Independent evaluation of the North East Hampshire and Farnham Vanguard

Farnborough Rapid Home Visiting Service

May 2018

Contents

Evaluation team
Dr. Andrew Sibley, Evaluation Programme Manager, Wessex AHSN
Philippa Darnton, Evaluation Lead, Wessex AHSN
Andrew Liles, Evaluation Advisor, Consilium Partners
Dr. David Kryl, Director of Insight, Wessex AHSN and Director, Centre for Implementation Science, University of Southampton

Correspondence
Philippa Darnton, Evaluation Lead, Wessex Academic Health Science Network, Innovation Centre, 2 Venture Road, Chilworth, Southampton, SO16 7NP; Philippa.darnton@wessexahsn.net

Disclaimer
The findings of this independent evaluation are those of the author and do not necessarily represent the views of the Farnborough RHV service.

Acknowledgements
We would like to thank the RHV service and staff for their participation in this evaluation.

Executive Summary

This report describes the findings of an independent evaluation of the Farnborough Rapid Home Visiting (RHV) Service, one of several new care models developed as part of the Happy, Healthy, at Home Vanguard programme. The RHV service aimed to free up GP time by reducing the GP home visiting caseload. This in turn should allow GPs more time with patients with complex health issues. This evaluation brought together data from case studies, paramedic practitioner interviews, patient interviews and a staff survey. All the data was collected between October 2017 and February 2018. A wide range of issues were identified in the case studies and interviews. A total of 30 themes were identified from the combined analyses of case study and interview findings. Furthermore, 13 staff (including 9 GPs) completed the staff survey about RHV. Survey findings about staff views of the RHV service across five sites (Farnborough, Aldershot, Farnham, Yateley and Fleet) were included to support the Farnborough evaluation.

The evaluation highlighted the Farnborough RHV service was widely valued and demonstrated a range of patient and system impacts. This was evidenced in the case studies, interviews and staff survey findings. The absence of significant challenges further supports this main conclusion, although a few minor challenges were identified and would warrant attention.

Paramedic practitioners and patients were highly satisfied with the RHV service as it provided improved access to rapid home visiting, saved patients' time and work in managing their health, and reduced patient anxiety/stress by reducing their perception of the need to call 999. This was further evidenced in the staff survey, whereby 84% of staff thought patients received home visits quicker. Furthermore, in the staff survey, 85% of staff reported improvements in patients' ability to access urgent primary care.

Farnborough paramedic practitioners got involved in difficult conversations with patients when they required encouragement to accept support recommended by the GP involved. The time available to paramedic practitioners was vital in this regard, often spending approximately an hour with patients to engage with their attitudes toward treatment and their condition.

An important benefit to patients and the system was improved access to medication for patients. Paramedic practitioners worked, in collaboration with GPs, to assess medication regimes, organise and collect medication, and deliver medication in a timely manner for those often on the borderline of being conveyed or admitted to hospital.

System benefits included strong perceptions the RHV service had avoided conveyances / hospital admissions (particularly by using the IBIS system to intercept ambulance crews and support their decisions to convey) and reductions in 999 calls by patients. This was further supported by the patient interviews and the staff survey. The latter highlighted 85% of staff thought the service had avoided hospital admissions.

Two GP-specific benefits were stated in the paramedic practitioner interviews – avoiding GP appointments and saving GP time. This was largely supported by the staff survey findings, whereby 61% of staff thought they now have more time to undertake routine appointments. In addition, 62% of staff thought GPs were able to offer patients with complex health issues longer appointments. Also, 77% of staff thought they'd seen an improvement in patients' ability to access to routine GP care. An important broader finding indicated 92% of staff reported they now work in a more positive working environment due to RHV.

The nature of the role was clearly described from the interviews and several key facilitating factors or 'active ingredients' were identified. These are of particular importance to managers starting or modifying a RHV service as they will likely influence the successes described in this report. Ensuring active ingredients of the RHV service are addressed and developed will likely ensure the successes described in this report are optimised.

1. The Farnborough Locality

The Farnborough locality is the largest in North East Hampshire and Farnham and is made up of the following practices

Table 1: Farnborough GP practices

Practice	Registered persons
Alexander House	9,101
Gifford Drive	8,853
Jenner House	9,389
Mayfield Medical Centre	9,277
Milestone Surgery	11,552
North Camp	5,031
Southwood	6,871
Total	**60,074**

These practices are members of Salus Medical Services, a federation that brings together the 23 practices across North East Hampshire and supports the delivery of primary care services on a larger scale.

Farnborough has a relatively small elderly population compared with Hampshire (11.8% aged 65-84 compared with 16.7%). However, this is set to change with a large predicted rise in older people and a reduction in people of working age. Overall, people living in Farnborough reported levels of health that are better than England and Hampshire and fewer people living with long term limiting illness or disability. Large parts of Farnborough are defined as being in least deprived decile in England, though there are also pockets of high deprivation. A quarter of adults are classed as obese, 20% binge drink and smoking prevalence is higher than for Hampshire.

2. The Farnborough Rapid Home Visiting Service

The aim of the service is to free up GP time by reducing the GP home visiting caseload. This in turn should allow GPs more time with patients with complex health issues.

The RHV service, provided by Salus, employs two Paramedic Practitioners. They are seconded to GP practices in the locality and based at the Milestone Surgery and Farnborough Fire Station.

Structure of the service:

- The service availability is aligned to GP surgery hours.
- All patients are triaged by a GP and then an email is sent to the Paramedic Practitioner with details of the patient to be visited.
- Following the home visit, the Paramedic Practitioner updates the patient records via EMIS.
- The Paramedic Practitioner use Salus issued I.T. equipment and access the GP surgery EMIS systems with it. This equipment is password protected at the hardware level and built and issued by South, Central and West CSU to their specification.

3. Qualitative synthesis of case studies findings, interviews with paramedic practitioners, and interviews with patients

Introduction

Three qualitative methods were employed to explore the role and impact of the Rapid Home Visiting (RHV) paramedic practitioner service in Farnborough. A range of case studies were collected by staff, and qualitative semi-structured interviews were conducted with the two paramedic practitioners currently involved in the RHV service, and patients receiving RHV support. Findings from case studies and interviews were synthesised into a single set of themes to describe and evaluate the work of Farnborough RHV.

Approach to interviews and analysis

Paramedic practitioners were invited to participate in interviews by the AHSN researcher after discussions with the relevant leadership teams. To recruit patients, Salus were asked to purposely identify people supported by RHV service. Several patients were identified and asked to participate in an interview with the researcher to gain insights about their care via the RHV service.

All participants were informed of the purpose of the evaluation, provided with a participant information sheet and provided written consent. All participants consented to being audio-recorded during their interview, so their views could be thematically analysed. All interviews were conducted at one time-point only and took place in November and December 2017. All interviews were semi-structured and promoted open-ended responses to allow room for divergence to expand on topics that were not pre-judged to be relevant. Semi-structured interview questions were based on the aims of the RHV service.

A recognised process of thematic analysis[1] was used and sought to identify themes from the interviews, the goal being a table of well-defined and described themes after data saturation was reached. It was important to investigate contextual factors, processes, and perceived impacts to determine any active ingredients of the RHV service. Factors were considered active ingredients if they were discussed as important and in the context of a described impact. Findings from the interviews and case studies were brought together in a single synthesis (see Table 2). Triangulation of the findings enriched the overall conclusions and enhanced the understanding of the service.

Synthesised findings

Ten case studies were provided by the Farnborough RHV team, both paramedic practitioners in the Farnborough RHV team were interviewed, and two patients were interviewed. Both the case studies and the interviews were very detailed. The staff interviews lasted 1 hour 20mins and the patient interviews lasted 30mins. This ensured a good coverage of important issues relevant to the RHV service.

In terms of the Farnborough context, the paramedic practitioners reported approximately 85% of patients they visit had complex multiple long-term conditions, were often house bound, and under multi-disciplinary teams. The remaining 15% had acute issues which can often be easy to manage (e.g. chest infections, urine infections, skin problems) or recognisably serious enough to require immediate movement to acute care services. Home visiting requests come from GPs in the morning

[1] Braun V and Clarke V (2006) Using thematic analysis in psychology. Qualitative Research in Psychology. Vol 3: 77-101

and the paramedics spend the rest of their day conducting GP-directed visits, adhoc visits to support ambulance service colleagues, and follow-up visits to those requiring additional support. The paramedic practitioners interviewed estimated, at the point of reaching a home visit, approximately 90% of cases could be positively helped by the RHV service. Often, 10% needed more detailed GP support, with only a small number of patients stating they would prefer to see their GP the next time a home visit was required. Common activities reported by paramedic practitioners were a range of assessments, referrals to the Integrated Care Team, encouraging patient self-care/self-management, collecting patient samples and organising and delivering medication for patients.

A wide range of issues were identified in the case studies and interviews. No conflicting themes were identified which suggested the different sets of data validated each other. A total of 30 themes were identified from the combined findings. These were organised into 6 higher order themes.

Table 2: Synthesised findings from case studies, paramedic practitioner interviews, and patient interviews

Higher order theme	**Themes**
High motivation of paramedic practitioners	1. Clear sense of purpose
	2. High level of job satisfaction
The nature of the role	3. Involved in the evolution of the role
	4. Assessment and identification of problems
	5. Complex case focused
	6. Preventive approach
	7. Has time to take a holistic approach
	8. Providing support to ambulance crews
	9. Collecting and delivering samples and medications
Key facilitating factors (active ingredients)	10. Strong IT set up for the RHV service
	11. Good working relationships with ambulance crews
	12. Good working relationships with care homes
	13. Good working relationships with community staff
	14. Good working relationships with GP clinical lead for RHV service
Patient impacts	15. High satisfaction with RHV service
	16. Improved access to rapid home visiting
	17. Saving time and work for patients
	18. Encouraged patients to accept support
	19. Reducing anxiety/stress by reducing their perception of the need to call 999
	20. Made appropriate decision to convey to hospital when needed
System impacts	21. Avoided conveyance / hospital admission
	22. Reductions in 999 calls
	23. Avoiding GP appointments
	24. Saving GP time
	25. Improved access to medication
	26. Supporting other localities to develop the RHV service
Challenges	27. Early attitudes were frosty from ICT, district nurses and care homes
	28. Demand for work increasing
	29. Growing caseload of housebound patients
	30. Patients not accepting support or going to hospital

High motivation of paramedic practitioners

The first higher order theme described the high degree of motivation of paramedic practitioners to enact their work. This higher order theme was built on two themes from the interviews, namely a clear sense of purpose and gaining a high level of satisfaction from their work.

It was apparent paramedic practitioners thought they filled a 'gap in the market' and their role was sufficiently different and defined. This gave paramedic practitioners a very **clear sense of purpose** for the work they engaged in, as described by this paramedic:

"We help to fill a gap in the market which needed to be addressed. It's the old ladies sitting at home, not necessarily with major issues but enough problems to make 999 calls. As the GPs don't have time to do home visits, the time to look into the whole picture, or do follow-ups, we fill in that gap." (Paramedic Practitioner 1)

In addition, their high motivation was born of a **high level of job satisfaction**, often in comparison to their previous role in the ambulance service, as described by these paramedics:

"This role lets us use the skills we've got having done the paramedic practitioner course. In the ambulance service it's overwhelmingly about response [time], so it doesn't matter if there's a job that could use your specialty experience, if you're the nearest to a panic attack you'll be sent to that…some calls I knew I could deal with and avoid that person going to hospital but I wasn't sent as I wasn't the closest…for example we could treat chest infections or urine infections but we rarely got the opportunity." (Paramedic Practitioner 2)

"I find this job so rewarding because I can do so much more than I could before in the ambulance service." (Paramedic Practitioner 1)

Nature of the paramedic practitioner role

In the context of the RHV service in Farnborough, the nature of the paramedic practitioner role was discernible. This higher order theme comprised 7 different themes or elements, each contributing to the understanding of the role.

Firstly, it was apparent paramedic practitioners were **involved in the evolution of the role** and had the ability to tailor and improve it over time. This was welcomed by paramedics:

"The role has evolved since we've been here, that's been good." (Paramedic Practitioner 1)

This has led to benefits in patient quality of care, patient access to care, avoidance of unnecessary 999 calls and extended their working relationships with other professionals.

"The job was originally about home visits and that's what we were employed for, however, as well as home visits for the 7 GP practices in Farnborough, we also do follow-up phone calls and visits we task ourselves for patients we've seen before to see how they are and keep them out of hospital. It keeps them safe and reassures them and their family, and stops them making that 999 call that they would have before. We also take referrals from ambulance crews, as long as the patient is registered with one of the 7 practices we're happy to get involved, maybe give some advice to the crew or do a follow up visit. We work closely with the integrated care team and get referrals from the district nursing team, the community matron, the community respiratory nurse. (Paramedic Practitioner 2)

"It's a really good two-way style of working, we save them [other health professionals] work and the patient gets the help they need without hopefully needing to go into hospital." (Paramedic Practitioner 1)

A second theme and part of the role involved **assessment and identification of problems.** This theme came out strongly in the case studies. Paramedic practitioners were frequently assessing the home situation of the patient during a home visit. They frequently assessed for fall risk, fractures and injuries already sustained, took samples such as nail clippings for fungal assessment, assessed and collected urine samples to encourage further investigation, assessed pain and in one case determined it was due to cellulitis. In cases involving dressings, the paramedic practitioner could refer to the community nursing team for assessment of leg dressings if they identified a problem. When appropriate they also assessed and liaised with a GP to discuss psychological input for patients. An important example of identification work:

"We visited a man who stated he had blood in his urine, we assessed the situation and liaised with the GP. Later we collected a urine sample and encouraged further investigation. The patient took our advice and was later given a cancer diagnosis. We've been back to review his situation several times since at the request of the GP." (Paramedic Practitioner 1)

The third theme and part of the role involved **focusing on complex cases**. This element helped to understand who they often supported and were being referred by their GP colleagues. In addition, it was clear paramedics were engaging in difficult cases and contributing to them in several ways. For example, the paramedics below describe how they took time to work with a patient who was resistant to support and another close to crisis point.

"A gentleman I saw had been in his chair for five days, acute reduced mobility, soiled in chair, hadn't been reported by carers, pressures sores, OT&PT couldn't convince him to go to hospital. GP couldn't either so GP asked us to help. I went with a district nurse and managed to negotiate with the man to get some help. We managed to get him a place in [rehab unit] and organise an ambulance etc. That whole process took a couple of hours of my time. It was a lengthy case but ultimately he got to the right place for care." (Paramedic Practitioner 1)

"One man was an alcoholic in his late 30's and had stopped drinking cold turkey and he had really bad withdrawal symptoms. We went and did some observations, they were not good, did bloods, referred to OT, PT and ERS@H, he wasn't mobile really and was unsteady. They helped him get mobile and improve his daily activities so he could cook for himself. One GP was really surprised that we helped this man to stay at home. I think [GP] expected the man to be admitted but that was based on the first presentation of symptoms and we knew something could be done to help before that." (Paramedic Practitioner 2)

The fourth theme to describe the role involved was about **preventive approach**. Paramedic practitioners reported they pro-actively generate part of their caseload to routinely visit patients known to be vulnerable. The watching approach was reported for several patient cases, including this patient:

"We try and visit our regular complex cases, we have a 106 year old patient living independently…he only has and needs one carer in the morning, but often won't call the GP for anything so we check on him regularly to avoid problems and admissions." (Paramedic Practitioner 2)

The fifth theme about role was described as having **time to take a holistic approach.** Paramedic practitioners highlighted their ability to spend time with patients when needed. In addition, to use that time to holistically view the patient and their situation. They indicated patients had come to

know they have more time to spend with them. An example included taking the time to understand the patient's needs and put in place a night sitter when they weren't safe or were off their feet. Paramedic practitioners reported families have been very appreciative of the additional time and effort provided by the RHV service.

The sixth theme about role was reported as **providing support to ambulance crews**. As paramedic practitioners, with several years of additional training and specialist placements in primary care, they have provided educational support to ambulance crews in their area. This paramedic practitioner best described their approach and goal:

"We try and just break the automatic habit of thinking 'well I'll just take them [patient] in and let them know there are community teams out there'. We've been encouraging a questioning mindset and maybe they'll [ambulance crews] think of us and other community staff before defaulting to taking the patient to hospital when they really didn't need to go." (Paramedic Practitioner 1)

The final theme about role highlighted the work of paramedic practitioners in **collecting and delivering samples and medications**. Paramedic practitioners were heavily involved in this type of activities and supported the GP practice and patient in doing so. As previously mentioned above in the second theme about assessment, nail and urine samples were often collected and passed into the system for further assessment. Importantly, medication was often delivered before patients fall into crisis and often on the same day. This part of their role was reported as a key patient impact and discussed further below.

Key facilitating factors for the RHV service

The third higher order theme comprised of five themes reported as key facilitating factors. These were all considered 'active ingredients' of the RHV service. The first being a **strong I.T. set up for the RHV service**. The paramedics reported the IBIS system was vital for their work and allowed them to optimise their work, as described by these examples:

"IBIS had quite a big part in this as well. It's an information sharing system between community teams and the ambulance service. It lets teams like ourselves upload information about patients to the ambulance system, it's very secure and crews have easy access to it. They can determine what is likely to be normal for a patient, maybe they've [patient] had a stroke so when they [crew] see signs left sided weakness they will know the history and not necessary take them straight to hospital." (Paramedic Practitioner 2)

"The second thing IBIS does it let us know when a patient has called 999. It doesn't tell us why they called but does tell us they have. We are very pro-active and have intercepted ambulance crews on the way to those callouts, when we've known the patient may not necessarily need an ambulance conveyance and helped avoid a lot of admissions that way." (Paramedic Practitioner 2)

"All requests come into the one email inbox so we can both see what's going on any time of the day, that really helps to see what's outstanding." (Paramedic Practitioner 1)

Secondly, it was clear **good working relationships with ambulance crews** were established and maintained, as evidenced by the IBIS working and providing educational support to crews mentioned above. Interestingly, one paramedic described the role as *"largely about networking".* This was considered an important facilitating factor for their successes. In terms of feedback directly from ambulance crews, this paramedic practitioner stated: *"Generally it's been good, we are quite approachable and accessible, we can usually call them [ambulance crews] back within 10mins to give advice on patients we know and they've liked that".*

The third facilitating factor for success was establishing **good working relationships with care homes**. At the start of the RHV initiative, paramedic practitioners reported care homes were uncertain and a bit resistant to receiving support via this service, as described by this paramedic practitioner:

"They said they had registered nurses and if they needed a GP they would request one. But now they're happier about it, they know we have more time and can look at the bigger picture and know we're not there to undermine them." (Paramedic Practitioner 2)

However, as relationships were formed care homes and the RHV established a shared understanding of what the RHV could offer, as described by this paramedic practitioner:

"We did join visit with GP to help a lady and they [care home] were very positive that we could organise a follow-up visit and keep an eye on her. The home has called us direct sometimes if they can't get through the GP of one of the residents, or when they're not sure about calling an ambulance and we can advise them about that." (Paramedic Practitioner 1)

The fourth facilitating factor for success was **developing good working relationships with community staff**, in particular the Integrated Care Team (ICT) and district nurses in the area. Both these services and the RHV service manage patients likely to be house bound and have other similar characteristics. Therefore, paramedics regularly refer to ICT and attend the ICT when their schedule permits them to. As described by this paramedic practitioner: *"We all know which patients are more complex and they refer to us and we refer to them."* The RHV service has also supported the district nurse team with blood tests, assessments, and safeguarding issues.

The final facilitating factor for success was having a **good working relationship with the GP clinical lead for the RHV service**. This was considered vital to their success and, educational experience, and important clinical development for the RHV service, as reported by this paramedic practitioner: *"We can sit down with [GP] and discuss complex cases and having that support and relationship is really important." (Paramedic Practitioner 1)*

Perceived impacts on patients

The fourth higher order theme describes a range of perceived patient impacts. Six patient impacts were identified from the case studies and interviews. Firstly, paramedic practitioners reported **patients were overwhelming satisfied** with the RHV service, as described by this paramedic practitioner: *"Patients have been really positive, only occasionally have they been surprised the GP has sent a paramedic practitioner to help." (Paramedic Practitioner 1)*

This was also reported in the patient interviews. There were clear indications from patients they preferred paramedic support to GP support, for a range of reasons. Patients reported they could speak to the paramedic about anything, they had time to listen, explained options clearly to the patient so the best decisions could be made, and often clarified medication instructions.

"It was the best examination I've ever had…the quicker they put it [RHV service] in across the country, the better…they were brilliant." (Patient 1)

Secondly, patients benefited from **improved access to rapid home visits**, as reported by this paramedic practitioner: *"The patients are benefiting from reduced waiting time for home visits, as we start our role early, receive the GP referrals daily, and can be at their [patient] home very quickly." (Paramedic Practitioner 2)*

Receiving support faster was also reported in the patient interviews, as described by this patient: *"It was a quick response…better than waiting and sitting in front of a GP for 10mins." (Patient 2)*

Thirdly, paramedics reported **patients were saved time and work**. Many patients seen by the paramedic practitioners were house bound and living with multiple long-term conditions. In a sense, patients' managing their own health needs is a lot of work, it takes time and energy to navigate the health system on a weekly basis and work with a range of different health professionals. Paramedic practitioners reported they saved patients having to transfer around the system as much as they might otherwise have needed. In particular, by reaching them prior to a crisis, supporting assessments/tests, collecting medication, other logistical tasks and of course providing timely information about the system, i.e. who to contact or discuss issues with.

The fourth patient impact involved paramedic practitioners engaging in difficult conversations to **encourage patients to accept support**. Several cases were described whereby patients were not accepting of health services, despite an unambiguous need for support as perceived by all health professionals involved. The reasons for GPs asking paramedics to discuss difficult issues were often repeated calls, by patients, to GP services and/or unnecessary 999 calls. This paramedic practitioner highlighted other reasons why difficult conversations were needed:

"After several visits with one lady, we all realised her leg pain was due to refusal to accept support from the community nursing team. So I [paramedic practitioner] reviewed the situation with the GP and encouraged patient to accept support, telling her about the benefits and how the nursing team could help. Having the time in my day to do this was very helpful of course and shortly afterwards the patient accepted nursing support once more." (Paramedic Practitioner 2)

Sometimes encouraging patient engagement required a coordinated approach, as described by this paramedic practitioner:

"I liaised with the GP to discuss psychological input for a patient. He recommended I visit the patient with the mental health worker to encourage engagement with services we knew the patient needed." (Paramedic Practitioner 2)

The fifth patient impact involved paramedic practitioners **reducing patient anxiety/stress by reducing their perception of the need to call 999**.

"There is one patient who calls quite frequently, about 3 times a week, so I arranged to meet the patient. The patient had early signs of dementia and the daughter was quite anxious, so I met with both of them. I went in for about 1.5 hours and we worked out a care plan to check the medical history, and check what was 'normal' for this particular patient…this helped the patient and the daughter understand the situation more clearly and they felt better prepared to know when to call 111 or 999 or the GP." (Paramedic Practitioner 2)

An interesting idea was put forward by one paramedic practitioner that IBIS alert interceptions may also positively affect patients understanding of services:

"I think our regular patients perceptions will eventually change as we intercept the IBIS alerts and crews, they may realise that they [patients] can just call us and we can help to manage their issue of the day. If they [patients] really need to go in we'll take them of course." (Paramedic Practitioner 1)

The final patient impact perceived by paramedic practitioners was the benefit of **making an appropriate decision to convey to hospital when needed**. Despite paramedic practitioners work

being largely motivated to keep people out of hospital, several examples were provided of making the decision to convey to hospital due to a serious health threat. In addition, further investigation for tests and assessment are frequently encouraged by paramedics. This was perhaps best seen in the example of facilitating the process to a cancer diagnosis in the 'assessment and identification of problems' part of the nature of the role section above. Making clinically appropriate decisions to convey to hospital, encouraging patients to seek further support and liaising with colleagues to organise tests were clear benefits to patients and ensured timeliness of care.

Perceived system impacts

The fifth higher order theme describes a range of perceived system impacts. Six system impacts were identified from the interviews. Firstly, paramedic practitioners reported they were **avoiding unnecessary conveyances to hospital / potential admissions**. This paramedic described why they thought they were avoiding ambulance and hospital activity:

"I think about 50% of the IBIS alerts about 999 calls we've intercepted have avoided an admission, it's quite a lot. Also, I remember there have been IBIS alerts that have gone off over the weekend and we've thought 'oh, they didn't need to go in', so those could have been saved if we were around at the weekend to help the crews." (Paramedic Practitioner 2)

Avoiding ambulance conveyances and in-patient stays were also reported in the patient interviews, as described by this patient:

"[Paramedic practitioner] noticed I had slow heart rate, saw on the computer that I was taking beta-blockers, liaised with someone and took them off. Now I'm full of energy and have a normal heart rate…instead of going to hospital due to low stats, [Paramedic practitioner] liaised with someone and checked computer, got antibiotics and was allowed stay home…saving an ambulance and stay." (Patient 2)

Other examples highlighted how paramedic practitioners pre-empted what ambulance crews would want to know when arriving at a patient's home, and in doing so potentially avoid conveying the patient to hospital:

"About once a week one particular patient calls 999, so we arranged to find out more. I spent about an hour with the family, worked out a plan to check the medical situation, check what was 'normal' for the patient, we got the DNR discussion going, and made sure there was a care plan in a 'message in a bottle' in a fridge so any ambulance crew visiting out of hours would know exactly how this patient presents." (Paramedic Practitioner 1)

Secondly, paramedics believed there were **reductions in 999 calls** from patients, as described by this paramedic practitioner:

"As well as the patients benefiting from reduced waiting time for home visits, it stops 999 calls being made when anxious patients can't wait 3 or 4 hours for a home visit." (Paramedic Practitioner 1)

The third system impact was **avoided appointments for GPs**. Paramedic practitioners perceived GPs workload had decreased in terms of home visits and investigation work, as described below:

"The GPs know we provide self-care advice and sometimes medication advice, and this can help to avoid referring the patient back to the GP for more discussions." (Paramedic Practitioner 2)

In addition, the fourth system benefit was similar to the third, in **saving GPs time**, as described by this paramedic practitioner:

"They're [GPs] happy, they love us. We get lots of positive feedback from them, we can spend 45mins with each patient and they appreciate that gathering of intelligence. We primarily save them a lot of time by doing this and the home visits." (Paramedic Practitioner 1)

However, the third and fourth impacts were often caveated by indicating any GP appointments or time saved did not mean they were less busy. It was believed GPs total workload was unchanged and any appointments/time saved had been filled with other relevant work. It was not possible to determine the nature of GPs workload as a result of the RHV service and this would be an area of further investigation.

The fifth system impact was **improved access to medication for patients**. This was a strongly reported impact and many examples were provided about how paramedic practitioners supported the appropriate organisation, collection and review of medication with their GP colleagues. In some cases, they believed this type of action avoided an unnecessary crisis or admission to hospital. For example:

"Its simple things like pharmacy delivery of medication. If I can get a prescription organised by lunchtime, the pharmacy will deliver it the same day, but if I do a home visit at 2.30pm there's no way I can get medication delivered by the pharmacy on the same day. So we've both delivered medications before when they really need help the same day and they're on the borderline of needing an admission and we don't want to wait until a follow-up visit the next day." (Paramedic Practitioner 1)

The final system impact was Farnborough's paramedic practitioners **supporting other localities to develop their own RHV service**. Farnborough was the first site to develop the role and they provided a range of examples about how they supported other areas. Advice was given on logistical challenges, expected barriers to the service and what to expect when liaising with care homes, district nurses, GPs and other services. It was strongly believed the experience of Farnborough's RHV service supported the development of Aldershot and Fleet RHV services.

Challenges to implementation

Paramedic practitioners highlighted four challenges to operationalising the RHV service. Their early experience with care homes, district nursing teams and the Integrated Care Team was considered 'frosty'. Future attempts to establish a similar service should be mindful of how much RHV replicates the work of these teams. In particular, it would be beneficial to clearly outline the differences and benefits of the RHV team prior to implementation or arriving on the doorstep of these services. Importantly, paramedics did report each of these services did develop strong working relationships once the parameters and responsibilities of each service were understood by all.

Paramedics perceived an increase in the demand for the RHV service. This may be related to another challenge in the Farnborough area of a growing caseload of housebound patients to support. However, the former may also be related to the perceived success of the service by health professionals. Paramedics reported highly positive feedback about the service by other health professionals, and therefore, paramedics were concerned the RHV service may soon be a victim of its own success.

A final challenge was related to patients not accepting support or going to hospital when needed. This was a common situation for paramedic practitioners and they felt must be considered when

reviewing hospital admission rates and the ability of community services, including the RHV service, to intervene successfully. This issue is perhaps best considered a confounding factor in any analysis which seeks to attribute the RHV service with ambulance conveyances or hospital admission rates.

4. Staff survey about RHV

The evaluation team also supported the analysis of a survey of health care professionals and allied staff about the RHV service. The surveys were developed and administered by five sites independently, those being Farnham, Yateley, Farnborough, Aldershot and Fleet. In the interests of providing an overview of the RHV service, the overall findings and local findings are reported here.

Overall, across all five sites, 71 surveys were completed between October 2017 and February 2018. More GPs (n=37) completed the survey than non-GPs (n=17). Another 17 respondents did not provide their job role or locality; however, findings linked to those respondents were included in the overall analysis below.

Taking all the surveys into account, the main findings from the 71 surveys were:

- 96% thought patients received home visits quicker
- 94% stated they now work in a more positive working environment due to RHV
- 94% stated RHV was an efficient use of staff skills
- 89% saw improvements in patients' ability to access urgent primary care
- 83% thought the service had avoided hospital admissions
- 65% thought the service had avoided A&E attendances
- 62% of staff thought they now have more time to undertake routine appointments
- 51% thought they'd seen an improvement in patients' ability to access routine GP care
- 44% thought GPs were able to offer patients with complex health issues longer appointments

The findings above combined 'strongly agree' and 'agree' percentages for each question.

For the Farnborough site, 17 survey respondents did not provide their locality, so were excluded from the local analysis below.

In total, 13 staff in the Farnborough area completed the survey. These were 9 GPs, 2 practice managers and 2 practice receptionists.

The main findings from the 13 surveys were:

- 92% stated they now work in a more positive working environment due to RHV (Similar)
- 85% saw improvements in patients' ability to access urgent primary care (Similar)
- 85% thought the service had avoided hospital admissions (Similar)
- 84% thought patients received home visits quicker (Lower)
- 84% stated RHV was an efficient use of staff skills (Lower)
- 77% thought they'd seen an improvement in patients' ability to access routine GP care (Higher)
- 62% thought GPs were able to offer patients with complex health issues longer appointments (Higher)
- 61% of staff thought they now have more time to undertake routine appointments (Similar)
- 54% thought the service had avoided A&E attendances (Lower)

The findings above combined 'strongly agree' and 'agree' percentages for each question.

Table 3: Survey of health care professionals and allied staff about RHV service

Question	Response options	Overall findings across 5 sites (N=71 responses) % (Frequency)	Farnborough findings (N=13 responses) % (Frequency)
As a result of the Paramedic Practitioner Service, do you think patients receive home visits quicker than they did before?	Strongly agree	71.8 (51)	69.2 (9)
	Agree	23.9 (17)	15.4 (2)
	Neutral	2.8 (2)	7.7 (1)
	Disagree	1.4 (1)	7.7 (1)
	Strongly disagree	0	0
As a result of the Paramedic Practitioner Service, do you think GPs are able to offer patients with complex health issues longer appointments?	Strongly agree	26.8 (19)	30.8 (4)
	Agree	16.9 (12)	30.8 (4)
	Neutral	40.8 (29)	23.1 (3)
	Disagree	14.1 (10)	15.4 (2)
	Strongly disagree	1.4 (1)	0
As a result of the Paramedic Practitioner Service, have you seen improvements in patients' ability to access urgent primary care?	Strongly agree	53.5 (38)	69.2 (9)
	Agree	35.2 (25)	15.4 (2)
	Neutral	8.5 (6)	15.4 (2)
	Disagree	1.4 (1)	0
	Strongly disagree	1.4 (1)	0
As a result of the Paramedic Practitioner Service, have you seen improvements in patients' ability to access to routine GP care?	Strongly agree	21.1 (15)	38.5 (5)
	Agree	29.6 (21)	38.5 (5)
	Neutral	38.0 (27)	7.7 (1)
	Disagree	8.5 (6)	15.4 (2)
	Strongly disagree	2.8 (2)	0
As a result of the Paramedic Practitioner Service, have you seen any avoidance in hospital admissions?	Strongly agree	47.9 (34)	61.5 (8)
	Agree	35.2 (25)	23.1 (3)
	Neutral	16.9 (12)	15.4 (2)
	Disagree	0	0
	Strongly disagree	0	0
As a result of the Paramedic Practitioner Service, have you seen avoidance in A&E attendances?	Strongly agree	33.8 (24)	38.5 (5)
	Agree	31.0 (22)	15.4 (2)
	Neutral	35.2 (25)	46.2 (6)
	Disagree	0	0
	Strongly disagree	0	0
As a result of the Paramedic Practitioner Service, do you feel you work in a more positive working environment?	Strongly agree	64.8 (46)	69.2 (9)
	Agree	29.6 (21)	23.1 (3)
	Neutral	5.6 (4)	7.7 (1)
	Disagree	0	0
	Strongly disagree	0	0
As a result of the Paramedic Practitioner Service, do you think there has been more efficient use of staff skills?	Strongly agree	67.6 (48)	76.9 (10)
	Agree	26.8 (19)	7.7 (1)
	Neutral	4.2 (3)	7.7 (1)
	Disagree	1.4 (1)	7.7 (1)
	Strongly disagree	0	0
As a result of the Paramedic Practitioner Service, have you had more time to undertake routine appointments?	Yes	62.0 (44)	61.5 (8)
	No	38.0 (27)	38.5 (5)

5. Reflections on the RHV logic model outcomes

At the start of the study, a range of important outcomes were presented as part of a logic model to understand the impact of the RHV service. The findings in this report are now discussed in relation to those outcomes.

Reduced A&E attendance and avoided hospital admissions

Paramedic practitioners (in the interviews) and staff involved with RHV (in the survey) both strongly perceived the RHV service was avoiding hospital attendances and admissions. Theme 21 in the interviews (see Table 2) was an important system benefit from the RHV service and 85% of surveyed staff thought the service had avoided hospital admissions. The reasons for this were related to three important activities of paramedic practitioners. Firstly, a general preventative approach toward cases they know to be vulnerable. Secondly, by having a strong I.T. set-up, and most importantly using the IBIS system to intercept ambulance crews and support their decisions to/not to convey. Thirdly, its likely hospital conveyances and admission were avoided due to patients' timely access to medications. Importantly, whilst these indications of success are encouraging, a quantitative assessment of patient activity data is needed to confirm these findings.

Improved access to both urgent and routine GP care

This outcome is best considered at the broadest level, i.e. has access been improved for anyone wishing to access urgent and routine GP care. The indications are positive from the findings in this report. Three findings highlighted ways in which paramedic practitioners worked with people who contacted services regularly or did not accept support. Both these issues are likely to create work for GPs and patients. Therefore, by tackling them, paramedic practitioners have improved access to urgent and routine GP care for all.

Firstly, an important patient benefit (Theme 18 in Table 2) highlighted paramedic practitioners' preventative engagement in difficult conversations to encourage patients to accept support. Several cases were described whereby patients were not accepting of health services (see Theme 30 in Table 2) despite an unambiguous need for support as perceived by all health professionals involved. The reasons for GPs asking paramedics to discuss difficult issues were often repeated calls, by patients, to GP services and/or unnecessary 999 calls. Secondly, conversations with patients often involved reducing patient anxiety/stress by reducing their perception of the need to call 999 (Theme 19 in Table 2). An important system benefit reported (Theme 22 in Table 2) supported this as paramedic practitioners believed there were reductions in 999 calls from patients. Thirdly, specific to Farnborough was its lead role in developing RHV and supported other localities. Through this effort they are likely to have provided a range of advice on logistical challenges, expected barriers to the service and what to expect when liaising with care homes, district nurses, GPs and other services. It was strongly believed the experience of Farnborough's RHV service supported the development of other localities and by doing so improved access to urgent and routine GP care.

In support of this interpretation of the findings, 77% of Farnborough RHV surveyed staff thought they'd seen an improvement in patients' ability to access routine GP care. Importantly, whilst these indications of success are encouraging, a quantitative assessment of patient activity data is needed to confirm these findings.

GPs able to offer patients with complex health issues longer appointments

The aim of the service was to free up GP time by reducing the GP home visiting caseload. This in turn should have allowed GPs more time with patients with complex health issues. Two system impacts were reported which suggest this has occurred to some degree. Theme 23 (in Table 2) indicated paramedic practitioners perceived GPs workload had decreased in terms of home visits and investigation work. In addition, Theme 24 (in Table 2) highlighted paramedic practitioners' perception their work had saved GPs time. However, these perceptions were caveated by indicating any GP appointments or time saved did not mean GPs were less busy. It was believed GPs *total workload* was generally unchanged and any appointments/time saved had been filled with other relevant work.

The uncertainty from the paramedic practitioner interviews was also evident in the staff survey, whereby only 61% of Farnborough staff surveyed thought they now have more time to undertake routine appointments and 62% of Farnborough staff surveyed thought GPs were able to offer patients with complex health issues longer appointments. Therefore, it was not possible to confirm whether this outcome had been achieved. Determining the nature of GPs workload, as a result of the RHV service, would be an area of further investigation using quantitative activity data.

Patients receive home visits quicker

It was clear this outcome was achieved as 84% of the surveyed staff in the Farnborough area thought patients received home visits quicker. Also, this was very clear in the interviews (Theme 16 in Table 2).

Improvement in patient experience of accessing urgent primary care

It was clear this outcome was achieved. Four findings indicated improved patient experience. Firstly, paramedic practitioners reported patients were overwhelming satisfied with the RHV service. This was also reported in the patient interviews too. Secondly, patients benefited from improved access to rapid home visits. Receiving support faster was also reported in the patient interviews. Thirdly, paramedics reported patients were saved time and work. Many patients seen by the paramedic practitioners were house bound and living with multiple long-term conditions. In a sense, patients' managing their own health needs is a lot of work, it takes time and energy to navigate the health system on a weekly basis and work with a range of different health professionals. Paramedic practitioners reported they saved patients having to transfer around the system as much as they might otherwise have needed. In particular, by reaching them prior to a crisis, supporting assessments/tests, collecting medication, other logistical tasks and of course providing timely information about the system, i.e. who to contact or discuss issues with.

Fourth, by defining a form of urgent primary care as 'timely access to medications to prevent a crisis', then this was also achieved by the RHV service. Improved access to medication for patients was a strongly reported impact and many examples were provided about how paramedic practitioners supported the appropriate organisation, collection and review of medication with their GP colleagues. In some cases, they believed this type of action avoided an unnecessary crisis or admission to hospital.

An important broader finding identified in the survey indicated 92% of Farnborough staff surveyed reported they now work in a more positive working environment due to RHV. Although there was no direct reference to this in the interviews, this may translate into a better experience for patients.

6. Conclusions

Overall, the RHV service in Farnborough was widely valued by staff and patients, and demonstrated a range of patient and system impacts. This was evidenced in the qualitative findings and staff survey. The absence of significant challenges further supports this main conclusion, although a few minor challenges were identified and would warrant attention.

Paramedic practitioners and patients were highly satisfied with the RHV service as it provided improved access to rapid home visiting, saved patients time and work in managing their health, and reduced patient anxiety/stress by reducing their perception of the need to call 999. This was further evidenced in the staff survey, whereby 96% (across all sites) and 84% (Farnborough) of staff thought patients received home visits quicker. Furthermore, in the staff survey, 89% (across all sites) and 85% (Farnborough) of staff reported improvements in patients' ability to access urgent primary care.

Interestingly, paramedic practitioners got involved in difficult conversations with patients when they required encouragement to accept support recommended by the GP involved. The time available to paramedic practitioners was vital in this regard, often spending approximately an hour with patients to engage with their attitudes toward treatment and their condition. This was supported in the staff survey, whereby 94% (across all sites) and 84% (Farnborough) of staff stated RHV was an efficient use of staff skills.

An important benefit to patients and the system was improved access to medication for patients. Paramedic practitioners worked, in collaboration with GPs, to assess medication regimes, organise and collect medication, and deliver medication in a timely manner for those often on the borderline of being conveyed or admitted to hospital.

The nature of the role was clearly described from the interviews and several key facilitating factors or 'active ingredients'. These are of particular importance to managers starting or modifying a RHV service as they will likely influence the successes described in this report. Ensuring active ingredients of the RHV service are addressed and developed will ensure the successes described in this report are realised.

System benefits included strong perceptions the RHV service had avoided conveyances / hospital admissions (particularly by using the IBIS system to intercept ambulance crews and support their decisions to convey) and reductions in 999 calls by patients. This was further supported by the staff survey, whereby 83% (across all sites) and 85% (Farnborough) thought the service had avoided hospital admissions. Views about hospital conveyances appeared to be more mixed. On the one hand paramedic practitioners reported IBIS related conveyances as a key part of their job. However, staff completing the survey were less sure, whereby 65% (across all sites) and 54% (Farnborough) thought the service had avoided A&E attendances.

Importantly, despite the RHV service's focus on keeping people at home where possible, paramedic practitioners did routinely make appropriate decisions to convey to hospital when needed or organise test/assessments by other health professionals. It would appear a key motivation of the RHV service, to manage people at home, was not dominant when clinical indications were to convey to hospital.

Two GP specific benefits were perceived by paramedic practitioners in the interviews – avoiding GP appointments and saving GP time. This was largely supported by the staff survey findings, whereby 62% (across all sites) and 61% (Farnborough) of staff thought they now have more time to undertake routine appointments. In addition, 44% (across all sites) and 62% (Farnborough) of staff thought GPs were able to offer patients with complex health issues longer appointments. Also, 51% (across all

sites) and 77% (Farnborough) of staff thought they'd seen an improvement in patients' ability to access routine GP care.

Importantly, the GP-related benefits above were caveated with the knowledge that GP appointments and time were filled with other relevant work, thus not saving but redistributing GP workload overall. In any event, a quantitative analysis of GP appointments and activity would be required to be clear about changes to GP workload.

An important broader finding identified in the survey indicated 95% (across all sites) and 92% (Farnborough) of staff reported they now work in a more positive working environment due to RHV.

7. Limitations of this evaluation

This evaluation was not able to include a quantitative assessment of patient activity to explore the impact on primary and secondary care use of the RHV service. The data required to undertake this analysis was not made available to the evaluation team during the evaluation period.