GMCA GREATER MANCHESTER COMBINED AUTHORITY

NHS in Greater Manchester

GM Minor Ailments Scheme
CBA & Analysis

Bradley Quinn

Greater Manchester Combined Authority

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Cost Benefit Analysis guidance and supporting information

new economy

Supporting public service transformation:

cost benefit analysis guidance for local partnerships

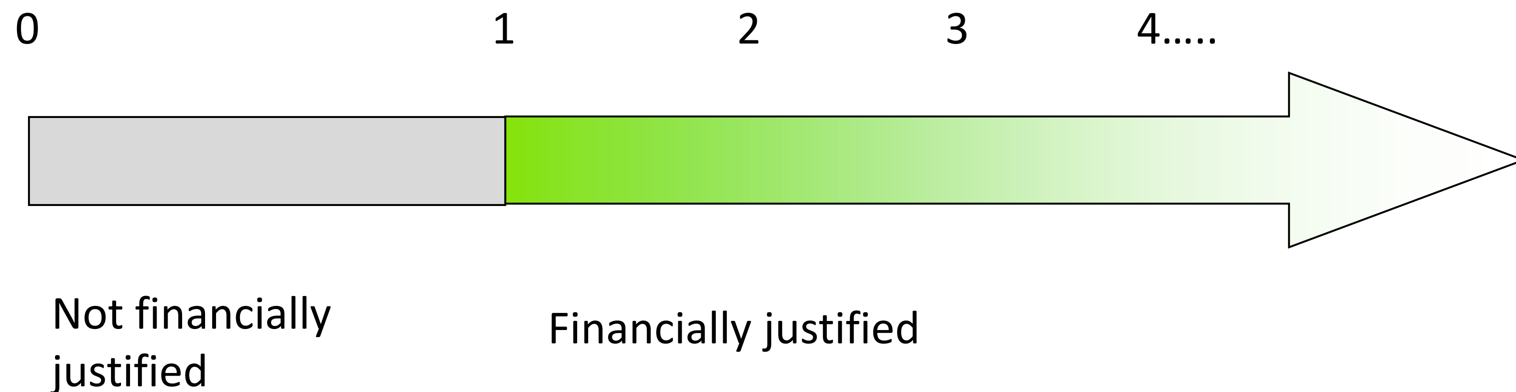
April 2014

- Cost benefit analysis guidance for local partnerships
www.gov.uk/government/publications/supporting-public-service-transformation-cost-benefit-analysis-guidance-for-local-partnerships

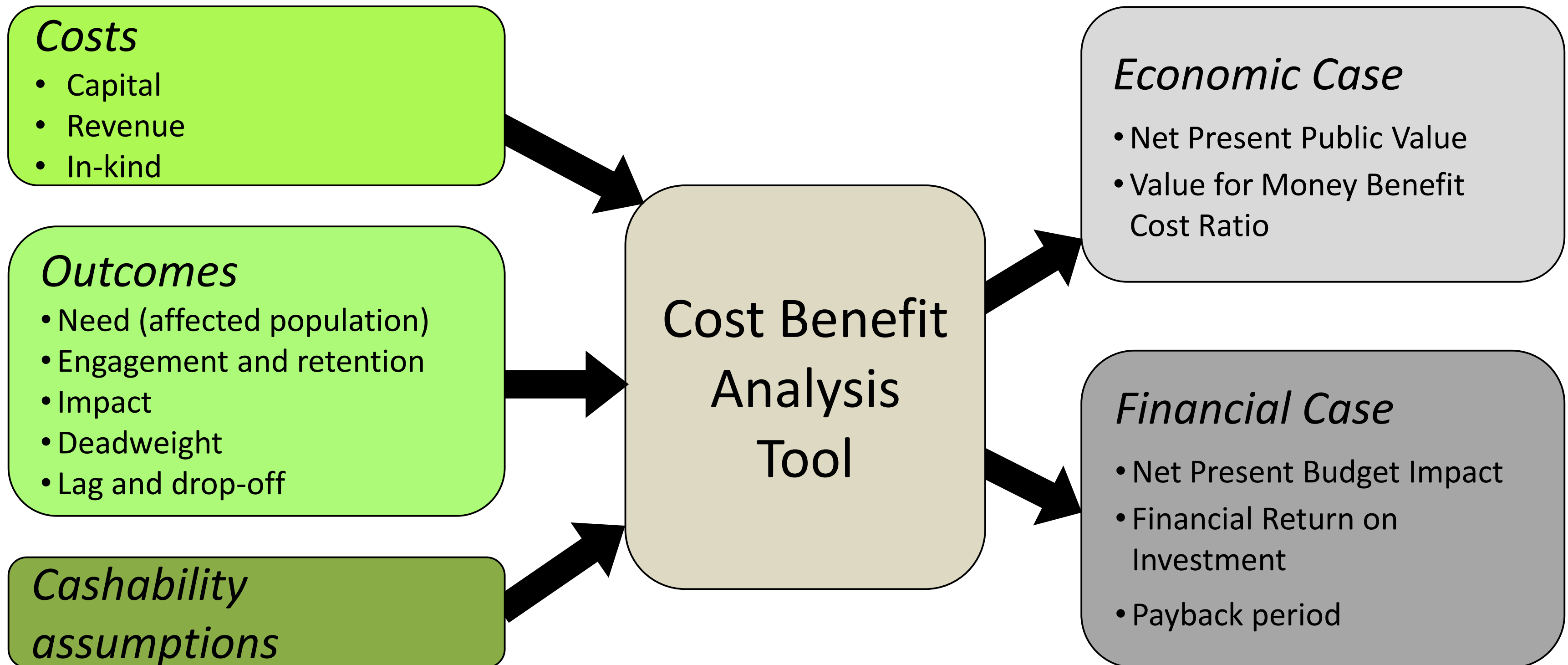
- Excel model
- Unit cost database
- Overview slides
- Cashability paper
http://neweconomymanchester.com/our-work/research-evaluation-cost-benefit-analysis/cost-benefit-analysis/cost-benefit-analysis-guidance-and-model

The role of CBA in decision making

- Economic tool to assess whether interventions represent value for money
- Considers fiscal, economic and social benefits
- Calculates the ratio of benefits to cost
- Used as a predictive or evaluative tool (upfront, tracking progress and/or post-intervention)
- Decision support tool, rather than decision making
- Outputs are only as good as the data you put in



The CBA model

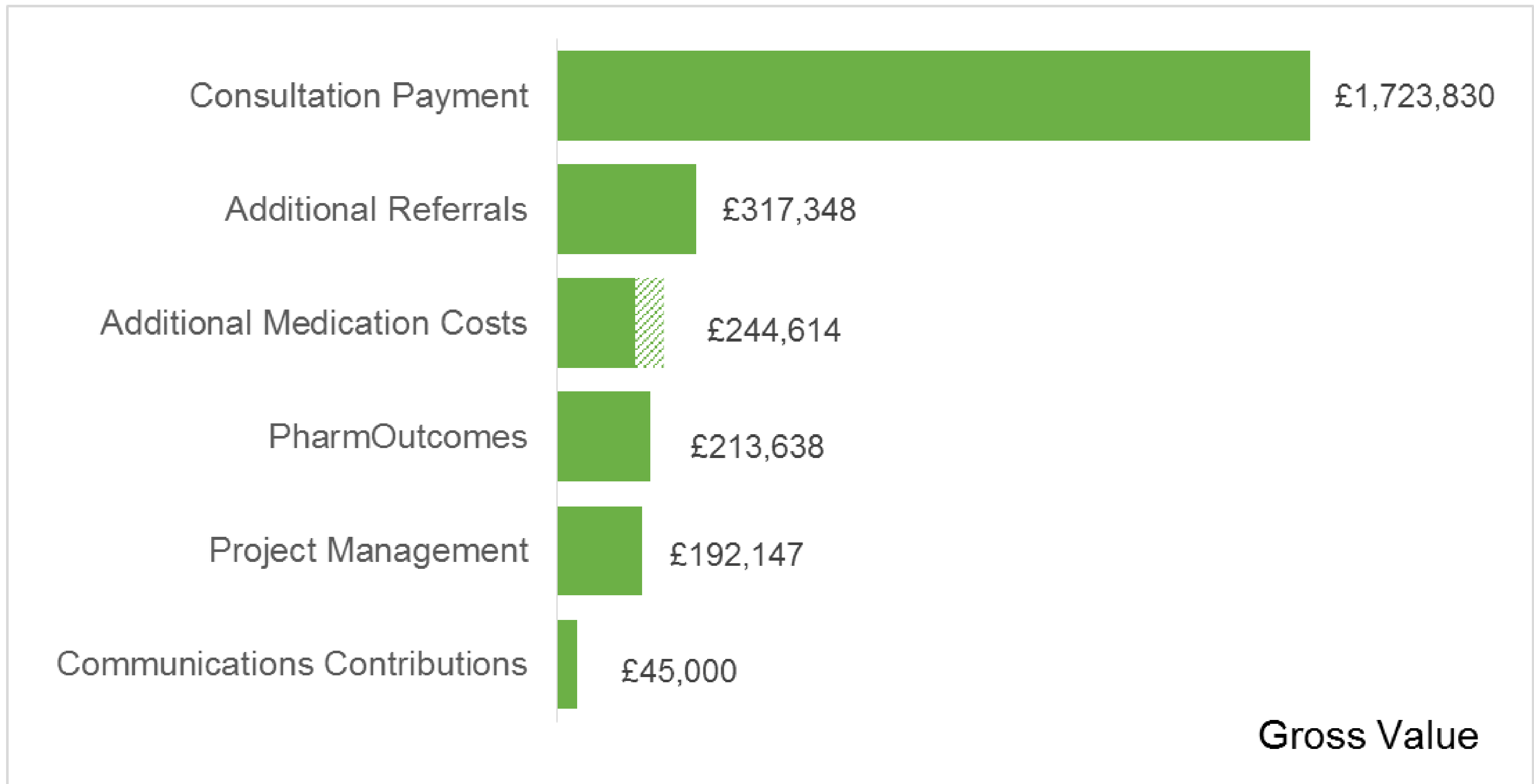


- Monetisation (converting outcomes into benefits) based on standard unit costs
- Conservative approach to modelling – optimism bias correction is applied (costs upscaled and benefits downscaled), reflecting degree of confidence in the data

The CBA Methodology

- Cost benefit analysis is predictive, and the analysis presented here has been modelled on the best available evidence.
- This has predominately been taken from data provided by CCGs currently running the scheme, on the assumption that activity levels would remain consistent at a GM footprint.
- Information was derived using headline statistics taken from PharmOutcomes returns, which provides data on a variety of factors including consultation numbers, patient exemption and the type of medication prescribed.
- The distribution of responses has then been scaled up relative to the number of pharmacies in each participating CCG.
- The CBA should be understood as an iterative process. Whilst it is valuable at the predictive stage, it is also useful as a basis for monitoring and evaluation, where assumptions are replaced by actual data.

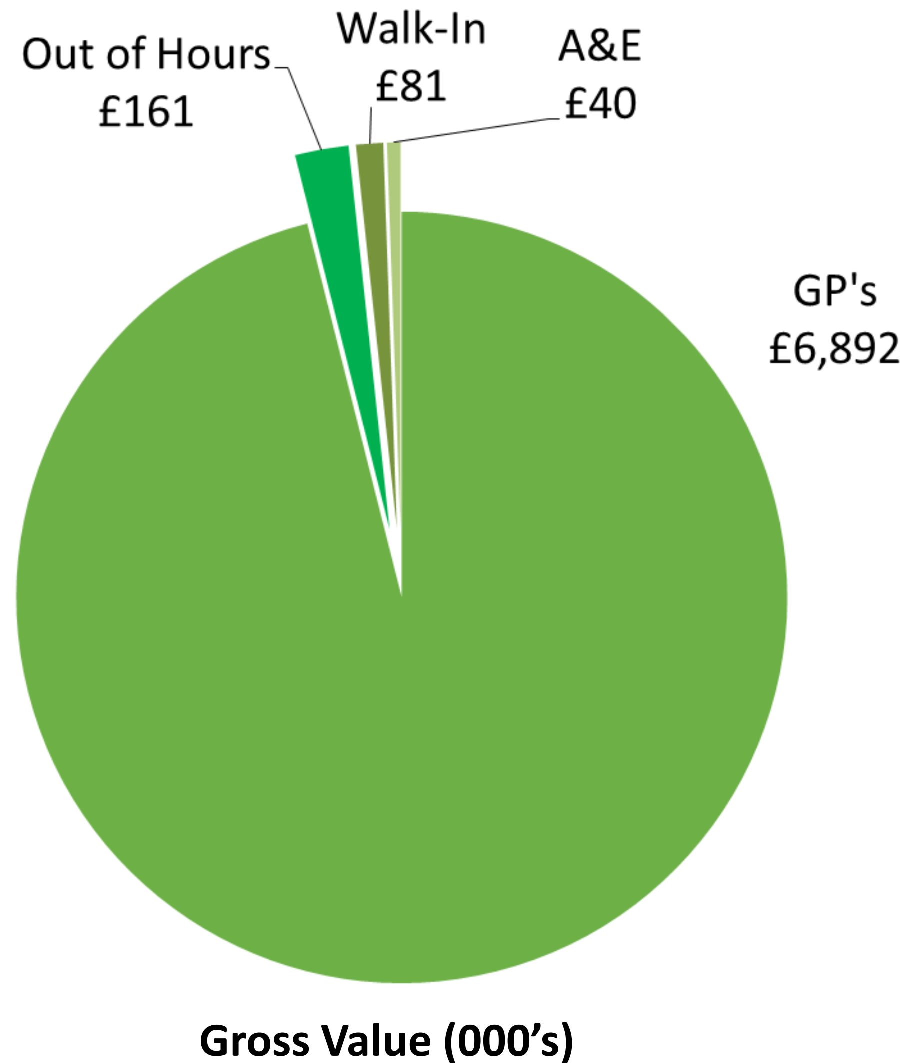
The CBA Model - Costs



These costs are for a five year period, beginning 2016/17.

Note, these figures do not include optimism bias, which is included in the final ROI calculation

The CBA Model – Fiscal Benefits



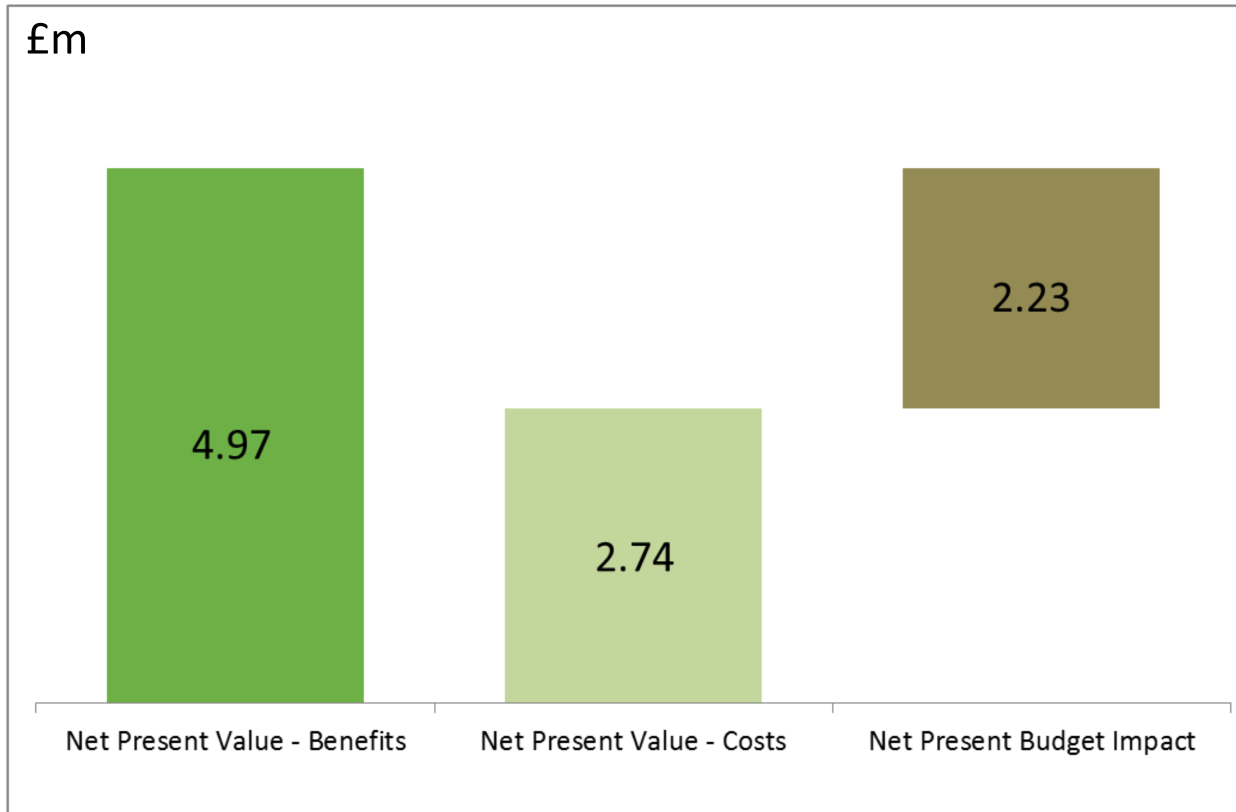
These benefits are for a five year period, beginning 2016/17.
It should be noted that these figures are gross values, and do not include any allowance for the cashability of savings.
These figures do not include optimism bias, which is included in the final ROI calculation

Unit Costs

Activity	Cost	Source/Comments
GP Appointments	£31	Taken from the PSSRU Unit Costs of Health & Social Care (2016). Average consultation length of 9.22 minutes. This includes direct care staff costs, but not qualifications. Complete details are available at http://www.pssru.ac.uk/project-pages/unit-costs/2016/index.php
A&E Attendance	£61	Derived using the National Schedule of Reference Costs 2011-12 for NHS trusts and NHS foundation trusts. This unit cost covers "no investigation and no subsequent treatment, not leading to admission", chosen as the most likely outcome for a minor condition.
Out-of-Hours	£68	Cost as taken from the report "Out-of Hours GP Services in England" by the National Audit Office, 2014. The full report can be found here https://www.nao.org.uk/wp-content/uploads/2014/09/Out-of-hours-GP-services-in-England1.pdf (pg.15)
Walk-In Centre	£38	Derived usign the National Schedule of Reference Costs 2011-12 for NHS trusts and NHS foundation trusts. This is the walk-in specific cost of "no investigation and no significant treatment, no admission".

For further details, please refer to the New Economy Unit Cost Database, which can be found here http://neweconomymanchester.com/our-work/research-evaluation-cost-benefit-analysis/cost-benefit-analysis/unit-cost-database

Output Metrics



Once optimism bias and discounting have been applied, the net present budget impact (benefits minus costs) over a 5 year period is £2.23m, with payback reached after one year.

Our analysis suggests an overall cost-benefit ratio of **1.81**. This indicates that for every £1 invested, an estimated £1.81 of fiscal benefit can be achieved.

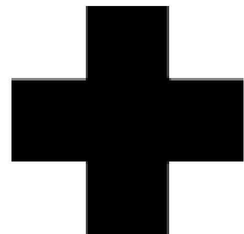
A note on Cashability

- It is important to acknowledge these findings within the broader financial constraints of the current health and social care system, which means that it is unlikely that these gross savings will result in significant cashable returns.
- The current GM CBA model assumes that the cashability conversion rate of GP appointments (both short and long term) is 0%.
- Instead, the purpose of a GM Minor Ailments Scheme is to relieve capacity in primary care, including pressure on GP practices, and to release appointments for more suitable purposes (such as patients with LTCs).

Over 5 Years, across GM, it is estimated that the scheme will save approximately…

170,000 GP appointments

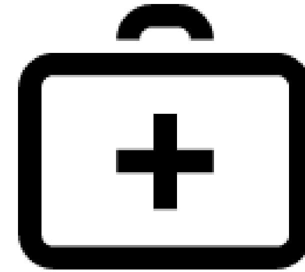
500 A&E attendances



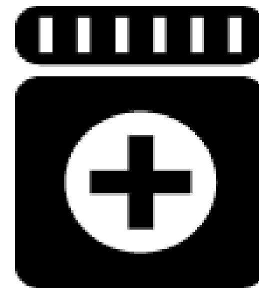
3,500 presentations at Out-of-Hours and Walk-In Centres

Over 5 years, that equates to an average of…

14,000 GP appointments per CCG



350 appointments per practice



26,000 hours of GP consultation time

bradley.quinn@neweconomymanchester.com

Full Appendix of Methodological Approaches and Assumptions

Population		
Annual Interactions	95,081	Number of expected annual consultations under the GM Minor Ailments scheme, once the programme has achieved 100% capability (full roll-out across all CCGs). This has been calculated by deriving the average number of consultations per pharmacy under the current programme (as taken from PharmOutcomes returns) and scaling to the overall GM pharmacy count.
Costs		
Consultation Payment	£1,723,830	£4 per consultation, which is designed to cover set up costs (SOP development and staff training), staff time to provide the service, printing and providing information sheets, and completing claim forms and audit. Multiplied by the number of consultations expected each year, in line with the profiling assumptions below.
PharmOutcomes	£213,638	Cost of PharmOutcomes data, taken from current contractual arrangements. Multi-service license for 703 providers (currently GM Pharmacy count is 699), a data seperation charge, and a 20% VAT rate.
Additional Referrals	£317,348	The frequency of referrals is taken from current PharmOutcomes returns, which provides a subsection for the outcome of the consultation. These proportions have been applied to the GM total, and multiplied by the relevant unit costs, which are as follows: To GP via usual appointment (£31), Urgent to GP by telephone (£14), Urgent to NHS111 by telephone (£7.90), Walk in Centre (£42), Dentist (£24.50), A&E (£125). Unit costs are taken from New Economy's Unit Cost Database. Note, these individual unit costs differ in some areas to those used under the benefits tab. This is because we have assumed that those who are referred onwards from a minor ailments consultation will be suffering from more severe conditions and will therefore require a more intensive intervention.

Additional Medication Costs	£176,648	This figure represents the additional cost of providing medication for patients who would have otherwise gone without it. It is derived by taking the number of patients who said that if the Minor Ailments Scheme wasn't in place, that they would have gone without medication, and multiplying that figure by the average unit cost of an item supplied through the scheme, which is £2.63, as taken from Baqir et al (2011) - https://academic.oup.com/jpubhealth/article/33/4/551/1566317/Cost-analysis-of-a-community-pharmacy-minor. Additional medication costs do not take account of any potential differences in prescribing habits between pharmacists & GP, and therefore assumes that the expected method of treatment is consistent across the two.
Communications Contribution	£45,000	Value taken from South Manchester CCG's Minor Ailments Business Case (£750 per annum), and then scaled up to all 12 CCG's across a 5 year period.
Project Management	£192,147	The project management costs are built upon assumptions taken from the South Manchester Business Case. The model assumes that each CCG will require a project manager in their first year (12 months, 0.2 WTE), as well as a commissioning manager/pharmacist (12 months, 0.1 WTE). The project manager leaves after the first year, and the cost of the commissioning manager/pharmacist is halved (to 0.1 WTE). Allowance has also been included for central GM governance capacity (Band 5, 0.1 WTE) across every year.

Benefits		
GP	£6,892,931	Savings through reduced GP appointments are calculated using the response rates to the question "without service patient would have…". Of the total number of Minor Ailments consultations in the current scheme, 63.6% of people say they would have otherwise visited the GP. This is then multiplied by a unit cost of £31 as taken from PSSRU Unit Costs of Health & Social Care 2016, pg.145.
A&E	£40,335	Savings through reduced A&E attendances are calculated using the response rates to the question "without service, patient would have…". Of the total number of Minor Ailment consultations in the current scheme, 0.2% of people say they would have otherwise attended A&E. The unit cost of £61 is derviced from the National Schedule of Reference Costs, and represents "no investigation and no subsequent treatment, not leading to admission". This option was chosen due to the likely nature of the patient's condition (a minor ailment).
Out of Hours	£161,365	Savings through reduced Out-of-Hours attendances are calculated using the response rates to the question "without service, patient would have…". Of the total number of Minor Ailment consultatons in the current scheme, 0.6% of people say they would have otherwise visited Out-of-Hours. The unit cost of £68 is taken from a report by the NAO into the cost of GP Out-of-Hours services, which can be found here - https://www.nao.org.uk/wp-content/uploads/2014/09/Out-of-hours-GP-services-in-England1.pdf (pg.15).

Walk-In	£81,346	Savings through a reduction in Walk-In service usage is calculated using the response rates to the question "without service, patient would have…". Of the total number of Minor Ailment consultations in the current scheme, 0.5% of people say they would have otherwise visited Walk-In services. The unit cost of £38 is derived from the National Schedule of Reference costs, and represents "no investigation and no significant treatment, not leading to admission, walk-in specific". This option was chosen due to the likely nature of the patient's condition (a minor ailment).
Lost Revenue	-£308,061	This is the lost revenue which occurs due to individuals who were previously self-funding now receiving medication for free. 19% of patients said that if the Minor Ailments Scheme wasn't in place, then they would have purchased medication OTC. This has then been multiplied by the estimated average OTC cost of medication supplied through MAS (using the high-street prices, as of May 2017, of the top ten most commonly supplied medications on MAS)
Engagement, Retention, Impact	100%	Engagement, retention and impact are set all set at 100% respectively to reflect the calculations built into the initial "affected population" figure. As those values are taken from self-report responses, derived during actual Minor Ailments consultations, no further allowance for engagement, retention and impact is necessary, as each of those calculatons are effectively built into the original figure.

Benefits - Other Factors		
Deadweight	10%	Deadweight is intended to demonstrate the proportion of the overall impact which may not be attributable to the programme, and therefore would have occurred even under the counterfactual. Deadweight has been set to 10% across most of the benefit lines, to highlight how a small proportion of individuals may have been inclined to present at the pharmacy due to other factors (such as national drivers), but were subsequently captured by the programme.
Cashability	0-50%	Cashability assumptions vary across each benefit line. We have assumed that because actual transactions have been avoided, individual economic savings are 100% cashable. Across most of the NHS benefits (barring GP appointments) we have applied our standard values of 20% short term, and 50% long-term. Due to the nature of primary care capacity and increasing demand, we have adopted a 0% cashability figure, for both short and long term, for GP appointments.
Optimism Bias Correction	From -25% to 15%	Optimism bias is applied to ensure the model is conservative by reducing the benefits, and increasing the costs, in line with the robustness of the data. A general -20% has been applied to most of the benefits lines to account for the ambiguity in the self-report method used to derive the figures, and the distinction between patient responses and observable activity levels. For the costs, optimism bias varies between 5% and 15%. Lower values have been applied where the costs are taken from service contracts or standardised payments. A higher optimism bias has been applied for those cost calculations which required a degree of estimation (either through assumptions about the necessary resource, or to replicate current activity at GM level).

Profiling	Year 1 - 63% Year 2 - 90% Year 3 Onwards - 100%	The impact profiling has been designed to reflect the progression of roll-out across GM CCG's. The model begins with 5 CCG's currently online, with 1 CCG about to begin the programme shortly. Two more CCGs are online by September 2017, two more by December 2017, with the final two implemented by mid-2018. The order of the CCG's in the predicted roll-out has been randomised. The impact profile is therefore, to some degree, variable depending on the order of CCG take-up (particularly due to the varying number of pharmacies within each district).