

Institution: University of Liverpool		
Unit of Assessment: UOA2 - Public Health, Health Services and Primary Care		
Title of case study: Informing public investment for health equity: Assessing government policy impacts on health, poverty and inequality		
Period when the underpinning research was undertaken: 2013-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Ben Barr	Professor in Applied Public Health research	2013 – present
David Taylor-Robinson	Professor of Public Health and Policy	2013- present
Sophie Wickham	Wellcome Trust Research Fellow Public Health and Policy.	2013- present
Margaret Whitehead	WH Duncan Professor of Public Health	1999- present
Period when the claimed impact occurred: 2013-2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact Research by the University of Liverpool's (UoL) Social Determinants and Health Inequalities group (Barr, Taylor-Robinson, Wickham and Whitehead) demonstrating the health consequences of alternative public investment strategies has directly influenced policies with major health impacts, including:</p> <ol style="list-style-type: none"> 1. Ensuring an NHS resource allocation policy tied to socioeconomic deprivation: equivalent to an additional GBP1,000,000,000 per year going to more disadvantaged areas. 2. A change in disability benefit assessment; scrapping harmful repeat assessment with the Work Capability Assessment WCA for 24,000 people with deteriorating health problems in England. 3. A reversal of the government's proposal to stop monitoring income related child poverty. 4. Local actions to prioritise investment in children including preventing the closure of 10 children's centres in Liverpool. 		
<p>2. Underpinning research</p> <p>Public investment strategies have an important impact on health inequalities, since changes to the way public funds are allocated have consequences for people's quality and length of life.</p> <p>Research done by UoL's Social Determinants and Health Inequalities group has used causal methods, biostatistics, social epidemiology, and evaluation of natural policy experiments to inform public health policy. This has included:</p> <ol style="list-style-type: none"> 1. Showing how policies allocating GBP115,000,000,000 per year of NHS funds to local areas influence health inequalities. [1-2] 2. Demonstrating how changes to disability benefits and Universal Credit since 2010 led to increased suicides and mental health problems. [3-4] 		

3. Identifying the adverse child health consequences of increases in poverty and welfare changes since 2010. [6-8]

Equitable NHS investment.

Barr and Whitehead's research was used by the Department for Health and Social Care to model the impact on health inequalities of alternative NHS resource allocation policies, leading to a policy that prioritised investment in more deprived areas. This followed our research that demonstrated that the UK government NHS resource allocation strategy between 1997 and 2010 - to increase NHS funding to a greater extent in deprived areas of England compared with more affluent areas - , reduced health inequalities. [1, 2] We further demonstrated that policies implemented since 2010 were now reversing this progress and inequalities were widening once again.[2]

Welfare reform, disability assessment and mental health.

Disability benefit policy in the UK changed following research by Barr, Taylor-Robinson, Wickham and Whitehead showing the first empirical evidence of the adverse health impacts of Disability benefits assessment in the UK.[3] The research demonstrated that the policy of putting over a million people through the new Work Capability Assessment had led to an increase in mental health problems including an estimated additional 600 suicides. Their research also found that this policy did not improve employment chances – the policy's primary aim. [3]

Research by Wickham, Taylor-Robinson, Whitehead and Barr also produced the first empirical evidence of the adverse mental health effects of Universal Credit's (UC) introduction, [4] showing that it led to an additional 64,000 people experiencing psychological distress and an additional 21,000 people with clinical depression.

Poverty and investment in child health.

Income based measurement of child poverty in the UK was retained following research by Taylor-Robinson, Barr and Wickham demonstrating the impact that changes in child poverty have on child mental and physical health within a relatively short time frame.[5]

Barr, Taylor-Robinson and Whitehead led a programme of knowledge translation: the Inquiry on Health Equity for the North - Due North (Chair: Whitehead, evidence papers: Barr, Taylor-Robinson, set up by Public Health England). The Inquiry brought together expertise from universities, local government and the voluntary sector across the North of England, highlighting research by Barr, Taylor-Robinson and Whitehead that indicated the need for local areas to prioritise investment in child health and ensure children's rights are upheld. [6]

3. References to the research

1 Barr B, Bambra C, Whitehead M. The impact of NHS resource allocation policy on health inequalities in England 2001-11: longitudinal ecological study. *BMJ* 2014; 348: g3231–g3231. doi: <https://doi.org/10.1136/bmj.g3231> Citation index Google Scholar: 58 Altmetric Score: 179

2 Barr B, Higgerson J, Whitehead M. Investigating the impact of the English health inequalities strategy: time trend analysis. *BMJ* 2017; 358: j3310. doi: <https://doi.org/10.1136/bmj.j3310> Citation index Google Scholar: 39 Altmetric Score: 644

3 Barr B, Taylor-Robinson D, Stuckler D, Loopstra R, Reeves A, Whitehead M. 'First, do no harm': are disability assessments associated with adverse trends in mental health? A longitudinal ecological study. *J Epidemiol Community Health* 2015; jech-2015-206209. <http://dx.doi.org/10.1136/jech-2015-206209> Citation index Google Scholar: 107 Altmetric Score: 1380

4 Wickham S, Bentley L, Rose T, Whitehead M, Taylor-Robinson D, and Barr B. Effects on mental health of a UK welfare reform, Universal Credit: a longitudinal controlled study. *The Lancet Public Health* 2020; 5: e157–64. doi: [https://doi.org/10.1016/S2468-2667\(20\)30026-8](https://doi.org/10.1016/S2468-2667(20)30026-8) Citation index Google Scholar: 11 Altmetric Score: 551

5 Wickham S, Whitehead M, Taylor-Robinson D, Barr B. The effect of a transition into poverty on child and maternal mental health: a longitudinal analysis of the UK Millennium Cohort Study. *The Lancet Public Health* 2017; 2: e141–8. DOI: [https://doi.org/10.1016/S2468-2667\(17\)30011-7](https://doi.org/10.1016/S2468-2667(17)30011-7)
Citation index Google Scholar: 29 Altmetric Score: 140

6 Whitehead M, Barr B, McInroy, N, et al. *Due North: Report of the Inquiry on Health Equity for the North*. Liverpool: University of Liverpool and the Centre for Economic Strategies, 2014. <https://cles.org.uk/wp-content/uploads/2016/11/Due-North-Report-of-the-Inquiry-on-Health-Equity-in-the-North-final.pdf>

4. Details of the impact

Barr, Whitehead, Wickham and Taylor-Robinson's research led to more equitable policies for health including: more equitable allocation of NHS funds to local areas; reduced application of harmful disability benefit assessments, continued monitoring of child poverty and increased local child health investment.

More equitable allocation of NHS funds to local areas.

In 2012 the Secretary of State for Health announced proposals to reduce the weighting given to deprivation in the English NHS resources allocation formulae. Barr and Whitehead presented their research as members of the Department of Health (DH) technical advisory group on resource allocation showing how these changes would increase the gap in preventable mortality between disadvantaged and affluent areas. The CEO of the NHS, Sir Simon Stevens, used our research in evidence to the Public Accounts Committee, to justify maintaining the health inequalities adjustment in the NHS allocation formula. [E1] As the Chair of the Advisory Committee on Resource Allocation stated: "The paper is the best evidence we have seen to date that quantifies the potential impact of the adjustment in the allocations formula for unmet need and health inequalities." [E2]

This led to the DH commissioning independent economists from Deloitte to use Barr and Whitehead's evidence to model the inequalities impact of different funding formulae – leading to implementation of a formula that prioritised allocation to more deprived areas. [E2] This formula allocates an additional GBP1,000,000,000 to the most deprived Clinical Commissioning Groups (CCG) than would have been the case if the government's original proposal was implemented. [E3] The research has subsequently been used by the World Health Organisation, to recommend that socioeconomic disadvantage is included in national funding mechanisms that allocate health resource to subnational areas. This recommendation, made in the European Health Equity Status Report, was endorsed by member states at the 69th session of the WHO Regional Committee for Europe in 2019. [E4]

Reduced application of harmful disability benefit assessments.

In 2015 our research showing how the Work Capability Assessment (WCA) had led to an increase in mental health problems and suicides stimulated an influential debate in parliament and the national media. [E5] It was the evidence base for campaigns to change the WCA, informing the Equality and Human Rights Commission (EHRC) submission to the UN Convention on the Rights of disabled people [E6] and leading the Labour Party to change their policy and commit to abolishing the WCA. [E7] The research underpinned the campaign by the opposition and disabled peoples' organisations that successfully led to the Secretary of State announcing in October 2016 that the government would end reassessments for around 24,000 people per year with the most severe lifetime conditions. [E7] Further research in 2020 showing the negative mental health effects of Universal Credit contributed to debates in parliament and in the national media, was presented to the House of Commons Work and Pensions Select Committee. [E8]

Poverty and investment in child health.

Research by Taylor-Robinson, Wickham, Barr and Whitehead led to the retention of income-based measurement of child poverty nationally. In the 2015 Welfare and Work Bill the government proposed removing the requirement in the 2010 Child Poverty Act for governments

to monitor income related child poverty. UoL research showing that even short term transitions into poverty had a negative impact on child health was presented to the All Party Parliamentary Group for Health in All Policies (APPG HiaP).[E7] This evidence was then discussed in the Parliamentary debate on the 2016 Welfare and Work Bill [E9] and used to argue against the government's proposal. The House of Lords then amended the government's Bill reversing the government's proposal, requiring it to continue to monitor income related child poverty.[E9] As the chair of the APPG HiaP has stated, "the evidence from Taylor-Robinson and Barr's research was crucial in making the case for the House of Lords to the reverse the governments initial proposal ensuring child poverty continues to be monitored." [E7] Within Liverpool our child poverty research led to the development of the joint Children's Transformation Plan for Liverpool, which enabled the city council to reverse their initial decision to close 10 out of 17 Children's Centres and resulted in the city signing up to be a UNICEF Child Friendly City. As the former chair of Liverpool CCG states "Without this evidence, it is my view that those vital resources would have been permanently lost for families in the city". [E10]

Summary

Over the past two decades the work of the UoL Social Determinants and Health Inequalities group has produced timely and robust evidence monitoring the effects of changes of public policy and investment on health and health inequalities leading to reduced mortality and harm to individuals and communities across the UK and Europe.

5. Sources to corroborate the impact

E1. Evidence given by CEO of the NHS, Sir Simon Stevens, to the Public Accounts Committee, citing Barr et al evidence for maintaining health inequalities adjustment

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/public-accounts-committee/funding-healthcare-making-allocations-to-local-areas/oral/14909.html>

E2. Technical Guide to determination of revenue allocations to CCGs and commissioning areas for 2016-17 to 2020-21 <https://www.england.nhs.uk/2016/04/allocations-tech-guide-16-17/>, including letter from the chair stating the research by Barr et al was the best they had seen on the inequalities adjustment [<https://www.england.nhs.uk/wp-content/uploads/2016/04/acra-recommendations-letter-2015-upd.pdf>] a modelling commissioned from Deloitte using Barr et al. evidence to model the inequalities impact of different funding formulae

[<https://www.england.nhs.uk/wp-content/uploads/2016/04/acra-2015-35-hlth-inequality-adjstmnt-upd.pdf>]

E3. Statement in NHS long-term plan committing to continued targeting of GBP1 000,000,000 per year to health inequalities page 40, paragraph 2.25 of

<https://www.longtermplan.nhs.uk/online-version/chapter-2-more-nhs-action-on-prevention-and-health-inequalities/stronger-nhs-action-on-health-inequalities/>

E4. WHO's European Health Equity Status Report Initiative, including report [

<https://apps.who.int/iris/bitstream/handle/10665/326879/9789289054256-eng.pdf?sequence=1&isAllowed=y>] recommending that resource allocation funding formulae

should be needs based (pages xxxi, 3, 35, 108, 109) citing evidence from Barr et al (reference 48, page 35), that was endorsed by member states at 69th session of the WHO Regional Committee for Europe [<https://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/past-sessions/69th-session/documentation/resolutions/eurrc69r5-resolution-on-accelerating-progress-towards-healthy,-prosperous-lives-for-all,-increasing-equity-in-health-and-leaving-no-one-behind-in-the-who-european-region>]

E5. Hansard reports of debates in parliament on the work capacity assessment citing research showing link to poor mental health and suicide. Including: The 17/11/2015 second reading of the Welfare Reform and Work Bill in the house of Lords

[<http://www.publications.parliament.uk/pa/ld201516/ldhansrd/text/151117-0002.htm>] Oral answer to questions by the Secretary for State for Work and Pensions in the House of Commons on 7/12/2015

[<http://www.publications.parliament.uk/pa/cm201516/cmhansrd/cm151207/debtext/151207-0001.htm>], the 16/12/2015 House of Commons debate on benefit sanctions

[<http://www.publications.parliament.uk/pa/cm201516/cmhansrd/cm151216/halltext/151216h0002>]

[.htm \]](#), The 9/12/2015 debate on the Welfare Reform and Work Bill [<https://hansard.parliament.uk/Lords/2015-12-09/debates/15120944000367/WelfareReformAndWorkBill?highlight=wca%20suicide#contribution-15120956000005>] and the the 9/2/2016 debate on Work Capability Assessments. <https://hansard.parliament.uk/Commons/2016-02-09/debates/16020978000001/WorkCapabilityAssessments>

E6. The Evidence submission of the Equality and Human Rights Commission (EHRC) to the UN Convention on the Rights of disabled people citing research on the WCA by Barr, Taylor Robinson and Whitehead. Page 28, reference 102

in: https://www.equalityhumanrights.com/sites/default/files/united_kingdom_main_submission_to_crpd_uk_loi_-_ukim13march.pdf.

E7. Testimonial from Chair All-Party Parliamentary Group for Health in All Policies and Member of Work and Pensions Select Committee stating that Barr et al research on the WCA led to the Labour Party committing to scrapping the WCA in their 2017 manifesto and underpinned the campaign that successfully resulted in the government ending reassessments for people with the most severe lifetime conditions, plus her statement on child poverty monitoring. .

E8. Oral evidence of research by Wickham, Barr and Taylor-Robinson on the mental health impact of Universal Credit as witness in formal meeting of the Work and Pensions Select Committee 17/6/20

<https://committees.parliament.uk/event/1288/formal-meeting-oral-evidence-session/>

E9. Debate in Parliamentary debate 23/2/16 on the 2016 Welfare and Work Bill that led to the Lords Amendment of the bill to require the government to continue to monitor income related relative child poverty <https://hansard.parliament.uk/Commons/2016-02-23/debates/16022349000001/WelfareReformAndWorkBill?highlight=child%20poverty%20university%20liverpool#contribution-160223590000054>

E10. Testimonial from Chair of Liverpool CCG (2017-2019) outlining how Due North and the research of Taylor Robinson , Barr Wickham and Whitehead led to greater investment in children's services in Liverpool.