

Innovating for Improvement

MISSION COPD: Modern Innovative SolutionS Improving Outcomes iN COPD

Portsmouth Hospitals NHS Trust



About the project

Project title:

MISSION COPD: Modern Innovative SolutionS Improving Outcomes iN COPD

Lead organisation:

Portsmouth Hospitals NHS Trust

Partner organisation:

Wessex Academic Health Science Network

Project lead/s:

Professor Anoop J Chauhan

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Part 1: Abstract

The Case for Intervention

One million people in the UK have diagnosed COPD which accounts for 30,000 deaths annually, which is approximately one every 20 minutes. Cases of COPD are set to rise by over 30% in the next 10 years, and an estimated two million people currently remain undiagnosed. Portsmouth has significantly higher than average rates of smokers, COPD admissions and readmissions, and deaths related to COPD. Poor access to specialist multi-disciplinary team (MDT) care contributes to the significant morbidity and mortality. We hypothesised that earlier, pro-active, rapid diagnosis and treatment in the community by a specialist MDT would lead to improved patient experience, disease control and quality of life, and furthermore lead to reduced unscheduled care.

The Intervention

The MISSION COPD team from Portsmouth Hospitals NHS Trust undertook the pilot from September to November 2015, with an additional collection of 6 months follow up data from participants and GP surgeries. We proactively identified patients with undiagnosed or high-risk COPD from five GP registers, and then conducted a comprehensive assessment of their disease control, quality of life and triggers in the practice surgery. Clinics were held at weekends to increase accessibility. We assessed and treated 108 patients in primary care during these "Rapid Access COPD Clinics (RACC), of which 29 had further evaluation in hospital by our wider specialist MDT in Severe COPD Assessment Clinics (SCAC) that included additional investigations and treatment. Every patient received assessment beyond NICE quality standards.

Additional bespoke education sessions were held in three venues following delivery of the clinics, hosted by a QI fellow, our QI nurse, and expert Physiotherapist and a Dietician. Patients were followed up after three and six months to assess sustained health outcomes, disease control and quality of life. All the clinics were supported by the local Breathe-Easy group, who are part of the British Lung Foundation. Each patient and surgery received an individualised self-management plan with a summary of results, recommended treatment changes and additional diagnoses.

Testing the Intervention

We undertook the following measures to test the intervention:

The system and process

- Practice engagement
- Patients suitable
- Patient attendance rates
- Characteristics of the patients seen
- Delivery of stated aims
- Diagnoses made

Qualitative outcome measures

- Feedback questionnaires from patients
- Semi-structured qualitative interviews with 13 patients
- Semi-structured interviews with 15 health-care professionals (HCPs)

Quantitative outcome measures

- Unscheduled healthcare usage before and after intervention
- Symptom scores and measures of activation
- Patient-reported changes in knowledge and confidence of their disease and treatment

Balance measures

- Additional secondary care traffic
- Additional expenditure for weekend working
- Any adverse events

Outcomes

The MISSION COPD project delivered to target, within budget and on time.

Feedback from both Patients and HCPs was overwhelmingly positive (see appendix).

Quantitatively the project has resulted in a significant reduction in unscheduled care use:

- Acute exacerbations by 52%
- Out-of-Hours (OOH) calls by 46%
- Emergency Department (ED) visits by 60%
- Acute hospital admissions by 71%

Patient feedback revealed:

- 100% of patients who attended would recommend MISSION COPD to friends or family.
- 86% of respondents to follow-up questionnaires reported that attending MISSION improved their confidence in self-management.
- 90% said that their knowledge of COPD had improved significantly.

The Challenges

The challenges faced in the project were as follows:

- Variable engagement of potential primary care partners, particularly GPs, when approached for use of practices.
- Weekend delivery model of care and its impact on patient and HCP acceptability.
- Budget and scope of the project team limiting the number of patients and practices who could be offered the service.

Conclusion

The MISSION-COPD intervention is acceptable to patients, carers and HCPs. It significantly improved rates of diagnosis, assessment of comorbidities, and treatment of COPD, while also improving disease control and quality of life in 108 patients. The large reductions in unscheduled care use reduced the overall costs associated with COPD in this cohort. Patients valued the experience and gained confidence in self-management.

HCP feedback was positive and showed that the project was effective in sharing learning and fostering strong links between Primary and Secondary care, the Charity sector and local patient groups.

With additional support, the intervention is suitable for scaling up and spread across the NHS, and the lessons learnt can also be applied across other long-term conditions.

Part 2: Progress and outcomes

The team

The core delivery and management team

The MISSION core delivery team consisted of:

- Professor Anoop Chauhan – Project and clinical lead.
- Quality Improvement Fellows – Dr Ellie Lanning and Dr Claire Roberts
- Quality Improvement Nurse – Jayne Longstaff
- Business and Administrative Support – Sue Marshall
- Project Management Support – Rachel Dominey, Wessex AHSN

Clinical Delivery Team

The clinical delivery team was drawn from the Research and Innovation team at Portsmouth Hospitals NHS Trust, consisting of medical, nursing and admin staff. Further expert nursing support came from our Primary Care partners, one of whom supported the project at several different sites. Each surgery supported with additional admin staff who were invaluable in supporting us to work in a foreign environment.

Intervention Summary

937 patients were identified from primary care registers that fulfilled *a priori* patient-safety criteria; 115 patients were invited with 108 seen in the MISSION clinics in September to November 2015.

All patients underwent a comprehensive “carousel” of assessments including a specialist medical review, detailed physiological assessments, comorbidity assessment, bespoke inhaler technique training, and smoking cessation during these Rapid Access COPD Clinics (RACC). An education session was delivered, meanwhile each patient was discussed by the Multi-Disciplinary Team and a tailored plan produced. The plan was then discussed between patient and doctor.

78 patients returned to the care of their GP surgery with a self-management plan and an individualised letter (copied to GP) which summarised their visit. 29 patients requiring additional treatment or investigation were invited to the Severe COPD Assessment Clinic (SCAC) in the hospital, delivered only a few weeks after the RACC.

Patients were asked to fill out feedback forms or were interviewed for film after clinic which explored their experiences. We used qualitative data analysis software

The MISSION COPD film can be found here: <https://vimeo.com/142237413> .

Project analysis

Outcome data was sourced from the following:

- Validated disease-specific patient questionnaires
- Clinical record forms
- GP records
- Patients' own recollection of exacerbations and unscheduled care usage
- Patient feedback questionnaires and symptom scores
- Hospital records

Seven patients had left their practice and were not traceable and so were lost to follow-up. Patient responses rates to postal questionnaires (with stamped-addressed envelopes for return) were 62% at 3 months and 42% at 6 months. Additional objective data for unscheduled care use was however available at every practice.

System Measures

Five GP surgeries were visited, with 2 combining for delivery and one receiving 2 visits due to a large cohort size. Ethics Committee approval was obtained to facilitate individual patient data collection at baseline, 3- and 6-months.

Practice	List size	COPD list size	Expected COPD list size (1.5% prevalence rate)*	Patients identified through GRASP**	Patients suitable after manual filter
Wickham	12113	182	182	166	34
Badgerswood	12585	214	189	110	21
Homewell	15459	396	232	431	80
Rowner Road	6895	119	103	87	22
Brune	8886	195	133	143	27

Predicted prevalence based on NHS England estimates from national QoF data.

** PRIMIS GRASP COPD Audit tool (<http://bit.ly/2b9Jly9>)

In most surgeries we found that the list sizes exceed that expected based on national prevalence rates. The Portsmouth area has higher than average smoking rates, which may account for this. However, we have also found that COPD can be misdiagnosed in smokers where asthma would be a more accurate diagnosis.

Patient lists were generated by the practice, aided by our QI nurse, using the PRIMIS GRASP tool then manually filtered by a clinician (QI nurse or fellow) to exclude patients who did not meet our criteria or would not be suitable for a carousel clinic. Our conversion rate was 20% from GRASP search to clinic suitability. Despite screening, one patient with significant cognitive impairment was invited who could not engage in the clinic process.

Process Measures

Patient attendance

115 patients were booked to attend a MISSION clinic; 8 patients did not attend. Two patients attended but were unable to stay the 2 hours. Three additional patients were reviewed opportunistically; two who were attending for a flu clinic and one attended with a relative. Of those who were seen 72 had an established diagnosis of COPD (“care cohort”) and 36 were suspected of having COPD (“case cohort”). 29 patients required follow-up at the SCAC, and all those invited attended. Four patients who were identified as requiring follow-up in the severe clinic did not accept

the invitation. Two accepted an appointment in the general respiratory outpatients' clinic as an alternative; two felt that they did not need further review.

No adverse events occurred throughout the clinic process.

Meeting specified deliverables

The MISSION COPD project aimed to deliver care that exceeded the NICE quality standards. These are listed in full in the appendix. Statements 1-4 are relevant to outpatient care:

Statement 1: All patients seen in MISSION (where no contraindication existed) received high quality spirometry. In addition, a novel diagnostic tool, FeNO, was also used to allow further phenotyping.

Statement 2: Inhaler technique assessment and training was a cornerstone of our project, and much valued. It was re-reviewed at every further encounter and education has been delivered widely in primary care.

Statement 3: In the RACC clinics a brief exercise screen for desaturation was delivered to highlight those who needed further review, blood gasses were performed in the severe clinics where required.

Statement 4: Local provision of pulmonary rehabilitation (PR) is limited; the importance of physical activity was highlighted in the education session and suitable patients were signposted to a high-quality research study which provided PR.

Additional to the NICE quality standards, we proposed to:

- Deliver an experience that meets the needs of the patient
- Deliver timely diagnoses
- Screen effectively for comorbidity
- Phenotype disease accurately
- Empower patients to self-manage, equip carers with confidence to support this
- Share learning and education with all the MDT, patients, carers and primary care colleagues

All these objectives were met through the MISSION-COPD interventions.

Outcome measures

Diagnoses

The patient characteristics and diagnoses are summarized in the table below:

	Age	BMI Kg/m ²	Smoking History	Final Diagnosis	FeV1*	VSAQ	SGRQ* - total (> 4 point reduction = significant reduction)	
Care cohort 72 patients	Mean 75 Range 52-93	Mean 25.86 <19= 7%	Average *PYH = 37 Current =55%	COPD Asthma	53 12	Mean = 1.44l Range = 0.47l – 3.31l	Mean =3.44 METS Range = 1-12 METS	Pre clinic = 52.16 3 months post = 47.39
		>35 =8%	Never smoked = 4%	Other	7			6 months post = 40.93
Case cohort 36 patients	Mean 67 Range 36-75	Mean 29.65 <19 =3%	Average PYH = 29 Current = 33%	COPD Asthma	5 22	Mean = 2.11l Range = 0.95l – 3.79l	Mean =4.34 METS Range = 1-12 METS	Pre-clinic = 47.38 Inadequate data for 3 and 6 month follow-up
		>35 =17%	Never smoked = 5%	Other	9			

*PYH - Pack Year History where 20 cigarettes smoked daily for 1 year = 1 Pack Year. FEV1 – Forced Expiratory Volume in 1 second, measure of obstruction in Asthma and COPD. SGRQ – St George’s Respiratory Questionnaire, validated symptom and quality of life score for respiratory disease.

Anxiety/depression and dysfunctional breathing were screened using the Hospital Anxiety and Depression Scale (HADS) and Nijmegen questionnaires. 22% of attendees screened positive on the HADS questionnaire with more in the case finding group. 48% screened positive on the Nijmegen questionnaire; the cases

where the MDT felt dysfunctional breathing was significant were referred to specialist physiotherapy in the Severe clinic or separately.

We also identified several other clinically significant diagnoses:

- Lung cancer
- Cardiac: heart failure, pulmonary hypertension, valve dysfunction
- Additional lung pathology: fibrosis, bronchiectasis
- Asbestos-related occupational lung disease
- Psychiatric issues including risk of self-harm
- Vitamin deficiencies requiring treatment

Medicines Optimisation

Achieved by:

- Earlier diagnosis and accurate phenotyping of disease leading to personalised treatment plans.
- Review of inhaler technique to ensure suitable devices were used and targeted education given. This was reinforced and reviewed at every subsequent encounter.
- Education for patients and their family or carers discussing treatment rationale and exacerbation management.
- Education and up-skilling of primary care partners in diagnosis, treatment choices and inhaler technique.

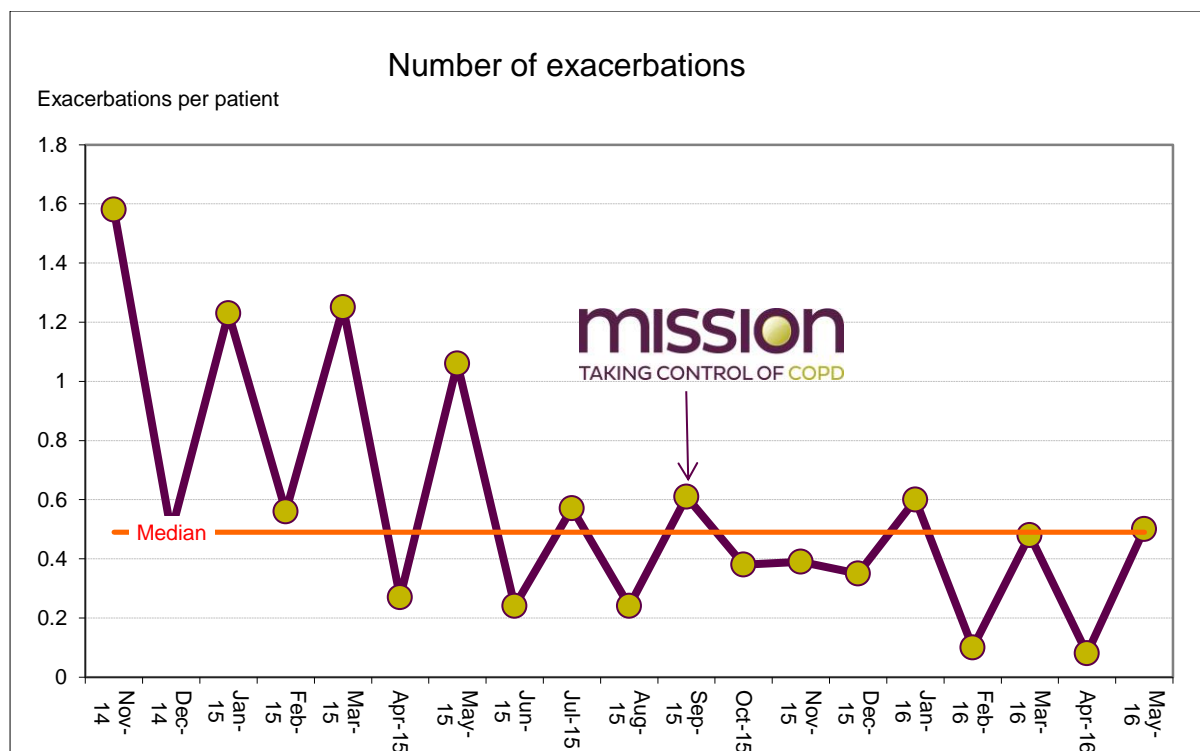
We asked each patient who attended the clinic to identify what they could gain from the service. Only 39% of respondents recognised the need to improve their inhaler technique. However, 87% were judged to have inadequate technique which would impact on the efficacy of treatment. All were seen to make an improvement.

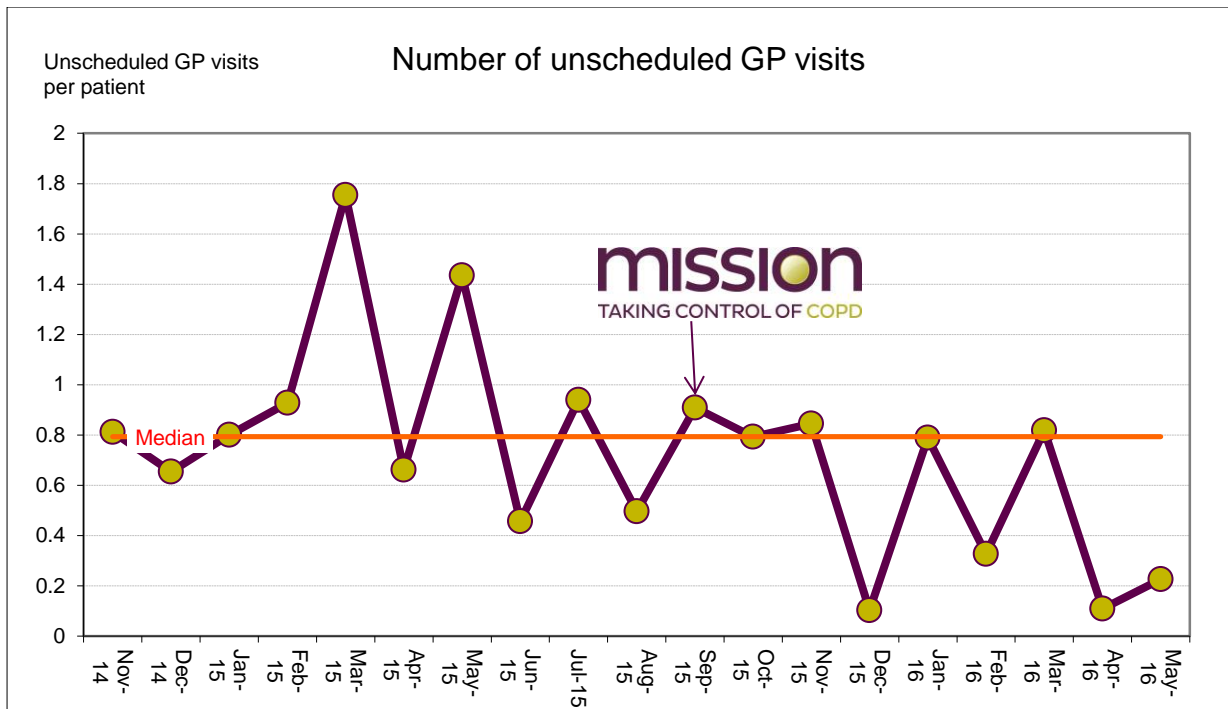
Exacerbations and Unscheduled Care Usage

Exacerbations and healthcare utilisation before and after clinic (excludes patients lost to follow-up)

	12 months prior				6 months post				Annualised figures	% change
	Total number	Mean	Mode	Range	Total number	Mean	Mode	Range	Total number	
Exacerbations	259	2.56	2	0-9	62	0.61	0	0-7	124	-52%
Unscheduled GP visits	212	3.66	2	0-9	107	1.05	0	0-14	214	+0.01%
OOH calls	15	0.16	0	0-4	4	0.04	0	0-1	8	-46%
ED visits	13	0.15	0	0-4	3	0.03	0	0-1	6	-60%
Admissions	7	0.07	0	0-3	1	0.01	0	0-1	2	-71%

To assess the impact of our intervention, we undertook run charting for these outcome measures, charting episodes per patient per month before and after MISSION. The start of the MISSION clinics is identified by the arrow.





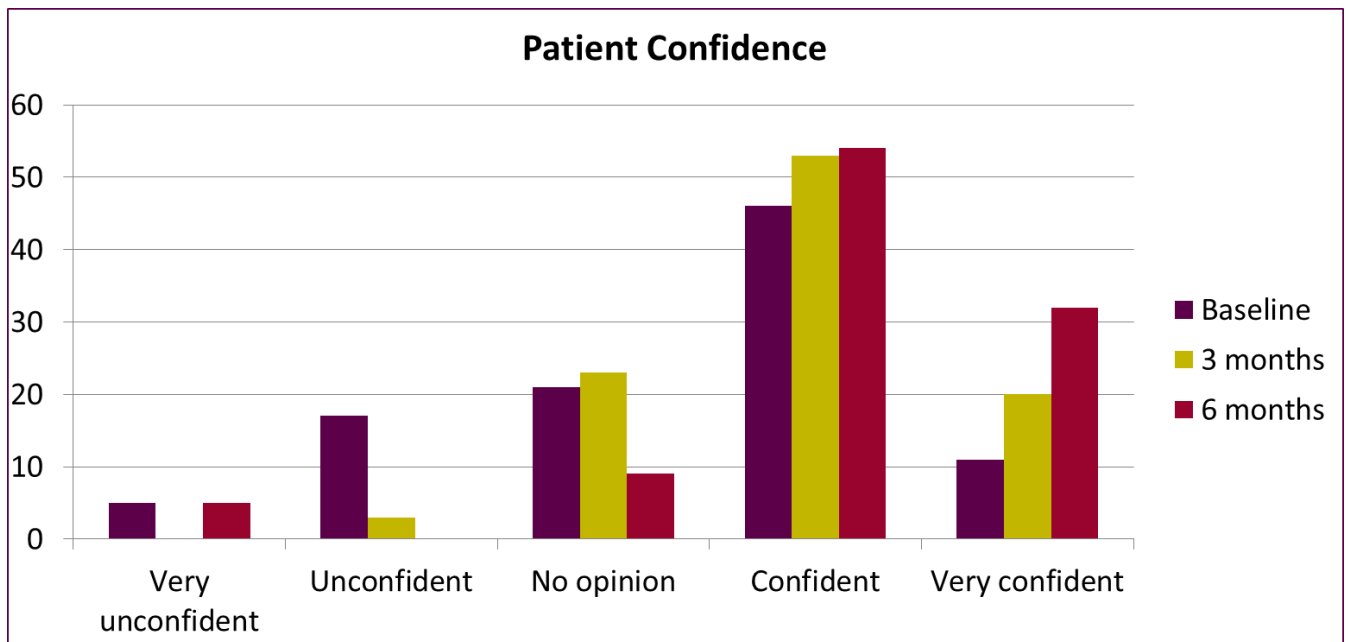
Reduction in variation and an overall reduction in episodes of exacerbation and unscheduled GP visits are seen. Numbers of ED attendances and hospital admissions were low in our cohort as approximately one-third were in the “case cohort” with no established COPD diagnosis, the majority of whom were reclassified as asthma, and tended to be less severe than the care cohort.

Patient-centered Outcomes and Experiences

Feedback was overwhelmingly positive - 100% of patients said they would recommend the clinic to family or friends. Thematic analysis of interviews with 13 patients chosen at random found that:

- The community location was highly valued, and the familiarity of the surroundings put patients at ease;
- Patients were aware that this process significantly shortened their journey
- They appreciated the education, and had subsequently applied what they had learned to their day-to-day life
- They were pleased at the unexpected variety of health care professionals they had access to
- They saw it as a positive experience.

Patient confidence in self-management improved as a result of the experience, measured using a Likert scale, shown in the chart below:



Balance Measures

MISSION COPD increased demand on secondary care. 46 patients required a secondary care clinic appointment, with 11 having more than one referral. Given the complexity of the patients seen, we do not feel this was an avoidable additional cost and so will plan for similar increases in secondary care traffic for our follow-on project.

Part 3: Cost impact

Cost Measures

The key cost measures of the project consist of manpower, equipment, administration, travel, staff and patient engagement in both project phases; setup and implementation.

Manpower costs include fixed costs for project management and the clinical lead as well as the development of the care pathway. Variable costs include salaries for case finding and the implementation of Rapid Access COPD Clinics (RACC) and Severe COPD Assessment Clinic (SCAC), use of equipment (Echocardiography, CT scan of chest), travel costs and patient and staff engagement (reimbursement for travel, backfill, focus groups).

The costs of consumables, such as mouth pieces for spirometry, were absorbed by the research department.

Training of staff was included within their working day, so again did not incur additional staff costs.

Staffing for clinics was paid on a sessional basis, which was included within the cost calculations included in our financial summary attached. As we move to our spread stage we will move more towards regular clinic scheduling where staff costs will become largely fixed.

CT scanning and echocardiograms were purchased on a named patient basis, so represented a variable cost.

The next stage of the spread will have the following variable costs:

- Purchase of equipment and diagnostics consumables
- Staff travel
- CT scans and echocardiograms as required
- Storage costs

Cost of Existing Services

The costs of the existing services were calculated on the basis of the utilisation of health services (admissions, unscheduled GP visits, A&E visits, OOH calls) for our

patient cohort (n=108). The utilisation of these services is based on objective practice-confirmed patient records. The costs for these services have been derived from the National Tariff Payment System 2016-17, the National Audit Office, Personal Social Services Research Unit (PSSRU) and hospital data from the Queen Alexandra Hospital Portsmouth. The costs for existing services sum up to ~£160,000 per year.

Medication costs were not considered in this analysis.

Cost of the intervention

The key cost measures for the intervention were split into two phases; set-up and implementation. The set-up phase consists of staff and patient involvement, care pathway development, and case finding. The implementation phase operates the Rapid Access COPD Clinics (RACC) and Severe COPD Assessment Clinic (SCAC) and provides the technical skills for quality improvement and evaluation. The cost categories for the intervention are clinical manpower, administrative expenditures, technical skills, focus groups, travel expenses and equipment required e.g. CT scan and Echocardiography.

The set-up, project management and staff costs for evaluation have totalled £36,015.

Per patient, the RACC cost £104.39. The SCAC cost £410.81, giving the total spend per severe clinic to be £515.20 per patient.

Financial Impact of MISSION COPD

Using current tariff data, and drug costs taken from the BNF, we calculated the change in expenditure for our MISSION COPD patients. The results are displayed below showing change in expenditure by category after the intervention:

Group	N	Exacerbations	ED visits	O-O-H visits	Admissions	Unscheduled GP visits	Total expenditure change per patient	Cost change per patient after clinic expenditure
Care RACC only	49	-£339.72	-£1404.8	-£133.94	-£8999.59	-£6162.5	-£347.766	-£243.38
Care RACC+ SCAC	25	-£286.08	-£140.48	-£334.85	-£2249.9	-£870	-£168.752	+£346.45
Case RACC only	33	-£259.26	-£140.48	-£267.88	-£2249.9	-£217.5	-£95.0005	+£9.39
Case RACC+ SCAC	4	-£49.17	0	0	0	-£290	-£84.7925	+£430.41

N = Number of patients seen in clinic cohort

The summary demonstrated a saving to the health economy of £243.38 per care cohort patient seen in the rapid clinic only.

This analysis suggested an increase in cost with the severe patients. However, MISSION COPD provided investigations and feedback in one visit that would take several visits and incur several charges under the current system. The table below demonstrates the savings made for the patients requiring the investigations given compared to the usual journey to undergo these. It assumes that the improvement in healthcare usage outcomes would be equivalent, and an equivalent tariff for the initial rapid assessment.

	MISSION expenditure per patient for severe clinic	Equivalent standard care cost per patient	MISSION saving per patient compared to standard journey
Case cohort	£309.89	£785.37	£270.17
Care cohort	£492.28	£786.39	£271.19

Given the scale of the project and the complexity of the funding, at this stage we have not been able to demonstrate a cash releasing saving. As we increase the scale and scope of the project in the next phase, we hope first through efficiency to release time within primary and secondary care systems, then subsequently to demonstrate cash release.

In this pilot we did not undertake calculations of QALYs or measures of productivity. The mean age of the cohort seen was 68 years. Given the older age, many were retired, and so a wider societal benefit from reduction in work time lost would be less likely although this may occur through indirect costs for carers.

Supporting the spread of MISSION: MISSION ABC

The next stage of the MISSION project is testing a developed model that reaches to greater scale, but also incorporates new technology, community-based follow-up and remote monitoring.

As this model requires further testing and evaluation we have not sought support directly from the CCGs (although they are involved as stakeholders in the next phase), but are seeking support through the Vanguard, Wessex AHSN and pharma. As the model develops and evolves, we will continue conversations with local CCGs and Portsmouth Hospitals NHS trust to discuss sustainable funding.

Part 4: Learning from your project

The MISSION COPD project was completed successfully to time and target with unexpectedly good outcomes for patients and the health economy, across the majority of measurements. We ensured that patients and HCP feedback was gathered at every possible opportunity and the process was examined in detail using PDSA cycles.

Portsmouth Hospitals NHS Trust has been an active department in research and innovation, reaching both community and charity partners with projects such as MISSION Asthma and iBreathe. This familiarity was a key enabler in the successful engagement of GP practices, particularly Homewell and Badgerswood.

The MISSION Asthma project had successfully worked with Allergy UK to engage charity resources to support patients. We approached the British Lung Foundation, who is a key resource for patients with COPD. They were generous in their support, providing a patient representative at every clinic. They have become vocal supporters of the project spread.

This project aligns with the aspirations of the NHS 5-year forward view allowing us to capitalise on the “informed opportunism” this presented.

We were asked to approach the Fareham and Gosport GPs through the CCG. By using this approach, rather than making an approach at practice level, the team did not have any influence on who was involved, though having CCG endorsement meant some level of engagement was there before the team went in. This resulted in some time being spent trying to engage a practice highlighted to us who at practice level did not feel able to support the project. This practice was eventually withdrawn from the plan.

Two practices (not named to preserve anonymity) were planning to merge before the start of the project and so had agreed to hold a joint clinic at the larger surgery. These plans had been abandoned during the set-up phase. As both practices were in full support of this project, both were accommodating. The lack of joint working created a barrier to ensuring prescriptions were dispensed in a timely manner. A subsequent PDSA review of this has caused us to ensure that we have alternative means for patients to access prescriptions when we next hold a clinic where a patient is not at their home surgery.

The biggest barrier we have faced in the project was to get the buy-in across all staff in each primary care practice. Nursing, practice management and administration have been the easiest to engage. Participation from GP colleagues was the hardest to gain, with a GP attending only one clinic. To help us understand the cultural barriers to this project we undertook interviews with primary and secondary care colleagues and a subsequent reflective exercise. The main themes we identified were:

- Remoteness of the teams: The secondary care team housed in the “ivory towers on the hill” can be seen as imposing on community partners when they breach the walls of the hospital. This project planned to see patients who had not as yet been identified by the surgeries as requiring secondary care review, and thus there was a perception of the secondary care team suggesting care had been lacking. This did not persist after we had visited the practices. MDT meetings throughout the day encouraged everyone to contribute, and celebrated sharing of knowledge and experience highlighting that MISSION was a team project breaching the fortress mentality that can persist between primary and secondary care.
- Financial Pressures: Primary care providers are ‘cost conscious’ where ‘everything we do is driven by finance’. In contrast secondary care providers are assumed to often be protected from financial constraints. Financial implications will remain our biggest barrier as we progress forward. Though care should become increasingly integrated, finance lags behind. In presenting this project to stakeholders, we recognise that demonstrating “pounds in the pocket” savings is difficult. However, what we have demonstrated is that we have not increased cost to primary care, and thus this cultural barrier has diminished.
- Hierarchy: Secondary care maintains a hierarchical ‘chain of responsibility and senior support’. In contrast primary care is based on an “environment with no hierarchical barriers”. For the team visiting from secondary care, this experience has helped to blur the hierarchical structure, by learning from the inclusive working practices of our primary care colleagues. We have recognised that, though strong leadership is still important for the successful implementation of large scale projects, we can capitalise on everyone’s contributions more effectively by removing the traditional hierarchy models.

Reflection on these cultural barriers has informed our subsequent interactions when presenting this project and the subsequent spread plans. We feel that this is a key exercise before undertaking any similar projects.

Part 5: Sustainability and spread

Sustainability beyond funding period: MISSION ABC: The Next Step

Portsmouth Hospitals NHS trust, working with the Wessex AHSN has now completed 3 successful pilots of integrated working. In recognition of the success of these projects, both organisations are committing to support MISSION ABC (Asthma, Breathlessness and COPD), and we have also secured funding from our local Vanguard (South Hampshire Multispecialty Community Provider (MCP) “Better Local Care”. This follow-on project will test to scale, establishing if these novel care models can achieve the expected outcomes, demonstrating a sustainable model. MISSION ABC will also test and embed several digital innovations in keeping with recommendations of the Personalised Health and Care 2020, Using Data and Technology to Transform Outcomes for Patients and Citizens, Framework (Department of Health, 2014). MISSION ABC maintains the goal to identify at-risk patients and then streamline their care, incorporating new technology to improve management of airways disease.

The aims of Mission ABC align closely with local and national policy and priorities: moving specialist care from acute hospitals into the community; embedding integrated models of care; promoting self-management and individual involvement in and responsibility for health; proactive case management; minimising need for and usage of unscheduled and emergency care; medicines optimisation; and use of technology.

Support has been forthcoming because we have been able to articulate clearly the potential future benefits of wider spread and adoption in qualitative, quantitative and economic terms. This is partly because we were careful to plan our evaluation of the smaller-scale pilots from the beginning of the projects so our baseline measures were complete and our follow-up was robust and achievable. We have also benefited greatly from compelling patient voices, from people whose lives have been improved through our work. We have been proactive in encouraging patient involvement in our next stages of planning and delivery and are grateful to all those whose enthusiasm and support has helped us progress.

We have a strong and stable team who are committed to continuing learning and further spread of the model.

Risks, challenges, progress and plans

Our risks and challenges relating to the launch of Mission ABC have largely been overcome through the confirmation of funding, and the support of the local MCP thus providing an additional lever to encourage primary care participation. Our next stage challenges are mainly logistical, relating to staffing and delivering a significant number of clinics in various locations and following up a large patient cohort. We

have the first four months of clinic delivery (September to December) planned out and we are working on the next block of clinic planning now.

Longer term, we will face the step-change of taking this project from a medium-scale trial to a whole-system transformation. We, and the CCGs, recognise that it is only at scale that the potential economic benefits across the healthcare economy will be realised. At this stage, we are working to foster, develop and progress relationships and conversations with all relevant parties and build our evidence base so that we can effectively describe a commissionable model for delivery of respiratory services across the region.

Spread beyond the Innovating for Improvement award site

Mission ABC builds directly on our HF-supported 'Mission COPD project and extends the model to a wider geographic area, a greater number of patients and more general respiratory disease. The extended model will be delivered first to a cohort of 1000 patients drawn from around 10 GP surgeries in the East Hampshire region over 18 months (500 Asthma, 400 COPD, 100 Breathlessness), commencing roll-out in September 2016.

However, we recognise that as a specialist team with limited time, we cannot deliver far beyond our own geographical area and that we need to facilitate and support other local systems to adopt the MISSION model. To this end we wish to develop a toolkit that will allow the spread of MISSION to other CCGs and local healthcare systems. This will be accompanied by a "Train-the-Trainer" programme. We have already received considerable interest in this new model of care.

We have recognised that the MISSION model is also applicable to other chronic diseases and so are currently supporting a team from Badgerswood Surgery in the development of "MISSION Diabetes". As patients are living with an increasing burden of long-term multimorbidity we intend to explore the expansion of the model to community and hospital based multimorbidity clinics drawing from health care professionals in many different departments. This model is replicable and essentially generic and so can in theory be applied to any local system or indeed to any long term condition where patients would benefit from this type of multispecialty, community-based delivery of care.

Specific to our organisational context, we have exceptionally good buy-in and leadership from the respiratory team at our acute hospital and a very receptive GP population, as well as a broadly supportive CCG. We also have the benefit of operating in a local Vanguard site, where there is already considerable drive and commitment to furthering new models of care.

Additional resource for the delivery of Mission ABC has already been but we may need further funding for the development of the spread and dissemination Toolkit/ Train-the-Trainer model. This would cover staff resource for developing and refining

the material, IT development costs, and clinical time. We are currently exploring options for this.

Upcoming milestones and activities

Our main focus now is the clinical delivery phase of Mission ABC and the development of the Toolkit model. We are also continuing conversations with other interested localities and our own local CCGs with a view to defining the future funding model, should Mission ABC prove (as we expect) to be an efficient, effective and sustainable future model.

External interest and recognition

We are fortunate to have the pre-existing reputation of Portsmouth Hospitals NHS Trust as a 'leading light' in respiratory research and innovation, and also to have the support of the AHSN and its national networks. As such, we have enjoyed considerable interest in our work and have not had to face too many barriers in communicating our progress and results and indeed have been proactively approached by several organisations interested in finding out more with a view to adopting the MISSION model.

Presentation and recognition of MISSION COPD

MISSION COPD has been presented and celebrated in the following:

- Awarded a Patient Safety award for Improving Safety in Medicines Management 2016. The judging panel said: "If patients with severe COPD can be recognised before they arrive in hospital in a crisis, there is a lot that can be done to improve their lives, their health and the cost to the NHS of looking after these individuals. Portsmouth's MISSION-COPD does just that"
- Shortlisted for 3 HSJ value awards 2016
- Presented to the International Primary Care Respiratory Group Annual Conference in Amsterdam 2016: Patient and Healthcare Professional's Experience of MISSION COPD - A Novel One-Stop Model for Delivering Integrated COPD Management in a Primary Care Setting.
- Accepted for a poster presentation at the Leadership in Healthcare Annual Conference, to be presented in November 2016.
- Cultural web analysis reflective exercise accepted as a poster presentation at the European Respiratory Society Annual Conference in September 2016.

Appendix 1: Resources and appendices

NICE Quality Standards for COPD

[Statement 1](#). People aged over 35 years who present with a risk factor and one or more symptoms of chronic obstructive pulmonary disease (COPD) have post-bronchodilator spirometry.

[Statement 2](#). People with COPD who are prescribed an inhaler have their inhaler technique assessed when starting treatment and then regularly during treatment.

[Statement 3](#). People with stable COPD and a persistent resting stable oxygen saturation level of 92% or less have their arterial blood gases measured to assess whether they need long-term oxygen therapy. **[2011, updated 2016]**

[Statement 4](#). People with stable COPD and exercise limitation due to breathlessness are referred to a pulmonary rehabilitation programme. **[2011, updated 2016]**

[Statement 5](#). People admitted to hospital for an acute exacerbation of COPD start a pulmonary rehabilitation programme within 4 weeks of discharge. **[2011, updated 2016]**

[Statement 6](#). People receiving emergency oxygen for an acute exacerbation of COPD have oxygen saturation levels maintained between 88% and 92%. **[new 2016]**

[Statement 7](#). People with an acute exacerbation of COPD and persistent acidotic hypercapnic ventilatory failure that is not improving after 1 hour of optimal medical therapy have non-invasive ventilation. **[2011, updated 2016]**

[Statement 8](#). (Placeholder) Hospital discharge care bundle. **[new 2016]**

Severe COPD Clinic Feedback

“Very efficient, friendly staff”

“Very good and very efficient. Receiving all the advice made me content and relaxed me. Now I know what is wrong with me. I know I will have a better life with all the care I have had today. We know we are in good hands. I am glad we have attended MISSION. We have been taught so much. Brilliant”

“Brilliant. Very successful. Time to spend with professionals and explained everything. Not fobbed off. You don’t get anything without effort and having the time with all the staff was a great help. Better than the 10 minutes we have with the GP. Just wish I could stop smoking. 100% first class. Cannot fault anyone, all were understanding. What more could you ask for?”

“Good. Surgery recommended coming. Found out I had other things that I didn’t know I had. Aware of breathing exercises. So many different tests means they are discovered sooner rather than later on which is to my benefit. I would recommend it to anyone else. This has been long but excellent. I wouldn’t change anything.”

“I am impressed. Up to now nothing had been done. Seen all the right people and tests were done on the same day rather than waiting a month. Everyone is friendly and relaxing. Highly recommended to other people as it will keep people out of hospital and A&E which is a good thing.”

“Wonderful. It should be done for everyone. I have learned so much. The staff are brilliant. Everything is explained clearly which its not at the GPs. Thank you for all that you have done. Its good having everything under one roof and getting everything done. My carer wished their GP surgery had done it. Its fantastic.”

“Today has been wonderful. A friendly efficient experience”

“Had a good giggle. I’m now a lot more confident. The surgery treated me as COPD for 2 years and I was diagnosed wrongly. I was worried as COPD is serious. By doing intense testing I have been diagnosed with the right thing as I now have asthma and am on the right treatment. Nobody has sat down with me to show me how to use my inhalers like you have today.”

“It was very good”

“Everyone was very welcoming, friendly and understanding. Treatment was excellent.”

“Very informative and tailored to the individual. Good consistent tests that are all completed in the same relative time frame and the same state of health vs appointments spread apart with differing levels of health.”