



Epi + demos + cracy: Linking Political Systems and Priorities to the Magnitude of Health Inequities—Evidence, Gaps, and a Research Agenda

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A new focus within both social epidemiology and political sociology investigates how political systems and priorities shape health inequities. To advance—and better integrate—research on political determinants of health inequities, the authors conducted a systematic search of the ISI Web of Knowledge and PubMed databases and identified 45 studies, commencing in 1992, that explicitly and empirically tested, in relation to an a priori political hypothesis, for either 1) changes in the magnitude of health inequities or 2) significant cross-national differences in the magnitude of health inequities. Overall, 84% of the studies focused on the global North, and all clustered around 4 political factors: 1) the transition to a capitalist economy; 2) neoliberal restructuring; 3) welfare states; and 4) political incorporation of subordinated racial/ethnic, indigenous, and gender groups. The evidence suggested that the first 2 factors probably increase health inequities, the third is inconsistently related, and the fourth helps reduce them. In this review, the authors critically summarize these studies' findings, consider methodological limitations, and propose a research agenda—with careful attention to spatiotemporal scale, level, time frame (e.g., life course, historical generation), choice of health outcomes, inclusion of politics, and specification of political mechanisms—to address the enormous gaps in knowledge that were identified.

democracy; epidemiology; health status; health status disparities; politics; public health; social class; socioeconomic factors

INTRODUCTION

Epi + demos + cracy

The terms “*epi + demos + cracy*” together lend themselves to the study of how political systems and priorities shape population health and the magnitude of health inequities. After all, *epi* (“upon”) + *demos* (“the people”) are the roots of “epidemic” (i.e., a disease outbreak that falls upon everyone) (1, 2) and *demos* (“the people”) + *-cracy* (“politically who rules”) (2) refers to a particular kind of political system. That links existed between these 2 concepts was apparent even in the 5th century BCE in ancient Greece, when these terms were coined (1–5). The classic Hippocratic treatise on “Airs, Waters, Places,” for example, famously asserted that the Europeans—and especially Greeks—were healthier and more vigorous than the inhabitants of Asia, with 1 “contributory cause” stated to be that, for Asia, “the greater part is under monarchical rule,” whereas in Europe, the people “are not subject races but rule themselves and labour on their own behalf” (1, p. 160).

Moreover, within the context of Greek democracy (which, by contemporary standards, was not particularly democratic, since only free male citizens (less than 10% of the population) could vote; free women, metics (foreign residents), and slaves were not enfranchised (3–5)), the Hippocratic writings likewise recognized that those with power, property, freedom, and leisure had better health than “the mass of people who are obliged to work,” who “drink and eat what they happen to get” and so “cannot, neglecting all, take care of their health” (5, p. 240). In other words, awareness that political systems and social position affect health is an ancient, not new, idea.

Jump to the 21st century CE, and a new round of critical epidemiologic research, concerned with the societal determinants of health, is exploring links between bodily health and the body politic, drawing on a rich body of recent literature that has theorized about connections between political rule and population health (6–21). At issue is how societal conditions—and especially social inequality—become embodied, thereby shaping population distributions of health: both overall rates of disease, disability, and death and the patterning and extent of

health inequities (7). To date, much of this research has been concerned with associations—and ultimately causal connections and biologic pathways—between individual-level data on 1) social position (especially in relation to social class, race/ethnicity, and gender) and 2) health status. Within the past decade, however, new work, partly informed by recent developments in multilevel frameworks and methods (22, 23), has begun to consider how contextual factors such as political systems and government policies drive population health and health inequities (6, 8–13, 15–17, 21, 24–33).

However, epidemiologists are not alone in asking these questions. In the social sciences, a new and growing body of work is investigating links between political systems, policies, and population health (25–27, 29, 30, 34–44). Building on an enormous and well-developed body of social science literature regarding different types of political systems, social processes, and (especially) social inequalities (34, 45–57), along with older and more general theoretical work that considered a narrower range of political determinants and health outcomes and paid less attention to health inequities, 1 line of this work has called for greater attention to the societal policies, relations, and processes that are behind the social categories used to study health inequities in epidemiologic research (e.g., socioeconomic position, race/ethnicity, gender, sexuality). Its orientation is in contrast to the more conventional epidemiologic approach of treating these categories and social relations as static “risk factors” construed as properties of individuals (58). Another line, concerned with the political economy of health, focuses on how different types of state structures and political and economic systems and institutions affect population well-being, including health inequities (38, 42, 43, 59, 60), albeit with relatively little direct attention to biologic pathways of embodiment.

To date, these 2 bodies of literature, despite common interest in population health and health inequities, have rarely engaged directly. To advance—and better integrate—the work, we accordingly have prepared a critical review of empirical research linking political systems and priorities to the magnitude of health inequities, drawing on our respective fields of political sociology and social epidemiology. In this paper, we focus on the conceptual frameworks informing this research, the substantive findings to date, and the next steps needed for developing a research agenda to address extant gaps in knowledge, so as to provide a better basis for redressing health inequities between and within polities.

FROM THEORY TO HYPOTHESIS: FRAMEWORKS FOR ANALYZING LINKS BETWEEN POLITICAL ECONOMY AND HEALTH INEQUITIES

To situate our review of the empirical literature, we start by briefly summarizing the relevant theories that informed our approach. Because we believe that readers of *Epidemiologic Reviews* are likely to be more familiar with the social epidemiology theories than the political sociology theories, we devote less attention to the former and more to the latter.

Social epidemiology

As reviewed in recent publications (61, 62), social epidemiology offers a wealth of frameworks and models to guide empirical research on the societal determinants of health and of health inequities—often including, in a very broad manner, the impact of political systems and priorities. In particular, the ecosocial theory of disease distribution, introduced by Krieger in 1994 (63) and elaborated upon since (7, 62, 64), has provided a means for conceptualizing the myriad ways social inequality, including class, racial, and gender inequality, becomes biologically embodied, thereby creating health inequities. At issue are the cumulative interplay of exposure, susceptibility, and resistance, at multiple levels, across the life course. The specific forms of these pathways of embodiment are filtered via the prevailing political economy and political ecology. Two corollaries are that 1) population health and health inequities must be analyzed in societal, historical, and ecologic context, and 2) neither the forms of social inequality nor their associations with health status are “fixed” but instead are historically contingent. Moreover, recognizing the interplay between the embodied facts of health inequities and how they are conceptualized, ecosocial theory also calls attention to accountability and agency, both for social inequalities in health and for ways they are—or are not—monitored, analyzed, and addressed.

A model recently prepared by the World Health Organization Commission on the Social Determinants of Health (65) is similarly concerned with how population health is shaped by what it terms the “socioeconomic political context.” This context is posited to generate the structural determinants of health, defined as including “governance,” “macroeconomic policies,” “social policies (labor, housing, land),” “public policies (health, education, social protection),” and “cultural and societal values.” These structural determinants are held to work through and along with socioeconomic position (involving not only education, occupation, and income but also class and access to resources, power in relation to political context, prestige, and discrimination), gender, and “ethnicity (racism)” to affect intermediary determinants (e.g., material circumstances, behaviors and biologic factors, psychosocial factors), which in turn “impact on equity in health and well-being” (65, p. 48).

Thus, common to the social epidemiologic perspectives are concerns with 1) political context, 2) health inequity, and 3) the biologic pathways by which societal conditions become embodied, in relation to time, place, and history, including life course and age-period-cohort effects. At issue is how power and material resources, operating at different levels and in diverse domains, affect population distributions of health. Social epidemiologic frameworks accordingly set the basis for hypothesizing that different types of polities would have different health profiles, including different magnitudes of health inequities.

Political sociology

At the intersection of sociology and political science, political sociology has developed conceptual and analytical

tools for understanding the “political context” that regularly appears in frameworks drawn from social epidemiology. At issue are various intersections of the state and civil society (66, 67), including the “welfare state” or the set of “social rights of citizenship” (68), such as family benefits, health insurance, pension provisions, unemployment insurance, housing allowances, and welfare payments; engagement with other formal political institutions; and social movements.

Below and in Table 1 we briefly describe key features of 4 predominant theoretical frameworks used in political sociology that address social inequality directly: 1) “welfare regimes,” 2) “power constellations,” 3) “varieties of capitalism,” and 4) “political-institutionalism of inequality.” While each of these theories views welfare states as systems of stratification, they differ in their analysis of the causal processes that generate social inequality. In Table 1, we provide examples of the types of hypotheses each of these theories (and related theories pertaining to social movements) could propose regarding links between political systems and health inequities.

One influential political-sociologic approach is the “welfare regime” framework developed by Esping-Andersen (69) in 1990, which posits the existence of “3 worlds of welfare capitalism”: liberal, social democratic, and conservative. Distinctions pertain to the degree to which each regime decommodifies labor by making it possible to maintain a socially acceptable standard of living without reliance on the market. The fundamental insight of this approach is that social inequalities do not emerge “naturally” from the market but are instead politically constructed. According to this framework, liberal welfare states (where the “liberty” in “liberal” refers to the political prioritizing of “free markets”), such as the United States, do little to reduce poverty or inequality, while social democratic welfare states, such as Sweden, reduce poverty and inequality dramatically by providing a wide range of social services, and conservative welfare states, such as Germany, provide relatively generous social services and welfare benefits but deliver them in ways that reinforce existing patterns of social inequality (e.g., gender roles in the family). New research has updated and revised Esping-Andersen’s regime scheme, contrasting “social market economies” (combining generous social provisions with coordinated business-interest representation and strong labor unions) with “liberal market economies,” with the former outperforming the latter in reducing inequality, without sacrificing economic growth and jobs (51, 56). For definitions of many of the central terms in the welfare-regimes literature, see the recent glossary by Eikemo and Bamba (12).

Like the “welfare regimes” approach, the “power constellations” approach theorizes about the causes and effects of the welfare state, but here political parties are the central determinant of social welfare policies (55, 70, 71). Power constellations theory views social democratic parties, Christian democratic parties, and social movements as engines of distinct welfare-state trajectories, with research demonstrating that party incumbency directly and indirectly affects a country’s level and type of social inequality. While the key causal mechanism in the power constellations approach

is the political party, social movements (e.g., labor, feminist, tax-revolt) also play a role in party formation and formal political participation. A key contribution of social movements theory is identification of the conditions for societal impacts of movements (72–74).

In sharp contrast to both the regimes and constellations frameworks is the “varieties of capitalism” institutionalist tradition (54, 75), which focuses on the role of employers and employees in welfare politics and policy within the context of international market competition. The key taxonomic distinction is between “coordinated market economies” like Germany and Sweden and “liberal market economies” like the United States and the United Kingdom, where the former is more likely to protect employees’ and employers’ investments in specific skills, a priority that involves coordinated wage bargaining and which simultaneously produces less wage inequality but also (usually) more occupational gender segregation (76, 77).

An emergent political-institutional approach in turn considers how policy domains not typically considered in welfare-state analyses, such as the penal system and the education system, also have implications for inequality (78, 79). Research motivated by this framework, for instance, has investigated how increasingly punitive prison policy in the United States has led to increased antiblack discrimination in the labor market (80), felon disenfranchisement and decreased political participation among blacks (81), and increased black-white wage inequality (82).

Common to all 4 theories is recognition that, as Lundberg (6) and others (83–86) have noted, the state is not a unitary actor, such that it is dangerous to assume a perfect correspondence between, for instance, a welfare regime on the one hand and health policy on the other (43). Even so, all 4 theories, combined with those of social epidemiology, provide good grounds for theorizing that types of states and their political priorities should be causally linked to the magnitude of health inequities. To consider whether these predictions actually hold, we next consider the empirical evidence.

METHODS

Our review objective was to locate articles that empirically investigated and tested hypotheses regarding within- and between-country comparisons of health inequities in relation to political systems, political economy, and changes in politics and policies. To locate articles for inclusion in this review, we searched the ISI Web of Knowledge database, version 4.3, with “all databases” (Thomson Reuters, New York, New York; <http://apps.isiknowledge.com.ezp1.harvard.edu/>) and the PubMed database (US National Library of Medicine, Bethesda, Maryland; <http://www.ncbi.nlm.nih.gov/sites/entrez>) between May 27 and June 7, 2008. The ISI Web of Knowledge database includes works published since 1900; the PubMed database includes works published since 1948. Topic keywords common to all searches were 1) “epidemiology” and 2) “[health *and* (inequalities *or* inequality *or* inequities *or* inequity *or* disparities *or* disparity)].” Additional terms included “welfare *and* state,” “political *and* economy,” “social *and* policy,”

Table 1. Political Sociology Theoretical Frameworks for Analyzing Political Determinants of Health Inequities: Tenets, Hypotheses, and Data Needs

Theoretical Framework ^a	Central Claim(s) and Theme(s)	Hypotheses	Implications for Data
1. Welfare regimes	The welfare regime is a system of stratification that (variably) decommodifies labor and reinforces other social inequalities; welfare states cluster into distinct regimes.	<p>1.1. If similar welfare states produce similar systems of inequality, then health inequity, especially according to class, should cluster by regime.</p> <p>1.2. If the welfare state decommodifies health as well as labor, then there should be a weaker connection between class and health in highly decommodifying regimes.</p> <p>1.3. The retrenchment of the welfare state should drive the expansion of class-based health inequities.</p> <p>1.4. In conservative welfare states that reinforce traditional gender roles, gender inequities in health should be higher than those in gender-egalitarian welfare states.</p>	Requires cross-national comparisons of consistent measures of health inequity, class position, and welfare regime.
2. Power constellations	Political parties translate class- and ascription-based social cleavages into policy.	<p>2.1. If left party incumbency directly generates a flatter social hierarchy, then left party incumbency should be associated with lower levels of health inequities (especially class-based inequities).</p> <p>2.2. Conversely, if right party incumbency is associated with higher levels of social inequality and poverty, then rightward political shifts should bring greater health inequity.</p> <p>2.3. The conjuncture of left party incumbency with democratic polity should be associated with lower levels of (class-based) health inequity.</p> <p>2.4. The political mobilization and representation of groups subordinated in relation to race/ethnicity, gender, and sexuality should be associated with a decline of their corresponding health inequities.</p>	Requires longitudinal and cross-national comparisons using consistent measures of political party, class position, and measures of subordination (e.g., by race/ethnicity).
3. Varieties of capitalism	Social welfare policies can confer comparative advantages to firms in international markets, and employers play a central role in social policy.	<p>3.1. Health policy is 1 dimension of the welfare state that may provide comparative advantages to firms operating in international markets, so that utilization-based health inequities are lower in coordinated market economies.</p> <p>3.2. Coordinated market economies have different effects on gender inequality and class inequality, so that class-based health inequities should shrink under coordinated capitalism, while gender-based health inequities should not differ between coordinated and liberal market economies.</p> <p>3.3. Coordinated market economies insure against health risks as part of the protection of skill formation, creating a positive association among wage coordination, vocational training, and health inequity.</p>	Requires cross-national and longitudinal data on firms embedded in international markets, a range of dimensions of social inequality, and measures of coordination and liberalism in economic regulations and social provisions.

4. Political-institutionalism of inequality	Political institutions and social policies have distributive implications.	4.1. The expansion of mass incarceration policy in the United States is associated with increasing black-white health inequities. 4.2. Qualitative differentiation in mass educational systems (and expansion of schooling in developing systems) strengthens the association between social origins and health. 5.1. Mobilization affects social policy through its effects on the state. 5.2. Mobilization affects social policy through its long-term impact on movement activists. 5.3. Mobilization affects social policy through its effects on public opinion and political culture. 5.4. Mobilization affects social policy through its effects on social integration (social capital).	Requires longitudinal data on institutionalized populations and panel data during and after expansion of educational systems.
5. Social movements	Social movements are transformative for state policies as well as movement participants and have lasting effects on political culture.	Requires data on activists and nonactivists and the actions of social movement organizations.	

^a See text for references. These hypotheses, although collectively an important first step, are of course not exhaustive of the range of hypotheses that could be drawn from theoretical synthesis of political sociology and social epidemiology. Note, for instance, the rich theoretical traditions on political culture, state-centered institutionalism, rational choice, revolution, state formation, and globalization that should also be mined for novel hypotheses on the politics of health disparities (66, 170).

“structural,” “trends,” “political *and* change,” “democratization,” “democracy,” “globalization,” “policy,” “politics,” “neoliberalism,” “retrenchment,” “stratification,” “class *and* differences,” “international,” “cross-national,” “cross-country,” and “human *and* rights.”

Searching on these keyword permutations yielded a total of 12,237 records (not mutually exclusive; the original searches were conducted by N. K. and replicated exactly by J. B.). The majority of these focused on socioeconomic health inequities, overall and sometimes by gender or race/ethnicity (especially studies from the United States and New Zealand). Initial review of abstracts by N. K. yielded 1,730 articles that potentially were relevant. N. K. and J. B. then together reviewed these 1,730 abstracts and identified 45 that met 1 or both of the inclusion criteria; that is, they either:

1. explicitly and empirically tested for changing trends in the magnitude of health inequities in relation to an a priori hypothesis relating these to political changes, or
2. explicitly and empirically tested for significant cross-national differences (cross-sectional or over time) in the magnitude of health inequities in relation to an a priori political hypothesis.

In accord with our inclusion criteria, we excluded 2 types of studies also concerned with political systems and population health, as summarized in the Web Table (which is posted on the *Epidemiologic Reviews* Web site (<http://epirev.oxfordjournals.org/>)): 1) descriptive studies that did not explicitly test political system hypotheses and 2) descriptive and analytic studies focused on overall population health (as opposed to the magnitude of health inequities). We did, however, draw on these studies and other relevant literature (24–33, 38, 41–44, 59, 62, 65, 87–90) to inform our analysis of the selected articles.

RESULTS

Tellingly, the 45 studies included in Table 2 were all published between only 1992 and 2008, despite our search of databases extending back to 1900. This new, small body of literature clusters around 4 central political factors: 1) the transition from a command economy to a capitalist economy; 2) neoliberal restructuring of economic regulations; 3) welfare states and welfare regimes; and 4) the political incorporation of subordinated racial/ethnic and indigenous groups and women. None explicitly tested hypotheses pertaining to the impact of social movements on the magnitude of health inequities.

Before summarizing the key findings of each of these 4 emerging lines of research, we first note that, with regard to outcomes, 25 of the 45 studies (56%) focused on all-cause or cause-specific mortality, 3 (7%) on life expectancy, 14 (31%) on self-rated health or long-standing limiting illness, 2 (4%) on health behaviors, and 8 (18%) on other health status outcomes (with some studies including more than 1 type of outcome). Additionally, as is summarized in the last set of columns in Table 2, 21 (47%) considered multiple dimensions of inequality (“MDI”) in relation to either

Table 2. Results From Quantitative Studies ($n = 45$) Analyzing Whether Variation in the Magnitude of Health Inequities Is Associated With Variation in Political Systems or Priorities, 1992–2008

Author(s) and Year (Ref. No.)	Study Aim(s)	Study Population	Political Determinants	Health Outcomes	Key Findings	Study Characteristics ^a						
						MDI	CE	LC	MM	RA	ML	GN
<i>Transition to a Capitalist Economy</i>												
Malyutina et al., 2004 (92)	Test the a priori hypothesis that inequality in alcohol consumption increases with transition to capitalism	Adults aged 25–64 years in Novosibirsk, Russia, 1985/1986, 1988/1989, and 1994/1995	Transition to capitalism	4 measures of prevalence and severity of alcohol consumption	All groups consumed more alcohol after the transition, but absolute inequality in alcohol consumption increased; the contribution of alcohol consumption to mortality differentials was modest, by inference	Y	Y	N	N	Y	N	Y
Shkolnikov et al., 1998 (91)	Describe changing health inequalities	Adults aged 20–69 years in Russia, 1979–1994	Transition to capitalism	Age-standardized all-cause and cause-specific mortality rates	Education-based inequities in the Soviet Union were as large as those in the West, but relative and absolute inequities grew strongly during the transition into the early 1990s	N	N	N	N	Y	N	Y
Kolodziej et al., 2007 (93)	Describe changing health inequalities	Adult urban dwellers aged 35–64 years, Poland, 1988–1989 and 2001–2002	Transition to capitalism	Premature mortality	Educational gradient in premature mortality steepened with the transition to capitalism in Poland (in relative but not absolute terms) and was steeper for men than for women	N	N	N	N	Y	N	Y
du Prel et al., 2005 (94)	Test the a priori hypothesis that the transition from socialism to a social market economy in East Germany alters inequity in living conditions	6-year-olds first entering school in 3 cities and 5 small towns in East Germany, 1991–2000	Transition to capitalism, reunification with West Germany	Damp housing, single-oven heating, living on a busy road	Education-based relative inequalities in health-related living conditions remained the same or increased, with few exceptions	N	N	N	N	N	N	Y
Leinsalu et al., 2003 (95)	Describe changing health inequalities	Adults aged ≥20 years in Estonia, 1987–1990 and 1999–2000	Rapid transition to capitalism (including low unemployment benefits, free trade, and cuts in welfare benefits)	Life expectancy at age 25 years and all-cause and cause-specific mortality	Education-based relative and absolute health inequity increased during the transition to capitalism	N	N	N	N	Y	N	Y
Koupilova et al., 2000 (97)	Describe changing health inequalities	All livebirths occurring in Estonia, 1992–1997	Rapid transition to capitalism	Birth weight and preterm delivery	Education-based absolute inequality in birth weight grew during the transition to capitalism, while relative inequalities of nationality and maternal marital status in preterm birth remained nearly constant	Y	Y	N	N	Y	N	Y

Shkolnikov et al., 2006 (96)	Describe changing health inequalities	Czech Republic, Estonia, Russian Federation, Finland (as control), 1988–1989 and 1998–1999	Transition to capitalism	Life expectancy at birth	Equitability (in education-based absolute health inequity) of the transition to capitalism varied, with a more equitable transition in the Czech Republic than in Russia and Estonia	N	N	N	N	N	Y	Y
Helasoja et al., 2006 (99)	Test the a priori hypothesis that education-based health inequities grow with the transition to capitalism	Adults aged 20–64 years in Estonia, Latvia, Lithuania, and Finland, 1994–2004	Baltic countries' transition to capitalism	Self-rated health, diagnosed diseases, and symptoms	Relative and absolute inequality (by education) was stable in all 4 countries	N	N	N	N	Y	Y	Y
Kalediene and Petrauskiene, 2005 (98)	Describe changing health inequalities	Adults aged ≥ 25 years in Lithuania, 1989 and 2001	Lithuania's establishment as an independent, capitalist state	Mortality	Transition to capitalism has favored the highly educated, generating expanded absolute health inequities since 1989	N	N	N	N	N	N	Y
Neoliberal Political and Economic Reforms												
Blakely et al., 2008 (100)	Test the a priori hypothesis that health inequity covaries with neoliberal reforms	New Zealand, 1981, 1986, 1991, 1996, and 2001	Neoliberal reforms (including changes in the tax system, welfare programs, labor market, and privatization)	Mortality (all-cause, cardiovascular, and cancer)	Income-based health inequity remained stable in absolute terms but increased in relative terms, along with neoliberal structural reforms, and the reversal of some neoliberal policies reversed the relative increase	N	N	N	N	Y	N	Y
Shaw et al., 2005 (101)	Test the a priori hypothesis that socioeconomic health inequities rise with neoliberal reforms	Children aged <15 years in New Zealand, 1981, 1986, 1991, and 1996	Neoliberal reforms in New Zealand (see Blakely et al., 2008 (100))	Child mortality	Income-based relative inequalities in child mortality rose with structural reform in New Zealand, but absolute inequity and other bases of inequities did not change	Y	Y	N	N	Y	N	Y
Thomson et al., 2002 (104)	Test the a priori hypothesis that neoliberal reforms in New Zealand increase socioeconomic and Maori-European inequalities	5-year-olds in Wellington, New Zealand, 1995–2000	Neoliberal reforms (reduction in welfare benefits, marketization of public housing, flexibilization of the labor market)	Prevalence and severity of dental caries	Maori versus European relative inequity (prevalence ratio) and absolute inequity (severity difference) grew over time	Y	N	Y	N	Y	N	Y
Fawcett et al., 2005 (103)	Test the a priori hypothesis that health inequity covaries with neoliberal reforms	Persons aged 30–59 years in New Zealand, Denmark, Finland, and Norway, 1981–1996 (various years)	Neoliberal reforms in New Zealand (see Blakely et al., 2008 (100))	Premature (age <60 years) mortality	Relative health inequity grew in New Zealand during a period of neoliberal reform, but absolute inequity was stable and not greater than in Nordic countries	N	N	N	N	Y	Y	Y

Table continues

Table 2. Continued

Author(s) and Year (Ref. No.)	Study Aim(s)	Study Population	Political Determinants	Health Outcomes	Key Findings	Study Characteristics ^a						
						MDI	CE	LC	MM	RA	ML	GN
Lundberg et al., 2001 (105)	Describe changing health inequalities in a period of political changes	Adults aged 25–64 years in Sweden	Welfare-state cutbacks (eligibility requirements, replacement levels), European Union membership, tax increases	Self-reported ill health and limiting long-standing illness	No change in sex-, age-, education-, class-, or employment-based relative and absolute health inequities after welfare-state cutbacks, European Union membership, and tax reforms	Y	Y	N	N	Y	N	Y
Dahl and Elstad, 2001 (106)	Describe changing health inequalities in a period of political changes	Adults aged 25–64 years in Norway, 1985–1995	Eligibility restrictions on welfare benefits	Self-reported ill health and limiting long-standing illness	No change in relative and absolute health inequities, 1985–1995	Y	Y	N	N	Y	N	Y
Manderbacka et al., 2001 (107)	Describe changing health inequalities in a period of political changes	Adults aged 25–64 years in Finland, 1986–1994	General maintenance of universalist model of social provision (with some new restrictions)	Self-reported ill health and limiting long-standing illness	No change in health inequities for women but small declines in education- and employment-related inequalities for men, 1986–1999; no change in class-based inequalities	Y	Y	N	N	Y	N	Y
Krieger et al., 2008 (102)	Test the a priori hypothesis that health inequities can grow or shrink in the context of declining population mortality rates	Persons under age 65 years, United States, 1960–2002	Enactment of civil rights legislation and antipoverty legislation in the 1960s, followed by neoliberalism in the 1980s and 1990s	Premature (age <65 years) mortality and infant mortality	During a period of declining mortality rates, race- (black/white) and income-based relative and absolute inequities in premature mortality shrank during the 1960s and 1970s; then relative (but not absolute) inequities rose again thereafter	Y	Y	Y	N	Y	Y	Y
Welfare State												
<i>Health system within the welfare state as a key driver of health inequities</i>												
James et al., 2007 (109)	Describe changing income-based health inequity	Metropolitan areas in Canada, 1971, 1986, 1991, and 1996	Establishment of universal insurance for doctors (1968) and hospital services (1957)	Mortality (amenable vs. nonamenable causes)	Income-based absolute inequality in mortality amenable to medical care decreased substantially; absolute inequality in mortality amenable to public health increased somewhat	N	N	Y	Y	N	N	Y

Kunitz and Pesis-Katz, 2005 (108)	Test the a priori hypothesis that social policy explains the black-white health gap in the United States	United States and Canada, 1970–2000	Welfare state (especially national health insurance)	Life expectancy and avoidable mortality	Legacy of slavery and racism translates into the (absolute) black-white health gap through the institutions of the welfare state (lack of enforcement of civil rights laws, segregation, lack of universal health insurance)	N	N	Y	N	N	Y	Y
Korda et al., 2007 (113)	Test the a priori hypothesis that the Australian health care system reduces socioeconomic inequality in avoidable mortality	Australians aged ≤74 years, 1986, 1991, 1996, and 2001	Australian health care system (Medicare)	Avoidable and nonavoidable mortality	Health care brings down absolute socioeconomic health inequity but increases relative inequity	N	N	N	Y	Y	N	Y
Arntzen et al., 1996 (115)	With the expansion of the Norwegian welfare state, the association between maternal education and postneonatal mortality disappears	Survivors of neonatal period in Norway, 1968–1991	Norwegian welfare state (standards of living, medical care, housing)	Postneonatal mortality	Education-based relative and absolute inequalities have grown, despite expansion of welfare state in Norway	N	N	N	N	Y	N	Y
Leon et al., 1992 (116)	Test the a priori hypothesis that class-based inequality in infant mortality is reduced by the Swedish welfare state	All livebirths in Sweden, England, and Wales, mid-1980s	Universalist Swedish welfare state and health care system	Neonatal mortality and postneonatal mortality	Relative health inequalities (manual vs. nonmanual) were approximately the same in the United Kingdom and Sweden, suggesting a lack of effect of the Swedish social welfare state (although absolute inequalities were lower in Sweden)	N	N	N	N	Y	Y	Y
Borrell et al., 2006 (114)	Test the a priori hypothesis that after HAART is made freely available, socioeconomic inequality in AIDS mortality narrows	Adults aged ≥19 years in Barcelona, Spain, 1991–2001	Introduction of free HAART	AIDS mortality	Education-based relative inequalities before and after the introduction of HAART were stable	Y	N	N	N	Y	N	Y

Table continues

Table 2. Continued

Author(s) and Year (Ref. No.)	Study Aim(s)	Study Population	Political Determinants	Health Outcomes	Key Findings	Study Characteristics ^a						
						MDI	CE	LC	MM	RA	ML	GN
Houweling et al., 2006 (110)	Test the a priori hypothesis that state strength and democracy are positively associated with the health of the poor, while socioeconomic development is positively associated with the health of the rich	43 developing countries, 1990–1998	Public spending on health, democracy, state strength	Child (age <5 years) mortality	Economic growth expands wealth-based relative inequality in child mortality; public health spending decreases wealth-based relative inequality in child mortality	N	Y	N	Y	N	Y	N
Sastry, 2004 (111)	Describe changing health inequalities	Children born to women aged 20–34 years in Sao Paulo, Brazil, 1970, 1980, and 1991 (census sample data)	Post-1973 investments by Brazilian government in infrastructure (water supply, sanitation system, immunizations, health centers)	Infant and child mortality	Wealth-based inequality decreased but (maternal) education-based inequality increased in relative (but not absolute) terms	Y	Y	N	N	Y	N	N
Victora et al., 2000 (112)	Test the inverse-equity hypothesis that public health interventions benefit the rich first, resulting in growing and then declining health inequity over time	Children in the states of Ceara and Pelotas, Brazil, 1980s–1990s	A range of public health interventions (monitoring, promotion of health behaviors, community health workers, etc.)	Birth weight, infant mortality, immunizations, breastfeeding duration	Relative inequality at first grows and then declines with public health interventions that reduce absolute inequality	N	N	Y	N	Y	N	N
<i>Other welfare-state policies outside the health domain as buffers for social inequities that drive health inequities</i>												
Kunst et al., 2005 (117)	Describe changing health inequalities	Adults aged 25–69 years in Finland, Sweden, Norway, Denmark, England, the Netherlands, West Germany, Austria, Italy, and Spain; 1980s and 1990s	Welfare state (argued to buffer the effects of economic crises and increases in income inequality)	Self-assessed health	Education- and income-based relative and absolute health inequities were mostly stable over time, with decreases in Nordic countries and increases for Spain, Italy, and the Netherlands; Nordic welfare states were protective	Y	Y	N	N	Y	Y	Y

Cavelaars et al., 1998 (120)	Describe cross-national differences in health inequalities	Adults aged 25–69 years in 11 Western European countries, 1985–1993	Welfare states	4 measures of morbidity	Expansive welfare states in the Nordic countries do not exhibit less education-based relative health inequality	N	N	N	N	N	Y	Y
Olafsdottir, 2007 (42)	Test the a priori hypothesis that the relation between disadvantaged socioeconomic position and self-rated health is weaker in Iceland than in the United States	Adults in the United States (ages 18–89 years) and Iceland (ages 18–75 years), 1998	Welfare state	Self-rated health	Health inequality (relative and absolute) exists in the United States and Iceland, but affluence matters more in the United States and parental status matters more in Iceland	Y	Y	N	N	Y	Y	Y
Regidor et al., 2006 (123)	Describe changing health inequalities	Adults aged 25–74 years in Spain, 1985–1986, 1999, and 2000–2001	Investments in Spanish regions and other European Union investments that reduced regional economic inequality and raised Spain's gross domestic product per capita	Disability and mortality	Although income inequality decreased in Spain (attributed in part to European Union investments), income-based relative and absolute health inequities grew	N	N	N	N	Y	N	Y
Martikainen et al., 2007 (124)	Describe changing health inequalities	Adults aged 30–59 years in Finland, 1971–2000	Unspecified changes in labor markets and educational systems	Mortality	Class- and education-based relative inequality in mortality has grown in Finland; the authors attributed this to education and labor market policies	Y	Y	N	N	N	N	Y
Burström, 2003 (119)	Test the a priori hypothesis that inequalities in infant mortality declined as the Swedish welfare state was constructed over the course of the 20th century	Livebirths, Sweden, 1881–2000	Construction of the Swedish welfare state	Infant mortality	Decline in relative health inequality according to family status and urban/rural residence attributed to construction of the Swedish welfare state	Y	N	N	N	N	N	Y
Elstad, 1996 (125)	Test the a priori hypothesis that marital-status-based inequality in mental health decreased, parental-status-based inequality remained stable, and employment-status-based inequality increased	Women aged 31–60 years in Norway, 1968–1991	Increased welfare-state support for lone mothers and families with children, expansion of pension and disability benefits, and reductions in the number of hours in the standard workweek	Limiting long-standing illness	Employment-status-based absolute health inequality increased, partly because of work/family policies	Y	Y	N	N	N	N	Y

Table continues

Table 2. Continued

Author(s) and Year (Ref. No.)	Study Aim(s)	Study Population	Political Determinants	Health Outcomes	Key Findings	Study Characteristics ^a						
						MDI	CE	LC	MM	RA	ML	GN
Fritzell et al., 2007 (118)	Test the a priori hypothesis that welfare state changes and other structural shifts deepen the health disadvantage of lone motherhood	3 cohorts of mothers aged 20–54 years in Sweden, 1985, 1990, and 1996	Reduction in welfare benefits	Self-rated health, limiting long-standing illness, hospitalization, all-cause and cause-specific mortality	Relative difference between lone and coupled mothers was constant over time, despite welfare-state changes in Sweden; authors concluded that the Swedish welfare state buffers economic pressure, despite cuts	Y	Y	Y	Y	N	N	Y
Lahelma et al., 2002 (121)	Test the a priori hypothesis that the role strain of lone mothers is stronger in Finland, whereas multiple attachment is weaker for unemployed lone mothers in Britain	Adult women aged 20–49 years in Finland and Britain, 1994	Welfare state (liberal Britain vs. social democratic Finland)	Self-assessed health and limiting long-standing illness	Finnish welfare state does not dampen the relative health disadvantage of single lone mothers	Y	Y	N	N	N	Y	Y
Arber and Lahelma, 1993 (122)	Test the a priori hypotheses that class inequality is stronger for men than for women, Finnish women exhibit more inequality than British women, and lone motherhood is more strongly associated with ill health in Britain	Adults aged 20–64 years in Britain and Finland, 1985–1986	Liberal (British) versus social democratic (Finnish) welfare states	Limiting long-standing illness	Relative class-based health inequality was greater in Finland than in the United Kingdom and greater for men than for women; traditional gender roles were more strongly associated with ill health in Britain than in Finland	Y	Y	N	N	N	Y	Y
<i>Welfare regimes</i>												
Zambon et al., 2006 (126)	Test the a priori hypothesis that redistributive policies reduce the association between health and socioeconomic position	Adolescents (boys and girls aged 11, 13, and 15 years) in Israel and 32 countries in Europe and North America, 2001–2002	Esping-Andersen (69) welfare regime types	Self-rated health, symptoms, and health behaviors	Welfare regime moderates the effect of family affluence on health: relative class effect was lowest in social democratic and conservative regimes, higher in liberal regimes	N	N	N	N	N	Y	Y

Eikemo et al., 2008 (29)	Test the a priori hypothesis that welfare regimes pattern relative and absolute health inequalities	Persons aged ≥ 18 years in 23 European countries, 2002 and 2004	Welfare state regime type	Self-assessed health and limiting long-standing illness	Education-based relative and absolute health inequities are patterned by welfare regime, with Southern European regimes exhibiting the most inequality, Bismarckian regimes the least, and Anglo-Saxon, Eastern European, and Scandinavian regimes in-between levels (with surprisingly high inequality in Scandinavia)	N	N	N	N	Y	Y	Y
Martikainen et al., 2004 (127)	Test the a priori hypothesis that welfare regimes shape health inequity through economic redistribution, social cohesion, and labor-market (de-) segregation	Adult public employees aged 40–60 years in Britain, Finland, and Japan during various years in the 1990s and early 2000s	Welfare regime (liberal, social democratic, conservative)	Self-assessed health and physical functioning	Class-based relative inequities were similar across welfare state regimes among men but differed for women	N	N	N	N	N	Y	Y
<i>Political Incorporation of Subordinated Groups (in Relation to Race/Ethnicity, Indigenous Status, and Gender)</i>												
Palma-Solis et al., 2008 (132)	Describe associations between various political factors and gender-unequal health outcomes	61 countries, various years between 1990 and 1999	Government expenditure per capita, civil liberties and political rights index, percentage of girls in primary education, gender ratio in primary and secondary education, number of parliamentary seats held by women	Femicide and intimate partner violence	Government expenditure and women's political representation were negatively associated with rates of femicide	N	N	N	N	N	N	N
Houweling et al., 2007 (133)	Test the a priori hypothesis that education-based inequality in child mortality grows as the overall child mortality rate declines	Children aged < 5 years in Sri Lanka, 1987, 1993, and 2000 (and a comparison set of 49 countries)	Female autonomy, health care	Child (age < 5 years) mortality	Education-based inequalities in health care were related to inequalities in female autonomy and maternal education; relative inequality grew over time (but absolute inequality shrank), in parallel with growing inequality in health care	N	N	N	Y	Y	N	N

Table continues

Table 2. Continued

Author(s) and Year (Ref. No.)	Study Aim(s)	Study Population	Political Determinants	Health Outcomes	Key Findings	Study Characteristics ^a						
						MDI	CE	LC	MM	RA	ML	GN
Krieger et al., 2008 (102) (see previous entry above)	Test the a priori hypothesis that health inequities can grow or shrink in the context of declining population mortality rates	Persons under age 65 years in the United States, 1960–2002	Enactment of civil rights and antipoverty legislation in the 1960s, followed by neoliberalism in the 1980s and 1990s	Premature (age <65 years) mortality and infant mortality	During a period of declining mortality rates, race- (black/white) and income-based relative and absolute inequities in premature mortality shrank during the 1960s and 1970s; then relative (but not absolute) inequities rose again during and after the 1980s	Y	Y	Y	N	Y	Y	Y
Burgard and Treiman, 2006 (128)	Test the a priori hypothesis that postapartheid efforts at alleviating effects of racist policies reduce racial inequality in infant mortality	Women aged 18–49 years in South Africa, 1987–1989 and 1998	Several postapartheid social programs, including sanitation, medical infrastructure, and free targeted medical care	Infant mortality	Policies aimed at reducing racial inequality in South Africa have not closed the race-based relative gap in infant mortality	Y	Y	Y	Y	N	Y	N
Cameron, 2003 (129)	Test the a priori hypothesis that postapartheid efforts at alleviating effects of racist policies reduce racial inequality in growth during infancy	≥4,000 children born in Soweto and Johannesburg, South Africa, 1990–1999	Housing and health programs (delayed by debt crisis)	Child height and weight	Absolute white-black differences did not narrow over time, despite political changes in South Africa	N	N	Y	N	N	N	N
Nannan et al., 2007 (130)	Explore changing inequality in the postapartheid context	Infants and children in South Africa, 1970s–1990s	Pro-poor policies in postapartheid South Africa	Child and infant mortality	Inequities in child and infant mortality declined between the 1970s and 1990s, in both relative and absolute terms	Y	Y	Y	N	Y	N	N
Freemantle et al., 2006 (131)	Test the a priori hypothesis that disparity between Aboriginals and non-Aboriginals declines with pro-Aboriginal policies	Aboriginal and non-Aboriginal populations in Western Australia, 1980–2001 (infants)	Expansion of neonatal care and transport and improvement of intensive-care facilities	Infant mortality	Increasing Aboriginal versus non-Aboriginal relative disparities, attributed to the failure of policies to address Aboriginal health disadvantages	N	N	N	N	N	Y	Y

Abbreviations: AIDS, acquired immunodeficiency syndrome; HAART, highly active antiretroviral therapy; N, no; Y, yes.

^a MDI, study considered multiple dimensions of inequality (health outcomes or aspects of inequality); CE, study's design allowed for contradictory effects; LC, study examined life-course processes or lagged effects; MM, study incorporated measures of theorized mechanisms; RA, study addressed relative and absolute health inequity; ML, study employed a multilevel framework or analysis strategy; GN, study sample was limited to the global North.

determinants or outcomes, 19 (42%) investigated the possibility of contradictory effects (“CE”) on health inequities, 10 (22%) employed a life-course (“LC”) approach or tested for lagged effects, 6 (13%) included measures of the mechanisms (“MM”) hypothesized to connect political input to health inequities, 26 (58%) assessed both relative and absolute (“RA”) health inequities (with the remainder typically focusing only on relative inequities), and 17 (38%) employed a multilevel (“ML”) framework or analysis. Only 1 study addressed birth cohort effects. Moreover, 38 of the 45 articles (84%) focused on countries in the “global North”—that is, European nations (Western, Northern, Southern, and Eastern), North American nations (United States and Canada), New Zealand, Australia, and Japan.

Transition to capitalism

Among the 9 studies testing the hypothesis that (class-based) health inequities would grow during the period immediately following a transition to capitalism (a variant of hypothesis 1.3 in Table 1), 8 found supportive evidence pertaining to growing relative or absolute education-related health inequities (Table 2). Outcomes for these 8 studies included: for Russia, overall and cause-specific mortality (91), with 1 study finding evidence *against* the hypothesis that this was driven by growing inequality in alcohol consumption (92); and, for Poland, East Germany, Estonia, the Czech Republic, and Lithuania, premature mortality (93), unhealthy housing conditions for children (94), life expectancy (95, 96), birth weight and preterm delivery (97), and all-cause mortality (96, 98). The 1 study with negative findings focused on self-rated health in Estonia, Latvia, and Lithuania, with Finland serving as a control (99).

Neoliberal restructuring

Eight studies listed in Table 2 tested hypotheses regarding the health inequities impact of the neoliberal (market-oriented) political and economic reforms of the 1980s and 1990s (per hypotheses 1.3, 2.1, and 2.2 in Table 1). Four of these focused on mortality—of which 3 found that neoliberal reforms were associated with increased health inequities, including 2 New Zealand studies on education- and income-based relative disparities in adult mortality rates (100) and child mortality (101) and a US study on relative and absolute income and racial/ethnic inequities in premature mortality and infant mortality (102). By contrast, 1 study found that, at least for premature mortality, relative health inequity in New Zealand during its period of neoliberal reform did not increase more than it did in Denmark, Finland, and Norway (103). Among the 4 studies that focused on nonmortality outcomes, 1 in New Zealand found evidence of post-neoliberal reform increases in Maori-European relative and absolute inequality in the dental caries experience of children (104), whereas the 3 studies with self-rated health as the outcome, all Scandinavian, found stable education- and gender-based relative and absolute inequalities during the period of neoliberal reforms, as evident in Sweden (105), Norway (106), and Finland (107).

Welfare state

Investigations concerned with the implications of the welfare state for health inequity comprised the bulk of the studies in Table 2 (23 of 45; 51%) and offered deeply divergent findings. Underscoring the possibility of different effects of “welfare state” arrangements (i.e., social rights conferred on the basis of citizenship rather than market position) on health inequities, we categorized these 23 studies according to 3 themes: 1) the effect of the health system itself on health inequities (9 studies); 2) the effect of welfare-state policy domains that lie outside health insurance, the medical system, and public health (11 studies; 10 as listed under this sub-heading, plus the study by Krieger et al. (102)); and 3) the effect of welfare regime type on health inequities (3 studies).

Among the 9 studies on the effect of the health-policy dimension of the welfare state, 5 provided evidence that enhancement of welfare-state provisions reduced relative health inequities: 1) 2 studies using Canadian data linking establishment of Canada’s national health insurance plan to decreased income-based relative inequities in mortality due to conditions amenable to medical treatment (108, 109); 2) an investigation showing that increased public health spending in poor countries was associated with decreasing relative wealth inequality in child mortality (110); and 3) 2 Brazilian studies documenting that expansion of health-related infrastructure investments brought down relative and absolute economic inequality in infant and child mortality (111, 112). A sixth study, however, found that establishment of the Australian national health care system was simultaneously associated with increased relative—but decreased absolute—socioeconomic inequalities in avoidable mortality (113), while a seventh study observed that education-based inequality in acquired immunodeficiency syndrome mortality remained stable after highly active antiretroviral therapy was made freely available in Barcelona, Spain (114). Additionally, 2 studies that focused on Western Europe, where the welfare state has seen its most advanced expression, reported that enhancement of welfare-state health systems did not translate to reduced health inequities: 1 in Norway, on postneonatal mortality (115), and 1 comparing class inequality in infant mortality in the United Kingdom and Sweden (116).

Conversely, among the 11 European and US studies concerned with whether welfare-state policies outside the health domain counteract the effects of the market and other social forces in producing health inequality (Table 2), 5 investigations offered suggestive evidence that strong welfare states and generous social policies can dampen social inequities in health. First, a US study found that relative and absolute socioeconomic inequities in premature mortality and infant mortality, especially among populations of color, were at their lowest following the 1960s “War on Poverty,” the enactment of civil rights legislation, and the growth of the US welfare state, with these gains being reversed by subsequent neoliberal reforms (102). Second, in a cross-national comparative study, Olafsdottir (42) reported that current relative socioeconomic inequalities in self-rated health are lower in social democratic Iceland than in the United States. A third study documented that relative education- and income-based

health inequalities grew less in Nordic countries than elsewhere in Europe (117). Finally, 2 Swedish studies found protective effects of the welfare state on infant and maternal health (118, 119). Even so, 2 European studies found that countries with different degrees of welfare-state provisions nevertheless had similar patterns of health inequities: 1 investigation compared 11 European countries on 4 measures of morbidity and observed that the Nordic countries did not have less relative education-based health inequality than the remaining non-social-democratic states (120), while in another, investigators reported that the magnitudes of health inequities for single mothers versus married mothers were similar for self-assessed health and limiting long-standing illness in Finland and Britain, despite the 2 countries' different policy provisions for single mothers (121, 122). Additionally, investigators in 3 studies reported increases in health inequities following expansion of the welfare state in Spain (123), Finland (124), and Norway (125).

Only 3 studies, all based in the global North, explicitly tested hypotheses regarding the impact of welfare regime type on health inequality (per hypotheses 1.1–1.4 in Table 1). All 3 focused on education- and class-based relative or absolute inequities in self-rated health, limiting long-standing illness, or self-reports of physical functioning. In 1 study, investigators reported that associations between affluence and health were greater in liberal welfare states (e.g., the United States and the United Kingdom) than in social democratic (e.g., Sweden) and conservative (e.g., Germany) welfare states (126); in another, by contrast, researchers found that relative education-based health inequities were highest in both Southern Europe and, surprisingly, Scandinavia (29); and in the third, investigators reported that the observed relative class-based health inequities were more similar across regimes for men than for women (127).

Political incorporation of subordinated groups

Finally, only 7 studies examined whether political incorporation was associated with the magnitude of health inequities (per hypotheses 2.4 and 5.1–5.4 of Table 1), of which 6 found that—assuming use of an appropriately long time frame—increased political incorporation was associated with reductions in relative and in some cases absolute health inequities. With regard to racial/ethnic inequities, the previously mentioned US study found sharp reductions following the 1960s “War on Poverty” and enactment of civil rights legislation (102). By contrast, investigators in 2 studies reported that the dismantling of apartheid in South Africa in the post-1990 period was not associated with reductions in racial/ethnic inequities in physical growth in infancy or infant mortality (128, 129); in a third study, expanding the time frame back to 1970 showed that racial/ethnic disparities in South African infant and child mortality have declined (130). In the case of indigenous populations, research in New Zealand found that Maori-European relative and absolute health inequities widened following neoliberal reforms (104) and also that Aboriginal health disparities in Australia grew during a period of policy inattention (131). Additionally, in the case of gender, 1 recent analysis of 61 countries found that gains in women's political representation (e.g.,

election of women to the national parliament) were associated with lower rates of femicide (conceptualized as an extreme form of patriarchal repression) (132), and a separate analysis of 51 countries reported that increases in female autonomy and maternal education reduced socioeconomic inequalities in child mortality (133).

DISCUSSION

Our central finding is that while there is no simple or single relation between type of state, political priorities, and the magnitude of health inequities, there nevertheless are common threads. Among these are: 1) the transition to capitalism (as observed in the 1980s and 1990s in Central and Eastern Europe) has probably expanded relative education-based health inequities; 2) neoliberal (market-oriented) reforms have either exacerbated or entrenched existing relative and absolute health inequities, and certainly have not reduced them; 3) within wealthy nations, the association between the type of welfare state and the magnitude of health inequities appears to be weak, especially for education-based inequity; and 4) democratic incorporation, if considered in relation to a long time frame, can lead to reduced relative and absolute health inequities.

Considered together, these modest results from this new literature imply that major changes to the status quo (and cross-polity differences in the status quo) can affect the magnitude of health inequities, for bad and for good. They also hint that determinants of the magnitude of health inequities may differ for rich societies versus poor societies, with the caveat that research comparing a large number of poorer and richer societies is just beginning (39).

Of course, any inferences based on the 45 studies we reviewed are constrained by important limitations in the extant research. In addition to most of the studies' being focused only on the global North, relatively few of the investigations explored multiple dimensions of social inequality, allowed for contradictory effects of politics and policy on health inequities, attended to life-course processes and lagged effects, incorporated measures of political mechanisms, assessed both relative and absolute inequalities, or employed multi-level techniques in the empirical analysis; only 1 considered birth cohort effects. The implication is that understanding of relations between political systems and health inequities would be improved by development and implementation of a systematic research agenda. We view the literature we reviewed as a promising point of departure.

Research agenda

The first task is theorizing: Before we can progress much further toward generating actionable and theoretically sound knowledge, we need to get the questions right. Here, we propose a theoretically informed research agenda—drawing on the social epidemiology and political sociology theories we have described, coupled with careful attention to: 1) spatiotemporal scale, level, and time frame (e.g., life course, historical generation), 2) choice of health outcomes, and 3) inclusion of politics, political determinants, and specification of political mechanisms—to address the enormous

gaps in knowledge we identified. Although this agenda carries methodological implications, we focus our discussion below on the sorts of questions that should be addressed to fill the gaps in the literature we identified.

Spatiotemporal scale, level, and time frame. In conceptualizing the processes that translate politics to health inequities, ranging from macro-level political context to lived experiences and qualitative meanings (58, 134), we start by urging more rigorous theorizing about relevant spatiotemporal scales and levels (64). Embodiment takes time (7, 135, 136), yet very few of the 45 studies we reviewed took into account etiologic period, cumulative exposures, or lagged effects. Additional aspects of the “when” questions also needing more careful theorizing include birth cohort effects, life-course implications of the timing of exposures, and possible period effects, including such issues as radical disjunctures and tipping points. With regard to levels, theorizing needs to consider not only within- but also between-country processes, including those operating at the global level of the health distribution, since so much of “total world health inequality” is driven by growing *international* inequality in health (39, 137). Recognizing that the political factors that matter for international health inequities may or may not be the same ones that drive health inequity within nations (123, 138), research is needed on the role of inequality in access to and participation in global institutions (52, 139, 140) in generating and perpetuating the patterns of global health inequality. Complicating this task is the scarcity of cross-nationally and longitudinally comparable data, such that part of the research agenda we are advocating includes investment in data collection and dissemination for monitoring health inequities, especially outside the set of rich countries typically featured in this research.

Choice of health outcomes. Existing research has also been relatively restricted in the range of health outcomes that have been analyzed. All-cause, premature, and less frequently cause-specific mortality, along with self-assessed health, dominate the empirical literature. In the case of mortality, more attention to etiologic period is warranted: Whereas deaths due to injuries, violence, and some causes of preventable death can probably be linked to temporally proximate or even concurrent conditions, others are likely to require consideration of longer lag times, as also shaped by birth cohort (89, 108, 141). Population-based data on somatic disease occurrence and health behaviors would be helpful for refining the picture (142), as would data on mental health (44, 143–145); as Sydenstricker (146) noted over 75 years ago, in answer to critics who claimed that the health consequences of the Great Depression were small because mortality rates barely budged, the first place to detect an association is not mortality but morbidity—which he and his colleagues found (147). Additionally, the limitations of relying exclusively on self-reported health status need greater emphasis, given concerns about both potentially incommensurable meanings and differential correlations with measured health status across social groups (148–150), despite the predictive power of self-reported health in some contexts (151, 152). Greater consideration also needs to be given to the selected outcome’s baseline rate and to secular trends within social strata (e.g., rising or falling, including potentially even reversing, associ-

ations with social position, as has occurred with smoking and smoking-related diseases (58))—since all can affect the likelihood of detecting both cross-sectional differences and temporal changes in the magnitude of health inequities. In other words, more attention to theorizing about the diverse pathways of embodiment whereby politics translates into health inequities is needed, so that the partial patterns revealed by any 1 outcome in any given age group and birth cohort can be interpreted in context.

Inclusion of politics, political determinants, and specification of political mechanisms. As our review of the nascent literature on the political production of health inequities makes clear, future work should include more politics from the global South. Doing so is critical in order to evaluate the generality of findings from the global North, evaluate untested hypotheses from Table 1, and fill in the empirical gaps, on both cross-sectional comparisons and historical trends, as identified by our review of the existing research.

Also striking is how the empirical literature to date has focused on a relatively narrow range of political determinants of health inequities, with most studies pursuing only a small handful of the admittedly small number of plausible hypotheses we sketch in Table 1. To expand the repertoire, researchers could take advantage of the progress made by political sociologists and others in measuring various aspects of the transition to capitalism, neoliberalism, the welfare state, and incorporation of subordinated groups (45, 56, 71, 153–155) and include these measures in quantitative models. Examples of more familiar welfare-state determinants that could be studied include: corporatist economic regulation (56), employment policy (especially the move toward part-time employment in many European countries (156, 157)), changes in pension policy, private social provisions, and shifts in the monetary regime (158), and de-commodification and recommodification of labor (45, 69). Additional, less-considered determinants include: construction of regional political-economic structures like the European Union (53), trade liberalization (159, 160), war (161), human rights (162, 163), citizenship and migration policy and racialization of the state (164), and corporate regulation (165). Many of these policy changes can be connected to health through their impact on economic, racial/ethnic, gender, and sexuality-based inequality (166)—as well as other intersections of institutional arrangements and social inequalities (41). Use of political contextual analysis (167) could likewise inform richer choices of political determinants selected for inclusion in quantitative analyses.

It is also essential to examine how the political context matters for health inequity at various points in the distribution of social inequality. As Alderson et al. (50) noted, theories of the political (and economic) determinants of inequality imply change at different points of the (income) distribution, with some theories suggesting faster income growth among the rich and other theories predicting slower income growth among the poor. These ideas should be extended to understanding health inequity, because it is quite likely that the impact of politics and policy varies across the stratification structure of society. For example, welfare-state enhancements include not only universalistic programs, intended to be of benefit to all, but also programs directed

toward those most harmed by social inequality—for example, community health centers placed in impoverished neighborhoods, which presumably would contribute to improving health status only among persons accessing those services. Conversely, welfare-state retrenchments could be hypothesized simultaneously to harm the health of persons with fewer resources while improving the health of those with more resources (38, 39). The implication is that political systems may shape the magnitude of health inequities via different factors acting within and across different economic and social strata, as opposed to these inequities' being produced by 1 unitary “fundamental” “cause.” Yet, as our review makes clear (see Table 2), too few studies include measures of mechanisms in their empirical models.

Conclusion

In summary, our reading of the theoretical and empirical literature on the political production of health inequity tells us that new research which combines the strengths of political sociology and social epidemiology is practically feasible, theoretically valuable, and policy-relevant. We already have substantial evidence that health inequity is neither natural nor inevitable but significantly the product of politics. As our literature search also reveals, the political determinants of health inequities are alterable, since people have changed them, for bad and for good, both from the “top down” and from the “bottom up.” Consequently, to help promote health equity, the next step empirically is to refine the research questions and methods by specifying the “where,” “when,” “how,” and “who” of the complex political processes producing health inequities. Of course, these questions inevitably raise thorny ideological issues (168, 169), to which a useful response is to specify the kinds of empirical evidence on falsifiable hypotheses that can inform these debates.

The ultimate value of the proposed research is that knowledge about the political predictors of health inequity is actionable, in the sense that it shows which political systems, priorities, and policies are productive in reducing health inequities and which are implicated in expanding such inequities. If the former policies themselves result in part from the mobilization of disempowered groups (e.g., the labor movement, the feminist movement, and the civil rights movement in the United States) and the latter from the mobilization of persons with power, then identification of these political predictors about the balance of power can inform discussions of strategies for reducing health inequities. Power, after all, is the heart of the matter—and the science of health inequities (169) can no more shy away from this question than can physicists ignore gravity or physicians ignore pain. To understand and alter the afflictions that fall upon the people, epidemiology and political sociology need each other—hence *epi* + *demos* + *cracy*.

Editor's note: References 171–298 are cited in the Web Table, which is posted on the Epidemiologic Reviews Web site (<http://epirev.oxfordjournals.org/>).

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