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JANUARY 2014

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"IF YOU COULD DO ONE THING..."

Nine local actions to reduce health inequalities

JANUARY 2014



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Contents

The Steering Group and Report Editors	4
Foreword by Sir Michael Marmot	6
Executive Summary	8
Introduction	13
Addressing Health Inequalities Through Greater Social Equality at a Local Level: Implement a Living Wage Policy Kate Pickett	22
The Impact of Early Childhood Education and Care on Improved Wellbeing Edward Melhuish	32
20mph Speed Limits for Cars in Residential Areas, by Shops and Schools Danny Dorling	44
Tackling Health-Related Worklessness: a 'Health First' Approach Clare Bambra	62
Using Participatory Budgeting to Improve Mental Capital at the Local Level Kwame McKenzie	71
The Scope of Adult and Further Education for Reducing Health Inequalities Tarani Chandola, Andrew Jenkins	82
Ethnic Inequalities in Health: Addressing a Significant Gap in Current Evidence and Policy James Y. Nazroo	91
Building Age-Friendly Communities: New Approaches to Challenging Health and Social Inequalities Hal Kendig, Chris Phillipson	102
The Role of Cost-Effectiveness Evidence in Reducing Inequality Alan Maynard	112

The Steering Group

This project was overseen by the following group of experts:

Dr Jessica Allen

Jessica Allen is a Deputy Director of the Institute of Health Equity. She is Co-Director of the Review of Social Determinants of Health and the Health Divide in the WHO European Region and was previously Project Director of the Strategic Review of Health Inequalities in England post-2010 (The Marmot Review). Prior to her work at UCL, Jessica was head of Health and Social Care at the Institute of Public Policy Research (IPPR), Research Fellow in Public Health at The King's Fund, and worked at Unicef and LSE. She has published and broadcasted widely on issues relating to health and social care policy and holds a doctorate from the University of London.

Professor Sir Ian Gilmore

Ian Gilmore is Professor of Medicine at the University of Liverpool. He is an honorary consultant physician at the Royal Liverpool University Hospital and holds an honorary chair at the University. He is the former president of the Royal College of Physicians (RCP) and the current president of the British Society of Gastroenterology. Ian currently chairs the UK Alcohol Health Alliance and European Alcohol and Health Forum Science Group. He chairs the UK Steering Group for Sir Michael Marmot's UCL Institute for Heath Equity and is a member of the National Quality Board. He is also a Deputy Lieutenant of Merseyside and received a Knighthood in the Queen's Birthday Honours in 2010 in recognition of his contributions to Medicine.

Dr Fiona Godlee

Fiona Godlee is Editor of the British Medical Journal (BMJ). She qualified as a doctor in 1985, trained as a general physician in Cambridge and London, and is a Fellow of the Royal College of Physicians. She has written on a broad range of issues, including the impact of environmental degradation on health, the future of the World Health Organization, the ethics of academic publication, and the problems of editorial peer review. Fiona has served as president of the World Association of Medical Editors (WAME) and chair of the Committee on Publication Ethics (COPE). She is Co-Editor of *Peer Review in Health Sciences*.

Professor Anthony Heath CBE, FBA

Anthony Heath is Emeritus Professor of Sociology at the University of Oxford and Professor of Sociology at the Institute for Social Change (ISC) at the University of Manchester. He has directed numerous research projects, including the 1983, 1987, 1992 and 1997 British Election Surveys (funded by the ESRC) and a project on the affirmative action programme in Northern Ireland (Nuffield Foundation). Anthony was a member of DWP's Ethnic Minority Advisory Group and continues to work on ethnic inequalities in education

and the labour market, as well as on the wider implications of ethnic diversity. He is also the principal investigator of a study of ethnic minority political attitudes and behaviour, funded by the ESRC. Anthony is a Fellow of the British Academy.

Professor Miles Hewstone FBA (Chair)

Miles Hewstone is Professor of Social Psychology and Fellow of New College at the University of Oxford. He is a former editor of the British Journal of Social Psychology and co-founding editor of the European Review of Social Psychology. Miles is a Fellow of the British Academy and served as its Vice President (Social Sciences) from 2007–9. He is a Fellow of the Society for Personality & Social Psychology, the Society for the Psychological Study of Social Issues and the Young Foundation. He is also an Honorary Fellow of the British Psychological Society.

Mr Jim McManus

Jim McManus is Director of Public Health for Hertfordshire County Council. He is a registered public health specialist and was previously Joint Director of Public Health for Birmingham City Council and NHS Birmingham. He is a Chartered Psychologist, Chartered Scientist and Associate Fellow of the British Psychological Society. He is also a Fellow of the Chartered Institute of Environmental Health. Jim has 22 years experience of working in and with the NHS, third sector and local government, including county and district councils. He is a member of the Public Health Advisory Board of the National Institute of Health Research and sits on a number of national health committees. In 2011, Jim was awarded the Good Samaritan Medal for excellence in healthcare by the Pontifical Council Health Care Workers at the Vatican.

Professor Kate Pickett

Kate Pickett is Professor of Epidemiology at the University of York. She trained in biological anthropology at Cambridge, nutritional sciences at Cornell and epidemiology at UC-Berkeley. Kate was an UK NIHR Career Scientist from 2007–12, is a Fellow of the RSA and a Fellow of the UK Faculty of Public Health. Kate is co-author, with Richard Wilkinson, of *The Spirit Level* – chosen as one of the Top Ten Books of the Decade by the New Statesman, and winner of Publication of the Year by the Political Studies Association. She is a co-founder and director of The Equality Trust.

Dame Jane Roberts

Jane Roberts is a Consultant Child and Adolescent Psychiatrist at a north London hospital. She has a background in clinical medicine, health management and local government. She was formerly Medical Director and then Director of Quality and Performance at Islington Primary Care Trust until 2010. She was a councillor in the London Borough of Camden for 16 years and Leader of the Council from 2000 to 2005. She was appointed DBE in 2004 for services to local government. She chaired the Councillors Commission (2007–09), Parenting UK (2006–2012) and was a Non-Executive Director of Ofsted (2006–2011). She is currently chair of the New Local Government Network and an Associate Fellow at Warwick Business School. She is a trustee of the Institute of Public Policy Research (IPPR) and Freedom from Torture.

Report Editors

The report was edited and the executive summary written by Les Newby and Nicky Denison, independent consultants and writers on society, economy and environment.

Foreword by Sir Michael Marmot

Social science in the interest of reducing health inequalities

JW Lee, late Director-General of WHO, described to the World Health Assembly in 2004 his decision to set up the Commission on Social Determinants of Health (CSDH), which he invited me to chair, saying:

"The goal is not an academic exercise, but to marshal scientific evidence as a lever for policy change – aiming toward practical uptake among policymakers and stakeholders in countries."

I was delighted with his decision, as I was with his statement, with one caveat. Academic exercises can be good things. That said, I am entirely sympathetic with what he meant. The aim of the CSDH was to bring together the best scientific evidence on what could be done on social determinants of health to reduce health inequalities and promote health equity. The academic input was key because the whole of the CSDH was built on evidence.¹ The present publication, grounded in bringing science to bear on what can be done by local government, continues in the spirit and the practice of what JW Lee had in mind.

III-health is a manifestation of disordered biology, but these biological processes are influenced by the conditions in which people are born, grow, live, work and age, and inequities in power, money and resources that give rise to inequities in conditions of daily life – the social determinants of health. Just as biological science is important to understanding health, so are the social sciences. It is encouraging that the British Academy has convened this group of social scientists to bring their knowledge to bear on policies to reduce health inequalities.

The CSDH Report, *Closing the Gap in a Generation,* was published in 2008. The question is whether anyone was listening and taking seriously what we recommended.

At a meeting at the Royal Swedish Academy of Science in January 2013, a Swedish parliamentarian said that most Commission reports sink without trace within a short time of publication. But the CSDH was still being discussed in the Swedish Parliament five years later. To date, discussions in Sweden have led to more specific action at local rather than national level. The city of Malmo set up a commission to translate the recommendations of the CSDH into a form suitable for one Swedish city with marked inequalities in health and a sizeable immigrant population. The Malmo commission was sponsored not by the health department, but by the deputy mayor, which bodes well for cross-government action to implement its recommendations. Several other local authorities in Sweden are developing similar plans.

In other countries – Brazil, Chile, Slovenia, for example – there has been concerted action at national level.

In asking if the CSDH has had an impact, or more generally if governments are taking seriously the social determinants of health, there is some danger of an infinite regress. One manifestation of influence is that a country or city sets up an implementation plan. For example, in England, the Government commissioned me to conduct what became known as The Marmot Review, *Fair Society, Healthy Lives.*² And did The Marmot Review have an impact? Well, a majority of local authorities in England have implementation plans. Of course, it does not end there. Do the plans translate into tangible policies and programmes; and do they have an impact?

Two activities are required to break into this chain of plans: monitoring of key indicators to tell us if determinants, outputs and outcomes are moving in the right direction; and continued development of specific policies in the areas identified by my Review.

It is in the latter area, continued development of policy, that this publication, and the process that led to it, have a clear role to play.

This publication is aimed at local government. Action on social determinants of health can, and should, happen at global, national and local level. While it is desirable to have action at all three levels, there is much that needs to be done at local level, as illustrated here. National policies can set the context for local action. For example, my UCL Institute of Health Equity was commissioned by the London Health Inequalities Network to assess the likely impact on health inequalities of the economic downturn and the government's change to welfare policies. We examined the impact on income, employment, and housing. Some of these are susceptible to action at local level; some will require central action. Ideally, there should be both.

In England, the movement of public health from the NHS to local government is seen by some as a threat. It is also an opportunity. Each of the actions suggested in this publication is likely to have an important impact on public health. It is entirely appropriate that public health professionals should be working with the sectors that are responsible for influencing those conditions of daily life that have an impact on health inequalities. As local governments do put plans and programmes in place, it is important that their effects be monitored and evaluated. There will be continued need for academic partnership of social science with public health scientists and practitioners – a fertile area in which social science can play an important role in improving population health and reducing unnecessary health inequalities.

Sir Michael Marmot

UCL Institute of Health Equity, Department of Epidemiology and Public Health, UCL

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Executive Summary

Recent governments have made health, and often health inequalities, a priority. But, whilst health outcomes – certainly as measured by life expectancy – have been rising, health inequalities have not only persisted, but widened. A fresh perspective and new solutions are needed.

The Marmot Review showed that socio-economic inequalities affect health outcomes and confirmed that there is a social gradient in health. Those who are best off financially do best on health outcomes too, with the converse true for the poorest. The case for action is clear and the move of public health responsibilities to local government offers the opportunity for locally led, joined-up responses.

Analysis in America has suggested that as little as 20% of the influences on health are to do with clinical care and quality of care. Health behaviours account for 30% of influences and the physical environment for 10%, but it is socioeconomic factors that have the largest impact on health – 40% of all influences. The social sciences have an essential contribution to make if health inequalities are to be reduced.

This report seeks to facilitate that contribution and to start a process of better connecting public health and social science. The British Academy brought together a group of respected experts from across the social sciences. Each was asked to write a proposal focusing on one issue and one intervention that would reduce health inequalities, which could be adopted by local authorities and health and wellbeing boards. A tough ask, especially in the academic world. But we wanted to concentrate minds on the translation of academic understanding into local implementation.

In summary, the expert authors, topics covered and suggested interventions are:

1. Kate Pickett on local social equity: Implement a living wage policy

In her proposal, **Kate Pickett** identifies how implementing a 'living wage' policy would have a direct impact on income inequality, which in turn is a root cause of health inequalities and other social ills. She argues that paying a living wage would help to address 'in-work poverty', reduce income inequality, provide an incentive to work and enhance health and wellbeing. For employers, she identifies it may benefit work quality and productivity, reduce absenteeism and have a positive impact on staff recruitment and retention.

2. Edward Melhuish on early childhood interventions:

Focus resources on improving life chances in early childhood

Edward Melhuish argues that the impact of social origins on child outcomes and wellbeing is strong and persistent and that, coupled with the increasing skills required in the modern labour market, the imperative for action is economic as well as social. Alongside a positive home learning environment, universal and high-quality Early Childhood Education and Care (ECEC) is identified as of particular importance in breaking the link between parental attainment and children's outcomes.

3. Danny Dorling on transport planning and traffic management: *Implement 20mph* speed limits where 30mph ones have usually been in place

In his proposal, **Danny Dorling** demonstrates how implementing 20mph speed limits (where 30mph ones have been) could be one of the cheapest and most effective methods for improving public health today. Easily enacted at the local level, this very literal slow-down would reduce the risk of pedestrian – and especially child – fatalities and bring about wider benefits such as less pollution and stronger communities. He argues that this measure would reduce inequalities because people tend to be at most risk of being hurt or killed by cars in the poorer parts of towns and cities.

4. Clare Bambra on worklessness: Take a 'health first' approach to tackling health-related worklessness

Clare Bambra outlines the relationship between ill health and unemployment and advocates a 'health first' approach to tackling worklessness: this would target root causes (i.e. health) first, in contrast to previous approaches that have focused on skills and employability. She uses the case study of the County Durham Worklessness and Health model to demonstrate the potential of such an approach and argues that this could be an important way for clinical commissioning groups, work programme providers and local authorities to work in partnership to reduce local worklessness and health inequalities.

5. **Kwame McKenzie on public mental health and mental capacity:** Use a form of *participatory budgeting to make decisions on public health priorities and interventions*

In his proposal, **Kwame McKenzie** suggests that health and wellbeing boards could improve mental capital and decrease disparities by using a modified version of participatory budgeting in their decision making. Identifying that public health interventions to improve mental capital typically aim to change individual exposure to risk factors, or to build environments that promote resilience and health, he argues that the *process* of implementation could be designed to have an impact, as well as the intervention itself.

6. Tarani Chandola and Andrew Jenkins on further and adult education: Utilise the substantive role of further and adult education in reducing social inequalities in health

Tarani Chandola and **Andrew Jenkins** consider how further and adult education can reduce social inequalities in health. Identifying that those who leave school without any

qualifications are far more likely than their better educated peers to be in poor health – and to have greatly reduced social and employment life chances, they argue that policy should have a focus on acquisition of skills and qualifications by disadvantaged adults. Their proposal suggests that courses not leading to a formal qualification should be subsidised because of their economic, social and health benefits and identifies the wellbeing benefits of non-vocational courses for older adults.

7. James Y. Nazroo on health inequalities and ethnicity: Adopt local policies to improve the employment conditions of public sector workers

Analysing the complex issues of ethnicity and health inequalities, **James Nazroo** considers that this topic has been substantially neglected in policy discussions. His proposal summarises key elements of the available evidence and evaluates possible explanations for observed inequalities. He concludes that social and economic inequalities are the driving force for ethnic inequalities in health and that substantial policy development is required in this field. He argues for the improvement in employment conditions of public sector workers as a specific public health intervention.

8. Hal Kendig and Chris Phillipson on older age-friendly urban development: *Implement locally based 'age-friendly environments' that facilitate improvements in the independence, participation, health and wellbeing of older people*

Hal Kendig and Chris Phillipson argue that place matters, and that older people living in urban areas face specific issues around social integration, access to services, leisure and mobility. They determine that taking action on behalf of (and ideally involving) older people can facilitate social wellbeing, enable them to continue to contribute to the communities in which they live and, crucially, influence healthy life expectancy. Their proposal identifies significant opportunities for action on ageing and the built environment that are emerging in the UK, such as the efforts of Manchester and York to become age-friendly cities.

9. Alan Maynard on the importance of evaluation: *Make good use of evidence of costeffectiveness before choosing between competing interventions to reduce health inequalities*

Alan Maynard's proposal makes clear the need for systematic evaluation and evidence of cost-effectiveness in informing choices between interventions. He argues that, without hard-nosed evaluation, scarce resources will be focused on proven and efficient interventions and health inequalities will persist or increase. Identifying that better use needs to be made of economists and economic analysis – with robust evidence also vital to overcoming any resistance to change – he advises that inequality will only be reduced successfully if new interventions are piloted and understood before roll-out, and evidence-based policy moves from rhetoric to reality.

As Jim McManus and Jane Roberts make clear in their introduction to this report, local authorities are major players in health. Their responsibilities within the fields of housing, planning, urban design, transport, early years and parenting, leisure services, education, skills and employment have always made that the case. The recent transfer of responsibility for public health to local government and the creation of health and wellbeing boards only add to their influence.

Despite the considerable reduction in their resources, there exists a real opportunity for local authorities to make a difference. Realising this will depend upon the leadership of elected members, the quality of public health staff, the use of existing resources and the application of evidence to guide effective action.

Guidance on improving the population's health has often been focused on insights from biomedical or behavioural sciences and has tended to highlight interventions targeted at individuals. While valuable, the much trickier structural issues like housing policy or worklessness have had less focus. The two approaches are not mutually exclusive. It seems clear from the ongoing work of *The Marmot Review* that strategies that combine structural, societal-based approaches with individual approaches are essential if we are really going to make a difference to health inequalities.

Accordingly, this report does not focus on individual and behavioural interventions, including diet and physical activity. Instead, it features distinct contributions from contrasting, but ultimately connected, areas of the social sciences. Some readers will, understandably, ask why housing and its importance in a balanced public health strategy is not included in this collection. Jim McManus and Jane Roberts consider that the case for the importance of housing as a public health intervention is already well made, but they call for a more systematic treatment for policymakers of the health and place agenda, including housing, which is beyond the scope of this volume.

The great strength of local government is, of course, that it is local and thus in a far better position than Whitehall to understand the detail of its local area and its needs. It is better placed to know what local interventions may be possible, and how they may be best delivered. In doing so, there is much potential to draw upon national and international evidence from the social sciences. Engaging with local academic institutions on effective interventions to improve health offers exciting possibilities. The proposals from our nine authors set out some of the most promising.

The future

We hope that this collection of papers will fire the imagination of local authorities and energise their interest and enthusiasm in how they can most effectively improve local health. We suggest five steps for how its aspirations can be embedded in local policymaking:

- 1. Elected members need to understand and own the fact that what local government does every day profoundly influences the health of their population. They should hold *every* officer to account for the impact they have on public health, not just the Director of Public Health and her/his team.
- Build good relationships with local academics in social sciences as well as biomedical and behavioural sciences and engage in a discussion about what policies, approaches and programmes can address the specific challenges of each local area.

- 3. Discuss across local authorities the contributions which each function can make to improving health and use these insights to generate discussion about opportunities and inform action.
- 4. Use this report, and other sources, to create a public health strategy which balances interventions aimed at individuals with those operating at the structural/societal level.
- 5. Discern the programmes needed, implement them well to get the best results and evaluate them properly to ensure lessons are learned for the future.

Academic input into local policymaking remains an opportunity and a challenge. Academics need to communicate their expertise in ways which local government can readily access and utilise. Local authorities, in turn, can seek out and embrace the intellectual vigour and evidence that academia can provide. Doing so will make them better positioned to make a difference to local health and wellbeing.

Our hope is that this publication and the proposals in it go some way towards being a bridge between academia and local government, and between social sciences and public health. The British Academy is keen to play its part in building such bridges, both with this report and in the future.

Introduction

Every government in the last thirty years, of whatever political persuasion, has maintained as a policy position that local authorities have a major role to play in reducing inequalities in health¹ and improving the health of their populations.²

*The Marmot Review*³ showed that socio-economic inequalities have a clear effect on the health outcomes of the population. It confirmed that there is a social gradient in health and also in environmental disadvantage. A recent American analysis suggested that as little as 20% of influences on health were in the gift of clinical health services – to do with access to clinical care and quality of care. The other 80% of the influences on health⁴ comprise health behaviours (30%), socio-economic factors (40%) and the physical environment (10%). All of these are at least to some extent within the purview of local government. This is not to minimise the important contribution of the National Health Service (NHS), but it is crucial to recognise that health has structural as well as lifestyle and genetic/biological determinants.

The challenge for local policy and programmes

We believe there are three sets of issues which should be considered in relation to local authorities here:

- First, despite the undoubted diminution of their powers,⁵ local authorities still do have considerable power and influence. What is needed is the mindset, conviction and leadership within local authorities to see that they are major players in health both in the broad terms of health outcomes and the specific area of public health. This conviction should be boosted by the recent transfer of responsibility for public health and the creation of health and wellbeing boards, but there is still some way to go.⁶ Local authority members have a key role here. It is no longer possible for councillors to argue credibly that health improvement is a matter solely for the NHS. After all, local authorities have for some while had a responsibility for the environmental, economic and social wellbeing of their populations. They are now, in addition, charged with a new duty to improve the health of the local population.
- Second, there remains uncertainty about the extent to which Joint Strategic Needs Assessments (JSNAs) and Health and Wellbeing Strategies⁷ have been effective in linking strategic local health policy goals to specific interventions on the ground.^{8, 9, 10}
- Third, what has not always been so obvious to policymakers at either a local or national level is what interventions would be effective and are possible within the local authority powers. Despite the breadth of possibilities offered by, for example, the power of wellbeing, potential programmes or interventions have often seemed to lie more in the domain of the NHS than the core work of local authorities.

A common folklore, with at least some truth to it, is that public health left local government in 1974 and is now 'coming home'. This message, while commendable in intention, brings with it three risks. In no particular order of importance:

- **First**, it does not recognise the fact that local authorities' influence on health can be exercised across those core functions which they have always retained.
- Second, it potentially devalues the important work of Environmental Health practitioners the public health workforce which never left local government, but which has often suffered through financial constraints.
- **Third**, local policymaking depends on a strong relationship between members, officers and stakeholders. The effectiveness of this relationship is vital for ensuring that all parties understand that health is a core local government issue, and for improving the health of the population. It is imperative that these connections are maintained.

Local authorities' responsibilities within the fields of housing, planning, urban design, transport, early years and parenting, leisure services, educational attainment, training and employment have always had an impact on health. It was, after all, local government that led the way in the nineteenth century, transforming the lives of their populations with clean water, decent housing and much else. And, more recently too, many local authorities have done innovative health improvement work.¹¹

New opportunity, ongoing risks

The Health and Social Care Act 2012 provides a real opportunity for local government to vigorously reassert that it can be the major local actor influencing the health of its population. This echoes how, at least in the UK, the early days of the public health movement were driven by local government.

*The Marmot Review*¹² broke new ground in seeking to analyse the evidence and identify policy priorities for improving the health of our population – intelligence which could be used across the NHS, local government, central government and other players. The focus of Marmot's work has long been on inequalities in health and their corrosive effects. Lest it be thought that such issues of inequality are solely the concern of local authorities or governments of a left wing persuasion, Ferdinand Mount elegantly disabuses the notion in his recent book: ¹³

"The Marmot review, and Marmot himself, was at least partly instrumental in shaping the Government's public health White Paper in 2010¹⁴ and the thinking behind the public health aspects of the 2012 Act. The review provides strong evidence that local authorities are key actors in improving the health of their population, especially the worst off. The key issues to be addressed now are identifying what interventions will work for which challenges, and how we go about developing and implementing strong local strategies."

Four key variables and their interplay will be salient in determining whether the opportunity created by the Act and *The Marmot Review* is realised:

- i. first and foremost, the leadership of elected members for better health (political leadership makes a key difference);
- ii. the quality and calibre of public health specialist staff;
- iii. the use of existing resources; and
- iv. the availability of evidence and guidance which policymakers can use to make policy and deliver programmes.

These are, we know, austere times. Funding available to local government has markedly diminished and is set to diminish further. But all the more reason that local authorities should have a sharp focus on getting the most effective use of their resources, with an unflinching eye on the evidence available.

The contribution of this report and the social sciences

This report seeks to make a contribution that will help local policymakers improve the health of their communities by presenting evidence from the social sciences that can help reduce inequalities in health. Indeed, Marmot himself asked for this. In some senses, this is a social sciences dialogue companion to *The Marmot Review*.¹⁵

The evidence and guidance on improving the population's health has often been focused on insights from biomedical sciences or behavioural science and has tended to highlight interventions targeted at individuals. While valuable, the much trickier structural issues like housing policy or worklessness have had less focus. The two approaches are not mutually exclusive. It seems clear from the ongoing work of *The Marmot Review* that strategies that combine structural/system level approaches with individual approaches are essential if we are really going to make a difference to health and inequalities.

Accordingly, this report does not focus on individual and behavioural interventions, including diet and physical activity. These are, we feel, increasingly well covered in the guidance from the National Institute for Health and Clinical Excellence (NICE), among others; and both NICE and the behavioural sciences are making an ever stronger contribution to improving the health of the population.¹⁶ Nor have we focused in detail on obesity, because we believe that the individual and the environmental/structural issues in obesity are increasingly well understood.¹⁷

Academia and local government can appear to inhabit parallel universes. Public health evidence and its implications, while often discussed among academics, needs to be made far more accessible to policy and decision makers. This collection seeks to do so by synthesising and setting out how the range of social sciences can help local government to make a difference to health. It covers nine contrasting, but ultimately connected, areas:

- local social equality;
- early childhood interventions;
- traffic measures to reduce speed and accidents;
- worklessness;
- older-age friendly urban development;
- public mental health;
- ethnicity and inequalities in health;

- further and adult education; and
- the importance of evaluating whether policies work.

The authors were selected by a group brought together by the British Academy. The group, which formed the editorial group for this report, comprised social scientists, as well as those with expertise in public health and local government. The authors were selected because they had demonstrated a track record in at least one of the following: research and writing on health inequalities; experience of working with and advising policymakers; experience of analysing and evaluating policy programmes; or expertise in their particular chosen field. Their papers (or 'proposals') were then peer-reviewed and edited by the editorial group.

In order to focus on practical measures that could be taken forward, authors were asked to choose one specific issue – 'suggested interventions' as they are described in the proposals – which they would adopt to improve the health of the local population. A tough ask, especially in the academic world. But we wanted to concentrate minds on the translation of academic understanding into local implementation.

Interconnecting proposals and content

The proposals cover a spectrum of approaches and areas of expertise. They do not always connect to one another, but often they do. So, whilst each proposal can be read as a standalone summary of the evidence, and a case for action in a particular field, there is also value in considering them as a set. Whilst they are wide-ranging, they are by no means encyclopaedic. There are many other social science experts with valuable insights to offer and other specific areas of social sciences that are not covered by a proposal here. We hope this publication whets the appetite to explore some of these further.

Most of the proposals have at their heart the recognition that social and, specifically, income inequalities drive health inequalities. Kate Pickett's summation of the evidence behind that understanding, and of the benefits of implementing living wage policies locally, provides a foundation for the pieces that follow.

Only one of the proposals – Clare Bambra's call for a health first approach to worklessness – is centred on a directly health-based intervention. And, in this case, it is one focused on addressing health problems that cause worklessness, which in turn drives other health and social inequalities. The majority of the proposals look at how other issues and experiences drive socio-economic and health inequalities – whether they are to do with the physical environment (e.g. Danny Dorling's proposal for 20 mph speed limits in residential areas and near to shops and schools), or, more often, how processes and systems impact upon people at the local level.

Education directly features in two of the proposals: Edward Melhuish's argument for focusing resources on improving early childhood life chances, and Tarani Chandola and Andrew Jenkins' exposition of the merits of further and adult education as a tool to reduce social inequalities in health. Others touch on the importance of education more indirectly, or the role of mental capacity – as covered in Kwame McKenzie's proposal for the adoption of participatory budgeting techniques. The principle of involving citizens in the

processes that affect them emerges in other proposals too: notably, the call for age-friendly environments made by Hal Kendig and Chris Phillipson.

A number of the proposals focus on particular groups or communities. The two pieces on education look at early years and at adult education, including for older people. Meanwhile, James Nazroo argues that ethnic inequalities in health have been substantially neglected in policy discussions. His proposal has similarities to Kate Pickett's in using an area where local authorities and health partners have influence – employment conditions and wages – to make both a direct difference to incomes and inequalities and to influence employers in other sectors.

All of the proposals are based on evidence, and a great richness of sources are referenced throughout. Alan Maynard reinforces the importance of evidence: he calls for greater use of systematic evaluation and stronger engagement with economists to strengthen evidence on the cost-effectiveness of interventions. The urge to act to address inequalities in health needs to be coupled with the intelligence, and sometimes patience, to invest in approaches that will make the greatest difference.

Social science's contribution to balanced public health strategy

All of these areas are well within the traditional comfort zone of local government and there is good evidence that each of them can have a tangible impact on population health.

The proposals summarise existing evidence and provide thought through opinion pieces. They also suggest concrete approaches that policymakers can adopt to reduce health inequalities. Added to behavioural and individual-level interventions, such as lifestyle modification, these measures can help develop the type of balanced strategy that the weight of evidence calls for: entailing a combination of behavioural and policy measures aimed at both individuals and populations.

All of these interventions demonstrate the contribution which a range of social sciences can make. This contribution has sometimes been less visible than that of the biomedical sciences and the more behaviourally focused social sciences. The contributions range across social science disciplines, including economics, geography, psychology, policy studies, sociology and epidemiology.

We hope that this collection of papers will fire the imagination of local authorities and energise their interest and enthusiasm in how they can most effectively improve local health (particularly so, given the implementation of the Health and Social Care Act 2012). We hope that it will support councils to broaden the range of policy approaches used to tackle health inequalities, moving beyond the behavioural and individual, and with some confidence that there is good evidence for this from the social sciences. Increasing the use of social scientific evidence in public health programmes – alongside biomedical and behaviourally focused social sciences – will lead to more rounded, and hence more successful, action to enhance health and tackle inequalities.

Housing

Some readers will, understandably, wonder why we have not included housing and its importance in a balanced public health strategy in this collection. Especially given the developing evidence base and research interest on the multiple aspects of the relationships between place and health.^{18, 19} For this we offer policymakers three important considerations:

- The case for the importance of housing as a public health intervention is, in our view, already well made through the work of leaders in the field such as Macintyre, Ellaway^{20, 21} and collaborators.^{22, 23}
- There are a number of briefings, evidence summaries²⁴ and guides for policymakers already in existence,^{25, 26, 27} along with some useful tools for practitioners from bodies like the Chartered Institute of Environmental Health and Chartered Institute of Housing.^{28, 29}
- 3. Housing is one part of an important agenda on place and health. We recognise that this whole field is becoming more and more important in Public Health, but it needs a more systematic treatment than the space in this collection would permit. In our view, a volume which synthesises for policymakers and practitioners the importance of the evidence base on place and public health, and the contribution of social science, is needed.
- 4. Given the constraints of space, we have decided to focus in this volume on aspects of place and health which have had somewhat less coverage to date, as a contribution to policymakers of issues in place which still need presentation to policymakers. The chapters by Danny Dorling and Hal Kendig and Chris Phillipson are within this category.

Using and building on social sciences at the local level

Academic input into policymaking at the local level remains an opportunity and a challenge for all of us. Academics need to work to communicate their research and activity in ways which local government can access and utilise more readily. Local authorities, in turn, can seek out and embrace the intellectual vigour and evidence that academia can provide. In so doing, they will be far better positioned to make a difference to the health and wellbeing of their populations.

The great strength of local government is, of course, that it is local and thus in a far better position than Whitehall to understand the detail and needs of its local area. It is better placed to know what local interventions may be possible and how they may be best delivered. Drawing on international and national evidence from social sciences, as well as engaging local academic institutions on effective interventions to improve health, offers exciting possibilities. Local councils would be able to craft hard-hitting public health strategies that would lead to significant change.

We suggest five steps for how this report and its aspirations can be embedded in local policymaking:

- Members need to understand, welcome and own the fact that the health of their population is influenced profoundly – for good or ill – by what local government does every day. They should hold *every* officer to account for what public health impact they have. This is not solely a matter for the Director of Public Health and her/his team.
- 2. Build good relationships with local academics in social sciences as well as biomedical and behavioural sciences and engage in a discussion about what policies, approaches and programmes can address the specific challenges of each local area. Local government can be reluctant to initiate such links.
- Discuss and discern across local authorities the contributions which each function can make to improving health, and use these insights to generate discussion about opportunities and inform action.
- 4. Use this report, and other salient sources like *The Marmot Review*, NICE guidance and others, to create a public health strategy which balances interventions aimed at individuals with those operating at structural and system levels.
- 5. Discern, implement and evaluate: discern the programmes needed, implement them well to get the best results and evaluate them properly to ensure lessons are learned for the future.

The future

Whilst additional evidence will always be helpful, especially around cost-effectiveness, the authors demonstrate that there is good enough evidence from the social sciences to build and deliver effective strategies for improving health.

Equally, there are opportunities to enhance the contribution of the social sciences to public health, such as increasing the social science content of the public health curriculum.

Our hope is that this publication and the proposals in it go some way towards being a bridge between academia and local government, and between social sciences and public health. The British Academy is keen to play its part in building such bridges, both with this report and in the future.

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ADDRESSING HEALTH INEQUALITIES THROUGH GREATER SOCIAL EQUALITY AT A LOCAL LEVEL: IMPLEMENT A LIVING WAGE POLICY

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SUMMARY

The single best action that I believe local authorities can take to reduce health inequalities is to **implement a living wage policy**. This will have a direct impact on the UK's income inequality, which in turn is a root cause of health inequalities and other social ills. Through this proposal I will set out:

- Why inequality matters. In the UK you can expect to live about 8 years longer if you
 live in the wealthiest rather than poorest areas. More unequal societies tend to have
 poorer outcomes on obesity, drug dependency, mental illness and infant mortality.
 They also have higher teenage births, lower child wellbeing, lower educational
 attainment and less social mobility.
- Evidence demonstrating that the vast majority of the population do better in more equal societies. Runaway incomes at the top are just as damaging as inadequate incomes at the bottom.
- How the current economic climate of stagnant wages, unemployment and welfare cuts mean that the lowest paid are seeing declining incomes in both absolute and relative terms, with knock-on effects for health and social problems.
- The role of local authorities in addressing income inequalities, including the practical action being taken by Fairness Commissions across the country to investigate and implement ways of reducing inequality in their areas.
- The case for the living wage. In the UK today, work does not always provide a way out
 of poverty close to two-thirds of children growing up in poverty live in a household
 where at least one person works. Extending the living wage to everybody would reduce
 income inequality in society. Its impact would be strongly progressive, with the largest
 proportional gains to the poorest 10 per cent of households. People here would see
 their disposable income rise by around 7 per cent on average.¹ It would also reduce
 income inequality within workplaces, assuming no changes in top wages.
- Raising the wages of those on the very lowest incomes through paying and, importantly, encouraging others to pay, a living wage provides:
 a. an incentive to work;

 - b. a way out of in-work poverty;
 - c. improvements in work quality and productivity;
 - d. falls in absenteeism;
 - e. positive impacts on recruitment and retention; and
 - f. a way of directly addressing inequalities in health and wellbeing.²

Introduction: why inequality matters

There is a paradox at the heart of understanding population health and health inequalities in rich, developed societies. If we compare different rich countries, there is no association between average levels of income or spending on healthcare and measures of population health (such as life expectancy or mortality rates). Yet, within each of those countries, there are stark health inequalities and a gradient in health by income. If you live in the UK, for example, this means that you can expect to live about eight years longer if you live in the wealthiest rather than poorest areas. So, income seems to be an important predictor of health within societies, but meaningless between them. What this paradox suggests is the importance of *relative* social status for health.

There is a powerful tendency for more unequal societies – where the gaps between the wealthiest and poorest are larger – to have more social dysfunction and health problems, as figure one demonstrates (see below). Too much inequality seems to result in familiar signs of 'broken societies'.³ More equal societies enjoy better health and life expectancy, fewer people have drug problems and there is less mental illness, less obesity and lower rates of infant mortality.

But it is not just health that is affected by income inequality. A wide range of social problems are worse in more unequal societies (see Figure 1). This includes more teenage births, lower levels of child wellbeing and educational attainment, higher levels of violence, more people in prison and less social mobility. And, not only are average levels of these problems affected by inequality, so is the social gradient in each – that is to say, the extent to which different people in a given society are affected. For example, a more unequal country not only has lower levels of educational achievement or higher mortality rates, but gaps between educational scores or death rates between rich and poor are bigger.



Figure 1: Health and social problems are worse in more unequal countries

Source: Wilkinson, R. and Pickett, K. (2010), *The Spirit Level: why more equal societies almost always do better.* London: Penguin.

An important research finding is that the benefits of greater equality are not confined to the least well-off.³ In fact, the vast majority of the population do better in more equal societies. Even well-educated, middle class people with good incomes will be likely to live longer, be more involved in community life and less likely to suffer violence. Their children are likely to do better at school and are less likely to take drugs or become teenage parents. This is not simply a problem of poverty or deprivation. As inequality matters even after controlling for these, runaway incomes at the top are just as damaging as inadequate incomes at the bottom.

Alongside this growing body of evidence on the impact of inequality, there is also an increasing scientific understanding of the pathways from income inequality to a number of health and social problems. This is demonstrating the ways in which status competition or feeling devalued, disrespected, insecure and worried about how you are seen and judged by others, affects human health and behaviour. The processes which produce a social class gradient in each problem are intensified by greater inequality. Status competition makes it feel more important to have money and so leads people to work longer hours in more unequal societies.⁴ Inequality also increases the strains on family life and parenting.⁵ And greater inequality leads to more violence because, as status matters more, people become more sensitive to common triggers to violence such as being disrespected and looked down on.⁶

The current political context: austerity and localism

With the goal of eliminating the UK's structural budget deficit in four years, the Coalition government has established a programme of unprecedented cuts in public spending. These cuts have their biggest impact on those who have least, those who most depend on public services and those for whom inequalities related to gender, disability, or minority ethnic status also restrict opportunity. And, because cuts in public spending risk increasing social inequality and, in consequence, health and social problems, paradoxically, we will need public services that address the violence, ill health, drug abuse and social dysfunction we have to cope with, more. Just at the time that we need them most, because of the additional inequality created by austerity, local resources and services are increasingly stretched.

Another aspect of the current context is the desire of central government to shift some power and decision making to local government. Importantly, responsibility for public health is moving out of the National Health Service and back to local authorities. This means that public health is now the responsibility of organisations with remits beyond health; organisations that are also responsible for education, housing, social care, public safety, local planning etc. Although this brings significant challenges, it also brings opportunities. Chief amongst these is the chance to develop local public health strategies that are focused on the wider social determinants of health, including income inequality, rather than those more narrowly focused on health services.

The Coalition government has also articulated the goal of developing the 'Big Society' – a vision of a society where the voluntary sector and local neighbourhoods and communities take on some of the burden of providing support that formally came from the state. Inequality has a role to play here too because community life is weaker in societies with bigger income differences, levels of trust decline, social capital is reduced and civic participation declines.

So, in several important ways, the findings of academic research and the current political and economic context converge to demand that more attention is paid to fairness and equality. First, we know that social inequality creates more health and social problems that, in the current fiscal climate, we have fewer resources to address. Second, we have an opportunity at a local level to create more joined-up, cross-sector policies to address the social determinants of health. And third, we know that greater equality leads to more social

cohesion. This will allow us to harness more support from the voluntary sector and local communities to address health and social problems, especially where they exist at a very local level.

But does inequality at the local level matter?

Inequality and the social distinctions which imprint themselves on us all – from earliest life onwards – are not simply the result of local differences in incomes and wealth. They reflect the scale of class difference in each society's national social pyramid. They are underpinned by larger or smaller national differences in income and wealth. Although local inequalities also matter, what most affects the wellbeing of the people within any region, local authority area or neighbourhood is where each individual comes – higher or lower – in the *national* social class hierarchy and whether that class pyramid is steeper and more unequal, or flatter and more equal. Although small areas can have large divides in incomes and wealth and related health inequalities,⁷ the biggest impact on the health or social problems of a poor neighbourhood or local area does not arise because of the inequality within that community, but because it is deprived relative to the rest of society.

Nevertheless, it is often within localised institutions that income inequalities are generated, namely through the salaries paid, whether that is in private, public or third sector organisations. For many people, their most direct experience of hierarchy also comes from the workplace. Clearly, any attempt to reduce income inequality will need to harness the participation and cooperation of the public, private and voluntary sectors, as well as the broader community.

So why should a local authority lead an effort to address income inequality within its boundaries?

Apart from the arguments outlined above – that greater equality will mean fewer health and social problems and reduce the need for the specific services which attempt to prevent or ameliorate these problems – local authorities have three primary additional reasons to act.

First, they can lead by example. Most local authorities are significant employers. Whatever they do to reduce income inequality by reducing pay differentials and improving wages at the bottom of the income scale will affect a significant proportion of the local population.

Second, a local authority can inspire, and perhaps demand, similar action within the rest of the public sector locally and then among the private and voluntary sectors with whom it commissions, contracts and cooperates.

Third, as a democratically elected body, it has a mandate to represent and attempt to implement the wishes of its electorate. Social surveys suggest consistently that a large majority of the population (70–80% in most cases) would like to see a reduction in pay differentials.

Fairness Commissions

Since 2010, several local authorities, including Blackpool, Islington, Liverpool, Newcastle, Sheffield, Newport, Plymouth, Southampton, Leicester, Tower Hamlets and York have established 'Fairness Commissions' to investigate and implement ways of reducing inequality in their areas.

- **The Islington Fairness Commission** was set up in June 2010 to look into how to make the borough a fairer place. Co-chaired by Professor Richard Wilkinson (my co-author of 'The Spirit Level: Why More Equal Societies Almost Always Do Better'), its final report was published in June 2011, making key recommendations in seven areas. www. islington.gov.uk/about/fairness-commission/Pages/default.aspx?extra=5
- The Newcastle Fairness Commission was set up by Newcastle City Council in summer 2011. Its final report was published in July 2012 and asked how, in a climate of austerity, Newcastle can make itself a city where people can feel that fair decisions are being made. www.ncl.ac.uk/socialrenewal/engagement/fairnesscommission/
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- **The York Fairness Commission** published its interim report in November 2011 and its final report in September 2012. It contains 10 Fairness Principles and recommendations to help City of York Council make budget decisions in a way which will be fair and protect services for vulnerable people. www.yorkfairnesscommission. org.uk/
- The Blackpool Fairness Commission was established in 2012. It is made up of people representing a range of organisations working in Blackpool and will look at ways of making Blackpool fairer for everyone. http://blackpoolfairness.wordpress.com/

Fairness Commissions have differed in their remit, composition and ways of working, but all have the common goal of addressing relative poverty and inequality, locally. Furthermore, all have involved community input and been committed to transparent decision making and public communication and dissemination of their work. The Islington Fairness Commission has produced guidelines for other local authorities who wish to establish a Fairness Commission. These are available at www.islington.gov.uk/about/ fairness-commission/setting-up-fairness-commission/Pages/default.aspx and include:

- establishing clarity of aims;
- addressing issues that have the potential to have an impact on the local community;

- establishing a clear timetable for investigation and delivery from the outset;
- listening to all sectors of the community;
- selecting commissioners from a wide range of external organisations and who represent the makeup of the Council; and
- lining up adequate resources.

The movement for a living wage and reduced pay ratios

All Fairness Commissions that have reported at the time of writing have recommended implementing and campaigning for the payment of a living wage rather than a minimum wage.

The living wage currently stands at £8.55 per hour in London and £7.45 elsewhere, compared to the national minimum wage of £6.31 for workers aged 21 and over. For example:

- In Islington, the Commission recommended that "employers in Islington should pay all their directly employed staff as a minimum the London Living Wage...Employers should also review their procurement, contract and best value policies to ensure that, as far as possible within UK and EU law, the London Living Wage is the minimum paid to all their contracted staff as well" and that "all major employers in the borough should publish their pay differentials to enable them to be scrutinised and challenged where appropriate."
- In Newcastle, the Commission called for a "range of measures to improve the income and well-being of people in low paid work...(including) advocating reductions in the pay ratio between the highest and lowest paid within companies, taking into account the report of Newcastle's Living Wage Advisory Panel."
- In Liverpool, the Commission recommended that "the City and its partners use the opportunities from growth to create a fairer and more socially just economy which will include the introduction of a Living Wage in Liverpool. The City and its partners should also encourage all public sector and major private sector employers to publish annual information relating to wage and salary differentials within their organisation."
- In York, the Commission asks the City Council to "make York a Living Wage City and inspire Yorkshire to become a Living Wage Region."

Action on fair pay is also being taken by local authorities without Fairness Commissions, following the recommendations of the government-commissioned Fair Pay Review. Currently, the highest pay ratios between highest and lowest paid employees in the public sector, of around 15:1, are found in universities and institutes of higher education – with many local authorities having pay ratios of around 10:1. In contrast, the average top-to-bottom pay ratio was 262:1 in the FTSE 100 companies who responded to a survey conducted by One Society and the Ecumenical Council for Corporate Responsibility.

A recent report by One Society,⁸ based on a survey of pay policy statements published by the 174 principal local authorities in England and Wales, reports that:

• One in eight have reduced the pay of chief executives and set a goal of a pay ratio (top to median and/or top to bottom);

- One in five have made a policy commitment to pay staff the living wage;
- One in fourteen require contractors to pay a living wage; and
- One in nine are considering requiring contractors to pay a living wage.

Some local authorities are using their influence to encourage local employers to follow suit. The Mayor of London, for example, on behalf of the Greater London Authority, has written to large employers, and the GLA has urged the Mayor to promote a 'Fair Pay Mark' for businesses and other employers.

A challenge to the wider adoption of a living wage is cost. A recent report estimates the impact on wage increases across different sectors.¹ In the construction, software and computing, banking and food production sectors, where there are relatively few low-paid workers, implementing a living wage would only increase average wage bills by 1% or less. In sectors where low pay is more of a problem – general retail, food and drug retail, and bars and restaurants – wage bill increases could be as high as 6%. This is shown by Scenario 1 in Figure 2 below. The authors of the report suggest that a phased implementation of 90% of the living wage would add only a maximum of 2% to wage bills, as shown in Scenario 2 below. This would allow employers time to reduce other costs and see any benefits in increased productivity and retention.



Figure 2: Average firm-level wage bill increase by industrial sub-sector

Source: Pennycook, M. (2012), What Price a Living Wage? Understanding the impact of a living wage on firmlevel wage bill, IPPR and the Resolution Foundation.

As the Resolution Foundation and Institute for Public Policy Research point out:1

"At their best, living wage campaigns are about more than wages. The greatest successes in securing the living wage have been made through bottom-up processes of organising and campaigning. These processes have sought to involve low-paid workers directly in the struggle to improve their own wages, as well as building broader alliances with a diverse mix of unions, faith organisations and community groups. This must remain at the heart of the living wage idea and the process of securing a living wage should be seen as a first step towards shifting power and resources to those who typically lack both." In addition, being paid a living wage means more than just extra cash. In an article in the Observer newspaper,⁹ Dawn Watson, 51, who works as a general care assistant, reported how her "wage packet saw a dramatic and permanent increase of £200 a month, earned for the same job, and the same hours" after her employer adopted a living wage policy. "It helps with the cost of everyday life," she said "but it also makes me feel valued, better in myself."

An independent 12-month Living Wage Commission was established in 2013 to further investigate the potential a Living Wage holds for Britain's five million low paid workers. www.livingwagecommission.org.uk

Conclusion

Despite the entrenched nature of health inequalities and the current financial difficulties brought about by the economic recession and budget cuts, local authorities have new opportunities to tackle the social determinants of health as they take on the remit of protecting and promoting public health. Already, local authorities are moving beyond the rhetoric and lip service paid to issues of fairness and equality and are taking direct action to reduce social inequality. **By committing to paying a living wage themselves, and encouraging the same from local employers and those with whom they have contractual relationships, local authorities can lead the way.** Their actions, in this regard, have the potential to improve the quality of life, social cohesion and health and wellbeing of the population.

Note on the author

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The Equality Trust www.onesociety.org.uk/research/

One Society www.equalitytrust.org.uk/resources/publications

Living Wage Foundation, Citizens UK www.livingwage.org.uk/

Living Wage Commission www.livingwagecommission.org.uk

UNISON, Campaigning for a Living Wage, provides support to students and others campaigning for the living wage at universities and other employers. (Note: many universities are now also paying the living wage, following campaigns led by citizens' groups, students and unions). www.alivingwage.co.uk/index. asp

THE IMPACT OF EARLY CHILDHOOD EDUCATION AND CARE ON IMPROVED WELLBEING

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SUMMARY

My one suggested intervention for the new health and wellbeing boards is to **focus resources on improving life chances in early childhood** through the universal provision of early education centres that integrate education, child care, parenting support and health services.

There are great differences in the health and development of individuals, linked to their social origins. Despite decades of social and educational reform, there has been little progress in equalising opportunities. The impact of social origins on child outcomes and wellbeing have persisted, and even increased. In this proposal I argue that:

- Learning capabilities are primarily formed during the first years of childhood and this is the most effective time to improve the lives of disadvantaged children;
- The imperative to act is not only educational and social, but economic too;
- Providing *any* child care or pre-school education is not enough. The *quality* of preschool is critical for longer-term beneficial effects – ideal systems combine quality, affordability and accessibility;
- The home learning environment can have an even greater impact on child development, but it is harder to influence. The best outcomes are when the home learning environment and early childhood education and care are all supportive of the child's development;
- England has transformed its early childhood services. Sure Start centres have been a key component in bringing together local health, education and social welfare services for families with young children initially in disadvantaged areas, and then universally as children's centres; and
- Early evaluation showed that, when focused only on deprived areas, the centres helped poor children, but not the very poorest. However, a later study showed real improvements, including in health, parenting and behaviour. Inter-agency collaboration, quality and large scale provision were important factors for lasting success. School readiness assessments also revealed improvements at whole population level, with the poorest children benefitting most.

In conclusion, much evidence supports the case for the provision of universal and high quality early childhood education and care. This is because of its impact upon the wellbeing of the population as a whole, and its even greater benefits for children from disadvantaged backgrounds.

Introduction: the importance of early childhood to equality and prosperity

My proposal is based around focusing resources on improving life chances in early childhood. Doing so effectively will reduce inequality, increase wellbeing and enhance economic productivity.

The skills needed for good life chances are increasing and becoming more complex. However, there are great differences in the health and development of individuals, linked to their social origins. Poor children are less likely to be successful in school. They are more likely to have poorer health. And they are more likely to engage in crime and other problem behaviour later in life.¹ The stress of living in poverty can shape a child's neuro-biology, leading directly to poorer outcomes in adulthood.² In addressing these issues, policies relevant to social exclusion, educational reform and public health need to be integrated.

Despite decades of social, educational and public health reform, there has been little progress in equalising opportunities. The impact of social origins on child outcomes and wellbeing is persisting, and even increasing. The consequence of these inequalities is an enormous waste of talent. The potential contribution to society of individuals who grow up in disadvantage is far greater than that which is often realised. There is also an extra load on society's resources as people from disadvantaged backgrounds frequently show greater need for state resources throughout their lives.

There is both a moral imperative – how to reduce inequality and make peoples' lives more fulfilled, and a social and economic imperative – as societies with more disadvantage and poorer skills are less able to adapt to a world demanding higher levels of productivity to maintain living standards. These problems are exacerbated over time as increasingly technologically advanced societies need more adaptable and technically skilled populations. In reality, the aims of equality and future productivity merge. Policies that recognise that learning capabilities are primarily formed during the first years of childhood, and which act to improve life chances, serve both of those goals.

Childhood development and inequalities

Children do more or less well in physical, psychological and social development depending partly on their biological endowments and partly on developmental contexts. Children from poorer backgrounds are likely to grow up in less nurturant environments, with more limited opportunities, leading to poorer outcomes and reduced life chances. Findings from neuroscience, developmental psychology, education, and economics indicate that the earliest years of life are the most effective time to improve the lives of disadvantaged children.^{2,3}

As inequality rises, parents' capacity to invest in their children becomes more unequal. The effect is especially pronounced at the top and bottom of the social structure.⁴ The rich can buy a secure future for even the least gifted offspring; the poor become ever more remote from opportunities. Moreover, inequalities in wellbeing cannot be reduced simply to a question of what happens to the poorest. Socio-economic variation is a gradient rather than a 'cliff' over which very poor people have fallen;⁵ the highest quintile do the best, the next quintile a bit less well, and so on. This is complicated, as other social characteristics – family status, ethnicity, gender, migrant status and disability – also vary and interrelate with socio-economic status in a complex manner (see, for example, James Y. Nazroo's proposal on ethnic inequalities in health in this publication).

However, we should not regard children as entirely passive products of their environment. They shape their own contexts to a large extent, as they themselves are shaped. Any given
family, childcare or school context will not only have different impacts upon different children, but will be changed by the children according to their characteristics. Thus children's wellbeing is partly determined by their environment, and partly by how different children interact with their environment. The problem is not just about the very poorest, and the contexts are by no means deterministic. Many children from poor backgrounds beat the odds and grow into productive, healthy adults. This may be due to their own personal agency, or, indeed, protective factors within the family and/or community, but evidence is accruing on the benefits of early childhood education and care (ECEC).

Early childhood education and care – international experience

Countries vary enormously in their provision of early childhood education and care (ECEC). Almost every developed country has set up some form of early childhood education for children below the age of compulsory schooling. The differences lie in the organisational forms, the level of state subsidy, the responsible authorities and the age at which children access provision. In many countries, public authorities offer subsidised places for ECEC from a very early age – often from the end of statutory maternity leave. Yet, even in the most developed countries, the ECEC provided is often of poor or modest quality and not tailored to optimise children's development and wellbeing. The ECEC provided must be of adequate quality if it is to produce benefits for children.

An ideal system would involve high quality, affordable and accessible ECEC that is sufficiently flexible for either parent to return to work. The Nordic countries tend to have the best systems that combine all these features. Some wealthy countries – including the UK – have greatly improved their systems in the last decade, but still have much poor quality ECEC and some way to catch up. Poorer countries vary in their provision of, and attitude to, non-family care for very young children. Nonetheless, evidence suggests that after two years of age, spending some time each week in stimulating and high quality group care benefits all children, and helps children from poorer backgrounds to gain more. It is also a major poverty reduction strategy, enabling parental employment and so increasing family income. Ideal provision includes multiple uses for childcare centres, such as advice and support on parenting, health and diet. In the UK, wider community use should also occur in children's centres, but often does not.

The assumption behind much post-war policy in the developed world has been that equalising educational opportunity would itself eliminate the effect of poverty on educational and occupational success, with no need to alter income distribution. Research on inter-generational mobility indicates that this has been overly optimistic. In the US, the UK and France, the association between parental income and their children's income (as adults) is exceptionally strong.

This is especially the case in comparison to the Nordic countries, where research shows that social inheritance effects* are substantially weaker than in other developed countries. Esping-Andersen⁶ suggests that the key to the success of Nordic countries in breaking the link between parental attainment and children's outcomes may be the provision of

* i.e. the idea that children or parents with fewer/less developed social and economic resources run the risk of remaining in similar positions to their parents.

universal and high-quality ECEC. Esping-Andersen notes that the period when inequality in children's cognitive attainment decreased roughly corresponds to the period when universal ECEC came into place. Experience in Finland suggests that polarization of child outcomes can be minimized even when the average performance is very high.

Several studies document how the benefits of ECEC for long-term educational, occupational and social outcomes for disadvantaged children persist into adulthood.^{7,8} Such programmes are cost-effective in that the savings outweigh any costs.⁹ The benefits in adulthood can include those relating to incomes, status, health and crime. They can extend to subsequent generations too, for instance, through their impact as parents on their children's education. General population studies find benefits for school readiness^{10,11} are greater if pre-school started between 2 and 3 years of age.¹² A meta-analysis of 125 early childhood education studies in the USA¹³ found that early childhood education was associated with substantial effects for both cognitive and socio-emotional outcomes. Preschool programmes appear to have more impact if they have an emphasis on educational experiences directly delivered to the child.

The effects associated with ECEC provision are long-term. Studies have associated attending a pre-school with increased qualifications, employment, and earnings up to age 33.¹⁴ In France, pre-school (école maternelle) is a universal, free education programme with access from age 3. During the 1960s and 1970s, large-scale expansion led to the proportion of 3-year-olds enrolled increasing from 35% to 90%, and of 4-year-olds from 60% to 100%. State-collected data reveals sizeable and persistent effects, with preschool helping children to succeed in school and obtain higher wages in the labour market. Pre-school also reduced socio-economic inequalities, as children from less advantaged backgrounds benefitted more than the more advantaged.¹⁵ Likewise, in Switzerland, preschool expansion was associated with improved inter-generational educational mobility. Children from disadvantaged backgrounds benefitted more than the preschool was associated with implementation of pre-schools by municipalities revealed that pre-school was associated with strong benefits for later educational and labour market outcomes.¹⁷

Similar evidence exists outside the developed world. Pre-school has been shown to boost primary school achievement in Bangladesh,¹⁸ with similar results being reported for ten other countries.¹⁹ Examination of pre-school expansion in Uruguay and Argentina has also revealed clear benefits in terms of improved educational attainment.^{20,21}

The benefits associated with high quality ECEC are wide-ranging, covering cognitive, educational and social development. This is because different aspects of a child's development are inter-related. Development in one area helps development in another. However, it is difficult to state precisely the relative size of effects in different areas because of the difficulty in precisely measuring different aspects of development.

The importance of quality and the home learning environment

The evidence shows that just providing any child care or pre-school education is not enough. Studies from the USA,²² England,^{23, 24} Northern Ireland²⁵ and Denmark²⁶ indicate that the quality of pre-school is critical for longer-term beneficial effects. The Organisation for Economic Cooperation and Development (OECD) examined educational attainment

data for 65 countries. It found that literacy at age 15 was strongly associated with preschool participation in countries where a large proportion of the population use it, where it is used for more months, and where there were measures to maintain its quality. The OECD concluded that widening access to pre-school can improve performance and reduce socioeconomic disparities, so long as extending coverage did not compromise quality.²⁷

The importance of the quality of early childhood education and care is an example of the critical role of implementation in service provision. Implementation is key to the success of any service, whether in the private, voluntary or public sector. For example, it is of little help having a hospital that cannot provide effective medical treatment. Similarly, a children's centre that does not provide children with experiences that foster their development is useless. Hence, the key to the provision of high quality early childhood education and care is the structuring of the environment to optimise the experiences of children and foster their development.

In addition to ECEC, the home learning environment is important in helping children develop. Where children are provided with a range of learning opportunities in the home, their cognitive, language and social development are all improved.²⁸ In fact, the home learning environment can have up to twice the size the effect of ECEC. However, in a democratic society, it is difficult to legislate for parenting, but relatively straightforward to legislate for the provision of ECEC.

One factor that differentiates more effective ECEC is staff providing parents with help concerning home experiences that can promote children's learning.²⁸ The peer group learning that occurs between parents who meet at their children's ECEC centre can also help parents in developing their knowledge and parenting skills. To some extent, good quality ECEC can compensate for inadequacies in the child's home learning environment. However, a child will show the best outcomes when the home learning environment *and* ECEC are supportive of the child's development. Both of these influences can have consequences for children. In the area of improving the home environment, a recent review²⁸ has recommended that:

- there is more training of staff (e.g. health visitors, social workers, children's centre staff) to work with families on supporting their children's learning;
- there should be early identification and targeting of children at risk, and multi-agency teamwork to address parental support; and
- home visiting can improve child outcomes, especially for younger children or where
 parents do not seek support from centre-based provision. But it needs to be wellfocused and of appropriate intensity and quality.

The English experience and Sure Start centres

England has undergone a considerable revolution in its early childhood services in the last 15 years. Early education and childcare provision have been brought together under a common regulatory framework, and services have been integrated across agencies, particularly through the Sure Start programme. Historically, early education was delivered through the education system, with a schedule of half day sessions, Monday to Friday, during school terms. Childcare was delivered either through social care or private and third

sector providers, and was delivered more extensively, full- or part-time, and during the whole year. Research from The Effective Provision of Pre-School and Primary Education (EPPE) project found that the quality of ECEC provision had a long-term impact on children's cognitive and social development.²⁹ The response to these findings involved several policy changes, enshrined in legislation (Childcare Act 2006).

Integrated working was initiated through the Sure Start initiative. At central and local government levels there was an historical problem with 'silo working', i.e. particular departments were only interested in the service for which they were responsible, not the family or child as a whole. For families with young children, access to health, education and social welfare were all important. But these services typically operated separately to one another, creating a fragmented experience for the family, and wasting the time of professionals. Often there was duplication of requests for information and of assessments, with some families receiving no service because they were not in touch with the right agency.

Sure Start was the first programme designed to address this issue. Aimed initially at areas of the country with high levels of child poverty, the programme was designed to bring together health, education and social welfare services, at neighbourhood level, for all families with young children. Sure Start put a strong emphasis on involving local parents in the programme to make it relevant to local needs and circumstances. Indeed, the variety of different ways of delivering Sure Start at the local level proved to be a significant challenge in the evaluation of the programme. There was also an emphasis on improving parenting skills, along with providing support for parents to reduce pressures on family life. Sure Start proved to be enormously popular with parents.

In 2004, the government published a strategy announcing the development of a national network of Sure Start Children's Centres. The thinking was that, previously, by concentrating only in poor *areas*, many poor children living in small pockets of deprivation elsewhere would miss out on the service. It was also recognised that most families with young children need support of some kind, and that offering that support more widely would be of benefit.

Evaluation of the very early stages of Sure Start³⁰ indicated mixed success. Sure Start was beginning to have positive impacts on a majority of the children, particularly children of non-teen mothers. Children had greater social competence, fewer behaviour problems, and parents exhibited fewer negative parenting techniques. However, children of teen parents were doing less well than their counterparts in non-Sure Start areas. These children had less social competence, more behaviour problems, and poor verbal ability. Sure Start seemed to be working for poor children, but not the very poorest of children.

As a result of both the early Sure Start evaluation evidence and the EPPE results showing that integrated children's centres were a particularly effective form of early years provision, the Children's Minister decided that all Sure Start programmes were to become children's centres. These would have a more clearly specified set of services and clearer integration of health, child care and education, and parent support services.

This change became operative in 2006 and was to profoundly influence the future of Sure Start. The subsequent second impact study showed real improvements.³¹ The 3-year-old children of teen and non-teen mothers, and all sections of the population served, showed improvements. These included:

- child positive social behaviour;
- greater child independence and self-regulation;
- improvements in the home learning environment;
- · better parent-child relationships, and less harsh parenting; and
- increased service use.

Later evaluation findings showed that, when children were 5 years old, there were improvements primarily for parenting and for child health, with lower rates of overweight children and better general health. For parents, there was less home chaos, better home learning environments, mothers reporting greater life satisfaction, and a reduction in worklessness, compared to similar families without Sure Start.³² Similar results for parenting were also found when the children were seven years old.³³

The disappointing aspect of the Sure Start evaluation results was that improvements in child outcomes overall were not maintained. This appeared to be due, at least partly, to not all Sure Start programmes providing sufficiently high-quality ECEC. Where children did receive higher quality ECEC, there was higher language development.³⁴ Thus, Sure Start needed to improve the implementation of services in order to produce the desired results. In particular, the variation of results across the many Sure Start programmes indicated that, for good child outcomes, there needs to be: inter-agency collaboration, especially between health and education; the provision of high quality services that are replicable on a large scale; and provision that can impact upon the majority of the population. This latter point is particularly relevant to interventions going to scale and serving substantial populations. Currently, there is great scope for improvement in inter-agency collaboration.

In addition, in England there have been small but ongoing improvements in the results of 'school readiness' assessments of all five-year-olds. Most importantly, there has been a small but significant narrowing of the gap in results between the poorest children and their better off peers. By 2010, 47% of children in the most deprived areas were working securely in the main areas of learning, compared to 39% in 2008 – an increase of eight percentage points. For children in other areas, there was a six percentage point increase from 55% to 61%.³⁵ While these changes were small, they indicated that a series of policies, including universal provision for 3 and 4 year olds, and the multi-agency approach of Sure Start, were beginning to show results at a whole population level, and that the poorest children were benefitting most.

Current issues with Sure Start Children's Centres in the UK

Sure Start improved with the advent of the Children's Centre model of service delivery. However, in 2008 – the year the economic crisis hit – the government of the time decided to capitalise on the popularity of Children's Centres by setting a target of 3500 Children's Centres by 2010. The consequence was that local and central government became involved in a numbers race, where the criterion that received attention was whether local authorities had met their target for numbers of Children's Centres. Inevitably, many of these new so-called Children's Centres were a long way from the full-service model that was originally found to be successful. Further cuts have followed since the 2010 change of government, with new policy priorities. Of the remaining Children's Centres, the majority do not contain children, i.e. they have no child care or early education facilities. At the recent parliamentary education committee on Children's Centres, the current minister (Elizabeth Truss) said "only 4% of early education and childcare is actually provided by children's centres", and the Chair (Graham Stuart) said "more than 2,000 of the 3,000 odd centres do not even have childcare".³⁶ Local authorities rely on other providers to supply these services.

What appears to be lost in treating Children's Centres as a political football is that the fundamental driver of child development is children's daily experiences. So, in order to improve child outcomes, the child's daily experience needs to be improved. One way to do this is through high quality early childhood education and care. Most Children's Centres are not in a position to provide this service, as they have largely abandoned this responsibility to others. This is in conflict with the available evidence described in this chapter - that high quality early childhood education and care can benefit all children, and the most disadvantaged benefit the most. Also, the evidence from the National Evaluation of Sure Start was that, where children in Sure Start areas were using high quality early childhood education and care, their language development improved.³⁴ In the years 0–5, language development is undergoing rapid development and is greatly affected by the child's language-related experiences. Language development, in turn, affects cognitive and social development. Hence, a child with poorer language development is also likely to lag in cognitive and social development, with negative consequences for the child's "school readiness", as well as more global aspects of development. As the child's daily experiences are the driver of child development, optimising children's daily experiences to facilitate development should be the guiding principle of children's services, including Children's Centres. At the moment, this principle is being ignored in the political bureaucracy that dominates this area.

Conclusion

An increase in available evidence has fuelled interest in the benefits of universal provision of pre-school education. It is seen as a means of advancing the school readiness and later attainment of children, and supporting their subsequent social, economic and occupational success (e.g. 37). Indeed, some argue that pre-school experience is critical for children's future competence, coping skills, health, success in the labour market, and consequently the social and economic health of the nation (e.g. 38, 39, 40).

In a technologically sophisticated world, a population's educational attainment is likely to be increasingly important for a nation's economic development. The Chair of the US Federal Reserve argues that: *"Research increasingly has shown the benefits of early childhood education and efforts to promote the lifelong acquisition of skills for both individuals and the economy as a whole. The payoffs of early childhood programmes can be especially high."*⁴⁰

Other countries, such as China,⁴¹ appear to have taken this perspective on board. Development of pre-school provision is viewed as a prerequisite for the improvement of the educational, and subsequent occupational, profile of the population, with consequences for national wealth and wellbeing.

Pre-school education is not only an intervention for disadvantaged groups and a means of advancing educational and social development for all, but part of the infrastructure

for economic development. My one suggested intervention is thus to focus resources on improving life chances in early childhood through the universal provision of early education centres that integrate education, child care, parenting support and health services. Doing so effectively will reduce inequality, increase wellbeing and enhance economic productivity.

Note on the author

Edward Melhuish is a Professor at Birkbeck, University of London, the University of Oxford and University College Oslo. He is an internationally recognised expert in the study of child development and social policy. His studies, often longitudinal, consider the consequences of family, community and pre-school experiences for child development, and also policy implications, and have influenced several UK acts of parliament. He has over 250 publications. He has contributed to social policy for young children and been a scientific advisor in Norway, Germany, Netherlands, Finland, Portugal, Australia, Korea and Chile, as well as to the European Commission, OECD and WHO.

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20MPH SPEED LIMITS FOR CARS IN RESIDENTIAL AREAS, BY SHOPS AND SCHOOLS

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SUMMARY

My one suggested intervention is the implementation of 20 mile per hour speed limits where 30mph ones have usually been in place.

Over 1,900 people died on Britain's roads in 2011, and the proportion of those that are pedestrians has risen. Introducing 20mph zones would save lives, prevent injuries and reduce health inequalities in the process. It is a low cost measure and a devolved power that can only easily be enacted at the local level. This proposal sets out the case and some of the practicalities for using it:

- Road traffic accident rates are substantially higher in rural areas than urban ones, and they are the single largest cause of death for children and young people aged 5–25. Within urban areas, where the majority of the population of Britain lives, children and young adults are more at risk within poorer localities than richer urban neighbourhoods.
- Death is much less likely if a pedestrian is hit by a car travelling at 20mph, than at 30mph or more, and cyclists are far safer if travelling with traffic that does not exceed 20mph;
- Lower traffic speeds bring many other benefits: less congestion; less air pollution and CO₂ emissions; stronger communities; more walking and cycling; and reduced obesity;
- Councils are already bringing in 20mph areas, and, whilst evidence is limited because implementation is recent, what there is shows marked reductions in deaths and casualties; and
- Introducing 'sign only' 20mph areas is relatively easy, and support for them includes positive messages from police officers and resource commitments from Directors of Public Health. However, changing perceptions of appropriate driving speeds will be a long-term challenge.

In many urban areas in mainland Europe, 18.6mph (30km per hour) is now normal in residential areas. 20mph will become normal in most residential areas in Britain also. All that is in question is how many people will have to suffer before that occurs.

Introduction

The number of people dying on Britain's roads is increasing. In 2011, the number rose by 3%, so that 1,901 people were found dying on the roads in that year. Within that total, the rise in pedestrian deaths was much faster – up by 12% to 453 deaths in 2011 – with children and older people suffering the greatest rises.¹ Deaths for cyclists also rose in the year to 2012, although more people were cycling.

Although these rises are set against a backdrop of normally falling fatality rates, even if death rates continued to fall, I would still propose the intervention that I set out, for the many reasons given below. However, as death rates *are* rising, there is now no excuse not to implement this most effective public health policy as quickly as possible.

The focus of this proposal is on an intervention that, under current UK law, can only easily be enacted at the local level. It is a devolved power. This is the implementation of 20 mile per hour speed limits where 30mph ones have usually been in place. It is making the case for one of the cheapest and most effective methods for improving public health today: slowing down cars. A slow-down would reduce inequalities within cities because it tends to be in the poorer parts of cities that people are most at risk of being hurt or killed by cars.

Besides reducing deaths and injuries, any widespread slow-down of fast cars would reduce the indirect harm that comes from them, including that affecting ill health suffered by the family and friends of those who are victims of road crashes.² Other interventions are needed for rural areas where, often, speed limits are above 30mph to begin with. The 20mph policy should be of interest to the general public, local policymakers and Directors of Public Health. Where there is the default 30mph speed limit, it should in almost all cases become 20mph.

Why this intervention and how does it relate to health inequalities?

"Road traffic casualty rates show steep social gradients, with more disadvantaged areas showing higher rates than the most advantaged areas of England..." 73

There are many interventions in British society that I would advocate to improve public health. But, when asked what single policy I would suggest, I always reply "20mph" or, if I'm being a little more verbose: "twenty's plenty". This normally elicits some surprise. The person I am speaking to usually expects me to suggest reducing poverty by reducing unnecessary privileges for the rich, narrowing economic inequalities, raising social mobility, or improving health services or education; not simply slowing cars down. All those other things are very laudable, but if you want to do just one thing, then the thing you can actually do, the one thing that has now been done in over one hundred local authorities in the UK (including in 2013 in the City of London), the thing that makes a difference that you can feel, see and measure straight away, is to stick a sign that says 20mph on a circular piece of plastic over the 30mph signs where you live. And, fortunately, it is now (almost) as easy as that.

Before moving to Oxford, within the city in which I had lived for ten years, Sheffield, in the years 2005–2007 inclusive, some 69 children under the age of ten were recorded as being victims of a road traffic crash in the poorest constituency (Brightside). In contrast, in the richest constituency (Hallam), some 11 children were harmed over the same time period.⁴ Both constituencies – Dave Blunkett's and Nick Clegg's respectively – have a very similar number of children, so these differences in child deaths are not about population size. Reducing speeds would protect children and adults in both areas, but the greatest absolute benefits would be felt in the poorer areas. The same social inequality trend can be observed for adults:

"There is also an inequalities gradient for men aged 20 to 64 years, where it has been estimated that, annually, there would be 600 fewer deaths nationally if all had the same road traffic collision probabilities as Social Class I."³



Figure 1: Deaths of children aged 11 to 16 in Britain not attributed to disease 2006–7

Source: Dorling, D. (2011), PACTS' 21st Westminster Lecture.

Step back a minute. Why would you want to slow traffic down to 20mph? Surely that would just be annoying? Well, take a look at Figure 1, above.⁵ By grouped cause of death, the biggest killer in Britain of children between 11–16 years old (and, in fact, anyone between the ages of 5 and 25) is road traffic crashes. That includes a vehicle hitting a pedestrian, a pedal cyclist being hit by a vehicle (most often a car, sometimes a lorry), or the death of a passenger or driver in a vehicle during a crash. For children, the risk of accidents is higher in faster traffic environments because their eyes are not developed enough yet to be able to judge speeds over 20mph.⁶

When hit by a vehicle travelling at 40mph or above, adults die half the time. In collisions at 30mph, small children are killed in most cases. It would be great to get 40mph roads down to 30mph, and faster roads down to 55mph, but, for now, let us concentrate on most of Britain's residential roads and ensure that speed on them can be reduced to 20mph. The reason is simple: when vehicles are travelling at 20mph or below, most adults and children survive collisions (see figure 2).⁷

During the 1970s, a pedestrian hit by a car in Britain travelling at 30mph had a 20 per cent chance of being killed, while at 40mph there was an 80 per cent chance of death.⁸ Radical improvements in emergency medical care, and some changes to the design of cars, have improved those survival chances. However, as improvements to all other medical care has also increased, car crashes are now responsible for a higher proportion of deaths than they were in the 1970s.

Today, you have a 50% chance of not surviving a crash at 40mph, but the increase in the risk of death factor for a rise in speed between 20mph and 30mph is now larger than it was in the 1970s – the death risk rises by a factor of seven. For the over 60s, a rapidly increasing proportion of the population, the risks are higher. Furthermore, 50% of all pedestrian fatalities and 80% of serious injuries, due to the frontal impact of a car, are at 30mph or below, but only rarely at 20mph and below. There are many reasons to want to slow down cars in areas that are currently 30mph, or unnecessarily 40mph, other than saving lives (as I will cover later), but saving lives concentrates the mind.



Figure 2: Risk of pedestrian fatality calculated using logistic regression from Ashton and Mackay data.

Note: dashed lines give margin of error.

Source: Richards, D.C (2010) Relationship between Speed and Risk of Fatal Injury: Pedestrians and Car Occupants, Road Saftey Web Publication No. 16, Department for Transport, London.

As cars are made stronger and more like safety cages, an increasing proportion of people killed or seriously injured (KSI) on roads are pedestrians or cyclists. By 2010, over a third of reported KSI cases were pedestrians or cyclists, up from 28% in 2003. As Figure 3 shows, in urban areas such as Greater Manchester and the West Midlands, a majority of people killed or seriously injured on the roads were not travelling in a car or other motor vehicle.⁷ In November 2012, when Olympic Gold Medal-winning cyclist, Bradley Wiggins, was knocked off his bike, there was a sign of a change in national mood. Cyclists are at most risk in cities, as it is in cities where they mostly cycle (see Figure 3).



Figure 3: 2010 pedestrian and cyclist KSI casualities as percentage of total KSI (killed and seriously injured), by police force

Source: Richards, D. C. (2010) Relationship between Speed and Risk of Fatality Injury: Pedestrians and Car Occupants, Road Safety Web Publication No. 16, Department for Transport, London.

Broader benefits of 20mph

Reducing deaths on the roads is just the first of a huge number of reasons why introducing 20mph limits across towns, cities and villages makes sense. People should not have to risk such a high chance of death or serious injury wherever and whenever they want to walk or cycle – whether that is to school, to work, to shop or to visit each other's homes. The following list is just a small sample of the many useful briefings made available on the 20's Plenty website:*

- 20mph is better for drivers drivers cut their spacing as braking distances contract. Shorter gaps mean more vehicles can use the available road space, reducing standing traffic.⁹
- Filtering at junctions becomes easier. It is far easier for motorists to pull into traffic travelling at 20mph than at 30mph. It is also much easier for cycles to avoid being cut up by cars and lorries when they are travelling more slowly and turning left less rapidly.¹⁰
- Motor traffic volumes decrease, since slower speeds encourage active, sustainable and shared travel. Walking and cycling levels rose by up to 12% after Bristol's 20mph limit was introduced.¹¹
- Buses operate more efficiently. The reduced length of traffic queues means that bus journey times decrease, and become more reliable. Buses become a more attractive alternative to the car.
- 5. More children are likely to walk or cycle to school on their own. Parents are not tied to the school run, and children have their freedom increased.
- Older people are less fearful of going out of their home, trying to cross the street, or of driving their own cars at a reasonable (i.e. slower) speed, rather than always at 30mph.
- 7. All those people who are afraid to cycle become more likely to cycle. The population as a whole benefits from not sitting in cars and getting fatter and fatter.
- 8. Pollution is reduced, less petrol is consumed, and ultimately fewer wars need be fought over oil. Areas like the Antarctic may not need to see oil wells and pollution engulf them.
- 9. Neighbourhoods work better locally. There is a greater incentive to use local shops rather than drive to supermarkets. 20mph is very good socially, locally as well as environmentally, globally.
- 10.People learn that, if they can alter their environment to make it more sociable in terms of speed, then maybe there are other things they can change.

The introduction of 20mph zones: examples of where it has been done and the outcomes

You introduce 20mph by local councillors voting it through. To be able to vote it through they need to be convinced of the evidence, and to know that they are not alone in implementing it. In that respect, it is not just in towns that 20mph is being introduced, but also in many villages:¹²

^{*} www.20splentyforus.org.uk/briefings.htm

"From February 2011 to June 2012, twenty five 20mph limits without traffic calming measures were implemented in towns and villages across the East Riding of Yorkshire. Limpley Stoke is amongst six Wiltshire villages where limits were agreed in 2010. Suffolk are turning Middleton cum Fordley and Fressingfield 20mph. 20mph limits will be installed in Dunbar, East Lothian. City of York Council plans to limit its larger satellite villages – thereby extending 20mph beyond the outer ring road".

Councillors also need to know that it is not just happening, but *working* in other areas. They need to know about evidence from robust designs,¹³ but they also need more easily understandable examples of what works. In Burnley, Lancashire, just the pilot scheme to introduce 20mph from February 2011 to April 2012 resulted in this statistical release:

"... the overall figures fell from 46 casualties a year, with six deaths and serious injuries, to 25, with two deaths and serious injuries, and no child deaths and serious injuries." ¹⁴

At almost the same time in Newcastle upon Tyne it was recently reported that: *"The number of car-related accidents on Newcastle's residential streets has dropped by more than half in some areas of the city following the council's introduction of 20mph speed limits"*.¹⁵

Councillors, the public and activists can look to many parts of Britain now to see the effect on public health and inequality of 20mph being introduced.¹⁶ But if they want to see the long-term effect of a whole series of sensible road safety policies, then they need to look a little further away, to Sweden – where 30kmph (18.5mph) is common in residential areas. Figure 4 shows what is achieved when, among other factors, such speeds become normal.



Figure 4: Children killed in road traffic crashes in Sweden, 1956–2005

Source: Johansson, R., (2009) Presentation: Chief Strategist, Road Safety Division, Swedish Road Administration, Improving Road Safety in Scotland: Prevention and Best Practice. Edinburgh, Tuesday 3rd February

Figure 4 shows how the number of children killed on the roads in Sweden reduced from over 120 a year in the 1950s and 1960s to less than ten a year now (despite a large rise

in the Country's population over the same period). That rate has fallen extremely quickly. However, this number of deaths is still viewed as too many in Sweden. Its policy is that no one should die on the roads. In Britain, deaths and injuries are viewed as a price worth paying by cost-benefit modellers. Another way is possible.

In contrast to Sweden, the high number of deaths from fatal traffic accidents and homicides in the USA substantially account for why many adults die young there, with high variation in the age at which people die.¹⁷ In other words, deaths on the road in the USA (as well as homicides) are so important that they explain a large part of the difference in mortality rates between Sweden, which has one of the highest life expectancies in the rich world, and the USA, which has the lowest of life expectancies among all of the world's richest 25 large countries.

Finally, there is a 'safety in numbers' argument to be made for reducing road speeds, which strengthens the case for the more widespread introduction of 20mph zones. As the numbers and proportions of both pedestrians and cyclists increase, drivers become more aware of these groups. And, as they do, the casualty rate per unit of exposure decreases.¹⁸ Safety improves as drivers adapt their behaviour – and the reality of roads less resembles the environment exposed in Figure 5.¹⁹ In 30mph speed areas you need to see the urban environment as being full of chasms.

Figure 5: How we might view roads had we more time to evolve with them

The wrong way to see a road



Note: We have learnt to be afraid of heights because those people who were not afraid of heights got to become parents a little less often than those who were afraid. Being hit by a car is a little like falling horizontally. Not something we have evolved to fear.





Source: Johansson, R., (2009) Presentation: Chief Strategist, Road Safety Division, Swedish Road Administration, Improving Road Safety in Scotland: Prevention and Best Practice. Edinburgh, Tuesday 3rd February

So what do you have to do to actually introduce 20mph limits in your areas?

Probably the most efficient, and certainly the lowest cost way to bring in 20mph is simply to change the road signs. Traffic calming with speed humps and mini-roundabouts is very expensive and this tends to limit the size of the area which is calmed. There may be

places where such physical calming is warranted, for instance to force down speeds at accident black spots, but simply changing aggregate behaviour is possible by shifting what is perceived as an acceptable norm. It has been done with sanitation, spitting and (more recently) smoking, so why not with driving? You can gain 20mph in your area and then sit back, or you can lobby for it to become the national residential road speed limit.

We are getting very close to the point where it now makes sense as a national limit. The tipping point may well be the decision reached in summer 2013 for all the roads in the City of London to switch to be 20mph. Already all the surrounding boroughs other than Westminster have adopted 20mph maximum speeds on all residential roads. If all the residents of, and workers in, the City of London are now to be protected by their area having all streets being 20mph, then why is such safety not deserved by all the rest of us?

There is controversy over what some call 'signs-only 20mph', as most of the evidence that 20mph zones are effective comes from areas where some physical barriers have also been added, such as road humps, to slow down cars and lorries. However, the lack of evidence from signs-only 20mph areas is due to there being fewer such areas as yet, and thus fewer studies. I think we would do best to call one set of areas '20mph physical traffic calmed areas', and the other set '20mph zones' (like 30mph zones).

Government has recently changed the law so that extra 'repeater' poles indicating the new, reduced speed limit need not be erected in 20mph areas. As this change has only just happened, there is a limitation in the evidence as to whether areas with the same number of 20mph signs as 30mph signs work – because, as yet, there are no such areas to test. Nevertheless, there is some evidence about the general improvement that comes when speeds are lowered²⁰ and which suggests humps may not be needed: *"A trial in Scotland of 20 mph (32 kph) limits without traffic calming measures at 78 sites found reductions in speed and casualties, concluding that such limits offer a low cost option for promoting road safety".* In another study,¹³ 20 mph zones in London were found to have reduced casualties by 41.9%. They did this when the gap was measured between areas in which the zones were introduced between 1991 and 2007 and were found not to have increased casualties in surrounding areas.

Evidence will build over time as the number of signs-only 20mph areas grows. There will come a point when so many people are living within 20mph areas that, to avoid confusion as much as to save lives and improve public space, national government will most likely seek to change the default speed where there is street lighting to 20mph, unless otherwise indicated. With a little more agitate and persuasion, that point could be reached earlier, more lives saved, and more areas made more hospitable. There is no rule that says that the UK has to always lag behind other countries in improving the health and environment of its people.

Traffic speeds, communities and public health

As long ago as 1969, while working in San Francisco, Donald Appleyard identified that sociability reduces as traffic increases.²¹ Figure 6 demonstrates this, with the red lines indicating people's movements around their street, and far less people crossing roads to visit or talk to people in busier streets. Appleyard found that "...residents of lightly

trafficked streets had two more neighborhood friends and twice as many acquaintances as those on the heavily trafficked streets".²² He died in 1982, hit by a car the year after his book was published.

Figure 6: Donald Appleyard's measurements of social interaction in different streets



Source: www.carfreeinbigd.com/2012/01/point.html, in turn from Appleyard, D. (1981) Liveable Streets, Berkley: University of California Press

There are so many good reasons to slow vehicle traffic down, to get more people walking and cycling, to make our towns, villages and cities more liveable, that it is hard to know where to begin any list. One novel place to start is with the current obesity epidemic and, as Figure 7 shows, how closely growing obesity can be linked to the growing consumption of gasoline.²³ In contrast to how many die being struck by a car, cars almost certainly kill far more people through the pollution they cause, the exercise they rob us of and, possibly, also through the wars that are fought over the oil to power them. Reducing speeds from 30mph to 20mph is a small step towards mitigating these wider harms.

If we saw cars as being as important an influence on our poor health as we now see cigarettes, we would not have such a benign view of them. But, just as we were once in love with tobacco, so a few may remain infatuated with the motor car. We just don't see the danger in the way we would see it if we had had long enough to develop an evolutionary fear of driving (in the way that many of us have developed a fear of heights – see and imagine driving along Figure 8). Because we do not have this fear, our reflexes are not attuned to 30mph. Instead, we have to slow cars down.





Source: Robert, I. and Edwards, P. (2010) The Energy Glut, The politics of fatness in an overheating world, London: Zed Books

Figure 8: Imagine that this is your carriageway



Source: Johansson, R., (2009) Presentation: Chief Strategist, Road Safety Division, Swedish Road Administration, Improving Road Safety in Scotland: Prevention and Best Practice. Edinburgh, Tuesday 3rd February

There are far wider reasons to support a 20mph speed limit in cities and to bring speeds down outside. For example, to reduce pollution:

"Transport is the only sector where greenhouse gas emissions are rising. When 30km/h (18.6mph) zones were introduced in Germany, car drivers changed gear 12% less often, braked 14% less often and required 12% less fuel. This implies 20mph limits without humps can cut residential transport emissions by 12%. Traffic smooths, gaps

between cars shorten, it's easier to merge and there's less idling with dangerously concentrated pollutants".²⁴

Research over a decade ago made clear that poorer children suffer most: "Although the number of child pedestrian casualties has been falling, this is mirrored by a reduction in walking (e.g. to school) as more children are ferried by car, so it is not clear that roads have become safer".²⁵

Today, directors of public health are increasingly seeing the connection between transport and health, and in some cases agreeing to help fund local road speed interventions: "In Liverpool the Primary Care Trust (PCT) is contributing $40\% - \pounds 665k$ of $\pounds 1.665m - to 20$ mph limits, $\pounds 400k$ (28.5%) of $\pounds 1.4m$ [needed] to implement 20mph signed limits over four years, plus $\pounds 265k$ for perception surveys and extensive public health promotion of 'The 20 Effect' for safer streets".²⁶

Overcoming problems and policing 20mph

Although the 20mph campaign is about local decisions, there are residential roads which are not in local control – these are the trunk (A) roads. However, given that new thinking is driving the introduction of 20mph areas, then new thinking could also bring about a reclassifaction of trunk roads to bring them under local control. New understanding and solutions are needed in other areas too. The geography of car crashes is one example. Maps showing the areas of London with the highest proportions of traffic crashes due to hit and run incidents reveal stark patterns waiting to be better understood (see Figure 9).



Figure 9: Hit and run road traffic crashes in London, 2010 and 2011

Source: Thanks to Vicki Gilham, Principal GIS/CAD Officer, Transport for London, for these. Data source: ACCSTATS 2010

There are concerns that the police may not support 20mph zones because they do not think they can enforce them. Again, it would not be hard to help change their minds – just provide an alternative form of transport and see how they view the road from this vantage point:



Figure 10: How to ensure speed limits are enforced

Source: RoadPeace

Some police officers already get it. Over a year before this proposal paper was drafted for the British Academy, Merseyside Police Chief Inspector John Hogan, said:

"The police welcome any reduction in speed which may drive down the number of people killed or seriously injured on our roads. These 20mph limits will assist us to make the roads of Merseyside a safer place and to deal positively with a small number of offenders who continue to drive with a complete disregard for others".²⁷

Finally, what after 20mph? Formula One Champion Damon Hill suggests that national speed limits outside of urban areas need to be brought down to 55mph: "*Most people aren't safe to drive over 55*" he explained recently.²⁸ And who is going to stop this from happening?:

"The vocal minority who seek a higher speed limit on motorways are the Die-Hards: passionate and knowledgeable about cars in general, and with a strong emotional and physical attachment to their own car. These drivers – predominantly, but not exclusively male – believe they are superior drivers, and that their car reflects their status, intelligence and wealth. Any restrictions on their driving – such as car parking regulations and charges, pedestrian and cyclist priorities, or speed limits – are seen as infringements of their freedom".²⁹

Conclusion

My suggested intervention – **the implementation of 20 mile per hour speed limits where 30mph ones have usually been in place** – would save lives, especially in the most disadvantaged areas and communities, and reduce health inequalities. It would bring about a host of wider benefits, ranging from stronger communities to a better environment, and all at low cost. The policy move of public health powers into local authorities – which already have control of local transport planning – provides a real opportunity to connect transport and health in a stronger and more effective way than ever before.

In many urban areas in mainland Europe, 18.6mph (30km per hour) is now normal in residential areas. It will become normal in most residential areas in Britain also. All that is in question is how many people will have to suffer before that occurs. And, of all those who suffer, proportionately it is children more than any other group – especially children growing up in poorer areas.³⁰

'Birmingham plans for 90% of its roads to have a 20mph limit. The UK's biggest transport authority with over 1 milion residents announced wide 20mph just one week after the City of London made its decision. With Cardiff and Edinburgh saying 20's Plenty too, 20mph is spreading'

20's Plenty for Us Press Release, September 2013

Note on the author

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TACKLING HEALTH-RELATED WORKLESSNESS: A 'HEALTH FIRST' APPROACH

Clare Bambra

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SUMMARY

In this proposal I recommend **taking a 'health first' approach to tackling health-related worklessness, which could help to address socio-economic and geographical health inequalities.** I introduce this case by presenting four strands:

- An outline of the relationship between ill health and worklessness, and their association with health inequalities;
- An examination of the array of welfare to work policy interventions aimed at reducing health-related worklessness, primarily through improving the skills and employability of incapacity-related benefit recipients;
- A presentation of 'health first' as a potential alternative approach to reducing healthrelated worklessness. This employs a focus on improving and managing the ill health of those out of work, first and foremost, before addressing any employability issues; and
- A demonstration of a potentially successful 'health first' approach in action, using a case study of a pilot evaluation of the 'County Durham Worklessness and Health Model'.

My proposal concludes by drawing lessons from this 'health first' approach, arguing that it could be an important way in which Clinical Commissioning Groups, Work Programme providers and local authorities could work in partnership to reduce local health inequalities.

Introduction: an overview of health-related worklessness evidence

There is a large body of international literature on how unemployment results in poorer health and increased mortality.¹ However, the relationship between worklessness and health also runs the other way – that is to say, being sick or disabled reduces an individual's employment prospects. This relationship has been demonstrated, for example, through a study using European Community Household Panel Data from the 1990s. This found that people who developed chronic health problems whilst in employment were twice as likely to become workless within a four year period as those who remained healthy.² Over the same period, women and men in poor health were 60% and 40% less likely, respectively, to enter paid employment than those in good health.²

Mild to moderate mental health problems are the most prevalent causes of 'health-related worklessness'³ – a term used to refer to people who are out of work on a long-term basis (a period of over four weeks) due to a chronic illness or disability⁴ (see Kwame McKenzie's proposal in this publication for a full review of the mental health topic). A 'disability' in this context is defined as an illness or impairment that limits the usual activities of daily living, including work ability.⁵

In the UK, some health-related worklessness is supported by the social security benefit system (subject to qualifying conditions and sufficient levels of work 'incapacity') in the form of incapacity-related benefits. These are, most notably: Incapacity Benefit; Severe Disablement Allowance; and Employment and Support Allowance. Rates of receipt of these benefits have increased rapidly since the 1970s, from 0.5 million recipients in 1975, to 2.6 million in 2011.This represents around 7% of the working age population. It accounts for 11% of total UK social security expenditure, at a cost of around £8 billion per annum, and amounts to 1.8% of gross domestic product (GDP).⁶ The probability of returning to work after being in receipt of long-term health-related benefits is just 2% annually.⁷ Most recipients who have been workless for six months or more have only a one in five chance of returning to work within five years.⁸ The employment rates of people with a disability or chronic illness are also much lower, at around 40%. Furthermore, people with health problems are also more than twice as likely to work part-time.⁵

Worklessness and health inequalities: the link to gender, socio-economic status and geography

There are strong associations between incapacity-related benefit receipt and morbidity, mortality and unemployment.^{9,10} Furthermore, health-related worklessness also varies by gender, socio-economic status, and geographical region.¹¹ Each of these factors are therefore of importance to understanding and reducing health inequalities,¹² and are discussed here:

In terms of *gender*, a study of health-related worklessness in the UK found that the employment rates of women with a health condition or disability (49.9%) were lower than for men with similar levels of ill health (58.9%).¹³

In terms of *socio-economic status*, evidence shows that health-related job losses have a social gradient. Adverse employment consequences are more likely to be experienced by those in lower socio-economic groups.¹⁴ Similarly, there are clear educational inequalities in the employment rates of people with ill health or a disability. For example, in 2005, the employment rates of men with a low education and a health condition or disability were substantially less than: a) healthy men with a low education; b) highly-educated men with a health condition or disability; and c) healthy, highly-educated men.¹⁵ These patterns were even starker for women.

The importance of socio-economic status in regard to worklessness and health inequalities is also demonstrated in a study which used data from the 2001 English census.¹⁶ This showed that for both men and women, not being in paid employment meant people were more likely to rate themselves as having poor health. Being out of work accounted for a difference of up to 81% in self-rated health between the most and least affluent groups in the English working age population.

Reducing worklessness could therefore be an important way of addressing the social gradient in health.

In terms of *region*, there are substantial geographical inequalities in health-related worklessness, with rates highest in areas which have experienced rapid de-industrialisation

and the loss of manufacturing jobs.^{10,17} This is demonstrated in Figure 1. Standardised IIIness Ratios use 100 to represent the national average incapacity-related benefit recipient rate. Areas with values above 100 have rates of incapacity-related benefit receipt above the national average. These areas are depicted by dark grey and black shading. Conversely, areas with values below 100, shown by white and pale grey shading, have rates below the national average.

Looking at data in this way shows that the receipt of incapacity-related benefits is concentrated in the de-industrialised areas of the North East of England and South Wales, as well as in former manufacturing centres such as Manchester and Liverpool. These areas are all shaded black with receipt rates at least 50% higher than the national average. Evidence has shown that the availability of jobs is also an important explanation of the distinctive geography of claim rates for health-related benefits.¹⁸ Regional differences in worklessness rates contribute substantially to regional differences in health inequalities and to health inequalities between regions.¹⁹





(100 = national average for England & Wales. Source: reproduced from P Norman and C Bambra 2007, 'The utility of medically certified sickness absence as an updatable indicator of population health', *Population, Space and Place*, 13: 333–352, with permission from the publishers John Wiley and Sons.)

In summary, evidence suggests that reducing worklessness (especially health-related worklessness) is potentially an important way of reducing health inequalities.

Tackling health-related worklessness: a 'health first' approach

Concern over the high numbers of people in receipt of health-related benefits has meant that reducing worklessness has had a high policy profile in the UK. The research literature suggests that there are three broad policy approaches:

- i. improving the skills and employability of incapacity-related benefit recipients;
- ii. stimulating the demand for labour in areas of economic decline; and
- iii. addressing/managing the ill health and disabilities of incapacity recipients.

However, policymakers have focused largely on (i) to the detriment of (ii) and (iii). Since the mid-1990s, the vast array of welfare to work policy initiatives by successive governments have used supply-side interventions (e.g. education, training and work placement schemes, vocational advice and support services, and in-work benefits) rather than demand-side ones (e.g. changing employers' hiring and accommodation practices, financial incentives for employers, employment rights legislation, and accessibility programmes) to increase employment rates.²⁰

The effectiveness of these interventions on the employment rates of people in receipt of health-related benefits has been rather limited.²⁰ A possible reason is that they focus almost exclusively on employment and employability. There is little attention given to the health needs of this population, who, after all, are workless in the first place as a result of ill health. People in receipt of health-related benefits have multiple and complicated long-term illnesses, and the vast majority (up to 95% in a recent study of illness benefits recipients in Easington, County Durham) cite ill health as their biggest barrier to gaining employment. Tackling these underlying health issues could be the first step to a successful return to work.

Whilst medical and psycho-social rehabilitation has been a common feature of interventions in the Scandinavian countries – where it has beneficial impacts on both employment and health¹² – it is only more recently that it has started to feature in the UK (e.g. the 2003 Condition Management Programme as part of Pathways to Work). Evidence-based guidance produced by England's National Institute for Health and Clinical Excellence (NICE)⁶ has also recommended a 'health first' approach to improving the health and employment of people with a chronic illness (see Figure 2).

'Health first' approaches are differentiated from other welfare to work polices because they focus on improving/managing the ill health of incapacity-related benefit recipients before then addressing any employability issues. The NICE guidance recommends that integrated programmes which combine traditional vocational training approaches, financial support, and health management on an ongoing case management basis should be commissioned to help health-related benefit recipients enter or return to work. NICE considers these integrated approaches to be the most effective ways of enhancing the employment of people who are workless due to ill health.⁶ However, it should be noted that, whilst they take a 'health first' approach, the NICE guidance still places emphasis on the individual

and public services (i.e. a supply-side approach) with no mention of the role of employers in reducing health-related worklessness (i.e. a demand-side approach).

Figure 2: National Institute for Health and Clinical Excellence (NICE) recommendation on return to work interventions for Incapacity Benefit recipients

Who is the target population? People with health problems who are unemployed and claiming Incapacity Benefit or Employment Support Allowance.

Who should take action? Department for Work and Pensions and other bodies or organisations which may commission services for those who are unemployed and claiming Incapacity Benefit or Employment Support Allowance.

What action should they take? Commission an integrated programme to help claimants enter or return to work (paid or unpaid). This should include a combination of interventions such as:

- an interview with a trained adviser to discuss the help they need to return to work;
- vocational training, including that offered by New Deal for Disabled People (for example, help producing a curriculum vitae, interview training and help to find a job or a work placement);
- a condition management component run by local health providers to help people manage their health condition;
- financial measures to motivate them to return to work (such as return-to-work credit); and
- support before and after returning to work (this may include one or more of the following: mentoring, a job coach, occupational health support or financial advice).

Source: Gabbay, M., Taylor, L., Sheppard, L., Hillage, J., Bambra, C., Ford, F., Preece, R., Taske, N. and Kelly, M. P. (2011), National Institute for Health and Clinical Excellence (NICE) Guidance on long term sickness and incapacity, *British Journal of General Practice*, 61: e118–124.

The County Durham Worklessness and Health Model example

A 'health first' approach to reducing worklessness was piloted by County Durham and Darlington Primary Care Trust, working in partnership with Durham County Council and the South of Tyne and Wear Jobcentre Plus. In 2009, they commissioned a 'health first' case management service for long-term Incapacity Benefit recipients (i.e. those in receipt of Incapacity Benefit for three years or more).

The programme used telephone and face-to-face case management to identify individual health needs and any other related barriers to employment an individual may be experiencing, such as around debt or housing. The scheme complemented mainstream services with case-managers, signposting patients to relevant National Health Service, Department for Work and Pensions, and third sector health and welfare services such as the Citizens Advice Bureau. Patients were referred onto the programme by other NHS services, their GPs, or they could self-refer. The intervention lasted an average of six months and involved around 500 patients on a voluntary basis. The objective of the service

was to improve the health of participants as a way of improving employability and reducing health inequalities between those in and out of work.

The evaluation of the pilot programme found that, within six months, both the general health and mental health of participants improved.²¹ For example, general health scores (measured on a scale of 0 [low] to 1 [high]) almost doubled from 0.3, before the intervention, to 0.5, after six months. There was less improvement in terms of physical or musculoskeletal* health though.

This may have been because the service was not intensive enough, of sufficient duration, or because the point of intervention (i.e. after three years on Incapacity Benefit) was too late. There is evidence to suggest that musculoskeletal conditions require early intervention and that longer absence from work diminishes intervention effectiveness.²²

Overall, the intervention cost $\pounds 2,530$ per participant – meeting NICE cost guidance for case-management interventions. The pilot suggested that 'health first' initiatives can be successful, but:

- must be targeted carefully at those with the highest health needs and with mental ill health as a primary condition; and
- require an awareness of the local context, including other services and the levels of social support in the locality.²³

Conclusion

In this proposal I have argued that health-related worklessness could be an important factor behind socio-economic and geographical health inequalities. Previous attempts to reduce health-related worklessness in the UK have not been particularly effective. The lack of focus on the health problems of incapacity-related benefit recipients could be an important reason for this lack of success.

Following NICE guidance, a 'health first' case management approach was piloted in County Durham. This programme had some promising results which tentatively suggest that improving the health of Incapacity Benefit recipients could enable them to participate more productively in employability initiatives, and subsequently enter or return to the labour market. The County Durham initiative was a small-scale local pilot and, whilst its success may not be replicable in different contexts, it does offer a potential model for local public health partnership working. It is one example of how local Clinical Commissioning Groups, local Work Programme providers and local authorities could work together in the future. It supports my proposal for taking a **'health first' approach to tackling healthrelated worklessness, which will help to address socio-economic and geographical health inequalities.**

* Concerning muscles, tendons, skeleton, cartilage, ligaments and nerves.

Note on the author

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USING PARTICIPATORY BUDGETING TO IMPROVE MENTAL CAPITAL AT THE LOCAL LEVEL

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SUMMARY

My one suggested intervention for the new health and wellbeing boards is that they develop and test a form of participatory budgeting to help make decisions on public health priorities and to choose interventions.

"There is no health without mental health" is a common justification for action to promote psychological wellbeing. This has now been broadened by the concept of 'mental capital', which encompasses aspects of mental health; intelligence (IQ); and emotional intelligence. Because of the importance of mental capital and mental wellness to economic development, there may be less *wealth* without mental health.

Public health interventions to improve mental capital and mental wellness aim to change individual exposure to risk factors or build environments that promote resilience and health. But they can inadvertently increase health disparities and may not increase participation and active citizenship.

Identifying one intervention that can improve mental capital, equity and civic engagement is difficult. But it is possible if the *process* of implementation is designed to have an impact, as well as the intervention itself. Reflecting this, I suggest that new health and wellbeing boards develop a modified version of participatory budgeting, which could:

- help the health and wellbeing boards demonstrate their vision of a population having shared responsibility for public health;
- engage the population in discussions of public health and offer an avenue for identifying local priorities, and for consultation;
- give authorities the opportunity to develop vertical social capital locally and directly target fundamental causes of disparities such as power and access; and
- produce fairer, better-informed decisions about priorities which improve the effectiveness of existing and well known mental health interventions.

Initial experimentation and testing should focus on how the initiatives link with locally accountable, elected authorities and could usefully identify the right scale and scope for participatory budgeting in public mental health to be effective.

Introduction: the most important policy intervention for mental health

Giving an opinion on the most important policy priority for improving mental health and decreasing disparities is challenging. It would be tempting to argue that promoting mental health through a host of different interventions – not just one – should be the first thing on the list for local authorities, health and wellbeing boards and the new Directors of Public Health. Mental health is public health's superglue. It is difficult to think of any health issue that does not rely on good mental health, or any initiative that would not be derailed by poor mental health.

Suggesting only one intervention produces an array of philosophical and practical problems. It is not clear exactly how to compare initiatives that prevent mental illnesses with those promoting mental health, or with initiatives that have varying impacts at the individual, group and societal levels and act over different timescales. It could be argued that local authorities, health and wellbeing boards and Directors of Public Health should choose locally relevant initiatives based on their changing needs. Added to this, interventions outside the traditional remit of public health, such as increased support for early years,* and other suggestions by key policy groups, will improve mental health.^{1,2}

Because of these issues, and given the challenges for public health now and in the future, I am not suggesting a specific mental health promotion or mental illness prevention intervention. Instead, I suggest that the health and wellbeing boards use the process through which they work as a way of improving the mental health and wellbeing of their populations.

A robust commitment to shared decision making could be truly transformative for the public's health. Increasing community engagement and social efficacy is key to improving mental health and decreasing inequalities in mental health. The plans for the new health and wellbeing boards include elected officials and community voice, in part through Healthwatch.³ The guidance available to them calls for more robust shared responsibility and decision making between public health agencies and the community.⁴

But, I do not think it goes far enough. There needs to be a plan for achieving and sustaining shared decision making. My suggestion for the new health and wellbeing boards is that they use a form of participatory budgeting to make decisions on public health priorities, and to choose interventions.⁵ This could be made part of the DNA of the new health and wellbeing boards.

Participatory budgeting directly involves communities in making decisions about how to spend public money. There are a number of models, including using participatory budgeting to allocate grant money or various percentages of core budgets and business.^{5,6} Citizens identify, discuss and prioritise public spending and have the power to make decisions on how the money is spent. Typically, community members identify priorities and identify people from within their ranks to help work them up. They then sit with experts and local authority planners to produce actual proposals.

Lastly, community members vote on which proposals to fund and the municipality implements the top proposals within the money allocated.⁷

But how exactly do we make the leap from mental health and mental illness to democratising decision making? And why is this considered such an important public health and equity issue?

* See Edward Melhuish's proposal on Early Childhood Education and Care in this publication.

Fundamental connections – health, mental health and mental capital

"There is no health without mental health" is one of the most common justifications used for the importance of psychological wellbeing to the population.⁸ Adopted by United Nations Secretary-General Ban Ki-Moon, the World Federation of Mental Health, the Pan American Health Organisation, the European Council of Ministers, Mental Health Europe, and the Royal College of Psychiatrists (UK), and popularised by the Global Mental Health movement, the assertion is supported by hard facts about mental illness.^{2,8,9} For example, depression is one of the biggest contributors to the global burden of disease, after respiratory and diarrheal infections, and the biggest contributor to the burden of disease in the UK.² In some high-income countries, mental illnesses are some of the most common reasons for absence from work.¹⁰

Physical and mental illness are intertwined: just as depression may be sparked by a chronic physical disease, depression itself increases the risk of a number of physical illnesses and affects their prognosis.^{2,9}

But there is another approach to understanding the importance of psychological health that is compelling. The Government Office for Science *Foresight* project has offered a vision that goes further than mental illness to investigate mental health and mental wellness. It is based on the advice of over 400 international experts and stakeholders in disciplines as diverse as genetics and neuroscience, social sciences and ethics, economics, and modelling and systems analysis. The report spans the interests of key departments across Whitehall and takes a futures approach to strategic policy thinking.¹¹

Foresight started by identifying the most important opportunities and challenges facing the UK over the next 20 years. These include:

- the need to understand how to preserve the independence of the ageing population and make sure their knowledge is available to industry;
- the need to nurture the cognitive and emotional flexibility of the population to equip them to deal with changing work and societal norms;
- the increased expectations of the population;
- the fact that public services need to move towards more choice, active citizenship and co-production; and
- the need to harness technology and science to promote wellbeing.¹¹

The project then looked for solutions and concluded that our mental resources – mental health; intelligence (IQ); and emotional intelligence (EQ) – will be key to meeting the challenges, individually and as a country.¹¹

A new concept was also introduced – mental capital – which includes aspects of mental health as well as IQ and EQ. Mental capital encompasses a number of individual resources such as "[people's] cognitive ability, how flexible and efficient they are at learning, and their emotional intelligence, such as their social skills and resilience in the face of stress. It therefore conditions how well an individual is able to contribute effectively to society, and also to experience a high personal quality of life."¹¹

Reframing these resources as a combined set of capabilities reflects the fact that they are linked. Categorising them as capital introduces the idea that they can be built or diminish and are both a personal and public resource. We can help our mental capital grow by investment, but its relative worth can also go down if it is not properly looked after.

From a policy perspective, *Foresight* asserts that our society and economic viability are linked to our ability to preserve and promote mental capital. We have to be smart enough and flexible enough to out-perform our competitors. Because of this, it is not simply that "there is no health without mental health". The strategic economic importance of mental capital means that there may be less *wealth* without mental health. If public health is to promote and protect the health and wellbeing of everyone in society, it needs to engage with the concept of mental capital.

Public health has traditionally attempted to improve aspects of mental capital by preventing mental illness and promoting mental wellbeing.¹² There are a plethora of evidence-based approaches to both that could be deployed, though some would argue that the stigma of mental illness has prevented mental health promotion from getting equitable funding.^{2,12,13} Discussions about getting a bigger piece of the pie for mental health run the risk of cul-de-sac battles over which bit of the health budget should be decreased to accommodate expansion. In a fight between physical illness and mental illness, mental illness tends to lose. Because of this, it may be more prudent to identify win-win situations where interventions that target other areas of health are also effective in improving mental health.

The place of nature and green space in enhancing mental capital and public health

One suggestion that has currency as a win-win public health intervention, and which could improve mental capital and physical health, is access to nature – or green space. It was even alluded to in the Department of Health's literature for moving public health to local authorities.³ There is a wealth of evidence about the impact of the physical environment on health and now a growing literature on its impact on mental capital.¹⁴ The level of noise, light and the quality of the built environment are important for mental capital, but some of the best literature is about the importance of nature.¹⁴

Seeing nature, access to green space, and taking part in activities such as community gardens are generally beneficial for mental capital across all age groups. Planting trees in urban areas, making sure that there are parks, and the maintenance of lawns all have the potential to improve mental wellbeing. They also decrease stress and increase effective management of major life issues. Studies report that children exposed to nature and green space have improved ability to learn, better memory and better attention.¹⁴ At a community level, green space is associated with higher levels of perceived social connectedness to the community and decreased levels of violence.¹⁴

Because the majority of the population live in cities, and because city life is one of the major population risk factors for mental illness and poor mental health,¹⁵ access to nature could be argued as being a national priority for health and wellbeing boards.

But access to nature does not necessarily deliver health equity. The links between inequity and mental health have been well documented in *Fair Society, Healthy Lives*.¹ Social stratification leads to differences in life expectancy. And the pathways through which this occurs are through the psychological and psycho-social processes that modify risk** and exposure to risk factors.¹

The Government Office for Science¹¹ acknowledges that perhaps the biggest challenge in the UK will be ensuring that our understanding of the importance of mental capital is used to reduce social inequalities (rather than to fuel further divisions). It is conceivable that increasing access to green space may be effective in improving mental capital, but may not decrease disparities. Worse still, it could even increase inequity if it was delivered more in richer suburban areas, where it is easier to implement. However, because we are aware of this risk, an approach to improving access to green space could be specifically targeted at areas of higher deprivation. That would deliver an effective public health intervention that decreases disparities. But some would question how long the impact on disparities would last.

Social causes and social capital

I am persuaded by the view of Link and Phelan,¹⁶ who developed the theory of fundamental social causes. This aims to explain why the association between socio-economic status (SES) and health disparities persisted over time, despite interventions, and even after conditions previously thought to be the cause had been resolved.

Higher SES is an indicator for an array of resources including money, knowledge, power, and beneficial social connections. These ensure that disparities continue, unless interventions specifically target the factors and mechanisms that sustain differences between population groups. Despite advances in screening, vaccinations, or any other piece of technology, disparities persist because those from low SES communities lack resources to protect and improve their health.¹⁶

Improving mental capital equitably will require approaches that target the fundamental social causes. But, in addition to the concept of mental capital and the need to focus on the fundamental social causes of disparities, there is a further challenge for local authorities: how to promote greater choice, active citizenship and co-production in the *way* they deliver public services.¹¹ The ability to be involved in decision making and co-production will be different for different localities and population groups. One way of describing and understanding these differences is through the lens of social capital.

Social capital attempts to describe features of populations, such as levels of civic participation, social networks and trust.¹⁷ There are lots of different types of social capital.¹⁷ For instance, bonding social capital is inward-focused and characterised by ethnic homogeneity, strong norms, loyalty and exclusivity. It can be thought of as the type of social capital that a family unit has or which is found in small, close-knit migrant

** i.e. the factors that affect healthy versus unhealthy/risky lifestyle choices and behaviours are to do with social issues and psychology rather than the physical environment.

groups. In contrast, bridging social capital is outward-focused and links different groups in society. The ties between people or groups are weaker.¹⁷

Another dimension of social capital is horizontal and vertical. Horizontal social capital is that between people *within* similar strata of society, whilst vertical social capital is about the degree of integration *between* groups within a hierarchical society. The latter is important in allowing people to influence policy and access justice and resources from those in power. Vertical social capital can be seen as a type of bridging social capital. It relates to connections between the state and communities, including how far government and its public agencies have integrity because they connect to and work for those facing greatest disadvantage. It also includes cognitive elements that reflect group identity.¹⁷

Research studies have demonstrated a direct association between types of social capital and how well local government works. But, in addition, there are links between social capital and mental health. The key findings are that there is a stronger association between higher levels of bridging social capital and better mental health than there is for bonding social capital. The social efficacy of a community, its links to other groups, and access to their resources are important for preserving mental health.¹⁷ Vertical bridging social capital may be of particular importance in the mental health of marginalised groups.¹⁸

The challenge for local authorities and health and wellbeing boards is to identify locally relevant interventions that promote mental capital, decrease inequalities and improve active citizenship. The concepts of fundamental social causes and social capital suggest that an effective strategy to promote mental capital would need to increase the access of the most marginalised in society to opportunities to influence decision makers and resource allocation. Indeed, this may be one of the most important equity interventions that public health can undertake. In addition, it may facilitate the effectiveness of other interventions.

Rather than a single intervention, the way in which local authorities and health and wellbeing boards run their business may offer a way to meet all these needs. The introduction of participatory budgeting may help more equitable decisions to be made, while increasing public engagement in decision making.

Participatory budgeting has been used across the world for over 30 years. Since its emergence in Brazil, it has spread to hundreds of cities. The international results show that participatory budgeting produces more equitable public spending, better quality of life for individuals, increased satisfaction, and greater government transparency. It grows vertical bridging social capital and social efficacy and can decrease the impact of the fundamental social causes.^{5, 19}

Implementing participatory budgeting

Participatory budgeting has been used in the UK for over 10 years and there have been over 150 different projects since 2006. It has been deployed at local, district, borough and county council levels as well as in police authorities and even a fire and rescue service. It has been mostly small scale – £28 million has been allocated through participatory budgeting processes so far, with the largest budget being £4.8 million.²⁰ Scholars concede that the technical nature of much of health spending in hospitals argues against participatory budgeting, but agree its potential in public health and population wellbeing is immense.^{5, 6} The literature to support this is not substantial – a search for participatory budgeting examples in this field uncovered no papers at all. However, there have been multi-year projects in Southampton and Nottinghamshire, with case reports that indicate success in engaging the population.²⁰

There are many different forms of participatory budgeting, but most use a similar methodology: there is a defined budget set aside to be used for the purpose; residents in an area brainstorm ideas for spending it; they then select volunteer representative delegates to work with the budget-holding institution to develop proper proposals; once these are ready, residents are asked to vote; the proposals with the most votes are funded until the allocated budget is used.

Developing and testing a modified form of participatory budgeting for public health could have an impact on at least four levels:

- first, it would help the health and wellbeing boards demonstrate their vision of a population having shared responsibility for public health;
- second, it would engage the population in discussions of public health and offer a democratic avenue for identifying local priorities, and for consultation;
- third, it would give authorities the opportunity to develop vertical social capital locally and directly target fundamental causes of disparities of money, knowledge, power and access; and
- last but not least, participatory budgeting could produce fairer, better-informed decisions about priorities.

But implementation of this sort of experiment is not easy. It will require a significant commitment from local authorities and health and wellbeing boards. There will be a need for resources for community engagement through a number of media, and for community meetings, polling and feedback. And there are pitfalls. There is a clear potential for participatory budgeting initiatives to be hijacked by more powerful, connected and vocal groups. To ensure involvement of all, including traditionally excluded groups and marginalised populations, there will need to be a plan that ensures that the principles and rationale are clear within local authorities and health and wellbeing boards, as well as externally. The external strategy would aim to engage and enthuse the communities who have to support and take part in participatory budgeting for it to work.

The development of partnerships with third sector organisations may be key, but it is of note that there have been successes at a national level with working *directly* with communities to identify their mental health needs.²¹ It would be important not to fall into "take me to your leader" approaches to communities. Though the third sector is important, their major utility may be in providing access to marginalised populations, as well as adding legitimacy to the project, rather than as participants in priority setting.

Another way to protect against the dominance of one sector would be to set the parameters for acceptable priorities or proposals, so that they require partnerships or demonstrable benefit to a number of different types of communities. This would help to ensure vertical linkages.

Conclusion

My one suggested intervention for the new health and wellbeing boards, is that they **use a** form of participatory budgeting to make decisions on public health priorities and to choose interventions.

Because this is a new approach, and there are issues to resolve as discussed, I would suggest initial experimentation. This should include a research element to build the evidence base and may answer questions such as:

- · How does this type of initiative link with locally accountable, elected authorities?
- What is the right scale of participatory budgeting to make a difference to health?
- How wide can the scope be?
- And, over what timescales can one expect to see an impact?

One may question why I have not chosen one of the many proven, effective mental health promotion and mental illness prevention strategies as my suggestion for local authority public health. The answer is that this is not an either/or trade-off. I have no doubt that there will be locally chosen and appropriate initiatives that promote mental capital. But participatory budgeting, if done correctly, has the potential to leverage those for even greater benefit, as well as developing resilient and socially cohesive populations.

Note on the author

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Dr McKenzie is President of the Canadian Mental Health Association, Toronto, sits on the Board of the United Way Toronto, and had a key role in the development of the Mental Health Strategy for Canada.

Definitions

A *mental illness* is a diagnosable pattern of thinking or behaviour which is generally associated with distress or disability and is not considered part of normal development or a person's culture.

Mental health is "a state of wellbeing in which the individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community". 'What is mental health?', World Health Organization website: www.who.int/features/qa/62/en/index.html. Accessed 14 July 2012.

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THE SCOPE OF ADULT AND FURTHER EDUCATION FOR REDUCING HEALTH INEQUALITIES

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SUMMARY

As set out in this proposal, a substantial body of evidence demonstrates that a large part of health inequality is accounted for by poor health among people who leave school without any qualifications. The social and employment life chances of those who miss out on this key social transition from school to adult life are greatly reduced.

As such, this proposal is centered on the **substantive role of further and adult education in reducing social inequalities in health.** This can be broken down into a number of constituent elements:

- Adults with no qualifications will likely need financial support to attend further and adult education institutions and obtain qualifications. Many may also need help with basic literacy and numeracy in order to get to the point where they can study for qualifications. Much of the focus of policy should therefore be on acquisition of skills and qualifications for disadvantaged adults.
- A case can be made for subsidising non-qualification-bearing courses, given the economic, social and health benefits which adult education can confer. In particular, older adults may benefit from non-vocational courses which boost wellbeing by providing mental stimulation and interest as well as opportunities for social interaction.

A successful policy framework is therefore likely to include:

- Financial support for those adults who left compulsory schooling with no qualifications, as they work towards achieving qualifications;
- Provision of literacy and numeracy courses for the substantial numbers of adults who struggle with these key skills;
- Encouraging greater participation in learning amongst older adults; and
- Harnessing the role of further and adult education institutions in overcoming disadvantage, given their community locations and ability to identify and prioritise needs at a local level, and through direct engagement with local communities.

Introduction: participation in adult learning and improved health and wellbeing

This proposal sets out evidence for increasing participation in adult education and learning as a tool to improve health and wellbeing, and to reduce health inequalities. There are a number of ways in which this increased participation could lead to improvements. These include:

- effects due to the development of specific skills;
- generic cognitive development;

- personal development, including enhanced self-esteem and confidence;
- · opportunities for social interaction, both inside and outside the classroom; and
- economic benefits such as improved career prospects.

Evidence for the health and wellbeing benefits of adult learning

There is growing evidence of associations between participation in various types of adult learning and improvements in wellbeing, health, and health-related behaviours. Much of this evidence has been obtained by researchers using the rich data available in longitudinal birth cohort studies i.e. where individuals are observed from birth at multiple points in their lives.¹These sources of information have great advantages over cross-sectional data i.e. where a study of individuals is taken at one specific point in time. This is because they enable the researcher to understand the sequence of events in time – in this case, how health outcomes later on in life relate to earlier conditions and experiences.

However, in the absence of evidence from experiments, which would require adult education to be randomly allocated to a treatment group of subjects, it is still necessary to be very cautious in making inferences as to whether adult education had any causal impact on health or wellbeing outcomes.

Studies² have used the 1958 British Birth Cohort to reveal relationships between participation in learning and healthy behaviours. For instance, after controlling for other factors, adults who engaged in at least one academic, accredited course increased their levels of exercise. Those who took at least one vocational, accredited course reduced their alcohol consumption. Other studies³ have estimated the effect of education on reducing the risk of depression during adulthood. Simulation results suggest that these improvements in mental health could result in healthcare savings worth some £230m annually (see also Kwame McKenzie's proposal in this publication, which argues for a greater focus on mental health and mental capital).

In addition, studies of adults in their 30s and 40s have reported a correlating relationship between measures of participation in learning and outcomes such as life satisfaction and/or psychological wellbeing.⁴ A study⁵ using data from the 1946 British Birth Cohort showed that, for adults in their early 50s, participation in adult learning was associated with improved verbal ability, verbal memory, and verbal fluency in late midlife, over and above the effect of formal educational qualifications by the age of 26. Furthermore, data⁶ from the English Longitudinal Study of Ageing (ELSA), a large-scale survey of adults aged 50 and above, has been used to investigate the impact of learning participation on various measures of psychological wellbeing. It was found that, after allowing for other influences on wellbeing, participation in learning was significantly associated with wellbeing outcomes. Amongst these older adults, it was leisure courses, rather than vocational courses, which appeared to have significant effects (and which could be seen in light of the proposal on 'age friendly environments' by Hal Kendig and Chris Phillipson in this publication).

Evidence for the role of adult learning in reducing health inequalities

The Marmot Review⁷ identified education as one of the key social determinants of health. As formal education tends to finish by early adulthood, poor educational outcomes can cast a long shadow over the life course (see Edward Melhuish's article in this publication for a full review of the implications of early childhood education and care on wellbeing). The Review identified lifelong learning as one of the key interventions to reduce health inequalities. However, the report highlighted the potential pitfalls of such interventions. Investment in post-compulsory learning has been heavily weighted towards higher education among young adults, which disproportionately benefits middle class young people. Interventions that focus only on higher education risk increasing inequalities in health rather than reducing them.

The Review also highlighted the danger of interventions in training programmes that are only available to those in work. While such interventions may narrow inequalities in health among those in employment, they may also increase inequalities between the unemployed and the employed, many of whom do not have any formal qualifications. The Review suggests that lifelong learning needs to be available to the unemployed and economically inactive to have any effect on reducing health inequalities.

Unfortunately, in practice, access to further and adult education has tended to become more difficult in recent years, as funding has focused increasingly on young people and on full-time, rather than part-time, courses. For example, financial support for adult learners (aged 25 and over) with no previous qualifications, working on a level 2 qualification (GCSE A*-C grade equivalent), used to be provided by the government, but is now restricted to younger learners under the age of 24.⁸ While financial factors are not usually identified as the most important barriers to adult learning, the cost of learning does impact on learners and is more likely to affect socio-economically disadvantaged groups such as single parent families and ethnic minorities.

Evidence suggests that reductions in financial subsidies for adult learners may restrict an important avenue of social mobility, especially for those without any qualifications. Analysis of the 1958 UK National Child Development Study (NCDS) found that higher qualifications obtained during midlife were associated with lower coronary heart disease risk in both women and men.⁹ Men and women who left school without any qualifications during the 1970s were able to 'catch up' to some extent with more qualified people, in terms of lowering their risk of coronary heart disease, if they went on to obtain some qualifications in midlife. Furthermore, the protective effect – of obtaining qualifications in midlife – on coronary heart disease risk was larger for men who left school without any qualifications, compared with men who left school with O- or A-level equivalent qualifications.

Thus the value of education in midlife is greatest for those with the poorest education at the time of leaving school.

Further analysis from this study is shown in Figure 1. This shows the percentage of NCDS respondents reporting poor self-rated health from ages 23 to 50, by the levels of qualifications obtained when they were 20 years old and also later on in life. This shows

that there were no differences between people who left school without any qualifications and those who obtained some qualifications in midlife in relation to their self-rated health at the age of 23. But as they grew older, significant differences in health appeared until there was around a 3% gap between these groups. However, this apparently beneficial effect of obtaining a qualification in midlife was not visible among those NCDS respondents who left school with at least one O-level qualification. There was no difference in self-rated health between those in this group and those who obtained a higher qualification in midlife. Again then, the benefit of gaining education was only found in those at the lowest educational level.

These results suggest that the health returns on adult education qualifications may be greater among people who left school with no qualifications. However, these results need to be replicated in other longitudinal datasets. Furthermore, there may be considerable selection biases in operation. This means that certain members of the population are more or less likely to be selected within the sample, thereby distorting the results. The concern here is that the association of qualifications with better health may not be causal, but a result of the self-selection of people with certain unobserved characteristics which have a positive impact on health, into later life education. For example, since some people who leave school without any qualifications voluntarily return to education later on in life, there is the possibility that these self-selectors are more dedicated to changing for the better than non-participants. These characteristics may include favourable personality characteristics, such as motivation, that enable them to successfully gain some qualifications later on in life. As these personality characteristics are often hard to specify and even harder to measure in surveys, it is hard to control for them in analysis of multiple variables.

Figure 1: Percentage of National Child Development Study (NCDS) respondents from ages 23 to 50 reporting poor self-rated health, who left school with no qualifications or with one O-level qualification by age 20, by additional qualifications gained in midlife.



Implementation: challenges and examples of good practice

There are several challenges that need to be addressed if adult learning is to play its full role in tackling health inequalities. Firstly, there is the challenge of overcoming barriers to participation. As the policy focus has switched in recent years to young people on full-time courses, participation rates in adult learning have decreased.¹⁰ In addition, participation from disadvantaged social groups, and those without any qualifications, is lower compared to more privileged social groups. There are various barriers to participation in adult learning that course provision and funding should be designed to minimise, especially for disadvantaged groups. These include:

- financial barriers;
- difficulties of access;
- · lack of confidence about ability to cope with and complete courses; and
- a perception that the courses are not relevant to needs and interests.

Secondly, there is the challenge of ensuring that the system is sufficiently flexible to meet the actual needs of adult learners. A report on training for job seekers, published by education watchdog Ofsted, found many adult learning providers were not offering demanding courses that were likely to increase their chances in the workplace.¹¹ Due to the centrally prescribed nature and output requirements of the national funding regime, many providers focused on the achievement of formal qualifications rather than tackling participants' own often deep-seated barriers to employment, which included a lack of numeracy and literacy skills.

Thirdly, there is the demographic challenge. Britain is an ageing society. Older adults have, on average, the poorest health and the lowest levels of formal educational attainment. A number of major reports – including the Government Office for Science's *Foresight Mental Capital Report*,¹² and the NIACE Inquiry into the Future for Lifelong Learning¹³ – have emphasised the potential role for learning in later life. At present, education funding is heavily oriented towards early life stages. The NIACE Inquiry revealed that, of total public and private funding:

- some 86% goes to the under-25s;
- 11% goes to those aged between 25 and 49;
- 2.5% goes to those aged 50 to 74; and
- just 0.5% goes to older adults aged 75 and above.

It is, of course, entirely reasonable that the bulk of education funding should go to young people who are in full-time study. But, as the NIACE Inquiry argued, there is a good case to be made for a gradual and modest re-balancing of the education budget, shifting slightly in favour of older age groups. This would help to take account of demographic trends and maximise the scope for learning to contribute to a healthy and active old age.

Example 1: older adults and informal learning

Amongst the most vulnerable elderly – those living in care homes – informal learning can offer opportunities for social interaction and stimulating personal development. There has not

yet been much evaluation of what works best in this field, but some examples of innovative approaches and good practice were gathered by NIACE,¹⁴ two of which are included here:

- A charity (First Taste) worked with 14 care homes in the Derbyshire Dales to provide care staff with the confidence and ideas to support older residents' engagement in learning, to re-engage residents with learning and to introduce new technologies to excluded adults. Each home was offered workshops with supporting handbooks and learning requirements on a range of educational arts workshops such as gardening, photography, painting and pottery. An independent evaluation identified a range of benefits for residents and care staff, which included a reduction of a third in medications such as anti-depressants and sleeping tablets.
- Younger Bengali women from an East London literacy project (Deesha) assisted older Bengali women in learning English, through sharing experiences of literacy learning and emotional and physical support. This led to increased self-confidence (especially in relation to employment) and volunteering among the younger women, and reduced feelings of isolation among the older women.

These examples are, in the main, of very informal learning activities. But it is this type of learning which seems most likely to meet the needs of older adults in care home settings. One further issue is how to facilitate information sharing. Gloucestershire County Council introduced the position of Activity Coordinator Facilitator. The main tasks of the person appointed included provision of support, advice and training across the County's 176 care homes. It was also a way to encourage networking and the sharing of good practice.

Example 2: 'Prescriptions for Learning'

'Prescriptions for Learning' is a project that was undertaken in Nottinghamshire and explored the potential for learning to play a role in improving health. It allowed healthcare staff to refer individuals to a Learning Adviser, including: patients with mild to moderate depression; people who are socially isolated and vulnerable; and people who want something to do, or want to make more of their lives but may be anxious, fearful or unaware of how to do that. An evaluation of the project¹⁵ found that many of those referred had no qualifications and had not been involved in any learning since leaving school. The project was very effective in engaging adults in learning who would not otherwise participate. The evaluation also reported improvements in patients' wellbeing, physical symptoms, healthrelated behaviours and sleep problems, following participation in courses leading to formal qualifications, practical skills and leisure opportunities.

Conclusion

Considerable research has been undertaken in the last 10 to 15 years on the benefits of adult learning. The evidence base is a good deal stronger as a result of this. There is scope for more research, including experimental studies which would help to address causality, as well as evaluation and replication of the case study evidence. **Research to date strongly supports the view that adult learning is associated with better health and wellbeing.** Although there are few studies on whether this actually reduces health inequalities, a policy focus on socio-economically disadvantaged groups, such as those who leave school without any qualifications, is unlikely to suffer from the risk of increasing inequalities in health. Courses that focus on developing numeracy and literacy skills are key for adult education and employment prospects and are unlikely to be taken up by better off groups in society.

It is likely that the most beneficial forms of provision vary at different stages of the life course. In early adulthood and midlife, the acquisition of qualifications may be particularly important, not least because of the benefits of this type of learning in terms of remaining in employment or getting a job. For older adults, training which maintains skills will continue to be useful, as will courses on planning for eventual retirement. For the retired, especially, non-vocational courses which boost wellbeing by providing mental stimulation and interest, as well as opportunities for social interaction, will be most relevant.

A major concern must be the cutting back of funding for adult learning in recent years, and the declines in participation rates which have followed on from that. Increasing financial barriers for adult learners will be felt particularly acutely among socially disadvantaged groups, with potentially detrimental consequences in terms of health inequality. There is a strong case for the provision of financial support to those without any educational qualifications to attend further and adult education institutions and obtain qualifications. Funding is also important to encourage greater participation in learning amongst older adults. These are key components of an adult education approach to reducing health inequalities.

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Dr Andrew Jenkins is a senior research officer in the Dept of Quantitative Social Science at the Institute of Education, University of London. Andrew specialises in the analysis of large-scale longitudinal datasets and his research has been concerned mainly with the effects of learning in adulthood on labour market outcomes and the mental health benefits of learning for older adults. In 2011/12 he held a British Academy mid-career research fellowship, undertaking research on the longer-term impact of learning in adulthood on wellbeing, using quantitative data from the 1958 British birth cohort. His current research includes projects on the determinants of learning participation in mid-life, on the working conditions of teachers in schools, and on the changing costs of higher education in international perspective.

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ETHNIC INEQUALITIES IN HEALTH: ADDRESSING A SIGNIFICANT GAP IN CURRENT EVIDENCE AND POLICY

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SUMMARY

Ethnic inequalities in health have been substantially neglected in policy discussions, most notably in the recent Marmot Review.¹ The reasons for this are likely to be complex, but this does leave a substantial gap in terms of a critical, policy relevant, analysis of the growing body of empirical material in this field. Through this contribution I will:

- Summarise key elements of the evidence on ethnic inequalities in health, identifying health differences across and within ethnic groups.
- Show that evidence on ethnic inequalities in health is of variable quality and often very disease-specific, making it difficult to draw broad conclusions on the underlying reasons for such inequalities.
- Discuss and evaluate possible explanations for observed ethnic inequalities in health, contrasting approaches that see causes as internal to ethnic categories *for example, genetic differences and culture and those that focus on external context and inequalities.*
- Introduce the argument and evidence that health inequality is driven by social and economic inequalities, rather than by inherent cultural or genetic factors. Such social and economic inequalities include those related to socio-economic position, area deprivation, and experiences of racism and discrimination. They differ across generations and across places, so are not inevitable.
- Conclude that social and economic inequalities are the driving force for ethnic inequalities in health and that there remains a need for substantial policy development in this field.
- Recommend that local policies to reduce health inequalities should be built around improving the employment conditions of public sector workers. My recommendation draws on the public sector as a substantial employer of staff, particularly of ethnic minority groups, and a major procurer of goods and services. It exploits huge scope for the sector to raise employment standards and reduce inequalities, for example by:
 - a. setting standards regarding good equitable employment practices, including through its supply chain, for example, on holidays, sick pay, parental leave, and limits to unpaid overtime;
 - b. ensuring more equitable distribution of salaries across employment grades; and
 - c. developing and protecting pension rights to minimise inequalities in income, post-retirement.

In specific reference to health and wellbeing boards, I recommend that they make the labour market conditions of those delivering the services they commission a key dimension of their ambition to reduce inequalities in health and wellbeing.

Introduction

Health inequalities have been a recurrent theme in public health policy since the New Labour government took office in 1997. Soon after its electoral success, New Labour established the Independent Inquiry into Inequalities in Health (chaired by Sir Donald Acheson),

following which there have been numerous policy initiatives around inequalities in health. More recently (since 2007), three significant events have occurred. The Secretary of State for Health established a Health Inequalities Expert Panel (chaired by Professor Chris Ham) to review the Department of Health's strategy for tackling health inequalities; the House of Commons Health Select Committee conducted its Inquiry on Reducing Health Inequalities; and the Department of Health established a Strategic Review of Health Inequalities in England Post-2010 (chaired by Sir Michael Marmot). Given the range of these activities, it is disappointing, though not surprising, to see that the issue of ethnic inequalities has taken a marginal and somewhat contested position. Most shocking, though, has been the complete neglect of ethnic inequality in The Marmot Review.¹ This marginalisation and neglect reflects two contrasting viewpoints. Firstly, that ethnicity somehow reflects exceptional, perhaps exotic, factors that drive differences in health experience; and secondly, that ethnic differences are simple reflections of class inequalities that are adequately captured by general discussions of socio-economic inequalities in health.

Here I will summarise key elements of the evidence on ethnic differences in health, examine potential explanations for these differences, draw out the implications of existing evidence for policy, and, finally, address the question: 'what one policy could make a difference if implemented at a local level?' Addressing this question is difficult for three reasons. First, we need to consider the complex inter-dependencies of policy development in social, economic and health arenas when attempting to identify just one policy. Second, the development and application of local policy clearly depends on the context set by national policy, where budgets and practice frameworks are determined, and where questions around inequality are, rightly, framed. Third, within the field of ethnic inequalities in health, there is little evidence on what works – interventions have largely focussed on service provision.

Consequently, my hopefully cogently argued, but poorly evidenced, proposed intervention concerns improving the employment conditions of public sector workers. This:

- a. is within the grasp of local agents;
- b. will impact positively on local labour markets; and
- c. will improve the circumstances of public sector employees. Particularly those in lower employment grades and more uncertain employment conditions, among whom there appears to be a disproportionate number of ethnic minority people.

The pattern of ethnic differences in health in the UK

Differences in health across ethnic groups have been repeatedly documented in the UK.^{2,3,4,5} Health is, of course, a multi-dimensional and complex concept, yet in statistics it is often reduced to death and/or specific disease categories such as coronary heart disease, hypertension, or diabetes. And the quality of research is often poor, with poor measurement of ethnicity, inadequate sampling of populations, and a crude characterisation of 'risk' factors. Nevertheless, some conclusions can be drawn. Here I will discuss both sources of data and the pattern of difference these reveal.

In the UK, mortality data are not available by ethnic group, but country of birth is recorded on death certificates and mortality rates have been published by country of birth using data around the 1971, 1981, 1991 censuses and, to a more limited extent, the 2001 census. Given the relatively recent migration of most groups to the UK, analyses of mortality by country of birth are typically taken to indicate *ethnic inequalities* in health. Despite being statistically robust, these findings cannot be extrapolated easily to ethnic categories. The most obvious problem is that they do not cover the experience of UK-born ethnic minority people, which may well differ from migrants .⁶ Also important is that such statistics rely on the quality of the death certification process, which, in terms of both cause of death and characteristics such as occupation, is uncertain.⁷

In addition to these mortality data, over the last two decades there has been a growth in data on ethnic differences in morbidity in the UK.^{3,4,5} Although these contradict the immigrant mortality data in some respects (most notably in relation to conclusions drawn on the health of 'Irish' people), they are basically similar. In broad terms, data on ethnic differences in self-reported general health showed considerable difference in experience across minority groups, with the non-White groups having a variably increased risk of poor health compared with the White groups. Most notable, perhaps, is the wide variation in health experience for the three main South Asian groups, with Indian people having better health than Pakistani people, who have better health than Bangladeshi people.

In more detail, morbidity and mortality data have identified the following kinds of differences in health across ethnic groups:

- generally poorer health among non-White minorities, with Bangladeshi people having the poorest health, followed by Pakistani, Black Caribbean, Indian and Chinese people;
- high, but variable, rates of diabetes across all non-White groups;
- high rates of heart disease among 'South Asian' people, but particularly among Bangladeshi and Pakistani people;
- high rates of hypertension and stroke among Caribbean and African people, but low rates of overall mortality, and mortality from coronary heart disease, for men born in the Caribbean;
- low rates of respiratory illnesses across all non-White groups;
- high rates of admission to psychiatric hospitals with a diagnosis of psychotic illness for young Black Caribbean men;
- high rates of suicide among young women born in South Asia, or, more particularly, born in India;
- high rates of sexually transmitted illnesses among Black Caribbean people; and
- high rates of congenital abnormality and childhood disability among Muslim children.

Unfortunately, such findings and the analyses that underlie them do no more than provide a description of differences in health. The detail of the aetiological pathways – the sequence of interdependent events culminating in disease – underlying these specific differences in health is likely to vary considerably.

This complexity makes it tempting to generate explanations as to why ill health occurs based on the ethnic categories used to characterise populations. For example, it is easy to speculate on what it is to be South Asian that might lead to a greater risk of heart disease (genetics, diet, or other health behaviours?). Or what it might be about Caribbean families and cultures that lead to the high risk among young people of psychotic or sexually transmitted illness. Or how marriage patterns might lead to high rates of congenital disease in Muslim children. Given the ease with which we can draw on explanations based on such stereotypes of racial difference/boundaries and cultural practices, it is important that such 'hypotheses' are robustly tested. But they are not. Explanations based on racialised identities typically go unchallenged. And it is also important that the social character of ethnicity is carefully considered in relation to the generation of these health inequalities.

So, it is worth a quick diversion to consider what we mean by ethnicity, or race, in this context. Here I draw heavily on the work of Solomos,⁸ who argues (I paraphrase here) that ethnic or race categories are 'discursive formations', calling into being a language through which apparent biological and cultural differences are identified and accorded social significance, and by which ethnic minority categories are shaped, named and also explained. Within such a framework, the relative social and health position of ethnic minority people is most easily understood to be a consequence of supposed biological and cultural differences, which are reified, generalised, and personalised across all of those who are seen to be members of the group. If this is the case, we need to understand why ethnic categories take the form and the meanings they do. How do the categories that we use in research and policy come to be? And how are the meanings attached to these categories lived and resisted?

Of course, we can only understand this in relation to broad historically embedded social processes, some of which are reflected in actions of the state. It is, however, worth asking why the contemporary consequences of these processes are not addressed more forcefully – who benefits from the failure to adequately consider ethnic inequalities?

What do we know about explanations for ethnic differences in health?

Not surprisingly, the pattern of explanations proposed for ethnic differences in health tend to follow the model developed in the Black Report, with some additional explanations included to cover issues considered particularly relevant to ethnicity. The list of explanations typically includes:

- genetic differences;
- migration effects (selection of healthy, or unhealthy, people into the migrant population, and the impact of migration and new context on people);
- culturally based differences in lifestyle;
- poorer access to good quality healthcare; and
- socio-economic inequalities, including experiences of racism and discrimination.

Although each of these has some relevance, below I focus on the contrast between explanations based on some internal, or essentialised, characteristics of ethnicity (genetics/biology and culture) and those based on the social circumstances of ethnic minority people.

Much medical research has concentrated on biological differences between ethnic groups, on the assumption that biological differences simply reflect genetic difference, and that genetics provide the explanation for ethnic differences in health. Although such work has uncovered biological difference (for example in levels of blood glucose and blood pressure), it has failed to identify (or even test for) genetic underpinnings. Such research has also failed to adequately characterise ethnicity, instead using crude groups that reflect 'race' thinking, such as South Asian, Black and White. This fails to observe important diversity in clinical and biological outcomes within such racially defined groups. Most important is that such work has generally ignored the possibility that biological differences could result from exposure to socially determined factors, as well as genetic differences.

Another dominant theme in medical research has been an exploration of supposedly unhealthy lifestyles associated with ethnic minority cultures, for example a high fat 'South Asian' diet. And some have connected genetic risk with poor health behaviours, most notably in relation to vitamin D, where low levels among 'South Asian' people are argued to be a consequence of skin colour and clothing choices. Here people in ethnic minority groups are, conveniently, seen as the cause of their own problems. In fact, research examining health behaviours and lifestyles has led to mixed conclusions. For some behaviours, ethnic minority people generally fare well (namely diet, alcohol and smoking); and for others they fare less well (namely exercise). But there is also great variation in behaviours across groups, generations and genders. For example, the pattern of smoking among South Asian people varies dramatically across the three main groups, across men and women, across religions and across generations.⁴ Importantly, where we see shifts in health behaviours across generations, towards a more 'white' lifestyle, the impact on health is, if anything, adverse.⁶ And, as for biological differences, such behaviours relate very strongly to social class.

In contrast to research focussing on possible genetic or cultural underpinnings of ethnic differences in health, there is now considerable evidence that the social and economic inequalities faced by ethnic minority groups make a substantial contribution to ethnic inequalities in health. Inequalities in economic position across ethnic groups are marked and complex. The full nature of economic inequalities cannot be captured using single, or crude, measures of socio-economic position, such as occupational class, housing tenure, or area deprivation – although this is commonly attempted in health research. For example, within particular class groups, ethnic minority people earn less than White people, and Pakistani and Bangladeshi people in professional/managerial groups earn an average income that is equivalent to White people in semi- and un-skilled manual classes.⁹ This reflects the multi-dimensional nature of the economic and social inequalities that ethnic minority groups face, including: economic activity; employment levels; educational outcomes; housing; geographical location; area deprivation; racism and discrimination; citizenship, and claims to citizenship.

Nevertheless, those few empirical studies that attempt to address the complexity of the economic inequalities faced by ethnic minority people (rather than using single crude indicators) demonstrate that much, if not all, of ethnic inequalities in health are the product of economic inequalities.^{4,9} And there is now clear evidence that morbidity and mortality within all ethnic groups – regardless of the condition focussed on – is strongly patterned by socio-economic position. For example, richer South Asian people have low rates of cardiovascular disease.¹⁰ This variation within groups indicates the lack of an inherent link between ethnic (minority) category and disease outcome. In short, explanations that are based on an essential set of attributes for each ethnic category are not sufficient to explain why one individual is more prone than another to contracting a particular disease or illness.

There is also a growing body of evidence that additional dimensions of social inequality faced by ethnic minority groups – such as racism, discrimination and area deprivation – also impact on the health of members of minority groups. So, where research has been conducted, the clear indication is that both physical and mental health are adversely affected by: experiences of racial harassment; fear of experiencing racial harassment; experiences of discrimination; and the belief that people generally discriminate against ethnic minority people.^{11,12,13} These 'indicators' of racism and discrimination reflect general perceptions of society as racist (belief that minority groups are discriminated against, fear of racism), personal threat (fear of racism and experiences of harassment), and experiences of events that undermine status and identity (experiences of harassment and experiences of discrimination).

Similarly, there is strong evidence that the economically poorer areas in which ethnic minority people on average live, negatively impact on health over and above individual socio-economic markers.^{14,15} But, in contrast to this, there is also evidence that the aggregation of ethnic minority people in areas with those of similar ethnicity is beneficial, particularly for mental health.¹⁶ This is likely to arise through a combination of increased security (lower exposure to racial harassment and discrimination) and increased social support. Indeed, there is some evidence demonstrating that ethnic minority people rate the areas where they live much more highly than would be implied by official indices of deprivation. This is precisely because these are locations where a sense of inclusive community for people like them has developed.¹⁷

It is also possible that, as a consequence of institutional racism, ethnic minority people receive poorer quality healthcare and that this contributes to ethnic inequalities in health. In the UK, there remains (almost) free universal access to healthcare. This is reflected in an equal or greater use of primary care health services (except possibly in the case of Chinese people) by ethnic minority people compared with White English people.¹⁸ Similarly, for conditions managed in primary care, it seems that the outcomes of care (levels of undiagnosed or poorly managed illness) are as good for ethnic minority people as they are for White English people.¹⁸ This all indicates that quality of healthcare does not contribute to ethnic inequalities in health.

Nevertheless, the experience of care seems poorer for ethnic minority people. In primary care, ethnic minority people are more likely to be dissatisfied with various aspects of the care received,^{3,19} to wait longer for an appointment,¹⁹ and to face language barriers during the consultation.³ And, there is a convincing body of evidence suggesting that the higher admission rates of young Black men for severe mental illness reflects the ways in which they are racialised (for a full discussion of this, see (20)).

So, although a concern with the causes of specific conditions in particular groups might lead to a focus on the genetic and behavioural differences, work on social and economic causes shows clearly that the social and economic inequalities associated with ethnicity are the main drivers of ethnic differences in health.

But this is not just a simple reflection of class disadvantage. The complex and multidimensional nature of the economic and social inequalities faced by ethnic minority people makes their situation both complex to research and in need of specific policy responses. In fact, interventions aimed at countering socio-economic disadvantage in general – such as the early years investments advocated by The Marmot Review¹ (and covered by Edward Melhuish in this publication) – may have little effect on the circumstances of ethnic minority people. This is particularly true if they are more likely to be excluded from such interventions,²¹ and if structures of racist discrimination persist into later life, for example, within the education system and labour market. Of course, such social and economic inequalities are resistant to serious policy analysis, making it extremely difficult to develop recommendations for policy intervention that are both effective and acceptable to the powers that be.

Ways forward: the need for policy development

As indicated earlier, it is clear that there has been little policy development to specifically address ethnic inequalities in health at a national level. This has been compounded by only occasional and fragmented implementation of policy at a local level; and no real evaluation of the impact on ethnic inequalities in health of targeted, or general, policies. Where policy has been developed and implemented, it has largely been concerned with addressing questions of accessibility to, and delivery of, services. There has typically been a focus on language and communication in health service provision through the provision of interpreters and translated material, rather than addressing the social and economic inequalities highlighted above. As a result, there is a shortage of useful evidence arising from the development and evaluation of policy.

In relation to ethnic inequalities more broadly, however, there is not a policy 'vacuum'. Rather there are a series of policies around culture, community and segregation that are populist and that disregard the evidence base. Examples are the neglect of the importance of deprivation in the Cantle inquiry into inner city disturbances in the North West of England;²² and more recent unfounded pronouncements on 'sleep-walking' to segregation.²³ Both of these continue to strongly influence government discussion and policymaking.

To address this gap in policy development and evidence, the following steps should be considered:

- A review should be conducted to develop evidence-based policy options in the specific field of ethnic inequalities in health – something that was within the remit of, and should have been covered by, The Marmot Review.¹
- This should lead to trials of policy options and the rolling out of successful policy, paying careful consideration to the specificities of ethnic groups, places, and context.
- The evidence base of existing policy around ethnicity, segregation, culture and citizenship should be carefully examined. In particular, there should be careful scrutiny of policies that undermine the citizenship claims and the social status of ethnic minority people. This scrutiny should focus on the evidence base for such policies and their likely negative impact on the health and wellbeing of such individuals and the communities within which they live.
- These processes should be linked to an 'ethnic proofing' of policies focussed on social and health inequality more generally, with particular attention paid to possible implications for a widening, or narrowing, of ethnic inequalities.
- Evaluation of policies focussed on social and health inequality should be designed and implemented in a way that allows for an explicit consideration of issues relating to ethnicity.

Which policy for health inequalities at a local level?

The implications of the evidence base for policy development are that ethnic inequalities in health require, in the short-term, welfare, tax and benefit changes targeted at reducing economic inequalities. There should be a particular focus on the adverse economic position of ethnic minority people. Long-term policies must promote equitable life chances and address racism and the marginalisation of people with different ethnic backgrounds.

As for other inequalities in health, the development and implementation of such policies are in the hands of central, not local, government. The devolution of public health to local authorities should not be a means for central government to avoid responsibility for health inequalities. We could, and should, ask why such an important and difficult to address issue appears to have been devolved to local responsibility, particularly when central government still frames and sets local budgets and local policies.

So, in this context, which concrete policy at a local level could achieve aspirations around the reduction of ethnic inequalities in health? I have argued above that the key determinants are social and economic inequalities. As such, I would like to identify a policy that addresses these at a fundamental level, rather than be distracted into a discussion of promoting healthy behaviours, social participation and empowerment, or the provision of equitable services. Indeed, rather than consider the public sector in terms of the provision of services, we could consider it in terms of its role as an employer.

As an employer and trainer of staff, the public sector has the opportunity to provide a significant leadership role at a local (as well as national) level. For example, in 2005 the NHS directly employed 1.3 million people. Of these, 1.1 million were non-medical staff, of which 12.8% were from ethnic minority groups (ranging from 19% of nursing/midwifery/ health visiting staff to 7.2% of managers). Of the medical staff employed, 43% had ethnic minority backgrounds. Indirectly, the NHS also employs a large number of people through sub-contracts (such as for cleaning services) and through associated industries.

The possibility of using the public sector as an employer to influence local labour market conditions has been recognised by the current coalition government. The Chancellor, in his March 2012 budget statement, raised the possibility of establishing regional variation in the salaries of public sector workers to reflect regional variations in labour markets. But, rather than using public sector employment to further lower the employment conditions of those working in other sectors, we could instead use the power of public sector employers to raise employment standards and reduce inequalities.

The public sector, as an employer, is able to set standards regarding good, equitable, employment practices. Furthermore, the sector is able to ensure that sub-contractors and independent contractors providing public services also meet these standards. Such practices could cover employment rights, holidays, sick leave, study leave, maternity leave, job security, job flexibility, limits to unpaid overtime, and management practices that promote autonomy and control at work. Such changes are likely to mostly benefit those in lower employment grades and more uncertain employment conditions.

In addition, improvements in employment conditions could also include financial benefits targeted at ensuring a more equitable distribution of salaries across employment grades.

And, this includes developing and protecting pension rights with the explicit intention of minimising inequalities in income, post-retirement. The immediate and longer-term impact of this on the broader social determinants of health inequalities is likely to be significant, particularly so for ethnic minority groups, who are over-represented in public sector workforces. Importantly, this would impact on local job markets, meaning other employers would need to follow suit if they were to compete.

Conclusion

In conclusion, **the policy I would recommend is for local government to place public health and the need to address inequalities in health at the centre of their employment practices.** This is something that could be a focus of the health and wellbeing boards that commenced operation in April 2013. These boards will continue the production of 'Joint Strategic Needs Assessments' (JSNAs) for their local area. They will use these to inform a local, Joint Health and Wellbeing Strategy (JHWS) that involves a wide range of sectors, including housing, education, transport, police, and the voluntary sector. Crucially, the boards will include representatives of clinical commissioning groups (CCGs) and will influence commissioning plans. The boards could make the labour market conditions of those delivering the services they commission a key dimension of their ambition to reduce inequalities in health and wellbeing.

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BUILDING AGE-FRIENDLY COMMUNITIES: NEW APPROACHES TO CHALLENGING HEALTH AND SOCIAL INEQUALITIES

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SUMMARY

In this proposal we make the case for implementing locally-based 'age-friendly environments' that facilitate improvements in the independence, participation, health and wellbeing of older people, and, in so doing, reduce social and health inequalities.

Our recommendation is based on important, evidence-based work by the World Health Organization¹ to develop constructive responses to local, age-based inequalities. Their 2007 Age Friendly Cities initiative aims to encourage "...active ageing by optimising opportunities for health, participation and security in order to enhance the quality of life as people age".

As we argue throughout this paper, this strategic approach can help tackle vital issues in improving the lives and health of older people. In our proposal we:

- Apply the principle that place matters. This ranges from lower life expectancy in more deprived neighbourhoods, to the environmental factors that support and influence daily independent living, health and wellbeing.
- Help address issues that older people living in urban areas face, for example, around social integration, access to services and leisure, and urban design that promotes mobility.
- Demonstrate that it is never too late to address issues of fairness or equity in the social determinants of health amongst the older generation. We recognise that taking action on behalf of older people can combat social disadvantage, facilitate social wellbeing, enable people to continue to contribute to the communities in which they live, and, crucially, influence healthy life expectancy.
- Advocate the participation of older people themselves, such that the people who will ultimately benefit most are engaged from the start in identifying priorities.
- Explain that localised action allows for greater tailoring to specific circumstances, environmental context and evidence; and for greater community engagement, participation and partnership.

Significant opportunities for action on ageing and the built environment are emerging in the UK and other countries, where central governments are devolving responsibilities for health and social policy.

We cite Manchester and York as examples of two cities striving to become age-friendly – the latter with a particular focus on dementia. It is vital that rigorous evaluation of end results is carried out, such that learning can be applied and best practice shared.

Introduction

The 2010 Marmot Review, *Fair Society, Healthy Lives*,² identified the building of *"sustainable communities and places"* as a key area of action relevant to all stages of the life course. Place matters to all age groups, but may be especially important for younger and older age groups. Both spend a large proportion of their time in the home and surrounding neighbourhood. The physical environment may itself assist in ensuring positive physical and mental health, especially for those experiencing chronic ill health, cognitive frailties, or feelings of loneliness resulting from the loss of partners and friends.

This contribution reviews initiatives associated with the development of age-friendly communities, with a particular focus on policies targeted at older people living in urban areas. Ageing and urbanisation are themselves closely related. By 2030, two-thirds of the world's population will be residing in cities. Furthermore, by that time, the major urban areas of the world will see 25 per cent or more of their population comprised of people aged 60 and over.³

Throughout this proposal paper, developing an age-friendly approach in cities will be assessed for the positive outcomes it can produce in terms of facilitating independence, social participation and wellbeing, especially for those rendered vulnerable by social disadvantage. The discussion also:

- highlights interventions in urban environments to promote wellbeing and quality of life in older age;
- reviews evidence about the social inequalities affecting the lives of older people and the way these can be exacerbated or mitigated within communities; and
- gives practical examples from two UK cities Manchester and York that are developing positive responses to ageing populations.

Social determinants of ageing

In the 2010 report *Fair Society, Healthy Lives*,² Sir Michael Marmot and his colleagues highlighted the importance of social determinants for addressing disparities in health outcomes for people having varying 'social positions' across the life span. They found that both life expectancy and disability-free life expectancy were considerably lower for people living in neighbourhoods with high levels of deprivation. Examples included the contrast in life expectancies for men aged 65 and over in different geographical locations around the UK. In the London Boroughs of Kensington and Chelsea and Westminster, this was found to be 22.7 years and 21.2 years respectively, compared with 13.9 years in Glasgow City and 15.5 years in Manchester and Liverpool. From 2004–06 to 2008–10, life expectancy at age 65 years in the UK increased by an average of 1.0 years for men and 0.9 years for women, with the gaps between areas increasing over this time.⁴

In response to such differences, Marmot argues for actions over the life span from early childhood health and good education, through to work opportunities and healthy communities – and that this should be combined with health promotion and support from health and social services. The central message is that actions to improve people's life chances, particularly if taken early in life, can improve health outcomes and address inequalities.

Research on healthy ageing is demonstrating that action taken on behalf of people at older ages can also combat social disadvantage, facilitate social wellbeing, and enable continuing contributions to the communities in which people live.⁵ While socio-economic disadvantage is largely determined earlier in life, the foundations of adequate income, along with affordable and secure housing, can still be achieved in old age. The socio-economic resources that can enable people to buy into housing and neighbourhoods and pay for transport reflect life-long inequalities.⁶

Social class is a major influence on healthy life expectancy i.e. the number of years a person can expect to live free of disability.⁷ A life course approach recognises that it is never too late (or too early) to respond constructively to divergent life chances, even as more people live into their 80s and beyond. In response, new research demonstrates the importance for older people of their local environments, and how the processes of 'ageing in place' should be placed in the context of the rapid changes affecting many urban environments.⁸

How does age interact with social inequalities?

Risks of experiencing inequality are associated with the range of transitions experienced over a person's life, from childhood and early years to work and retirement, through to late old age. However, a key underlying influence concerns the accumulation of mid-life advantage or disadvantage in terms of health, social, and economic resources. Linked with this are the reduced life chances of a cohort who came of age before post-war improvements in education, careers, housing, health care, and living standards. Their stoicism – which has shaped popular attitudes and expectations for ageing – contrasts sharply with the aspirations of baby boomers (those born from the mid-1940s through to the mid-1950s) who are now moving into retirement. The cohort change is particularly sharp for those women who had their formative years after the rise of the Women's Movement. As people grow older, disparities of wealth and other socio-economic resources are accentuated, with inequalities grounded in gender, class, ethnicity, sexual orientation, and other social divides.⁹

The WHO's 2002 Active Ageing Framework Strategy¹⁰ has led much of the international effort in addressing social determinants of health targeted at older people. Active ageing is defined as *"the process of optimising opportunities for health, participation, and security in order to enhance quality of life as people age"*. The Strategy (see Figure 1) conceptualises ageing across the life course and considers environmental influences on capacities to manage activities of daily living. With advancing age, independence and wellbeing become additionally influenced, for better or worse, by environmental supports and stressors.

The strengths of an environmental approach to ageing well are considerable.¹¹ If people can maintain independence in supportive environments, there is, as a result, less need for them to require support through locally provided services that can reduce autonomy and dignity, and may prove costly for the individual or the public purse. Having insufficient support can also limit coping and precipitate premature moves to restrictive and expensive care settings.



Figure 1: WHO Active Ageing Strategy, 2002

Source: WHO, 2002

What do we know about the impact of the environment on older people?

A variety of factors may result in the increased vulnerability of older people to what environmental gerontologists term the '*press*' of the neighbourhood environment.¹² Key factors include: length of exposure to damaging environmental effects; increased biological, psychological, and cognitive vulnerability; and changing patterns of spatial use. Older people may be highly sensitive to changes in the physical and built environment, given its significance for the maintenance of identity, and because of the amount of time spent in the home and neighbourhood. This has been shown in one study¹³ to be as much as 80 per cent of the time of those aged 70 and above. Older people demonstrate strong attachment to their home environment, which is also significant in terms of preferences to ageing in place, mobility and daily activities, and health risks such as falls.¹¹

Urban areas may pose health and social risks for some groups of older people. Many of these are shared with other age groups, but, in some cases, are felt in a more intense form because of the vulnerabilities associated with age. Studies¹⁴ note that older adults residing "…in physically deteriorated neighbourhoods [are more likely] to perceive that social support is less available to them…[in comparison with] elders who reside in bettermaintained neighbourhoods". Furthermore, this work shows the extent to which problems associated with the built environment (such as poor maintenance of buildings, and limited access to shops and facilities) have been shown to increase levels of psychological distress, even after controlling for variables such as age, gender and financial difficulties.

Studies¹⁵ also emphasise the importance of planning dementia-friendly outdoor environments. They demonstrate evidence that such places can have a positive effect on cognitive as well as physical abilities. They also note research which "...suggests that 'walking' helps to (at least) maintain cognitive functioning in those with dementia and that the practicalities of getting "out and about" in neighbourhoods, such as navigating through local environments, play a pivotal role in maintaining a person with dementia's sense of
self and wellbeing". Research suggests that the 'walkability' of neighbourhoods has an important bearing on promoting the level of physical activity required to maintain fitness and prevent obesity and chronic disease. At the same time, older people have identified neighbourhood barriers and facilitators for physical activity in the areas of safety and security, accessibility, comfort of movement, and peer support.¹⁶

Developing age-friendly cities: what kind of interventions can be introduced to improve the lives of older people residing in urban communities?

The WHO¹ suggests that "making cities more age-friendly is a necessary and logical response to promote the wellbeing and contributions of older urban residents and keep cities thriving." Research¹⁷ suggests that communities can be considered 'ageing-friendly' "...to the extent that they enable elderly community members to reside in familiar residences for as long as they wish (i.e. age in place), while having opportunities to meet age-related needs through participation in community life." They list a range of environmental modifications to support 'ageing in place', including:

- promoting opportunities for social integration and leisure activities;
- urban design that promotes interaction and mobility for pedestrians;
- affordable and accessible housing that allows older adults to remain in familiar neighbourhoods; and
- a wide range of transport and mobility options.

Evidence can now be found from a range of cities, illustrating specific actions to improve the lives of older people, focused around outdoor space, transport, housing, civic participation, community and health services and other features central to the built environment. The WHO website¹⁸ provides ongoing information on international innovations in age-friendly cities. Two examples are used here from the UK – Manchester and York – to illustrate local interventions to promote the age-friendly approach.¹⁹

Manchester²⁰ was in the first wave of urban authorities to join the WHO programme. The city is attempting to implement the WHO framework in the context of high levels of poverty and ill health experienced by older people living in the city. Based on the Income Deprivation Affecting Older People Index (IDAOPI),²¹ around 37 per cent of older people in the city are living in poverty (compared with 22 per cent for England as a whole). The age-standardised mortality rate for all causes of death in 2008–10 among people aged 65–74 years in Manchester was 64% higher than that of England as a whole (at 2.793 per 100.000 compared to 1.703 per 100.000 respectively).

In response to the above, the Manchester programme has developed along three core lines:

- First, it has a clear vision or narrative for an age-friendly city that focuses on empowering older people within their local neighbourhoods.
- Second, it has gained support from local politicians and senior officers within the local authority.
- Third, it has developed an integrated approach, drawing on a cross-section of departments and agencies to develop age-friendly initiatives.

Manchester is also promoting initiatives around what has been termed 'life-time neighbourhoods'. This includes work improving:

- public transport, with shelters and seats at bus stops, and toilets at transport hubs;
- community transport for people with mobility problems;
- affordable housing that meets the needs and aspirations of older people;
- accessible and locally delivered services;
- opportunities for taking part in learning;
- · green spaces and facilities for outdoor exercise and activities; and
- streets, footpaths, and cycle routes that are clean, well-lit and safe, with adequate road-crossing points.

The importance of creating dementia-friendly communities has also emerged as an important theme in discussions on re-designing urban environments for ageing populations. A dementia-friendly community is defined as one in which people feel safe within their locality; where they have access to local facilities; and where they are integrated with their preferred social network.²¹ In the UK, the National Dementia Strategy has focused on a range of outcomes to enable people to live well with their condition, but devotes relatively little attention to the role of the built environment.¹⁵ A number of cities across Europe and beyond are, however, developing a variety of initiatives that recognise the role of supportive communities that can mitigate, as far as possible, the impact of cognitive impairment.

York is taking action to create a 'dementia-friendly' city. The ambition is to be a city which takes steps to support people with dementia at all stages of the illness. The benefits are viewed in terms of boosting the confidence of people with dementia to manage everyday life, as well as reducing some of the negative effects of cognitive losses. Studies²² identify four essential building-blocks for creating dementia-friendly communities: place, people, networks and resources. Some of the key actions identified for development include:

- highlighting the characteristics of those *places* especially supportive of people with dementia;
- increasing awareness of dementia amongst *people* in the city;
- building *networks* of dementia champions at neighbourhood level; and
- drawing on all of the *resources* within the city to support people with dementia.

Directions for local and national action

The World Health Organization has outlined the global challenges, opportunities, and evidence base for *Good Health Adds Life to Years*.²³ It is clear that national policy goals aimed at addressing inequality and diversity among older people can benefit from local policy development and implementation.²⁴ Devolved action can take into account the highly variable local environmental context of ageing. It can also enable vulnerable older people themselves to have greater say and involvement in the design of services, and the way in which they are delivered. When considering the impact of population ageing in the future, it is essential to recognise that social disadvantage persists into later life, and that inequalities in health and wellbeing require attention and action over the entire life course. A local approach can facilitate comprehensive and integrated actions that are responsive to local communities, and that are delivered in partnership with them.

Older people may find that their communities, in which they have spent a good part of their life, can present obstacles to achieving a fulfilling existence in old age. On the one hand, cities are increasingly viewed as key drivers of a nation's economic and cultural success. On the other, the reconstruction of cities is often to the detriment of those outside the labour market – especially those on low incomes. Achieving recognition of the needs of different generations within cities, and exploiting the potential of the city for groups of people of whatever age, will be central to implementing an age-friendly approach.

With initiatives aimed at developing 'age-friendly communities' expanding at a rapid rate, research will be vital to evaluate the benefits, or otherwise, of this type of approach. Studies note¹⁷ that there has been limited research to date regarding the actual effects of specific physical and social interventions, and the process by which effects are achieved. In particular, there is a conclusion that:

"Rigorous evaluation is needed regarding the ability of initiatives to alter levels of social integration, social support and resource access among programme participants as well as across the broader community".

The proposal by Alan Maynard in this publication provides a fuller treatment around the need for more rigorous evaluation, including data on cost-effectiveness.

Conclusion

The 'age-friendly environment' approach we advocate in this contribution offers a new and practical paradigm for facilitating improvements in the independence, participation, health, and wellbeing of older people. Key to this will be:

- using the 'age-friendly' approach to challenge health and social inequalities at a local level;
- building co-operation amongst a variety of stakeholders, including statutory voluntary, private and not-for-profit organisations; and
- securing the involvement and leadership of older people themselves.

Finally, whilst designing urban environments for ageing populations should and will be a major policy goal for the 21st century, research and evaluation on the impact of those efforts will also be a key requirement for researchers, policymakers and older people themselves.

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THE ROLE OF COST-EFFECTIVENESS EVIDENCE IN REDUCING INEQUALITY

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SUMMARY

My one suggested intervention for the new health and wellbeing boards is that, when choosing between competing interventions to reduce inequality, choices must always be based on evidence of cost-effectiveness and not mere "expert opinion".

Health and social inequalities are persistent and worsening, in large part, because the evidence base of cost-effective interventions to reverse them remains virtually absent. In this proposal, I argue that:

- Evidence on cost-effective interventions is needed to gain funding for, and to direct, interventions;
- Much better use should be made of (health) economists around public health and health inequalities. To achieve this, their value needs to be better recognised, and their time diverted from other activity (e.g. work with the clinicians, industry and NICE);
- Techniques for evaluating individual social interventions and conducting systematic reviews across a range of studies are well established, but need to be better applied together with the analysis of cost consequences;
- Robust evidence is needed to overcome corporate interests, which are often opposed to regulation or taxes that may advance public health – but too much of the research carried out is poor quality and wasteful of resources;
- 'Evidence-based policymaking' is frequently rhetoric more than reality. Innovative interventions where evidence of cost-effectiveness is lacking should first be piloted, with the results and alternatives considered before any subsequent full scale roll out; and
- Opportunities for research include those based on tracking the impact of differentiated policy across UK nations (e.g. Scotland and England), and better collaboration and linkage of data across related fields such as health, health care and education.

Introduction: the imperative for evidence and cost-effective solutions

In his Theses on Feuerbach (1845), Karl Marx stated that:

"The philosophers have only interpreted the world in various ways; the point is to change it."

The British continually describe and analyse trends in health and social inequalities, but fail to change them. Official reports (e.g. 1, 2, 3) and books (e.g. 4) have chronicled the evolving and depressing nature of inequality. We are inundated with material analysing *what* the problems are, but there is inadequate knowledge about *how* to resolve them efficiently.

Health and social inequalities are persistent and worsening, in large part, because the evidence base of cost-effective interventions to reverse them remains virtually absent. Without such evidence, the task of attracting funding to mitigate health inequalities is undermined. When addressing the fundamental issue of what works at least cost (i.e. cost-effectiveness) in reducing health and social inequalities, we have an Old Mother Hubbard problem: the cupboard is bare! The economic perspective is essential but neglected.

There are many health care interventions that may affect health status. Forty years ago, Cochrane⁵ wrote about medical care:

"Allocations of funds and facilities are nearly always based on the opinion of senior consultants but, more and more, requests for additional facilities will have to be based on detailed argument with 'hard evidence' as to the gain to be expected from the patients' angle and the cost. Few can possibly object to this."

Much the same argument can be made in 2013, just with the opinions of public health and other experts in place of those of consultants, and reference to funds sought for reducing health inequalities rather than extra facilities. I would also add emphasis on *cost-effectiveness*. Scarcity of resources is just as inevitable as death and taxes, so there is an imperative to use the resources we do have, well. As inefficiency deprives citizens of services from which they could benefit, one could even go so far as to argue that investing in interventions without evidence of their cost-effectiveness is unethical. If that evidence is lacking, the obligation is to pilot and trial interventions rigorously.

Methodological approaches and the role of economists

In medicine, the combined forces of institutions such as the Cochrane Collaboration (www.cochrane.org) and the National Institute for Health and Clinical Excellence (NICE www.nice.org) are developing the evidence base so that scarce resources are more and more targeted where they can produce most benefit for patients at least cost. NICE's work in public health is stymied by the lack of robustly designed studies to identify effectiveness (does the intervention work?) and opportunity cost – i.e. how could much of society's scarce resources have been sacrificed that could have been invested in other ways instead?

There are two main methodological approaches to evaluating social interventions. Experimental methods use randomised controlled trials (RCTs); quasi-experimental ('difference in difference') methods involve analysis before and after interventions and comparison to a control group. These methods are widely taught and well recognised. Yet, in areas such as illness prevention and socio-economic inequality reduction, the systematic application of them,^{6,7} together with the analysis of cost consequences, remains limited.

The late Alan Williams self-mockingly described the techniques of cost benefit analysis as the "bastard science".⁸ This marginalisation of economic evaluation continues today. Why? The first cause is that there has been too little demand from the public health and policy community to involve economists in their work. Clinicians seeking funding to evaluate health care interventions are now usually required to involve economists in their studies. Hopefully this approach will permeate research in public health and in health inequalities

more thoroughly in future. However, for this to happen, public health practitioners and social policy analysts first need to recognise and exploit the potential of the discipline of health economics.

A second cause relates to the need to apply different analytical approaches. These include the 'innovative human capital approach' used by economists,^{9,10,11} and inter-generational inequality work to analyse the determinants of income mobility.¹² Application of the latter approach has highlighted the importance of education in the determination of lifetime income. However, in terms of identifying which types of education, at what stages in the life cycle, give the greatest return in terms of enhancing knowledge, human capital, lifetime income and reducing inequality at least cost, it has been quite quiet. Other more recent work¹³ has addressed this issue and, like that by other investigators, has focused on the early years as the most propitious area in which to invest. This work is generally based on economic theory and econometric analyses and does not use established techniques of economic evaluation.¹⁴

Economic evaluation and the measurement of benefits

Techniques of economic evaluation have been developed over four decades and have been applied extensively in technology appraisal, especially of pharmaceuticals (e.g. by NICE). The primary purpose of economic evaluation is to *inform* decision making, not necessarily to determine it. It involves the estimation of what is given up (the cost) and what is gained (the benefit) and compares the proposed intervention with an alternative. Cost may be estimated from the perspective of the NHS, as in the work of NICE, or may include costs to third parties, i.e. social costs.

Typically, cost benefit analysis measures benefits in terms of 'quality adjusted life years' (based on added lifespan and quality of life during it) and treats the benefits occurring to people equally, regardless of their social circumstances. There is some debate about whether weighting should, instead, score benefits more highly for those facing social disadvantage, so as to channel more resources to these groups and reduce inequalities.¹⁴

Whilst all economic evaluations should report the distributional consequences of the alternatives, a sole focus on quality-adjusted life years, as the measure of effectiveness, can be questioned. One alternative – the 'capability approach' – argues that policies should be evaluated on the basis of what a person is able to do.¹⁵ This theory can be illustrated by the example of two men, one starving and one fasting. The latter has capability, while the former does not. Operationalising this approach in health economics is in its infancy. Its major merit is that it focuses attention on the equity of capabilities.¹⁶ Until this approach is successfully developed, it is essential to make explicit the distributional consequences of the conventional approach to economic evaluation.

There are a number of reasons as to why those practicing the 'dark arts' of conventional economic evaluation have not focused their attention more on socio-economic inequalities and the prevention of ill health. A fundamental cause has been the scarcity of practitioners. Much of the available supply has been taken up by a combination of the pharmaceutical industry, NICE and clinicians who are collaborating with economists in research. So, a key question is: how can economic expertise be 'diverted' to enhance the evidence base about cost-effectiveness?

Now local government has regained the public health function in England, the evaluative effort will hopefully necessitate greater collaboration between local authorities and universities. This collaboration should lead to an increase in research grant applications to national agencies such as the National Institute for Health Research, with economic analysis an essential element of those proposals.

The impact of corporate interest on evidence and regulation

It is inevitable that industry will resist the application of techniques that affect their profits. The role of government is to balance the demands of public health and economic prosperity, and this is never easy when votes are at stake. For instance, health interventions such as the introduction of taxes on sugary drinks in New York City and France, and on fatty foods in Denmark and Hungary, were opposed by corporate interests whose profits were threatened by them. Measures ranging from increased taxation of tobacco, to the regulation of the pharmaceutical industry, have roused defensive responses from industry in the same way. Industrial alarm and opposition may be the price to pay when taxes and regulation are used to advance health, for instance, reversing the rise in obesity.¹⁷

The lesson to be learnt from this history is that government intervention has to be robust and evidence-based. Regulators have to be continually focused as industry adapts to meet evolving market constraints and opportunities. For instance, after initial opposition to the creation of NICE, the pharmaceutical industry complied with technology assessment rules. It now (reluctantly) supports the development and use of evidence to inform NHS rationing decisions. This compliance facilitates market access and marketing for industry. However, no such regulatory benefits accrue to much of the food industry and other corporate interests from measures to promote public health and reduce inequality. Hence their opposition to increased regulation and evaluation of its cost-effectiveness may be even more intense.

Adam Smith said that business interests usually come together "*in a conspiracy against the public or in some contrivance to raise prices*"¹⁸ – capitalists seeking to undermine capitalism, as it were.

Industry resisting regulation to protect its market share and profits is not new (e.g. around taxes, advertising and labelling in the tobacco, alcohol and food industries). Its relevance to this proposal is that, to overcome corporate power, the case for interventions and investment to reduce inequality must be well made and based on careful evaluation of policy choices. Limited quality research can be easily dismissed. Hence, market failures in the demand for public health and inequalities research that covers cost-effectiveness, as well as in the supply of practitioners, combine to mitigate against quality research, and act to protect industrial profits. The discipline of health economics has to combine with the skills of practitioners to address these failings.¹⁹

A way forward – making evidence-based policy a reality

Even more so than in medicine, continuous local and national innovation in public health and social inclusion interventions is combined with a paucity of well designed, executed and reported evaluations. This is recognised in The Marmot Review:³ "we [have] noted the limitations to the evidence that is available from past interventions. While there is often evidence of general health effects of interventions, there is a dearth of evidence in respect to the impacts and cost-effectiveness of interventions on health inequalities...this is the case in terms of both primary studies and systematic reviews."

The Review went on to conclude and advocate that, where there is innovation, such interventions should be limited to "*time limited trials with an integrated evaluation strategy built in*" – a plea that is familiar to researchers. Subsequent scaling-up from pilot to full-scale implementation should only take place when cost-effectiveness is demonstrated.

The demonstration of efficiency in the context of public health and health inequalities requires a broad canvas. Health is affected by income and wealth distribution, social care and social welfare, education, environmental controls and other factors. Poverty and illiteracy may have more significant effects on life cycle and inter-generational health than does the NHS. Economic evaluation can inform investment *within* the health service and choices *between* the NHS and other health-creating activities.

Part of the reason for why the seemingly obvious case for economic evaluation (that "few can easily object to", as we discussed earlier) is rarely translated into practice, concerns the different perspectives of analysts and decision makers. Nobel laureate in economics, George Stigler, remarked:

"A scholar ought to be tolerably open minded, unemotional and rational. A reformer must promise paradise if his reform is adopted. Reform and research seldom march arm in arm".

Stigler's remarks are pertinent to innovators at the local and national level, whether managers or politicians. All may pay lip service to the concept of 'evidence-based' policymaking, but few practice it. Politicians focused on winning votes have short time horizons. Inevitably, they seek activity that delivers quick results, and which facilitates system-wide implementation, even when an evidence base is absent. Managers respond to these pressures – partly in order to retain their jobs, but also because they often lack the skills to design even the crudest evaluation. The combination of short-termism, and lack of appreciation of the need to evaluate systematically to inform investment decisions, has created a knowledge vacuum about what works at least cost when investing in inequality reduction.

The evaluation challenge – systematic review and research opportunities

The merits of economics-based medicine and the rigorous use of randomised controlled trials (RCTs) have been argued for 40 years,⁵ with emphasis on systematic implementation* for more than 20 years.²⁰ What can be learnt from this experience?

The first lesson is that research activity is not inadequately funded. Much research activity is poorly designed, implemented and reported, and hence wasteful. If it was better executed, resources would be freed up at no additional cost to funders. Despite the considerable efforts to teach research principles, rigorously review research proposals, and evaluate research results, a considerable gap remains between best practice and actual practice.

This is evidenced by any systematic review. The purpose of systematic reviews of evidence is to identify and synthesise the results of well-designed and executed trials. This is a complex and time-consuming task. For instance, one review of studies of interventions to prevent adolescents taking up smoking²¹ used accepted criteria to identify 93 RCTs and controlled studies. However, they found that both definitions of quitting, and the sample sizes used, varied considerably across studies. Furthermore, after detailed analysis of the studies' methods, the authors dismissed 69 as inadequate. This high exclusion rate (75%) is not unusual and is indicative of how much research resource could be freed up if good practice evaluations took place. Despite continuing efforts to improve practice, research quality remains very uneven.**

But how should competing research demands be prioritised? At the national level, radical experimentation will be slow, as the current government is reluctant to use fiscal policies vigorously, e.g. taxes on food and drink consumption associated with obesity. While there is discussion in England about adopting the Scottish policy of minimum alcohol pricing, the translation from discussion to legislation may be slow. This may in itself present an opportunity. If progress is slow, quasi-experimental methods could be used to analyse before and after alcohol consumption in Scotland, with England as a control group where the policy does not change. This would emulate a study of the ban on smoking in public places in Scotland, which used England as a control in the period before a similar prohibition was implemented in England. This showed that the change in Scotland had no overall effect on the prevalence of tobacco use, but some effect on some groups of heavy users.²²

At the local level, innovators are continually experimenting – but with little or no systematic evaluation. Such behaviour is inefficient and the waste of public resources unethical. The way forward has to be incremental and based on identifying 'what works' efficiently. It requires patience to wait for the results of research to be produced, and only then should the 'winners' be carefully implemented. This approach requires abandonment of the current practices of continued change and unfounded optimism in untested practices.

The current NHS reforms reallocate public health functions to local authorities (health and wellbeing boards), who are required to collaborate with local health care commissioners (Clinical Commissioning Groups or CCGs). It is essential that both these new organisations register evaluative trials of new policies, describe their design, and publish their results. Such a data base could inform researchers who might then collaborate with cooperating networks of local authorities in high quality evaluation. Public health, and those interested in reducing health and social inequalities, should not emulate the bad practice of the pharmaceutical industry, where not all trials are registered and negative results are often not reported.²³

^{**}For advice and commentary on how to improve research, see www.equator-network.org.

The example of early years and education

A current focus of opinion is that the pre-school years are of great importance and are a time when cognitive and non-cognitive skills can be either developed or stunted. Such outcomes appear to affect subsequent educational attainment and lifelong inequalities in health and income (see Edward Melhuish's article in this publication for a fuller review of this topic). However, the *cost-effectiveness* evidence base of pre-school interventions is absent. Consequently, policy is discussed and developed behind "a veil of ignorance".⁶

Local government public health activity could usefully start at the basic level of linking up data from local agencies. The Manitoba Centre for Health Policy²⁴ asked the question: how were their children progressing? To answer this question they linked health, health care and school data for children. They concluded that positive and negative outcomes are set early in life and that a third of children in the low-income quartile experienced some type of deflection in their trajectory (i.e. their trajectories are not permanent). Simple analysis of this nature could form the basis for exploring inter-generational deprivation at the local level,¹² and could facilitate local experimentation to determine which interventions/ policies are demonstrably cost-effective. Simple record linkage and analysis of outliers and trends should be a priority to inform intervention by local government.

National and local policies affecting educational access and achievement are rarely evaluated systematically.*** However, the scope for both RCTs and difference in analyses, including costings, is considerable. For instance, Educational Maintenance Grants have been abolished in England, but not in Scotland and Wales. As with the public health examples previously discussed, this affords scope to analyse before and after data, to compare any continuing success in Scotland and Wales compared to England.

An obvious source for informing local government investments to improve public health is published advice from NICE. Developing this material in relation to ways to reduce inequality requires experimentation and evaluation. For example, recent NICE guidance on enhancing walking and cycling might, if it had a greater middle class take-up, increase health for those groups, but widen inequality in the process. Consequently, local government needs to experiment and evaluate to identify ways of turning NICE advice into cost-effective interventions to reduce inequality.

Hopefully, opportunities such as these will be exploited to enhance the evidence base, scientifically and systematically.

Conclusion

All reforms are experiments requiring evaluation. My main idea here is that, without systematic evaluation of policies and the cost-effectiveness of investments to reduce the gross health and social inequalities, those inequalities will be preserved, at best, and more likely worsen. Governments and policymakers increasingly demand such evidence before investing society's scarce resources, and quite rightly so.

*** Note the paucity of evidence about the cost-effectiveness of social policies such as education, social work, the police and the judiciary at www.campbell.org.

There is increasingly good analysis of the '*what*' issue – i.e. the ubiquitous nature of inequality and the dismal policy record of successive governments in tackling it – together with tub thumping advocacy of simplistic 'solutions'. However, this is no substitute for identifying the '*how*' issue – how to best bring about reduction of inequality in practice. That requires use of robust evidence about cost-effectiveness and the distributional consequences of social choices. The role of evidence based on economic analysis is to inform decisions. Political and social choices may of course ignore such evidence!

If we are to reduce inequality and *act*, as demanded by Marx over 150 years ago, researchers in public health and related social policy subject areas must 'mend their ways' and add economics to their efforts to improve the lot of disadvantaged citizens.

In conclusion, my suggestion is that health and wellbeing boards and local government prioritise the production and use of cost-effectiveness evidence when choosing between competing interventions to reduce inequality. This work must include the use of systematic reviews, data linkages between health, education, housing and social care, and the commissioning of rigorous evaluative studies where evidence of efficiency is lacking. Furthermore, they should: pilot any new/innovative practices and consider the results, before any wider implementation; openly share their findings; and collaborate with other public health practitioners and health economists. Without this approach, "faith-based" investments to reduce inequality will continue. Such activity is not only an inefficient waste of society's scarce resources, it is also unethical, as it derives the poor of aid from which they could benefit.

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This report has been peer-reviewed to ensure its academic quality. The views expressed in it are those of the authors and are not necessarily endorsed by the British Academy, but are commended as contributing to public debate.

Evidence and guidance on improving the population's health has often focused on insights from biomedical or behavioural science and has tended to highlight interventions targeted at individuals. Despite widespread acknowledgement of the importance of the socioeconomic determinants of health, structural issues such as worklessness, early childhood intervention and transport planning have had less focus.

This report is a collection of opinion pieces from leading social scientists, each of whom has written an article, drawing on the evidence base for their particular area of expertise and identifying one policy intervention that they think local authorities should introduce to reduce health inequalities. These nine proposals present evidence from a wide range of social sciences and are intended to fire the imagination of local policymakers and support them in their mission to effectively improve the health of the population.

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