Social Return On Investment – Sport in Wales

The report presents a Social Return on Investment (SROI) analysis of sport in Wales. It was commissioned by Sport Wales and conducted by the Sport Industry Research Centre (SIRC) at Sheffield Hallam University. The research forms part of a wider project on measuring the social and economic value of sport in Wales. The second element of the research measures the economic importance of sport in Wales. Measuring the Social Return on Investment (SROI) and economic value of sport will help to demonstrate the contribution of sport to the well-being goals for Wales and articulate to the Welsh Government and other stakeholders, the contribution sport makes to society.

This research aims to measure the social impact of sport in Wales using a Social Return on Investment (SROI) framework.

The research measures the value of participating and volunteering in sport but excludes watching sport as there is limited evidence to suggest that this form of engagement generates social outcomes.

Methodology

SROI is a framework for understanding and measuring the non-market economic, social and environmental value created by an activity, organisation or intervention. It is increasingly being used across a wide range of policy areas, especially by public agencies and charities, to measure social value. This research is the first time a SROI framework has been used to measure the wider social contribution of sport in Wales.

The Wales SROI model measures the social value of sport in Wales and the cost (inputs) of providing opportunities for engagement in sport. It expresses the total value of the social outcomes as a proportion of inputs.

2. METHODOLOGY

A SROI framework can be used retrospectively to measure the activities of an organisation that have already occurred (evaluative) or it can be used prospectively to forecast the value that will be generated if an organisation or intervention meets its intended outcomes. The research presented in this report is evaluative i.e. it measures the impact of sport participation in Wales that has already taken place. The year 2016/17 is the reference year.

The Wales SROI model estimates the social value of improved health, enhanced subjective well-being, reduced crime, improved education and enhanced social capital arising from sport in Wales. It also calculates the costs (inputs) of providing sports opportunities in Wales. The model expresses the social value of sport in Wales in relation to this investment. For example, for every £1 of investment in Wales, a value of £y is generated.
2.1 Stages of a SROI

The conduct of a SROI study requires progression through six key stages. These are outlined below and summarised in Figure 2.1:

1. **Identify key stakeholders** to include and which stakeholders to exclude.
2. **Map outcomes in logic model.** Identify relevant inputs and decide which are, in principle, *material* outputs and outcomes. Develop an impact map or theory of change to show the relationship between inputs, outputs and outcomes.
3. **Measure and value outcomes.** Identify indicators, through literature, secondary data, and financial proxies. Decide which inputs, outputs and outcomes can be included because of sufficient empirical evidence, and which must be excluded on the grounds of insufficient evidence. Ensure that there is no double-counting of either inputs or outputs.
4. **Calculate impact.** Deduct deadweight (what would have happened anyway) and displacement (where the activity has simply replaced another). Identify attribution (the percentage of outcomes attributable to this activity, rather than other activities). Calculate the duration of the impact and the drop-off in outcomes over time.
5. **SROI.** Calculate the SROI ratio (divide the total social value of sport participation by the total costs/investment). Test the sensitivity of the estimated SROI to variations in the outcome measures, financial proxies, and other key variables.
6. **Report and embed.** Report to stakeholders; identify gaps in evidence base; make recommendations; disseminate the results.

Figure 2.1: Stages of a SROI model

2.2 Assumptions

Every effort has been made to construct the Wales SROI model on empirical evidence. A lack of appropriate evidence is one of the main reasons for excluding particular outcomes in a SROI analysis. However, it is also common within SROI studies to make reasonable, conservative assumptions about key elements for which specific empirical evidence does not exist - to enable an estimate to be made rather than for the outcome to be excluded.

The key assumptions necessary to conduct the Wales SROI are as follows:

- If evidence exists for a different context e.g. evidence is from a different country / city, and the socio-economic context is similar, it is assumed that the effect is also relevant in a UK / Welsh context.
- In the absence of Welsh data, if evidence exists for a different geographical scale e.g. England or the UK, it is assumed that the effect in Wales is the same as the national effect e.g. prevalence rate of breast cancer / cost of treating breast cancer.
- If evidence varies for the same effect, e.g. the impact of sport on reducing risk of breast cancer (10%-30%), an informed assumption of the average effect is taken (e.g. 20%).
• Evidence on intensity and frequency of participation is variable, although much literature argues that a threshold of at least once per week of moderate or vigorous exercise is required for social benefits to be realised. There is no data for intensity of sport participation in Wales, therefore the report has assumed that the participation threshold of once per week is a suitable proxy measure for this.

• The report assumed that one year’s figures are a reasonable conflation of the more dynamic process of continued investment and participation in sport, resulting in longer term benefit generation.

Necessary assumptions should be based on the most appropriate evidence, together with expert judgement. Following the ethos of SROI, they are conservative and transparent, such that they are open to challenge so that they are either improved or displaced in time by more appropriate empirical evidence.

2.3 Scope of the project

The parameters of the research are as follows:

• The year of the study is 2016/17.
• The target population is Wales; children aged 10-15 and adults aged 16+.

The year of study represents that for which the latest data is available. The age parameters are the same as those adopted in the England SROI model. In the case of children, empirical evidence for the social impact of sport participation is only available for children aged 10+ years for the education and crime outcomes.

For the purposes of this research, the report was guided by the definition of sport adopted by Sport Wales, which positions sport in its broadest sense; taking the Council of Europe’s Sports Charter (1992) definition:

“...all forms of physical activity which, through casual or organised participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels.”

The report included physical activities considered to be active recreation, such as fitness activities, dance and recreational walking, but excluded household activities not related to formal sport and exercise, such as gardening.

The report only include sport and physical recreation which meets the threshold of at least once per week. This threshold is based on those levels reported in the wider literature and empirical evidence.

3. SOCIAL RETURN ON INVESTMENT

3.1 Identifying the stakeholders

After establishing the scope of the project, the first stage of a SROI analysis is to identify the stakeholders to be included. Stakeholders are defined as people or organisations that experience

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1 http://www.sport.wales/media/506916/sport_wales_english_vision_doc_reprint_all_v3.pdf
2 https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016804c9dbb
change or affect the activity (positive or negative). Figure 3.1 identifies the major groups of stakeholders and organisations for sport in Wales.

**Figure 3.1: Key stakeholder groups in Wales**

![Stakeholder Groups Diagram]

### 3.2 Mapping outcomes

#### 3.2.1 The Impact Map

The Impact Map is central to the SROI analysis. It is the story of how an intervention or policy (in this case promoting sport participation and volunteering) makes a difference. It details how inputs, used to resource and deliver activities (measured as outputs), result in outcomes for stakeholders. The Impact Map is also known as a ‘theory of change’ or logic model and is the framework used to build the SROI model. Figure 3.2 gives an overview of
Figure 3.2: Overview of the impact map for Wales

**STAGE 1**
- Identify stakeholders
  - Public / Government sector
  - Private / Commercial sector
  - Charities / Third sector
  - Consumer sector

**STAGE 2**
- Identify & value inputs
  - Money (capital and revenue expenditure from stakeholders)
  - Time (volunteering)

- Audit of activities
  - Sport & physical activity participation
    - Adults
    - Children
    - Volunteering

- Measure outputs
  - Frequency & intensity of participation
    - Once per week of moderate or vigorous intensity activity
  - Hours worked volunteering

**STAGE 3**
- Identify, measure & value outcomes
  - Improved health
  - Reduced crime
  - Improved educational performance
  - Enhanced human capital
  - Improved social capital
  - Improved subjective wellbeing
  - Benefits for sports organisations utilising volunteers
the Impact Map for Wales. The stages outlined in the Impact Map correspond to Stages 1-3 of a SROI framework, as illustrated in Figure 2.1.

3.2.2 Identifying and valuing inputs

Inputs are those things that stakeholders contribute in order to make activities possible.

The inputs to sport in Wales are primarily money (financial) and time (non-financial). Table 3.2 summarises the inputs for Wales.

While the inputs were relatively straightforward to identify, care was taken to ensure that there was no double counting between organisations, for example Welsh Government and Sport Wales. A number of stakeholders identified in Figure 3.1 are not included in Table 3.2 because their inputs are captured elsewhere. For example, voluntary clubs are not included because they do not provide any inputs other than those accounted for elsewhere (e.g. consumer spending; volunteer time). Likewise, the commercial sector is not included as all the inputs provided by this sector are counted in consumer expenditure on sport.

Table 3.2: Summary of the inputs for Wales

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Inputs</th>
<th>Value (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public/Government Sector</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport Wales</td>
<td>Exchequer and lottery spend</td>
<td>18.26</td>
</tr>
<tr>
<td>Unitary authorities</td>
<td>Sport-related revenue and capital spend</td>
<td>124.01</td>
</tr>
<tr>
<td>Secondary schools &amp; HE institutions</td>
<td>Expenditure on sports provision</td>
<td>96.02</td>
</tr>
<tr>
<td>UK Sport</td>
<td>Lottery and Exchequer Funding</td>
<td>4.43</td>
</tr>
<tr>
<td><strong>Consumer Sector</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport participants</td>
<td>Activity charges/fees</td>
<td>175.52</td>
</tr>
<tr>
<td></td>
<td>Equipment costs</td>
<td>184.47</td>
</tr>
<tr>
<td></td>
<td>Sport clothing &amp; footwear</td>
<td>188.74</td>
</tr>
<tr>
<td></td>
<td>Travel and other costs</td>
<td>87.89</td>
</tr>
<tr>
<td><strong>Non-financial inputs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sport volunteers</td>
<td>Time</td>
<td>311.76</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>1,191.10</td>
</tr>
</tbody>
</table>

The financial inputs linked to funding agencies and sport delivery organisations were taken from their financial accounts (Sport Wales), official Welsh Government statistics\(^3\),\(^4\), and in some cases (e.g. for HE institutions) estimated based on the national SROI model for sport in England. Consumer spending on participation was taken from the economic importance of sport model for sport in England. Consumer spending on participation was taken from the economic importance of sport model for Wales. The non-financial input of volunteer time was valued using average hourly earnings.

3.2.3 Clarifying outputs

Outputs are a quantitative summary of an activity. They are essentially the metric or measure which drives the calculation of value in a SROI for sport. There are two types of outputs for Wales. Firstly, sport participation and secondly, sport volunteering.

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The source of participation data for adults was the Active Adults Survey 2016/17. The source of participation data for children was the School Sport Survey 2015. For both adults and children, the indicator used was participation in sport and physical recreation at least once per week.

The other main output is sport volunteering. Volunteer time is both an input and an output/outcome. It is an in-kind contribution that has to be valued as an input. However, volunteering also contributes to individual well-being of volunteers and value to the sports organisations that benefit, so it has an equivalent outcome value. The volunteering data was also acquired from the Active Adults Survey 2016/17.

3.3 Measuring and valuing outcomes

SROI is an outcomes-based measurement tool, as measuring outcomes is the only way to be sure that changes for stakeholders are taking place. This research requires the identification, measurement and valuation of outcomes that have resulted from investing in sport participation and volunteering.

3.3.1 Evidencing outcomes

The outcomes included in this study were identified using various sources including the systematic review of literature for the DCMS5, the England SROI model6 and other SROI studies carried out by SIRC. In addition, for this research a search for recent evidence on mental health, child participation and sports injuries was undertaken.

Previous SROI studies have identified 11 outcomes as having a strong relationship with sport participation as follows:

- **Health** (reduced risk of: CHD and stroke, breast cancer, colon cancer, Type 2 diabetes, dementia and improved general good health (reduced GP visits) for adults 16+);
- **Subjective well-being** (improved life satisfaction for participants and volunteers aged 16+);
- **Education** (improved educational attainment; enhanced human capital (improved starting salary for graduates));
- **Crime** (reduced criminal incidences for males aged 10-24);
- **Non-market value for sports organisations utilising volunteers** (Previously described as increased social capital generated by volunteers for the organisation).

For the Wales SROI, the report also identified evidence enabling the inclusion of a further three outcomes:

- Reduced clinical depression;
- Reduced use of mental health/psychotherapy services;
- Enhanced social capital to communities.

The inclusion of two mental health measures is an important addition to the Wales SROI model, which was missing from previous sport SROI models.

A further significant step forward in the Wales study is the inclusion of social capital based on recent research published in Australia (Gratton et al. 2018). This work estimates the differences between

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sport participants and non-participants in feelings of social networks, trust and reciprocity. It also values these differences.

Table 3.3 summarises the social outcomes included in the Wales SROI, together with the assumptions underpinning the relationship between each outcome and sport participation. For reporting purposes, reduced GP visits and reduced psychotherapy usage associated with self-reported good health have been combined into one variable (good health).

For the health outcomes, where the literature strongly suggests that sport and physical activity reduces risk across a range of values, the report estimated an ‘average effect’. For example, in the case of CHD and stroke, various studies suggested sport and physical activity reduced risk between 11%-52%; therefore, an average effect of 30% was assumed.

3.3.2 Excluded outcomes
Several social outcomes have been excluded from the Wales SROI study, primarily due to a lack of robust empirical evidence linking social outcomes with sport participation. This is entirely consistent with previous sport SROI studies and reflects the lack of evidence relating to these areas.

Specific outcomes excluded from this study include:

• Musculoskeletal health (including osteoporosis/falls) in older populations;
• Sports injuries (adults and children);
• Secondary prevention of various illnesses (therapeutic benefits);
• Health outcomes for children.

NOTE: The exclusion of various outcomes as noted above is highly likely to result in an underestimation of the social value of sport participation in Wales. Nevertheless, until more evidence is available, it is not possible to include these in any SROI estimates.

3.3.3 Valuing outcomes
This section of the report provides notes to explain the valuation of the included outcomes and the key findings. The first section focuses on the valuation of the eight health outcomes and the second section summarises the other six outcomes.

Health

The report measures five physical health outcomes, one mental health outcome, and a further composite outcome of improved good health (as measured by a combination of reduced GP visits and reduced usage of psychotherapy health services). The values of the health outcomes are summarised in Table 3.4. The first six health outcomes were valued by estimating the number of potential cases averted by sport participation (quantity), multiplied by the average annual cost per person diagnosed with the condition (value). The seventh outcome (good health) was valued by multiplying the number of people who participate in sport in Wales, by the estimated cost savings per person resulting from reduced GP visits and mental health service usage (psychotherapy) associated with self-reported good health. As a conservative measure, the report adjusted the calculation of costs saved

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7 Calculated using prevalence rate of health condition; physical activity participation rate and the impact of participation on reducing risk.
8 Average annual cost varies between each outcome but in most cases includes health care costs, social care or informal care costs, and in some cases, loss of productivity.
through reduced GP visits so that it explicitly excludes the number of individuals that have been accounted for in the valuation of the other six specific health conditions in Table 3.4. Similarly, the report adjusted the calculation of costs saved through reduced use of mental health services by the number of people accounted for in the valuation of clinical depression.

Table 3.4: Health valuation - summary

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Description</th>
<th>Quantity</th>
<th>Value Per Unit</th>
<th>% of Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reduced risk of CHD and stroke in active men and women by 30%</td>
<td>24,967</td>
<td>£3,910</td>
<td>97.62</td>
</tr>
<tr>
<td></td>
<td>Reduced risk of developing Type 2 diabetes by 10%</td>
<td>8,588</td>
<td>£3,879</td>
<td>33.32</td>
</tr>
<tr>
<td></td>
<td>Reduced risk of breast cancer in active women by 20%</td>
<td>214</td>
<td>£51,531</td>
<td>11.01</td>
</tr>
<tr>
<td></td>
<td>Reduced risk of colon cancer by 24%</td>
<td>155</td>
<td>£51,531</td>
<td>7.99</td>
</tr>
<tr>
<td></td>
<td>Reduced risk of dementia by 30%</td>
<td>2,906</td>
<td>£35,144</td>
<td>102.13</td>
</tr>
<tr>
<td></td>
<td>Reduced risk of clinical depression by 21%</td>
<td>11,597</td>
<td>£296</td>
<td>11.01</td>
</tr>
<tr>
<td></td>
<td>Increased self-reported good health (14.1%) leading to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>➢ reduced GP visits</td>
<td>1,148,562</td>
<td>£14</td>
<td>16.59</td>
</tr>
<tr>
<td></td>
<td>➢ reduced use of mental health services</td>
<td>1,185,392</td>
<td>£19</td>
<td>23.08</td>
</tr>
<tr>
<td></td>
<td>Sub total</td>
<td></td>
<td></td>
<td>295.17</td>
</tr>
</tbody>
</table>

Overall, the social value of health outcomes through participation in sport is £295.17m. As shown in Table 3.4, the largest value was created by the reduced prevalence of dementia (£102.13m) closely followed by the reduced prevalence of CHD and stroke (£97.62m). Taken together, these two outcomes accounted for more than two-thirds of the value generated from the health-related outcomes.