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# Guidance document for Social Value Calculator (SVC3)

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*Social Value Calculator Partners*

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## Table of Contents

<b>1. INTRODUCTION</b> .....	<b>3</b>
1.1. Historical perspective.....	3
1.2. What is the Social Value Calculator (SVC)? .....	3
<b>2. METHODOLOGY</b> .....	<b>4</b>
2.1. Outcomes .....	4
2.2. Valuation.....	5
2.3. Assumptions .....	6
<b>3. MODEL APPLICATION</b> .....	<b>7</b>
3.1. Members (Known Users).....	8
3.2. Casual (Unknown Users).....	10
3.3. Comparing the results of SVC3 with previous SVC values .....	11
<b>4. CONTACT DETAILS</b> .....	<b>12</b>



## 1. INTRODUCTION

The Social Value Calculator (SVC) was first developed in 2015 (SVC1) by 4global in partnership with Sheffield Hallam University (SHU) and Experian. The tool was updated in 2018 (SVC2) based on the evidence review conducted by SHU and then recently in 2021 (SVC3) based on the latest report published by SHU and Sport England which gives a clear picture of how community sport and physical activity significantly contributes positively to all five outcomes identified in the government's sports strategy, Sporting Future.

This document summarises the methodology used to reconfigure and update the third iteration of the SVC (SVC3) based on the findings of the latest research and the report, including the addition of new indicators, duration-based modelling (instead of frequency of visit) and deflators such as multi-facility use and inside/ outside activity balance. All these changes in the academic model have been important to make SVC3 more reliable, accurate and inclusive.

### 1.1. Historical perspective

Sport and physical activity are widely perceived to generate benefits to society. There is a long history of evaluation and academic research into the social impacts of sport and recreation but attempts to measure and value these impacts in monetary terms have been more limited. In 2014, the Sport Industry Research Centre (SIRC) at Sheffield Hallam University (SHU) developed a national model for measuring the Social Return on Investment (SROI) in sport in England. The research was funded by the Higher Education Innovation Fund (HEIF), Department for Digital, Culture, Media & Sport (DCMS) and Sport England (Davies et al, 2019<sup>i</sup>). The 2014 national SROI sport model for England was built on population level evidence linking sports participation and social outcomes<sup>ii</sup>.

The first SVC was developed using the 2014 SROI model and subsequently updated in 2018 using more recent data. In 2019, Sport England commissioned SIRC to update the national SROI sport model for England<sup>iii</sup>. The SVC3 utilises this research as its starting point.

### 1.2. What is the Social Value Calculator (SVC)?

The SVC was developed in partnership with 4global and Experian in 2015. It is a tool used to monetise the social value created by participation in sport at sport and leisure facilities. The objectives of the tool are to give leisure operators, local authorities, national funding bodies and stakeholders across the sector a way of measuring and evidencing the social value created from investment in sport and physical activity and to make these monetary figures consistent and relative across the sector, thereby

allowing benchmarking. The SVC is part of the DataHub project, which is the largest repository for sport and leisure data in the UK.

The SVC uses the parameters of the national SROI sport model to establish a value per participant for a sub-set of the outcomes measured in the national model. The tool focuses on social value only, rather than SROI, which requires the addition of input (cost) data. The SVC measures the benefits of sports participation that takes place in facilities only and excludes volunteering. Underpinning the SVC are various assumptions and parameters taken from the national SROI sport model for England. These are summarised in the next section.

## 2. METHODOLOGY

The SVC3 is aligned with the UK Government strategy for sport, *Sporting Future - A New Strategy for an Active Nation* (2015). Outcomes included in the SVC3 are grouped into four categories as follows: physical and mental health, mental wellbeing, individual development and social and community development. Mental wellbeing in the context of this tool refers to subjective (hedonic) wellbeing.

### 2.1. Outcomes

The outcomes measured in the tool are summarised in Table 1 below.

Outcome	Description
<b><i>Physical and mental health</i></b>	
CHD / stroke	Reduced risk (participants 16+)
Breast cancer	Reduced risk (female participants 16+)
Colon cancer	Reduced risk (participants 16+)
Type 2 diabetes	Reduced risk (participants 16+)
Hip fractures	Reduced risk (participants 65+)
Back pain	Reduced risk (participants 16+)
Dementia	Reduced risk (participants 16+)
Depression	Reduced risk (participants 16+)
Good health	Reduced medical service usage (GP visits and psychotherapy usage (participants 16+))
Injuries	Increased risk (participants 16+) – this is a negative value in the model
<b><i>Mental wellbeing</i></b>	
Subjective wellbeing	Improved life satisfaction (participants 16+)

Outcome	Description
<b>Individual development</b>	
Educational attainment	Improved educational attainment (participants 11-18)
Human capital	Enhanced human capital (average additional salary for graduates)
<b>Social and community development</b>	
Crime	Reduced criminal incidences about young males (participants 10-24)
Social capital	Improved social networks, trust and reciprocity

**Table 1: Outcomes included in the SVC3.**

## 2.2. Valuation

Outcomes in the SVC are valued consistently with the 2019 national SROI sport model for England, as detailed below. They are then expressed on a 'per participant per month' basis.

### **Physical and mental health outcomes**

- Eight health outcomes (reduced risk of various health conditions) were valued by estimating the number of reduced cases resulting from sports participation multiplied by the average annual cost per person diagnosed with the condition.
- Reduced GP visits & psychotherapy usage was calculated by estimating the reduced likelihood of visiting the GP 6+ times per year / using psychotherapy services, multiplied by the average annual cost savings per person.
- Injuries were valued by multiplying the number of A&E attendances recorded as sport injuries by the average annual cost of an injury. Different than the other indicator, this has a negative impact on the total social value.
- The SVC3 modifies health values for age, gender and NS-SEC category (\*), using weights which are derived using the prevalence of disease reported in the Health Survey for England.

(\* ) *The National Statistics Socio-economic Classification (NS-SEC) provides an indication of socio-economic position based on occupation. It is an Office for National Statistics standard classification.*

### **Mental wellbeing**

- Subjective wellbeing was calculated by multiplying the value of increased wellbeing derived from a participant's engagement in sport (using the wellbeing valuation approach) by the number of unique people taking part.

- The wellbeing valuation approach uses large scale survey data to estimate the impact of sport on people's self-reported wellbeing and uses these estimates to calculate the amount of money that would produce the equivalent impact on wellbeing. The wellbeing value represents the hypothetical income required to compensate for not benefiting from wellbeing enhancement through participation in sport and physical activity.

### ***Individual development***

- Educational attainment was valued by estimating the number of additional sports participants with formal qualifications (level 2 and level 3) by the average lifetime productivity returns.
- The human capital outcome represents the value of an individual's enhanced skills, gained through participating in sport at university. It was valued by estimating the number of final year students in Higher Education Institutions doing sport, multiplied by the average additional starting salary for sports participants.

### ***Social and community development***

- The crime outcome was valued by estimating the number of criminal incidents prevented amongst males in the 10-24 cohort taking part in sport, multiplied by the average cost per incident of crime.
- Social capital was valued in a similar way to subjective wellbeing, using the wellbeing valuation approach: The higher value of social capital derived from a participant's engagement in sport was multiplied by the number of unique people taking part in sport. The social capital value represents the hypothetical income required to compensate for not benefiting from social capital enhancement through participation in sport and physical activity.

## **2.3. Assumptions**

### ***Threshold and duration of activity***

- Social value is generated for 'active' participants at the physical activity threshold of 150 minutes + per week of moderate activity (averaged across one month).
- In addition, for health outcomes, social value is generated for 'fairly active' participants (30-149 minutes). For this sub-group, we assume there is a linear dose-response relationship between participation (30-149 minutes) and a reduced risk of developing various health conditions.
- In the national model, active travel is included in the calculation of the number of active / fairly active people for the health benefits but excluded from the

calculation of active people for the other wellbeing, individual and community benefits.

- The average duration for each activity is derived from the DataHub participation data and is used for the active minute calculations where the specific duration information is not available.

### **Outcomes**

- In line with the 2019 national SROI sport model for England, a number of evidence-based assumptions were used to calculate the SVC3 values. The risk reduction assumptions for physical and mental health outcomes are primarily informed by the 2019 UK Chief Medical Officers' Physical Activity Guidelines. The assumptions for the other outcomes are informed by published evidence.

### **Multi-centre usage**

- A monthly multi-centre usage deflator value was calculated using the DataHub data to discount the social value generated per participant for individuals participating at more than one leisure centre.

### **In-facility participation**

- In-facility deflators were calculated to adjust the social values per outcome (generated per participant), to discount for the contribution of activity which takes place outside facilities.
- The proportion of activity (including the active travel) taking place in facilities was estimated using the Active Lives Survey for active and fairly active participants. These values are then used as in-facility deflators to adjust the social values in the SVC3.

## **3. MODEL APPLICATION**

The figure below summarises the approach for the application of the social value model developed by the Sheffield Hallam University using the participation data collected from the leisure centres in the DataHub.

The model application is broken down into two parts, which contribute to the total social value generated by the centre.

- Member (Known Users)
- Casuals (Unknown Users)

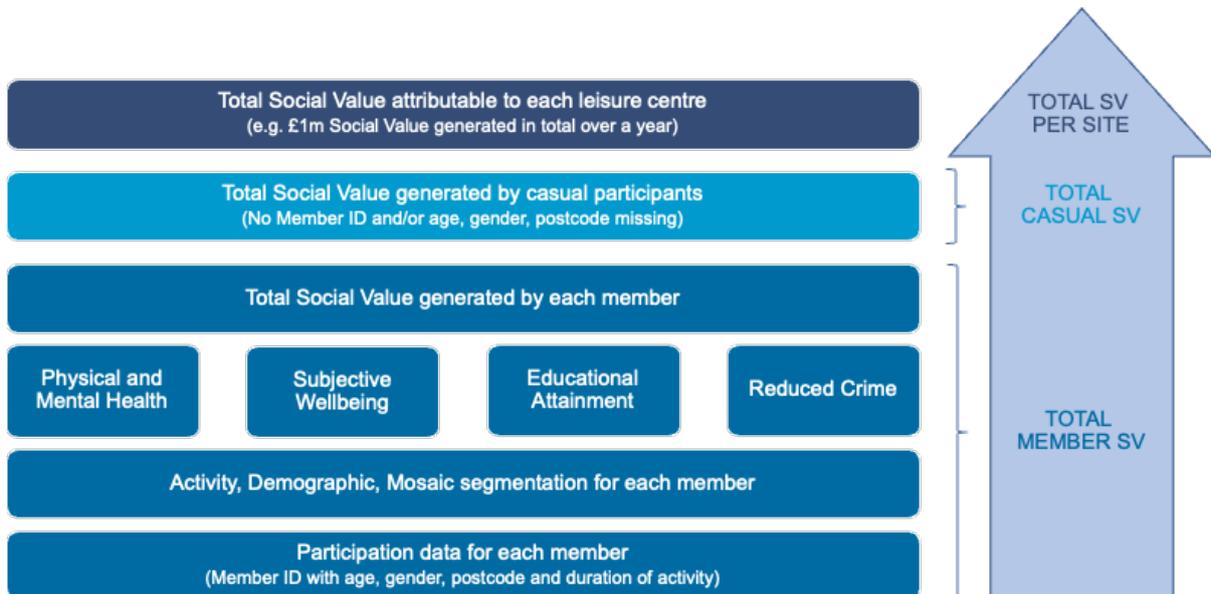


Figure 1 - Application of the social value model for member and casual users of a leisure centre

### 3.1. Members (Known Users)

Members are defined as facility users with an active subscription (paid or unpaid) to use the facility. Members have a unique identifying number (member ID), demographic (age, gender) and postcode information in the DataHub extracts.

For the calculation of the Social Value for the members of a facility, the following steps are taken:

#### Step 1: Activity classification

Each member is classified in an activity group based on their total duration of activity within a facility. The classification is different for health and other outcome areas based on their own thresholds.

Health Outcomes	Status
150+ minutes per week	Active
30-149 minutes per week	Fairly Active
30- minutes per week	Inactive

Non-Health Outcomes	Status
150+ minutes per week	Active
150- minutes per week	Inactive

For the duration calculations, duration information from the leisure management systems is used and where not available, a proxy duration value is assigned based on the activity booked using the sector data collated in the DataHub.



The duration figures have been adjusted in SVC3 using the assumptions from the national model for the participation inside and outside facility – e.g. for ‘active’ people, it is expected that they do a minimum of 60min of physical activity inside the facility to hit the threshold of 150min per week overall.

When calculating the proportion of activity that takes place in a centre, in relation to all activity, the ‘base’ is larger for health outcomes, as these benefits are also generated from active travel outside centres.

### ***Step 2: Demographic classification***

Each member is classified in a demographic segment based on their age and gender, which are the key criteria for the risk reduction in health outcomes and benefits linked to other outcome areas – e.g. breast cancer is only relevant for female participants, hip fractures are for 65+ year old participants and reduced crime is only relevant for 10-24 year old male participants.

### ***Step 3: Mosaic classification***

After the activity and demographic classification, each member is assigned to a Mosaic segment using their demographic and postcode information. Mosaic is a cross-channel consumer classification system designed by Experian which segments the population into 15 segments and 66 types that helps you to understand an individual's likely customer behaviour. The 15 Mosaic segments are then grouped into 5 categories for Social Value calculation: **Young, Old, Up, Mid, Down**

Based on the Mosaic category combined with the activity classification and demographic segment of each person, a multiplier is then applied to the health value generated for each individual to capture the difference in risk reduction for health outcomes, e.g. the old and down market groups generating higher savings / benefits than the young or affluent as a result of the same type of physical activity. These ratios will remain aligned with the latest evidence base and will always be subject to academic and peer to peer scrutiny.

### ***Step 4: Social Value calculation for each participant***

Based on the activity classification, demographic segment and Mosaic category and weightings calculated in Steps 1-3 linked with the social value model generated by Sheffield Hallam University, the social value generated for each member is calculated for each of the four outcome areas and their sub-categories.

### ***Step 5: Application of deflators***

Two deflators are applied to the Social Value calculations in order:

- to avoid double counting of the value generated by an individual person using multiple facilities within the same month; and
- to balance out the participation inside and outside facility.



This approach enables the Social Value Calculator to accurately identify the Social Value attributable to the leisure centre participation within the overall social value generated for each individual.

### **Step 6: Social Value Calculation for each site**

Once the individual social value is calculated for each member, it is summed up for all participants of the facility within the month to calculate the Social Value generated by the members that is attributable to the leisure centre for that month, which is defined as the 'proportion of the total social value generated by an active person that is linked to that person's activity inside the leisure centre'.

A member can only generate social value within the Social Value Calculator as long as he/she hits the activity thresholds within the leisure centre so no assumptions have been made for the person's activity levels for the months he/she doesn't use the leisure centre.

### **3.2. Casual (Unknown Users)**

Casuals are all facility users without an active subscription using the facility to do physical activity occasionally or regularly. The information about these users is limited compared to members as they do not have a unique identifier to track frequency of visit and no demographic and postcode information is recorded about these users in most cases. All participants using the facility through a school, club or corporate booking (e.g. club swimming, corporate basketball sessions, etc.) or attending an activity booked by a member (e.g. 5-a-side football, badminton court booking for 4 players, etc.) are captured in this group.

For the social value calculation of casual users of the facility in a month, the following approach is applied.

#### **Step 1: Total casual throughput calculation**

Total throughput from the casual users of the facility for the month is calculated using the DataHub extracts, including the throughput from casual bookings, the additional headcount from member bookings and member bookings with missing age and/or gender information.

#### **Step 2: Throughput to unique user conversion**

A ratio has been calculated through the leisure card holders in the DataHub (those without a paid subscription, so with a similar proxy propensity to participate as casual users) and applied to the total throughput from Step 1 in order to find out the unique user throughput from the total casual throughput.

- E.g.: 1,000 total casual throughput is generated by the bookings of approx. 280 unique users.

### ***Step 3: Unique users to social value participants conversion***

Once the total number of unique user equivalent is calculated, these users are broken down into sub-segments of activity levels (i.e. active, fairly active and inactive users) using the ratios from the member calculations to calculate the number of people that are likely to have participated enough to meet the minimum thresholds to generate a social value.

- E.g.: 120 users (out of 280 unique users) are categorised as Active participants (150+ minutes per week), 140 users as Fairly Active participants (30-149 minutes per week) and 20 users as Inactive participants (less than 30 minutes per week)

### ***Step 4: Total casual social value per site calculation***

Once the estimate number of casual users contributing to the social value is calculated, the average individual social value generated by the members (accounting for the typical customer profile) of the operator in the month has been multiplied with this number in order to calculate the total social value generated by casual participation for that site.

- E.g. If the average individual social value generated in health outcomes for 'active' participants of the operator in April 2021 is £100, the total social value for the 120 'active' casual participants of Site A calculated above would be £12,000 in that month.
- A similar calculation is done for 'fairly active' casual participants for health outcomes and 'active' casual participants for other outcome areas.

The deflators have been factored into the average social value calculations using the member side of the modelling so they are included into the casual social value calculations as well.

This value is then added to the Social Value generated by the members in the month to calculate the Total Social Value attributable to the leisure centre.

### ***Step 5: Breakdown of casual social value into outcome areas***

The total social value generated by casual users is then broken down into the 4 social value areas (Health, Subjective Wellbeing, Education and Crime) by applying the demographic segment breakdown of members of the same facility.

## **3.3. Comparing the results of SVC3 with previous SVC values**

The results derived from SVC3 should not be compared with values derived using previous iterations of the model due to the following methodological differences:



- SVC3 includes additional outcomes (hip fractures, back pain, injuries and social capital).
- SVC3 uses minutes/duration to define thresholds of participation. Previous versions of SVC used frequency of visit.
- SVC3 uses two thresholds of participation for deriving the social value for health outcomes (150+ mins per week and 30-149 mins per week).
- SVC3 uses separate values for health outcomes for male and female participants.
- SVC3 deflates social value to take account of multi-centre usage, and the contribution of activity outside facilities in contributing to the overall social value a person creates through participation.

#### 4. CONTACT DETAILS

For any further questions or information requests related to the Social Value Calculator tool or the academic research underpinning the methodology you can contact us at [support@datahubclub.com](mailto:support@datahubclub.com).

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<sup>i</sup> Davies, L. E., Taylor, P., Ramchandani, G., Christy, C. (2019). Social Return on Investment in Sport: A model for measuring the value of participation in England. *International Journal of Sport Policy and Politics* [Online 24 April]. DOI: 10.1080/19406940.2019.1596967.

<sup>ii</sup>DCMS (2015) [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/416279/A\\_review\\_of\\_the\\_Social\\_Impacts\\_of\\_Culture\\_and\\_Sport.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/416279/A_review_of_the_Social_Impacts_of_Culture_and_Sport.pdf)

<sup>iii</sup> Sport England (2020) <https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/2020-09/Social%20return%20on%20investment.pdf?5BgvLn09jwpTesBJ4BXhVfRhV4TYgm9E>