

PlusBus for Health – Impact Evaluation

1. Executive Summary

- 1.1. **PlusBus for Health (PBH)** is a community transport service commissioned by **Ealing Clinical Commissioning Group (ECCG)** and provided by **Ealing Community Transport (ECT)** since April 2017. The service enables isolated older and disabled patients in the London Borough of Ealing to attend appointments at their GP surgery. An evaluation of the impact of the service was conducted, and this report sets out the findings.
- 1.2. In the financial year 2017/18, **PBH transported 821 patients to 3,390 appointments**. The impact evaluation was conducted on a sample of 92 patients across the six GP surgeries identified as the highest users of the PBH service.
- 1.3. The following conclusions can be drawn from the results of the evaluation:
 - PBH benefits the loneliest and most isolated older people in the community;
 - Patients attend more surgery appointments after they start using PBH;
 - PBH improves the quality of health care that these patients receive;
 - PBH reduces the rate of missed appointments;
 - PBH reduces the amount of home visits; and
 - PBH has a positive impact on wellbeing.
- 1.4. In total, the research estimates that the cost savings and benefits generated by PBH in the areas outlined above **delivered a 'social value' worth £354K** in the financial year 2017/18. **Every £1 spent on PBH during 2017/18 generated a social value of £1.22** (the 'Social Return on Investment ratio' in 2017/18 was calculated to be 1.22).
- 1.5. The research shows that PBH delivers positive benefits for surgeries and patients. However, only a few surgeries are using the service regularly. With greater engagement by surgeries, ECT's PBH could have an even greater impact on the community.

2. Background to PlusBus for Health

- 2.1. Ealing Community Transport (ECT) is a charity that creates social value through its charitable activities – delivering high quality, safe, accessible and affordable community transport services that positively benefit local communities.
- 2.2. ECT's community transport services have been developed to cover unmet local needs, benefiting local residents as well as community organisations. ECT enables

disabled, isolated and lonely people to remain independent and mobile, and also supports community participation and engagement.

- 2.3. ECT identified that for lonely and isolated individuals, **access to transport** is one of the biggest barriers to regular engagement with health care. Following a successful two-year pilot, ECCG commissioned ECT to provide community transport services to enable older and disabled residents to attend GP appointments. This service was named PlusBus for Health (PBH) and started in April 2017.

3. About PlusBus for Health

- 3.1. PBH is a door-to-door, wheelchair-accessible transport service that helps patients travel between their homes and GP surgeries. The service is available to older or disabled patients in the London Borough of Ealing (which includes Ealing, Hanwell, Acton, Northolt, Greenford, and Southall) who:
- cannot safely get to their GP practice because of mobility or other health issues, and
 - have limited transport support from friends and family.
- 3.2. PBH operates Monday to Friday from 9am to 5pm. Trips are scheduled so that patients travel with other patients attending the same GP practice, or one nearby. The service provides an alternative to taxis, which can be expensive and unaffordable; public transport, which may be inaccessible; and lifts from friends and family, which may be unavailable.
- 3.3. PBH aims to **reduce home visits and missed appointments**, while **improving the wellbeing** of patients by offering them an opportunity to leave their homes and meet and socialise with others.
- 3.4. PBH transport is booked by GP practices on behalf of those patients who are unable to get to and from the surgery. Through consultations with surgeries, ECT has noted that the eligibility criteria are well applied.
- 3.5. Of the total 74 surgeries in Ealing, 69 have used PBH since April 2017. However, not all of these 69 surgeries use PBH on a regular basis. Currently, 33% of surgeries account for 77% of appointments.
- 3.6. Since September 2017, ECT has also implemented an innovative “clinical model” for its PBH service, which brings groups of patients from care homes to surgeries. This has been piloted with a local care home and the GP surgery where the residents are registered.

4. Research Objective

- 4.1. The objective of this research is to **estimate the social value of PBH**.
- 4.2. Whilst much anecdotal evidence exists on the positive social impact of PBH, it was important for us to estimate the resulting social value and cost savings for ECCG and the NHS.
- 4.3. To this end, research was conducted to quantify the impact of PBH by looking at changes in the number of:
- “Did Not Attend” (DNA) appointments¹;
 - home visits by NHS staff; and
 - non-elective A&E admissions by patients.
- 4.4. In undertaking this evaluation of the impact of PBH, the research used a similar methodology to that used in the 2016 research into the economic and societal costs of loneliness and isolation suffered by older people in the UK and in Ealing. This 2016 research was conducted by Deloitte and is outlined in the report “Why Community Transport Matters”. It shows that community transport can reduce loneliness and isolation creating a potential saving of £1.4m to £4.1m a year in Ealing through its positive impact on users’ mental and physical health².
- 4.5. This research into PBH also considered the social impact resulting from:
- increased social interactions; and
 - improved wellbeing and confidence.

5. Research Methodology

- 5.1. The following two types of data were collected as part of the research into evaluating the impact of PBH:
- **quantitative data** on patients’ appointments and A&E admissions; and
 - **qualitative feedback** from surgery staff caring for patients using PBH (collected in person during GP visits and via an online survey).
- 5.2. Many of the GP surgeries using PBH still had a low uptake of the service by patients at the time of conducting this research. The research focused on 13 out of the 20 surgeries using PBH the most. Of these 13 surgeries, 10 agreed to take part in the

¹ A “Did Not Attend” appointment is defined as “a booked appointment which the patient did not attend”.

² This saving assumes that between 1,100 and 3,000 older people living in Ealing and feeling isolated and lonely are regularly using community transport and feeling better as a result.

research. Practice managers were sent an Excel file to complete and the link to the online survey to share with staff.

5.3. Six surgeries sent back quantitative data, and the analysis presented below is based on a sample of 92 patients³ who are amongst the most frequent users⁴. The sample is also representative of the age of all PBH users.

6. Research Challenges and Limitations

6.1. Although recent literature is unanimous about the negative impact of loneliness and isolation on physical health, it was not possible through this research to estimate the total extent of the impact of PBH on patients' health. This research could only examine one direct indicator of health: the number of non-elective A&E admissions.

6.2. It was not possible to control for the following age-related factors affecting the health of patients using PBH (and hence the number of A&E admissions, home visits and GP appointments):

- most PBH patients are over 80 years old and 17% are over 90 years old. At this age, patients are more likely to be admitted to hospital more frequently, whether they are using PBH or not⁵. At the age of 65, men in Ealing can expect to live on average until 75.1 in good health and women until 72.2⁶; and
- at the age of 65, life expectancy for men in Ealing is 84.7 and 86.8 for women⁷.

6.3. Patients tend to start using PBH at a point where their health is deteriorating and therefore some of these patients are inevitably likely to go on to have more hospital admissions. It is not possible to determine how many unplanned hospital admissions have been avoided by these patients using PBH.

6.4. This research was conducted at a stage when only a limited number of surgeries were taking full advantage of the PBH service.

³ With this sample size, the error margin is 10% with a confidence interval of 95%. This means that there is a 95% probability that the results presented here are within a +/-10% error range.

⁴ These 92 patients made 23% of their PBH trips in the period April 2017 – December 2017.

⁵ Residents aged above 75 represent 5% of the population in Ealing (*Office of National Statistics (2016) Subnational population projections for England. Table 2. March 2016*) but 20% of Ealing NHS hospital admissions (*Finished Consultants Episodes, [Hospital Admitted Patient Care Activity, 2016-17: CCG of responsibility](#)*).

⁶ *Health state life expectancies, UK: 2014 to 2016, Office for National Statistics, 2016*

⁷ *Life expectancy at birth and at age 65 by local areas in the UK, Office for National Statistics, 2016.*

6.5. It was challenging to persuade surgery staff to engage with the research; they had wrongly assumed that it was labour intensive. We are very grateful to the six surgeries that provided information.

6.6. The “clinical model” mentioned in paragraph 3.6 commenced recently and therefore these results are less robust as the data collected covers a shorter period. It was also implemented with very elderly residents of a care home, a number of whom died during the data-collection period. The resulting observations, therefore, were not significant enough to provide robust results.

7. Research Results

Sections 7.1 to 7.6 below summarise ECT’s conclusions from the research. Figures quoted are averaged across all the surgeries that participated in the research.

7.1. **PBH benefits the loneliest and most isolated older people in the community**

- 62% of PBH patients are over 80 years old, and 85% are over 70.
- Eligible patients do not have friends or family to help them attend appointments.
- Eligible patients are more likely to feel lonely and isolated, which in turn is likely to have a detrimental impact on their health. Research shows that lonely people are more likely to develop dementia and depression, suffer from sleep problems, stress, anxiety and falls⁸. This effect is comparable to smoking 15 cigarettes a day or being an alcoholic. It is in fact greater than other well-established risk factors for mortality, such as physical inactivity, and is twice as harmful as being obese⁹. The Deloitte report “[Why Community Transport Matters](#)” estimates the costs of loneliness and isolation in Ealing to be between £4.6m and £10.4m a year.

7.2. **Patients attend more surgery appointments after they start using PBH**

- Patients who are unable to visit the surgery independently have more appointments booked for them if they are able to use PBH.
- Patients are able to access appointments more easily as a result of PBH’s door-to-door service. ECT’s drivers ensure that they get safely from their own home right to the surgery reception.

⁸ Steve Broome (2016). *The missing million: in search of the loneliest in our communities. The Campaign to End Loneliness*

⁹ Holt-Lunstad J., Smith T. and Layton J.B. (2010) *Social relationships and mortality risk: a meta analytic review. PLoS Medicine, vol 7, no 7*

- Patients that use PBH (who are likely to have more health care needs than other older people) attend **twice as many** surgery appointments than before they used the service (11.4 appointments per year before using PBH, versus 21 appointments per year when using PBH). However, as mentioned earlier, although patients using PBH may experience increased health problems as they age, the service enables them to attend appointments more frequently and this allows them to manage their health more effectively.
- Surgeries book PBH for patients to come for regular treatments, such as nurse appointments (including chronic care reviews) and clinical care (such as vaccinations, blood tests or other tests, wound dressing or warfarin monitoring appointments), rather than for acute treatments¹⁰.

7.3. PBH improves the quality of health care that these patients receive

- **56% of PBH patients have had fewer or the same number of A&E admissions per year since using the service¹¹.** GP staff reported that PBH can be particularly beneficial for patients with chronic diseases. For these patients, regular surgery visits can lead to a reduction in A&E admissions, or, equally important, at least avoid their health deteriorating.
- However, the full results from the sample in this research show that the average number of A&E admissions per year increased from 0.4 before using PBH, to 0.7 after using PBH. It is very likely this is because some patients started using PBH at a point where their health was deteriorating, which in turn lead to an increased number of A&E admissions compared with the period before they were using PBH. It is impossible to determine how their health would have evolved if they had not had access to PBH for regular GP appointments, although the number of A&E admissions could have been even higher without PBH.
- Whilst it has been difficult to quantify the impact of PBH on patients' health, there is a shared opinion among surgery staff interviewed that PBH has had a **positive impact on patients' wellbeing and allows for better health care.**

¹⁰ The surgery booking system does not always differentiate between types of appointments, however, the breakdown was established via the online survey.

¹¹ Without family or friends to help patients attend appointments, often the only option is to call an ambulance when they become unwell; paramedics in turn have little other option than taking the patient to A&E.

7.4. Using PBH reduces the rate of missed appointments

- The rate of “Did Not Attend” (DNA) appointments dropped **by two-thirds** from 8.7% to 2.5% for appointments facilitated by PBH.

7.5. Using PBH reduces the amount of home visits

- Before using PBH, patients had 10% of their GP appointments at home. After using PBH, this figure almost **halved** to 5.7%. For one surgery in our research sample, this figure dropped from 15.2% to 6.8%.
- Surgeries commented that patients who previously required home visits from nursing staff are now able to be seen at the surgery. As such, nurses are able to spend more time with patients and do more tests during the appointment, as time and equipment is limited for home visits.
- This reduction in the number of home visits also frees up time for staff to make home visits for patients with more acute needs.
- PBH is likely to have also reduced the number of district nurse home visits.

7.6. PBH has a positive impact on wellbeing

- GP surgery staff report that the most important impact of PBH is the **improvement of patients’ wellbeing**. Providing better access to health care, enabling patients to get out of their homes and have social interactions helps them “age well”.
- PBH has a “ripple effect”. Surgery staff are **encouraging patients to use other community transport services** offered by ECT, also known as “social prescribing”¹².
- 87 PBH patients, representing 11% of PBH patients at the time of the research¹³, are also using ECT’s PlusBus¹⁴ service to get out and about. Amongst these users, 37 PBH patients have used ECT transport at least once a month, and 14 at least twice a month on average in the last year.
- By providing transport to otherwise isolated or socially excluded people, community transport contributes to **reducing isolation and loneliness**. ECT’s door-to-door services, such as PlusBus, delivered using wheelchair-

¹² ‘Social prescribing’ is a means of enabling GPs and other frontline health care professionals to refer people to services in their community instead of offering only medicalised solutions.

¹³ Figures as at 31 March 2018.

¹⁴ [PlusBus](#) is ECT’s door-to-door community transport service for people who find it difficult to use public transport and unable to use taxis.

accessible vehicles, are often the only way that some people can leave their homes. It enables these people to continue to live independently: shopping, socialising with friends and going on outings. In the UK, 30% of older people in the UK say they would like to go out more often¹⁵. In fact, 80% of ECT's PlusBus passengers said they would find it significantly harder or impossible to go out without the service.

- Community transport **increases social interactions and improves the physical and mental wellbeing of isolated people**. In the UK, 17% of older people have no contact with family, friends or neighbours all week¹⁶. 85% of ECT's PlusBus passengers said that the service has made them feel more confident, and 97% said that it has made them feel better.
- The merits of a shared transport experience should not be underestimated in improving physical and mental wellbeing.

8. The Impact of the PlusBus for Health Clinical Model

- 8.1. ECT is piloting a “clinical model” which takes a group of patients from their care home to the surgery, rather than surgery staff having to visit the care home. The majority of patients are very recent PBH users. At the time of this research there was only five months’ worth of data – this is not enough to see a robust trend in attending appointments and unplanned admissions to hospital.
- 8.2. That said, initial results show similar trends to other surgeries with a significant reduction in the “Did Not Attend” rate from 20% before using PBH, to 5% since appointments were facilitated by PBH.
- 8.3. Similarly, home visits have decreased from 14% of all patients’ GP appointments to 6%. However, there has been an increase in A&E admissions from 0.4% to 0.9%. This is very likely due to the age of the patients.
- 8.4. Recent research shows that regular GP visits to care homes reduces hospital admissions by nearly 40%¹⁷, and, as such, ECT believes that its “clinical model” of taking care home patients to the surgery is an even better solution and worth investigating further and replicating.

¹⁵ TNS Loneliness survey for Age UK, April 2014 ; cited in Age UK (2014) Evidence Review: Loneliness in Later Life

¹⁶ C. Victor et al. (2003) Loneliness, Social Isolation and Living Alone in Later Life ; cited in Age UK (2014) Evidence Review: Loneliness in Later Life

¹⁷ <https://www.theguardian.com/society/2018/apr/04/regular-gp-visits-reduce-hospital-admissions-nearly-40-per-cent>

9. Quantifying the Social Value of PlusBus for Health

9.1. In order to quantify the **value and cost savings** that PBH can bring, the outcome areas of social impact were defined:

- reduced home visits and missed appointments;
- increased social interactions; and
- improved patients' wellbeing and confidence.

9.2. The methodology "[Measuring up: the CT Social Value Toolkit](#)"¹⁸ was used to measure the social value delivered by these three areas of social impact for the financial year 2017/18. In detail:

- Using values associated with the outcome "increased social interactions" and multiplying by the number of completed PBH trips and PlusBus trips by patients introduced via the "ripple effect", a **social value equivalent to £77.0K was delivered**.
- Given that PBH patients are unable to travel to the surgery independently, a proportion of appointments (calculated using recognised discount factors¹⁹) facilitated by PBH would instead have been home visits by GPs. This results in a saving of £14.9K. Similarly, a saving of £83.0K has been calculated in respect of missed appointments. This represents a total cost **saving of £97.9K**.
- The research assumes that the 14 patients travelling on either PBH or PlusBus at least twice a month on average, feel more confident as a result. By applying the HACT Value Calculator²⁰, which uses "wellbeing valuation", an approach to social impact measurement used by the UK government and recommended by the OECD, this wellbeing value of "high confidence" is **worth an equivalent to £179.4K**.

9.3. These calculations showed that **PBH delivered a total "social value" worth £354K** in the financial year 2017/18. **Every £1 spent on PBH during 2017/18 generated a social value of £1.22** (the 'Social Return on Investment ratio' in 2017/18 was calculated to be 1.22).

¹⁸ ECT (2018) Measuring Up: The CT Social Value Toolkit, A practical guide for measuring social value in community transport. This methodology was reviewed and assured by [Buzzacott LLP](#)

¹⁹ E.g. deadweight discounting – a measure of the amount of outcome that would have happened even if the activity had not taken place.

²⁰ Community investment and homelessness values from the Social Value Bank, by HACT and Simetrica (www.hact.org.uk / www.simetrica.co.uk). Source: www.hact.org.uk. License: Creative Commons Attribution-NonCommercial-NoDerivatives license (http://creativecommons.org/licenses/by-nc-nd/4.0/deed.en_GB).