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**Investing in Health to Improve the Wellbeing of the  
Disadvantaged:**

**Reversing the Augment of the Marmot Reports**

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## **Investing in Health to Improve the Wellbeing of the Disadvantaged: Reversing the Augment of the Marmot Reports.**

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**Abstract:** The Marmot reports have argued that health inequalities are the result of social inequalities. They advocate reducing health inequalities by undertaking fundamental changes that make society fairer. We argue that the focus should be on improving the health and wellbeing of the disadvantaged, even if the policies that do this also raise the health of the better off, and worsen inequality. We also argue that the causality runs from health to social status, and that health interventions are needed to improve socioeconomic outcomes. While we disagree on goals and mechanisms we are in surprisingly close agreement with Marmot Reports on policies. In particular, we agree with the focus on in early childhood investments in health and physical and cognitive development that have long term socioeconomic payoffs. We also endorse making society fairer, though mainly as a goal in itself rather than an instrument to reduce health inequality.

Recent policy studies led by Sir Michael Marmot have argued that societies should focus on reducing health inequalities, and that the way to do this is through undertaking fundamental changes that will make society fairer. There are two central arguments in these studies. The first is that the socio-economic gradient in health is unfair and that the primary goal of government policy should be to reduce or remove this gradient. The second is that health outcomes are largely determined by social factors and that in order to reduce health inequalities we must first reduce social inequality.

We take a different view, and will argue that a better goal is to improve health, income, and socioeconomic outcomes for the most disadvantaged in society, and that the best way to do this is direct health interventions, particularly interventions that improve health in early childhood that can have long term benefits in physical and cognitive development. We think these health improvements will lead to improvements in socioeconomic outcomes. We view the socioeconomic gradient in health to be large part the result of differentials in health, reversing the direction of causality put forward in the Marmot reports. Direct health interventions, particularly in child health, are therefore mechanisms for improving both health and socioeconomic outcomes.

The policy recommendations that flow from Marmot's ideas are far reaching. He argues for a new global agenda to promote health equity both between and within countries by improving living conditions and reducing the inequitable distribution of power, money, and resources (Commission on the Social Determinants of Health, 2008). Applying this analysis to England he argues that the socio-economic gradient in health should be decreased by reducing inequality in

early childhood investments that affect cognitive development, reducing inequality in educational outcomes, improving the access to and the quality of jobs, reducing income inequalities and ensuring a minimum income level through progressive taxation, and increased action on the prevention of ill health (Commission on the Social Determinants of Health, 2010).

Economists have been guilty in the past of focusing too much on income per capita as a measure of wellbeing. A more plausible view (Stiglitz, Sen, & Fitoussi, 2009) is that wellbeing is multidimensional and we should expand the dimensions in which we measure human wellbeing to include consumption, wealth, health, education, personal activity, political voice and governance, social connectedness, environmental conditions, personal insecurity, and economic insecurity. These wider measures including health are undoubtedly important. If we combine health and income into a single welfare measure, over half of the gains in welfare in the last 50 years around the world have come from health rather than income improvements (Becker, Philipson, & Soares, 2005). While we agree with the argument that we must expand our notion of wellbeing beyond income to include health, health is just one of many dimensions of wellbeing. The Marmot reports focus on policies that promote equality in health, but do not take into account the impact of these policies on other dimensions of wellbeing. For example, what will the effects of higher tax rates, and large scale redistribution of resources to the poor, have on incentives, economic growth, and income levels?

There is a strong socio-economic gradient in health outcomes. The Marmot Review documents a difference in disability free life expectancy of 17 years between the poorest and richest neighborhoods in England. However the idea that the focus of social policy should be the

reduction of this gradient is less clear (Deaton, 2002). If we take a capabilities approach to measuring social welfare we will want people to have levels of income, education, and health that allow them to lead full lives. It seems evident that we care more about increasing the capabilities of the least advantaged and should be willing to see some reduction in the average level of capabilities to ensure that the least advantaged have an adequate level. We would, however, adhere to the Pareto principle that society should welcome changes that make everyone better off and no-one worse off. The Marmot Review explicitly rejects improvements health through economic growth as being adequate without a reduction in the health gradient. Our view is that we should make improvements in the wellbeing of the most disadvantaged the goal, and do this even if it means the advantaged also benefit, and the health gradient fails to improve.

To make this more concrete, consider priority setting using cost effectiveness analysis. This maximizes the overall health gains without addressing the issue of the distribution of the benefits. We would advocate weighting health gains so that health improvements for the most disadvantaged were weighted more heavily. However, we would weight everyone's health positively, so that health gains to the most advantaged are still considered beneficial in themselves, even though they increase health inequalities.

While we are against making the reduction in inequality a goal, the health gradient both across, and within, countries is very worrying. When trying to maximize population health we should put resources into the most cost effective interventions. There are usually diminishing returns to interventions, so it gets more and more difficult to further improve health as health rises, while at low levels of health we often have very cost effective interventions that can dramatically

improve health outcomes very cheaply. It is therefore difficult to believe that the steep health gradient is compatible with the cost effective allocation of health resources. The health gradient should be seen as a flashing alarm that our health systems are failing to deliver cost effective health care and a call to allocate health sector resources more effectively.

The issue of whether reducing health inequalities should be the social goal is an ethical question. When we turn to the second argument in the Marmot reports, what policies we should use to reduce health inequalities we have a practical question that can be answered with empirical evidence. The issue of the social goal and the means that we use to get there are, however, intertwined. There is no doubt that some of this link is causal running from socio-economic status to health (Lleras-Muney, 2005; Smith, 1999). While there is a gradient in health with income most of the gains in life expectancy over the last century have come from new health interventions that improve health at each level of income rather than from income gains (Preston, 1975). The health story is not really about moving along a fixed income-health relationship, rather it is the upward shift of the whole curve with rising levels of health at each income level over time. This rising level of health in developing countries has been due to public health measures such as clean water, sanitation, vaccination, oral rehydration, and targeted programs (Cutler, Deaton, & Lleras-Muney, 2006; Cutler & Miller, 2005; Soares 2007). These health technologies were originally implemented in rich countries, widening world health inequalities, but since the 1960s have spread around the world leading to rising levels of health even in very poor countries, and narrowing global health inequality (Bloom & Canning, 2001) .

Marmot would agree that these proximate causes of health matter, but emphasizes that we should focus on “the causes of the causes” (Marmot, 2005). He argues that we cannot provide these proximate determinants, such as clean water and vaccination, until we create a fair society which values the health of the poor and is prepared to redistribute both resources and power to them. In fact our experience in developing countries has been the opposite. Substantial health gains have been possible even in countries with political, social, and economic forces that appear to be inimical to a fair distribution of resources. It is true that in extreme cases of war, government failure, and natural disaster there can be a breakdown in basic sanitation and health care, but by and large health has improved over the last fifty years, and there has been global convergence in life expectancy (Wilson, 2001) despite a failure of incomes to converge (Pritchett, 1997).

This positive picture of world health has been undermined over the last 10 years as life expectancy in many developing countries has been dramatically reduced by the HIV/AIDS epidemic, producing global divergence in life expectancy (Bloom & Canning, 2007b) . This epidemic can be tackled directly through treatment of the infected with antiretroviral therapy, and more importantly through greater promotion of prevention efforts to avoid new infections (Canning, 2006). New technologies in prevention and treatment are probably required to bring the epidemic fully under control. The essential problem in HIV/AIDS is not to reduce the socio-economic gradient in HIV prevalence or mortality, but to eliminate the disease.

This upward shift in the whole health-income relationship due to new technologies occurs in developed as well as in developing countries. Figure 1 shows the relationship between income per capita and life expectancy at the county level in the United States in the years 1970 and 2005.

We see income gains in this period and a move along an upward sloping income-health relationship, but also an upward movement of the whole relationship. By 2005 people in the poorest counties had, on average, life expectancy on a par with that in the richest counties in 1970. A simple decomposition attributes 43% of the gain in life expectancy over the period to rising income, with 57% being due to other factors, such as declines in the prevalence of risk factors and improvements in health care (Cutler & McClellan, 2001; Ford, Ajani, Croft, Critchley, Labarthe, Kottke et al., 2007). These health gains in the United States have not been due to greater income equality, indeed inequality in county GDP per capita widened.

While rising incomes, reductions in risk factors and new health technologies benefit people over the whole income range in the United States, those at high incomes have benefited more. We see the rise in life expectancy between 1970 and 2005 as a major welfare gain for the United States, Marmot would presumably see it as a failure since the health-income gradient has become steeper and the standard deviation in life expectancy has increased (Ezzati, Friedman, Kulkarni, & Murray, 2008). The Marmot review argues for bringing the health of the most disadvantaged up to the level of the most advantaged by redistribution of resources, implicitly assuming it is relative rather than absolute inequality (Wilkinson, 1997) that matters, since otherwise redistribution might lead to worse health for those who lose resources. Figure 1 shows, however, that economic growth, and new health technologies, are proven methods of improving the health of the disadvantaged.

Marmot is implicitly arguing for a shift away from economic growth, and new technologies as the driving force for health improvements to a focus on social fairness as a mechanism. To the



extent that Marmot advocates this as an evidence based policy it would be useful to have explicit estimates of the cost per Disability Adjusted Life Year gained from his proposed policies. For example, in the Marmot Review for England he argues that a fairer society would raise the life expectancy of everyone up to the level currently enjoyed by the best off. A cost estimate of creating this fair society would allow us to compare using taxes to finance Marmot's social recommendations, to allocating funds to the National Health Service achieve the same health goals through financing new health interventions.

The Marmot reports, arguing that social justice must come before improving the proximate determinants of health are conceptually similar to the argument in that we should improve infant mortality rates in developing countries by ensuring economic growth and rising income levels (Pritchett & Summers, 1996). They focus on improving health by increasing incomes and moving everyone up along the Preston Curve while Marmot focuses on reducing socioeconomic inequality and moving those at the bottom up. Both ignore the basic fact that most health gains come from upward movements in the whole curve, not movements along the curve.

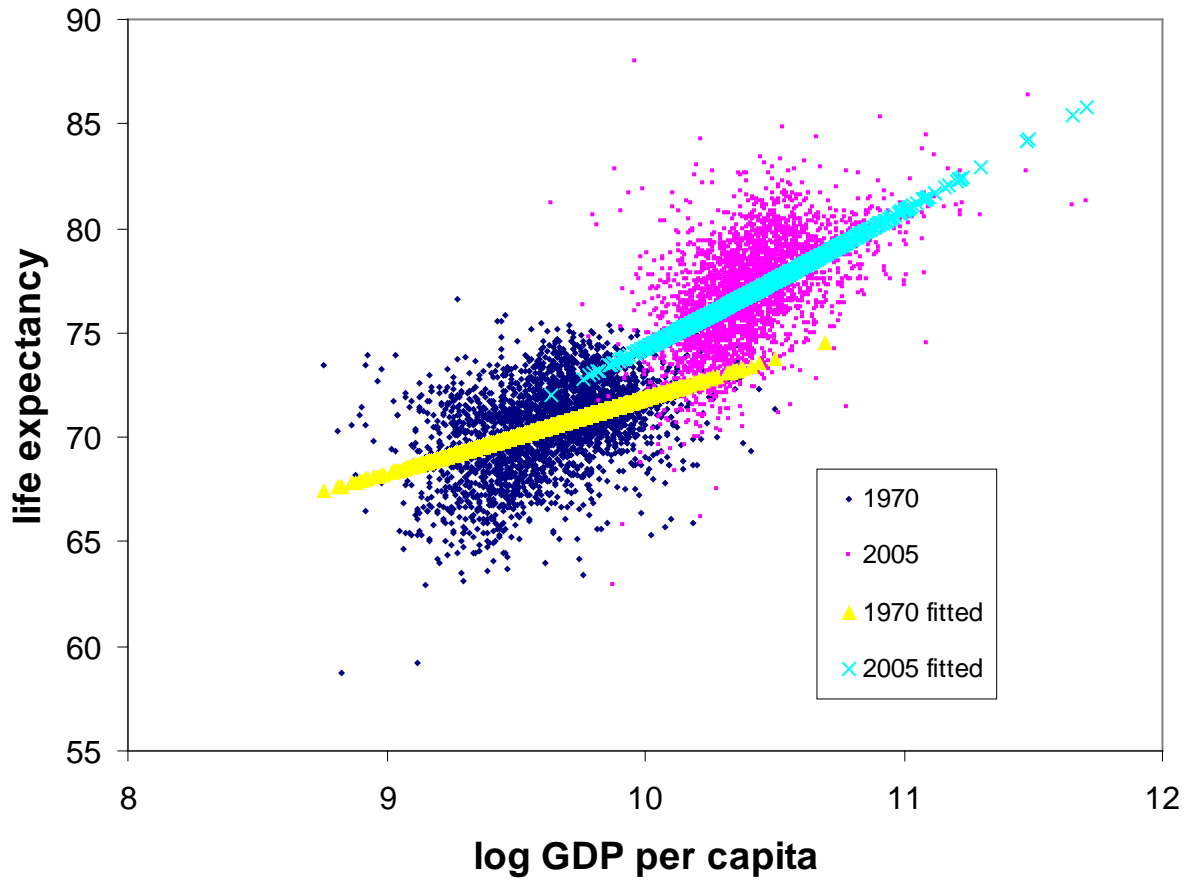
All of this debate however misses the key point that the health-income link is to a large extent driven by the effect for health on income. Our view is that the evidence supports making direct investments in health a priority. In particular, investments in early child health in developing countries can have large effects on their physical and cognitive development and health as adults. For example, nutritional supplements, deworming, and the prevention of malaria, can lead to large gains in educational attainments and adult earnings (Bleakley, 2007, 2010; Hodinott, Maluccio, Behrman, Flores, & Martorell, 2008). In developed countries the intergenerational

transmission seems to run from low socio-economic status parents, to poor health as a child, to low socioeconomic status as an adult (Case, Fertig, & Paxson, 2005; Case, Lubotsky, & Paxson, 2002; Smith, 2009). Marmot argues for breaking this chain by intervening on socioeconomic status, while we see childhood health interventions as a easier way of breaking the destructive cycle. We therefore see investments in health, particularly early childhood health, as a method of improving the socio-economic status of the disadvantaged and think that the health-income relationship reflects, in large part, causality running from health to income (Bloom & Canning, 2007a). In our analysis health comes first, and income growth and social equality follow.

Despite a deep disagreement on goals and mechanisms there is surprising agreement in our policy conclusions. On the major issue of investments in early childhood health we endorse his call for early childhood health interventions that improve physical and cognitive development to achieve both direct health, and future socioeconomic, benefits. We also endorse Marmot's calls for a fairer and more equitable society, but for its own sake rather than because it would lead to lower health inequalities.

While we would advocate the same policies, there is a different emphasis on the ordering of priorities. Calls for improving health through higher incomes, or fairer societies, may lead to procrastination, a reliance on ill defined indirect mechanisms, and a delay in implementing direct interventions that we know will improve the health of disadvantaged children. These direct health interventions work, and hold the promise of creating a future society that is healthier, richer, and fairer.

**Figure 1**  
**Income per Capita and Life Expectancy**  
**in United States Counties**



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