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ARTICLE



## Implementing a theory of change approach to research sport participation programmes targeting 'hard to reach' groups

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### ABSTRACT

A theory of change approach uses logic models to articulate how a programme is intended to operate and to test empirically whether and if so how it achieves its stated objectives. Theories of change have been used in evaluation research across a range of disciplines and public policy domains. This article considers their application to research on sport and physical activity programmes. Applying a theory of change approach to the 'Calls for Action' programme, which seeks to increase participation among traditionally 'hard to reach' groups, the article explores the strengths and limitations of the method. It argues that a theory of change approach offers a rigorous and systematic way of framing and conducting research on interventions designed to encourage engagement in sport and other forms of physical activity. The article demonstrates how the approach can link project outcomes to wider programme and policy objectives. It also shows the value of making explicit and testing the assumptions which underpin interventions at both programme and project levels. By developing a theory of change approach, policymakers and practitioners can clarify what they are seeking to achieve and promote a better understanding among partner organisations which have different priorities for and perspectives on an intervention. Future research could usefully focus on ways of extending the theory of change methods described in this article to test for causality and analyse the links between sport participation and wider policy goals, particularly health outcomes and improvements in well-being.

### ARTICLE HISTORY

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### KEYWORDS

Sport policy; physical activity; evaluation

## Introduction

There has been growing interest among scholars, policymakers and practitioners in evidence-based empirical research that can inform present and future public policy (Nutley *et al.* 2007, Martin 2011, Bristow *et al.* 2015, Cairney 2016, Head 2016). This has been reflected in the domain of sport and physical activity where there have been repeated calls for better evidence to support policy development and implementation (Houlihan 2005, Houlihan *et al.* 2009). There are signs too that evidence has percolated through principal funding organisations in the UK such as the sports councils, which in turn has led to new policy directions. However, progress has been slow and challenges remain with evidence-based evaluation of sport policy still underdeveloped compared to other areas such as health and education (Taylor *et al.* 2015). In addition, whilst there are some notable and laudable exceptions (Lindsey and Bacon 2016, Côté and Hancock 2016, Coalter 2007, 2012), the application of mainstream public policy theory and methods, which could help to generate rigorous evidence to inform policies, remains relatively neglected in sport policy and research.

The use of a theory of change approach offers a tried and tested methodology which seems a priori to be particularly applicable to the study of large-scale sport participation programmes. This method uses logic models to identify the intended outcomes of an intervention (or package of interventions) and articulate the causal chains by which these outcomes might be expected to be achieved. This enables researchers to identify the 'links in the chain', to specify measures of whether they have been achieved and thus test empirically whether the theory which underpins an intervention is valid. This approach has been widely and increasingly applied to the study of a wide range of public policy interventions, but to date it has not gained much traction in research on interventions designed to increase engagement with sport and other forms of physical activity.

This article addresses this gap in the sport policy literature by examining the application of a theory of change approach to the evaluation of projects funded by the 'Calls for Action' programme, a major intervention which was designed to encourage increased participation in sport and physical activity among four 'hard to reach' groups. The research that underpins the article consisted of 11 case studies from a range of diverse interventions that were funded under the second phase of the programme which was launched in 2014. Each of these projects targeted one of four groups that have been identified as the least likely to engage in sport and other physical activity: girls and women, people with disabilities, those living in poverty and ethnic minority communities. In each case, we worked with the organisations leading the case study project to co-produce a theory of change which articulated how they aimed to enhance participation. We then used the theory of change to begin to systematically assess whether and, if so how, projects had enhanced participation.

The next section of the article provides a brief overview of the literature on the strengths and limitations of theories of change as a methodology for researching public policy evaluations in general. The article then briefly describes the 'Calls for Action' programme. It then provides details of the methods that were used to develop and apply a theory of change approach to evaluating Calls for Action and explores the strengths and limitations of this methodology. The final section discusses the implications of our analysis for researchers, policymakers and practitioners who seek to apply theory of change frameworks to sport policy research.

## **Theories of change in public and sport policy research**

Theory-based evaluation (Weiss 1995, 1997) has been increasingly used in the study of a range of public policy interventions. A theory of change approach represents one branch of this broader movement. It is based on the identification of the intended inputs, activities, outputs, outcomes and impacts of an intervention and the development of logic models that articulate how these are (in theory at least) linked. Theories of change have been applied at different levels of abstraction. They can be used to evaluate a single project, a programme or a broader policy framework. They can also be used as a means of identifying the intended links between project, programme and policy levels and then testing whether these exist. A theory of change relating to a project can be 'nested' within a broader theory of change that applies to a wider programme of which it is part. A theory of change for a programme may in turn be conceptualised as part of an overall sports strategy. Articulating theories of change at these different levels can help policymakers to develop a coherent approach and enable researchers to evaluate interventions in the context of wider policy goals. Advocates of a theory of change approach to evaluation claim that it offers a number of other advantages, which on the face of it ought to be appealing to researchers, policymakers and practitioners.

The process of specifying intended outcomes and how these might be achieved can also facilitate useful (though not always easy) discussions among the different actors who may hold different views about the desired outcomes and/or what a policy will achieve for them. Developing a theory of change helps to surface these tensions and ensures that different perspectives are

reflected in a research design (Connell and Kubisch 1998). This can be particularly relevant where interventions involve a range of different 'partner' organisations and where they seek to engage with potential participants whose perspectives, priorities and life experiences may be very different from those of policymakers. Clarifying and specifying expectations in this way enable research and policymakers and practitioners to agree on the criteria that could/should be used by research to judge its success. It also offers a means of tracking how objectives shift over time and taking account of this when assessing its effectiveness.

Modelling the way in which an intervention is intended to 'work' makes explicit the assumptions that underpin its design. The (usually simplified) theory of how an intervention might be expected to work which this produces can then be tested empirically to identify implementation gaps and devise ways to address these. By surfacing and ordering the explicit and implicit aspirations for, and the assumptions that underpin, an intervention, a theory of change can help to open the 'black box' (Dickinson 2008) situated between inputs and outcomes. By developing and then testing hypotheses of the links in a logic model, a theory of change approach holds out the promise of understanding not just whether a policy achieved the outcomes that were hoped for, but also how it did so. Research that helps to understand in 'real time' the enablers and barriers to achieving desired outcomes is particularly prized by policymakers and practitioners since it may help them to know how to fine-tune existing interventions and improve the design of future policies.

Depending on how it is implemented, however, a theory of change approach may also carry some significant risks (pitfalls) and drawbacks. Three stand out. First, the rational approach which theories of change embody and often seek to encourage are blind to the political pressures that influence and frequently constrain policymakers' decisions and practitioners' actions. As a result, they may seem idealistic and divorced from reality. Second, the focus on intended outcomes and ways of achieving them may mean that researchers overlook cause and effect relationships that they did not anticipate but which are important to how a programme actually works. Similarly, a study may fail to take account of unintended (desirable and undesirable) outcomes which lie outside the theory of change. A third important critique of theories of change is that whilst in theory they provide a way to surface contrasting views, in practice they often privilege the perspectives of policymakers and professionals and downplay or even disregard entirely the views of other actors (usually communities and service users). Theories of change were originally employed in the United States to assess how change occurred in community initiatives, and in this context, researchers used them to bring citizens, practitioners and policymakers together to generate the theories. However, in the UK, they have commonly been used in top-down government-commissioned evaluations in ways which prioritise 'expert' views, rendering the process policymaker- and/or researcher-led (Mason and Barnes 2007). Linked to this problem, whilst in principle theories of change should be developed at the outset of an intervention in a consensual and participative fashion, in practice it is common to find that they are ex-post sometimes months or even years after an intervention was designed and launched (Downe *et al.* 2013). Although retrospection is useful in taking account of changes in objectives, it reduces the scope for evaluators to consult with all actors and has contributed to the tendency (noted above) for theories to reflect the views of policymakers rather than intended beneficiaries.

Despite Weed's (2016, p. 561) assertion that 'public policy projects are increasingly expected to be underpinned by a "theory of change" structure detailing how project objectives and inputs are assumed to lead through particular activities to project outputs and then to sought outcomes' (PricewaterhouseCoopers, 2009), few studies have taken a theory of change approach to mainstream sport policy research. Weed's own research exploring the links between sport participation to improvement in public health (Weed 2016) is an exception and a systematic review by Breuer *et al.* (2016) identifies a number of studies that have applied theories of change to evaluate public health interventions, although they note significant weaknesses in many of these research designs. Haudenhuyse *et al.* (2012) and Haudenhuyse *et al.* (2014) considered sport-based interventions for socially vulnerable

young people and the need for well-defined programme outcomes. This has also been considered as part of the CATCH project at Vrije Universiteit, Brussels (Belgium). Aside from these studies, there has been limited use of theory of change approaches in sport policy research and this is surprising given the increasing interest in understanding the outcomes of sport participation. For example leading up to and immediately following, the London 2012 Olympic and Paralympic Games there was significant public and government interest in the UK in securing a legacy, including community sport participation, and this was considered to be an important criterion for judging the success of the Games (PricewaterhouseCoopers 2009). The UK Government's current sport strategy (Cabinet Office 2015) and Sport England's response (2016) also emphasised the importance of focusing on outcomes and developing a robust evidence base and strong evaluation framework (Sport England 2017). In this article, we begin to fill this gap in the sport policy research literature by applying a theory of change approach to evaluate the Calls for Action programme to explore the advantages and limitations of the methodology.

### **'Calls for Action'**

The number of children and young people in Wales who participate in sport on three or more occasions a week increased from 27% in 2011 to 40% in 2013 and 48% in 2015 (Sport Wales 2015). Just under half of the adult population participate in sport or physical recreation once a week and again rates have risen in recent years (Sport Wales 2014). In spite of these overall improvements, there are marked and persistent disparities in sport participation between groups. Surveys of sport participation in Wales have consistently found that women and girls, those living in more deprived areas, people with a disability or impairment and those from Black/Asian, Arab and Other backgrounds are the least likely to be physically active and hooked on sport.

Calls for Action was launched in 2012 and was designed to engage with these 'hard to reach groups'. Funded by Sport Wales (the Welsh Government sponsored body with responsibility for delivery of sport), its purpose was to address stubbornly low participation rates among these groups, over many years (National Assembly for Wales 2014). It was explicitly experimental. Most of the organisations that were offered funding had not previously worked with Sport Wales and some were not actively involved in sport delivery, but they could all offer strong links to communities which traditional sport-governing bodies and clubs do not normally engage with.

Sport Wales' overall vision (Sport Wales 2011) emphasises the twin objectives of the importance of participation by young people and support for performance-related sport. In order to advance the first of these objectives, Sport Wales developed its Community Sport Strategy (Sport Wales no date), which sets out an over-arching direction and provides guidance on how to achieve the aspirations to develop sport at all levels throughout all communities in Wales, alongside its first Child Poverty Strategy (Sport Wales 2012). Calls for Action was seen as a new way to implement Sport Wales' community sport strategy and create a legacy from the 2012 Olympic and Paralympic Games by encouraging innovative approaches that led to a step change in sport participation among 'hard to reach groups'.

Calls for Action provided £6 million of lottery investment over two phases (see Table 1). Phase one (2012–2015) included interventions that prioritised the target groups but also included projects which could demonstrate a significant step change in provision – 'from the 100's to the 1,000s' and some multi-sport schemes (Sport Wales 2013). This led to a number of facility developments being funded alongside more typical community and sport development-type projects. Phase two of the programme, launched in 2014, focused fully on the equalities agenda and the four 'hard to reach groups' identified earlier. An open call for proposals attracted 144 initial expressions of interest. Sport Wales invited full applications from a range of organisations, and following appraisal, 11 of these were selected for funding. The research on which this article draws on involved evaluation of these projects undertaken between 2015 and 2017.

**Table 1.** Overview of calls for action-supported projects.

Organisation	Sport Wales' grant	Project	Principal theme	Dates
Bangor University and Welsh Netball	£80,000	Development of netball dome to develop North Wales pathway	Girls/young women	09/13–09/16
British Universities and Colleges Sport	£90,000	Work with all 8 HEIs to develop sport	100s to 1000s	04/13–03/16
Sport Cardiff	£109,000	Multi-sport development – Heath Park Sports Trust	100s to 1000s	03/13–12/15
City and County of Swansea	£150,000	Development of doorstep sport in deprived communities	Poverty	09/13–04/17
Neath-Afan Gymnastics Club	£149,599	Development of gymnastics and outreach programme	Girls/young women	04/13–04/16
Swansea University	£150,000	Cycling hub to support cycling development in West Wales	100s to 1000s	04/13–04/16
Disability Sport Wales and Betsi Cadwalader UHB	£150,000	Disability sport patient pathway partnership with North Wales	Disability	06/13–06/16
Merthyr Tydfil County Borough Council	£114,023	Re-development of sports facilities	Multi-sport	06/13–07/16
Trivallis Housing Association	£60,300	Increase participation by families in deprived communities	Poverty	06/13–05/15
Cambrian Village Trust	£150,000	Development of 3G facility as part of social enterprise	100s to 1000s	06/13–05/14
Club Penybont Ltd	£150,000	Development of 3G to support merger of 2 football clubs	Multi-sport	06/13–10/13
Brecon Beacons National Park	£75,000	Geo-caching	Poverty	04/15–03/17
Trivallis Housing Association	£500,000	Ziggies – foundation years physical literacy	Poverty	04/15–03/18
Aneurin Bevan Health Trust	£100,000	Large-scale change	Poverty	04/15–04/18
Bridgend County Borough Council	£85,000	Disability sport development	Disability	01/15–07/16
Mind/Time to Change Wales	£104,000	Time to change Wales	Disability	04/15–05/17
Street Football Wales	£234,862	Street football	Girls/young women	04/15–04/18
Girl Guiding Cymru	£340,439	Developing sport within the girl guides	Girls/young women	04/15–03/18
Welsh Cycling Union	£249,342	Women and girls programme, including Breeze	Girls/young women	06/15–06/18
Street Games UK	£690,000	Us Girls	Girls/young women	04/15–03/17
Welsh Gymnastics and Diverse Cymru	£157,089	Development of a sustainable gymnastics club in South Cardiff	BME	04/15–03/18
Cricket Board of Wales	£99,731	Cricket without boundaries – sport development in South Cardiff	BME	04/15–03/18

## Methods

The research was co-produced with the leaders and staff of the 11 projects that were funded by phase two of the Calls for Action programme and with officers from the sponsoring body, Sport Wales, who were tasked with working with these projects.

We used a multi-method approach consisting of four strands: in-depth documentary analysis of programme and project records and reports; semi-structured interviews with Sport Wales' board members and case officers, project leaders and staff and other stakeholders; non-participant observation of project activities; and a series of interactive workshops with Sport Wales' case officers and project leads facilitated by the authors.

As noted earlier, a theory of change approach can be applied at project and programme levels. A theory of change for the Calls for Action programme was developed by working closely with senior staff in Sport Wales to identify and outcomes that it was envisaged would contribute towards the achievement of these objectives. These were identified through analysis of Sport Wales' strategies and documents relating to the programme, and 20 semi-structured interviews

drawn from Sport Wales' board members, senior executives, middle managers and operational officers and Welsh Government officials. Interviews were conducted using a topic guide derived from key themes to emerge from our analysis of programme documentation. Subject to interviewees' approval, interviews were taped and analysed using a coding structure based on the themes identified in the topic guide.

A workshop facilitated by the authors brought together the Sport Wales case officers who were responsible for day-to-day liaison with the projects plus a board member and research officer. We presented the emerging theory of change that has been developed in the light of the interviews and documentary analysis, and tested with participants the extent to which it reflected their understanding and expectations of the Calls for Action programme. We then worked with workshop participants to revise this over-arching theory and the logic models within it. This provoked a detailed discussion on the programme's intended outcomes and, after discussion and revisions, resulted in an agreed theory of change to which all participants were able to sign up. We then asked case officers to work in pairs with a member of the research team to develop a draft theory of change for projects for which they were responsible. Feedback from the participants confirmed that they saw value in the theory of change approach and secured their agreement to work with the authors and staff from the Calls for Action projects for which they were responsible to develop an agreed theory of change for each project. At this stage, Sport Wales officers were able to articulate a broad theory of change for each project, but the workshop discussion surfaced some uncertainties about the precise objectives of some projects and the extent to which projects themselves would subscribe to the same theory of change articulated by Sport Wales case officers.

We then undertook a detailed analysis of all documentation relating to 4 phase one projects and all 11 projects funded by phase two of Calls for Action. We used the same pro forma for analysis of each project to ensure that we collected the same data from them all. The documents reviewed included the application submitted by projects, Sport Wales' appraisal of the applications, the project start-up reports and subsequent progress which were completed every 6 months and reviewed by Sport Wales. We then undertook semi-structured interviews with the case officers and key staff from each project. These were conducted in person using a topic guide which covered the same key topics as the earlier round of interviews tailored to the particular aims and character of each project. Project leads and Sport Wales case officers were then asked to develop a theory of change for each project, with support from the research team where this was requested. The result was a theory of change for the Calls for Action programme as a whole which was agreed with senior and operational staff in Sport Wales, together with theories of change for each project (Grace *et al.* 2016).

### Using a theory of change approach

As noted earlier, one of the attractions of a theory of change approach is that it can be particularly useful when deployed at different levels to identify and articulate the links between projects, programmes and broader policies. This offers the possibility of establishing an effective framework for sponsors, staff and stakeholders as they seek to address key questions including the following: What is the programme (and the projects which are part of it), trying to achieve? How might they do this? What criteria can be used to test whether these outcomes are achieved? What are the best sources of data and evidence to inform this analysis? The approach also allows researchers to assist policymakers in identifying where and why a logic model may have broken down and the implementation of a programme and/or project needs to be reviewed and perhaps fine-tuned. In this section, we analyse how a theory of change approach was applied in the case of Calls for Action and whether it lived up to these claims and might, therefore, provide a useful methodology for future research on interventions to promote increased participation in sport and other forms of physical activity.

### *Articulating intended outcomes*

The first advantage that advocates claim for a theory of change approach is that it helps policy-makers and researchers to identify and make explicit the intended outcomes of a policy or programme, and to secure agreement among others stakeholders about what they are seeking to achieve. The initial focus of our research was on establishing the programme's intended outcomes. Early analysis revealed the potential for poor alignment to Sport Wales' Community Sport Strategy (Sport Wales 2012). The Community Sport Strategy identifies five core themes: thriving clubs, local decisions, quality education, committed workforce and appropriate facilities. These objectives emphasise the traditional community sport development environment and have only tentative links to the more experimental and innovative approaches that Calls for Action encouraged by funding and working with organisations that had strong links to the target 'hard to reach' groups but were not necessarily seen as 'sports organisations' – for example, Girl Guides Cymru. Some phase one projects had included a focus on club development, multi-sport environments and facility improvements, all of which addressed the objective of shifting participation 'from the 00s to the 000s'. They could all point to some success in broadening participation, but most did not address the (in)equalities agenda head on. In response to this, Sport Wales established four separate and much more explicit objectives for phase two projects which were less directly linked to the priorities outlined in its Community Sport Strategy. The first two objectives emphasised the need to take positive action to address known areas of inequality and find 'ways to change lives through sport'. The third was to ensure partners adopted a bold approach to develop opportunities. The fourth signalled the intention that Calls for Action should increase the numbers of people in Wales who engaged in regular and frequent physical activity.

The documentation on Calls for Action and the initial interviews that we conducted with Sport Wales staff led us to the conclusion that the ultimate objective of the programme was to 'change lives through sport'. However, the subsequent workshop held with Sport Wales officers to finalise the theory of change for the programme as a whole revealed a strong desire on their part to align Calls for Action's objectives to Sport Wales' strategic vision to ensure that 'every child [is] hooked on sport' as the ultimate outcome and measure of the success (or otherwise) of the Calls for Action programme. Workshop participants noted that Calls for Action was not restricted to young people, so the intended outcome of the programme was that adults as well as children became 'hooked on sport'. They also identified three means by which they expected the programme to achieve this over-arching objective – 'changing lives by addressing known areas of inequality', 'being bold and encouraging new approaches' and 'increasing the amount of regular and frequent activity taking place throughout Wales' – and they agreed that these three 'intermediate outcomes' were relevant to all the projects funded in phase two.

A logic model was developed for the programme as a whole (Figure 1) which articulated the alignment of its overall intended outcome(s) to the 11 projects funded by phase two of Calls for Action. The process outlined earlier provided a way of ensuring that whilst projects were implemented and managed separately, there were clear threads that connected each of them to the overall objectives of the Calls for Action programme. The framework in Figure 1 was used to develop the necessary understanding among those involved in the 11 projects to develop logic models for each of them at the same time as ensuring there was alignment between their particular project and the programme as a whole. The ultimate and intermediate outcomes are fixed for the duration of the programme and are outcomes for which Sport Wales has made itself accountable and will assess Calls for Action against.

Individual projects specified the 'immediate level outcomes' which applied to their particular ways of working and target groups. Whilst these were linked to the Calls for Action programme aims, they were customised to reflect the projects. Similarly, each project had responsibility to consider the outputs and activities that were required. Figure 2 provides an exemplar theory of change for developing disability sport in Bridgend. Its aim was to enhance



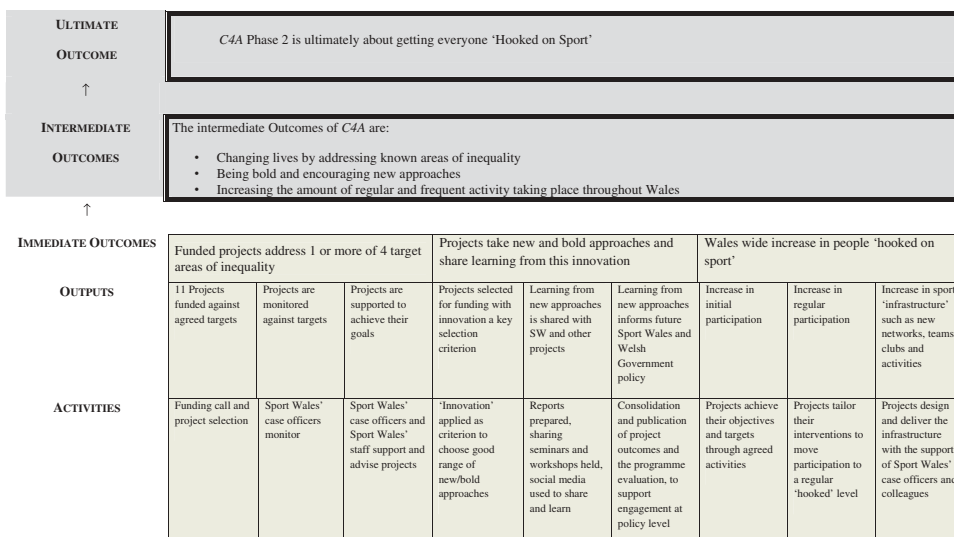


Figure 1. Logic model for calls for action phase two.

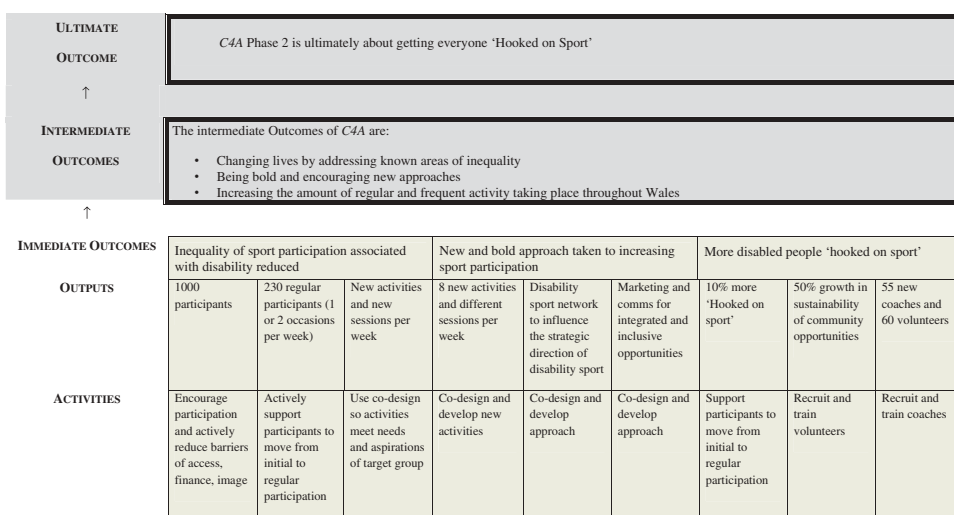


Figure 2. Logic model for calls for action, project exemplar – developing disability sport in Bridgend.

the quality of life of disabled people under the age of 24 years and their families through engagement in sport-, play- and leisure-based activity. The model illustrates how the theory of change was used to articulate both project- and programme-intended outcomes and demonstrates how these were connected to form part of the performance measurement framework. Evidence revealed that young people with a disability had low rates of physical activity participation and that to raise those levels required a bottom-up more sensitised approach. As one member of the project team stated, 'there's been an assumption in the past that if you fit a ramp to a leisure centre, you've done your bit. But the needs of an autistic teenager are very different to the needs of a wheel-chair bound user'. The project involved establishing a network and developing a marketing and communications plan which would be led and directed by the community but supported by the local authority officers. This approach was

also more likely to be sustainable as community organisations and individuals were expected to take responsibility for its development. It was also about learning from mistakes. For example, training parents to lead trampoline classes for autistic children was found to be challenging as family life is often more precarious and parents were often unable to commit. As a response to this particular challenge, hybrid approaches were developed that included the training of leisure trust staff. The views of the project leaders were that after a slow start there was a perception that targets were being met and that trust had been established. It was accepted, however, that it was more difficult to address at this stage whether the project outcomes had been met.

### ***Taking account of stakeholder perspectives***

As explained earlier, another advantage of a theory of change approach is that it can be a useful way of involving a wide range of actors in thinking about an intervention's objective, how it is intended to work and the criteria against which its effectiveness should be assessed. This can have a number of practical benefits. It helps to ensure buy-in to an evaluation and it can help to surface the different agendas that partners may hold. Where stakeholders have diverse expectations, this can be problematic, but it may also provide a way in which differences can be acknowledged and partners can identify the common ground and shared objectives they are all willing to work towards.

Early on in the research this was raised as an important issue both with Sport Wales, which had responsibility for managing the individual projects, and also among the projects' wider stakeholder communities. This was achieved through further workshop sessions with Sport Wales case officers and project staff. Linking the projects' logic models with the overall programme theory of change led to a discernible shift in the thinking of Sport Wales case officers and project staff. At the outset, they were focused almost entirely on the project for which they were responsible. But over time through their interaction with the research process, they gained an understanding of the overall programme and the interrelationships between projects.

The Bute Gymnastics project provides a strong example of developing stakeholder engagement. The aim of the Bute Gymnastics project was to create a women- and girls-only gymnastics club in Butetown. The ward is located in south Cardiff and is the most culturally diverse community in Wales with 15.5% of residents from black and minority ethnics (Long 2015). The project's principal focus was to target those from BME (Black and minority ethnic) backgrounds, but it also connected to two other Calls for Action programme priorities, namely, girls and young women and those living in poverty which when combined often negatively impact on individuals participating in sport. Focusing on the community of Butetown, the project looked to attract girls and young women who identify themselves as Somali, Sudanese, Yemeni, Lebanese, Jamaican, Asian, British and Arab. Reflecting these cultural sensitivities meant the club would be strictly female only and this applied also to spectators and siblings.

As part of developing the theory of change approach, time was spent at the outset developing the project's intended outcomes that sit under the programme's outcomes for Calls for Action. The first outcome identified by the project in discussion with the researchers was that the club attracted and enabled girls and young females to attend from BME backgrounds. The second outcome was that the club would become sustainable – 'run for the community by the community', and finally that the learning from this project would enable replication elsewhere. As the project was a joint initiative between Welsh Gymnastics and Diverse Cymru, the process of agreeing the intended outcomes was important and further helped the partners agree the basis on which its effectiveness could be assessed.

The way in which actors interrelate is one of the key strengths of this project. Implementation was contingent on developing a strong partnership between Welsh Gymnastics, Diverse Cymru and Mount Stuart Primary School. And time was needed to build the trust and develop appropriate

training for potential deliverers before attempting to secure wider community support, especially that of families. The theory of change approach enabled actors to spend time understanding the requirements (what might be referred to as unpacking the project) and to do this collaboratively so that trust was established between the principal partner organisations.

As part of the theory of change approach, time was invested in involving the stakeholders and considering their potential impact on how well the project meets its intended outcomes. A project stakeholder analysis (Table 2) was undertaken and this demonstrated the panoply of community actors involved and the potential likelihood of impact. Whilst the importance of the lead organisations working with the target group (that of young females from a BME background) was clear, a striking feature of the analysis was the role of 'influential others'. At one end of the spectrum, involvement by 'mums, aunts and sisters' was seen as having positive spin-offs, whilst at the other end of the spectrum, 'dads, uncles and brothers' had the potential to jeopardise the project should their culture and values be questioned. A further dimension to understanding different actors' perspectives was reflected in the Steering Group which needed to balance the requirements of achieving appropriate skills to run the club at the same time as preparing the community, in due course, for taking over running the club and ensuring it met one of its sustainability outcomes, that of 'run for the community, by the community'.

### ***Unpacking the processes by which objectives are achieved***

The third advantage that is claimed for a theory of change approach is that it can help to unpack the 'black box' which links activities to outcomes (Dickinson 2008) and to identify and understand

**Table 2.** Stakeholder impact analysis for Bute gymnastics project.

Stakeholder	Elements of impact	Impact observations
Project lead	Welsh Gymnastics	Led by top management (CEO); WG strategic development; club development; implementing equality plan
	Diverse Cymru	Understanding the barriers; built on existing community relationships; shared ambition with WG
	Coaches	Committed to project; careful planning; sensitised training opportunities; personal investment of time
Sponsor, Sport Wales	Lead case officer Organisation	Support project; attend steering group; enabler role Strong alignment to strategy; traditional sports development; Board member level interest
	Policy orientation	Focus on BME and young girls; potential for elite development; wider advocacy; interest from WG
Participant	Confidence	Self-esteem; self-belief; mixing with others; supporting and praising others
	Health	More exercise; more active; more often; leads to other sports
	Behaviour	Respect for others; teamwork; discipline (waiting turn/listening to instructions)
Mums, aunts, sisters	Education	More confidence; more concentration; lead to other activities (including non-sport)
	Social	Less isolation; a 'release'; increased confidence; made new friends; keen to share experience
	Skills	Develop confidence to learn/train; learning between cultures; encourage others
	Trust	Value club; positive relationships – parents and children; those with influence working for them
Project/club	Governance	Developed organically; steering committee; training; fundraising; developing business plan
	Target audience	Numbers strong; manage expectations; spin offs – holiday clubs; volunteers; pathway to excel
	Operations	Importance of mums staying; training coaches in the community; address storage and finance
Wider community	Dads, uncles, brothers	What is there for us; cultural adherence to female only sessions
	School	Sceptical at first; witnessed the impact on the girls; strong cultural links
	Local community	Breaking down barriers in Butetown; changing perspectives of gymnastics
	Welsh Government	Recognition of project; WG used it to launch physical activity plan; visits by Welsh Assembly members

how these processes are managed. Sport Wales developed a performance monitoring system which was used to check whether projects achieved the targets they had set. But this focused on inputs (usually funding and in some cases support in kind, for example, the time committed by volunteer coaches) and outputs (including the number and types of sessions run and the numbers of participants). These are relatively easy to measure, but they do not provide an understanding of the outcomes and impacts, such as improvements in participants' confidence, health, well-being or employability, all of which are much more difficult to identify, measure and attribute unequivocally to a project (as opposed to other changes in participants' lives). The theory of change approach encouraged projects to articulate and question how they believed the activities they provided could be reasonably expected to achieve these kinds of outcomes. Making explicit these causal relationships which they assumed or hoped would exist helped to give more meaning to the performance reporting system, but it also challenged projects and Sport Wales to go beyond the data which they initially collected to try to show how these were connected to outcomes as part of a delivery chain or logic model.

Street Games led a 2-year project that aimed to target young females aged between 13 and 19 years of age who were identified as semi-active or inactive and who lived in socially deprived communities in Wales (it was modelled on the English Us Girls programme although the Welsh project focused particularly on those living in poverty). As part of the project application, it was identified that only 25% of disadvantaged women were 'hooked on sport' and this was labelled the 'double jeopardy for sport activity' (Street Games 2017). Us Girls also looked to achieve a number of other outcomes including developing and enhancing a sporting pathway so that high-quality opportunities for all were achieved and that there were opportunities for girls and young women to progress to and through a sporting pathway. The project also set a target to assist the start-up of five micro-businesses and ensure that female coaches and leaders were trained. The process of developing a theory of change for the Us Girls project demonstrated that they sought to create a 'movement' whereby the girls and young women set the agenda and through this generated momentum so that others would join in and adopt the same framework for delivery. Street Games aimed to achieve this by partnering with other organisations through which participation opportunities would be delivered. In total, 36 new projects were delivered by 26 host organisations across 3 regions in Wales. An example of how the network gained traction and had signs of becoming a 'movement' is indicated by the take-up of the brand Us Girls by other non-funded organisations.

This shows how a theory of change for an individual project can be 'nested' within a broader theory of change for the wider programme of which it is part. And the programme may in turn be conceptualised as part of, and explicitly linked to, a suite of interventions which make up a broader strategy. The benefit of this is that it helps to encourage a coherent approach to policymaking and ensure that evaluations of interventions are set within the context of wider policy goals and are consistent with them.

Using theories of change to link the projects' activities to the outcomes that Sport Wales hoped Calls for Action would achieve was a challenge for both project staff and Sport Wales case officers. In describing their successes, projects typically focused on the number of sessions they ran and the number of participants they succeeded in engaging with. This is understandable given that engaging with 'hard to reach' groups is difficult, so achieving it was something to be proud of. And this tendency was encouraged by Sport Wales' use of activity or output measures to assess the applications submitted and to monitor their progress. Participation rates were a useful means of analysing progress against one of the three 'intermediate outcomes' set out in [Figure 1](#) – 'increasing the amount of regular and frequent activity taking place throughout Wales'. However, they were less useful in evaluating whether Calls for Action was achieving the other two outcomes highlighted as important by Sport Wales – 'changing lives by addressing areas of known inequality' and 'getting everyone hooked on sport'. The way in which these outcomes were specified was problematic because 'changing lives' and being 'hooked on sport' are open to a range of

interpretations. This points to the need for policymakers to move beyond rather abstract aspirational statements and articulate more clearly defined definitions of what constitutes success.

Developing theories of change did encourage and enable projects and Sport Wales to think beyond activities and participant numbers on the one hand and broad vaguely defined outcomes on the other, and to begin to fill in the links between the two. In some cases, projects were able to gather quantitative data on change across a whole target group and fine-tune projects. For example, Developing Disability Sport in Bridgend drew on surveys of schoolchildren to monitor changes in the overall levels of physical activity among children with disabilities. This analysis identified a lack of provision for children with autism which in turn led to the project launching a range of initiatives for this group and for their families. The project supplemented this with analysis of how individual participants had benefitted from new gymnastics, trampoline and youth clubs and used testimonies from volunteer coaches, parents and children. Similarly, Cricket without Boundaries, a project which sought to make cricket more accessible for BME communities in Cardiff, gathered data on participant numbers and compiled accounts of 'participants' journeys' that could be used to assess whether they had experienced improvements in confidence, motivation, physical fitness and well-being.

Identifying cause and effect is a significant challenge across all social sciences (Hedström and Ylikoski 2010) and attribution is a challenge in all evaluation research, and it would be wrong to attribute the changes in participants' lives unequivocally or exclusively to the Calls for Action projects. There are, of course, many other influences – in the home, at school and across wider society that can reinforce, or undermine, the benefits which they derive from participating in sport. For this reason, it is important for sport policy researchers to approach the task of evaluating outcomes with realism and humility and to be clear about the limits of the evidence which it is possible to gather. However, the Calls for Action programme demonstrates that combining a theory of change approach with in-depth analysis of population level data and individual participants' journeys can help to piece together the ways in which activities are linked to outcomes and that this can assist policymakers to improve the design and implementation of an intervention.

### ***Unrealistic rationality***

As we noted earlier, in addition to its potential benefits, previous studies that have used a theory of change approach in other policy domains have also identified a number of limitations or potential pitfalls with the approach. The first potential pitfall is that theories of change embody a rational approach which belies the fact that many public policy environments are inchoate and messy. Imposing rationality on an intervention helps to simplify the task of analysing its effectiveness, but it runs the risks of ignoring the political imperatives that shape and constrain sport policy.

It demonstrated that there was a clear direction established by Sport Wales officers in terms of setting the 'ultimate and intermediate outcomes' and that these would remain during the course of Calls for Action phase two. The explicit connection to Sport Wales' vision and the use of the terms 'hooked' and 'sport', however, posed some challenges. Since the launch of phase two, there have been organisational and leadership changes including a changeover of Chair and Vice Chair at Sport Wales together with a shift in ministerial cabinet responsibility that moved it from economic development to health. In 2017, a wide-ranging independent review of Sport Wales (Welsh Government 2017) examined its culture, policies and programmes. The review articulated some of the confusion that exists within the sector given the existence of separate and distinct strategies and the increasing need to align policy to the Wellbeing Future Generations (Wales) Act 2015. The changing landscape has led to Sport Wales needing a wider lens if it is to align more closely to Welsh Government's priority for health, well-being and activity. There is also a need to tie in more explicitly with the Chief Medical Officer's physical activity guidelines.

Calls for Action is cited as an example of innovative practice in which new projects and different partners have been established (Welsh Government 2017), but the attachment of the programme outcome to Sport Wales' vision rather than Welsh Government's priority of a healthy and active

Wales might be viewed as a missed opportunity. Furthermore, the projects' aims of reaching 'hard to reach' groups was a challenge and that often 'sport' was a concept that needed to be treated sensitively. For some projects, the term 'sport' could be seen as a challenge for the target participants, and managers reported at the workshop the care that was used often to sell the benefits of their programme by referring to words other than sport. One project officer emphasised that 'social and community come first – sport comes afterwards'. Other comments included 'listening and learning from the community' and 'the importance of making the activity fun' (Grace *et al.* 2016). In this way, Calls for Action reveals a potential paradox. On the one hand, a theory of change offers the opportunity to align projects both horizontally and vertically, but on the other hand, it also runs the risk of overlooking complex issues that may not readily respond to an over-arching framework.

### ***Managing unintended outcomes***

A second limitation of adopting a theory of change approach is the possibility that they overlook unintended outcomes, and there was some evidence of this in the case of our analysis of Calls for Action. A phase two project called Ziggies targeted young children aged 3–8 years who lived in socially disadvantaged communities and who through using stories looked to improve physical literacy. Although it had operated as a pilot project prior to Calls for Action, the upscaling of the project presented a number of challenges and unexpected outcomes. Under Calls for Action, Ziggies operated through a consortium approach which sought to function across five local authority areas. The project struggled, however, to ensure that physical literacy rather than just literacy was embedded in the after-school clubs' activities. This was exemplified at a consortium workshop where participants from the leading organisations tried to articulate what the intended outcomes were and found it difficult to prioritise physical literacy over literacy activities. When asked to identify the main outcomes, there were some mixed messages. Some of the participants focused on the key message that it was 'an after school club to give parents confidence to support a child's development in physical and literacy skills'. However, Sport Wales' investment in Ziggies was seen as an opportunity to build on earlier work piloted under the auspices of Play to Learn (Hughes and Fleming ) which struggled in practice to deliver activities in a structured and coherent way. In this example, the theory of change approach revealed unintended outcomes in that the delivery of this project was far more challenging than had been originally envisaged. Sport Wales' investment was about using funding to deliver a programme of which sport and physical literacy was the most challenging element and thus volunteers often overlooked it, preferring to undertake puzzles and craft activities.

### ***Privileging experts' views over beneficiaries' views***

A third risk of employing a theory of change approach is that it may privilege some stakeholders' views at the expense of others. This is not inevitable, but is a likely outcome when theories of change are developed by engaging primarily or exclusively with those responsible for funding and/or running projects and do not include the views of those who are intended to benefit from them. This was the case in our own research which drew on workshops with policymakers and professionals but did not explicitly include participants' perspectives at the outset. The rationale for this was twofold. Firstly, there was a need to develop confidence among the Sport Wales case officers in order for them to assist the project leaders and for them in turn to focus on the agreed outcomes. Secondly, there was a real sense of the beneficiaries not wishing to be part of a formal workshop session as this may have felt threatening, especially in the light of research that revealed a nervousness and antipathy towards sport.

Whilst this is considered a limitation of this study and is counter to previous research that placed emphasis on the importance of citizen, community and provider perspectives (Bolton *et al.* 2008), the

inclusion of beneficiaries in our theory of change approach was apparent, even if implicit. Time was spent with each individual project and part of this was to understand who the stakeholders were, including beneficiaries and what roles they played. [Table 2](#) exemplifies this analysis and illustrates how wide-ranging the stakeholders were to the projects and also what impact they potentially had on delivery and outcomes. Three further important points emerged from our analysis. Firstly, the involvement in the beneficiaries was perhaps more implicit and undertaken in a more subtle, user-friendly manner and this offered a richer, more detailed nuanced understanding of the projects and its beneficiaries and stakeholders. Secondly, the project beneficiaries often extended beyond the participants themselves. [Table 2](#) considers stakeholder impact and this demonstrates the importance of the project not just to the girls and young women participants but also to a wider community of 'mums, aunts and sisters' some of whom became involved in other aspects of the club and/or developed the confidence to do other activities (sporting and non-sporting). Thirdly, our analysis whilst less formal provided some links to the theory of change approach. Sport Wales case officers and project leads were able to use the theory of change approach to monitor and review the activities undertaken and link these to the outputs and intended outcomes. In this way, beneficiaries and stakeholders provided a benchmark, ensuring the project inputs would lead to outputs and outcomes. In summary, although the research did go some way to addressing beneficiaries' views, it did not form an explicit part of the agenda and this is perhaps an area that might be considered in future project designs.

## Discussion and implications

The paucity of evidence to support sport policy was starkly acknowledged in Game Plan (Department of Culture, Media and Sport 2002) and led to responses from the sports councils and others who sought to address identified areas of data deficit. Specifically, the response by Sport England was significant with the launch of the Active People Survey (Rowe 2009) and now Active Lives (Sport England 2016) which represents the single largest participation survey. Nonetheless, in spite of the importance of collecting robust data to inform evidence-based policy, governments within the UK are still prone to flip-flop between 'sport for good' and 'sport for sport's sake' (Collins 2010, Coalter 2013). A second significant issue for sport policy is the relative absence of theoretical frameworks which draw on mainstream public policy and this is in spite of the increasing evidence that supports how sport can impact on wider agendas including health, well-being, education, crime, social capital and education (Taylor *et al.* 2015).

This article has shown how the use of a theory of change approach can address some of these shortcomings. It has considered the use of a conceptual framework as a means of organising and articulating Calls for Action, a national sports intervention programme that seeks to address participation inequalities by targeting 'hard to reach' groups. A theory of change approach ensured that an overall logic model for the programme was developed as well as 11 individual logic models, 1 for each approved project. Adopting this as a central organising framework for our research enabled a consistent approach across a diverse set of projects which focused on intended project and programme outcomes. All projects were asked and supported to produce a logic model that linked activities to outputs and outputs to outcomes, and these nested under the programme's ultimate and intermediate outcomes.

Our research also provides examples of the advantages and disadvantages of a theory of change approach and shows how it can be implemented and managed as part of research conducted in real time which is co-produced in collaboration with the programme's funder and the projects' leads. The approach that we adopted enabled the research to support policymakers and project leaders to develop their understanding of what they were seeking to achieve and how they planned to do so. It aided discussion and increased understanding between Sport Wales officers and projects and assisted the development of a form of community of practice among projects which began to facilitate real-time learning. In spite of the significant differences between the

projects in terms of target groups, objectives and ways of working, the theory of change approach demonstrated how they contributed to the over-arching objectives of the programme. At the outset, this was not fully understood by Sport Wales or the projects, but over time, the theory of change approach helped generate much clearer mutual understanding. In this respect, we perceived ourselves as facilitating change in real time and the research team fulfilled the role of a change agent, in which we were situated between, on the one hand, the programme sponsor and, on the other hand, the project leaders.

Another important and growing demand placed on sport and physical activity interventions is that they contribute to the achievement of wider public health and public policy goals. Here again, a theory of change approach can help because it makes it possible to hypothesise pathways from increased engagement in sport to improved health outcomes. A third and related challenge associated with the theory of change approach is that of explaining causality. This is a considerable challenge for sport research and public policy research more generally, especially in relation to outcomes such as improved mental health and well-being, individuals' confidence and motivation, social and community resilience and development (Sport England 2017). And, it is an issue which our own study made only limited progress on. The theory of change approach to our research enabled us to identify with policymakers and practitioners the potential causal links in the logic models which underpinned projects, and we were able to use a multi methods approach to infer the strength of many of the relationships we modelled. Proving the existence of causal links in a more robust fashion would require a longer-term study and ideally a series of control groups both of which have been beyond the scope of our study but are a way in which a theory of change could be extended in future.

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No potential conflict of interest was reported by the authors.

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## References

- Bolton, N., Fleming, S., and Elias, B., 2008. The experience of community sport development: a case study of Blaenau Gwent. *Managing Leisure*, 13, 92–103. doi:10.1080/13606710801933446
- Breuer, E., et al., 2016. Using theory of change to design and evaluate public health interventions: a systematic review. *Implementation Science*, 11, 63. doi:10.1186/s13012-016-0422-6
- Bristow, D., Carter, L., and Martin, S.J., 2015. Using evidence to improve policy and practice: the UK What Works Centres. *Contemporary Social Science*, 10 (2), 126–137. doi:10.1080/21582041.2015.1061688
- Cabinet Office, 2015. *Sporting future: a new strategy for an active nation*. London: Cabinet Office.



- Cairney, P., 2016. *The politics of evidence-based policymaking*. London: Palgrave.
- Coalter, F., 2007. *A wider role for sport: who's keeping the score*. London: Routledge.
- Coalter, F., 2012. 'There is loads of relationships here': developing a programme theory for sport-for-change programmes. *International Review for the Sociology for Sport*, 48 (5), 594–612. doi:10.1177/1012690212446143
- Coalter, F., 2013. *The social benefits of sport*. Report for sportScotland. Glasgow: sportscotland.
- Collins, M., 2010. From 'sport for good' to 'sport for sport's sake' – not a good move for sports development in England? *International Journal of Sports Policy and Politics*, 2 (3), 367–379. doi:10.1080/19406940.2010.519342
- Connell, J.P. and Kubisch, A.C., 1998. Applying a theory of change approach to the evaluation of comprehensive community initiative: progress, prospects, and problems. In: K. Fullbright-Andersen, A. Kubisch, and J.P. Connell, Eds. *New approaches to evaluating community initiatives. Vol 2: theory, measurement and analysis*. USA: The Aspen Institute, 15–44.
- Côté, J. and Hancock, D., 2016. Evidence-based policies for youth sport programmes. *International Journal of Sport Policy and Politics*, 8 (1), 51–65. doi:10.1080/19406940.2014.919338
- Department of Culture, Media and Sport, 2002. *Game plan: a strategy for delivering the government's sport and physical activity objectives*. London: DCMS.
- Dickinson, H., 2008. *Evaluating outcomes in health and social care*. Bristol: Policy Press.
- Downe, J., Martin, S.J., and Boviard, T., 2013. Learning from complex policy evaluations. *Policy and politics*, 40 (4), 505–523.
- Grace, C., et al., 2016. *Evaluation of the impact of phase 2 of Sport Wales' calls for action: first interim report*. Cardiff: Sport Wales.
- Haudenhuyse, R.P., et al., 2014. Socially vulnerable young people in Flemish sports clubs: investigating youth experiences. *European Physical Education Review*, 20 (2), 179–198. doi:10.1177/1356336X13508686
- Haudenhuyse, R.P., Theeboom, M., and Coalter, F., 2012. The potential of sports-based social interventions for vulnerable youth: implications for sport coaches and youth workers. *Journal of Youth Studies*, 15 (4), 437–454. doi:10.1080/13676261.2012.663895
- Head, B.W., 2016. Toward more "evidence-informed" policy making? *Public Administration Review*, 76 (3), 472–484. doi:10.1111/puar.12475
- Hedström, P. and Ylikoski, P., 2010. Causal mechanisms in the social sciences. *Annual Review of Sociology*, 36, 49–67. doi:10.1146/annurev.soc.012809.102632
- Houlihan, B., 2005. Public sector sport policy: developing a framework for analysis. *International Review for the Sociology for Sport*, 40 (2), 163–185. doi:10.1177/1012690205057193
- Houlihan, B., Bloyce, D., and Smith, A., 2009. Developing the research agenda in sport policy. *International Journal for Sport, Policy and Politics*, 1 (1), 1–12. doi:10.1080/19406940802681186
- Lindsey, I. and Bacon, D., 2016. In pursuit of evidence based policy and practice: a realist synthesis-inspired examination of youth sport and physical activity initiatives in England (2002–2010). *International Journal of Sport, Policy and Politics*, 8 (1), 67–90. doi:10.1080/19406940.2015.1063528
- Long, J., 2015. *Understanding participation and non-participation in sport amongst black and minority ethnic groups in Wales*. Report by ISPAL and Ecorys for Sport Wales. Leeds: Leeds Beckett University.
- Martin, B., 2011. The research excellence framework and the 'impact agenda': are we creating a Frankenstein monster? *Research Evaluation*, 20 (3), 247–254. doi:10.3152/095820211X13118583635693
- Mason, P., and Barnes, M., 2007. Constructing theories of change: methods and sources. *Evaluation*, 13 (2), 151–170.
- National Assembly for Wales, 2014. *Participation level in sport. Report: national assembly for Wales – communities, equality and local government committee*. Cardiff: National Assembly for Wales.
- Nutley, S.M., Walter, I., and Davies, H.T., 2007. *Using evidence: how research can inform public services*. Bristol: Policy Press.
- PricewaterhouseCoopers, 2009. *London 2012 Olympic and Paralympic games impacts and legacy evaluation framework*. London: DCMS.
- Rowe, N., 2009. The active people survey: a catalyst for transforming evidence-based sport policy in England. *International Journal of Sport Policy and Politics*, 1 (1), 89–98. doi:10.1080/19406940802681244
- Sport England, 2016. *Towards an active nation: strategy 2016–21*. London: Sport England.
- Sport England, 2017. *Review of evidence on the outcomes of sport and physical activity: a rapid evidence review*. London: Sport England.
- Sport Wales, 2011. *A vision for sport in Wales*. Cardiff: Sport Wales.
- Sport Wales, 2012. *Child poverty strategy*. Cardiff: Sport Wales.
- Sport Wales, 2013. *Calls for Action: process evaluation final report*. Cardiff: Sport Wales.
- Sport Wales, 2014. *Active adults survey 2014: state of the nation*. Cardiff: Sport Wales.
- Sport Wales, 2015. *School sport survey 2015: state of the nation*. Cardiff: Sport Wales.
- Sport Wales, no date. *Community sport strategy*. Cardiff: Sport Wales.
- Street Games, 2017. *Us Girls Wales programme report: April 2015 – March 2017*. Cardiff: Street Games.
- Taylor, P., et al., 2015. *A review of the social impacts of culture and sport*. London: Culture and Sport Evidence Programme.

- Weed, M., 2016. Should we privilege sport for health? The comparative effectiveness of UK government investment in sport as a public health intervention. *International Journal of Sport Policy and Politics*, 8 (4), 559–576. doi:[10.1080/19406940.2016.1235600](https://doi.org/10.1080/19406940.2016.1235600)
- Weiss, C., 1997. How can theory-based evaluations make greater headway? *Evaluation Review*, 21, 501–524. doi:[10.1177/0193841X9702100405](https://doi.org/10.1177/0193841X9702100405)
- Weiss, C.H., 1995. Nothing as practical as a good theory: exploring theory-based evaluation for comprehensive community initiatives for children and families. In: J.P. Connell, A.C. Kubisch, L.B. Schorr, and C.H. Weiss, Eds. *New approaches to evaluating community initiatives: concepts, methods, and contexts*. USA: The Aspen Institute, 65–92.
- Welsh Government, 2017. *Sport Wales review: an independent report. A report from the independent panel reporting to the Minister for Social Services and Public Health*. Cardiff: Welsh Government.