Independent Review of the Costs, Systems and Usage of EPS in Community Pharmacies

Part 1: Summary of findings

April 2016

Health and Social Care Information Centre

pwc

Contents

This Executive Summary was made solely to the Health and Social Care Information Centre to assist it in connection with the scope outlined in the 'Scope and limitations of scope' section of this document. The work of PricewaterhouseCoopers ("PwC") has been undertaken so that we might state to the Health and Social Care Information Centre those matters they are required to state in their factual findings report and for no other purpose. We understand that a copy of our report may be made available to the Department of Health, Pharmaceutical Services Negotiating Committee, NHS Employers, NHS England, and those Pharmacies registered with the General Pharmaceutical Council (GPhC)*, for information purposes only on the basis that we do not owe them, or any other party, any duty or liability. Except for those referred to, this report should not be made available to any other party. To the fullest extent permitted by law we do not accept or assume responsibility to anyone other than the Health and Social Care Information Centre for their work, for this report, or for the conclusion they have formed, save where expressly agreed in writing.

A list of all registered pharmacies can be accessed at the following URL:
https://www.pharmacyregulation.org/registers

1. Executive summary

Background

Electronic Transmission of Prescriptions ("ETP") is an ongoing programme to transform the processes around the movement of patient prescriptions through the health economy. The eventual goal of ETP is that a patient's prescription will be sent electronically from their GP to a pharmacy and then on to NHS Prescription Services for payment.

The key element of ETP is the Electronic Prescription Service ("EPS") which is the mechanism through which ETP is being implemented. EPS is being rolled out via phased software releases. The current stage, Release 2, supports the use of electronic signatures, electronic repeat dispensing, patient nomination of their preferred pharmacy, the cancellation of electronic prescriptions, and the submission of prescriptions electronically to NHS Prescription Services.

The 2014 ETP extension business case for the continued rollout of EPS identified 33 benefits and one dis-benefit to EPS Release 2. In December 2015 NHS England, NHS Employers, the Health and Social Care Information Centre ("HSCIC") and the Pharmaceutical Services Negotiating Committee ("PSNC"), collectively known as the 'Working Group', sought an independent assessment of eight of the benefits, and the one dis-benefit, as well as an assessment of the impact on community pharmacies' time and costs as a result of EPS Release 2. The purpose of the independent review has been:

1. To assess the costs and time taken for community pharmacies to manage the receipt, preparation, dispensing and claiming of prescriptions using EPS (compared to paper);
2. To provide independent evidence that confirms (or otherwise) the position in relation to EPS benefits and dis-benefits for community pharmacies. This evidence to be as agreed in advance with PSNC so that it is transparent and is accepted as valid; and
3. To provide recommendations for improvements to the dispensing of EPS prescriptions which may result in efficiency savings for community pharmacies.

We, PwC were commissioned to perform this independent review, which was conducted in January and February 2016. As set out in the agreed scope of work, our findings are divided into two reports; 'Part 1' and 'Part 2'. This report summaries our response to 'Part 1' of the work.

Scope and limitations of scope

Scope

The scope of 'Part 1' of our work has been limited to addressing the following requirements:

1. Evidence to support or disprove each of the in-scope dispenser benefits/dis-benefit listed within the Extension Business Case plus assessment of how significant each benefit is on improving/impairing pharmacy efficiency.
2. Identification of any emergent benefits or dis-benefits that have not been detailed within the ETP Business Case, backed up by detailed qualification and quantification.
3. An independent assessment of the costs (of consumables, connectivity, peripherals etc.) and time (to complete each process step necessary) for pharmacies to use EPS, from receipt of prescription to reimbursement, compared to the alternative paper-based prescribing process.
4. Analysis of the impact of GP practice systems and processes on pharmacy use of EPS and the need for regular liaison with practices over and above previous contact when using paper-based prescribing.

5. An assessment of any system-specific barriers to the efficient and effective use of EPS, or commonly occurring system issues/concerns. Equally, an assessment of any system strengths that enhance the EPS dispensing experience that might be more commonly used in other pharmacy systems.

To address the above, we have performed the following work:

National survey

A survey was developed which was designed to directly address scope of the independent review. . The content of the survey was shared with and approved by the Working Group, and also reviewed by operational pharmacists before it was finalised and issued. The survey encompassed the following areas:

- Consideration of the in-scope benefits and dis-benefit;
- Identification of costs and cost types relating to EPS Release 2, and an assessment of the time impact;
- Focus on systems and related technological issues;
- Business continuity; and
- Training.

The survey was shared, either directly through email, or via the HSCIC and PSNC's media portals, with the community pharmacy population (which totalled 11,674 pharmacies as at 31 March 2015). 2,008 (17%) completed surveys were received and we received partial responses from a further 1,271 (11%) pharmacists or pharmacy staff. Where partial responses have been received in respect of specific questions the response has been taken into account within our conclusions.

Fieldwork

200 randomly selected community pharmacies have been visited during January and February 2016. The sampling methodology was agreed with the Working Group before fieldwork commenced. During the community pharmacy visits the fieldwork team performed the following activities:

- A study over the time that individual items are processed by the pharmacy, in both paper format (pre EPS Release 1) and EPS Release 2. The timings were divided into a series of 'touchpoints' which were designed to capture the total process of an item from the point it entered the pharmacy environment to the point its associated income was claimed. The touchpoints were devised by pharmacists supporting the project team and agreed the Working Group before the fieldwork commenced.
- An on-site interview with the pharmacist or the pharmacy staff in each location. This questionnaire followed the themes of the national survey and was designed to build on the broad survey findings and provide further evidence to support our conclusions.

The results of the national survey, on-site interviews and time and motion study have been the basis for our assessment and conclusions throughout this report.

Limitations

The following limitations of scope were agreed with the Working Group prior to fieldwork commencing:

- A number of pharmacies (50 in total) have been excluded from the population of locations to visit. This was due to them having recently participated in a similar study performed by the HSCIC EPS management team.
- As part of our fieldwork, 14 separate touchpoints were identified that were included in both the paper and EPS Release 2 process flows. Of those, it was agreed with the Working Group that the following three touchpoints were not included within the study as the time it took to perform them was not dependent on whether the EPS or paper system was used:
    - Dealing with clinical queries

- Dispensing – i.e. the collation of items to be labelled
- Handing medicine to the patient.

Prescriptions for Controlled Drugs were not included in our timings. At the time of the fieldwork, the prescriptions for Controlled Drugs were not transmitted via EPS Release 2, therefore the time it took to process the paper prescriptions for these may have impacted the overall timings for paper items without a comparable EPS Release 2 impact.

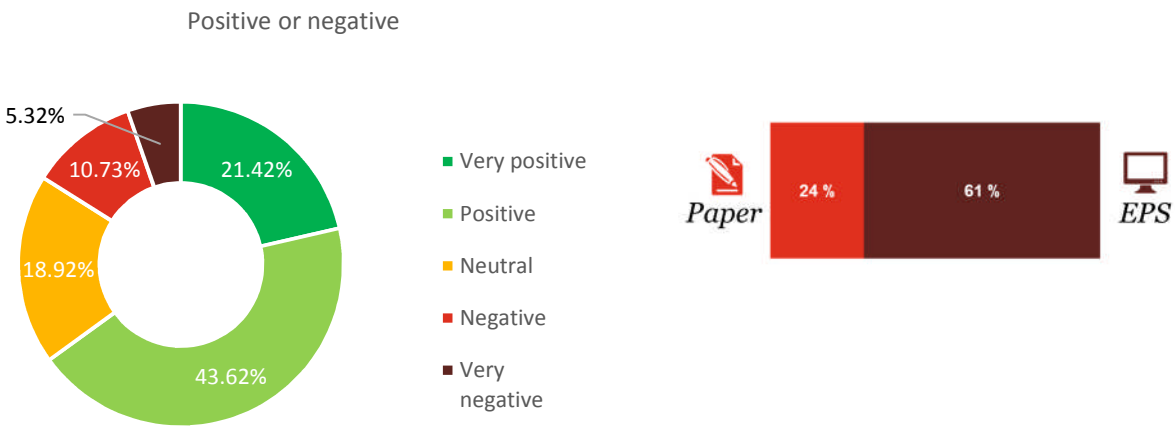
Summary of findings and recommendations

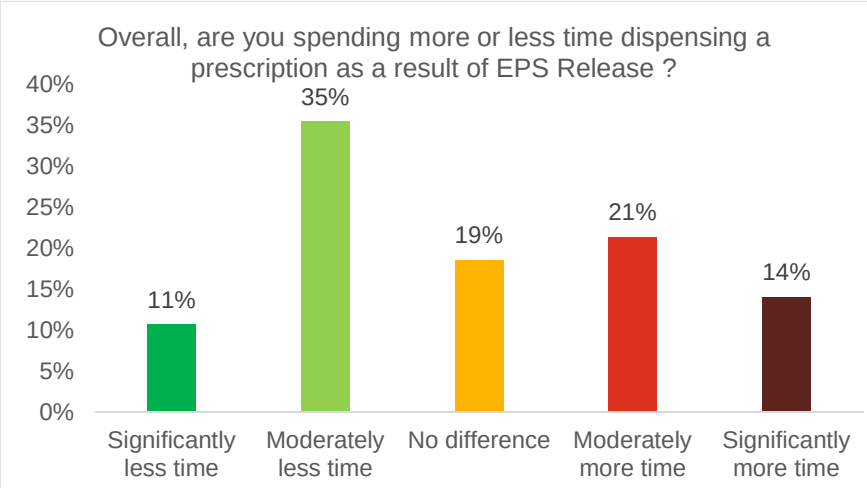
Headline survey feedback on EPS Release 2

As part of the national survey we asked three headline questions about the overall level of positivity felt about EPS Release 2, the perceived impact on time, and whether pharmacists would rather work solely using EPS Release 2 or the paper system. The headline findings were:

- 65% of those who responded to the survey were either positive or very positive about EPS Release 2. 16% were either negative or very negative. The remaining responses were neutral;
- 61% indicated a preference for EPS Release 2, compared to 24% preferring paper and 15% with no preference; and
- The time impact of EPS Release 2 is considered negligible. 75% of respondents consider EPS Release 2 to have either a moderate impact, or no impact at all.

Overview of positivity, preference on system and perception of time impact





Existing benefits and dis-benefit

As part of the June 2014 ETP extension business case, 33 benefits and one 'dis-benefit', have been identified. Our work has included forming a view on the validity of eight of those benefits and the one dis-benefit. These are:

Benefits

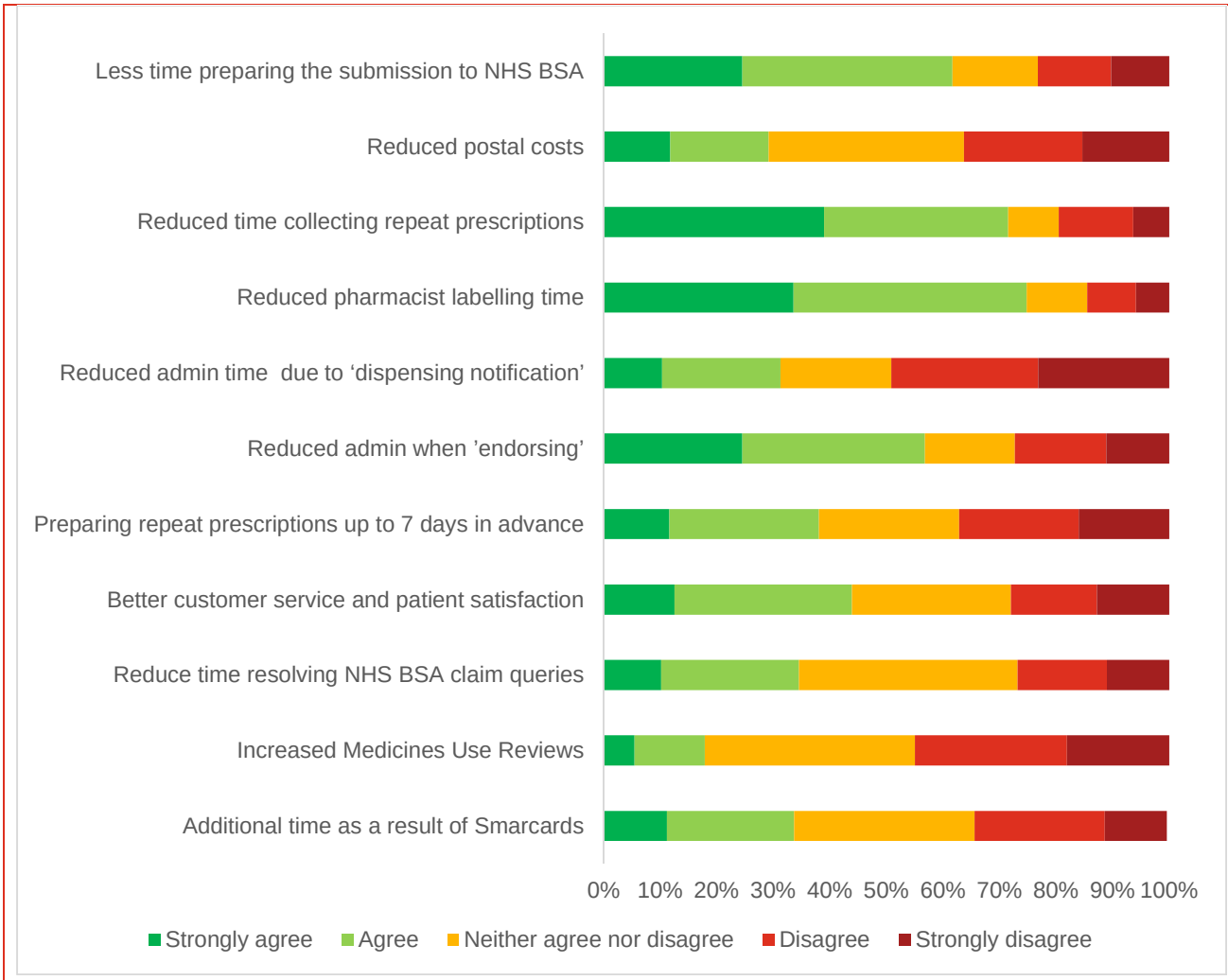
- (Societal Benefit) Greater efficiency: Reduced dispenser administration time preparing the monthly submission to NHS BSA Prescription Services, plus postal cost savings.
- (Societal Benefit) Greater efficiency: Reduced time spent by pharmacies collecting repeat prescriptions from GP practices.
- (Societal Benefit) Greater efficiency: Pharmacists have less data entry/maintenance – EPS automatically populates/updates a pharmacy system with patient demographics.
- (Societal Benefit) Greater efficiency: Dispenser admin staff have less data entry/maintenance – EPS automatically populates/updates a pharmacy system with patient demographics.
- (Qualitative Benefit) Greater efficiency: Pharmacists can manage their workload more efficiently, preparing repeat dispense prescriptions up to 7 days in advance.
- (Qualitative Benefit) Greater efficiency: Patients/Pharmacy staff: Better customer service and patient satisfaction.
- (Societal Benefit) Greater efficiency: Less time spent by dispenser admin staff in resolving prescription claim queries with NHS BSA Prescription Services.
- (Qualitative Benefit) Patient safety: Pharmacists will have more time free to conduct Medicine Usage Reviews with their patients, increasing patient medication compliance.

Dis-benefit

- (Societal Benefit) EPS Release 2 will require dispensers and staff to use Smartcards

As part of the national survey, pharmacists and pharmacy staff were asked a series of questions linked to the eight in-scope benefits and one dis-benefit of EPS. For each question, respondents were asked to provide the strength of their agreement or disagreement.

The illustration on the following page highlights the strength of response to each benefit and dis-benefit, amongst the pharmacists who responded to the survey.



By using the responses from the survey, as well the interviews we conducted with staff in the 200 pharmacies we visited, supported by the findings of our time and motion study, we have collected data to form a view on the each of the benefits and dis-benefits. We have collected evidence to support the following:

- Four of the eight benefits have been realised;
- Three of the benefits have been partially realised. In each of these we have either seen evidence to indicate the benefit has not been fully realised, or there is not a consensus view on the extent of the validity;
- One of the benefits, the ability to perform more Medical Usage Reviews ("MURs"), has not been realised as pharmacists as they either do not believe there to be a direct link between EPS and MURs MURs, or EPS has not generated enough time savings to increase the number; and
- The one dis-benefit, that the introduction of Smartcards has had a negative time impact on pharmacy operations, has not been verified. The majority of pharmacists either did not agree there was a time increase or neither agreed nor disagreed.

The results of our analysis for each benefit, and dis-benefit, are detailed below:

Benefit	Achieved?	Comments
Benefits		
(Societal Benefit) Greater efficiency: Reduced dispenser administration time preparing the monthly submission to NHS BSA Prescription Services, plus postal cost savings.	Partially	Although there is a perceived time reduction amongst the respondents to the national survey (**62%** positive), this is not borne out by our timing. This is partly due to a number of pharmacies attempting to replicate the paper submission process for EPS. Postal cost reductions are inconclusive as there is a variation in perception of this benefit
(Societal Benefit) Greater efficiency: Reduced time spent by pharmacies collecting repeat prescriptions from GP practices.	Yes	
(Societal Benefit) Greater efficiency: Pharmacists have less data entry/maintenance – EPS automatically populates/updates a pharmacy system with patient demographics.	Yes	
(Societal Benefit) Greater efficiency: Dispenser admin staff have less data entry/maintenance – EPS automatically populates/updates a pharmacy system with patient demographics.	Yes	
(Qualitative Benefit) Greater efficiency: Pharmacists can manage their workload more efficiently, preparing repeat dispense prescriptions up to 7 days in advance.	Partially	Evidence indicates a variance in understanding and application around repeat dispense prescriptions (**38%** positive, **25%** neutral, **37%** negative). The effectiveness of this benefit is affected by local GP processes.
(Qualitative Benefit) Greater efficiency: Patients/Pharmacy staff: Better customer service and patient satisfaction.	Yes	
(Societal Benefit) Greater efficiency: Less time spent by dispenser admin staff in resolving prescription claim queries with NHS BSA Prescription Services.	Partially	Although the number of claim queries is minimal under EPS, the equivalent number under the paper system is also very small, therefore the significance of the benefit is minimal. **39%** of respondents believed there to be no difference (**34%** yes, **27%** no).
(Qualitative Benefit) Patient safety: Pharmacists will have more time free to conduct Medicine Usage Reviews with their patients, increasing patient medication compliance.	No	No clear link between EPS and MURs and no time saving generated to conduct more MURs.
Dis-benefit		
EPS Release 2 will require dispensers and staff to use Smartcards for the first time; there is additional time involved in logging on to the Spine and authenticating.	No	Majority of respondents have not experienced issues with Smartcards. This was supported by on-site observations as part of our fieldwork where we did not see a significant impact on time through the use of Smartcards.

Emergent benefits and dis-benefits

From feedback received as part of the national survey, and through discussions with pharmacists and pharmacy staff, emergent benefits and dis-benefits have been identified.

We have seen evidence of two emergent benefits, both impacting the patient experience.

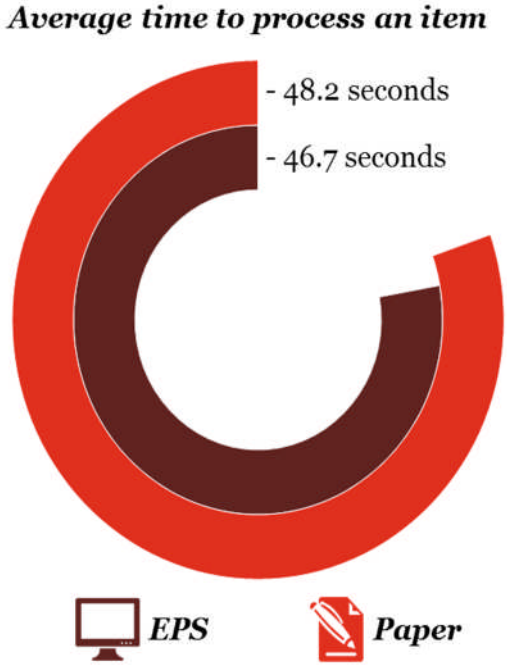
- The first relates to the ability for pharmacists to resolve issues with a GP while the patient is still in the pharmacy. We were told that where patients arrive at a pharmacy and the prescription has not arrived, EPS allows the issue to be resolved in such a timescale that the patient can still take away their medication during the same visit.
- The second is the ability, even in the current form of EPS Release 2 for patients to collect an emergency prescription from any pharmacy to facilitate either unforeseen needs or to accommodate circumstances were the patient is not in the vicinity of their nominated pharmacy.

Four emergent dis-benefits have been identified through review of data collected. These are:

- The quality of customer service is reduced when patients arrive at a pharmacy believing their prescriptions to be ready for collection, but insufficient time has passed for either the GP surgery to have uploaded the prescription on the Spine or for the pharmacy staff to have refreshed their nominations.
- A lack of consistency in the time that GPs send scripts, especially repeat prescriptions, via EPS means that pharmacies cannot plan their workload most effectively.
- System and infrastructure downtime leads to increased pressures on the workload of pharmacies.
- EPS leads to increased wastage of paper and increased associated costs due to excess printing of repeat prescriptions scripts.

Time and costs

Time

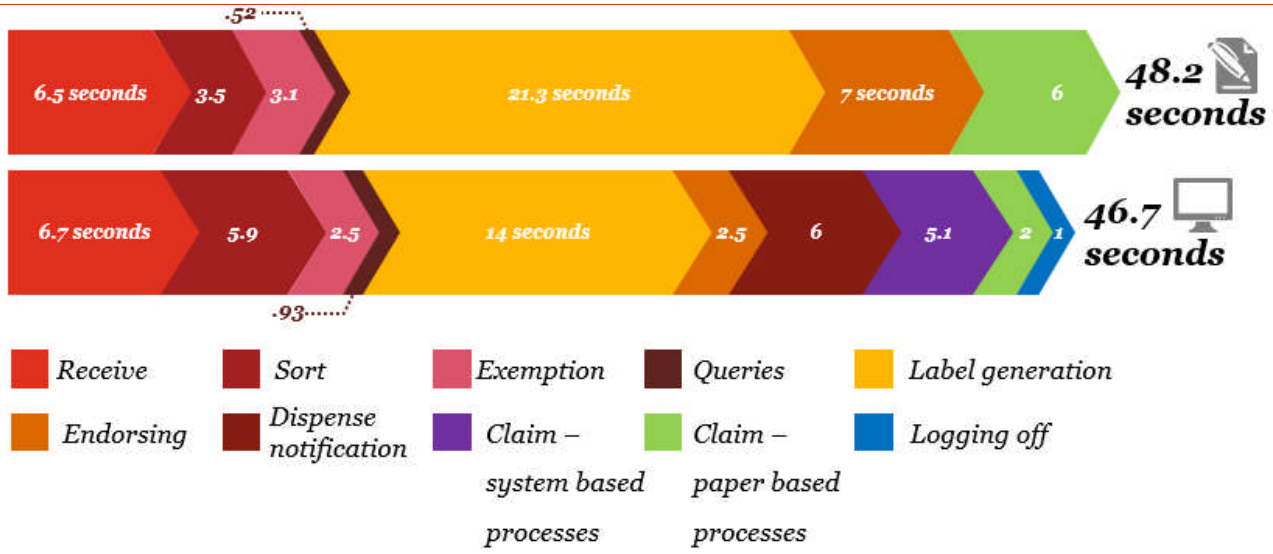


3,519 item timings were taken for the traditional paper prescriptions (an average of 14 per small pharmacy, 18 per medium pharmacy and 19 per large pharmacy) and **3,679** item timings were taken for EPS Release 2 (an average of 16 per small pharmacy, 19 per medium and 19 per large pharmacy).

Excluding the time it takes to deal with clinical queries, dispensing medication and handing it to patients, the average time an items takes to complete its journey through the pharmacy is **48.2** seconds when processed via paper prescriptions, and **46.7** seconds when processed via EPS Release 2.

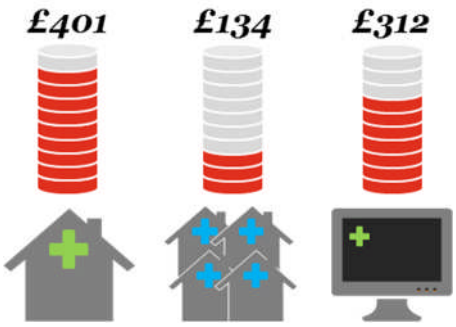
Based on the extent of the study, these timing are stated with 95% confidence. When factoring in a statistical error allowance, there is no time saving to the average pharmacy as a result of implementing EPS Release 2.

The illustration on page 8 disaggregates the total time into the 'touchpoints' we have based our work on. It shows that where time is saved labelling and endorsing items, it is lost sorting and claiming them.



Costs

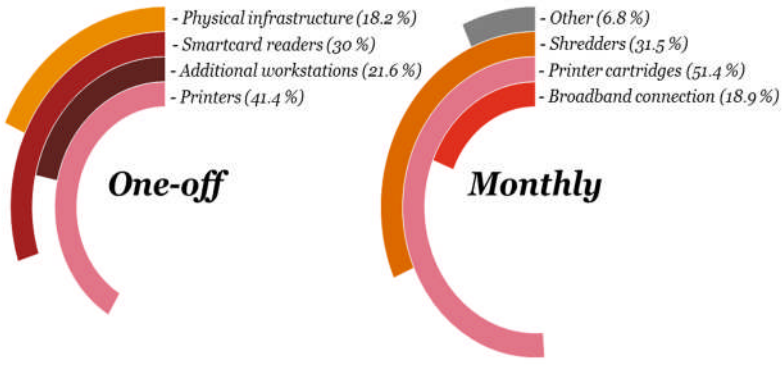
54% of national survey respondents indicated that they have incurred additional costs in either implementing additional equipment (terminals, printers, refurbishments) or to maintain the EPS Release 2 service provision (printer toner, shredding, broadband connections). Of the 1,101 individuals who responded, **72%** had incurred additional costs in 3 or more areas, with **75.9%** having to purchase a printer and **93.7%** having an increase to their monthly printing costs.



When asked how much their system suppliers charged for EPS support on a monthly basis, pharmacists told us that the average cost across the responses was **£375**.

From the information provided by the 293 individuals who responded, independents are paying almost three times more than the multiples. Of the respondents, the majority (>50 %) are unaware as to what is included in these costs.

When asked to identify areas of additional cost, and whether they were one off or incurred on a monthly basis, respondents indicated additional costs were incurred in a number of areas. The most significant areas of increased costs relate to management of paper as a result of EPS Release 2. Whereas under the paper system pharmacists are responsible for the receiving, sorting and sending to NHS BSA of prescriptions, under EPS Release 2 they are now financially responsible for the purchase of paper, toners and printers, as well as the confidential disposal of excess paper.



GP impact

The response from the national survey was clear in that time spent collecting repeat prescriptions has been saved (72% either agreed or strongly agreed). However, overall, survey respondents either disagreed (45%), or neither agreed nor disagreed (31%), that EPS Release 2 had led to reduced time in addressing queries with GP practices. Pharmacies believe that more time is now required elsewhere in the process as a result of EPS Release 2.

There were a number of GP behaviours identified that pharmacists feel increase the need for regular liaison with practices since EPS Release 2 has been introduced, due to increasing the number of queries on prescriptions. These include:

- Inconsistency in GP's use of EPS vs paper;
- Split prescriptions; and
- GP surgeries 'not understanding the EPS system'.

In addition to extra engagement with GPs to resolve queries, pharmacists have told us that GP practice systems and processes have also led to increased time spent during other stages of the EPS, including:

- Time saved on labelling is dependent on whether the doctor has written directions in full; and
- The efficiency of the process is dependent on surgeries releasing prescriptions in a timely manner.

Through analysis of the impact of GP practice systems and processes, the following additional findings were also made:

- Pharmacies believe that GP surgeries are giving patients unrealistic expectations of EPS prescription being ready immediately when they arrive at the pharmacy; and
- There is a perception amongst some pharmacies that overall, the benefits of EPS accrue to GPs as opposed to pharmacies; for example by transferring time and printing costs from GP's to pharmacies. This perception may impact the relationship between the two.

IT Systems and Infrastructure

The majority (87%) of respondents to our national survey use one of four systems: Nexphase, Proscript, Pharmacy Manager or Proscript Link.

We noted varying degrees of satisfaction between the different PMR systems, which impacts the pharmacists' perception of the benefits of EPS. Overall 61% of respondents prefer using EPS Release 2 over paper.

41% of survey respondents felt that there were IT issues impeding the use of EPS Release 2, versus 59% who did not. We noted a number of issues that were common between system providers, including lost or stuck tokens, issues with downloading prescriptions and the claiming process, and system/connection speeds and crashes.