Vascular Checks Case Study: 
Improving Male Life Expectancy, Birmingham

The Issue

The difference between male life expectancy (MLE) in Birmingham and other comparable cities in England is high and improving MLE is a major challenge for the city. Public health data suggested that in the more affluent areas on the fringes of Birmingham, the prevalence of cardiovascular disease (CVD) was much higher than in the inner city areas. However, actual mortality rates from CVD were higher in the inner city areas, indicating that people in the inner city areas were not being diagnosed and treated as effectively.

In light of this, South Birmingham PCT on behalf of the three Birmingham PCTs, supported by the Birmingham Health and Wellbeing Partnership, commissioned an opportunistic cardiovascular disease (CVD) risk assessment service, called ‘Heart MOT’, from community pharmacy. In conjunction with this scheme, Birmingham Health and Wellbeing Partnership on behalf of the Birmingham PCTs also commissioned a separate but complementary cardiovascular risk assessment service in various community venues outside pharmacies under a European Journal tender process.

1. Opportunistic Cardiovascular Disease Risk Assessment- ‘Heart MOT’

The Heart MOT service was developed and piloted with Lloydspharmacy and has now been extended to over 30 pharmacies across Birmingham, including independent pharmacies. The pharmacies were selected according to a range of criteria including geographical position by Index of Multiple Deprivation (IMD), local mortality due to CVD (by Standardised Mortality Ratio) and the ability of the pharmacies to deliver the service.

What They Did: Overview of the service

The Heart MOT service is targeted towards the over 40’s population and aims to identify individuals with an increased CVD risk. Good recruitment is vital in achieving successful outcomes and a key and innovative part of this service has been the development of a service brand and marketing strategy to attract people into the service. The ‘Heart MOT’ branding has been developed and is in use throughout Birmingham and across all pharmacies.

A range of methods have been used to reach the target populations in the city, including door to door leaflets delivered across key areas of Birmingham according to health need, and local advertising directly from pharmacies and practices. In addition, a number of specific campaigns have been used to raise the profile of the service- including a Ferrari race-track day offered as a prize to those entering a competition following their 'Heart MOT’. These were primarily designed to encourage men to take interest and access the service.

The service is delivered by trained health care assistants and pharmacists. The ‘Heart MOT’ measures and communicates the risk of developing CVD.
over the next 10 years and takes into consideration multiple risk factors including age, gender, ethnicity, total and HDL cholesterol, blood pressure, blood glucose, Body Mass Index (BMI) and waist circumference. Information on family history of CVD, medical history and lifestyle history including smoking status is also obtained.

All results are recorded on a secure IT programme developed by a private company called ‘North 51’. The pharmacist discusses the results with the customer and prints two copies; one for the customer to keep and a second copy for the customer to give to the GP. Lifestyle advice is provided and all patients are given an information pack containing advice on a healthy diet, getting active, sensible drinking and stopping smoking. Customers with a CVD risk ≥20% are referred to their GP practice. If appropriate, customers are also referred or signposted into appropriate established PCT programmes such as the Stop Smoking service.

The Impact: Lloydspharmacy Results (14 of the 30 community pharmacies)

From April 2007 to June 2008, Lloydspharmacy tested 868 people in 14 of pharmacies across the city.

Overall, there was a high level of uptake in deprived areas with poor MLE. Results showed that of those who attended the service:

- 57% were male;
- 49% were referred to their GP practice due to a variety of factors, including elevated blood pressure and elevated TC:HDL ratio;
- 27% were found to be at high CVD risk (> 20%) and referred to their GP.

These initial results confirm both the value and need for the service and the valuable role community pharmacy can play in helping to reduce health inequalities by providing good access to a service in hard to reach communities.

**Barriers, Challenges and Lessons**

As the service utilised opportunistic checks, engaging the right patient population and attracting males - who historically do not engage with healthcare to the same extent as the female population - into the service, was a significant challenge. Using appropriate marketing messages was extremely important in achieving good patient engagement.

*Key Learning points were as follows:*

- Ensure all objectives are clear and agreed at the outset;
- Identify appropriate communication messages to ensure the right patient population is engaged and hence resources are used appropriately;
- Ensure the service is underpinned by robust standard operating procedures to guarantee consistent delivery;
- Regular meetings and open communication between all key stakeholders ensures the service is reviewed regularly and that objectives are achieved.

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2. Systematic Cardiovascular Checks in Centres Outside of Pharmacy

The Issue

As an adjunct to the pharmacy-based ‘Heart MOT’ scheme, and to provide a similar service outside of the community pharmacy setting, Birmingham Health and Wellbeing Partnership commissioned a cardiovascular checks service via a European Journal tender, utilising a 2 year allocation from a Neighbourhood Renewal Fund, for males over the age of 40 in the 11 most deprived wards in Birmingham.

An initial scoping exercise with data from from 119 practices across the city showed that 36,303 (36.5%) men were on disease registers. 52,069 men over 40 in the target wards were not on a disease register and most of these had no relevant tests on record. These results provided the justification for the programme which aimed to identify those at risk of CVD and invite them to a health check.

Enhanced Healthcare Services (EHS), a ‘data mining’ company, was subsequently contracted to undertake a systematic review of GP records, identify potential “at risk” patients, and invite them to attend a community health check.

What They Did: Overview of the service

Lloydspharmacy successfully tendered for the health check service which launched in December 2007. The service delivered cardiovascular checks in community venues outside the pharmacy setting including football grounds, community centres and PCT premises out of hours in evenings and weekends. This out of hours service provision was key to delivering patient numbers as most of the target group were at work during the day. The service was delivered by a variety of trained health care professionals including health care assistants, nurses and pharmacists.

By telephoning each individual, the attendance at clinics rose to 80% of those invited as opposed to 20% attendance for those that were sent a speculative letter of invitation.

The service aimed to identify individuals with an increased CVD risk and encourage early preventative treatment in conjunction with positive lifestyle changes. The service took into consideration multiple risk factors including age, gender, ethnicity, blood pressure, Body Mass Index (BMI), waist circumference, smoking pattern, alcohol intake and level of exercise. The Cholestech LDX monitor, a clinically approved Point of Care (POC) device, was used to measure blood glucose and total: HDL cholesterol and enabled results to be displayed in a matter of minutes.

As with the pharmacy-based ‘Heart MOT’, the pharmacist or health care professional discussed the results with the patient and provided a ‘hard’ copy of the results. Appropriate lifestyle advice was given and all patients were
offered appropriate information including advice on healthy eating, exercise, sensible drinking and stopping smoking. GP referral criteria were established by the clinical lead working on behalf of the Birmingham Health and Wellbeing partnership, based on the following four factors:

- Blood pressure;
- Total cholesterol;
- TC/HDL ratio;
- Blood glucose.

Results of testing were communicated back to the GPs and the PCTs by EHS.

The Impact: Initial Results

Between December 2007 and June 2008, 36,000 men were identified and invited to attend a health check through this programme. 70% of GPs agreed to their patients being tested with the remaining 30% committed to check their patients at their practices before an agreed deadline.

Subsequently, Lloydspharmacy tested over 9,500 males over the age of 40 during this period in community venues across Birmingham.

During this period, 65% of patients attending the service received onward GP referral:

- 36% were identified as having a high CVD risk;
- 30% were referred due to high blood pressure levels;
- 35% were referred due to high cholesterol levels;
- 18% were referred due to high blood glucose results.

It is anticipated that this programme will help, over time, to improve male life expectancy through encouraging behavioural changes or early treatment of those with a raised cardiovascular risk.

Patient Perception

Aside from the clinical results, 1783 men were interviewed at the time of their check as part of a ‘customer satisfaction’ survey. The results show that:

- 98% would recommend the service to a friend;
- 97% would come again;
76% ‘plan to make changes’ as a result of the clinic with many saying they are going to change behaviour around exercise and diet;

99% were satisfied with how the tests were conducted;

99% satisfied with their explanation.

GPs have also been positive about the service as it targets the population that do not usually visit the practice.

**Barriers, Challenges and Lessons**

Ensuring good engagement to achieve maximum recruitment per clinic was a key challenge. To help overcome this, a combination of clinic sites that were accessible to the right population, at a time convenient to them, and good identification with telephone follow-up to ensure attendance, resulted in high uptake.

*Key Learning points: What Worked?*

- Clear objectives are essential at the outset;
- Good communication plan to maximise engagement;
- Co-ordinated approach to recruitment, testing and ongoing appropriate referral utilising established PCT programmes;
- Clinics available at a time and place convenient for the majority of people;
- Regular meetings between all key stakeholders to ensure ongoing review of the service to ensure objectives are achieved.

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