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Social inequalities in health within countries: not only an issue for affluent nations

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Abstract

While interest in social disparities in health within affluent nations has been growing, discussion of equity in health with regard to low- and middle-income countries has generally focused on north-south and between-country differences, rather than on gaps between social groups within the countries where most of the world's population lives. This paper aims to articulate a rationale for focusing on within- as well as between-country health disparities in nations of all per capita income levels, and to suggest relevant reference material, particularly for developing country researchers. Routine health information can obscure large inter-group disparities within a country. While appropriately disaggregated routine information is lacking, evidence from special studies reveals significant and in many cases widening disparities in health among more and less privileged social groups within low- and middle- as well as highincome countries; avoidable disparities are observed not only across socioeconomic groups but also by gender, ethnicity, and other markers of underlying social disadvantage. Globally, economic inequalities are widening and, where relevant information is available, generally accompanied by widening or stagnant health inequalities. Related global economic trends, including pressures to cut social spending and compete in global markets, are making it especially difficult for lower-income countries to implement and sustain equitable policies. For all of these reasons, explicit concerns about equity in health and its determinants need to be placed higher on the policy and research agendas of both international and national organizations in low-, middle-, and high-income countries. International agencies can strengthen or undermine national efforts to achieve greater equity. The Primary Health Care strategy is at least as relevant today as it was two decades ago; but equity needs to move from being largely implicit to becoming an explicit component of the strategy, and progress toward greater equity must be carefully monitored in countries of all per capita income levels. Particularly in the context of an increasingly globalized world, improvements in health for privileged groups should suggest what could, with political will, be possible for all. © 2002 Elsevier Science Ltd. All rights reserved.

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Background: wide and widening health inequalities within low- and middle- as well as high-income countries

Over the past decade, there has been a growing body of research and commentary on socioeconomic inequalities in health in western Europe and the United States (Bartley, Blane, & Montgomery, 1997; Braveman, Oliva, Reiter, & Egerter, 1989; Braveman, Egerter, & Marchi, 1999; Gilson, 1998; Kaplan, Pamuk, Lynch, Cohen, & Balfour, 1996; Kennedy, Kawachi, & Prothrow-Stith,

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1996; Krieger, Williams, & Moss, 1996; Kunst & Mackenbach, 1994; Lynch, Everson, Kaplan, Salonen, & Salonen, 1998; Mackenbach & Gunning-Schepers, 1997; Macintyre et al., 1989; Macintyre, 1997; Marmot et al., 1991; Marmot, Ryff, Bumpass, Shipley, & Marks, 1997; Pamuk, Makuc, Heck, Reuban, & Lochner, 1998; Pappas, Queen, Hadden, & Fisher, 1993; Roberts, 1997; Smith, Bartley, & Blane, 1990; Smith, 1997; Townsend, 1990, 1994; Wagstaff, 1992; Wilkinson, 1992a, b; World Health Organization Regional Office for Europe, 1994). Gender disparities also have received increasing consideration in affluent countries (Council on Ethical and Judicial Affairs, 1991; Arber & Cooper, 1999; Dunnell, Fitzpatrick, & Bunting, 1999; Fuhrer, Stansfeld, Chemali, & Shipley, 1999); scholars have pointed out the complexity of interpreting many of the observed gender differences (Macintyre, Hunt, & Sweeting, 1996) and emphasized the importance of examining how socially constructed gender roles and gender inequalities may adversely affect the health of men as well as women (Hunt & Annandale, 1999; Kawachi, Kennedy, Gupta, & Prothrow-Stith, 1999). Racial/ethnic disparities in health and health care in the US have been routinely monitored and discussed for decades (Braveman et al., 1989; Braveman, Egerter, Edmonston, & Verdon, 1994; Breslow & Klein, 1971; Council on Ethical and Judicial Affairs, 1990; Kochanek, Maurer, & Rosenberg, 1994; Maynard, Fisher, Passamani, & Pullum, 1986; Montgomery, Kiely, & Pappas, 1996; Schulman et al., 1999; United States Department of Health and Human Services, 1985; Wenneker & Epstein, 1989; Winkleby, Robinson, Sundquist, & Kraemer, 1999; Yergan, Flood, LoGerfo, & Diehr, 1987). Many scholars have pointed out the need to consider the extent to which the disparities were due to socioeconomic rather than to racial/ethnic factors per se (Bassett & Krieger, 1986; Kaufman, Cooper, & McGee, 1997; Keil, Sutherland, Knapp, & Tyroler, 1992; Muntaner, Nieto, & O'Campo, 1997; Navarro, 1990; Smith et al., 1998a; Terris, 1973; Williams, 1994; Williams, Lavizzo-Mourey, & Warren, 1994), which is made difficult by the lack of information adequately characterizing socioeconomic status/position in most US data sources. By contrast, discourse and documentation on health disparities affecting the populations of low- and middle-income countries, where two-thirds of the world's population resides (World Health Organization, 1998), have most often been limited to north-south and between-country differences (World Health Organization, 1995a; World Health Organization, 1998). Relatively little information is routinely available on health status or health care disparities between better- and worse-off groups within most countries, and particularly on how within-country social disparities may change over time.

While routine data on within-country health disparities are scarce, special studies have revealed ample

evidence that wide gaps in health and health care among different socioeconomic groups within a country are not confined to the affluent nations (Bicego & Boerma, 1993; Breilh, Granda, Campana, & Betancourt, 1987; Cleland & van Ginneken, 1988; Cleland, Bicego, & Fegan, 1992; Evans, Whitehead, Diderichsen, Bhuyia, & Wirth, 2001; Gwatkin, Rutstein, Johnson, Pande, & Wagstaff, 2000; OPS/OMS, 1999; United Nations Development Programme, 1990, 1996a, b; Victora, Barros, Huttly, Teixeira, & Vaughan, 1992; World Bank, 1993; Suarez-Berenguela, 2000). In Venezuela, for example, poorer municipalities have had infant mortality rates three times higher than those in other municipalities (Pan American Sanitary Bureau/United Nations Economic Commission for Latin America and the Caribbean, 1994) and a 1992 study revealed low birthweight rates twice as high in the poorest compared with the most affluent neighborhoods of a city (OPS/OMS, 1999). In a state of Mexico, a 9-year difference in life expectancy was recently observed between people living in a poor county and those in a relatively well-off county (Evans et al., 2001). Marked differentials in child mortality have been demonstrated according to a range of socioeconomic factors in Ghana, Kenya, Lesotho, Liberia, Nigeria, Sierra Leone, Sudan, Indonesia, Nepal, Republic of Korea, Sri Lanka, Thailand, Chile, Jamaica (United Nations, 1985), Costa Rica, Honduras, Paraguay, and Jordan (United Nations, 1991), Peru (OPS/ OMS, 1999; Valdivia, 2001), and Brazil (Victora & Barros, 2001; OPS/OMS, 1999). Adults in non-professional jobs in Sao Paulo, Brazil, during the late 1980s had death rates that were two to three times higher than those of professionals (World Bank, 1993). In Bolivia, most public spending on health services has gone toward care for people belonging to the upper 40% of income groups (Unidad de Analises de Politicas Sociales, 1993). In Indonesia during 1990, only 12% of public spending for health care was for services consumed by the poorest 20% of households, who would be expected both to need more health services because of poverty's role in illness and to be less able to pay for health care in the private sector; the wealthiest 20% of households consumed 29% of the government subsidy in the health sector (World Bank, 1993). In the Dominican Republic in 1996, the poorest quintile of the population paid 20%of their income for health care while the richest quintile paid less than 10% (OPS/OMS, 1999). None of these disparities would have been revealed by data routinely collected and analyzed.

Striking gender disparities in health and/or health care have been observed outside the industrialized countries, again generally only as a result of special studies (Standing, 1997). A study in India showed that female infants 1–23 months of age were almost twice as likely to die by the age of two as were males, and concluded that the most likely explanation was different

behavior of families toward male and female children rather than biological differences (Das Gupta, 1987). A United Nations agency report concluded that the death of one out of every 6 female infants in India, Bangladesh, and Pakistan was due to neglect and discrimination (United Nations Population Fund, 1989). Studies in Bangladesh found that boys under 5 years of age were given 16% more food than girls (United Nations, 1993). In some countries, surveys indicate that families are significantly more likely to immunize their male children (Kurz & Johnson-Welch, 1997; Martineau, White, & Bhopal, 1997; Sommerfelt & Piani, 1997). Examples of bias against girls in access to modern health services have been cited from Korea, Togo, Sierra Leone, Nigeria, Jordan, Algeria, Syria, and Egypt (Kutzin, 1993). A recent study in Chile found that women paid more for health care in both the public and private sectors because co-payments/uncovered expenses were greater for many reproductive health services used only by women but affecting the health of the entire society (Vega, Bedregal, & Jadue, 2001).

Racial/ethnic disparities in health and its determinants also have been observed within countries of diverse per capita income levels. In Guatemala, malnutrition rates during the 1980s were 40% higher among indigenous compared with non-indigenous children (Psacharopoulos, Morley, Fiszbein, Haeduck, & Wood, 1993). Studies of child mortality have demonstrated ethnic disparities within Peru, Sri Lanka, Thailand, and many African countries that persist even after control for other factors including some measures of socioeconomic status (United Nations, 1985). Until recently, more than four times as much money was spent on health care for whites as for blacks in South Africa (Yach & Harrison, 1995); reversing the health effects of apartheid is unlikely to be an easy or rapid process (Benatar, 1997). The likelihood of a child dying before reaching age two varied between ethnic groups in Kenya from 7.4% to 19.7%, and in Cameroon from 11.6% to 20.5% (World Bank, 1993).

In contrast with the lack of routine data on socioeconomic, gender, and ethnic disparities in health, urban-rural disparities and disparities between large subnational regions of developing countries are often relatively well documented on a routine basis. In Nigeria, the average life expectancy in the Borno region is only 40 years, 18 years less than in the Bendel region; adult literacy (12%) in Borno is one-quarter of the national average (United Nations Development Programme, 1994). In Peru, the infant mortality rate in some rural areas was recently estimated at 150 per 1000 live births, while in the capital city Lima it was 50 per 1000 (Pan American Sanitary Bureau/United Nations Economic Commission for Latin America and the Caribbean, 1994). Urban-rural gaps may be widening in many nations, along with disparities between different zones within the same city. For example, in Latin America between 1980 and 1994, the proportion of urban dwellers who were poor increased from 25% to 34%; the urban poor are now thought to make up the greatest segment of desperately poor people in the region (OPS/OMS, 1999).

What is equity in health?

Equity is an ethical concept that is as challenging to define precisely as its near-synonym social justice, which may mean different things to different people in different societies at different times. Inequity refers not to all inequalities, but to those inequalities that are considered unfair and avoidable (Whitehead, 1990). Equity implies that need rather than privilege be considered in the allocation of resources; as with *equity* and *fairness*, it is difficult to define *need* in precise terms (Mays, 1995; National Health Service Management Board, 1988). In operational terms, pursuing equity in health can be understood to mean striving to reduce avoidable disparities in physical and psychological wellbeing-and in the determinants of that well-beingthat are systematically observed between groups of people with different levels of underlying social privilege, i.e., wealth, power, or prestige. The fact that an avoidable health disparity adversely affects a group at an underlying social disadvantage makes that disparity unfair, even in the absence of knowledge of the specific proximate causes of the disparity. In virtually every society in the world, social privilege varies among groups of people categorized not only by economic resources but also by gender, by geographic location, by ethnic or religious differences, and by age; other dimensions can be important as well, but these are nearly universal and they often interact with each other to make some groups-e.g., poor women in ethnic minority groups-particularly disadvantaged with respect to opportunities to be healthy.

Assessing health equity within a society requires examining inequalities in health (and in its determinants) between more and less socially advantaged groups within the society, focusing for practical reasons on those inequalities likely to be among the most important causes of ill health and also to be relatively avoidable. Thus, a rational focus on equity would lead one to prioritize the goal of trying to diminish gaps in ill health due to, for example, diarrheal disease, malnutrition, or adverse environmental exposures that disproportionately and significantly affect disadvantaged groups; by contrast, less emphasis would be placed on searching for cures for rare genetic conditions that affect one ethnic group more than another, even though one might believe that ultimately all genetic conditions will be curable or preventable. It would make little sense from

an equity perspective to focus attention on reducing the widespread but genetically based gap in birth weight between male and female newborns, because it is unlikely to be a major source of subsequent health inequality, avoidable, or related to underlying differences in social advantage.

- "Social inequalities in health" or "health inequities" refer to avoidable disparities in health or its key determinants that are systematically observed between groups of people with different levels of underlying social privilege, i.e., wealth, power, or advantage.
- Virtually everywhere, social privilege varies not only by economic resources, but also by gender, racial or ethnic group, geographic location, and other characteristics.
- Equity implies consideration of need rather than social privilege in resource allocation.
- Assessing health equity requires examining avoidable disparities in health (and its determinants) between more and less socially advantaged groups.

For some, a commitment to equity in health means that all social groups should have a basic minimum level of well-being and services, but that at the same time it is acceptable for some social groups to have better health status or health care than others, as long as government does not pay directly or indirectly for the additional benefits. There may be substantial disagreement about what constitutes "minimum" levels of health and health care; implications would be quite different if "minimum" standards meant good, borderline, or poor levels (Jayasinghe, De Silva, Mendis, & Lie, 1998). Because health and health care are not commodities like furniture or automobiles, most people who promote an egalitarian perspective would contend that equity requires the reduction of all avoidable disparities that significantly shape opportunities to be healthy, not only ensuring a minimum standard for all (Gilson, 1998; World Health Organization, 1996).

Why care about equity—in general or in health in particular?

Evidence is accumulating in industrialized countries of a relationship between the magnitude of socioeconomic inequalities and poor health that cannot be explained by differences in absolute levels of income or poverty (Lynch et al., 1998; Kaplan et al., 1996; Kawachi & Kennedy, 1997; Kennedy et al., 1996; Kennedy, Kawachi, Glass, & Prothrow-Stith, 1998; Smith, 1996; Wilkinson, 1992a, b, 1996, 1997). Some researchers have raised methodologic concerns about this observed relationship, however (Deaton, 1999;

Fiscella & Franks, 1997; Judge, 1995). Living in an inequitable society could harm health through many economic, social, psychological, and physiological pathways (Adler et al., 1994; Kaplan et al., 1996; Marmot et al., 1997). Income disparities may be linked with deleterious health effects in large part in so far as they reflect varying degrees of investment in human development, e.g., in public education, health care, or other social services (Kaplan et al., 1996; Kawachi, Kennedy, Lochner, & Prothrow-Stith, 1997; Kennedy et al., 1996; Lynch & Kaplan, 1997; Smith, 1996), rather than through a direct causal link. Some scholars believe that income disparities may have deleterious effects on health through their association with the degree of social cohesion (Kawachi & Kennedy, 1997; Kawachi et al., 1997; Wilkinson, 1997) and/or through physiologic effects of relative deprivation on those at the bottom of the social hierarchy (Wilkinson, 1997).

Some have argued for greater equity on pragmatic grounds. The United Nations Development Programme's (UNDP) Regional Director for Latin America and the Caribbean recently stated: "In our part of the world there is a consensus that reducing social inequity is not only an ethical, but also a political and economic imperative. Equity is good business." (United Nations Development Programme, 1996a) When he was head of the World Bank, Robert McNamara stated that the "pursuit of growth and financial adjustment without a reasonable concern for equity is ultimately socially destabilizing". (World Health Organization, 1995a) Soaring crime rates in Latin America in recent years have been attributed to failure to consider the effects of uncontrolled free-market reforms on vulnerable social groups, along with the associated dismantling of many state institutions (Anonymous, 1996). A recent article in The Economist (2001) urges governments and the rich to take measures to limit and buffer the effects of economic inequality in order to avoid social conflict.

Other pragmatic arguments for equity in health and health care may appeal to the self-interest of privileged groups, for example with respect to avoiding spill-over effects of poor health among the disadvantaged. Given contemporary population density and mobility, neglect of infectious disease control jeopardizes the health of the more affluent as well as that of the poor who provide services for them in their homes, shops, and restaurants. Similarly, spending on public health measures such as immunizations and control of highly infectious diseases among high-risk groups may even yield relatively shortterm savings in prevention of epidemics. Failure to address geographic disparities in quality of care can lead to additional costs for the public sector in the short run; for example, when primary care services of adequate quality and convenience are not available near poor neighborhoods, many people will seek primary care at public sector sites such as hospital emergency rooms and

specialty-oriented outpatient clinics where such services are more costly to deliver.

Some pragmatic economic arguments for equity in health and health care are based on achieving greater long-term economic capacity and real productivity, which must be distinguished from short-term efficiencies. The WHO position paper for the 1995 World Summit for Social Development stated that "investment in health is essential for economic growth based on a productive workforce. To achieve this, growth needs to be accompanied by more equitable access to the benefits of development, as inequities have severe health consequences and pose an unacceptable threat to human well-being and security" (World Health Organization, 1995b). For example, malnutrition and poor health decrease worker productivity (Cornia, Jolly, & Stewart, 1987; World Bank, 1993). Similarly, the education of girls and women has been linked with improved child nutrition, decreased infant mortality, and lower pregnancy rates (Bansal, 1999; Cornia et al., 1987), all of which have been associated with economic growth. Poverty and lack of education are associated with high population growth rates which in turn make it far more difficult to alleviate poverty.

However, short-term gains in efficiency are more easily measurable than long-term societal progress; costeffectiveness estimates are often based on outcomes measurable on a short-term basis. At times, the most rapid way to observe advances in indicators of overall growth may be to give more to those who already have the most and need the least; they are often best equipped to be immediately productive with a given additional input (Wagstaff, 1991). By leaving those in greater need continually further behind, however, this approach limits the capacity for long-term development of the society as a whole. Scientifically sound evidence of the aggregate "utility" of investing in equity may be lacking because the relevant information has not been collected or analyzed or because the impact may not be measurable in terms of the economic indicators being used, at least during the specified time frame. Nobel Prize-winning economist Amartya Sen has pointed out the importance of using health indicators themselves as indicators of development (Sen, 1993). The traditional economic measures of income or commodities need to be seen as instruments toward the end of human wellbeing itself, rather than as ends in themselves (Sen, 1998).

Global pressures are making it difficult for countries of every income level to achieve greater equity in health

In the face of powerful global economic, social, and political trends, many countries are finding it difficult to implement and sustain equity-promoting policies in

sectors with major influences on health. Recent UNDP Human Development Reports have noted widening income inequalities in many countries, including Argentina, Bolivia, Brazil, Peru, Venezuela, Bangladesh, Thailand, Bulgaria, the Czech Republic, the Baltic States, Australia, the United Kingdom, and the United States of America (United Nations Development Programme, 1996b). In Latin America, absolute numbers of people living in poverty have increased markedly since 1980 and the proportion of people living in poverty has been stagnant overall (Anonymous, 1996; OPS/OMS, 1999) and increasing in some countries, such as Mexico (United Nations Development Programme, 1997). A recent Pan American Health Organization report (OPS/ OMS, 1999) stated that in 1995, purchasing power parity was 417 times greater among the richest 1% of the population of Latin America than among the poorest 1%, which was the highest ratio in recorded history, and that it probably has worsened since (OPS/OMS, 1999).

While trends over time in disparities in wealth are relatively well documented on a routine basis, few countries have routinely collected data that permit examination of time trends in socioeconomic disparities in health. However, widening socioeconomic disparities in health status have been demonstrated in a number of industrialized countries. The Black Report on social inequalities in health in England showed that disparities in death rates between employed men who worked in the highest and lowest occupational class jobs widened consistently from 1949 to 1970 (Black, Morris, Smith, & Townsend, 1980). In addition to the widening gap between socioeconomic groups as reflected by occupational classes, death rates of unskilled workers in certain age groups rose in absolute terms during the 1960s (Gray, 1982) and 1970s (Marmot & McDowall, 1986; Harding, 1995). These trends accompanied widening income inequalities and occurred despite a serious commitment to equity in health services by the National Health Service (Smith et al., 1990). Since then, the health gap between social classes has persisted (Marmot et al., 1991) or widened (Scott-Samuel, 1997; Smith, 1997; Acheson et al., 1998), while income inequalities are "spiralling out of control" in Britain (Lewis et al., 1998; Townsend, 1994).

Markedly widening inequalities in income in the United States (Pamuk et al., 1998; United States Bureau of the Census, 1996) also have been accompanied by increases in socioeconomic disparities in various health measures. Socioeconomic disparities in US infant mortality rates widened significantly from 1964 to 1987–1988 (Singh & Yu, 1995). The association between poverty and fair or poor child health status also appeared to increase between around 1980 and around 1990 (Montgomery et al., 1996). Increases have been observed over time in the proportion of all adult deaths in the US that are likely to be due to poverty; some

studies have concluded that the relationship between mortality and socioeconomic status in the US has become stronger over time (Hahn et al., 1995; Pappas et al., 1993; Yeracaris & Kim, 1978), although apparently contradictory results also have been reported (Hahn et al., 1996). Comparable observations have been made in France and Hungary (Pappas et al., 1993) and in New South Wales, Australia (Burnley, 1998). While temporal association does not establish a causal relationship, it can suggest the need for further study and/or help confirm or disconfirm other evidence.

Even without data disaggregated by socioeconomic group, deteriorations in health measured at the aggregate level have been observed recently in some countries where income inequalities have widened and public service safety nets have been markedly reduced. Political and economic changes in Russia and throughout Eastern Europe have been accompanied by striking trends in health that are evident even in national averages. Between 1990 and 1994, life expectancy in Russia fell from 63.8 to 57.6 years among men and from 74.4 to 71.0 years among women (Leon et al., 1997). "According to the preliminary 1993 data available for several...Newly Independent States..., life expectancy dropped to the lowest levels seen for decades" (World Health Organization Regional Office for Europe, 1994). The specific direct or indirect role of income inequalities (exerting an effect through, for example, decreased social safety nets and/or decreased social cohesion), in contrast to heightened violence and alcoholism that could be related to social and political instability rather than to economic inequalities (Kaasik, Andersson, & Horte, 1998; Leon et al., 1997; Notzon et al., 1998; Walberg, McKee, Shkolnikov, Chenet, & Leon, 1998) cannot be confirmed. It appears likely that alcoholism played an important role; abandonment of a Gorbachev-era anti-alcohol campaign may have been key (Leon et al., 1997; Shkolnikov & Nemtsov, 1997). Some observers have thought that economic inequalities were likely to have had a substantial influence (Walberg et al., 1998). Similarly alarming trends are occurring in countries that historically placed a high priority on equity. For example, "as an unfortunate consequence of China's liberalization program of the past decade, government funding for public health has declined and the rural insurance system has now largely disintegrated. A recent study suggests that these new health policies have made the distribution of government spending for health in China more unequal and may be contributing to an increased incidence of easily treatable diseases such as tuberculosis" (Birdsall & Hecht, 1995).

The costs of foreign debt repayment and economic structural adjustment programs have resulted in cuts in social spending in many developing countries (Kanji, Kanji, & Manji, 1991; Lown, Bukachi, & Xavier, 1998;

United Nations Children's Fund, 1991). These cuts have been widely associated with deteriorating conditions or a halting of previous trends toward improvements for vulnerable groups (Cornia et al., 1987; Jolly & Cornia, 1984; Kanji et al., 1991; Morales, 1993), although some have questioned whether that connection is causal or inevitable (Weil, Alicbusan, Wilson, Reich, & Bradley, 1990). In Zambia from 1980 to 1984, when implementation of that country's structural adjustment program was at its height, the proportion of hospital deaths attributed to malnutrition rose approximately 1.5- to 2-fold among children under age five (Kanji et al., 1991). Similarly, low birth weight rates in Nigeria almost doubled (from 7% to 13%) at a major hospital from 1984 to 1989 (Ibe, 1993). Women may suffer more than men from structural adjustment programs (Kanji et al., 1991; Jazairy, Alamir, & Panuccio, 1993).

The effects of structural adjustment programs may be difficult to distinguish from the effects of the economic crises that precipitated the imposition of structural changes in national economies. For example, during the early 1980s many countries experienced severe economic recessions that in themselves appeared to have demonstrable adverse effects on vulnerable populations, particularly children (Cornia et al., 1987; Jolly & Cornia, 1984). UNICEF (Jolly & Cornia, 1984) conducted a literature review and 11 case studies to study the effects of economic recession during the late 1970s and early 1980s in Italy, the US, and selected countries of Latin America, sub-Saharan Africa, and South Asia. The conclusion was that, in the face of global recession, "only in South Korea and Cuba-countries that have deliberately implemented policies to protect children and the poor even in times of relative economic adversity-have the broad trends towards improvement in child welfare continued almost unaffected" (Jolly & Cornia, 1984).

Regardless of the role of structural adjustment, real per capita public expenditures on health began to decrease in many countries during the late 1970s and that decline has continued. Accompanying the diminished investment,

...the quality and quantity of public subsidized health services has fallen correspondingly. Utilization levels, particularly at rural health facilities, have declined. Outreach services no longer function, drugs are often unavailable, and health staff are unsupervised and sometimes unpaid for long periods of time. Rural populations have faced higher costs for health care in terms of transport and time to get to hospitals in larger towns, or by payments to private providers of treatment and medication. "Free" care has come to mean unacceptably poor care. (Creese & Kutzin, 1995)

1998). During the final decade of the 20th century most developing country governments implemented costsharing mechanisms such as user fees to help finance health services (Collins, Quick, Musau, Kraushaar, & Hussein, 1996), often with the expectation that this would result in improved quality as well as sustainability of public services (Adeyi, Lovelace, & Ringold, 1998; Creese & Kutzin, 1995). Despite acknowledging that "there clearly are inequitable consequences in many cases...", some maintain that "user fees and copayments are not necessarily at odds with equity". (Adeyi et al., 1998) However, some economists who have reviewed the experience in many countries have concluded that overall, compared with obtaining revenues for health services from general progressive taxation, cost recovery in the health sector appears to be inherently inequitable as well as inefficient (Creese, 1990; Creese, 1997). Outside of very protected circumstances, user fees and exemption mechanisms have generally proven to be difficult to implement without letting the most vulnerable people suffer; furthermore, re-investing user fees in improved quality of local services has proven an elusive goal (Creese, 1990; Creese, 1997; McPake, 1993). The costs of determining eligibility for fee waivers often exceed the returns in fees collected. When user fees were increased in Swaziland, there was a marked decline at government facilities in use of basic health services by patients previously exempted for poverty, including services for diarrheal disease, sexually transmitted disease, and infant immunizations; utilization remained diminished one year later, and increases in utilization of non-governmental facilities did not compensate for the decline (Yoder, 1989). A study in Ghana's Volta region, where user fees were markedly increased around 1985, determined that during 1995, exemptions for inability to pay were granted in fewer than 1 in 1000 patient encounters, while 15-30% of the population were estimated to be poor; the authors concluded that fees "are preventing access... or are posing significant financial hardships...' on the most vulnerable segment of the population (Nyonator & Kutzin, 1998).

costs are borne by the household". (Jayasinghe et al.,

The World Health Organization's 1978 Alma Ata declaration on Primary Health Care voiced a global commitment to attaining health for all; however, that commitment to equity crystallized during a period of widespread economic growth. During the 1980s and since, economic recession has been experienced at some time virtually worldwide, along with the economic and political effects of globalization of the world's economy. Measures taken in industrialized and non-industrialized

countries to increase competitiveness in the global economy, along with structural adjustment programs in developing countries, have led to diminished *per capita* social spending in most countries. Globally, there has been a down-sizing of government and a marked trend toward privatization of many functions formerly within the public domain. To varying degrees, many countries have experienced a shift from centrally planned and regulated to market-dominated economies. In addition, in many nations, military spending has increasingly devoured scarce resources that potentially would be available for social development.

Worldwide, including in lower-income countries, economic globalization appears to be yielding unprecedented increases in wealth for those individuals and population groups who are socially positioned to profit most and most rapidly from the economic opportunities presenting under competitive conditions (Greider, 1997; Kanji et al., 1991; Mander & Goldsmith, 1996). The justification for not interfering with this markedly accelerated "the rich-get-richer" tendency in lowerincome countries is the belief that societies can break out of the vicious cycle of poverty and underdevelopment only by placing the highest priority on short-term efficiency and overall economic growth, at the expense of social spending. The reasoning is that when adequate rates of growth are achieved the benefits will "trickle down" to all; according to this perspective, too much emphasis on equity now will jeopardize economic growth and perpetuate poverty and deprivation.

However, considerable evidence has accumulated to discredit the hypothesis that economic growth is automatically accompanied by benefits for all (United Nations Children's Fund, 1991; United Nations Development Programme, 1996b). The United Nations Development Programme's 1996 Human Development Report noted that "Widening disparities in economic performance are creating two worlds-ever more polarized.... The poorest 20% of the world's people saw their share of global income decline from 2.3% to 1.4% in the past 30 years. Meanwhile, the share of the richest 20% rose from 70% to 85%. That doubled the ratio of the shares of the richest and the poorest-from 30:1 to 61:1; furthermore, during 1970-1985 global GNP increased by 40%, yet the number of poor increased by 17%" (United Nations Development Programme, 1996b). The same report also commented that "Policymakers are often mesmerized by the quantity of growth. They need to be more concerned with its structure and quality. Unless governments take timely corrective action, economic growth can become lopsided and flawed. Determined efforts are needed to avoid growth that is jobless, ruthless, voiceless, rootless and futureless"—in other words, growth without equitable, sustainable human development (United Nations Development Programme, 1996b). Kanji et al. (1991) have described the emergence and consolidation of a new class of entrepreneurs within many developing countries, among whom gains in total national wealth are increasingly concentrated. Anand and Ravallion (1993) have argued that differences in social spending, i.e., public investment in expanding human capabilities, may have a more profound effect on health and overall human development in developing countries than differences in average income, and perhaps even more profound than direct poverty reduction when the latter is confined primarily to changes in income.

It is difficult to obtain timely evidence of the effects of economic and political changes on equity in health and health care. In the first place, it is always challenging to establish the causality of any observed pattern or trend in health, given the complex and multifactorial pathways almost invariably involved. Second, reliable information to document patterns and trends in social inequalities in health is often lacking or, when available, not presented in a manner likely to highlight the policy implications. Traditional methods for routine monitoring of health and health care often obscure large or growing disparities between groups. In most nations, routinely collected data on health and health care are rarely disaggregated meaningfully according to socioeconomic factors or other markers of social advantage such as gender and ethnicity. While poor countries often have limited data, even in higher-income countries routine methods of analyzing and presenting data as nationwide, provincial, or city-wide averages obscure large disparities between diverse groups within territories. In addition, there is lack of consensus on the best technical methods for measuring the magnitude of social inequalities in health (Mackenbach & Kunst, 1997; Wagstaff, Paci, & Van Doorslaer, 1991).

Conclusion: the need for international and national organizations to focus explicitly on equity in health and its basic determinants, within as well as between countries

International agencies could play an important role in supporting research and action on social inequalities in health that is relevant to the needs of low- and middleincome countries. For example, international agencies can encourage and support national researchers from low- and middle-income countries to apply their talents to work in this area, and can support exchange among researchers from different countries as well as efforts to translate research into policy. Research methods and suitable data sources need to be developed not only for one-time special studies but also for ongoing routine monitoring over time (Braveman, 1998). The Rockefeller Foundation's recently launched Equity Gauge initiative is focusing on these concerns, and particularly on ensuring close links between monitoring and

systematic efforts for advocacy and to increase public participation in decision-making that shapes health (see www.rockfound.org). Globally, more knowledge is needed about the mechanisms through which economic inequalities damage health, apart from the obvious effects of extreme material deprivation. However, concern about the pathways through which relative social inequalities affect health in the absence of absolute material deprivation is unlikely to be perceived as a major research priority in lower income countries, where large proportions of the population continue to suffer extreme material deprivation measured in absolute terms. On the other hand, research on the mechanisms explaining the health effects of relative economic disparities could contribute to better understanding of effective approaches to mitigate poverty's health-damaging effects; such approaches should be undertaken simultaneously with efforts to attack poverty itself at its root causes, and are likely to require action by a range of social sectors, minimally including education, housing, labour, and finance, not only health services. Research is also needed to compare the costs of different approaches to reducing health inequalities while achieving improvements for all. While the fundamental reasons for pursuing equity are ethical, evidence of economic gains associated with social investment targeting health inequalities should be documented and disseminated; as noted earlier, an appropriate range of outcome measures that reflect progress in human development should be considered, including but not limited to traditional economic measures such as income, and the time frame for outcome measurement must be long enough.

While the technical challenges in describing equity and assessing the equity impact of policies are considerable, the most daunting challenges to achieving greater equity are of course political. Better information alone will not produce more equity. In general, for both national and international agencies and in countries of all average income levels, it is far more politically sensitive to talk about inequities within rather than *between* countries. In trying to promote greater equity, international organizations must respect national sovereignty and cultural differences, while recognizing that "cultural differences" can be invoked by privileged groups to justify the maintenance of inequities in settings where disadvantaged groups within a society are voiceless. International organizations can support efforts by national groups committed to achieving greater equity, by creating forums for exchange of ideas and experience within and between countries. In itself, the articulation of an explicit commitment to equity by other countries and international organizations can boost the morale of domestic movements for greater social justice. International agencies also can create forums for international exchange about equity goals and about policy options for achieving greater equity, recognizing that notions of what is fair or just, as well as preferred approaches to achieving greater fairness or social justice, vary among different societies. As much as one may like to prescribe what is right and wrong for others, for practical reasons each society needs to achieve a sufficient level of consensus about what equity goals it will adopt, in order to move toward effective, sustainable actions to reduce inequities; on the other hand, it is important to note that a national consensus may be affected by participation in international discussions.

International agencies can undermine or strengthen national efforts to achieve greater equity. Multilateral lending agencies in particular must consider the shortand long-term effects on equity of the conditions imposed on debtor nations (e.g., dismantling public service safety nets and privatizing previously government functions), and develop approaches and criteria that are likely to distribute the burden of belt-tightening in a more equitable fashion than has often been the case (United Nations Children's Fund, 1991). Over the past decade UNICEF and advocacy groups called upon creditor and debtor nations to consider "debt swaps for investment in social development programmes" (United Nations Children's Fund, 1991). In response to these efforts and evidence of the impossibility of debt repayment by many countries, the World Bank and International Monetary Fund recently launched the Highly Indebted Poor Countries (HIPC) initiative; in 70 poor countries, debt forgiveness is being made conditional on detailed plans for poverty reduction. The obstacles are daunting and it remains to be seen whether the initiative will result in significant social investment effectively reaching disadvantaged groups. Domestic as well as international development agencies need to consider whether their actions adequately encourage and strengthen efforts to improve equity; despite the best intentions, development aid can be channeled in ways that bring relatively little benefit to disenfranchised groups (United Nations Children's Fund, 1991). The World Bank has recently produced fact sheets for many developing countries, showing a range of health and health care indicators disaggregated by an indicator of household wealth (Gwatkin et al., 2000); such information should be used routinely to assess who is-and who is not-benefitting from development aid as well as domestic policies. Failure to disaggregate health data according to socioeconomic levels could result in policy recommendations that neglect the top causes of ill health among the world's poorest and hence most needy populations, for whom the communicable diseases and perinatal conditions remain the major causes of suffering, disability, and premature death (Gwatkin, Guillot, & Heuveline, 1999). An increase in the overall amount of funds for non-military international assistance from

the affluent nations (and particularly from those, notably the United States, who until recently have not fulfilled even their basic commitments (Wegman, 1999) could contribute to increased equity between countries as reflected by aggregate statistics; however, such an increase might not necessarily improve inequities within countries without systematic effort focused on that goal.

International and domestic governmental and nongovernmental agencies also can provide support for bold experiments with policies and programmes. While rigorous evaluation of the costs and outcomes of different specific strategies to achieve greater health equity is scarce (Gepkens & Gunning-Schepers, 1996; Mackenbach & Gunning-Schepers, 1997), enough is known to suggest that action will be needed in certain general areas (Arblaster et al., 1996; Bansal, 1999; Bartley et al., 1997; Mills, 1998). Strategies that target childhood well-being and development seem particularly promising as a way to achieve greater equity in health across the life cycle. Consideration of the available evidence suggests that particularly under conditions of severe resource constraints, it is likely that the following will be needed: giving the highest priority to eliminating absolute material deprivation; ensuring universal, compulsory and free education at least up to the level required to understand and apply a health message and to function in the national economy; ensuring safe drinking water and sanitation for all; providing free basic health services, including maternal and child health services with family planning; promoting rural development; providing micro-credit to small businesses; favoring full employment; and generally improving the status of women (United Nations Development Programme, 1990, 1991, 1992, 1994, 1996a, b, 1997).

Any successful strategy to address socioeconomic disparities in health will need to be based on a recognition that the biggest threat to health equity is overall socioeconomic inequity. The powerful relationships between socioeconomic position and health have been demonstrated repeatedly (Bicego & Boerma, 1993; Breilh et al., 1987; United Nations Development Programme, 1996a, b; Victora et al., 1992; World Bank, 1993; World Health Organization, 1995a, b), even in affluent countries (Adler, 1993; Adler et al., 1994; Evans, Barer, & Marmor, 1994; Feinstein, 1993; Kaplan, 1996; Kaplan et al., 1996; Kaplan & Keil, 1993; Kunst et al., 1998; Lynch, Kaplan, & Salonen, 1997; Macintyre, 1986; McKeown & Lowe, 1974; Pappas et al., 1993; Smith & Egger, 1992; Smith et al., 1998a) and even in affluent countries with relatively equitable health care provision (Black et al., 1980; Blane, Smith, & Bartley, 1990; Eachus et al., 1996; Mackenbach, Kunst, & Cavelaars et al., 1997; Marmot et al., 1991; Townsend, 1990; Smith, Hart, Watt, Hole, & Hawthorne, 1998b). Widening social inequalities in health should raise concerns about the consequences of macroeconomic or

social policy, not only about inequalities in health services; while the health sector can play an important role in documenting and disseminating evidence, action by the health care sector alone may not be effective or efficient. Equity in health care must be addressed, because, while not the only determinant of health status, health services are an important and often more easily modifiable factor than some others (Egbuono & Starfield, 1982). However, advocates for equitable access to health services must also be vocal advocates for equitable distribution of other key determinants of health, such as education, safe water and sanitation, housing, and food security. Advocates for investment in health care services may unwittingly play a destructive role in the health outcomes of their societies, when such investment competes with investment in other potentially more powerful determinants of health; this tension is likely to be greatest in countries with the most limited overall resources.

When developing strategies to increase equity, particularly in low- and middle-income countries, it must be made clear that the goal is an equitable sharing of progress in improving health, and not an equal distribution of the health consequences of lack of development; Whitehead has articulated the need to "level up" rather than to "level down" (Whitehead, 1994). The Primary Health Care strategy to achieve Health for All, articulated and promoted by WHO from the late 1970s on, was specifically designed to achieve greater equity and overall progress in settings with severe resource constraints. It entails a commitment to universal coverage with (at least) the most effective health services that will disproportionately benefit disadvantaged populations; reliance on low-technology, community-based solutions; emphasis on education, clean water, sanitation, and other living conditions fundamental to health; as well as a commitment to empowerment of those who have historically been marginalized. This strategy is at least as relevant today as it was two decades ago, when there was an expectation of growing rather than shrinking resources for social investment. There has been a notable silence at WHO recently about Health for All and Primary Health Care; this is unfortunate, creating the impression of stepping back from a commitment to equity, and should be addressed by member countries. As part of reaffirming the Health for All commitment, equity needs to move from being largely implicit to becoming an explicit component of the strategy, and progress toward greater equity in health needs to be monitored systematically to provide guidance for policy and programs at all levels.

Concerns about health equity in developing countries cannot be adequately addressed with an exclusive focus on closing north–south and between-country gaps. Globally, with increasing market orientation on all continents and in all political systems, there is a real risk

that concerns about equity will be forgotten-or paid only token attention-on the policy agenda in the pursuit of short-term gains reflected in average statistics. It is of great importance to focus on equity in health, not only because health status should be a key indicator of human development, but also because in most societies, there is less tolerance for avoidable disparities in health than in wealth. Addressing health equity both requires and provides an opening for addressing equity in the determinants of health. At the beginning of the 21st century, large segments of the population within nations of very diverse per capita income levels remain on the other side of a deep divide, enjoying little or no benefit of the economic growth reflected in average national economic indicators or even average health statistics. Particularly in the context of an increasingly globalized world, improvements in health for privileged groups should suggest what could, with political will, be possible for all.

References

- Acheson, D., Barker, D., Chambers, J., Graham, H., Marmot, M., & Whitehead, M. (1998). The report of the independent inquiry into inequalities in health. London: The Stationary Office.
- Adeyi, O., Lovelace, J. C., & Ringold, D. (1998). In defence and pursuit of equity and efficiency. *Social Science and Medicine*, 47, 1899–1900.
- Adler, N. E. (1993). Socioeconomic inequalities in health: No easy solution. *Journal of the American Medical Association*, 269, 3140–3144.
- Adler, N. E., Boyce, T., Chesney, M. A., Cohen, S., Folkman, S., Kahn, R. L., & Syme, S. L. (1994). Socioeconomic status and health: The challenge of the gradient. *American Psychologist*, 49, 15–24.
- Anand, S., & Ravallion, M. (1993). Human development in poor countries—on the role of private incomes and public services. *Journal of Economic Perspectives*, 7, 133–150.
- Anonymous. (1996). Gestures against reform. *Economist*, 13, 19–21.
- Arber, S., & Cooper, H. (1999). Gender differences in health in later life: The new paradox? *Social Science and Medicine*, 48, 61–76.
- Arblaster, L., Lambert, M., Entwistle, V., Forster, M., Fullerton, D., Sheldon, T., & Watt, I. (1996). A systematic review of the effectiveness of health service interventions aimed at reducing inequalities in health. *Journal of Health Services Research and Policy*, 1, 93–103.
- Bansal, R. K. (1999). Elementary education and its impact on health: Empowers women and improves the health of them and their children. *British Medical Journal*, 318, 141.
- Bartley, M., Blane, D., & Montgomery, S. (1997). Health and the life course: Why safety nets matter. *British Medical Journal*, 314, 1194–1196.
- Bassett, M. T., & Krieger, N. (1986). Social class and Black-White differences in breast cancer survival. *American Journal of Public Health*, 76, 1400–1403.

- Benatar, S. R. (1997). Health care reform in the new South Africa. New England Journal of Medicine, 336, 891–895.
- Bicego, G., & Boerma, T. (1993). Maternal education and child survival: A comparative study of survey data from 17 countries. *Social Science and Medicine*, 36, 1207–1227.
- Birdsall, N., & Hecht, R. (1995). Swimming against the tide: Strategies for improving equity in health. Human Resources Development and Operations Policy (HROWP 55). Washington (DC): World Bank.
- Black, D., Morris, J. N., Smith, C., & Townsend, P. (1980). The Black report. In P. Townsend, N. Davidson, & *The Health Divide/M.* Whitehead (Eds.), *Inequalities in health: The Black report* (1988, reprinted 1992) (pp. 29–213). London: Penguin.
- Blane, D., Smith, G. D., & Bartley, M. (1990). Social class differences in years of potential life lost: Size, trends, and principal causes. *British Medical Journal*, 301, 429–432.
- Braveman, P. (1998). Monitoring equity in health: a policyoriented approach in low- and middle-income countries. WHO/CHS/HSS/98.1, Equity Initiative Paper No. 3, World Health Organization, Geneva (92pp).
- Braveman, P., Egerter, S., Edmonston, F., & Verdon, M. (1994). Racial/ethnic differences in the likelihood of cesarean delivery, California. *American Journal of Public Health*, 85, 625–630.
- Braveman, P., Egerter, S., & Marchi, K. (1999). The prevalence of low income among childbearing women in California: Implications for the private and public sectors. *American Journal of Public Health*, 89, 868–874.
- Braveman, P., Oliva, G., Miller, M. G., Reiter, R., & Egerter, S. (1989). Adverse outcomes and lack of health insurance among newborns in an eight-county area of California, 1982 to 1986. *New England Journal of Medicine*, 321, 508–513.
- Breilh, J., Granda, E., Campana, A., & Betancourt, O. (1987). Ciudad y Muerte Infantil. Quito, Ecuador: Ediciones CEAS.
- Breslow, L., & Klein, B. (1971). Health and race in California. American Journal of Public Health, 61, 763–775.
- Burnley, I. H. (1998). Inequalities in the transition of ischaemic heart disease mortality in New South Wales, Australia, 1969–1994. Social Science and Medicine, 47, 1209–1222.
- Cleland, J., Bicego, G., & Fegan, G. (1992). Socioeconomic inequalities in child mortality: The 1970s to the 1980s. *Health Transition Review*, 2, 1–19.
- Cleland, J., & van Ginneken, J. K. (1988). Maternal education and child survival in developing countries: The search for pathways of influence. *Social Science and Medicine*, 27, 1357–1368.
- Collins, D., Quick, J. D., Musau, S. N., Kraushaar, D., & Hussein, I. M. (1996). The fall and rise of cost sharing in Kenya: The impact of phased implementation. *Health Policy and Planning*, 11, 52–63.
- Cornia, G. A., Jolly, R., & Stewart, F. (1987). Adjustment with a human face: Protecting the vulnerable and promoting growth. New York: United Nations Children's Fund, Oxford University Press.
- Council on Ethical and Judicial Affairs, American Medical Association. (1990). Black-White disparities in health care. *Journal of the American Medical Association*, 263, 2344– 2346.
- Council on Ethical and Judicial Affairs, American Medical Association. (1991). Gender disparities in clinical decision

making. Journal of the American Medical Association, 266, 559–562.

- Creese, A. L. (1990). User charges for health care: A review of recent experience. Geneva: World Health Organization.
- Creese, A. (1997). User fees. British Medical Journal, 315, 202-203.
- Creese, A., Kutzin, J. (1995). Lessons from cost-recovery in health. Discussion paper No. 2, forum of health sector reform. World Health Organization, Division of Analysis, Research and Assessment, Geneva.
- Das Gupta, M. (1987). Selective discrimination against female children in rural Punjab, India. *Population and Development Review*, 13, 77–100.
- Deaton, A. (1999). Inequalities in income and inequalities in health. NBER (National Bureau of Economic Research) Working Paper W7141, May 1999. (http://nberws.nber.org/ papers/w7141).
- Dunnell, K., Fitzpatrick, J., & Bunting, J. (1999). Making use of official statistics in research on gender and health status: Recent British data. *Social Science and Medicine*, 48, 117– 127.
- Eachus, J., Williams, M., Chan, P., Smith, G. D., Grainge, M., Donovan, J., & Frankel, S. (1996). Deprivation and cause specific morbidity: Evidence from the Somerset and Avon survey of health. *British Medical Journal*, 312, 287–292.
- The Economist. (2001). Does inequality matter? June 14, 2001 (http://www.economist.com/opinion/PrinterFriendly.cfm?-Story_ID = 655998).
- Egbuono, L., & Starfield, B. (1982). Child health and social status. *Pediatrics*, 69, 550–557.
- Evans, R. G., Barer, M. L., & Marmor, T. R. (1994). Why are some people healthy and others not? The determinants of health of populations (378pp). Hawthorne, NY: Aldine de Gruyter.
- Evans, T., Whitehead, M., Diderichsen, F., Bhuyia, A., & Wirth, M., (Eds.). (2001). *Challenging inequities in health: From ethics to action*. New York: Oxford.
- Feinstein, J. S. (1993). The relationship between socioeconomic status and health: A review of the literature. *The Millbank Quarterly*, 71, 279–322.
- Fiscella, K., & Franks, P. (1997). Poverty or income inequality as predictor of mortality: Longitudinal cohort study. *British Medical Journal*, 314, 1724–1728.
- Fuhrer, R., Stansfeld, S. A., Chemali, J., & Shipley, M. J. (1999). Gender, social relations and mental health: Prospective findings from an occupational cohort (Whitehall II study). *Social Science and Medicine*, 48, 77–87.
- Gepkens, A., & Gunning-Schepers, L. J. (1996). Interventions to reduce socioeconomic health differences: A review of the international literature. *European Journal of Public Health*, 6, 218–226.
- Gilson, L. (1998). In defence and pursuit of equity. Social Science and Medicine, 47, 1891–1896.
- Gray, A. M. (1982). Inequalities in health. The black report: A summary and comment. *International Journal of Health Services*, 12, 349–380.
- Greider, W. (1997). One world, ready or not: The manic logic of global capitalism. New York: Simon & Schuster.
- Gwatkin, D. R., Guillot, M., & Heuveline, P. (1999). The burden of disease among the global poor. *Lancet*, 354, 586–589.

- Gwatkin, D. R., Rutstein, S., Johnson, K., Pande, R. P., & Wagstaff, A. (2000). Socio-economic differentials in health, nutrition, and population. The World Bank Health Nutrition and Population/Poverty Thematic Group, Washington, DC, May (a series of reports on 44 countries available at www.worldbank.org/poverty/health/index.htm).
- Hahn, R. A., Eaker, E., Barker, N. D., Teutsch, S. M., Sosniak, W., & Krieger, N. (1995). Poverty and death in the United States-1973 and 1991. *Epidemiology*, 6, 490–497.
- Hahn, R. A., Eaker, E. D., Barker, N. D., Teutsch, S. M., Sosniak, W. A., & Krieger, N. (1996). Poverty and death in the United States. *International Journal of Health Services*, 26, 673–690.
- Harding, S. (1995). Social class differentials in mortality in men: Recent evidence from the OPCS longitudinal study. *Population Trends*, 80, 31–37.
- Hunt, K., & Annandale, E. (1999). Relocating gender and morbidity: Examining men's and women's health in contemporary Western societies introduction to special issue on gender and health. *Social Science and Medicine*, 48, 1–5.
- Ibe, B. C. (1993). Low birth weight (LBW) and structural adjustment programme in Nigeria. *Journal of Tropical Pediatrics*, 39, 312.
- Jayasinghe, K. S. A., De Silva, D., Mendis, N., & Lie, R. K. (1998). Ethics of resource allocation in developing countries: The case of Sri Lanka. *Social Science and Medicine*, 47, 1619–1625.
- Jazairy, I., Alamir, M., & Panuccio, T. (1993). The state of world rural poverty: An inquiry into its causes and consequences. New York: University Press for International Fund for Agricultural Development.
- Jolly, R., & Cornia, G. A., (Eds.). (1984). The impact of world recession on children. New York: Pergammon.
- Judge, K. (1995). Income distribution and life expectancy: A critical appraisal. *British Medical Journal*, 311, 1282– 1285.
- Kaasik, T., Andersson, R., & Horte, L-G. (1998). The effects of political and economic transitions on health and safety in Estonia: An Estonian-Swedish comparative study. *Social Science and Medicine*, 47, 1589–1599.
- Kanji, N., Kanji, N., & Manji, F. (1991). From development to sustained crisis: Structural adjustment, equity and health. *Social Science and Medicine*, 33, 985–993.
- Kaplan, G. A. (1996). People and places: Contrasting perspectives on the association between social class and health. *International Journal of Health Services*, 26, 507–519.
- Kaplan, G. A., & Keil, J. E. (1993). Socioeconomic factors and cardiovascular disease: A review of the literature. *Circulation*, 88, 1973–1998.
- Kaplan, G. A., Pamuk, E. R., Lynch, J. W., Cohen, R. D., & Balfour, J. L. (1996). Inequality in income and mortality in the United States: Analysis of mortality and potential pathways. *British Medical Journal*, *312*, 999–1003.
- Kaufman, J. S., Cooper, R. S., & McGee, D. L. (1997). Socioeconomic status and health in blacks and whites: The problem of residual confounding and the resiliency of race. *Epidemiology*, 8, 621–628.
- Kawachi, I., & Kennedy, B. P. (1997). Health and social cohesion: Why care about income inequality? *British Medical Journal*, 314, 1037–1040.

- Kawachi, I., Kennedy, B. P., Gupta, V., & Prothrow-Stith, D. (1999). Women's status and the health of women and men: A view from the States. *Social Science and Medicine*, 48, 21– 32.
- Kawachi, I., Kennedy, B. P., Lochner, K., & Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American Journal of Public Health*, 87, 1491–1498.
- Keil, J. E., Sutherland, S. E., Knapp, R. G., & Tyroler, H. A. (1992). Does equal socioeconomic status in Black and White men mean equal risk of mortality? *American Journal of Public Health*, 82, 1133–1136.
- Kennedy, B. P., Kawachi, I., Glass, R., & Prothrow-Stith, D. (1998). Income distribution, socioeconomic status, and self rated health in the United States: Multilevel analysis. *British Medical Journal*, 317, 917–921.
- Kennedy, B. P., Kawachi, I., & Prothrow-Stith, D. (1996). Income distribution and mortality: Cross sectional ecological study of the Robin Hood index in the United States. *British Medical Journal*, 312, 1004–1007.
- Kochanek, K. D., Maurer, J. D., & Rosenberg, H. M. (1994). Why did black life expectancy decline from 1984 through 1989 in the United States? *American Journal Public Health*, 84, 938–944.
- Krieger, N., Williams, D. R., & Moss, N. E. (1996). Measuring social class in US public health research: Concepts, methodologies, and guidelines. *Annual Reviews of Public Health*, 18, 341–378.
- Kunst, A. E., Groenhof, F., Mackenbach J. P., & EU Working Group on Socioeconomic Inequalities in Health (1998). Occupational class and cause specific mortality in middle aged men in 11 European countries: comparison of population-based studies. *British Medical Journal*, 316, 1636–1642.
- Kunst, A. E., & Mackenbach, J. P. (1994). The size of mortality differences associated with educational level in nine industrialized countries. *American Journal of Public Health*, 84, 932–937.
- Kurz, K. M., & Johnson-Welch, C. (1997). Gender bias in health care among children 0–5 years: Opportunities for child survival programs. Arlington, VA: BASICS.
- Kutzin, J. (1993). Obstacles to women's access: Issues and options for more effective interventions to improve women's health. HRO Working Papers (HROWP 13), World Bank.
- Leon, D. A., Chenet, L., Shkolnikov, V. M., Zakharov, S., Shapiro, J., Rakhmanova, G., Vassin, S., & McKee, M. (1997). Huge variation in Russian mortality rates 1984–94: Artefact, alcohol, or what? *Lancet*, 350, 383–388.
- Lewis, G., Bebbington, P., Brugha, T., Farrell, M., Gill, B., Jenkins, R., & Meltzer, H. (1998). Socioeconomic status, standard of living, and neurotic disorder. *Lancet*, 352, 605– 609.
- Lown, B., Bukachi, F., & Xavier, R. (1998). Health information in the developing world. *Lancet*, 175, 34–38.
- Lynch, J. W., Everson, S. A., Kaplan, G. A., Salonen, R., & Salonen, J. T. (1998). Does low socioeconomic status potentiate the effects of heightened cardiovascular responses to stress on the progression of carotid atherosclerosis? *American Journal of Public Health*, 88, 389–394.
- Lynch, J. W., & Kaplan, G. A. (1997). Understanding how inequality in the distribution of income affects health. *Journal of Health Psychology*, 2, 297–314.

- Lynch, J. W., Kaplan, G. A., & Salonen, J. T. (1997). Why do poor people behave poorly? Variation in adult health behaviours and psychological characteristics by stages of the socioeconomic lifecourse. *Social Science and Medicine*, 44, 809–819.
- Macintyre, S. (1986). The patterning of health by social position in contemporary Britain: Directions for sociological research. *Social Science and Medicine*, 23, 393–415.
- Macintyre, S. (1997). The Black report and beyond: What are the issues? Social Science and Medicine, 44, 723–745.
- Macintyre, S., Annandale, E., Ecob, R., Ford, G., Hunt, K., Jamieson, B., MacIver, S., West, P., & Wyke, S. (1989). The west of Scotland Twenty-07 study: Health in the community. In C. J. Martin, & D. V. McQueen (Eds.), Readings for a new public health (325pp). Edinburgh: Edinburgh University Press.
- Macintyre, S., Hunt, K., & Sweeting, H. (1996). Gender differences in health: Are things really as simple as they seem? Social Science and Medicine, 42, 617–624.
- Mackenbach, J. P., & Gunning-Schepers, L. J. (1997). How should interventions to reduce inequalities in health be evaluated? *Journal of Epidemiology and Community Health*, 51, 359–364.
- Mackenbach, J. P., & Kunst, A. E. (1997). Measuring the magnitude of socio-economic inequalities in health: An overview of available measures illustrated with two examples from Europe. *Social Science and Medicine*, 44, 757–771.
- Mackenbach, J. P., Kunst, A. E., Cavelaars, A. E., Groenhof, F., & Geurts, J. J. (1997). Socioeconomic inequalities in morbidity and mortality in western Europe. The EU Working Group on Socioeconomic Inequalities in Health. *Lancet*, 349, 1655–1659.
- Mander, J., & Goldsmith, E. (1996). *The case against the global economy*. San Francisco: Sierra Club Books.
- Marmot, M., & McDowall, M. (1986). Mortality decline and widening social inequalities. *Lancet*, 2, 274–276.
- Marmot, M., Ryff, C. D., Bumpass, L. L., Shipley, M., & Marks, N. F. (1997). Social inequalities in health: Next questions and converging evidence. *Social Science and Medicine*, 44, 901–910.
- Marmot, M. G., Smith, G. D., Stansfeld, S., Patel, C., North, F., Head, J., White, I., Brunner, E., & Feeney, A. (1991). Health inequalities among British civil servants: The Whitehall II study. *Lancet*, 337, 1387–1393.
- Martineau, A., White, M., & Bhopal, R. (1997). No sex differences in immunisation rates of British south Asian children: The effect of migration? *British Medical Journal*, 314, 642–643.
- Maynard, C., Fisher, L. D., Passamani, E. R., & Pullum, T. (1986). Blacks in the Coronary Artery Surgery Study (CASS): Race and clinical decision making. *American Journal of Public Health*, 76, 1446–1448.
- Mays, N. (1995). Geographical resource allocation in the English National Health Service 1971–94: The tension between normative and empirical approaches. *International Journal of Epidemiology*, 24, 96–102.
- McKeown, T., & Lowe, C. R. (1974). An introduction to social medicine. Oxford: Blackwell Scientific Publications.
- McPake, B. (1993). User charges for health services in developing countries: A review of the economic literature. *Social Science and Medicine*, 36, 1397–1405.

- Mills, C. (1998). *Equity and health: Key issues and WHO's role.* Geneva: World Health Organization.
- Montgomery, L. E., Kiely, J. L., & Pappas, G. (1996). The effects of poverty, race, and family structure on US children's health: Data from the NHIS, 1978 through 1980 and 1989 through 1991. *American Journal of Public Health*, *86*, 1401–1405.
- Morales, J. A. (1993). Macroeconomic adjustment and its impact on the health sector in Bolivia. Macroeconomics, health and development series, No. 10. World Health Organization, Geneva.
- Muntaner, C., Nieto, F. J., & O'Campo, P. (1997). Race, social class, and epidemiologic research. *Journal of Public Health Policy*, 18, 261–380.
- National Health Service Management Board. (1988). *Review of the resource allocation working party formula*. London: Department of Health and Social Security.
- Navarro, V. (1990). Race or class versus race and class: Mortality differentials in the United States. *Lancet*, 336, 1238–1240.
- Notzon, F. C., Komarov, Y. M., Ermakov, S. P., Sempos, C. T., Marks, J. S., & Sempos, E. V. (1998). Causes of declining life expectancy in Russia. *Journal of the American Medical Association*, 279, 793–800.
- Nyonator, F., & Kutzin, J. (1998). Health for some? The effects of user fees in the Volta region of Ghana. [Unpublished document. Dr. Nyonator is with the Ministry of Health, Ho, Volta Region, Ghana; Mr. Kutzin is with the World Health Organization, Geneva.].
- OPS/OMS (Organizacion Panamericana de la Salud/Organizacion Mundial de la Salud), Salud y Desarrollo Humano (PAHO/WHO, Health and Human Development). (1999). Disparidades de salud en America Latina y el Caribe (Health disparities in Latin America and the Caribbean), October. Washington, DC: PAHO [document in Spanish].
- Pamuk, E., Makuc, D., Heck, K., Reuban, C., & Lochner, K. (1998). Socioeconomic status and health chartbook. Health, United States, 1998. Hyattsville, MD: National Center for Health Statistics.
- Pan American Sanitary Bureau/United Nations Economic Commission for Latin America and the Caribbean. (1994). Health, social equity and changing production patterns in Latin America and the Caribbean. *Proceedings of the 24th Pan American sanitary conference*, September 25–30, Washington, DC. Pan American Sanitary Bureau/United Nations Economic Commission for Latin America and the Caribbean, Cartagena.
- Pappas, G., Queen, S., Hadden, W., & Fisher, G. (1993). The increasing disparity in mortality between socioeconomic groups in the United States, 1960 and 1986. *New England Journal of Medicine*, 329, 103–109.
- Psacharopoulos, G., Morley, S., Fiszbein, A., Haeduck, L., & Wood, B. (1993) Poverty and income distribution in Latin America: The story of the 1980s. Report No. 27, Latin America and the Caribbean Technical Department, Regional Studies Program, World Bank, Washington, DC.
- Roberts, H. (1997). Children, inequalities, and health. British Medical Journal, 314, 1122–1125.
- Schulman, K. A., Berlin, J. A., Harless, W., Kerner, J. F., Sistrunk, S., Gersh, B. J., Dube, R., Taleghani, C. K., Burke, J. E., Williams, S., Eisenberg, J. M., & Escarce, J. J.

(1999). The effect of race and sex on physicians' recommendations for cardiac catheterization. *New England Journal of Medicine*, *340*, 618–626.

- Scott-Samuel, A. (1997). Health inequalities recognised in UK. *Lancet*, 350, 753.
- Sen, A. (1993). The economics of life and death. Scientific American, 268(5), 40–47.
- Sen, A. (1998). Mortality as an indicator of economic success and failure. *Economic Journal*, 108, 1–7525.
- Shkolnikov, V. M., & Nemtsov, A. (1997). The anti-alcohol campaign and variations in Russian mortality. In J. L. Bobadilla, C. A. Costello, & F. Mitchell (Eds.), *Premature death in the new independent states* (pp. 239–261). Washington, DC: National Academy Press.
- Singh, G. K., & Yu, S. M. (1995). Infant mortality in the United States: Trends, differentials, and projections, 1950 through 2010. American Journal of Public Health, 85, 957– 964.
- Smith, G. D. (1996). Income inequality and mortality: Why are they related? *British Mdical Journal*, 312, 987–988.
- Smith, R. (1997). Gap between death rates of rich and poor widens. *British Mdical Journal*, 314, 9.
- Smith, G. D., Bartley, M., & Blane, D. (1990). The Black report on socioeconomic inequalities in health 10 years on. *British Mdical Journal*, 301, 373–377.
- Smith, G. D., & Egger, M. (1992). Socioeconomic differences in mortality in Britain and the United States. *American Journal* of *Public Health*, 82, 1079–1081.
- Smith, G. D., Hart, C., Watt, G., Hole, D., & Hawthorne, V. (1998b). Individual social class, area-based deprivation, cardiovascular disease risk factors, and mortality: The Renfrew and Paisley study. *Journal of Epidemiology and Community Health*, 52, 399–405.
- Smith, G. D., Neaton, J. D., Wentworth, D., Stamler, R., Stamler, S., for the MRFIT Research Group. (1998a). Mortality differences between black and white men in the USA: contribution of income and other risk factors among men screened for the MRFIT. *Lancet*, 351, 934–939.
- Sommerfelt, A. E., & Piani, A. L. (1997). Childhood immunization, 1990–1994. Calverton, MD: Macro International.
- Standing, H. (1997). Gender and equity in health sector reform programmes: A review. *Health Policy and Planning*, 12, 1– 18.
- Suarez-Berenguela, R.M. (2000). Health system inequalities and inequities in Latin America and the Caribbean: findings and policy implications. Working Document, Pan American Health Organization, January 25 (http://www.paho.org/ English/HDP/HDD/suarez.pdf).
- Terris, M. (1973). Desegregating health statistics. *American Journal of Public Health*, 63, 477–480.
- Townsend, P. (1990). Widening inequalities of health in Britain: A rejoinder to Rudolph Klein. *International Journal of Health Services*, 20, 363–372.
- Townsend, P. (1994). The rich man in his castle. *BMJ*, 309, 1674–1675.
- Unidad de Analises de Politicas Sociales. (1993). *Inversion en capital humano y focalizacion del gasto social*. La Paz, Bolivia: Unidad de Analises de Politicas Sociales.
- United Nations. (1985). Socio-economic differentials in child mortality in developing countries. United Nations Depart-

ment of International Economic and Social Affairs. New York: United Nations.

- United Nations. (1991). Child mortality in developing countries: Socio-economic differentials, trends and implications. New York: United Nations.
- United Nations. (1993). Report on the world social situation, 1993. Report Number ST/ESA/235-E/1993/50/Rev.1. New York: Department of Economic and Social Development.
- United Nations Children's Fund. (1991). The state of the world's children 1991. New York: Oxford University Press.
- United Nations Development Programme. (1990). Human development report 1990. New York: Oxford University Press.
- United Nations Development Programme. (1991). *Human* development report 1991. New York: Oxford University Press.
- United Nations Development Programme. (1992). Human development report 1992. New York: Oxford University Press.
- United Nations Development Programme. (1994). *Human* development report 1994. New York: Oxford University Press.
- United Nations Development Programme. (1996a). Undp flash. United Nations Development Program **2**.
- United Nations Development Programme. (1996b). *Human* development report 1996. New York: Oxford University Press.
- United Nations Development Programme. (1997) *Human* development report 1997. New York: Oxford University Press.
- United Nations Population Fund. (1989) *The state of the world population 1989*. New York: Oxford University Press.
- United States Bureau of the Census. (1996). *Consumer income:* 1996. Current Population Reports, Series P-60, No. 191, US Government Printing Office, Washington, DC.
- United States Department of Health and Human Services. (1985). *Report of the secretary's task force on black & minority health*. Washington, DC: US Government Printing Office.
- Valdivia, M. (2001). Report (in Spanish) on health equity in Peru (part of a multi-center study) to Pan American Health Organization (PAHO). Presented at PAHO/Mexican Health Foundation Meeting in Cuernavaca, Mexico, June 5–7 (report available from authors or from N. Dachs, PAHO).
- Vega, J., Bedregal, P., & Jadue, L. (2001). Equidad de Genero en el Acceso y Financiamiento de la Atencion de Salud en Chile (Gender equity in access to and financing of health care in Chile). Report (in Spanish) to Pan American Health Organization (PAHO). Presented at PAHO/Mexican Health Foundation Meeting in Cuernavaca, Mexico, June 5–7 (report available from authors or from E. Gomez, PAHO).
- Victora, C., & Barros, A. (2001). Report on health equity in Brazil (part of a multi-center study) to Pan American Health Organization (PAHO). Presented at PAHO/Mexican Health Foundation Meeting in Cuernavaca, Mexico, June 5–7 (report available from authors or from N. Dachs, PAHO).
- Victora, C. G., Barros, F. C., Huttly, S. R. A., Teixeira, A. M. B., & Vaughan, J. P. (1992). Early childhood mortality in a Brazilian cohort: The roles of birthweight and socio-

economic status. International Journal of Epidemiology, 21, 911–915.

- Wagstaff, A. (1991). QALYs and the equity-efficiency trade-off. Journal of Health Economics, 10, 21–41.
- Wagstaff, A. (1992). Equity in the finance of health care: Some international comparisons. *Journal of Health Economics*, 11, 361–387.
- Wagstaff, A., Paci, P., & Van Doorslaer, E. (1991). On the measurement of inequalities in health. *Social Science and Medicine*, 33, 545–557.
- Walberg, P., McKee, M., Shkolnikov, V., Chenet, L., & Leon, D. A. (1998). Economic change, crime, and mortality crisis in Russia: Regional analysis. *British Mdical Journal*, 317, 312–318.
- Wegman, M. E. (1999). Foreign aid, international organizations, and the world's children. *Pediatrics*, 103, 646–654.
- Weil, D. E. C., Alicbusan, A. P., Wilson, J. F., Reich, M. R., & Bradley, D. J. (1990). *The impact of development policies on health: A review of the literature* (165pp). Geneva: World Health Organization.
- Wenneker, M. B., & Epstein, A. M. (1989). Racial inequalities in the use of procedures for patients with ischemic heart disease in Massachusetts. *Journal of the American Medical Association*, 261, 253–257.
- Whitehead, M. (1990). The concepts and principles of equity and health [unpublished document EUR/ICP/RPD 414]. Copenhagen: WHO/EURO.
- Whitehead, M. (1994). Who cares about equity in the NHS? British Mdical Journal, 308, 1284–1287.
- Wilkinson, R. G. (1992a). Income distribution and life expectancy. *British Mdical Journal*, 304, 165–168.
- Wilkinson, R. G. (1992b). National mortality rates: The impact of inequality? *American Journal of Public Health*, 82, 1082– 1084.
- Wilkinson, R. G. (1996). Unhealthy societies: The afflictions of inequality. New York: Routledge.
- Wilkinson, R. G. (1997). Socioeconomic determinants of health. Health inequalities: Relative or absolute material standards? *British Mdical Journal*, 314, 591–595.
- Williams, D. (1994). The concept of race in *health* services research: 1966–1990. *Health Services Research*, 29, 261–274.

- Williams, D., Lavizzo-Mourey, R., & Warren, R. C. (1994). The concept of race and health status in America. *Public Health Reports*, 109, 26–41.
- Winkleby, M. A., Robinson, T. N., Sundquist, J., & Kraemer, H. C. (1999). Ethnic variation in cardiovascular disease risk factors among children and young adults: Findings from the third national health and nutrition examination survey, 1988–1994. Journal of the American Medical Association, 281, 1006–1013.
- World Bank. (1993). World development report 1993: Investing in health: World development indicators. New York: Oxford University Press.
- World Health Organization. (1995a). The state of world health, 1995: Poverty, the leading cause of illness and death. *Journal* of Public Health Policy, 16, 440-451.
- World Health Organization. (1995b). Health in social development. WHO Position Paper for World Summit for Social Development, Copenhagen, March 6–12 [unpublished document WHO/DGH/95.1]. World Health Organization, Geneva.
- World Health Organization. (1996). Equity in health and health care: A WHO/SIDA Initiative. Geneva: World Health Organization.
- World Health Organization. (1998). The world health report 1998. Life in the 21st century: A vision for all. Geneva: World Health Organization.
- World Health Organization Regional Office for Europe. (1994). Health in Europe: The 1993/1994 health for all monitoring report. Copenhagen: World Health Organization Regional Office for Europe.
- Yach, D., & Harrison, D. (1995) Inequalities in health: Determinants and status in South Africa. In K. van der Velden et al. (Eds.), *Health matters: Public health in northsouth perspective, health policy series, Part 9.* Amsterdam: Houten-Diegem, Royal Tropical Institute.
- Yeracaris, C. A., & Kim, J. H. (1978). Socioeconomic differentials in selected causes of death. *American Journal* of *Public Health*, 68, 342–351.
- Yergan, J., Flood, A. B., LoGerfo, J. P., & Diehr, P. (1987). Relationship between patient race and the intensity of hospital services. *Medical Care*, 25, 592–603.
- Yoder, R. A. (1989). Are people willing and able to pay for health services? Social Science and Medicine, 29, 35–42.