews in these areas have greater value in elaborating the potential theoretical mechanisms and limitations than they do in clarifying the extent to which the relationship holds true.

It is therefore clear that in areas in which there are reviews and evidence to draw upon, political economy matters for population health. This spans the welfare state approach, economic policy, public spending, health and education provision, housing provision and policy, access to credit, and specific legislation.

Strengths and Weaknesses

This systematic review examined the broad scope of political economy and health. In doing so, it lays out a framework for understanding the availability and quality of the available evidence. Moreover, it establishes the areas in which policymakers can be more clearly evidence-informed, the research questions for which high-quality systematic reviews could usefully be undertaken, and the areas in which further primary study is required. The review also sets out the importance of political economy for population health and thereby supports a fuller engagement of health researchers in sociological, political, and economic debates.

Several of the reviews restricted their searches to English language only. This Anglo-centric approach to the literature clearly carries a risk that the included studies are not truly reflective of the available literature as a consequence of restrictions placed on the search. Our approach of undertaking a systematic review of reviews provides some certainty that there are no reviews addressing the areas of political economy that we have identified as gaps. However, the absence of reviews in a particular area does not indicate a lack of research in that area, but simply that there has not been a review addressing a relevant question. A systematic review addressing our research question but that did not restrict to including only reviews would have quickly become unwieldy in size and scope. There is therefore a greater range and depth in the literature examining the population health implications of political economy than is reflected in the review-level studies that are synthesized in this article. There is also a risk of decontextualizing the underlying primary studies in this review of reviews given the process of abstraction and generalization inherent in the synthesizing process.

How It Fits With the Existing Literature

Political economy is well recognized as centrally important in determining the health of populations. 3,12,13,111 The general findings of this study resonate with much of the theoretical work, which shows how social democratic states have managed to mitigate against the deleterious impacts of marketized social relations. 112-114 This review is also consistent with the policy reviews that describe how the most effective means of reducing health inequalities is to decrease economic and social inequalities; use legislation, regulation, and taxation to restrict unhealthy consumption; and address the structural and financial barriers to access to services. 3,115,116

Implications

Policymakers should be aware that social democratic welfare state types, countries that spend more on public services, and countries with lower income inequalities have better SRH and lower mortality. A wide range of social and public policy is important in determining population health. Research funders and researchers should be aware that there remain substantial gaps in the available

reviews. One such area concerns the interrelationship among governance, polities, power, macroeconomic policy, public policy, and population health, including how these aspects of political economy generate social class processes and forms of discrimination that have a differential impact across social groups. This includes the influence of patterns of ownership (of land and capital) and tax policies.

However, there are several relevant individual studies and policy reviews that represent a good starting point. 3,12,13,46,116–118 For some areas, there are many lower-quality reviews, which leave uncertainties in the relationship between political economy and population health. It may be that a very-highquality review could provide the clarity required; however, it is notable that in contested areas such reviews have not provided closure to the debate even where new primary studies have not subsequently become available. 119,120 There are also areas in which the available reviews have identified primary research gaps such as the impact of changes to housing policy, availability, and tenure.

Conclusions

Politics, economics, and public policy are important determinants of population health. Countries with social democratic regimes, higher public spending, and lower income inequalities have populations with better health. There are substantial gaps in the synthesized evidence on the relationship between political economy and health, and there is a need for higher-quality reviews and empirical studies in this area. However, there is sufficient evidence in this review, if applied through policy and practice, to have marked beneficial health impacts.

CONTRIBUTORS

G. McCartney formulated the idea for this study, wrote the protocol, was first reviewer, and drafted the article. W. Hearty was the second reviewer and provided substantive comments on the protocol. J. Arnot designed and performed the searches and loaded them into the covidence software. All authors provided substantive comments on the article and approved the final draft.

ACKNOWLEDGMENTS

This work was funded by NHS Health Scotland through partial payment of PhD fees for G. M. by NHS Health Scotland. F. P. is funded by the Medical Research Council UK and the Chief Scientist's Office Scottish Government (MC_UU_12017/13 and SPHSU13).

Note. The funders had no part in interpreting the findings.

CONFLICTS OF INTEREST

The authors declare that they have no competing interests.

HUMAN PARTICIPANT PROTECTION

As this was a secondary literature review, no ethical approval was sought or obtained for the study.

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