

## **PROFESSOR SIR MICHAEL MARMOT: DCL**

Mr Chancellor,

Professor Sir Michael Marmot quoted on 30<sup>th</sup> October this year ‘I would say to any government that cares about the health of its population: look at the impact of their policies on the lives people are able to lead and, more importantly, at the impact on inequality. Health inequality, arising from social and economic inequalities, is socially unjust, unnecessary and avoidable, and it offends against the human right to health’.

And this theme, the inequalities of health arising from inequities of the fabric of our society, has been Michael Marmot’s work. His discoveries have been striking and surprising, and the quality of his science outstanding. He is listed as one of the world’s most-cited biomedical scientists. But he has taken his outstanding scientific findings and personally driven a policy agenda which attempts not just to describe but to rectify the inequities he has identified.

Michael Marmot was born in the UK but educated in Australia, where he studied Medicine at the University of Sydney. He went on to gain a Masters in Public Health and then a PhD from the University of California at Berkeley which he completed in 1975. His PhD was supervised by Leonard Syme, who claimed to have been requested to take on the challenging young Marmot by a group in Sydney unable to contain him. With Syme’s group he studied ethnic Japanese men who were living in Hawaii, California and in Japan itself. The study showed that, independent of effects linked directly to diet, the more the men had become assimilated into American culture, the higher their rates of coronary heart disease. Further work showed that the socially cohesive Japanese culture appeared to provide some protection against cardiovascular disease – seeding the idea that important risk factors are not all physical consequences of

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lifestyle, some may be social. Similar effects have been shown in other migrant groups. The more assimilated into their new culture, the more members of the group fall ill or die of the 'local' diseases.

But what about variations in health in social groups that stay put? These are dramatic. Let's start with areas of Newcastle – Benwell and Gosforth. These are very similar demographically in some respects. For example in the 2001 census, they had similar numbers of people, and 92% of these in each district were born in the UK. The median age in each district was mid-30s, and they had fairly similar numbers of children. But 74% of adults living in Gosforth were in managerial jobs, compared with 16% in Benwell.

83% in Gosforth owned their homes, just 18% in Benwell. Around the turn of the millennium, the life expectancy for a man living in Gosforth was nearly 80 years, and for a man living in Benwell it was close to 70. Similar or greater disparities are found all over the country. There is a life expectancy gap of a staggering 28 years between two small areas of Glasgow – Calton and Lenzie. Even within the London borough of Westminster there are two different localities, a short distance apart, where life expectancy differs by 18 years. This difference is as extreme as that between the UK as a whole and Somalia.

What causes these effects and how can they be ameliorated? The answers can be found in Michael Marmot's ground-breaking work on the Whitehall studies. These studies were initiated by Donald Read and Geoffrey Rose in London, who were tracking the health of male civil servants, looking at lifestyle factors such as smoking and health problems such as angina. When Michael Marmot was recruited to the group, Rose suggested that he examined the effects of employment grade which had been recorded in the study originally so that its effects could be controlled for. But treating it as a variable of interest, rather

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than as something to be factored out, provided dramatic results. Marmot discovered that those in the higher occupational grades were much less likely to be suffering from a range of coronary and other adverse health problems than those in the lower grades. And the effects formed a gradient – intermediate grades had intermediate health outcomes. A 25 year follow up showed the same gradient in terms of mortality. The higher the career grade the less likely the men were to die early. These effects cannot all be attributed to differences in risk factors such as diet and smoking. When such factors are controlled for, the gradient remains, although its slope is less steep. And these were not effects of poverty – all the men were earning and living in a comfortable society. They are the effects of something more subtle... and similar effects have since been shown for women, of course.

Within one working population, or within one locality, or one country, Marmot's research reveals a gradient of health outcome and mortality – the better off live longer, healthier lives than those worse off. There are many theories about mediating causes of such effects. There may be direct or indirect physiological or psychological effects of differential control, stress, anxiety, self-esteem. But we may capture the phenomenon with the notion of 'empowerment' – enjoyed by the wealthiest, denied to those lower down the ladder of employment or household income.

In 2010 Michael Marmot's report 'Fair Society, Healthy Lives', commissioned by the last Government documented and emphasised these alarming differences in life expectancy and ill health between Britain's rich and poor, and recommended how this should be addressed. Key actions include nurturing early childhood development, setting minimum wage levels, and providing healthy homes. In November 2011 Marmot launched the UCL Institute of Health Equity, supported by the Department of Health, UCL and the British

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Medical Association, which seeks to increase health equity through such actions. Pleasingly, since 2010, 75% of local authorities in the UK have developed Marmot action plans. He is also engaged in several international efforts on tackling health inequalities. He is chair of the World Health Organisation's Commission on Social Determinants of Health (titled 'Closing the Gap in a Generation'). It is, then, clear how he contributes tirelessly to Newcastle University's Societal Challenge theme of Social Renewal.

But he also contributes to another of our challenge themes – that of ageing. He is Principal Investigator on the English Longitudinal Study of Ageing which has completed a series of waves of large-scale data collection in adults from the ages of 50 upwards. This has shown that the health outcomes gradient is still found amongst older adults. The wealthiest quintile has better health, for longer, than the least wealthy quintile, and the characteristic gradient is found across all five divisions. He gave an outstanding public lecture up here in 2010 as part of our event series on changing age.

Michael has served his profession and government in a number of ways – for example he was President of the BMA during 2010-11. And he chairs the Department of Health Scientific Reference Group on tackling health inequalities. His work has been recognised by many awards and honorary degrees, including one from the University of Sydney, who exported him at the start of his career. And he was knighted in 2000 for services to epidemiology and understanding health inequalities.

Behind all these extraordinary achievements is a man of tenacious determination, energy and intelligence, and wit.

These qualities were exemplified in his most recent visit to the North East, to the Festival of Ideas at Sage Gateshead last month. His train was delayed first

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by engine trouble, then halted when trespassers were reported on the line north of Durham. Some might have given up. Instead he abandoned rail at Darlington and grabbed a taxi.

Things were going reasonably well until the driver – clearly not *au fait* with Gateshead traffic – suggested on exiting the A1 that they would arrive at the Sage very quickly. The Ozzy Marmot quickly phoned his hosts and said he would make the gig, barring accidents with kangaroos. Half an hour later he texted the simple words ‘KANGAROOS EVERYWHERE’. Happily, the audience waited for him, and of course his performance was, as always, well worth waiting for.

Mr Chancellor, in recognition of his outstanding scientific and policy contributions to rectifying social and health inequalities, I invite you to confer on Professor Sir Michael Marmot the honorary degree, of Doctor of Civil Law.