



Building Health Communities

Quantitative Evaluation

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1. Introduction

Building Healthy Communities (BHC)¹ is a programme designed to improve the health and wellbeing of participants by providing community based information, training and activities. One-to-one support is available and participants are encouraged to be more active within their communities. Opportunities for volunteering further enhance their involvement.

BHC is a partnership of public, community and voluntary organisations that have been working together since 2001. There are currently four local area partnerships in Dumfries and Galloway: Dumfries and Lower Nithsdale, Upper Nithsdale, The Machars, and West Wigtonshire. Funding has allowed the programme to extend into the Stewartry.

BHC requested help in evaluating the service that had been provided over a number of years with a view to assessing the progress of the programme and in planning its future development. Health Intelligence department agreed to provide a quantitative evaluation. A qualitative evaluation has been commissioned separately.

¹ <http://www.healthycommunities.org.uk/>

2. Scope of Evaluation

It is recognised that the data collection systems have been developed in house by the BHC Team with little analytical input and reflect the requirements of different external funders.

The age range of participants has been influenced by the Building Healthy Communities' target groups, in particular the Long Term Conditions and Self Management programmes.

3. Methodology

Data were collected from current BHC systems for Upper Nithsdale, Dumfries and Lower Nithsdale, Stewartry, The Machars and Wigtownshire and also from data previously analysed by Health Intelligence for the Long Term Conditions and Self Management programmes.

Records were cross-matched across the various systems and a unique ID number allocated to each participant. Some participants may have been double counted if it was not possible to confidently match names, dates of birth and addresses. Excluded from the analysis were any records without names and addresses.

Table 1: Data Sources

Source Table	Records	'Cleaned' Sample
Dumfries & Lower Nithsdale	337	309
Upper Nithsdale	134	122
Stewartry	215	215
Machars	351	282
West Wigtownshire	201	178
Self Management Programme	121	121
Long Term Conditions Programme	418	223
Total number of Participants	1,777	1,450

Where a postcode was available, records were matched to the Scottish Index of Multiple Deprivation (SIMD) 2012².

Age at date of first contact was calculated where suitable dates were available. Those identified as Carers were unpaid carers.

A significance level of 95% was used throughout the analysis.

² <http://simd.scotland.gov.uk/publication-2012/>

Lessons Learned

Challenges were encountered due to the differences in data recording across the various datasets:

- Names recorded as full name or as first and last name
- Addresses recorded as full address or in separate fields (address 1, address 2, town, postcode)
- Postcode not provided
- Text in date fields eg over 65, OAP, left program, 30/7 - 20/08/13
- Incorrect dates or date formats eg 2101/2014, 31/09/2012
- Errors in recording dates eg Date of birth 02/11/1940 and 02/11/1944 for the same (?) person
- More than 1 participant recorded with the same ID number
- Inconsistencies in ID numbers eg ST55 or ST 55

4. Analysis

For the five financial years 2010/11 to 2014/15, 1,450 records were analysed. It must be noted that this is a sample of the total number of participants and is not a true record of all activity over the time period.

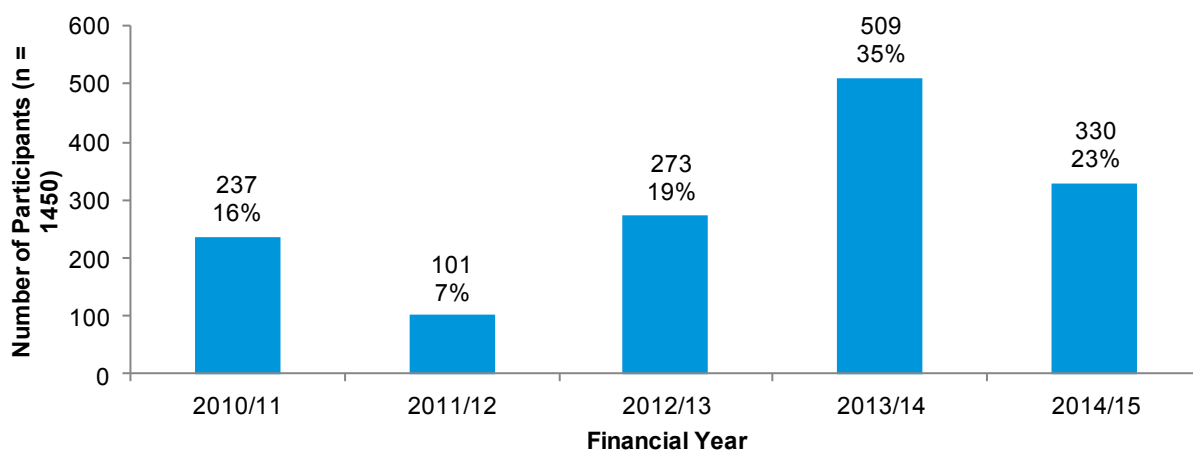
4.1 Engagement

The largest proportion of participants from the sample (35%) engaged with the programme during 2013/14.

Table 2: Date of First Contact with BHC

Date of First Contact FY	% of Total
2010/11	16%
2011/12	7%
2012/13	19%
2013/14	35%
2014/15	23%

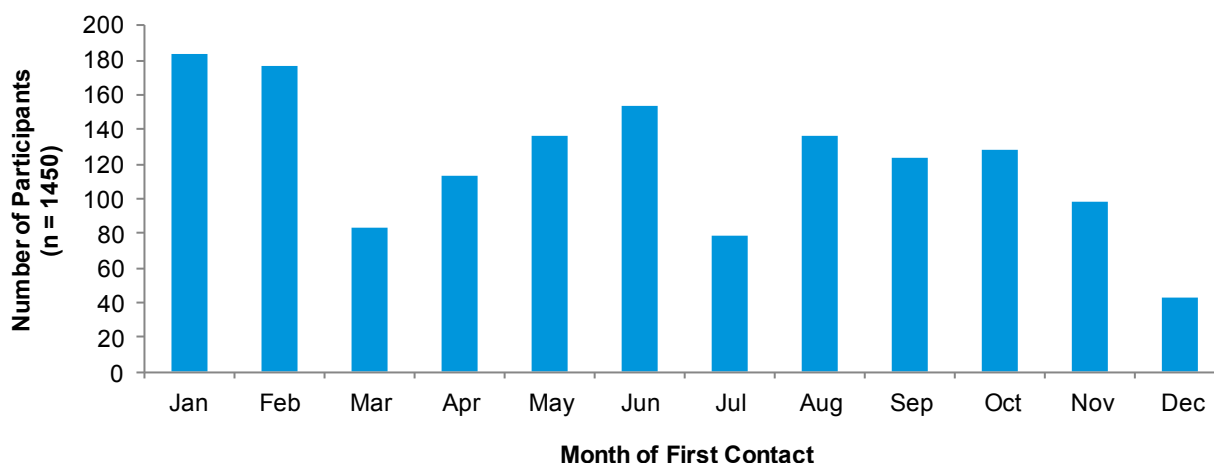
Figure 1: Dumfries and Galloway Building Healthy Communities, Financial Year of First Contact



When people engaged is important because the activities included in the BHC programme differ from year to year, the funding situation will differ and the staff may differ. The results that follow are therefore more a reflection of what BHC was delivering in 2012/13 to 2014/15 than the previous two years.

Over the 5 financial years, there appears to be a seasonal pattern to when participants joined the programme, with 13% joining in January, 12% in February and 11% in June.

Figure 2: Dumfries and Galloway Building Healthy Communities, Financial Years 2010/11 to 2014/15, Month of First Contact



Following discussion with the BHC team, it became apparent that this seasonal pattern was influenced by funding and staffing cycles. Core funding became available in the first financial quarter of the year (April, May and June) meaning that after training, members of staff were available in the second quarter. Similarly, short term funding, that usually becomes available between July and August each year, allowed staff recruitment in September/October with new recruits trained for a January start. The lower level of engagement in July may be attributable to summer holidays.

Lessons Learned

Data from the sample and BHC staff comments indicate that short term funding cycles have a marked impact on activity throughout the financial year and this does not create a favourable environment for service continuity.

4.2 Demographics

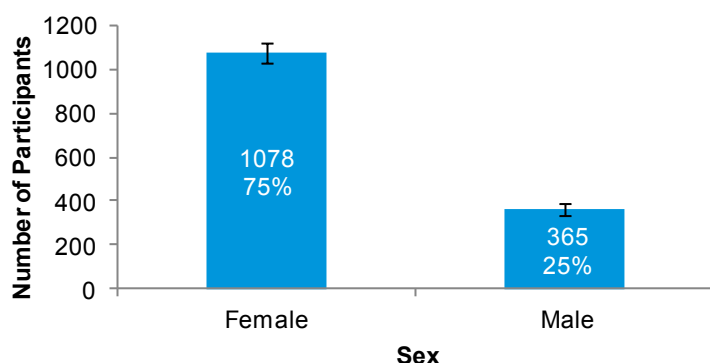
4.2.1 Sex

Sex had been recorded in 99.6% of records. The majority of these participants (75%) were female and 25% were male. These proportions are similar to other health interventions. For the Beat the Street programmes in Annan and Dalbeattie, 34% and 39% of registrations respectively were by men but this had reduced to 25% after 5 months. The national Counterweight programme involved 74% females and 26% males³. The Dumfries and Galloway Keep Well programme evaluation also found that more women than men attended Keep Well health checks⁴. However this does not reflect the wider population of Dumfries & Galloway where 48.6% are men and 51.4% are women (NRS mid 2013 population estimates).

³ <http://www.ncbi.nlm.nih.gov/pubmed/15139891>

⁴ <http://www.healthscotland.com/uploads/documents/16308-Learning%20Note%201%20Targeting%20and%20Engagement.pdf>

Figure 3: Dumfries and Galloway Building Healthy Communities, Financial Years 2010/11 to 2014/15, Sex of Participants



4.2.2 Age

Age at first contact was calculated using the recorded date of birth and the earliest date of contact in the participant’s record. No age could be calculated for 24% of participants.

Where an age could be calculated, participants’ age at first contact ranged from 9 years to 96 years. Of those aged 18 or over, 29% were aged 60 to 69, 20% were aged 70 to 79, and 19% were aged 50 to 59.

The reasons for this age distribution are possibly a product of BHC targeting different groups (i.e. Long term Conditions (LTC) and Self Management programmes) or may be influenced by wider social factors such as reaching retirement age when participants have more time available to attend activities.

Figure 4: Dumfries and Galloway Building Healthy Communities, Financial Years 2010/11 to 2014/15, Age at First Contact

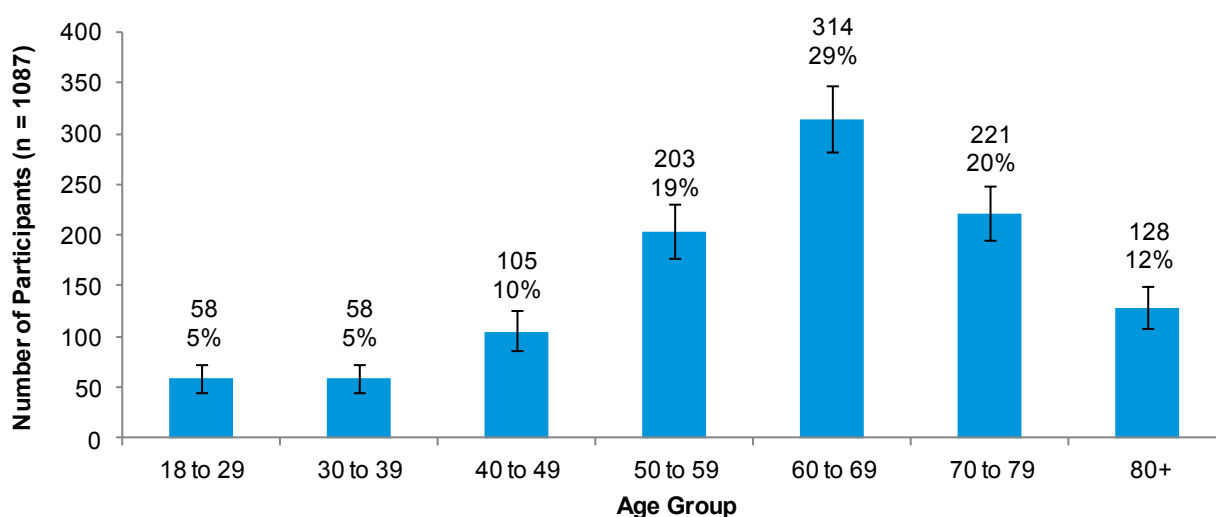
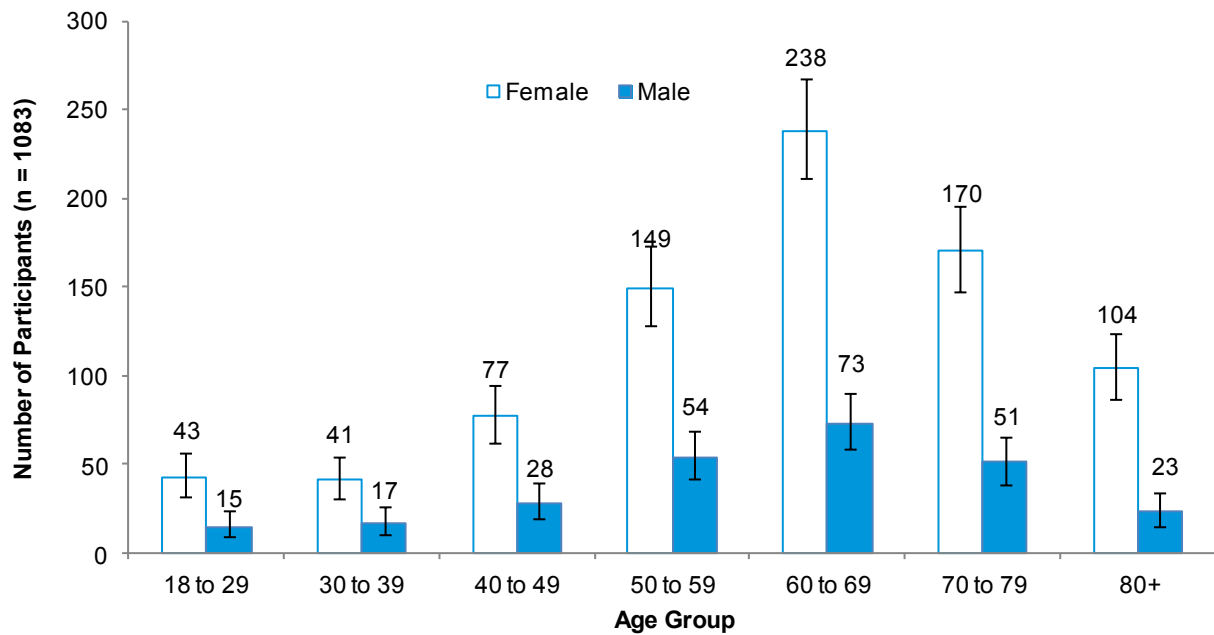


Figure 5: Dumfries and Galloway Building Healthy Communities, Financial Years 2010/11 to 2014/15, Sex and Age at First Contact



4.2.3 Geographic Deprivation (SIMD)

Looking at the SIMD local quintiles of the participants' home addresses, 26% of participants were living in the most deprived quintile areas. This is a significantly higher proportion than that of the Dumfries and Galloway CHI registrations in these areas in November 2012 (19%).

There was a gradient in engagement across the deprivation quintiles with a lower proportion of participants from the less deprived quintiles (4 and 5) than in the general population.

The higher level of engagement with people from the most deprived areas suggests that overall BHC activities are not further exacerbating inequalities.

Postcodes were not available or were not matched for 5% of records.

Figure 6: Dumfries and Galloway Building Healthy Communities, Financial Years 2010/11 to 2014/15, Percentage of Participants Compared with November 2012 CHI Registrations by Scottish Index of Multiple Deprivation 2012 Local Quintile

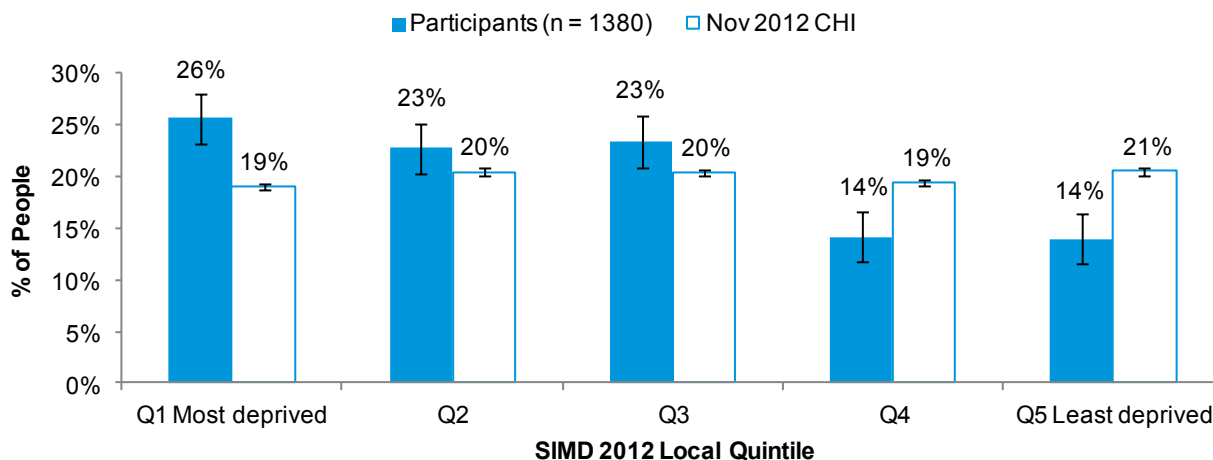
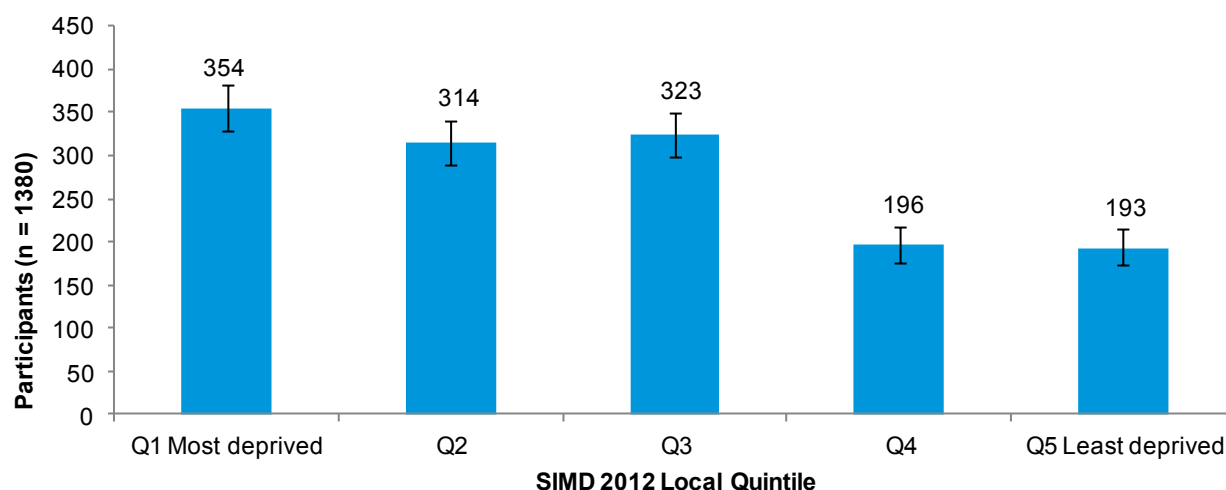


Figure 7: Dumfries and Galloway Building Healthy Communities, Financial Years 2010/11 to 2014/15, Number of Participants by Scottish Index of Multiple Deprivation 2012 Local Quintile



Lessons Learned

The age sex distributions from this evaluation sample suggest that BHC typically engages with women aged 50 years and over. The BHC team should reflect and consider whether or not there are other population groups, such as men⁵ or people of working age, that they would wish to engage more with and how they may achieve this.

For this analysis, deprivation has been indicated by matching postcodes to the SIMD 2012. Recording of postcodes was inconstant or non-existent but this information was added retrospectively. Also, given the limitations of SIMD in a rural area, it is recommended that additional methods of gathering indicators of inequality, such as ethnicity, are collected.

⁵ https://www.menshealthforum.org.uk/sites/default/files/pdf/gender_and_access_to_health_services_study_2008.pdf

4.2.4 Carers

Of the 1,450 participants who engaged with BHC during 2010/11 to 2014/15, there were 201 (14%) who were Carers. The Census 2011 statistics showed that 10% of the population of Dumfries and Galloway were unpaid carers. This is another indication that BHC are engaging with people from deprived background and not further exacerbating inequalities

4.2.5 Long Term Conditions (LTC)

One or more long term condition was reported by 84% (1,211) of participants. Of these, 48 had ticked 'Yes' in the 'LTC?' box but no further information was available.

Table 3: Long Term Conditions by Age Group

Number of conditions recorded	Age Group									Total
	<18	18 to 29	30 to 39	40 to 49	50 to 59	60 to 69	70 to 79	80+	Age NK	
0	*	17	9	12	39	47	38	21	99	287
1	*	20	24	42	67	106	77	53	139	532
2		15	10	20	39	65	59	29	58	295
3		4	6	11	29	44	25	16	35	170
4		2	6	12	15	24	16	4	16	95
5+			3	8	14	28	6	5	7	71
Total	9	58	58	105	203	314	221	128	354	1,450

The most common condition was arthritis (28% of participants), followed by hypertension (15%) and diabetes (10%). Physical disabilities were reported by 17% of participants. Mental health problems, including stress, anxiety and post traumatic stress disorder, affected 18% of participants and 10% had learning disabilities, including Autistic Spectrum Disorder or dyslexia. Social isolation was recorded in these fields by 5 participants, although it should be noted that this may be recorded in other fields. The table below shows the prevalence of various conditions amongst the BHC participants compared with Dumfries and Galloway Quality Outcomes Framework (QOF) in 2014/15 and with the Census 2011. Exact definitions vary within the categories. These figures are not mutually exclusive because participants may be counted more than once if more than one condition was recorded.

Table 4: Prevalence of Long Term Conditions – BHC compared with QOF and Census 2011 (Exact definitions vary)

BHC LTC	Participants	% of Total	D&G QOF Prevalence 2014/15	Census 2011
Arthritis (Includes rheumatoid and osteo-arthritis)	413	28%	Rheumatoid Arthritis 0.7%	
Hypertension	213	15%	16.50%	
Diabetes	142	10%	Diabetes Mellitus 5.7%	
Heart Disease & other circulatory (Includes aneurysm, DVT, PVD)	130	9%	Coronary Heart Disease 5.2% Heart Failure 0.8% Atrial Fibrillation 2.2% Peripheral Arterial Disease 1.0%	
Back problems	127	9%		
Chronic Obstructive Pulmonary Disease (Includes asthma and other breathing problems)	117	8%	COPD 2.9% Asthma 6.8%	
Stroke	89	6%	2.50%	
Fibro/Polymyalgia	73	5%		
Cancer	59	4%	2.90%	
Dementia	35	2%	1.00%	
MS	31	2%		
CFS/ME/Post-viral fatigue	25	2%		
Osteoporosis	24	2%	0.10%	
Parkinson's disease	24	2%		
Vision problems	23	2%		Blindness or partial sight loss 2.8%
GI/Bladder problems	22	2%		
Thyroid problems	21	1%	Hypothyroidism 4.1%	
Epilepsy	19	1%	0.70%	
Hearing problems	11	1%		Deafness or partial hearing loss 8%
Brain injury	8	1%		
Other condition	145	10%		
One or more LTC	1,211	84%		32%
Mental Health Problems (Includes stress, anxiety, PTSD)	263	18%	Mental Health (Severe) 0.9% Depression 5.1%	Mental health condition 4%
Physical Disabilities (Includes leg amputees)	250	17%		Physical disability 8%
Learning Disabilities (Includes ASD, Dyslexia)	138	10%	Learning Disability 0.5%	Learning disability or difficulty 0.5%

The results from this sample suggest that the BHC programme is generally reaching a higher proportion of people with specific health problems than the proportion in the general population.

There may be many reasons why this sample has a higher prevalence of LTCs than in the wider population:

- BHC targeted people with LTCs
- Age of people engaging
- Activities on offer specifically appeal to people with LTCs (i.e. Tai Chi and Arthritis)

There will be other people in the local population who have not yet been diagnosed with a LTC but who are at high risk. The Anticipatory and Advance Care Planning (ACP)⁶ approach could engage more of these people with a view to enabling them to make changes for health improvement and staying well.

Lessons Learned

The BHC programme is effectively engaging with people who have long term conditions.

4.3 Participation

Of the 1,450 participants, 31% (445) have no taster session or activity recorded. A further 44% (631) have one activity or taster session recorded.

There are many different pathways into BHC and those records where no taster or activity is recorded may be immediate registrations or individuals who have been referred but who have not yet started an activity.

Table 6: Number of Tasters or Activities

Number of Tasters/Activities	Total	% of Total
0	445	31%
1	631	44%
2	280	19%
3	59	4%
4+	35	2%
Total	1,450	100%

⁶ <http://www.gov.scot/Publications/2010/04/13104128/1>

4.3.1 Type of Activity

A large number of activities are available and for the purposes of this analysis these have been grouped into the categories creative, physical activity, skills, wellbeing and other. The figures below are not mutually exclusive and participants may attend more than one activity at any time. Where activities have been grouped, there may be some double counting. For instance, if one participant attended both the art group and the art therapy group, this will appear as 2 in the table below.

Physical and creative activities were the most popular. More than a third (35%) of the 1,450 participants took part in a physical activity session and 22% attended one or more creative activities. Tai Chi (302) and Access Arts (105) had the highest number of participants.

Table 7: Type of Taster or Activity

Activity Type	Participants	% of Total (1,450)	% of Records with Activity (1,005)
Physical Activity	503	35%	50%
Creative	321	22%	32%
Wellbeing	252	17%	25%
Skills	78	5%	8%
Other	69	5%	7%

To some extent this distribution will reflect the type of groups on offer as well as people's preferences. Information on the number of remaining spaces at each group would offer greater insight into how under or over-subscribed different types of group were and provide a more complete picture.

Lessons Learned

The names of activities and their spelling varied across the datasets. It would be helpful for future analysis if agreement could be reached for a standard naming convention with a category for each activity

It is unclear why some people have no taster or activity recorded and further discussions are needed with the BHC team. There may be people who had been referred but did not engage with the service or it may be due to data recording issues/inconsistencies.

There are limitations to analysis of these data:

- How many were sessions attended for each activity?
- Is the participant still engaged with the service?
- If not, for how long did they remain engaged? There is no consistent method of recording an end date to participation with a single activity or with the service as a whole

4.3.2 Agencies Involved

The table below shows the type of agencies involved in the engagement of participants, with those agencies grouped into NHS, Council, independent and voluntary organisations. Of those records with an agency recorded (455), NHS services were involved with 177 participants (43%), voluntary agencies with 115 (28%), Dumfries and Galloway Council services with 63 (15%) and independent agencies with 52 participants (13%). These figures are not mutually inclusive and 27 participants recorded involvement with 2 or more agency types. The greater involvement of NHS services may be a reflection of the Long Term Conditions' focus in the sample.

Table 8: Type of Agency Involved

Agency Type	Total	% of Total (1,450)
NHS	177	43%
Council	63	15%
Voluntary	115	28%
Independent	52	13%
1 agency	364	26%
2 or more agency types	27	1%
Other or None	1059	73%
Total	1,450	

Lessons Learned

The names of agencies and their spelling varied across the datasets. It would be helpful if agreement could be reached for a standard naming convention with a category for each agency.

4.3.3 Volunteering

Of the 1,450 participants, 108 (7%) were recorded as volunteers and a further 83 (5%) had expressed an interest in volunteering.

4.3.4 Disengagement

'Disengaged' was marked in various fields within the different datasets and there does not appear to be a field where date of disengagement can be noted or consistent definition or criteria for what disengagement is. A total of 218 participants (15%) are recorded as disengaged, but it is not clear in some cases whether the person has disengaged entirely from the programme or just from a particular activity.

5. Conclusion

5.1 Summary of key results

This analysis of BHC data looked at records for 1,450 individuals over the financial years 2010/11 to 2014/15. More than a third of records were during the 2013/14 financial year and there was a seasonal pattern of engagement with 35% of participants engaging with the service in January, February or June. This was due to funding availability cycles affecting staff recruitment and training.

Three quarters of participants were female and 25% male. This level of engagement is similar to other health intervention projects locally and across Scotland but does not reflect the wider population of Dumfries & Galloway. The BHC team may wish to review their strategies with a view to increasing engagement levels with men.

Where age at first contact could be calculated, the majority of participants (80%) were aged 50 or over with 61% aged 60 or over. This may be partly due to retirement making time available to attend activities.

Looking at deprivation measures, a higher proportion of participants from the most deprived areas engaged with the BHC programme than the CHI registrations for those areas. This indicates that the programme is successfully reaching people in those areas.

Compared with the results of the Census 2011, the BHC programme is generally reaching a higher proportion of people with specific health problems than the proportion in the general population. It is also reaching a higher proportion of Carers

Almost two thirds of participants took part in 1 or 2 activities. Physical activity and creative activities were the most popular with Tai Chi and Access Arts having the highest number of participants.

Of those records with an agency recorded (27%), NHS services were involved with 43% of participants, voluntary agencies with 28%, Dumfries and Galloway Council services with 15% and independent agencies with 13% of participants. These figures are not mutually inclusive and 27 participants recorded involvement with 2 or more agencies.

BHC participants are encouraged to be more active within their communities and opportunities for volunteering enhance their involvement and help to provide continuity of the programme. Of the 1,450 participants, 108 were recorded as volunteers and a further 83 had expressed an interest in volunteering.

5.2 Limitations of evaluation

This evaluation analysed records where sufficient data were provided. Records without names and addresses were excluded and some fields were missing or incomplete. This can therefore only be regarded as analysis of a sample of the total work of the programme.

Efforts were made to create a unique ID for each participant across multiple datasets but there may be double counting where, for instance, a participant had changed address or a date of birth had been recorded incorrectly and there was insufficient other information to confidently cross-match records.

Age at first contact was calculated by subtracting the date of birth from the first recorded date of engagement or referral. A quarter of the 1,450 records did not have a date of birth recorded so an age could not be calculated.

Deprivation categories were calculated by matching postcodes to the SIMD 2012 local quintiles. It should be noted that the sensitivity of SIMD to highlight populations with greater deprivation is diminished in rural areas and so not all residents in the most deprived quintiles will be deprived and similarly some residents in the least deprived areas may be deprived.

Records analysed for this evaluation were taken from multiple datasets which varied in format and consistency in data recording. It may be that information recorded in some fields has been missed and hence not included in the above figures

5.3 Future work – recommendations

The BHC team should review and improve their data collection systems to increase the consistency and quality of data recording and improve their knowledge of some of the gaps highlighted in this report. Specifically, the BHC team should consider:

- Including pre-determined lists in certain fields (e.g. activities and health conditions)
- Limiting the number of free text fields and review regularly to establish whether additional data recording columns are required
- That some fields should be mandatory (e.g. date of birth, postcode, sex and ethnicity)
- Additional methods of capturing data to determine deprivation and vulnerability
- Date fields should record only 1 date. If an activity is planned to run for a limited time, a start date and an additional end date field could be added
- Defining and recording disengagement from the scheme to facilitate calculation of the length of time that participants engage with the programme. The possibility of re-engagement may need to be discussed
- Creating additional fields if the service wishes to record disengagement from an individual activity
- Compiling a central list of activity dates and venues to track how the programme has evolved over time

This evaluation suggests that BHC is engaging with vulnerable people and those from deprived backgrounds (e.g. Carers and the most deprived SIMD local quintile). BHC should continue to engage with people from deprived backgrounds so that they continue contributing to the wider inequalities agenda.

The lower engagement rate of men with the programme may need to be reviewed. Although the rate is similar to that in other health interventions locally and nationally, the BHC team may wish to investigate whether they can take any action to increase men's engagement in their activities.

The datasets reviewed in this analysis show that the programme has recorded much valuable information over the years that it has been developing. With some re-evaluation of the process of data recording to remove the inconsistencies mentioned above, a more streamlined system can be developed to enable a greater, more comprehensive understanding of BHC as the programme moves forward.

