May 2023

Byw'n lach

Assessing the Social Value of Byw'n lach

Introduction

The purpose of Byw'n Iach is: "to offer sustainable leisure and fitness services, of the highest quality to our communities, in order to improve health, well-being, fitness and skills for all." With 11 leisure centres across Gwynedd in the North West of Wales, Byw'n Iach were keen to understand the impact they have across both the local and wider community, as well as a monetary value being assigned to that impact.

This desire aligns with wider developments in the physical activity and sport for development sectors and the growing interest in and application of social valuing techniques to represent the contribution being made in relation to a variety of social, health and economic outcomes. Substance has a long history of measuring and valuing the social impacts associated with sport and physical activity programmes and has prepared an estimate of social value relating to a range of Byw'n Iach programmes and activities based largely on the application of Social Return on Investment (SROI) methods.

What is SROI?

Social Return on Investment ('SROI') is a form of cost benefit analysis that attempts to quantify the social change created by a programme, policy, investment or entity. It is a particularly useful form of analysis for not-for-profit organisations, which seek to generate positive social changes that are difficult to measure in traditional financial terms.

There is no right way to complete a SROI study, which is itself a branch of social value[1] assessment. Social valuing techniques have developed and been refined progressively over time and typically involve the following steps[2].

1. Establishing scope and identifying key stakeholders
2. Mapping outcomes
3. Evidencing outcomes and giving them a value
4. Establishing impact
5. Calculating the SROI
6. Reporting, using and embedding

Applying a phased approach to the project

A typical SROI study involves the determination of the changes sought by the programme, policy, investment or organisation, and then undertaking a structured approach to determining whether the identified benefits can be converted into financial terms. SROI can be calculated for a single year or over the life of a project or programme, and it can be

[1] hiips://socialvalueint.org/social -value/what-is-social-value/

[2] Social Value UK. 2012. *A Guide to Social Return On Investment*, hiip://www.socialva lueuk.org

calculated summatively (i.e. at the end of a programme once outcomes have been realised) or formatively (i.e. as a programme is underway, or prior to it getting underway).

Between Byw'n lach and Substance, a phased approach was agreed and implemented, with Phase 1 focused on an assessment of the viability of applying the SROI methodology in this context. In this phase the work focused specifically on exploring:

- The range and availability of stakeholders with an interest in the outcomes delivered by Byw'n lach Leisure Centres
- The range and definition of those outcomes
- The availability of data required to support an SROI assessment.

From this, a successful stakeholder mapping exercise (including internal and external stakeholders) was carried out, as well as an outcome mapping process whereby a range of core and subsidiary outcomes could be identified which participation at the provider's Leisure Centres might contribute towards. Subsequently, progressing to Phase 2 of the project allowed Substance to evaluate the full scope of work required and potential stages of delivery to enable an assessment of social impact and value associated with participation across Byw'n lachs' 11 Leisure Centres.

Methodology

Outcome Mapping

Through the phase one outcome mapping exercise a set of outcomes where high-quality evidence of impact might be demonstrated in relation to sport and physical activity participation was identified. What informed this was a review and understanding of:

- Byw'n lachs purpose
- The population of participants in terms of their age and wider socio-demographics
- The location and timing of delivery
- The pattern of delivery in terms of provision of different opportunities to participate in physical activity programmes and wider social interaction/support

Ultimately this was reflected in the selection of outcomes as illustrated Table 1 below.

Table 1: Outcome Mapping

Education/Employment	Social	Physical Health	Mental Health
NEET	Crime	Hypertension	Schizophrenia
School absence		Diabetes	Anxiety
		Stroke	Depression
		Diabetes	Dementia
		Cancer	

		IHD	
		Osteoporosis	

Outcome Valuation

Overall, a blend of formative and summative approaches was employed. For the core population of participants, given the retrospective nature of the assessment and the absence of consistent outcome data across the full range of outcomes the approach was largely formative or based on an estimate or 'forecast' of likely impacts based on the wider evidence relating to physical activity and sport participation. The predominant method employed was a 'risk and protective factors' model[3] which considers the risk of participants in relevant population groups facing defined negative outcomes; the associated cost to society of addressing the outcome; the effect of participation in reducing that risk and number of negative outcomes; and finally, the per capita cost saving linked to that reduction, as illustrated in simplified terms in Table 2 below.

Table 2: Illustration of Risk and Protective Factors Model Valuation

a.	b.	c.	d.	e.
Risk of negative outcome in population group	Cost of negative outcome p.a.	Per capita cost in population group p.a. (a * b)	Reduced risk through involvement in physical activity[4]	Per capita societal cost saving p.a. (c * d)
50%	€1000	€500	10%	€50

In the absence of consistent and reliable outcome data relating to all participants, the 'effects' or values for 'reduced risk through participation' were considered in a conservative fashion and based purely on established evidence of the effects of participation in physical activity and team sports on those outcomes. Our determination of 'deadweight', or what might have happened anyway, is based on levels of physical inactivity in the wider equivalent population. This is used as a proxy for the proportion of participants who might be inactive in the absence of Byw'n lach. We also only included values for those participants that met defined levels of participation. For a full valuation, participants were required to have attended at least 20 sessions. The impact of those attending between 16 and 20

[3] Murray J, Farrington, D. & Eisner, M. (2009) 'Drawing conclusions about causes from systematic reviews of risk factors: The Cambridge Quality Checklists'. *Journal of Experimental Criminology* 5(1):1-23; Spencer L, Ritichie J, Lewis J & Dillon L (2003) *Quality in Qualitative Evaluation: The Framework for Assessing Research Evidence*. London: The Cabinet Office

[4] Accounting for 'deadweight' (what would have happened anyway) through a discount based on the proportions that would be likely to be involved in other sports if they did not engage with Byw'n lach

sessions was discounted by 50% and for those attending between 10 and 15 sessions by 75%. Anyone attending less than 10 sessions was excluded.

It was possible however to identify specific values for most of the 'risk of negative outcome in population group' entries (see Assumptions and Data Sources).

For some elements alternative methods are employed. The value of educational attainment is based on general academic assessments of the impact of involvement in team sports on people's educational performance, alongside OECD studies to calculate the likely effect of a lift in educational performance on a current student's lifetime earnings (discounted to create an annualised value). The value of volunteering uses an 'equivalent cost method' and is based on the number and role of volunteers and the equivalent salary associated with the tasks completed and number of hours given up delivering them.

The methods above were applied to participants in a wide range of general sports and physical activities. More 'targeted' programmes working with smaller groups and addressing particular health or social conditions were addressed using bespoke valuation designs. These included a variety of market rate proxy values, third party valuation of non-tertiary education and assessments of the cost benefit or SROI of related programmes as documented in the Assumptions and Data Sources section at the end of this report.

For the purposes of this report, we have based the analysis on a 12 month reporting period from 1st April 2022 - 31st March 2023.

Results for Byw'n lach

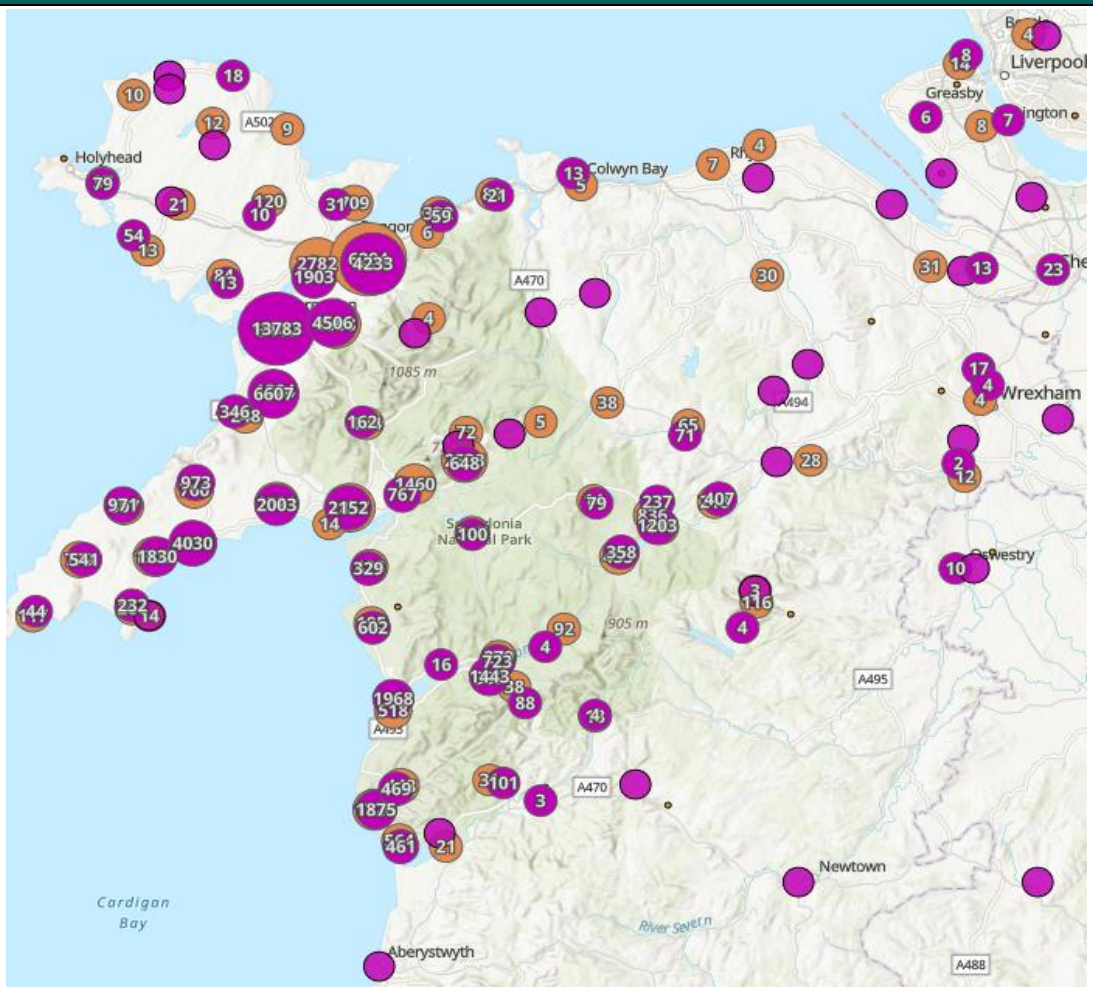
Population

The population that utilise Byw'n lach Leisure Centres considered in the study included over 27,000 unique participants with a relatively even split between male and female users. For those participants for which we were able to identify a valid postcode the population was drawn predominantly from residents within Gwynedd County although, as illustrated in Figure 1, a significant proportion were also drawn from further afield.

Table 3: Population Profile

Unique Participants	Male	Female	Postcode Entries
27,355	13,309	14,046	11,568

Figure 1: Byw'n lach Participants



From the data available, it was possible to create valuations based on:

- **Impact of participation programmes** delivered by Byw'n Lach Leisure Centres.
- **Economic impact** relating to facility construction investment and use value.
- **Impact of targeted programmes** delivered by Byw'n lach and partners.
- **Volunteer opportunities** through the ongoing work from Byw'n lach and partners.

Impact of Participation Programmes

Table 4: Participation Programme Value Breakdown

Programmes	Valuation
Individual Swimming Sessions	£5,564,830
Individual Gym Sessions	£7,557,660
Individual Fitness Class Sessions	£1,874,110
Individual Court Bookings (Tennis, Squash, Badminton)	£1,205,650

3rd Party/ Club Bookings (Wet and Dry)	£195,190
School Dry Facility bookings	*
NERS Programme	£353,710
Active for Life	£123,522
Community Learn to Swim	£3,632,550
Junior Sport Coaching	£244,550
Babi Actiif (Early Years Sessions)	*
Partnership Unit	£690,160
School Swim	*
Total	**£21,441,932**

* Could not be valued at this time, due to a lack of requisite data.

The total participation programme-based valuation of **£21,441,932** consists of valuations highlighted in Table 5 below:

Table 5: Outcome Values

Education/Employment	Social	Physical Health	Mental Health
NEET **(£157k)**	Crime **(£44k)**	Hypertension **(£3.46m)**	Schizophrenia **(£58k)**
School absence **(£1.77m)**		Diabetes **(£2.06m)**	Anxiety **(£234k)**
		Stroke **(£262k)**	Depression **(£708k)**
		IHD **(£156k)**	Dementia **(£1.93m)**
		Osteoporosis **(£32k)**	
£10.88m			
Economic			
£10.56m			

Economic Impact

Table 6: Facility Economic Impact		
Facility	**Construction Investment**	**Combined Use Value**
Canolfan Hamdden Arfon Tenis Arfon	£ 60,640	£3,159,871
	£ 26,480	
Bangor	£ 32,340	
Plas Ffrancon	£ 18,770	
Plas Silyn	£ 19,020	
Glaslyn	£ 63,870	
Dwyfor	£ 52,350	
Pwll B Ffestiniog	£ 11,910	
Penllyn	£ 52,210	
Glan Wnion	£ 15,890	
Pafiliwn	£ 17,520	
Bro Dysynni	£ 41,420	
Total	**£412,420**	**£3,159,871**
Grand Total		**£3,572,291**

Impact of Targeted Programmes

Overall valuations have also been provided for each of the identified 'targeted' programmes, including the values derived from the Gwynedd Actif North Wales data sets.

Table 7: Targeted Programme Value Breakdown		
Area	**Programme**	**Valuation**
0-5	Early Years Course for staff (Skip Cymru)	£12,008
	Balance Bike sessions at Byw'n Iach Leisure centres	£1,250
Primary Schools	Balance Bikes	£625
Primary Extra	Disney Playmaker	£12,500
Secondary School	Mental Health Awareness Days	£100
	1:1 sessions	£500
Secondary Extra	Summer of Fun	£300
Community	E-Bikes	£1,190
	Balance Bikes	£925

Workforce	(Multiple Courses)	£170,088
Intervention	TAG - Teulu Actif Gwynedd	£6,540
Total		**£206,026**

Volunteer Opportunities

Finally, valuations were made for volunteering activity based on the locations from where volunteers were drawn as represented in Table 8 below.

Table 8: Volunteer Value Breakdown

Facility	Count	Valuation
Arfon	283	£927,030
Bangor	29	£60,450
Plas Ffrancon	52	£526,500
Plas Silyn	180	£214,410
Glaslyn	59	£157,130
Dwyfor	67	£837,990
Pwll B Ffestiniog	18	£21,440
Penllyn	19	£5,660
Glan Wnion	51	£15,190
Pafiliwn	20	£11,910
Bro Dysynni	88	£52,410
Total		**£2,830,120**

Analysis and Conclusion

In total the social value generated by Byw'n lach amounts to **£28.04m** drawn from the following areas of activity:

- **Participation programmes (£21.44m)**
- **Economic (facility) impact (£3.57m)**
- **Targeted programmes (£206k)**
- **Volunteer opportunities (£2.83m)**

Unsurprisingly the largest element of the valuation is driven through the wide range of participation activities and programmes provided across the Byw'n lach Leisure Centres, with both health and economic benefits carrying considerable weight. Volunteer opportunities and targeted programmes (including through Byw'n lach's wider partnerships) also contribute significantly towards the overall figures.

These valuations are likely to under-estimate the contribution made by Bwy'n lach given the exclusion of elements where data was not available and our conservative approach towards discounting for deadweight.

The results have not been presented in the form of a ratio indicating the value of any return on investment as is more typical of SROI studies due to a lack of specific data on the cost of different elements of provision. What we can estimate is the average value that can be attributed to each individual participant which amounted to £1,025 per annum.

Assumptions and Data Sources

For the purposes of this report, we have made the following assumptions.

Basis Period

Valuations are based on data from the beginning of April 2022 to the end of March 2023. Where data was provided without a date it was assumed to relate to the defined period or was used as a proxy for the defined period.

Population

The population for the study included members across the 11 Byw'n lach Leisure Centres. It also included participants in a range of community and school based programmes where the average number of sessions attended exceeded 10. We have assumed that, prior to any discounts being applied (see below), all of those included in the study meet the Chief Medical Officers physical activity guidelines[5].

Venues

Table 9: Bwy'n lach Venues

Venue	Abbreviation	Square meterage
Canolfan Hamdden Arfon	CHA	3000
Tenis Arfon	TA	3010
Bangor	B	1800
Plas Ffrancon	PF	1500
Plas Silyn	PS	1520
Glaslyn	G	3160
Dwyfor	D	2590

[5] hiips://www.gov.uk/government/publi cations/uk-chief-medical-officers-physical-activity-guidelines-communications-framework

Pwll B Ffestiniog	PBF	663
Penllyn	Pe	2583
Glan Wnion	GW	1270
Pafiliwn	Pa	1400
Bro Dysynni	BD	2049

Deadweight and Discounts

'Deadweight' (what would have happened anyway) is accounted for through a discount based on the proportion of participants that would be likely to be involved in other physical activity if they did not engage with Byw'n lach. The assumption made is that, without physical activity engagement through Byw'n lach, the proportion of participants meeting the Chief Medical Officers physical activity guidelines would match that for the relevant population groups.

Amongst those participants in community and school-based participation programmes, a further discount is applied based on the number of sessions attended as illustrated in Table 10 below.

Table 10: Participation Programme Discounts

Number of sessions attended	Additional discount
Less than 10 sessions	100%
Between 10 and 15 sessions	50%
Between 16 and 20 sessions	25%
More than 21 sessions	0%

Data

Table 11: Data Assumptions

Area	Assumption
Background Evidence	Some evidence relating to the impact of physical activity participation has been drawn from previous studies conducted by Substance within Wales.
Targeted Programmes	Various bases for valuation were utilised, such as market rates for course qualification costings and other proxies outlined in Table 13 below.
Participation Programmes	Valuations were based on unique participant data figures provided by Bwy'n lach for individual programmes.

Facility use value by activity and venue	In order to provide the further detailed breakdown, valuations for participation programmes which run across multiple facilities (i.e. Active for Life presence across fitness rooms, sports halls, courts and outdoor spaces) were split evenly across activities. It is noted that some programmes will likely utilise certain areas more than others (i.e. NERS within Gym/Fitness spaces).

Table 12: Data Sources

Risk and Protective Factors Related Measures			
Outcome	**Risk**	**Effect**	**Cost**
School attendance	11.96%	25%	£6,176.00
Sources	UK Government	AFC	NPC
NEET	13%	7.64	£15,992.01
Sources	EU	Street Leagues	Ciclavoro
Crime	2.63%/0.21%	1%	£30,024.00
Sources	Eurostat	Sports ThinkTank	Gov Data
Hypertension	12.50%/18.00%	50%	£4,238.56
Sources	EHN	AOMRC	EJHE
Heart disease	1.17%/2.04%	40%	£2,140.14
Sources	EHN	AOMRC	EHN
Stroke	0.60%/0.65%	30%	£10,213.37
Sources	EHN	AOMRC	EHN
Diabetes	6.90%/8.40%	50%	£4,868.01
Sources	EHN	AOMRC	Diabetologia
Cancer	0.04%	20%	£77,442.00
Sources	Cancer Today	AOMRC	NCBI
Schizophrenia	0.27%	11.8%	£32,563.44
Sources	OurWorldData	CTF	NCBI
Anxiety	4.53%	32%	£1,630.08
Sources	IHE	NCBI	NCBI
Depression	4.12%	30%	£4,663.40
Sources	IHE	AOMRC	NCBI

Dementia	1.65%	30%	£34,188.09
Sources	AE	AOMRC	NCBI
Other Measures			
	Effect	**Value**	
Educational attainment	1%	£116,361/91,444	
Source	SHU	OECD	
Other Data			
Physical inactivity rates	88% U18, 33% 19-24		
	Sport England		

Table 13: Targeted Programme Methods and Sources

Activity	Method	Source
Early Years Course for staff (Skip Cymru)	Valuation of non-tertiary education	OECD
Balance Bike sessions at Byw'n Iach Leisure centres	Market rate proxy value	Life Cycle UK
Balance Bikes	Market rate proxy value	NCAGB
Disney Playmakers	Market rate proxy value	AURA
Mental Health Awareness Days and 1:1 Sessions	Market rate proxy value	A-Life
Summer of Fun	Market rate proxy value	Dayoutwiththekids
E-bikes	Market rate proxy value	Nextbike
Staff mentoring	Valuation of non-tertiary education	OECD
Silver Ambassador	Market rate proxy value	Youth Ambassadors
Starting Blocs	Valuation of non-tertiary education	OECD
TAG Teulu Actif Gwynedd	Third party proxy value	FITT

Acknowledgements

Substance would like to thank colleagues at Byw'n lach for the provision of key insights and front-line data relating to the organisations day-to-day ongoings. We would also like to thank the FAW for their introduction to the team.