

## **Sonning Common Health Walks; A Four Year Review**

**William Bird, Frederika Adams**

### ***Abstract***

Health walks use volunteers to lead brisk walks within the local natural environment. Walking has been shown to be the most successful way of increasing physical activity in a sedentary population. Health walks are a safe and cost effective method of providing a sustainable form of health promotion. They were started from Sonning Common Health Centre, Oxfordshire, UK with a practice population of 7500 set in a semi-rural area with a higher than average elderly population. From April 1996 to April 2000, there have been 16,407 participations on 1724 walks. Each walk had an average of 9.9 individuals with an average of 7.9 walks per week. Of the participants 67% were female and 49.2% were in the target age of 50-75 yrs. The most popular distance is between 1.5 and 2.0 miles with a flat but varied route with trees. Friday evenings were the most popular slot for walks (average 14 per walk). Over the four years April and May had the highest total number of walkers with December having the lowest. All the other months had remarkably similar activity. April also attracted the greatest number of new walkers.

The Health Walks are now being established throughout the UK and this paper will help those who are developing new walks to encourage increased levels of physical activity.

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### ***Introduction***

Evidence shows that lack of physical activity doubles the risk of heart disease and is therefore equal to the other major risk factors such as hypertension, smoking and high cholesterol (Eaton 1992). Inactivity also increases the risk of developing type II diabetes (Lynch 1996), a stroke (Wannamethee 1992), increase risk of hip fractures (Brooke-Wavell 1997, Cummings 1995), bowel cancer (Thune and Lund 1996) and Osteoarthritis (Ettinger 1997). However over 60% of the population in England take inadequate levels of exercise (Health Education Authority 1992) compared to 31% who smoke 30% with high cholesterol and 15% who are hypertensive (HMSO 1995). The increase in car usage, reduction in jobs which are physically active and labour saving devices in the home combined with more sedentary pastimes such as TV watching has led to a decline in levels of physical activity throughout the Western world. There have been various schemes in primary care to promote physical activity (Ashenden 1997). Exercise referral schemes encourage GPs to refer patients onto an exercise programme in a gym under supervision. At the end of a number of sessions of exercise the patient has to pay a fee to continue using the facilities. A review of the literature found few robust trials showing a small but possibly meaningful improvement to physical activity patterns (Riddoch 1998). However the leisure centres are inappropriate for some people either being too far away or supporting a fitness message which can alienate those who are least fit. The main problem is that a leisure centre could not cope with even a fraction of the local population who actually need to increase their levels of activity and therefore questions the ability to be a sustainable method of health promotion.

Everyone in the UK lives within reach of a green space or a public right of way. Even in the inner city, parks and canal paths offer safe walking (DETR 2000). It has been shown that 'a chance to be in the countryside' provides a powerful incentive to promote and sustain walking (Bartlett 1997) and the most popular walks had significant numbers of trees. Most towns have parks or canal/river towpaths that have trees and these can be used to provide green routes even in inner cities. This huge resource has been considerably underused to promote physical activity. Walking involves no training no expense and no facility. It is accessible to everyone at every age even those in relatively poor health. Importantly Hillsdon (1995) reviewed the literature looking at schemes promoting physical activity throughout the world in 1995 and again in 1999 He found that walking was the most successful method to promote and sustain increased levels of physical activity in a free living population. To ask someone to walk with the instruction to "walk fast but without over exertion" relates to 55% of his or her VO2 Max. (Buchanan 1999). This is ideal for cardio-respiratory fitness and is unlikely to cause harm even in the least fit. Walking, faster than customary, and regularly in sufficient quantity into the training zone of over 70% of Max heart rate, develops and sustains physical fitness (Morris, Hardman 1997).

Even with an infrastructure of paths and green space and the knowledge that walking benefits our health there remains the problem of changing the culture of current lifestyles. Any attempted change must become embedded in the community and thus become ordinary practice. The use of volunteers to lead the walks has ensured that there is this community ownership and that slowly a change of culture is developing. In the UK there is a slow rise in walking for leisure but a faster decline in walking to work or school. It is this increase in leisure walking on which Health Walks are based.

### ***Development of Health Walks in Sonning Common***

Sonning Common Health Centre has a growing list size of 7500 patients in a semi-rural area of Oxfordshire, England. It has an above average elderly population in a relatively affluent area. The main village of 4000 is surrounded by countryside although the major town of Reading is only 3 miles away. The author looked at ways of promoting exercise but with no local exercise referral scheme available it was decided to use the local countryside as the resource. 10 laminated colour maps were published in August 1995 to show local walks with an explanation of the ideal times to complete each walk based on age and sex. Other health information included benefits of walking and calorie consumption on each walk. Despite a good uptake of these maps there remained the majority who had no confidence in walking any significant distance and had little motivation in starting. The main obstacles to walk were women feeling vulnerable when walking alone (73%), getting lost (19%), lack of motivation or interest (36%) and those over 70 yrs of age finding stiles difficult to climb (42%) (Bird 1995). Using focus groups of patients it was decided to start daily walks each led by two volunteers. A local fitness instructor was paid to train the volunteer leaders with stretch exercises and the correct way walking. Every three months the timetable of walks was changed to account for daylight hours and likelihood of mud or overgrowth. The leaders assess which walks were popular and develop a timetable according to needs of the participants.

The routes were graded according to difficulty. Green: Flat with no stiles; Blue: A few stiles and/or some gentle hills; and Red: Stiles with some steep hills.

The type of walk was also graded to allow people to choose a speed in which they felt comfortable. Level A "You manage hills fairly easily"; Level B "You find hills a bit of a struggle, but you can walk well on the flat."; and Level C "You only feel confident on the flat." It is important to note that each participant walked at their own preferred speed so the group quickly breaks up with faster walkers at the front but the back leader always remaining with the slowest walker.

Patients were recommended to attend the walks from the hypertension, diabetic and cardiac clinics. However most of those who attended were self-referred. Every new member is asked to fill in a Par Q questionnaire (Thomas 1992) which screens for medical complications. If these are positive then the walker is still allowed to walk but recommended by the leader to ask the health centre whether any restrictions in exercise are recommended. Nobody has ever been advised not to participate on this basis.

Each walk leader has an attendance form on which every participant provided their age and name. Any major injuries are recorded. The walk route was identified along with its total distance and completion date. Each completed form was entered on to an Access database.

## **Results**

The first walk was on 12 April 1996. The last recorded walk was 11<sup>th</sup> April 2000. A total of 1644 walks were recorded involving 1095 individuals leading to a total of 16407 participations. There were 80 attendance records that were missing representing 4.6 % of the total of 1724 walks. These missing records showed no bias to a particular period or walk. There were 56 different routes from 18 different starting points. No major injuries (needing hospital treatment) have been reported as a result of a health walk throughout the 4 years. There has been one faint during some warm weather but the lady was able to continue after a rest. Twisted ankles have always been self-limiting and needed no further treatment.

## **The Participants**

There was a wide range of walks completed for each participant. The largest category was one walk. Many of these included visitors from other areas taking part as well as some local people trying them out and not returning. We are unable to differentiate between these two groups. The average number of walks completed by the 10 leaders who started in April 1996 and were still leading in April 2000 is 321. The most was 850 and the least 199.

Table 1 Number of walks undertaken by each participant for each year.

Walks per participant	1996-97	1997-98	1998-99	1999-00
1	242	118	106	122
2-10	224	130	100	144
11-30	61	42	38	46
31+	36	41	36	57
Total	563	331	280	369

The age and sex of the participants can be determined from the registers. It was decided to look at the age and sex of each participation rather than each participant. This is because many of the participants may have been visitors walking once and they would carry equal weight to a regular walker. The participations will weight it to the most regular walkers giving a better impression. Our target was the over 50s with an equal mix of male and female since men in particular benefit from regular activity.

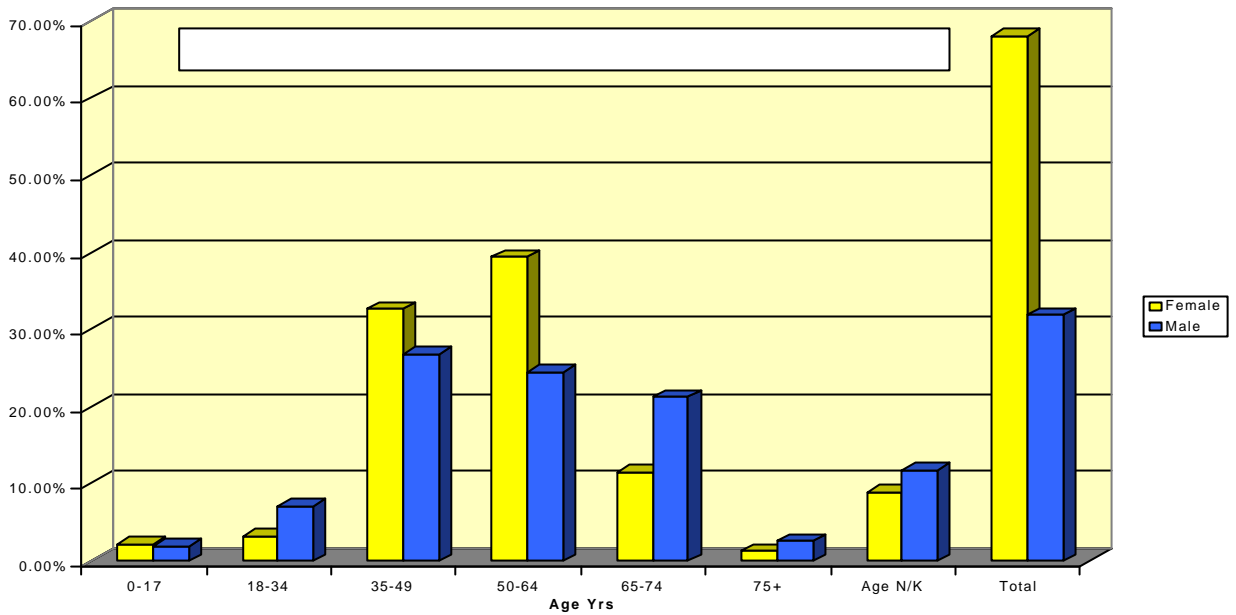
Table 2 Ages of all participants - all years - Proportion

	0-17	18-34	35-49	50-64	65-74	75+	Age N/K	Total
Female		3.15%	32.63%	39.35%	11.56%	1.25%	8.93%	68.12%
Male	6.03%	7.07%	26.74%	24.55%	21.28%	2.60%	11.72%	31.88%
Total	4.06%	4.40%	30.75%	34.63%	14.66%	1.68%	9.82%	100 %

Table 3 Proportion of participants by gender.

	1996-97	1997-98	1998-99	1999-00
F	67%	70%	67%	69%
M	33%	30%	33%	31%

Figure 1 . Chart showing age sex of participation over 4 years.



### Health Walks

There were 56 walk routes starting from 18 points. Every 3 months the timetable was changed. Each year April, May and June had the most number of organised walks but June attracted far fewer walkers. December had the least number of participants.

What is interesting is the consistent attendance throughout the year in other months independent of season. Figure 2 .

Participations on Health Walks for each month

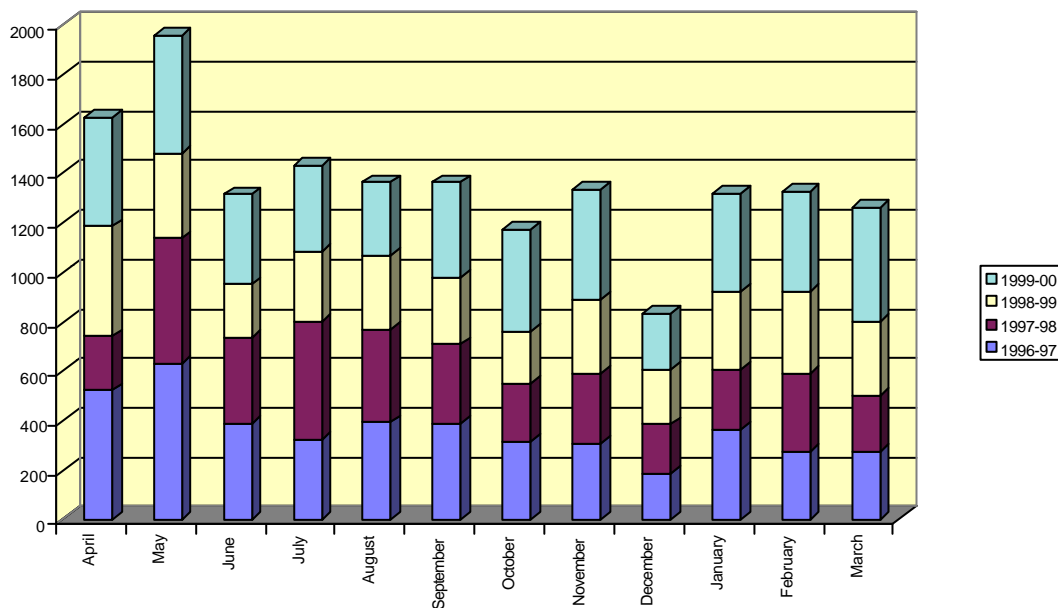
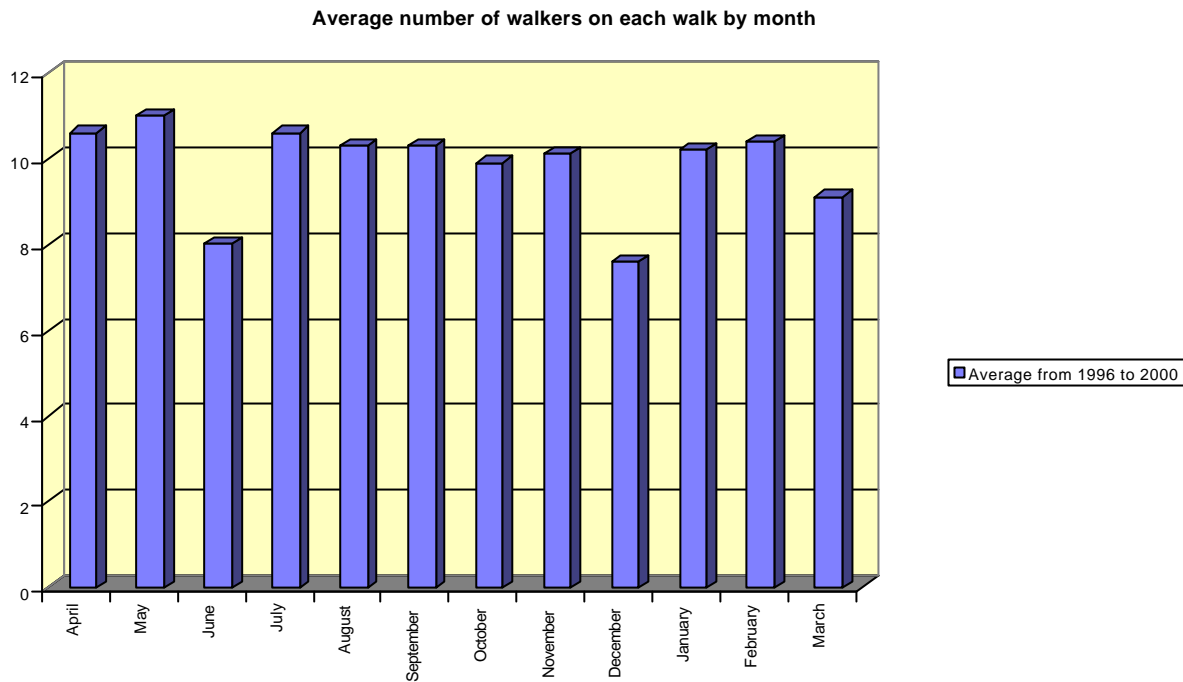


Figure 2. Total Participations on Health Walks for each month.

Figure 3. Average number of walkers for each walk by month

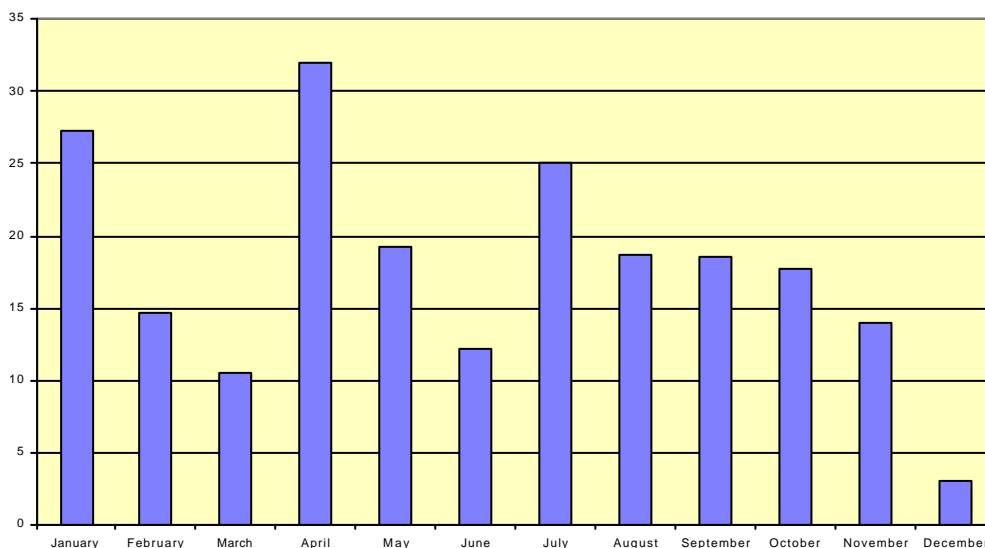


The discrepancy of June having an average number of total participants yet a low number of walkers for each walk is because there are more walks arranged in June. Fewer individuals participate because of holidays and possibly because of a lack of time due to extra work in the garden.

***New walkers***

Every three months there is a new timetable to allow for daylight hours and accommodate for mud and overgrowth in winter and summer respectively. The walk leaders distribute this new timetable to each household. The start of a new timetable is an obvious time for new people to join and this is demonstrated in Figure 4.

Figure 4. Average number of new walkers each month 1996-2000



The peaks in January, April and July reflect the start of each new timetable but in the Autumn the timetable started in either September or October making it less obvious when averaged out.

***Preferred time of day.***

The timetable is drawn up with the demands of the walkers taken into account. After 1738 walks a pattern of preferred times has evolved. Table 4 and 5 show the number of walks in each slot and the average number of participants on those walks.

Table 4. Total number of walks for each slot.

(\* Less than 5 walks in total.)

	AM	PM	Evening
Mon	202	*	34
Tue	175	*	*
Wed	26	184	104
Thu	144	*	28
Fri	40	49	87
Sat	*	315	12
Sun	198	40	9

Table 5. Participants per walk for each day slot

(\* less than 5 walks in total.)

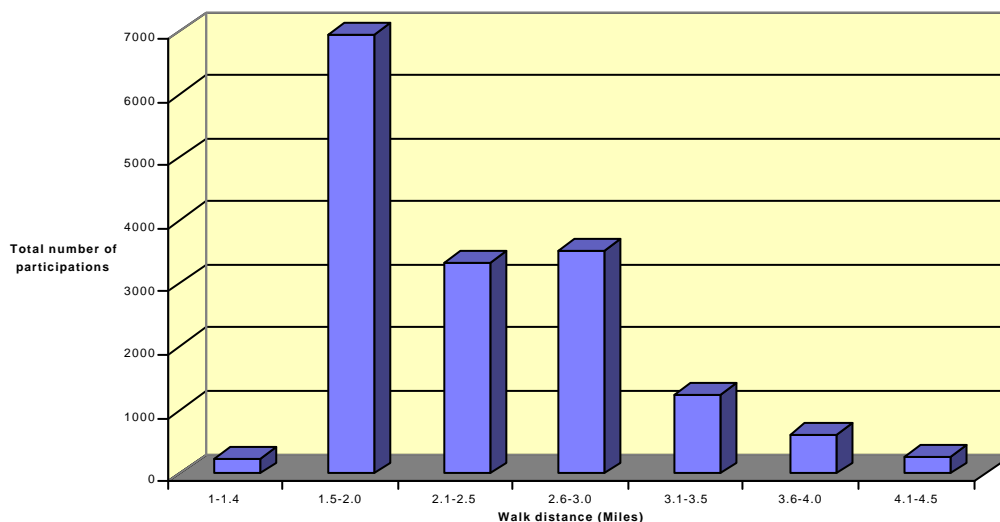
	AM	PM	Evening
Mon	11	*	12
Tue	9	*	*
Wed	10	10	11
Thu	8	*	10
Fri	7	7	14
Sat	*	9	11
Sun	11	9	8

***Type of Walk***

Over the 4 years the development of the ideal format for each walk using different distances and terrain has encouraged new people to start walking. The most popular distance is between 1.5 and 2.0 miles (Figure 5). This reflects the larger number of walks in this group. The average number of walkers for each distance is consistent from between 1.5 and 3.0 miles with even distances up to 4 miles attracting a good attendance (Figure 6). To encourage new people to exercise then a 1.5-2.5 mile walk is preferred with people moving on to a 3-4 mile walk when they are fitter and have enough confidence.

When the walks were first started there was a mixture of hard-top walks (pavement) and

Figure 5. Total number of participations for each distance of walk.



soft-top walks (footpaths, grass, earth). It soon became apparent that the soft-top walks were more popular particularly for those starting and the hard top walks are now reserved for longer distances and in the evening. These walks are more likely to be for 'A' walkers i.e. those who are already reasonably fit. There have been 68 hard-top walks attracting an average of 6.3 walkers per walk. In contrast to 1530 soft-top walks with an average of 10.3 walkers.

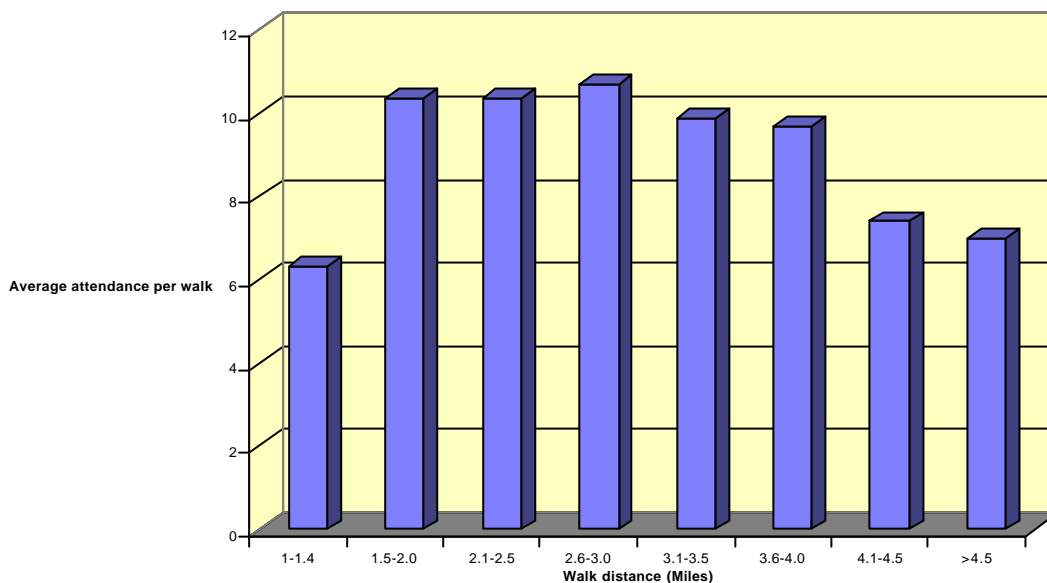


Figure 6. Average attendance for each walk distance.

### **Discussion**

This is the largest database on walks to promote health for a free living population that has been collected. Participants were mainly recruited by word-of-mouth or advertising. Some had been recommended through the Health Centre. The key to any health promotion scheme is whether any measured benefit can be sustained. Lamb (1999) conducted a recent Randomised Control Trial on a Health Walk scheme in The Thames Valley UK which showed a 12.6 % increase of physical activity levels in the Health Walk group compared to advice only after one year. Bartlett (1997) showed that those who selected to go on Health Walks were initially slower walkers than those who did not attend but after 1 year they were walking faster than the non-participants whose walking speed had not altered.

The overall attendance figures show a rise in participation over the last year. There are several possible reasons. Sonning Common Health Walks are now independent from the Health Centre, which has created a greater sense of identity and increased the social aspects of the walks. In the last eighteen months timetables have been delivered to each house in the area to advertise the walk times, for the years 1997 and 1998 timetables were advertised on public noticeboards. The third reason is that many people tried health walks in the first year because of the novelty but it has taken 3 years to build up a

regular following and this momentum has attracted new walkers. More people now complete 30 walks or more a year than at any time.

Health Walks have a wider aim than simply to provide walks for a sedentary population. They have been developed to change the culture of walking in a local community and therefore with increased public pressure help promote a better infrastructure for walking. Even after its first 6 months 98% of those interviewed locally had heard of Health Walks and 10% of the population had participated. Among those who had ever taken part in a Health Walk 61% now walk rather than use the car for short journeys (Bartlett 1997). More information is needed about those who took part and have since dropped out. The authors are looking at a cohort of 350 adults who have been followed up for 4 years to help answer this question. Anecdotally many individuals who have dropped out of the organised walks have since walked with friends on the same routes in their own time, but the significance of this is unknown.

For those starting up new schemes this paper may help in developing a walk timetable with maximum impact.

The most popular walks are between 1.5 and 2 miles. However there is demand for a few longer walks as seen by the good average attendance of these walks up to 4 miles. This is increasingly important after the first year as people become more fit. Varied scenery is an important aspect of motivation with less attendance on walks with few or no trees even if in the countryside. Flat walks with no stiles (Green Grade) are helpful to introduce new walkers. New walkers also need more emphasis on social participation and the freedom to walk at any speed. The largest reason to drop out early was the complaint that the walks were becoming too fast.

April and January were the best times to launch a scheme with the most new walkers. Monday and Friday evening were popular times with Monday Wednesday and Sunday having the most popular morning slots.

Sedentary men benefit more from exercising than women. One third of all participations are men which has remained consistent in all four years. Attracting men on to Health Walks has been harder although more of the elderly are male. Goring Health Walks Oxfordshire UK have developed a "Fat Blokes Walk" which has been for men only and proved popular in motivating young to middle aged men to walk.

The low cost of Health Walks is an attractive aspect for public health campaigns to increase levels of physical activity. Both of the main resources are potentially free. Local volunteers have been offered expenses but have always turned them down. Public footpaths pavements and even private land given over for Health Walks are all free. A co-ordinator has been paid and there is the cost of printing and first aid training for the Leaders. In all it has cost £1500 a year to fund. However the co-ordinator is paid to lead the walks which is unusual for other schemes but was maintained in order to complete the research without any fundamental changes to the scheme. It is estimated that a scheme of this size could operate on £1000 a year. This would mean that each walk costs £2.32 and each participation on a walk costs 23 pence.

### **Summary**

Health Walks are a community initiative to use local volunteers and the local environment to increase levels of physical activity. They have been shown to be very cost effective and sustainable after 4 years. They are designed to re-introduce walking amongst those who are sedentary or have lost their confidence in walking even short distances. There will be over 200 Health walk schemes developing in the UK over the next few years. More evidence is needed in inner cities and amongst ethnic minorities before the same benefits can be claimed for a wider population. There also needs to be a further study confirming whether those who participate on Health Walks and then leave continue to have higher levels of activity.

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