

Institution: Staffordshire University		
Unit of Assessment: UoA 3 Allied Health Professions, Dentistry, Nursing and Pharmacy		
Title of case study: Shaping Practice and Policy of Stakeholders Working to Improve Health in Stoke-on-Trent		
Period when the underpinning research was undertaken: March 2006 – December 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name:	Roles:	Periods employed by submitting HEI:
Prof Christopher Gidlow	Professor of Applied Health Research	2006 - present
Dr Naomi Ellis	Senior Lecturer	2008 - present
Graham Smith	Research Assistant in GIS	2004 - 2017
Prof Marc Jones	Professor of Stress and Emotion	2000 - 2018
Dr Gemma Hurst	Senior Lecturer in Psychology	2008 - present
Dr Daniel Masterson	Health Psychologist, Healthy Urban Planning	2010 - 2017
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Dr Lisa Cowap	Lecturer in Psychology	2013 - present
Dr Rachel Povey	Associate Professor of Health Psychology	1999 - present
Period when the claimed impact occurred: January 2014 – December 2020		
Is this case study continued from a case study submitted in 2014? No		
1. Summary of the impact		
<p>Impacts stem from interdisciplinary, applied public health-focused research that led to the establishment of the Centre for Health and Development (CHAD). This collaborative research centre engaged directly with local authorities, NHS and third sector stakeholders, leading to:</p> <ul style="list-style-type: none"> • Greater consideration of public health in urban planning practice and policy in Stoke-on-Trent, with health-promoting changes to 30 large scale developments. • Improved NHS Health Checks, increasing uptake in Stoke-on-Trent from 50.8% to 63.4% (2014-2015 to 2016-2017) and remaining above the national average after intervention ended. Improving risk communication across 16 local authority areas in England. • Increased understanding, learning and participation through public engagement with approximately 1,600 people, and approximately 30 public and voluntary sector organisations. 		
2. Underpinning research		
<p>Stoke-on-Trent (SoT) is the 12th most deprived local authority in England, with considerable health challenges and inequalities (<i>Indices of Multiple Deprivation</i>, 2019). Understanding and tackling these inequalities required the establishment of a strong focussed research evidence base, using collaborative and participatory approaches. Our research is conducted within a social-ecology framework to address health issues in deprived communities at individual, community, and environmental levels. Research across these levels can be grouped into thematic areas of natural environments, physical activity/neighbourhood environments, asset-based community development, and cardiovascular disease (CVD) prevention.</p> <p>Our research started in 2006 with a socio-ecological investigation of health and physical activity in deprived SoT communities. This led to international and locally relevant research in the International Physical activity and Environment Network (IPEN) and PHENOTYPE projects (EUR4,517,113 European study of natural environments/health, between 2012 and 2016). These projects studied environment-health relationships across diverse areas and populations by applying consistent measurements of environmental exposures and health-related outcomes.</p> <p>Study 1 (2009-present). IPEN showed that people tend to be more active when living closer to multiple parks and private recreational facilities [3.1]. Our related research also showed that the residents in deprived communities had high access to fast food takeaways (69% to 99% within 500m), but poor access to fresh food (0% to 33%), shaping health through local food choices.</p> <p>Study 2 (2012-2016) PHENOTYPE showed the health benefits of long-term exposure to green space. Benefits included: reduced risk of mortality, CVD, and mental health problems; lower blood pressure in adults and during pregnancy; higher birth weight; and better cognitive function.</p>		

We demonstrated the benefits of short-term exposure to green space (e.g., improved cognitive function [3.2], cardiac rehabilitation). Critically, our work also shows 'equigenesis', whereby the strongest health benefits of natural environment exposure occur in lowest socio-economic groups [3.3]. Yet these groups tend to have access to poorer quality natural environments [3.4].

Study 3 (2013-2016) At the community level, our qualitative research demonstrated the disenfranchisement of the deprived SoT communities and showed the impact of asset-based community development in empowering residents [3.5].

Study 4 (2013-2014) At the individual level, since 2009, Stoke-on-Trent City Council (SoTCC) has been a leading local authority for NHS Health Check (NHS HC), a national CVD prevention programme. Unlike national trends, our research showed that people from deprived areas of SoT were less likely to attend their Health Check [3.6].

Study 5 (2015-2017) Our subsequent randomised controlled trial (HECTR) showed that, regardless of deprivation, inviting patients by telephone (rather than post) increases attendance by 18% [3.7]. We researched CVD risk communication, a central component of Health Check, by developing and testing practitioner training, which improved their confidence and understanding.

Study 6 (2017-2020) Our NIHR-funded 'RICO' study used novel video-recording methods to demonstrate varied and often poor risk communication in Health Checks [3.8]. This confirmed an important training need to ensure the programme better serves the target population.

Overall, the key messages from the underpinning research are that:

- Improving health, particularly in deprived communities where the need is greatest, requires a multi-level approach with multiple stakeholders;
- individual-level programmes (e.g., NHS HC) must be improved by evidence-based changes, disenfranchised communities/groups need to be engaged and supported by appropriate groups and methods; and
- planners need to give greater consideration to the health consequences of the local environment, particularly green space.

3. References to the research

Study 1: International Physical activity and Environment Network (IPEN), world-leading research group led by Prof Jim Sallis ipenproject.org

3.1 Gidlow CJ, Cerin E, Sugiyama T, Adams M a, Mitas J, Akram M, et al. Objectively measured access to recreational destinations and leisure-time physical activity: associations and demographic moderators in a six-country study. *Health Place*. 2019; 59:102196.

<http://eprints.staffs.ac.uk/5865>

Study 2: PHENOTYPE (FP7), the only study funded under ENV.2011.1.2.3-2 - Positive effects of natural environment for human health and well-being

3.2 Gidlow CJ, Jones M V., Hurst G, Masterson D, Clark-Carter D, Tarvainen MP, et al Where to put your best foot forward: Psycho-physiological responses to walking in natural and urban environments. *J Environ Psychol*. 2016; 45:22–9. <http://eprints.staffs.ac.uk/2296>

(cited in **World Health Organisation's** review of urban green space; rated 'high quality' in systematic review by [Mygind et al](#). *Environ Behav* 2019, doi:10.1177/0013916519873376).

3.3 Dadvand P, Wright J, Martinez D, Basagaña X, McEachan RRC, Cirach M, ... Gidlow C. et. al. Inequality, green spaces, and pregnant women: Roles of ethnicity and individual and neighbourhood socioeconomic status. *Environ Int*. 2014; 71:101-8 <http://eprints.staffs.ac.uk/2978>

3.4 Gidlow CJ, van Kempen E, Smith GR, et al. Development of the Natural Environment Scoring Tool (NEST). *Urban For Urban Green* 2018; 29:322–33. <http://eprints.staffs.ac.uk/4195>

Study 3: Exploration of asset-based community development in deprived communities

3.5 Romeo-Velilla M, Ellis N, Hurst G, Grogan S, Gidlow C. A qualitative study of disengagement in disadvantaged areas of the UK: 'You come through your door and you lock that door.' *Heal Place*. 2018; 52:62–9. <http://eprints.staffs.ac.uk/4492>

Study 4: Quantitative and qualitative studies of low uptake in NHS Health Check

3.6 Gidlow C, Ellis N, Randall J, Cowap L, Smith G, Iqbal Z, et al. Method of invitation and geographical proximity as predictors of NHS Health Check uptake. *J Public Health*. 2015; 37:195–201. <http://eprints.staffs.ac.uk/2179/>

(Rated 'strong quality' in a systematic review by [Bunten et al.](#) *BMC Public Health* 2020; 20:93)

Study 5: - HEalth Check TRial (HECTR), RCT with PHE and local authorities

3.7 Gidlow CJ, Ellis NJ, Riley V, Chadborn T, Bunten A, Iqbal Z, et al. Randomised controlled trial comparing uptake of NHS Health Check in response to standard letters, risk-personalised letters, and telephone invitations. *BMC Public Health*. 2019; 19:224.

<http://eprints.staffs.ac.uk/5415>

Study 6: Risk COmmunication in NHS Health Check (RICO) study, NIHR-funded Health Technology Assessment project

3.8 Gidlow CJ, Ellis NJ, Cowap L, Riley V, Crone D, Cottrell E, et al. Quantitative examination of video-recorded NHS Health Checks: comparison of use of QRISK@2 versus JBS3

cardiovascular risk calculators. *BMJ Open*, 2020; 10. <http://eprints.staffs.ac.uk/6557>

Public Health England noted how our work has improved practitioner competence, fed into programme guidance, and Gidlow was asked to join the Expert Scientific Advisory Panel (ESCAP) for NHSHC [5.1].

Total funding GBP4,547,403, 5 grants led by Gidlow from various organisations, including European Commission FP7, 2012-2015, EUR4,517,116, PHENOTYPE; PHE and local authority, 2015-2017, GBP74,000, HECTR; NIHR, 2017-2020, GBP398,837, RICO.

4. Details of the impact

Impacts stem from interdisciplinary, applied public health-focused research on health improvement and inequalities.

Our research between 2006 to 2015 led to the establishment of the Centre for Health and Development (CHAD) in 2015. CHAD is a GBP900,000 partnership between Staffordshire University, SoTCC and Staffordshire County Council. It has been instrumental in developing and strengthening partnerships with stakeholders from local

authority, NHS, and third sector, and influencing their practice and policy. These stakeholders are the main **beneficiaries** of our research. Through them, impact has developed and will continue in the populations they serve. The **significance** of our impact can be seen in our work with SoTCC that has led to local changes in public health practice and policy. Impact **reach** has been extended through: research and consultancy projects influencing practice across approximately 50 local organisations; public engagement activities (reaching approximately 1,600 stakeholders from approximately 30 organisations); and developing relationships between local and national organisations, particularly through NHSHC research. We have achieved three main types of impact:

1. Influencing Urban Planning – Practice and Policy

Our underpinning research into neighbourhood/natural environments and health had economic impact through creating 2 collaborative Healthy Urban Planning (HUP) posts (headcount: 2 FTE: 2) in SoTCC public health and planning departments. Funded by SoTCC, we employed HUP researchers (>GBP160,000), both health psychologists, who led the integration of health into planning decisions (2015-2018). Bringing health psychology into planning was significant in its novelty and presented as good practice by SusTrans and the Town and Country Planning Association [5.2: Links 1-2]. Responsibilities included evidence-informed plans, reviewing developers' Health Impact Assessments, and creating a HUP developer checklist. As a result:

- Developers were requested to make health-promoting changes (e.g., increased green space, landscaping to reduce noise pollution) to 30 major developments [5.3-section 3.2.2].
- The HUP officers 'assist[ed] with the design' of the GBP450,000 Legible Stoke wayfinding programme in 2016, which introduced 81 signs across the city to promote walking, connectivity

'That's a really good example of influencing local and national policy and also improving local practice... We didn't just have an NHS health check programme, we had one of the best'. Former Director of Public Health, SoTCC [5.3, p8]

between the railway station, city centre, and canal network. They brought ‘the *psychology of finding your way*’ to the scheme, a methodology described at the time as ‘*very different from traditional highway engineering*’ [Transport Officer; 5.3-section 3.2.2].

- Our evidence of the high prevalence of fast-food outlets in deprived communities led to the Hot Food Takeaway Supplementary Planning Document by SoTCC Planning Department [5.2: Link 3, p18] to prevent licensing of hot food takeaways near schools (currently 98 in total) in Stoke-on-Trent. In 2016/17, our HUP officer was involved in reviewing the Document’s scope and increasing its reach to identify more schools and making it easier to apply [5.3, section 3.2.5]. This contributed to efforts to reduce the ‘obesogenicity’ of areas surrounding schools.

2. Improving NHS Health Checks – Uptake and risk communication

- In SoT, our NHSHC research led to changes that ‘*directly impacted on service specifications held with GPs*’ [5.3-section 3.2.2]; specifically, the 53 SoT practices (more than 100,000 eligible patients) were asked to use telephone (rather than postal) invitations. As a result, uptake of NHSHC in SoT increased from 50.8% (2014/15) to 63.4% in 2016/17 (after findings implemented), and has remained 62.5% to 73.5%, well above the national average for the corresponding period (46% to 48%) [5.4].

‘...training materials and evidence related to communication of risk helped to improve the competency in the communication of risk and therefore allowing professionals to better support the public to recognise the benefits of risk reduction interventions following the NHS Health Check’. National lead for CVD prevention, PHE [5.1]

- To extend the reach and sustainability of our impact, in 2018-2019 we delivered CVD risk communication training to 60 NHSHC practitioners across 16 local authorities in the North West and South East of England, including a ‘train-the-trainer’ model (which cascaded to 280 practitioners). Evaluation of this model identified impacts including: wider delivery of risk communication training delivery, now expanded to NHSHC practitioners in 12 additional local authority areas; positive changes to local programme specifications for practitioner training; and widespread use of training resources and use of alternative metrics to communicate CVD risk more effectively [5.5]. A truncated version was also delivered to 50 practitioners/commissioners at the national NHSHC conference (2019). The resource pack was requested by 62 people from local authorities across all regions of England, many of whom confirmed they will implement it in their areas [5.1, 5.5].

3. Increasing Understanding, Learning and Participation through Public Engagement

‘I have attended CHAD lectures and events and shared information across the organisation, we refer to research and data CHAD have shared when developing projects and strategy’ [5.3, p4]

- Between Sep 2016 and Dec 2019, CHAD held 25 events (public talks; Big Community Conversations; and externally focused conferences, co-run with non-academic organisations) engaging approximately 1,600 people including public, professionals, and academics [5.6], developing awareness of key health and social inequality issues, and connecting stakeholders [5.3, 5.6].
- Engagement activities included 12 collaborative seminars on key CHAD research themes, co-delivered with local stakeholders. Since Nov 2019, these have engaged approximately 400 people representing approximately 30 external organisations, who confirmed these events raised awareness of local health issues, made connections among local stakeholders, and were used for continuous professional development [5.3].
- Between Feb 2016 and Apr 2020, CHAD researchers undertook 15 community-focused applied research projects (with approximately 30 local stakeholder organisations) in response to findings detailed in section 2. Projects have related to perceptions and support for vulnerable populations (e.g., homeless, vulnerable women), health, adversity in young people, healthy ageing and end of life care, to support the work of local stakeholders (social welfare organisations). Evaluation evidence suggested a range of benefits:

- **Independent evaluation provided ‘credibility and kudos of working with the University’**, allowing partners to influence organisations like SoTCC or CCGs that are ‘evidence-based in their decision-making processes’ [5.3-section 3.2.7]
- **Professional development through interview methods training of four members of Expert Citizens** (collaborators with lived experience of multiple and complex needs) in 2017; they progressed to do many projects, independently and with CHAD [5.3-section 3.2.4].
- **Reduced severity of wording in a Public Space Prevention Order** (in 2019), which reduced the onus on Police to intervene, unless in cases of aggressive street begging by rough sleepers in Stoke-on-Trent. VOICES and the Hardship Commission used our research evidence to lobby for changes to the order, which originally showed ‘a lack of empathy’ and framed the issue of street begging as ‘one of community safety and anti-social behaviour’, rather than extreme social disadvantage [5.3-section 3.2.5, 5.7]. VOICES is a partnership project in Stoke-on-Trent working with people experiencing combinations of homelessness, mental ill-health, addiction, or histories of offending behaviour. The Hardship Commission is made up of organisations and services that have an involvement with, or influence on, poverty-related hardship.
- **CHAD’s research into children/young people’s (CYP) emotional well-being led to changes that shaped the local Emotional Health and Wellbeing Strategy 2018-2023.** Information gathered from parents and CYP was used to refine the use of digital technology, simplify language used by those supporting CYP, and increase parent engagement. This led to commissioning of the city council’s Stay Well initiative; a citywide programme to support approximately 4,000 CYP across SoT requiring mental health support [5.3-section 3.2.5, 5.8-p17, section 7.3].
- **Evaluation of the North Staffordshire Cancer Lifestyle Project resulting in funding being awarded to the Beth Johnson Foundation (BJF)** to continue providing lifestyle support for people with cancer (GBP170,000, 2017-2019) [5.9]. This was through the evaluation providing evidence of programme impact.
- **Evidence from an early evaluation into BJJ’s Mid-life Health Programme** resulted in

‘We’ve had trouble securing funding over the years... when you did the evaluation of our Mid-Life Health Project, there is a theme that runs straight from that, all along the years, into us securing that National Lottery funding 2019’

(Director of Policy and Engagement, BJJ) [5.3, p11]

them continuing with a preventive, life course approach and securing: GBP300,000 from National Lottery for the Healthy Generations Project 2019-2021 (young/older adults learning new ways to improve health); GBP100,000 from Calouste Gulbenkian Foundation, 2015-2017, for Healthy Transitions (supporting transitions to later life) [5.9].

- **Re-design and city-wide roll-out of a community development programme (My Community Matters)**, which now operates across 12 areas of Stoke-on-Trent (approximately 7,800 households) [5.10].

5. Sources to corroborate the impact

- 5.1 Testimonial from national programme lead for NHS Health Check
- 5.2 Supporting documents regarding Stoke-on-Trent Healthy Urban Planning work
- 5.3 CHAD impact assessment report (findings from surveys and interviews with stakeholders)
- 5.4 Changes in Stoke-on-Trent NHS Health Uptake (data from Public Health England)
- 5.5 A. Stakeholders requesting the risk communication resource pack; B. Report of the train-the-trainer sessions, including testimonials/quotes regarding the benefits and intended use
- 5.6 Attendance at CHAD events and delegate evaluation of CHAD conference
- 5.7 Public Space Protection Order (with amended text highlighted)
- 5.8 Staffordshire & SoT Transformation Plan for Children/Young People’s Mental Health (p17)
- 5.9 Testimonial from Director of Policy and Engagement, Beth Johnson Foundation
- 5.10 Testimonial from Community Development Practitioner (My Community Matters)