Community Pharmacy England
The social value of community pharmacy in England – an update

February 2026

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Executive summary

Objectives

Community Pharmacy England (CPE) has recently negotiated its funding from NHS England (NHSE). As part of this process, it was keen to ensure that the social value that community pharmacy generates is properly understood. The concept of social value is based on the principles of welfare economics and includes all significant costs and benefits that affect the welfare and wellbeing of the entire population of England, not simply taxpayers.[1].

CPE was, therefore, keen to build on a report by PwC published in 2016 which assessed the net social value generated by 11 activities and specific services delivered by community pharmacy[2] by:

- Updating PwC's value estimates to reflect changes in the volume of activity, the effectiveness of that activity and prices/values in the period between 2015/16 and 2023/24; and
- Extending PwC's analysis to include other specific services commissioned by the NHS excluded from the PwC report and/or introduced since it was prepared.

In 2016, the Pharmaceutical Services Negotiating Committed (PSNC) (now CPE) published a report by PwC which assessed the net social value of 11 specific activities and services delivered by community pharmacy. This analysis compared the estimated value of each activity and service with the funding received from NHSE and local funders.

The PwC report found that:

- Community pharmacy generated net social value of £3.0bn in 2015 with further value of £1.9bn expected to accrue over the next 20 years[3];
- The indirect health system cost savings from the knock-on effects of dispensing and self-care were estimated to be worth a further £2.5bn; and
- On average, each community pharmacy generated net social value in excess of £250,000, more than £410,000 if the long-term effects were included and up to £625,000 if the potential knock-on health impacts were also included.

These values are all expressed in 2015/16 prices: since then, inflation has meant that average costs and prices have increased by around 21% across the economy[4].

Scope

Community pharmacy activities can be divided into three broad groups[5]:

- **Dispensing** which enables patients (and their carers) to access their prescribed medicines and appliances effectively, efficiently and safely;
- **Self-care** which provides patients with healthcare advice and support; and
- **Public health** which helps patients address public health risks.

They can also be divided into three broad groups of services:

- Essential (core) services funded by NHSE through the Community Pharmacy Contractual Framework (CPCF);
- Advanced and National Enhanced Services also funded by NHSE; and
- Locally Commissioned (and funded) Services.

[1] This definition is recommended by HM Treasury as the basis for appraising government spending – see HM Treasury, The Green Book (2022)
[2] PwC, The value of community pharmacy – summary report for PSNC, 2016
[3] The estimated net value allows for £247 million paid to community pharmacy by NHSE and local funders.
[4] ONS, Implied GDP deflator
[5] Community pharmacy also supports disposal which enables patients (and their carers) to dispose of unwanted medicines safely.

They are all enabled by two core activities - clinical governance and quality management - which build safety, trust and resilience into the patient facing services.

The activities and services covered by this report are summarised in Table 1[6].

Table 1: Community pharmacy activities and services covered by this report[7]

	Essential	Advanced & National Enhanced	Locally Commissioned
Dispensing	• Managing prescribing errors • Clarifying prescriptions • Managing drug shortages • Sustaining supply • Making medicines adjustments • Delivering prescriptions	• *Flu Vaccination Service* • *Covid-19 Vaccination Service*	• None
Self-care	• *Discharge Medicines Service (DMS)*	• Minor Ailments Service (MAS) (non-commissioned and commissioned) • New Medicines Service (NMS) • *Community Pharmacist Consultation Service (CPCS)* • *Hypertension Case-Finding Service (HFS)*	• None
Public health	• None	• None	• Needle & syringe • Supervised consumption • Emergency hormonal contraception

Key to fonts: Regular – activities and services covered in PwC report

Italics – additional activities and services covered

Elements of social value

The social value delivered by community pharmacy's activities and services consists of the benefits which accrue to four beneficiaries:

- The potential cost savings to the healthcare system, especially NHSE, due to (more) cost-effective provision of services by community pharmacy relative to alternative NHSE providers and improved health outcomes;
- The potential cost savings – or avoided costs - to other parts of the public sector;
- The value of improved patient outcomes, expressed in terms of time saved and enhanced wellbeing; and
- The value to wider society, for instance due to the avoidance of a loss of output (if people are unable to work as productively as they could) and the avoidance of premature death.

The social value of each of community pharmacy's activities and services is estimated by comparing the expected gross social value if the activities and services are provided by community pharmacy with the gross social value that would arise without the involvement of community pharmacy. Both estimates are projected over the period that they are expected to accrue.

The **net** social value of each of community pharmacy's activities and services is estimated by deducting any cost to the Exchequer (and local government) of delivering services through community pharmacy, as reflected in the incremental funding provided by NHSE under the CPCF and local commissioners.

Methodology

The key steps in assessing social value are to:

[6] These are not all the activities and services that community pharmacy undertakes and performs: for example, it excludes the core dispensing service as well as other Essential, Advanced and Locally Commissioned Services.

[7] Medicine Use Reviews were considered by PwC but are excluded from this update because the service is no longer provided by community pharmacy.

- Develop a series of patient impact pathways which describe how the activities and services delivered by community pharmacy result in outcomes which affect the NHS, other parts of the public sector, the patient (and their carers) and/or wider society;
- Consider whether and how each activity and service would be provided without the involvement of community pharmacy (i.e. the 'counterfactual'). This describes the best alternatives for the health system in the absence of community pharmacy; and
- Estimate social value as the difference between the impacts under community pharmacy provision and the counterfactuals.

All the counterfactuals assume the same level of health services are available to patients as with community pharmacy and recognise that patients may opt to engage with the health system in a different way (e.g. reduced accessibility may drive reduced use of a health service).

The nature and significance of the difference between what is [currently] provided by community pharmacy and what is assumed in the counterfactual vary by service (and activity). For example:

- With dispensing activities, it is assumed that no other organisation would perform any of them in the absence of community pharmacy;
- Where (commissioned) self-care services are being considered, it is assumed that the service would not otherwise be provided;
- In the case of vaccination and public health services, alternative delivery channels exist which mean that the benefits for NHSE of community pharmacy provision depend on its relative cost efficiency compares to other possible providers; and
- Locally commissioned services are only possible because the CPCF sustains the community pharmacy network: without this network, the social value of these services could not be realised without supporting an alternative provider.

Thus, the report measures the incremental value generated by providing the service in a community pharmacy setting as opposed to the next best alternative or not at all.

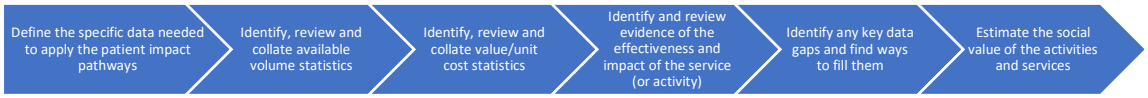
Approach to valuation

The approach to determining the social value of each additional service (and activity) is based on estimating:

- The volume of activity (i.e. the number of patients (or their carers) who benefit from the service (or activity) and the frequency of the provision; and
- The unit value of the service (or activity) each time it is provided.

For each activity and service, the approach involves building on patient impact pathways which describe how an activity or service delivers social value (see Figure 1).

Figure 1: Approach to valuation



In the case of those activities covered by the previous PwC report, the approach has focused on updating Steps 2 and 3.

No new primary research has been undertaken as part of this update.

The results presented in this report reflect community pharmacy's volume of activity and the associated prices and values in 2023/24.

The social value estimates are based on a conservative approach:

- Only those impacts for which sufficient evidence exists to produce reliable estimates are included;
- Where assumptions are relied upon, a prudent view is taken; and
- Where evidence is lacking, the impacts are excluded.

Social value of community pharmacy – updated results

Overall, community pharmacy's assessed activities and services contributed £31.6bn in net social value in 2023/24 (see Table 2). This value does not encompass all the activities and services of community pharmacy and is based on conservative assumptions about patient responses without the activity or service and excludes benefits where the evidence is weak and unreliable.

Table 2: Summary of components of social value of community pharmacy activities & services (2023/24)

Activity/service	Net social value (before funding) (£m)				Funding (£m)	Net social value (after funding) (£m)
	NHS	Other public sector	Patient & carer	Wider society		
• Managing prescribing errors	765	0	45	0	0	810
• Clarifying prescriptions	-1	0	12	33	0	44
• Medicines adjustments	0	307	196	0	73	429
• Delivering prescriptions	-14	0	171	0	0	157
• Managing drug shortages	95	0	284	272	0	650
• Sustaining supply of medicines in emergencies	162	0	12	15	0	190
• Flu vaccination service	4	0	3	69	36	40
• Covid-19 vaccination service	11	0	1	1,246	76	1,182
Dispensing	1,021	307	724	1,636	186	3,502
• NMS	628	0	17,267	0	109	17,785
• MAS – non-commissioned	2,564	0	2,767	2,224	0	7,555
• MAS - commissioned	7	0	3	3	1	11
• DMS	7	0	10	1	5	13
• CPCS – urgent supply	46	0	18	0	32	32
• CPCS – minor illness	5	0	9	-4		10
• HFS	385	0	589	306	5	1,275
Self-care	3,642	0	20,663	2,530	152	26,682
• Emergency hormonal contraception	11	5	0	0	6	11
• Needle and syringe programmes	123	0	0	457	2	579
• Supervised consumption	83	484	0	227	13	781
Public health	217	489	0	685	20	1,371
Total	**4,880**	**795**	**21,387**	**4,850**	**359**	**31,555**

Patients are the primary beneficiary, receiving an estimated two thirds of the expected net social value (after funding), mainly due to the improvement in their wellbeing from the NMS. The NHS and wider society are each expected to receive around 15% of the benefit. Additionally, other public sector bodies (e.g., local authorities) save £795m (2½% of total benefits) by avoiding pressure on other services, such as social care and justice.

Overall, the potential net savings (before funding) for the NHS from community pharmacy activities and services considered in this report are £4.88bn. The funding provided by the NHS needs to be offset to determine the net implications for Exchequer costs. The scale of these savings highlights the role community pharmacy plays in providing effective, accessible and cost-efficient care delivery.

The value generated by each activity and service assessed varies significantly reflecting differences in the number of transactions/users and the value each time the service is delivered. Self-care services contributed the largest share (84%), followed by dispensing (11%) and public health (4%). This hides substantial differences in how this value is created. In terms of volume, the public health services assessed affect around 0.5m users. In contrast, in 2023/24, an estimated 69m non-commissioned MAS consultations and an additional 115m interventions related to dispensing were undertaken by community pharmacies.

On the other hand, the value per transaction or service user is substantially larger for two of the three public health services. This reflects the nature of public health. It is also relatively large for managing drug shortages and prescribing errors because of the value of the risks that are protected. The value per transaction is much smaller for dispensing activities such as medicines adjustments and delivering prescriptions. For these areas the magnitude of their contribution is driven by the large volume of activity rather than the value of each intervention.

On average, net social value added by each community pharmacy in England in 2023/24 was nearly £3m. This value demonstrates the importance of community pharmacies to their local health systems, and the patients they serve, even when considering just a limited number of services.

The overall net social value of community pharmacy's activities and services is estimated after deducting £0.25bn in funding received from central and local governments. This implies that community pharmacy undertook its activities and provided its services at no net cost to the public finances in 2023/24. As shown in Table 3, the net impact on public finances of these services was a saving of nearly £5.32bn.

Furthermore, total budget for community pharmacy in England provided by NHSE in 2023/24 was £2,592m. Thus, the expected amount of public sector spending saved directly as a result of the analysed activities and services more than offsets the entire amount of public funding provided to community pharmacy in 2023/24. Therefore, all other benefits of community pharmacy – including patient, societal, and knock-on health benefits of the covered activities and services, and importantly, the benefits of the core NHS dispensing service itself – can be seen as additional net benefits provided at no cost to the Exchequer.

Table 3: Estimated impact on the public finances of community pharmacy's activities and services (2023/24)

Activity/service	Net avoided costs for the NHS (£m)	Net avoided costs for other parts of the public sector (£m)	Funding provided by NHS (£m)	Funding provided by local commissioners (£m)	Net impact on the public finances (£m)
Dispensing	1,021	307	186	×	1,142
Self-care	3,642		151	1	3,490
Public health	217	489	0	20	686
Total (£m)	**4,880**	**795**	**337**	**22**	**5,317**

Other source of social value

Besides the value of its services described above, the community pharmacy network delivers social value in three other broad ways:

- Helping to reduce – or mitigate - health inequalities in England by improving access to healthcare, supporting underserved populations and addressing disparities in health outcomes, for example by:
  - Helping customers to navigate the complex NHS system;
  - Ensuring access to healthcare services for populations who may face barriers to GP or hospital care because they are disproportionately located in deprived and rural areas;
  - Offering longer opening hours than GP practices;
  - Raising awareness of more healthy living, for example smoking cessation and alcohol reduction;
  - Providing first-line healthcare advice and medication to homeless individuals;
- Enabling the safe disposal of unwanted medicines because they are obliged to accept the return of unwanted medicines: this reduces the volume of stored unwanted medicines in people's homes, reduces the risk of exposing the public to unwanted medicines which have been disposed of by non-secure methods is reduced and avoids the environmental damage caused by inappropriate disposal methods; and
- Employing a substantial workforce of thousands of pharmacists, pharmacy technicians, and support staff who contribute to local economies.

1 Introduction

Objectives

Community Pharmacy England (CPE) has recently negotiated its funding from NHS England (NHSE). As part of this process, it was keen to ensure that the social value that community pharmacy generates is properly understood. The concept of social value is based on the principles of welfare economics and includes all significant costs and benefits that affect the welfare and wellbeing of the entire population in England, not simply taxpayers. It is recommended by HM Treasury as the basis for appraising government spending[8].

CPE was, therefore, keen to build on a report by PwC published in 2016 which assessed the net social value generated by 11 activities and specific services delivered by community pharmacy[9] by:

- Updating PwC's value estimates to reflect changes in the volume of activity, the effectiveness of that activity and prices/values in the period between 2015/16 and 2023/24; and
- Extending PwC's analysis to include other specific services commissioned by the NHS excluded from the PwC report and/or introduced since it was prepared.

Background

In 2016, the Pharmaceutical Services Negotiating Committed (PSNC) (now CPE) published a report by PwC which assessed the net social value of 11 specific activities and services delivered by community pharmacy. This analysis compared the estimated value of each activity and service with the funding received from NHSE and local funders. The purpose was to highlight pharmacy's added value so that it could be considered when making decisions about its funding and organisation.

The key findings of the PwC report were that:

- Community pharmacy generated net social value of £3.0bn in 2015 with further value of £1.9bn expected to accrue over the next 20 years[10];
- The indirect health system cost savings from the knock-on effects of dispensing and self-care were estimated to be worth a further £2.5bn; and
- On average, each community pharmacy generated net social value in excess of £250,000, more than £410,000 if the long-term effects were included and up to £625,000 if the potential knock-on health impacts were also included.

These values are all expressed in 2015/16 prices: since then, inflation has meant that average costs and prices have increased by around 21% across the economy[11].

Report structure

This report is structured in five further sections:

- Section 2 describes its scope and the key principles which underpin the estimates of the net social value of each element of community pharmacy's activities and services;
- Sections 3 to 5 assess the updated social value of the community pharmacy activities and services that support:
    - Dispensing (Section 3);
    - Self-care (Section 4);
    - Public health (Section 5); and

[8] HM Treasury, The Green Book (2022)
[9] PwC, The value of community pharmacy – summary report for PSNC, 2016
[10] The estimated net value allows for £247 million paid to community pharmacy by NHSE and local funders.
[11] ONS, Implied GDP deflator

- Section 6 summarises the key conclusions including outlining the other, wider impacts of community pharmacy not included in the main part of this report.

Two Appendices provide more detail on the scope and approach to estimating the social value of five services considered for the first time in this report:

- Appendix 1 covers two services related to dispensing:
  - The Flu Vaccination Service; and
  - Covid-19 Vaccination Service;
- Appendix 2 covers three services related to self-care:
  - Discharge Medicine Service (DMS);
  - Community Pharmacy Consultation Scheme (CPCS); and
  - Hypertension Case-Finding Service (HFS).

2 Valuation – framework and approach

This section explains how the social value of community pharmacy has been assessed in this report.

Scope

Community pharmacy activities can be divided into three broad groups[12]:

- **Dispensing** which enables patients (and their carers) to access their prescribed medicines and appliances effectively, efficiently and safely;
- **Self-care** which provides patients with healthcare advice and support; and
- **Public health** which helps patients address public health risks.

These activities can also be divided into three broad groups of services:

- Essential (core) services funded by NHSE through the Community Pharmacy Contractual Framework (CPCF);
- Advanced and National Enhanced Services also funded by NHSE; and
- Locally Commissioned (and funded) Services.

All these services are enabled by two core activities - clinical governance and quality management - which build safety, trust and resilience into the patient facing services.

The activities and services covered by this report are summarised in Table 4. These are not all the activities and services that community pharmacy undertakes and performs: for example, it excludes the core dispensing service as well as other Essential, Advanced and Locally Commissioned Services. The value of Medicine Use Reviews was considered as part of the PwC report but is excluded from this update because the service is no longer provided by community pharmacy.

Table 4: Community pharmacy activities and services covered by this report

	Essential	Advanced & National Enhanced	Locally Commissioned
Dispensing	• Managing prescribing errors • Clarifying prescriptions • Managing drug shortages • Sustaining supply • Making medicines adjustments • Delivering prescriptions	• *Flu Vaccination Service* • *Covid-19 Vaccination Service*	• None
Self-care	• *Discharge Medicines Service (DMS)*	• Minor Ailments Service (MAS) (non-commissioned and commissioned) • New Medicines Service (NMS) • *Community Pharmacist Consultation Service (CPCS)* • *Hypertension Case-Finding Service (HFS)*	• None
Public health	• None	• None	• Needle & syringe • Supervised consumption • Emergency hormonal contraception

Key to fonts: Regular – activities and services covered in PwC report

Italics – additional activities and services covered

[12] Community pharmacy also supports disposal which enables patients (and their carers) to dispose of unwanted medicines safely.

Elements of social value

The social value delivered by community pharmacy's activities and services consists of the benefits which accrue to four beneficiaries:

- The potential cost savings to the healthcare system, especially NHSE, due to (more) cost-effective provision of services by community pharmacy relative to alternative NHSE providers and improved health outcomes;
- The potential cost savings – or avoided costs - to other parts of the public sector;
- The value of improved patient outcomes, expressed in terms of time saved and enhanced wellbeing; and
- The value to wider society, for instance due to the avoidance of a loss of output (if people are unable to work as productively as they could) and the avoidance of premature death.

The social value of each of community pharmacies' activities and services is estimated by comparing the expected gross social value if the activities and services are provided by community pharmacy with the gross social value that would arise without the involvement of community pharmacy.

Both estimates are projected over the period that they are expected to accrue. This includes the year in which the activity or service is delivered and, potentially, future years if impacts are expected to continue. This is relevant, for example, for the two vaccination services and the Hypertension Case Finding Service (HFS).

The net social value of each of community pharmacy's activities and services is estimated by deducting any cost to the Exchequer (including local government) of delivering services through community pharmacy, as reflected in the incremental funding provided by NHSE under the CPCF and local commissioners.

Methodology

The first step in assessing social value is to develop a series of patient impact pathways which describe how the activities and services delivered by community pharmacy result in outcomes which affect the NHS, other parts of the public sector, the patient (and their carers) and/or wider society. The second step is to consider whether and how each activity and service would be provided without the involvement of community pharmacy (i.e. the 'counterfactual'). This describes the best alternatives for the health system in the absence of community pharmacy. The social value is then estimated as the difference between the impacts under community pharmacy provision and the counterfactuals.

A key feature of all the counterfactuals is that they assume that:

- The same level of health services may be available to patients as with community pharmacy, albeit the service may be delivered by other parts of the healthcare system in a more costly or less accessible way; and/or
- Patients may opt to engage with the health system in a different way (e.g. reduced accessibility may drive reduced use of a health service).

The PwC report developed specific counterfactuals for each activity and service considered. The nature and significance of the difference between what is [currently] provided by community pharmacy and what is assumed in the counterfactual vary by service (and activity). For example:

- With dispensing activities, it is assumed that no other organisation would perform any of them in the absence of community pharmacy because it is assumed that community pharmacy would continue to undertake dispensing of prescriptions;
- Where (commissioned) self-care services are being considered, it is assumed that the service would not otherwise be provided;
- In the case of vaccination and public health services, alternative delivery channels exist which mean that the benefits for NHSE of community pharmacy provision depend on its relative cost efficiency compares to other possible providers; and
- Locally commissioned services are only possible because the CPCF sustains the community pharmacy network: without this network, the social value of these services could not be realised without supporting an alternative provide.

Thus, the PwC report reflects the incremental value generated by providing the service in a community pharmacy setting as opposed to the next best alternative or not at all.

This report extends the approach used by PwC to consider the social value of some of community pharmacy's current activities and services not considered by PwC that support dispensing and self-care. This has been done by applying a very similar approach to the one used by PwC:

Approach to valuation

Process

The approach to determining the social value of each additional service (and activity) considered in this report is based on estimating:

- The volume of activity (i.e. the number of patients (or their carers) who benefit from the service (or activity) and the frequency of the provision; and
- The unit value of the service (or activity) each time it is provided.

For each activity and service, the approach involves building on patient impact pathways which describe how an activity or service delivers social value to:

1. Define the specific data needed to apply the patient impact pathways;
2. Identify, review and collate available volume statistics (e.g. from General Pharmaceutical Services in England, CPE/PSNC pharmacy audits and forecasts from NHSE and CPCF payment data);
3. Identify, review and collate value/unit cost statistics based wherever possible on Official Statistics or other credible sources;
4. Identify and review evidence of the effectiveness and impact of the service (or activity): this includes any relevant evaluation literature, DHSC/NHSE research (e.g. impact assessments and assessment of potential high impact changes), analyses of value for money by NICE, NAO etc;
5. Identify any key data gaps and find ways to fill them; and
6. Estimate the social value of the activities and services – where data gaps have been identified, the estimates reflect assumptions agreed with CPE.

In the case of those activities covered by the previous PwC report, the approach has focused on updating Steps 2 and 3.

No new primary research has been undertaken as part of this update.

The results presented in this report reflect community pharmacy's volume of activity and the associated prices and values in 2023/24.

Principles

The social value estimates are based on a conservative approach:

- Only those impacts for which sufficient evidence exists to produce reliable estimates are included: where either there is a lack of evidence or general uncertainty, these impacts are excluded or presented as "what ifs";
- Where assumptions are relied upon, a prudent view is taken so that the estimates are towards the lower bound of the expected social value of community pharmacy; and
- In some cases, this lack of evidence means that any indirect impacts may not be included in the estimate of value.

3 Dispensing

This section summarises the updated estimates of the social value of community pharmacy's activities and services linked to dispensing. It is divided into two parts:

- An explanation of the scope of the activities and services covered along with a summary of the approach used; and
- A summary of the key results and how they should be interpreted.

Scope & approach to valuation

This report considers eight dispensing activities and services provided by community pharmacy.

Six activities undertaken by community pharmacy in support of their core dispensing role were considered as part of the PwC report:

- Managing prescribing errors;
- Clarifying prescriptions;
- Managing drug shortages;
- Sustaining supply;
- Making medicines adjustments; and
- Delivering prescriptions.

Two additional services which were not considered within the PwC report are included now:

- The Flu Vaccination Service which community pharmacy has provided as a nationally commissioned Advanced Service since September 2015: each year, the NHS runs a seasonal flu vaccination campaign aimed at vaccinating patients who are at risk of developing more serious complications from the virus; and
- The Covid-19 Vaccination Service which community pharmacy has provided as a National Enhanced Service since December 2021 having previously provided it as a Locally Commissioned (Enhanced) Service: the service is now based on standard national conditions whilst allowing flexibility for local decisions to commission the service to meet local population needs as part of a nationally coordinated programme.

Approach to updating PwC report

The approach to updating the PwC report has involved a broadly similar approach with some notable exceptions which are explained below:

- The estimated volume of activity (i.e. the number of patients benefitting and the frequency of provision) has been increased proportionate to the change in the volume of prescription items between 2015/16 and 2023/24[13]; and
- The cost and value estimates have been updated to reflect changes in the price base (and unit values) over the same period drawing on a range of official and other government statistics[14].

<u>Managing prescribing errors & clarifying prescriptions</u>

The approach used to assess the social value of managing prescribing errors and clarifying prescriptions is essentially the same as that used in the PwC report except for minor changes to align the approach across the different services provided by community pharmacy.

It is noted, however, that a recent study by Elliott et al[15] has considered the economic burden of medication errors using a broadly similar approach to PwC but with some notable differences:

[13] The number of prescribed items dispensed by community pharmacy in England increased by 12% between 2015/16 and 2023/24.

[14] Several different sources have been incorporated into this report. They largely reflect updated data from the same – or similar – sources used by PwC. In some cases, specific data and studies focused on the activity or service in question have been used.

[15] Elliott et al, 'Economic analysis of the prevalence and clinical and economic burden of medication error in England', 2020

- The prevalence of medication errors is considerably greater than the Company Chemists Association Audit used in the PwC report although the data relate to a similar period: the PwC report assumed 1.86 clarifications/errors per 1,000 items whereas Elliott estimates prevalence at 4.2% (over 20 times more);
- It is unclear whether the Elliott estimate includes clarifications;
- The Elliott research uses a different profile of the severity of the identified errors to the one used in the PwC report (although this also referenced a study by Elliott); and
- The valuation of the avoided costs in the Elliotte research places greater weight on the risk of hospitalisation and (possibly) death than the PwC report did.

Managing drug shortages

Evidence suggests that drug shortages have become significantly more common since the PwC report. Two different approaches have been considered as the basis for gauging the scale of the potential change in volume:

- One uses the change in the amount of time spent by pharmacy staff dealing with medicines shortages: the CPE's most recent pharmacy pressures survey suggests that the amount of time spent has increased by over 550% since 2015/16; and
- Another uses data on the total number of generic concession items dispensed by community pharmacy which suggests an increase by nearly 1,195% since 2015/16.

The former has been used as the basis for updating the social value estimates.

Sustaining supply

The estimated social value of sustaining the supply of medicines to patients in emergencies where they are at risk of having a disrupted supply has been updated following the general approach outlined above.

Two issues are worth noting:

- The PwC analysis only assessed the value of non-commissioned urgent medicines services: at the time, around 5% of requests for an emergency supply of medications were estimated to be covered by a commissioned service; and
- In the absence of robust evidence, the value of (any) improved adherence to medicines was not included in the main analysis; it was only illustrated as a sensitivity.

Since the PwC report was published in 2016, the CPCS has been introduced which provides urgent supplies of medicines to patients approaching NHS111. The social value of this service is considered separately (see below). It is assumed to be incremental because it requires referral from NHS111. There may, however, be a risk of double counting if patients who would previously have approached community pharmacy directly would now seek a referral through NHS111.

Making medicines adjustments

In the absence of new evidence, the estimated social value of the medicines adjustments undertaken by community pharmacy has been updated following the general approach. The possible health benefits continue to be assessed on a scenario basis as in the PwC report. In addition, it is assumed that community pharmacy is still reimbursed at a rate of £0.066 per item across all the items dispensed for making adjustments[16].

Delivering prescriptions

In the absence of more recent specific evidence, the estimated social value of community pharmacy's non-mandated delivery of prescriptions has also been updated following the general approach outlined above. The health benefits are illustrated on a scenario basis as in the PwC report.

Although the Covid-19 Home Delivery Service ran during the intervening period, it is assumed this has not lead to any substantive change in community pharmacy's approach to home delivery. The volume of deliveries under the Covid-19 home delivery service was less than half a million deliveries in 2021/22 (compared with

[16] This has not been updated because the level of community pharmacy funding through the CPCF has essentially been fixed for most of the period.

over ten times that volume in 2020/21). This represents around 1% of the estimated number of home deliveries in 2015/16. This suggests that the Service has not had a material impact on the overall social value of community pharmacy.

Additional dispensing services of community pharmacy - vaccination

This report also considers the social value of two additional services (not considered within the PwC report):

- The Flu Vaccination Service; and
- The Covid-19 Vaccination Service.

The approach used to estimate their social value is consistent with that applied by PwC. For both services, the focus of the valuation is on three elements:

- Any cost saving to the NHS from delivering vaccinations through community pharmacy rather than other potentially more costly and/or less accessible channels (e.g. GPs);
- The health and other benefits that arise from increased take up of vaccinations because they are more accessible when provided by community pharmacy; and
- The cost of any additional vaccines that are required.

Further details of the approach can be found at Appendix 1.

Key results & interpretation

The key results of the updated analysis are summarised below:

- A comparison of the social value of the activities and services covered by the PwC report in 2023/24 with that in 2015/16; and
- The social value of the two vaccination services not previously considered.

Dispensing activities covered by the PwC report

The estimated change in the net social value (after funding) of the activities undertaken by community pharmacy in support of dispensing between 2015/16 and 2024/24 are summarised in Table 5.

Key points to note about the results include:

- The net social value (after funding) of the dispensing activities has increased by 159% to £2.28bn since 2015/16;
- The largest increase in value is managing drug shortages which has increased by £575m due largely to a dramatic increase in the volume of events: the benefits arise principally from avoiding the need for additional GP appointments to prescribe an alternative drug and from time savings to patients;
- Other significant increases in value are making medicine adjustments (up by £288m) and managing prescribing errors (up by £266m) due primarily to increases in the unit value;
- The biggest average benefit per transaction arises from community pharmacy's role in managing prescribing errors (£662), largely through avoided GP appointments and reduced pressure on the health system; and
- Several dispensing activities are associated with large volumes of activity, particularly medicines adjustments and delivering prescriptions: although the benefit per patient is relatively modest, the volume of activity drives the significant scale of the impact of community pharmacy based on reaching a large share of the population.

Table 5: Summary of net social value (after funding) of activities in support of dispensing – PwC report update

Activity	Volume metric	2023/24			2015/16		
		Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)	Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)
Managing prescribing errors	Number of prescriptions requiring errors to be managed	1.22	£662	£810	1.09	£500	£544
Clarifying prescriptions	Number of prescriptions requiring clarification	0.59	£74	£44	0.53	£23	£12
Managing drug shortages	Number of incidents of drug shortages	33.11	£20	£650	5.09	£15	£75
Sustaining supply	Number of supplies	3.95	£48	£190	3.67	£19	£71
Making medicines adjustments	Number of pharmacy interventions	20.22	£21	£429	19.71	£7	£141
Delivering prescriptions	Number of home deliveries	46.92	£3.34	£157	46.21	£0.79	£37
Total				**£2,280**			**£880**

Table 6 shows the components of net social value in 2023/24. The key points to note are that:

- Over 40% of the net social value before funding (£1,006m) accrues to the NHS in the form of avoided costs, in particular from managing prescribing errors, managing drug shortages and sustaining supply;
- Other parts of the public sector – especially locally authorities – benefit from the avoided costs arising from the medicine adjustments made within pharmacies,
- Patients & carers derive estimated benefits of £720m; and
- Community pharmacy's role in managing drug shortages benefits wider society by £272m.

Table 6: Components of net social value and funding of activities in support of dispensing - PwC report update (2023/24)

Activity	Volume (m)	Net social value (before funding) (£m)				Funding (£m)	Net social value (after funding) (£m)
		NHS	Other public sector	Patient & carer	Wider society		
Managing prescribing errors	1.22	£765	£0	£45	£0	£0	£810
Clarifying prescriptions	0.59	-£1	£0	£12	£33	£0	£44
Managing drug shortages	33.11	£95	£0	£284	£272	£0	£650
Sustaining supply	3.95	£162	£0	£12	£15	£0	£190
Making medicines adjustments	20.22	£0	£307	£196	£0	£73	£429

Activity	Volume (m)	Net social value (before funding) (£m)				Funding (£m)	Net social value (after funding) (£m)
		NHS	Other public sector	Patient & carer	Wider society		
Delivering prescriptions	46.92	-£14	£0	£171[17]	£0	£0	£157
Total		**£1,006**	**£307**	**£720**	**£320**	**£73**	**£2,280**

Additional dispensing services of community pharmacy - vaccination

The components of net social value (after funding) of the two vaccination services provided by community pharmacy is summarised in Table 7.

Key points to note about the estimated value of community pharmacy's role in delivering vaccination services are that:

- The value of flu vaccination is smaller than that of Covid-19 vaccination although the impact on patients' quality of life is excluded; and
- The net social value (after funding) of community pharmacy to the rollout of Covid-19 vaccination in 2023/24 is considerable albeit dependent on some critical assumptions, largely due to the inclusion of the estimated impact on patient wellbeing (by valuing the QALYs) and the impact on productivity.

Table 7: Components of net social value of additional dispensing services – vaccination (2023/24)

	Volume metric	Volume (m)	Gross social value (£m)	Counter-factual cost (£m)	Funding (£m)	Net social value (after funding) (£m)	Net social value per activity (after funding) (£)
Flu Vaccination Service	Number of vaccinations delivered	3.77	£80	£3	£36	£40	£11
Covid-19 Vaccination Service	Number of vaccinations delivered	5.52	£1,298	£39	£76	£1,182	£214
Total			**£1,377**	**£43**	**£112**	**£1,222**	

Interpretation of estimates

The updated social value estimates for community pharmacy's dispensing activities and services need to be interpreted with some care to take account of:

- The limited scope of the benefits (and costs) which are included: some potential benefits defined as part of the patient impact pathways have been excluded because there is a lack of reliable evidence, for example:
  - The impact on health outcomes of medicine support, such as medication adjustments, is in many cases poorly evidenced in the available literature;
  - The health impact of prescribing errors is similarly poorly evidenced;
  - The impact on patient wellbeing is excluded in most cases;
  - For some dispensing activities, notably home deliveries, medicines adjustments, drug shortages and emergency supply of medicines, it is assumed that community pharmacy's service would otherwise be provided elsewhere in the health system, albeit less efficiently, and that the change in the patient

[17] This includes carers who may be employed by local authorities.

pathway would have no impact on health outcomes. If this is not the case, the reduced efficiency of the treatment pathway (e.g. requiring patients to collect their own medication or requiring care workers to supervise medicine consumption multiple times a day) could reduce patient engagement with the health system and/or reduce adherence. In these circumstances, a small proportion of patients could experience a negative health outcome and require additional treatment. Given the number of interventions made by community pharmacy in this area (e.g. 47m home deliveries, 20m medicines adjustments), only a small proportion of patients would need to be negatively affected for this to have a material impact;

- Where the estimates rely on assumptions, this creates potential sources of uncertainty: for example, evidence of the scale of additionality of community pharmacy vaccination services is limited; and
- Specific issues relevant to particular activities and services: for example, the social value of Covid-19 vaccination depends on the Covid-19 variant being protected against.

Linked to this, for those dispensing activities covered by the PwC report, the updating process has not involved an extensive search for recent evidence on the effectiveness and efficacy of the dispensing activities. It is conceivable that new evidence exists which would require some of the underlying assumptions to be updated.

Furthermore, the estimated social value does not cover all of community pharmacy's dispensing activities and service. It excludes:

- The social value added by community pharmacy's core dispensing activity; and
- Some dispensing services currently provided by community pharmacy, notably Appliance Use Reviews and Stoma Appliance Customisation, although the value of these is not believed to be substantive because of the limited volumes involved.

4 Self-care

This section summarises the updated estimates of the social value of community pharmacy's self-care services. Like the previous section, it is divided into two parts:

- An explanation of the scope of the activities and services covered along with a summary of the approach used; and
- A summary of the key results and how they should be interpreted.

Scope & approach to valuation

This report considers five self-care services provided by community pharmacy:

- Two are Advanced Services considered in the PwC report:
  - The Minor Ailments Service (MAS) (non-commissioned) & (locally commissioned);
  - The New Medicines Service (NMS);
- Three are services were not considered within the PwC report but are included now:
  - The Discharge Medicine Service (DMS) which became a new Essential Service within the CPCF in February 2021: it enables NHS Trusts to refer patients who would benefit from extra guidance around prescribed medicines and is part of NHSE's Medicines Safety Improvement Programme which aims to reduce hospital readmissions;
  - The Community Pharmacy Consultation Scheme (CPCS) which was introduced as an Advanced Service in October 2019: initially, it enables NHS111 to refer patients with minor ailments or injuries for consultations at local community pharmacy and, in 2020, it was expanded to cover referrals from GPs and requests for urgent supplies of medications; and
  - The Hypertension Case-Finding Service (HFS) which was commissioned as an Advanced Service in October 2021[18] and extended in December 2023 to allow suitably trained and competent pharmacy staff (not just pharmacists) to provide the service.

Approach to updating PwC report

The approach to updating the social value of the two self-care services covered by the PwC report has involved a tailored approach reflecting the availability of substantive, new sources of evidence. The approach to each service is explained below.

<u>MAS (non-commissioned) & (locally commissioned)</u>
Community pharmacy provides patients with advice on minor ailments, such as colds, sprains and hay fever, either through informal, over-the-counter advice which is an Essential Service under the NHS Community Pharmacy Contractual Framework (CPCF) or through a locally commissioned MAS.

When the value of this service was estimated as part of the PwC report, it was considered in two parts:

- The non-commissioned service; and
- The commissioned service.

Three different approaches to updating the estimated change in the volume of MAS activity and its outcomes were considered:

- Method 1: Assuming that the volume of consultations has grown in proportion to the number of prescription items dispensed by community pharmacy over the period from 2015/16 to 2023/24;
- Method 2: Using the results of CPE's latest community pharmacy audit[19] which provides more recent evidence of how many times community pharmacies provide informal advice; and

[18] The service is described publicly as the NHS Blood Pressure Check Service.
[19] Community Pharmacy England, Pharmacy Advice Audit, 2024

- Method 3: Updating both the volume of activity and its outcomes to reflect the evidence available from the CPE's community pharmacy audit.

Method 3 has been used to generate the updated results summarised below because it provides the best reflection of community pharmacy practice in 2023/24.

The cost and value estimates have been updated to reflect changes in the price base (and unit values) over the period between 2015/16 and 2023/24 drawing on a range of official and other government statistics[20].

The volume of commissioned MAS has been updated based on data provided from PharmOutcomes. The cost and value estimates have been updated on the same basis as the non-commissioned service.

New Medicines Service

The PwC report only considered the social value generated by the NMS from reducing the NHS's costs because this was where the evidence was strongest. It noted that the NMS could also deliver value in two other areas:

- Improved patient wellbeing through improved health outcomes; and
- Avoided loss of economic output due to improved workforce health which eases constraints on patients' ability to work productively: this impact was not considered because it was unclear how many patients using NMS were in employment and whether the intervention would affect their ability to work.

The estimated social value of the NMS has been updated by:

- Extending the scope of the cost savings to include the (expected) lifetime savings in healthcare costs from improved adherence to prescribed medicines;
- Adjusting for the increase in the number of times the NMS has been delivered between 2015/6 and 2023/24 recognising that the number of conditions within scope of the NMS has increased[21];
- Using evidence from an evaluation of the NMS by Elliott et al which updates that used in the PwC report[22]: this enables the value of the improvement in QALYs linked to the NMS to be included as a source of value based on guidance from HM Treasury on how to value QALYs noting that the evaluation evidence is based on an earlier period when the NMS covered fewer conditions than the current service specification; and
- Adjusting the cost and value estimates to reflect changes in prices (and unit values) between 2015/16 and 2023/24.

Additional self-care services of community pharmacy

This report also considers the social value of three additional self-care services (not considered within the PwC report):

- The Discharge Medicine Service (DMS);
- The Community Pharmacy Consultation Scheme (CPCS); and
- The Hypertension Case-Finding Service (HFS).

The approach used is consistent with that applied by PwC and draws on evidence from PharmOutcomes which provides the basis for estimating the volume of activity and its patient outcomes. These outcomes are then compared with those anticipated in the absence of the service being provided by community pharmacy (i.e. the counterfactual). In the case of both the DMS and the CPCS, these impacts are valued using a very similar approach and evidence base to that used by PwC for the NMS and MAS respectively. Valuation of the impacts

[20] Several different sources have been incorporated into this report. They largely reflect updated data from the same – or similar – sources used by PwC. In some cases, specific data and studies focused on the activity or service in question have been used.

[21] The Elliott evaluation considered asthma and COPD, diabetes, hypertension, acute coronary syndromes, atrial fibrillation, stroke/transient ischemic attack and coronary heart disease: since then, the scope of the NMS has been extended to include other conditions including hypercholesterolaemia, osteoporosis, gout, glaucoma, epilepsy, Parkinson's disease, urinary incontinence/retention and heart failure

[22] Elliott et at, 'Cost Effectiveness of Support for People Starting a New Medication for a Long-Term Condition Through Community Pharmacies: An Economic Evaluation of the New Medicine Service (NMS) Compared with Normal Practice', 2017

of the HFS draws on various research and analysis by NICE and others on the potential benefits of better management of hypertension.

Further details of the approach can be found at Appendix 2.

Key results & interpretation

The key results of the updated analysis are summarised in Table 8:

- A comparison of the social value of the self-care services covered by the PwC report in 2023/24 with that in 2015/16; and
- The social value of the self-care services not previously considered.

Self-care activities and services covered by the PwC report

New Medicines Service

Table 8 summarises the estimated net social value (after funding) of the NMS as reported in the PwC report and the updated estimates (at 2023/24 prices). The key points to note are that:

- The benefits in the PwC report were limited to the initial reduction in costs to the NHS (estimated at £46 per patient before allowance for the payment to the community pharmacy): they did not include the expected lifetime costs to the healthcare system from improved adherence (which were estimated to be £190 per patient less the cost of delivering the NMS (£25));
- The savings to the healthcare system estimated by Elliott have been reduced downwards since the 2014 report used by PwC in the more recent report (2017) used to update the analysis[23];
- The number of times the NMS was delivered increased nearly fourfold between 2015/16 and 2023/24: in large part, this is linked to the extended scope of the NMS;
- The evaluation evidence which underpins the estimated value is limited to those conditions originally covered by the NMS which were evaluated by Elliott: this showed significant differences in cost-effectiveness between conditions; and
- Adding the value of the improvement in QALYs following HMT guidance gives an average overall benefit of £4,377 per patient (over £17.8bn overall).

Minor Ailments Service

Table 8 also summarises the estimated net social value (after funding) of the non-commissioned MAS as reported in the PwC report and the updated estimates (at 2023/24 prices). Also shown are the equivalent values of the commissioned MAS.

The key points to note are that:

- The net social value (after funding) of the non-commissioned MAS is estimated to be £7.56bn: the volume of activity is 93% of that in 2015/16;
- The main benefits are the costs avoided elsewhere in the NHS system, in particular avoided GP appointments: there are also avoided costs to patients from delayed recoveries and lost time through having to attend less accessible points of delivery, both of which result in costs to society through lost output as a result of increased sickness absence and time off work to attend the GP respectively; and
- The net social value (after funding) of the commissioned MAS has not been fully updated, but the volume of activity has fallen by over 80% due to reduced commissioning.

[23] Elliott et at, 'Cost Effectiveness of Support for People Starting a New Medication for a Long-Term Condition Through Community Pharmacies: An Economic Evaluation of the New Medicine Service (NMS) Compared with Normal Practice', 2017

Table 8: Summary of net social value (after funding) of self-care services – PwC report update

	Volume metric	2023/24			2015/16		
		Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)	Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)
NMS	Number of beneficiaries	4.04	£4,377	£17,785	0.82	£21	£17
MAS							
• Non-commissioned	Number of consultations	69.27	£109	£7,555	73.73	£16	£1,166
• Locally commissioned	Number of consultations	0.15	£77	£11	0.84	£58	£49
Total				**£25,351**			**£1,232**

Table 9 summarises the key components of the estimated net social value (after funding) of the self-care services provided by community pharmacy in 2023/24:

- The most important component is the improved wellbeing of patients: this accounts for over 80% of the net social value across the self-care services covered by the PwC report; and
- The next most important component of value is the avoided costs for the NHS: this is especially significant in the context of non-commissioned MAS where the evidence suggests that many patients would otherwise have sought an appointment with their GP.

Table 9: Components of net social value and funding of self-care services – PwC report update (2023/24)

Activity	Volume (m)	Net social value (before funding) (£m)				Funding (£m)	Net social value (after funding) (£m)
		NHS	Other public sector	Patient & carer	Wider society		
NMS	4.04	£628	£0	£17,267	£0	£109	£17,785
MAS							
• Non-commissioned	69.27	£2,564	£0	£2,767	£2,224	£0	£7,555
• Locally commissioned	0.15	£7	£0	£3	£3	£1	£12
Total		**£3,199**	**£0**	**£20,037**	**£2,227**	**£110**	**£25,351**

Additional self-care activities and services of community pharmacy

Table 10 summarises the components of the estimated net social value (after funding) of the additional services provided by community pharmacy to support self-care:

- The overall net social value (after funding) of the three services – treating the two parts of the CPCS as a single service – is £1.33bn;
- The service which delivers the most social value is the HFS which generates gross social value of £1.67bn which is partly offset by counterfactual costs of £0.39bn; and
- The CPCS generates net social value (after funding) of £42m with the majority of the value coming from community pharmacy's role in providing patients with an urgent supply of their medications.

Table 10: Components of net social value of additional self-care services (2023/24)

	Volume metric	Volume ('000)	Gross social value (£m)	Counter-factual cost (£m)	Funding (£m)	Net social value (after funding) (£m)	Net social value per activity (after funding) (£)
DMS	Number of referrals	47	£22	£4	£5	£13	£269
CPCS - urgent supply	Number of patients	651	£92	£28	£32	£32	£50
CPCS - minor illness	Number of patients	879	£39	£29	£0	£10	£12
HFS	Number of patients	1,261	£1,666	£386	£5	£1,275	£1,012
Total			**£1,820**	**£448**	**£42**	**£1,330**	

Interpretation of estimates

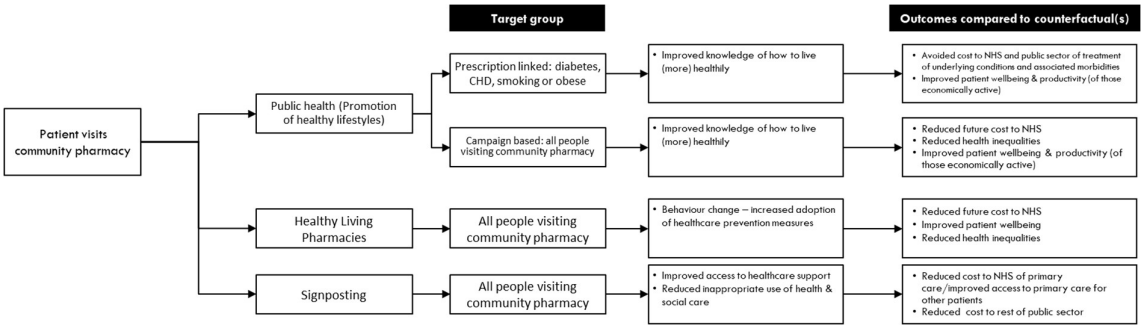
The updated social value estimates for community pharmacy's self-care activities services need to be interpreted with some care to take account of:

- The limited scope of the benefits (and costs) which are included: some potential benefits defined as part of the patient impact pathways have been excluded because of lack of reliable evidence: for example, the impact on patient wellbeing has not been included across all services;
- Where the estimates rely on assumptions, this creates potential sources of uncertainty: for example, evidence of the scale of additionality of the HFS is limited.

Linked to this, for those self-care services covered by the PwC report, the updating process has involved only a limited search for recent evidence on the effectiveness and efficacy of the dispensing activities. Furthermore, the estimated social value does not cover all of community pharmacy's self-care activities and service. It excludes:

- Some Essential Services including Public health (Promotion of healthy lifestyles, Healthy Living Pharmacies and Signposting) - Figure 2 illustrates the potential impacts of these services; and
- Other Advanced Services, for example the Smoking Cessation Service which started in March 2022 and was provided by 400 pharmacies in 2023/24 and Pharmacy First which only started in January 2024.

Figure 2: Potential impacts of self-care services not valued



5 Public health

This section summarises the updated estimates of the social value of community pharmacy's public health services. Like the previous sections, it is divided into two parts: an explanation of the scope of the activities and services covered along with a summary of the approach used and a summary of the key results and how they should be interpreted.

Scope & approach to valuation

Community pharmacy delivers a range of services designed to promote public health. Many are locally commissioned services such as the three covered by PwC's report: emergency hormonal contraception, supervised consumption and needle and syringe exchange. At the time, these were regarded as the most material services which could be valued. They are, however, only a subset of the public health interventions currently delivered by community pharmacy which also include:

- NHS Health Checks which offer assessments to identify risk factors for common health conditions;
- Sexual health screening services which test for sexually transmitted infections;
- Stop smoking services to assisting individuals in quitting smoking through counselling and medication;
- Chlamydia testing and treatment based on providing testing kits and treatment;
- Weight management programmes to support patients in achieving and maintaining a healthy weight;
- Alcohol screening and brief interventions to reduce alcohol consumption; and
- Palliative care schemes to ensure the availability of medications and support for end-of-life care.

The social value of each service has been updated following broadly similar principles to those guiding the valuation of dispensing and self-care activities and services.

The volume of community pharmacy activity and its outcomes have been updated using data for 2023/24 from PharmOutcomes: this involves analysing the data for the pharmacies which use PharmOutcomes and then extrapolating the results across other areas in England where the service is provided by community pharmacy.

All estimated local funding has been deducted from the estimated gross social value.

The value estimates have been updated to reflect changes in costs/prices since the PwC report.

Key results & interpretation

The results are summarised in Table 11.

- The net social value (after funding) of community pharmacy's locally commissioned public health services has almost halved as it has reduced by £1,354m to £1,377m since 2015/16: this largely reflects a fall in the volume of activity, in particular related to supervised consumption, the most valuable service;
- The average net value per user of emergency hormonal contraception is £44, but the average value per user of NSP and SC is much larger: £3,847 for needle and syringe programmes and £11,360 for supervised consumption over a period of 20 years; and
- The reduction in activity largely reflects increasing constraints on local authority budgets which have led to the closure of services.

Table 11: Summary of net social value (after funding) of public health services – PwC report update

	Volume metric	2023/24			2015/16		
		Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)	Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)
Emergency hormonal contraception	Number of cases	244	£43	£17	375	£58	£22

	Volume metric	2023/24			2015/16		
		Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)	Volume of activity (m)	Net social value per activity (after funding) (£)	Net social value (after funding) (£m)
Needle and syringe programmes	Number of NSP users	150	£3,847	£579	235	£2,907	£683
Supervised consumption	Number of users of SC	69	£11,360	£781	176	£11,507	£2,026
Total – public health				**£1,377**			**£2,731**

A breakdown of the updated components of the net social value (after funding) is summarised in Table 12. The key points to note are that:

- The avoided costs for the NHS are £0.22bn whilst other parts of the public sector avoid costs of £0.49bn.
- Almost half of the social value (£0.69bn) accrues to wider society (rather than patients or the NHS);
- The value of the supervised consumption service derives from the long term avoided costs of premature deaths, criminal activity and lost economic output: the short term avoided costs from overdose incidents and poisoning of non-users are also material; and
- For some users of the services, the short run NHS efficiency benefits are negative because the alternative treatment pathway (including patients no longer receiving treatment) is cheaper than the fee paid to pharmacies: this effect is substantially more than offset by the impact on other avoided NHS costs.

Table 12: Components of net social value of public health services – PwC report update (2023/24)

Activity	Volume ('000)	Net social value (before funding) (£m)				Funding (£m)	Net social value (after funding) (£m)
		NHS	Other public sector	Patient & carer	Wider society		
Emergency hormonal contraception	244	£11	£5	£0	£0	£6	£11
Needle and syringe programmes	150	£123	£0	£0	£457	£2	£579
Supervised consumption	69	£83	£484	£0	£227	£13	£781
Total – public health		**£217**	**£489**	**£0**	**£685**	**£21**	**£1,371**

Interpretation of estimates

As the PwC report notes, the social value estimates for community pharmacy's public health services need to be interpreted with some care to take account of:

- The limited scope of the benefits (and costs) which are included: some potential benefits defined as part of the patient impact pathways have been excluded because of lack of reliable evidence: for example, the impact on patient wellbeing is not included; and
- Where the estimates rely on assumptions, this creates potential sources of uncertainty.

Linked to this, the updating process has not involved an extensive search for recent evidence on the effectiveness and efficacy of public health services. Furthermore, the estimated social value does not cover all of community pharmacy's activities and service: it excludes the impacts of those services mandated by the CPCF which are potential sources of value but where there is a lack of reliable evidence (notably Public health (Promotion of healthy lifestyles) and Healthy Living Pharmacies) and some other locally commissioned services (and activities) currently provided by community pharmacy.

6 Conclusions

This section draws together the updated social value estimates and their implications. It also comments briefly on other areas of potential value of community pharmacy not considered in this report.

Social value of community pharmacy – updated results

Overall, community pharmacy's assessed activities and services contributed £31.6bn in net social value in 2023/24 (see Table 13). As noted, this value does not encompass all the activities and services of community pharmacy. It is also based on conservative assumptions about patient responses without the activity or service and excludes benefits where the evidence is weak and unreliable.

Table 13: Summary of components of social value of community pharmacy activities & services (2023/24)

Activity/service	Net social value (before funding) (£m)				Funding (£m)	Net social value (after funding) (£m)
	NHS	Other public sector	Patient & carer	Wider society		
Dispensing	1,021	307	724	1,636	186	3,502
Self-care	3,642	0	20,663	2,530	152	26,682
Public health	217	489	0	685	20	1,371
Total	**4,880**	**795**	**21,387**	**4,850**	**359**	**31,555**

Patients are the primary beneficiary, receiving an estimated two thirds of the expected net social value (after funding), mainly due to the improvement in their wellbeing from the NMS. The NHS will receive around 15% of the benefit. 15% of the benefit is also anticipated to accrue to wider society through increased output and avoided premature deaths due to community pharmacy interventions. Additionally, other public sector bodies (e.g., local authorities) save £795m (2½% of total benefits) by avoiding pressure on other services, such as social care and justice.

Overall, the potential net savings (before funding) for the NHS from community pharmacy activities and services considered in this report are £4.88bn. The funding provided by the NHS needs to be offset to determine the net implications for Exchequer costs. The scale of these savings highlights the role community pharmacy plays in providing effective, accessible and cost-efficient care delivery.

The value generated by each activity and service assessed varies significantly reflecting differences in the number of transactions/users and the value each time the service is delivered. Self-care services contributed the largest share (84%), followed by dispensing (11%) and public health (4%). This hides substantial differences in how this value is created. In terms of volume, the public health services assessed affect around 0.5m users. In contrast, in 2023/24, an estimated 69m non-commissioned MAS consultations and an additional 115m interventions related to dispensing were undertaken by community pharmacies.

On the other hand, the value per transaction or service user is substantially larger for two of the three public health services. This reflects the nature of public health. It is also relatively large for managing drug shortages and prescribing errors because of the value of the risks that are protected. The value per transaction is much smaller for dispensing activities such as medicines adjustments and delivering prescriptions. For these areas the magnitude of their contribution is driven by the large volume of activity rather than the value of each intervention.

On average, net social value added by each community pharmacy in England in 2023/24 was nearly £3m. This value demonstrates the importance of community pharmacies to their local health systems, and the patients they serve, even when considering just a limited number of services.

The overall net social value of community pharmacy's activities and services is estimated after deducting funding received from central and local governments. This implies that community pharmacy undertook its activities and provided its services at no net cost to the public finances in 2023/24. As shown in Table 14, the net impact on public finances of these services was a saving of nearly £5.32bn.

Furthermore, total core funding for community pharmacy in England budgeted by NHSE in 2023/24 was £2,592m. Thus, the expected amount of public sector spending saved directly as a result of the analysed activities and services more than offsets the entire amount of public funding provided to community pharmacy in 2023/24. Therefore, all other benefits of community pharmacy – including patient, societal, and knock-on health benefits of the covered activities and services, and importantly, the benefits of the core NHS dispensing service itself – can be seen as additional net benefits provided at no cost to the Exchequer.

Table 14: Estimated impact on the public finances of community pharmacy's activities and services (2023/24)

Activity/service	Net avoided costs for the NHS (£m)	Net avoided costs for other parts of the public sector (£m)	Funding provides by NHS (£m)	Funding provided by local commissioners (£m)	Net impact on the public finances (£m)
Dispensing	*1,021*	307	*186*	×	1,142
Self-care	3,642		151	1	3,490
Public health	217	489	0	20	686
Total (£m)	**4,880**	**795**	**337**	**22**	**5,317**

Other source of social value

Besides the value of its services described above, the community pharmacy network delivers social value in three other broad ways: providing wider value to reduce health inequalities, enabling safe disposal of waste medicines and through the impact of its workforce and the businesses in the network.

Wider value of community pharmacy network & impact on health inequalities

Community pharmacy delivers additional value beyond that of its individual activities and services because it helps to reduce – or mitigate - health inequalities in England by improving access to healthcare, supporting underserved populations and addressing disparities in health outcomes. Their accessibility and community presence make them an essential component of the healthcare system, particularly for vulnerable groups.

The value of community pharmacy can be seen in several areas:

- They help customers to navigate the complex NHS system – this leads to lower transaction costs;
- Community pharmacies are disproportionately located in deprived and rural areas, ensuring access to healthcare services for populations who may face barriers to GP or hospital care;
- Pharmacies typically have longer opening hours than GP practices, offering evening and weekend access without the need for appointments and with no requirement for registration;
- Pharmacies play an active role in campaigns to raise awareness of more healthy living, for example smoking cessation, alcohol reduction, healthy eating and physical activity;
- Pharmacies often provide first-line healthcare advice and medication to homeless individuals, who may face significant health disparities;
- Many community pharmacies employ staff from diverse backgrounds and provide multilingual services, helping bridge cultural and linguistic barriers;

Research shows that community pharmacies in areas of high deprivation contribute to improved health outcomes by increasing access to essential services.

Safe disposal of unwanted medicines

Under the CPCF, community pharmacy is obliged to accept the return of unwanted medicines from households and individuals which require safe disposal with the aim of ensuring that the public has an easy method of safely disposing of unwanted medicines so that:

- The volume of stored unwanted medicines in people's homes is reduced, by providing a route for disposal, thus reducing the risk of accidental poisonings in the home and diversion of medicines to other people not authorised to possess them;

- The risk of exposing the public to unwanted medicines which have been disposed of by non-secure methods is reduced; and
- The environmental damage caused by inappropriate disposal methods for unwanted medicines is diminished.

The value of this service is difficult to quantify the value because of limited recent evidence on the scale and nature of unwanted medicines, how these medicines would otherwise be disposed of and the risk and impact of poisoning and environmental damage attributable to unwanted medicines and their likely nature/impact.

Workforce and business impact

The community pharmacy network and its workforce in England also delivers value in other ways by:

- Employing tens of thousands of pharmacists, pharmacy technicians, and support staff, contributing to local economies with a multiplier effect on local economies;
- Reinvesting in local economies;
- Contributing to the pharmaceutical supply chain, supporting manufacturers, wholesalers and logistics companies;
- Adopting new technologies to enhance efficiency and reduce costs; and
- Providing training for pharmacists, technicians, and support staff, contributing to workforce development in healthcare.

Appendices

Appendix 1: Patient impact pathways – dispensing

This Appendix provides the patient impact pathways that have been used as the basis for estimating the social value of each of the two additional dispensing services included in this report but not considered within the PwC report:

- Flu Vaccination Service – Advanced Service ; and
- Covid-19 Vaccination Service – National Enhanced Service.

For each service, two different patient impact pathways are provided: the first reflects the expected patient journey where community pharmacy provides the service and the second reflects the expected patient journey where pharmacy does not provide the service.

Flu Vaccination Service

The purpose of the Flu Vaccination Service is to support the annual national flu immunisation programme which is intended to offer protection against flu and its complications to as many eligible people as possible, particularly those most at risk.

The aim of the Flu Vaccination Service is to sustain and maximise uptake of flu vaccine in at risk groups. It does this by building the capacity of community pharmacies (as an alternative to GP attendance) and so providing more opportunities and improved convenience for eligible patients to access flu vaccinations.

Protection against flu can be achieved directly through individual immunisation, or indirectly through building herd immunity.

The value of community pharmacy's role in the delivery of flu vaccinations consists of three key elements:

- Any cost saving to the NHS from delivering flu vaccines through community pharmacy rather than other, potentially more costly channels;
- The health and other benefits that arise from increased take up of flu vaccinations if they are available from more accessible community pharmacies; and
- The cost of any additional vaccines that are required.

The net social value of the flu vaccine service is estimated by considering each element separately.

Figure 3 shows the patient impact pathway with the Flu Vaccination Service and Figure 4 shows the expected pathway if community pharmacy does not provide the Service.

The cost savings from vaccinations delivered by community pharmacy are the product of the differences in the unit costs between community pharmacy and alternative providers and the volume of vaccinations delivered through community pharmacy. Evidence on the former comes from various sources whilst NHSE provides data on the actual number of vaccinations delivered by community pharmacy.

The extent of the health and other benefits depends on:

- The proportion of vaccinations delivered by community pharmacy that would not otherwise have been delivered to the population at risk through alternative channels;
- The number of avoided cases of flu that result from the additional vaccinations; and
- The associated costs to the NHS, to the individual patient and to the wider economy from the avoided cases of flu.

Limited direct evidence is available on the additionality of community pharmacy vaccination. A PSNC survey as part of the Flu Vaccination Service found that 15% of those vaccinated would not have received the vaccine if it had not been

provided by community pharmacy[24]. Furthermore, NHS research shows that 64% of the population believes that flu vaccinations should be delivered by community pharmacy[25].

Better evidence is available on the likely efficacy of vaccination on the incidence of flu although it is not always consistent. In itself, this is not surprising because the impact of vaccination depends on many factors including the age and health status of those vaccinated and the year.

Evidence also exists on the avoided health and other costs if vaccination is effective. The main benefit of additional vaccinations by community pharmacy is the avoided cost of hospitalisation and the reduced risk of premature death – even small effects have a large value.

[24] Community Pharmacy NHS Flu Vaccination Service 2016/17: The patient verdict

[25] NHSE, Public perceptions of community pharmacy, 2022

Figure 3: Patient impact pathway with Flu Vaccination Service

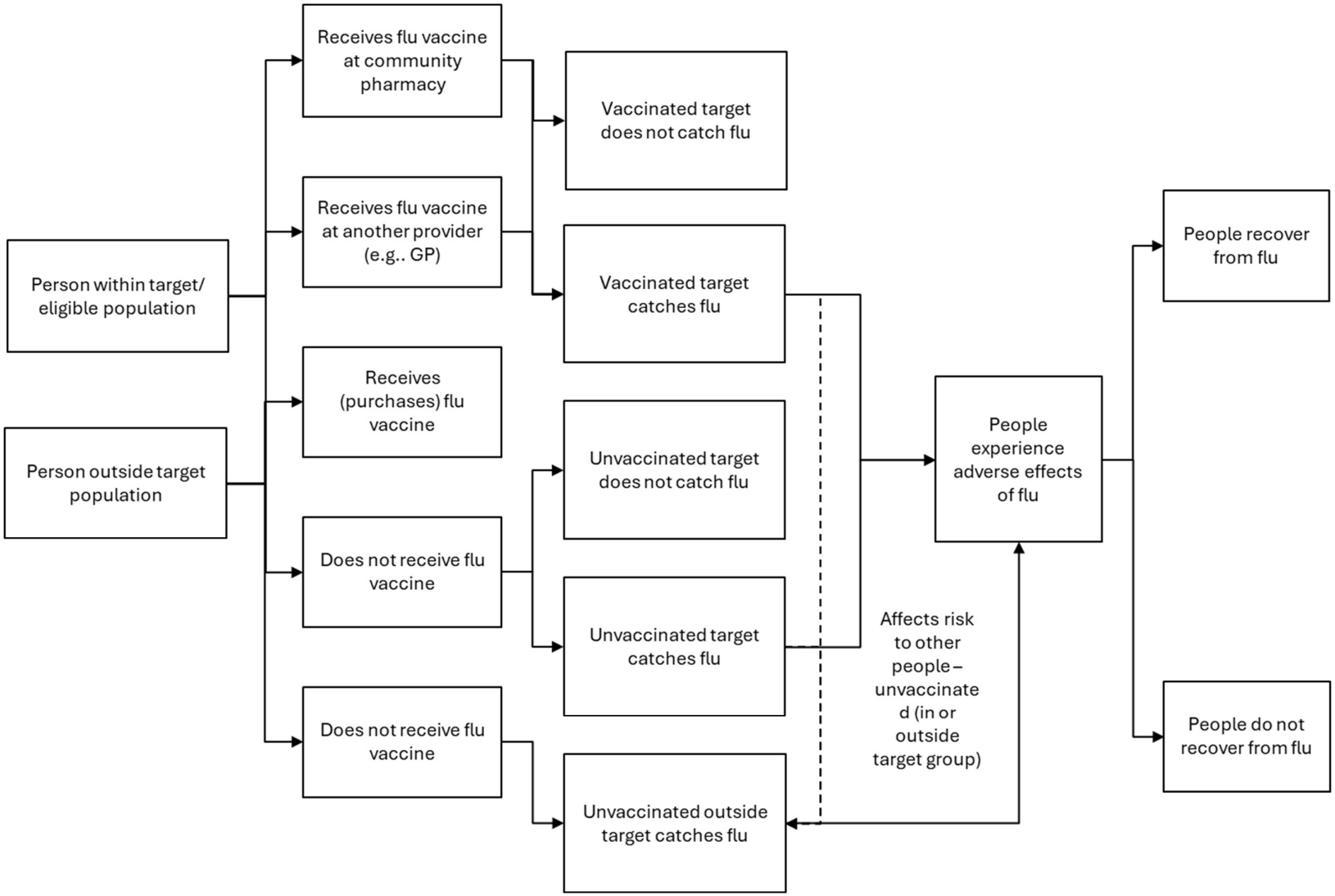
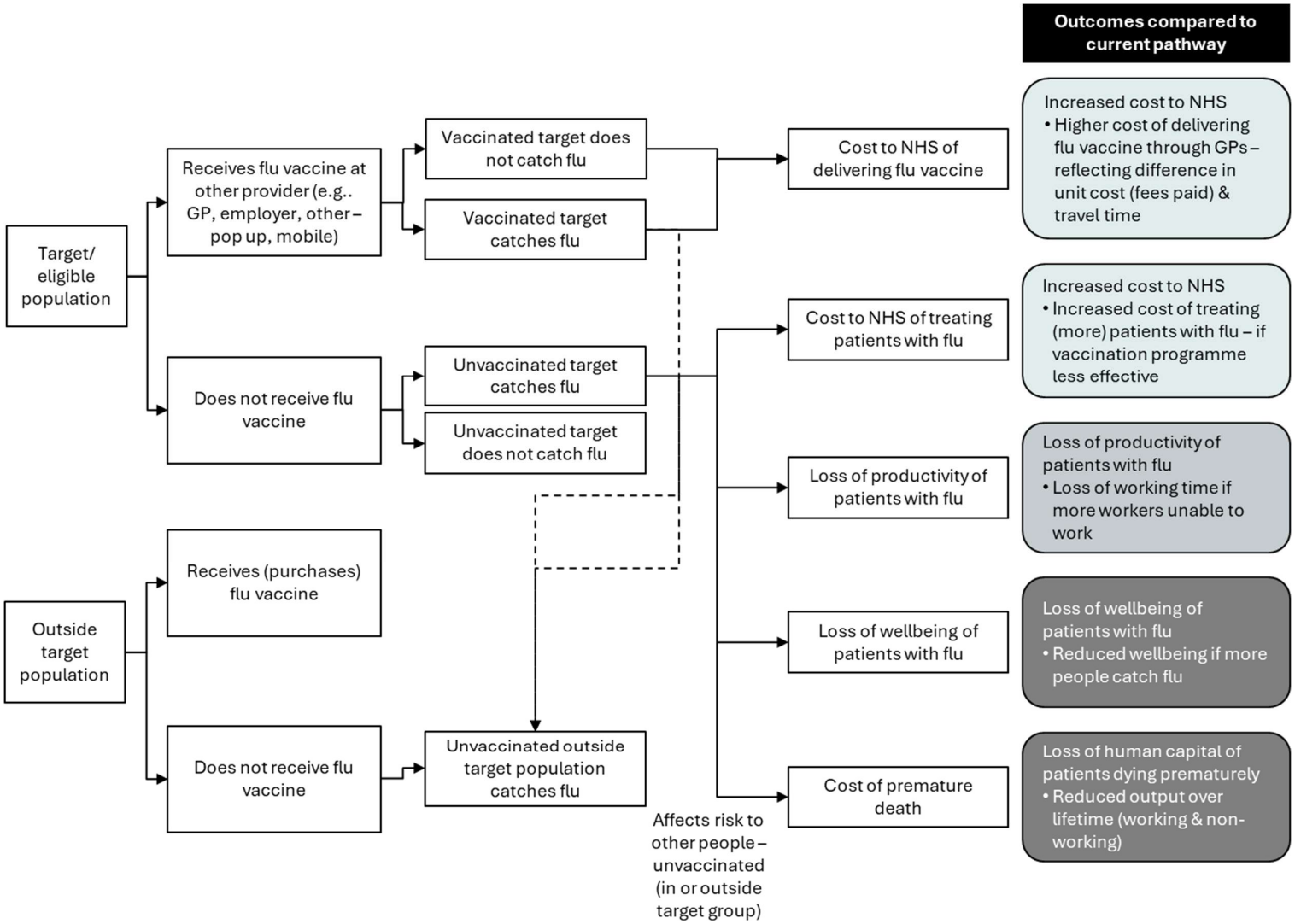


Figure 4: Patient impact pathway without Flu Vaccination Service (counterfactual)



Covid-19 Vaccination Service

The NHS commenced its Covid-19 vaccination programme in December 2020 and community pharmacy has been central to its delivery. The Covid-19 Vaccination Service was initially commissioned as a Local Enhanced Service by NHS England regional teams in consultation with Local Pharmaceutical Committees in places where there was a local need, for example where there was a gap in service provision or a need for additional capacity, and where contractors were able to meet the key designation requirements.

In December 2021 provision was made within the NHS (Pharmaceutical and Local Pharmaceutical Services) Regulations 2013 for a new type of Enhanced Service, the National Enhanced Service. This enables NHSE to commission an Enhanced Service that is nationally specified.

The Covid-19 Vaccination Service aims to:

- Maximise patient uptake of Covid-19 vaccines by providing vaccination services from pharmacy contractors where a need is identified by the Commissioner;
- Administer vaccines as recommended by the Joint Committee on Vaccination and Immunisation (JCVI);
- Increase opportunities for patients to receive Covid-19 and influenza and/or other relevant vaccinations at the same location; and
- Ensure that vaccination services can be provided from a variety of settings, effectively utilising available staff from across primary care.

The approach to assessing the social value of community pharmacy's role in delivering Covid-19 vaccinations is very similar to the approach used to assess the social value of the Flu Vaccination Service. It involves estimating three elements:

- Any cost saving to the NHS from delivering Covid-19 vaccines through community pharmacy rather than potentially more costly other channels;
- The health and other benefits that arise from increased take up of Covid-19 vaccinations if they are available from more accessible community pharmacy; and
- The cost of any additional Covid-19 vaccines that are required.

Figure 5 shows the pathway for patients accessing the Covid-19 Vaccination Service and Figure 6 shows what patients are assumed to do in the absence of the service.

The context for the Covid-19 Vaccination Service is, however, rather different to that of the Flu Vaccination Service because:

- The extent of additionality (i.e. the number of patients receiving the Covid-19 vaccine who would not otherwise have received it) may have changed over time because community pharmacy was initially involved in the vaccine programme on a selective basis to fill gaps in capacity and reach;
- Less quality evidence is available on the level and duration of protection from the Covid-19 vaccine since this is sensitive to multiple factors including the demographic profile of the additional vaccine recipients, the Covid variant which is prevalent, the vaccine and dosage provided etc.;
- The risk and significance of patients being affected by long Covid is uncertain;
- The relative costs of delivering Covid-19 vaccinations may have changed over time as the infrastructure (including storage) has been established and staff have been trained.

The additionality of community pharmacy Covid-19 vaccinations is the key driver of the social value of the service.

Figure 5: Patient impact pathway with Covid-19 Vaccination Service

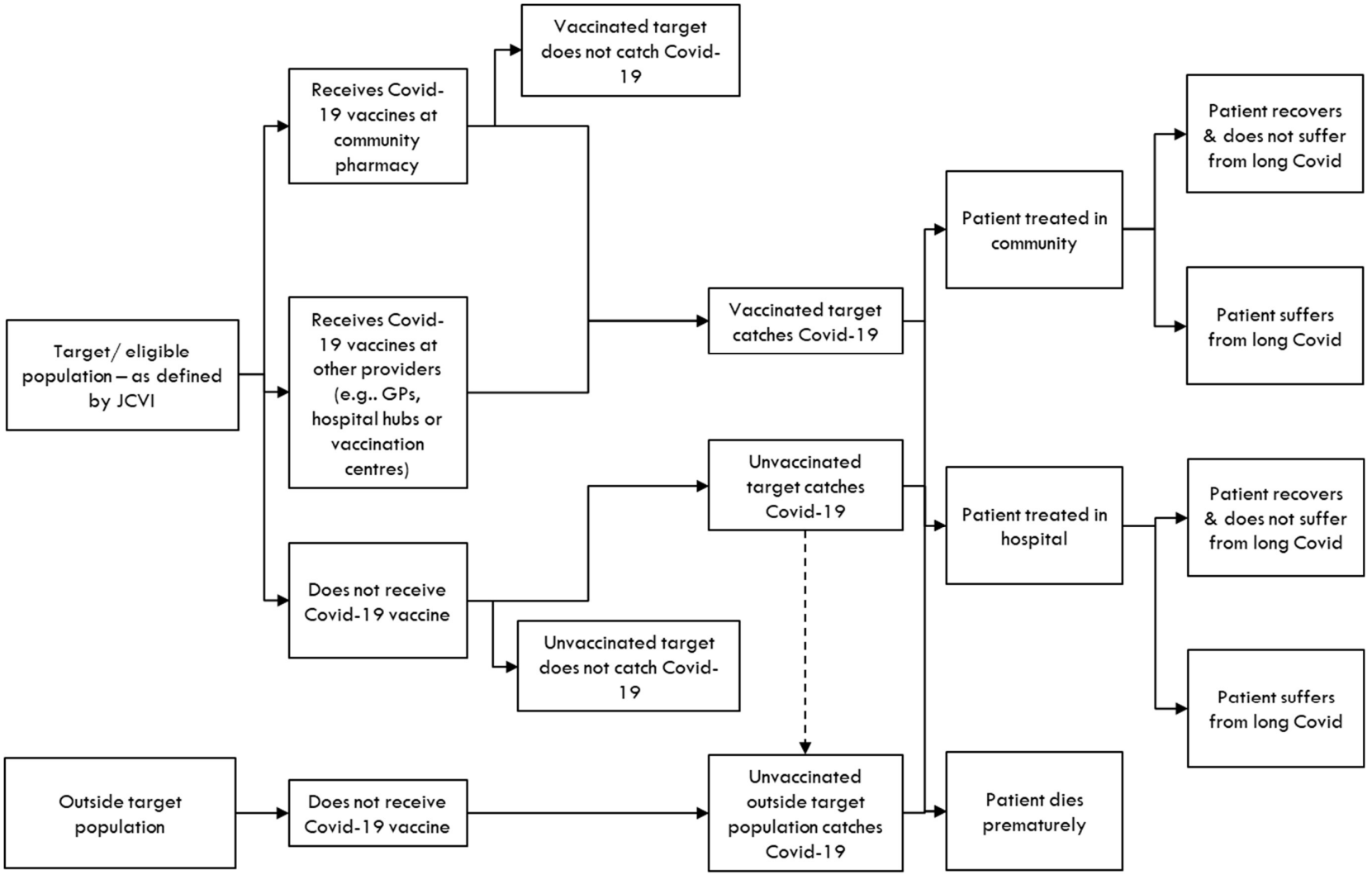
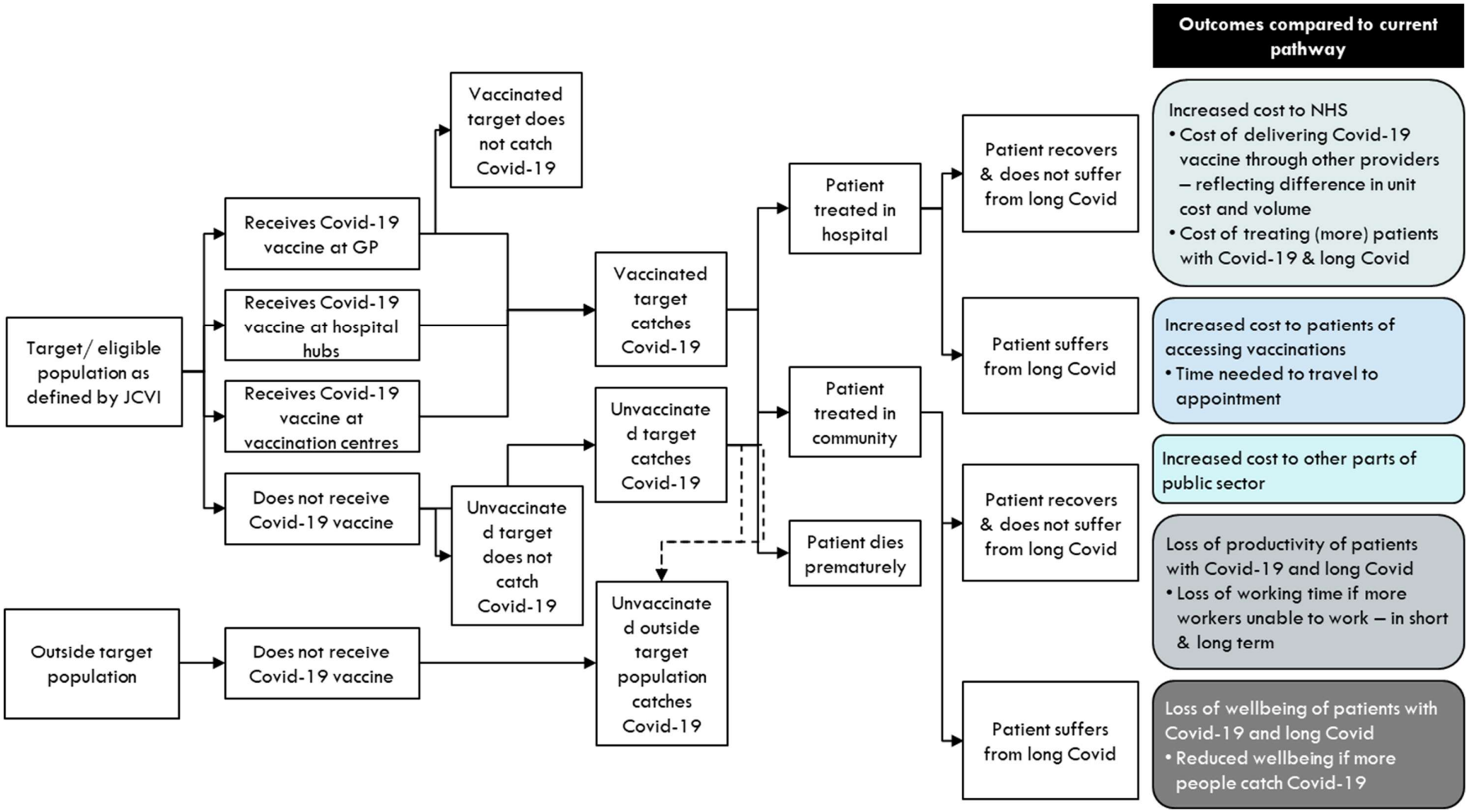


Figure 6: Patient impact pathway without Covid-19 Vaccination Service (counterfactual)



Appendix 2: Patient impact pathways – self care

This Appendix provides the patient impact pathways that have been used as the basis for estimating the social value of each additional self-care service not considered within the PwC report but included in this one:

- Discharge Medicine Service (DMS);
- Community Pharmacy Consultation Scheme (CPCS); and
- Hypertension Case-Finding Service (HFS).

For each service, two patient impact pathways are provided: the first reflects the expected patient journey where community pharmacy provides the service and the second reflects the journey where pharmacy does not provide the service.

Discharge Medicine Service (DMS)

Discharge from hospital has been found to be associated with increased risk of avoidable medication related harm.

The DMS was, therefore, introduced following work as part of the Transfer of Care Around Medicines programme to develop processes and IT infrastructure to allow hospital clinicians to identify patients admitted to hospital that might benefit from being referred to their community pharmacy at discharge.

NICE Guideline NG05[26] includes the following recommendations:

- Medicines-related communication systems should be in place when patients move from one care setting to another; and
- Medicines reconciliation processes should be in place for all people discharged from a hospital or another care setting back into primary care.

An audit of NHS hospital discharges showed that 79% of patients were prescribed at least one new medication after discharge. These additional medications can cause side effects, or interact with existing treatments, potentially leading to readmission. Research by the National Institute for Health Research[27] showed that people over 65 are less likely to be readmitted to hospital if they are given help with their medication after discharge. Research on local schemes implemented around the country has also demonstrated that patients who see their community pharmacist after they have been in hospital are less likely to be readmitted and will experience a shorter stay if they are.

The aims of the DMS are to:

- Optimise medicines use, whilst facilitating shared decision making;
- Reduce harm from medicines at transfers of care;
- Improve patients' understanding of their medicines and how to take them following discharge from hospital;
- Reduce hospital readmissions; and
- Support development of effective team-working across hospital, community and primary care networks pharmacy teams and GP teams and provide clarity about respective roles.

The social value of the DMS has been estimated based on a comparison of a patient impact pathway with and without the DMS. Figure 7 shows the pathway for patients receiving the service and Figure 8 shows the counterfactual (i.e. if community pharmacy does not provide the DMS).

Evidence from PharmOutcomes has been used to track the number of patients passing through each of the three stages of the DMS. It also provides the basis for understanding the different possible outcomes:

- The pharmacist provides advice to patients on the use of their medication (and answers their questions): this may be done either alone or in conjunction with other services;
- The pharmacist ensures that all important changes to prescribed medicines are understood: again, this may be done alone or in conjunction with other services;

[26] NICE, NICE guideline 5, Medicines optimisation: The safe and effective use of medicines to enable the best possible outcomes, March 2015

[27] Tomlinson et al, Successful care transitions for older people: a systematic review and meta-analysis of the effects of interventions that support medication continuity, Report for National Institute for Health Research, 2020

- The pharmacy provides other CPCF services (e.g., NMS);
- The pharmacy disposes of unwanted medicines;
- The pharmacy refers the patient (or prescription) to the GP; and
- The DMS is not completed.

The value of the health benefits (avoided costs) of the DMS draw on similar sources to those used to estimate the value of the other self-care services covered by the PwC report.

The fees paid to contractors for delivering the DMS need to be set against the value generated to determine the net value of the service. These are:

- A setup fee of £400 to cover the costs of preparing to provide the service (principally training staff and putting in place a standard operating procedure);
- EA fee of £35 for providing the full service;
- Partial payments if the full service is not provided with the payment depending on the stage(s) completed:
    - Stage 1: £12;
    - Stage 2: £11; and
    - Stage 3: £12.

Payment data are available from the NHS BSA which show this additional funding provided to community pharmacy for delivery of the DMS. The focus of this report is on the ongoing costs so the set-up costs are not deducted.

Figure 7: Patient impact pathway with DMS

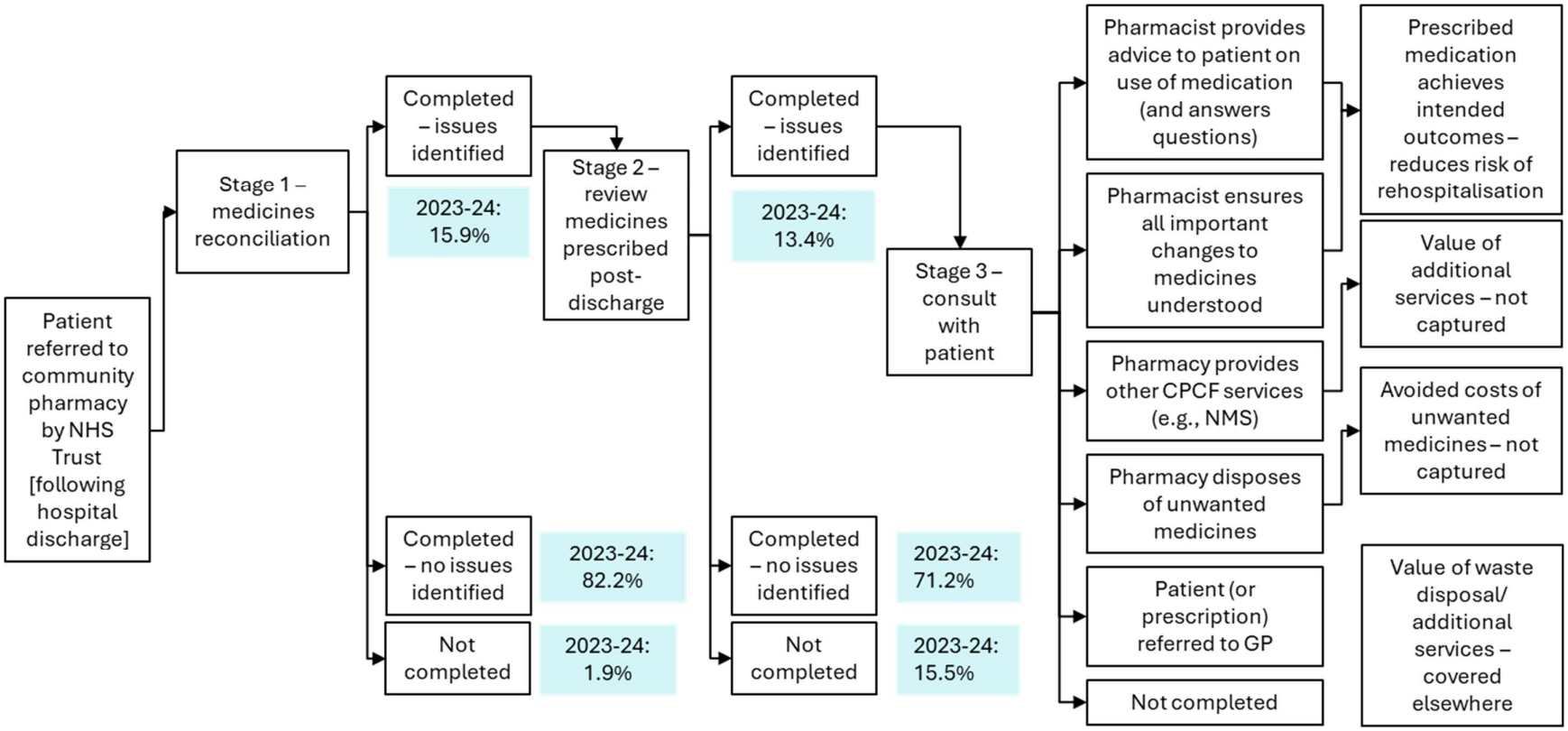
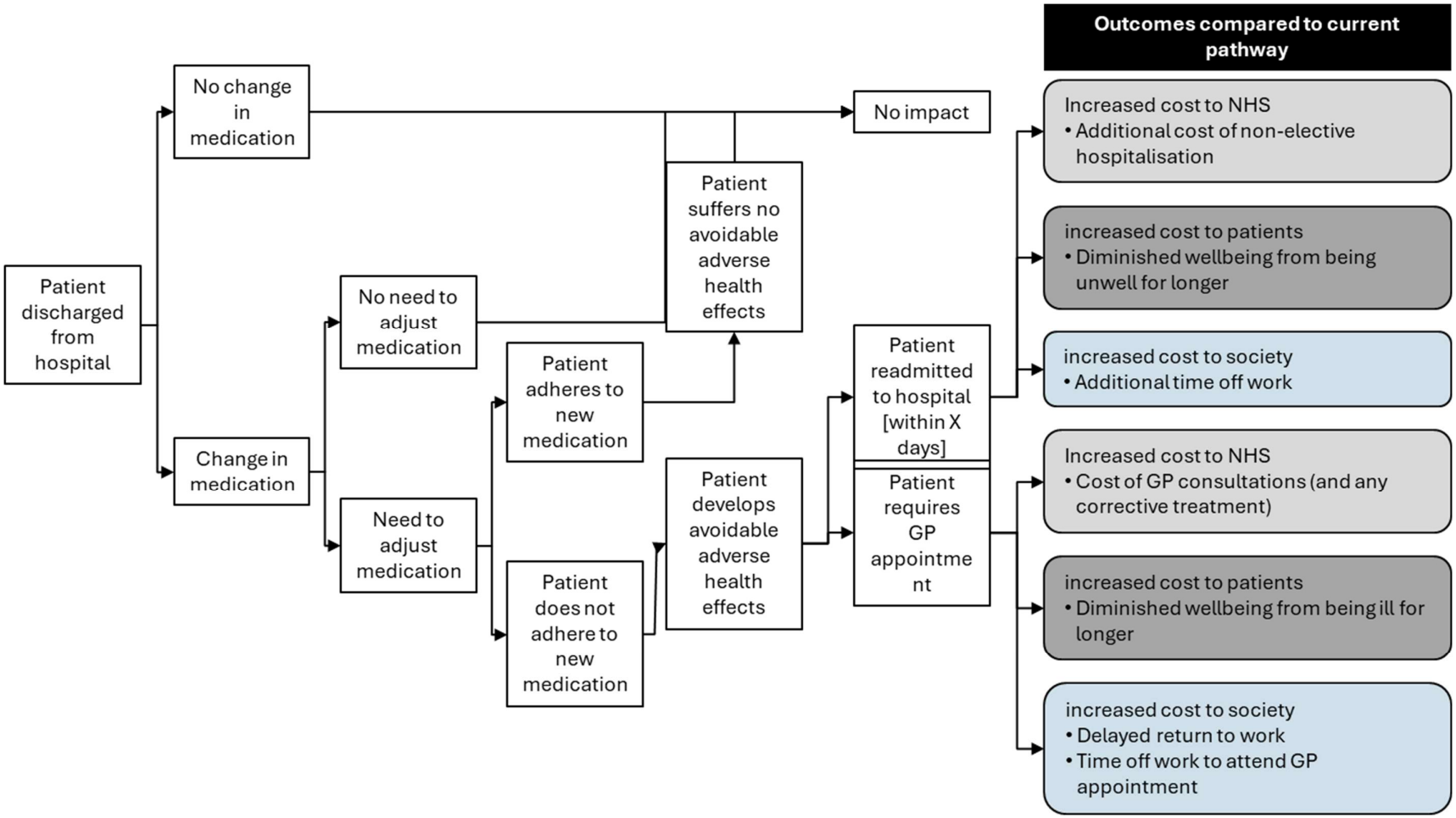


Figure 8: Patient impact pathway without DMS (counterfactual)



Community Pharmacy Consultation Scheme (CPCS)

The aim of the CPCS is to divert patients with lower acuity conditions, or who require urgent prescriptions, by supporting integration of community pharmacy into the urgent care system, thereby releasing capacity in other parts of the urgent (& emergency) care (UEC) system.

The CPCS does this by:

- Offering patients contacting NHS 111 the opportunity to access appropriate urgent care services in a convenient and easily accessible community pharmacy;
- Providing patients seeking an appointment with their GP convenient, easy and equitable access to community pharmacist advice for the management of minor illness;
- Appropriately managing patient requests for urgent supply of medicines and appliances;
- Increasing patient awareness of the role of community pharmacy as the 'first port of call' for low acuity conditions and for medicines access and advice; and
- Identifying ways in which patients can self-manage their health more effectively with the support of community pharmacists so avoiding the future use of urgent and emergency care (UEC) services.

The expected social value of the CPCS includes the value of:

- Reduced demand at integrated urgent care services, urgent treatment centres (UTCs), accident and emergency departments (A&E), walk in centres, other primary care urgent care and out-of-hours (OOH) services;
- Freed up capacity in urgent & emergency care services for the treatment of patients with higher acuity conditions; and
- Providing more cost-effective support to NHS patients with low acuity conditions.

The social value of those referred with a minor illness is considered separately from those requiring an urgent supply of a medication.

Figure 9 illustrates the patient impact pathway for those receiving the CPCS who have a minor illness and Figure 10 shows the equivalent for those seeking an urgent supply of a medication. Figure 11 shows the expected counterfactual for those patients with a minor illness.

Evidence on the number of patients using the CPCS comes from PharmOutcomes. This provides information on:

- The number of people referred to the CPCS split between those with minor illnesses and those seeking urgent supplies of medicines;
- The characteristics of those referred to the CPCS (e.g. age);
- The proportion of people with minor illnesses achieving different outcomes (e.g. advice only, advice plus prescription & advice plus OTC medicine), including those who cannot be treated by pharmacist or who do not require treatment or advice; and
- The proportion of people requiring urgent medication supply who obtain a supply.

Evidence on what would happen to patients in the absence of the CPCS comes from the same source as those used to value other self-care services as part of the PwC report.

The social value attached to the avoided unit costs is also based on the same sources as those used to value other self-care services in the PwC report.

Figure 9: Patient impact pathway with CPCS – minor illness (from NHS111)

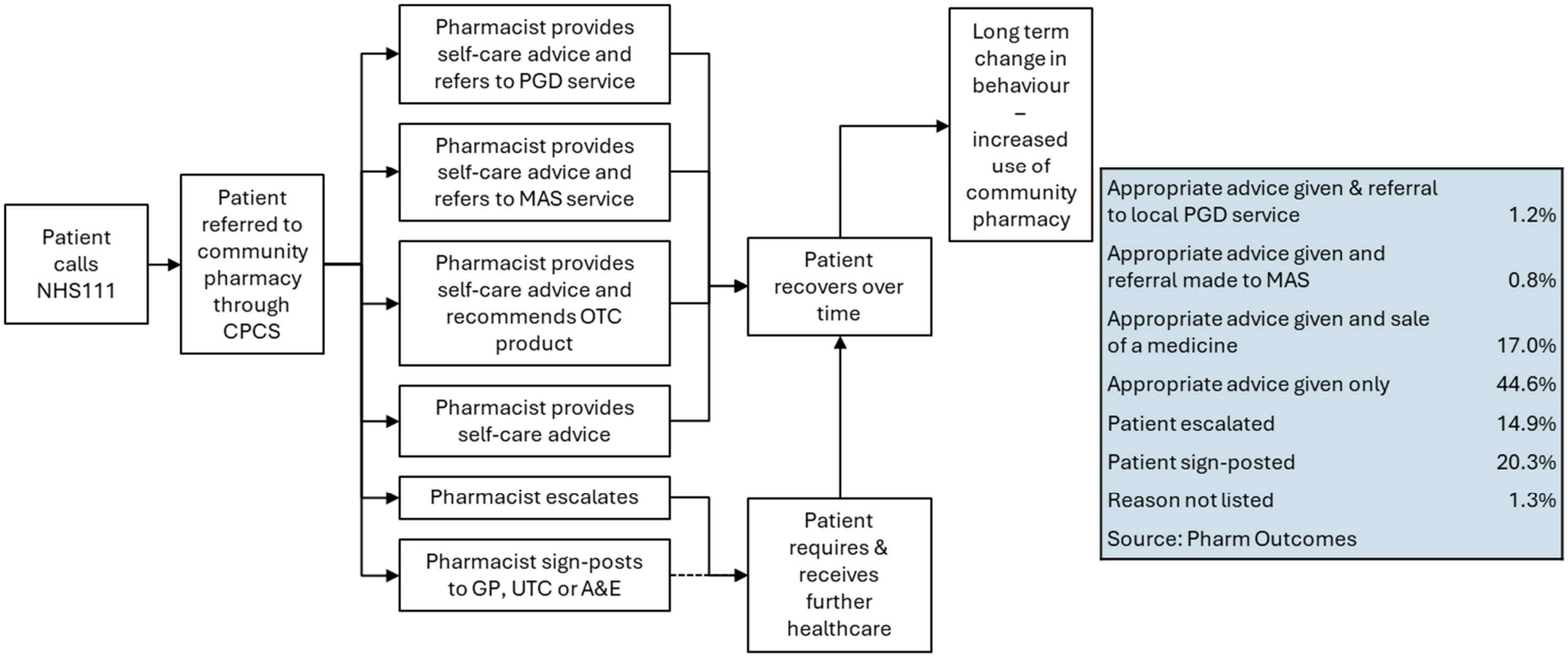


Figure 10: Patient impact pathway with CPCS – urgent supply (from NHS111)

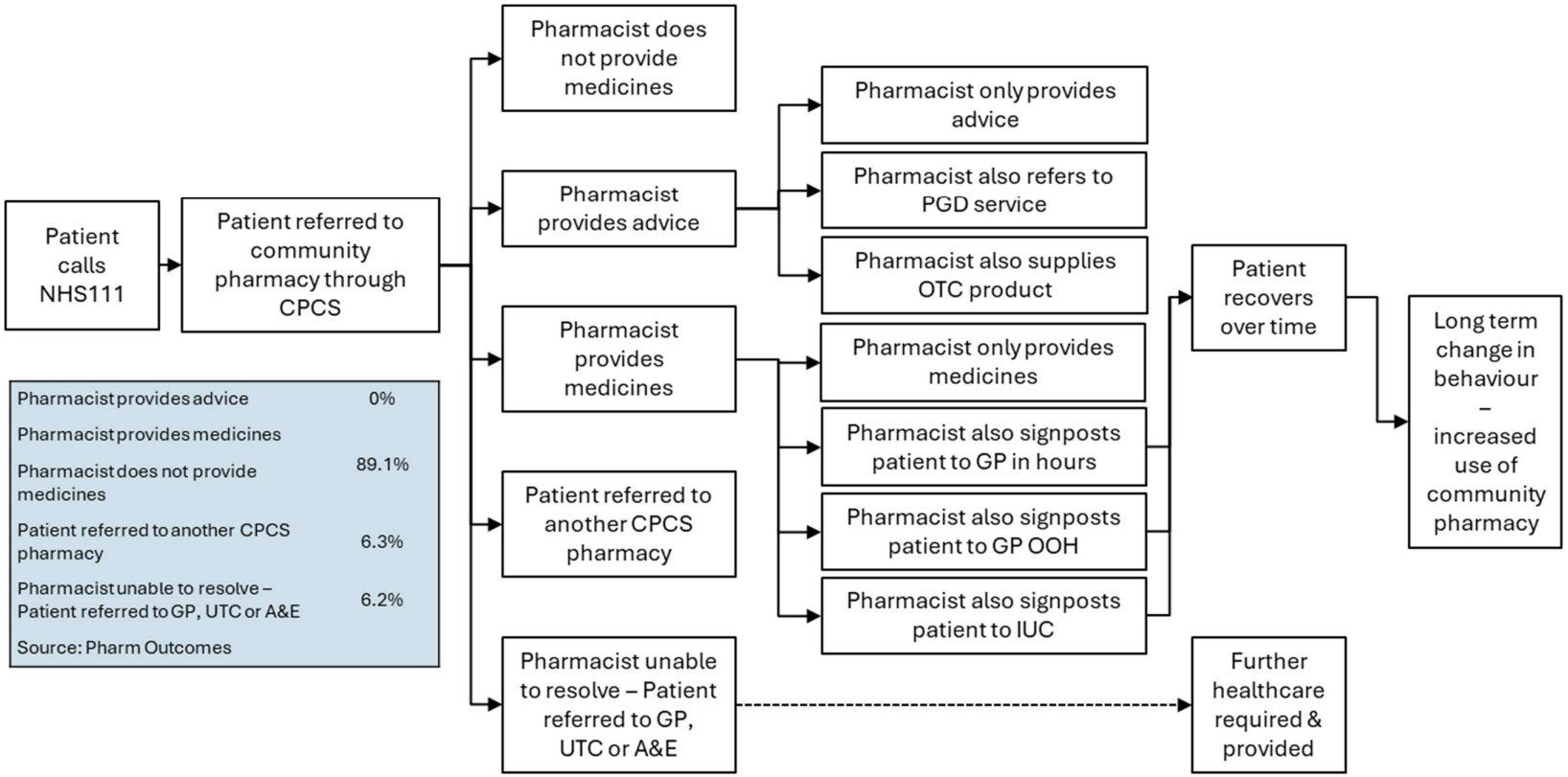
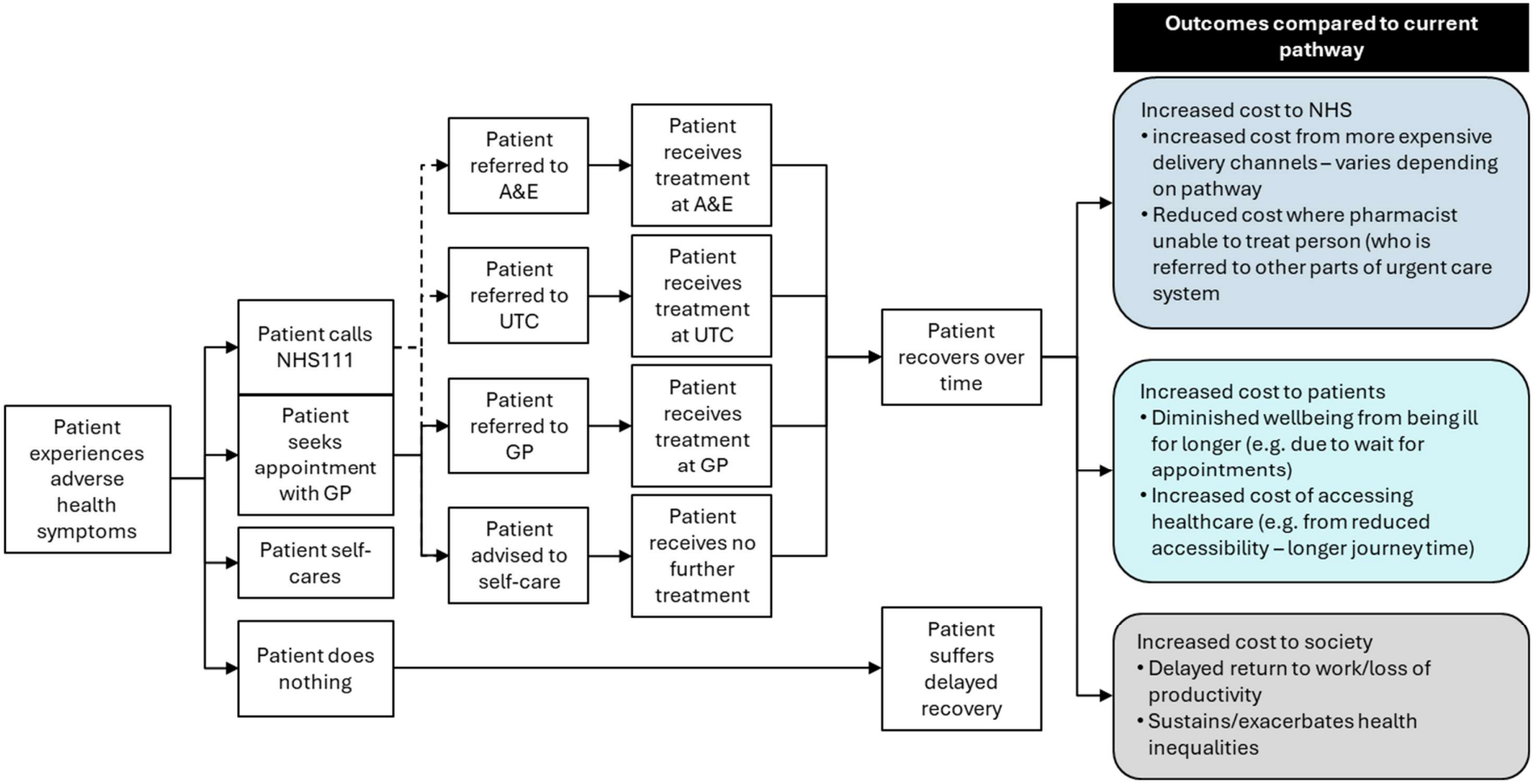


Figure 11: Patient impact pathway without CPCS – minor illness (counterfactual)



Hypertension Case-Finding Service (HFS)

The aims and objectives of the Hypertension Case-Finding Service (known as the blood pressure check service) are to:

- Identify people aged 40 years or older with high blood pressure (who have previously not had a confirmed diagnosis of hypertension) and refer them to their GP to confirm diagnosis and for appropriate management[28];
- At the request of a GP, undertake ad hoc clinic and ambulatory blood pressure measurements; and
- Promote healthy behaviours to patients.

The expected social value of the HFS is built around the benefits to the NHS, the patient and the wider economy associated with early detection and treatment of hypertension and, thus, the avoided costs associated with the condition.

Figure 12 shows the pathway for patients identified as potentially eligible for the HFS and Figure 13 illustrates the counterfactual without the Service.

Evidence on the number of patients using the HFS (and their characteristics) and their outcomes comes from PharmOutcomes.

Evidence on the benefit to patients from early identification of hypertension comes from various studies of the impact of hypertension in adults, for example:

- NICE: Hypertension in adults – resource impact guide (2019, updated in 2022)[29];
- A University of Sheffield report for PHE/OHID[30];
- An OHID model for estimating the return on investment from interventions to detect hypertension[31];
- A study by Lucas on the economic costs of strokes[32];
- An economic impact report for the Stroke Association[33]; and
- A study by the King's Fund ….[34].

Hypertension is a key risk factor in cardiovascular disease (CVD). Although these studies estimate the costs of CVD, they are difficult to compare directly because they:

- Cover different diseases and different elements of potential cost;
- Are estimated using inconsistent methods; and
- Express their results in different ways and on different price bases.

Nonetheless, their results can be pieced together to present a broadly consistent picture which highlights the benefits of early detection of hypertension to prevent/manage the risk of CVD (and other diseases).

The OHID has modelled the potential costs and benefits of improving detection of hypertension under (two) different scenarios. The analysis is based on 2m additional checks being undertaken over five years to achieve 68% hypertension detection from Year 3 in England (compare with a baseline of 63%). The results provide a basis for gauging:

- How many (CVD) events would be avoided'
- What costs would be avoided in primary, secondary and social care from the avoided CVD events; and
- The extent to which premature mortality is reduced and how many QALYs will be gained.

The results are presented on a cumulative basis.

[28] People under the age of 40 can be included at the discretion of the pharmacist.
[29] NICE, Resource impact report: Hypertension in adults: diagnosis and management (update) (NG136), Updated March 2022
[30] Public Health England, Cardiovascular Disease Prevention Return on Investment Tool: Technical Appendix, 2018
[31] OHID, Increasing blood pressure checks in community pharmacy: cardiovascular disease impact, May 2023
[32] Lucas-Noll et at, The costs associated with stroke care continuum: a systematic review, Health Economics Review, 2023
[33] Stroke Association, Current, future and avoidable costs of stroke in the UK, 2020
[34] King's Fund, Cardiovascular disease in England: Supporting leaders to take actions, 2022

Table 15: Estimated cumulative impact of interventions to detect hypertension

Outcome	Year 1	Year 5	Year 10	Year 20
CVD events avoided (#)	90	4,831	12,323	23,788
Heart attacks avoided (#)	33	1,193	3,101	6,178
Strokes avoided (#)	9	819	3,110	8,106
Premature mortality cases reduced (less than 75 years) (#)	13	134	1,162	2,727
Primary care costs saved per CVD event avoided (£)	£744	£1,277	£2,070	£3,055
Secondary care costs saved per CVD event avoided (£)	£5,511	£5,972	£8,176	£10,847
Social care costs saved per CVD event avoided (£)	£767	£2,271	£4,712	£7,728
Premature mortality cases reduced (less than 75 years) per CVD event (#)	0.144	0.028	0.094	0.115
QALYs gained per CVD event (#)	0.067	0.292	0.838	1.935
Source: OHID				

NICE has developed a tool to assess the costs and benefits of managing Stage 1 hypertension. It covers only the costs to the NHS and (public sector) social care providers. It provides estimates associated with six different CVD events (see Table 16).

Table 16: Estimated costs of CVD events

CVD event	Event		Post event (per year)	
	NHS	Social care	NHS	Social care
Stroke	£14,006	£9,070	£1,005	£4,178
Transient Ischaemic Attack	£1,746	£0	£587	£0
Myocardial Infarction	£4,641	£0	£768	£0
Stable angina	£908	£0	£273	£0
Unstable angina	£2,336	£0	£273	£0
Heart failure	£2,719	£0	£706	£0
Source: NICE (2018 prices)				

A study by Collins et al for the British Heart Foundation has also estimated the avoidable costs associated with CVD across three different age groups[35]. Besides the costs of healthcare and (formal) social care and improved QALYs, the study also assesses the opportunity costs of informal care. Like the NICE study, the costs are expressed on an annual basis.

Table 17: Excess cost (£, 2019 prices) per person, per year with CVD, 2020 (compared to if the same people did not have CVD)

Disease	Healthcare	Social care	Value of informal care	Value of disease-related QALYs lost	Total value of healthcare costs and QALY losses
All ages	2,330	454	1,433	2,868	7,087
Age 35–64	2,395	130	1,196	3,094	6,813
Age 65–79	2,309	362	1,395	2,806	6,868
Age 80–100	2,265	1,155	1,890	2,618	7,928
Source: Collins et al					

Other studies of the costs of CVD provide estimates of the adverse impact on productivity which also need to be incorporated into the analysis.

[35] Collins et al, 'What will the cardiovascular disease slowdown cost? Modelling the impact of CVD trends on dementia, disability, and economic costs in England and Wales from 2020–2029', 2022

Figure 12: Patient impact pathway with HFS

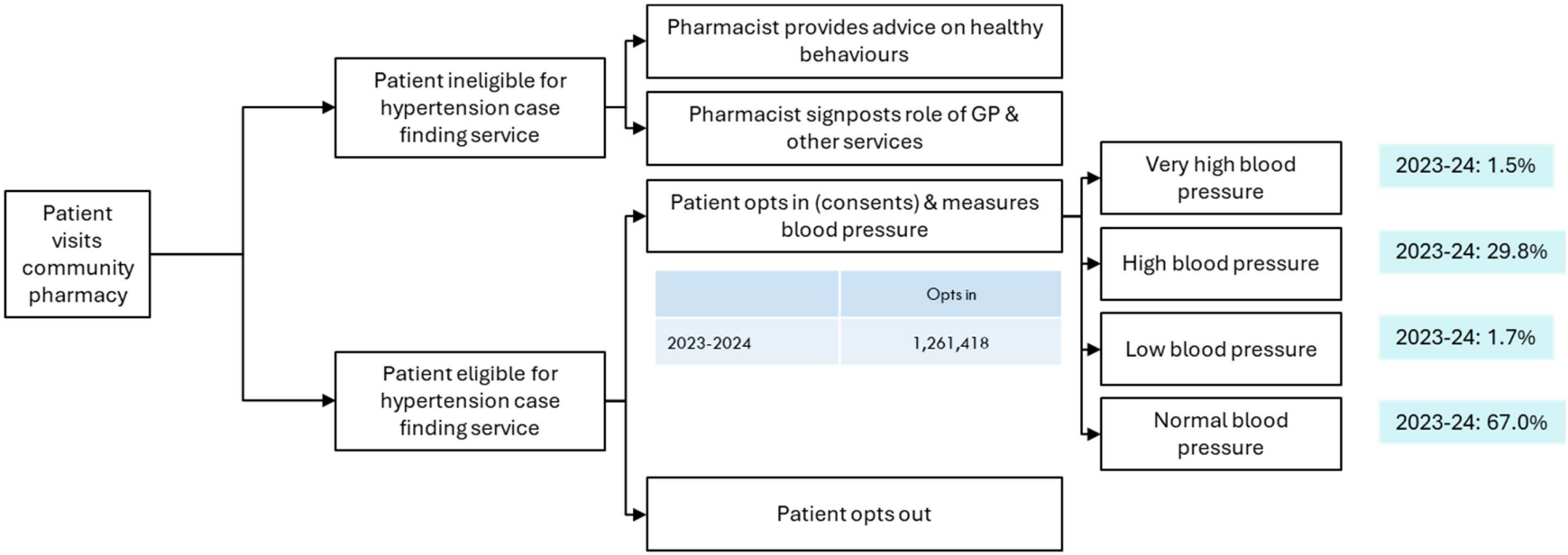
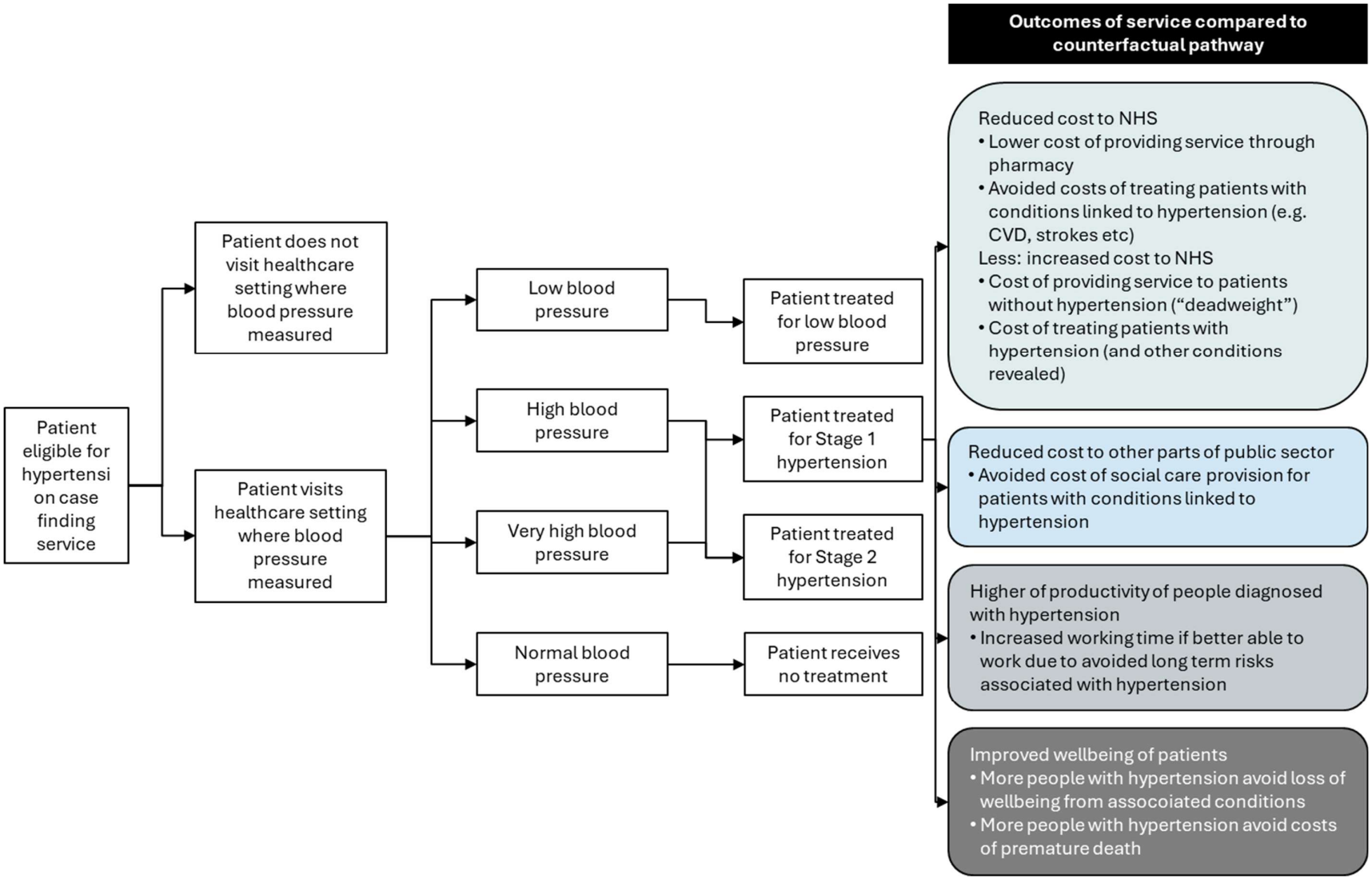


Figure 13: Patient impact pathway without HFS (counterfactual)



Appendix 3: Elements of community pharmacy social value

This report considers four elements of the social value of community pharmacy:

- The potential cost savings to the healthcare system;
- The potential avoided costs for other parts of the public sector;
- The value of improved patient outcomes; and
- The value to wider society.

Table 18 summarises the types of impacts assessed in this report. For each community pharmacy activity or service, Table 18 defines:

- Impacts which are regarded as relevant and material and where a reliable supporting evidence base exists are denoted by ✓. For example, for MAS, the direct savings to the NHS from providing the service through community pharmacy as opposed to alternative NHS providers.
- Impacts where the potential scale of the value can be described and is relevant and material but where insufficient data exists and/or methodological challenges need to be overcome such that reliable estimates of value cannot currently be provided are denoted by ?. For example, in the case of medicines adjustments, for some patients, the activity means that they avoid the need for residential care and the number of patients affected may be large enough for the value to be material.
- Impacts that are less relevant, but where their value cannot be estimated due to a lack of available data, methodological challenges and/or immateriality (denoted by ×). For example, with medicines adjustments, it is possible that drugs would go unused without the community pharmacy activity. The scale of this impact is, however, uncertain and likely to vary greatly across different medicines, patients and conditions. As a result, no robust basis exists for estimating the cost of that proportion of drugs that would not be taken without community pharmacy (i.e. in the counterfactual).
- Impacts that are not materially relevant to the activity or service provided (denoted by n/r): for example, given the nature of minor ailments, it is assumed that there is no risk of loss of life if community pharmacy does not undertake the activity or provide the service.

Table 18: Impacts assessed for each community pharmacy service covered

Stakeholder	**NHS**				**Other public sector**	**Patient/carer**		**Wider society**	
Activity/service	**Cost efficiencies**	**Avoided treatment costs**	**Wasted drugs**	**Compensation payments**	**Avoided costs**	**Wellbeing costs**	**Time saving**	**Value of life**	**Lost output**
Dispensing									
• Managing prescribing errors	✓	✓	✓	✓	n/r	✓	✓	✓	✓
• Clarifying prescriptions	✓	✓	✓	✓	n/r	✓	✓	✓	✓
• Managing drug shortages	✓	?	n/r	n/r	n/r	✓	✓	n/r	✓
• Sustaining supply	✓	?	×	n/r	n/r	×	✓	×	n/r
• Making medicines adjustments	✓[36]	?	×	n/r	✓[37]	×	n/r	n/r	n/r

[36] Covered as part of the sensitivity analysis

[37] Local authority: social care

Stakeholder	NHS				Other public sector	Patient/carer		Wider society	
Activity/service	**Cost efficiencies**	**Avoided treatment costs**	**Wasted drugs**	**Compensation payments**	**Avoided costs**	**Wellbeing costs**	**Time saving**	**Value of life**	**Lost output**
• Delivering prescriptions	n/r	?	n/r	n/r	✓[38]	×	✓	n/r	n/r
• Flu vaccination service	✓	✓	n/r	n/r	n/r	✓	✓	✓	✓
• Covid-19 vaccination service	✓	✓	n/r	n/r	n/r	✓	✓	✓	✓
Self-care									
• NMS	?	?	n/r	n/r	n/r	✓	✓	n/r	✓
• MAS – non-commissioned	?	✓	n/r	n/r	n/r	✓	✓	n/r	✓
• MAS - commissioned	?	✓	n/r	n/r	n/r	✓	✓	n/r	✓
• DMS	n/r	✓	n/r	n/r	×	✓	×	✓	✓
• CPCS	✓	✓	n/r	n/r	n/r	✓	✓	n/r	?
• HFS	✓	✓	n/r	n/r	n/r	?	✓	?	?
Public health									
• Emergency hormonal contraception	✓	✓	n/r	n/r	✓[39]	×	V	×	×
• Needle and syringe programmes	✓	✓	n/r	n/r	×	×	×	✓	R
• Supervised consumption	✓	✓	n/r	n/r	✓[40]	×	×	✓	✓

Key:

✓= Impact assessed

? = Impact included within impact pathway, and potential scale of impact outlined

× = Impact included within impact pathway but not assessed (due to lack of data, methodological challenge or immateriality)

n/r = Impact not materially relevant, and hence not included within impact pathway

As shown in Table 18, the impact of each service on every stakeholder is not considered for data/ methodological reasons or lack of materiality.

NHS

The counterfactual scenarios typically assume that the service provided by community pharmacy would be provided elsewhere in the health system in the absence of provision by community pharmacy, at least for a subset of patients. Where relevant, the impact of a change in the point of delivery on the cost to the NHS is estimated; the only exception is MUR where insufficient evidence exists to estimate the scale of the potential cost efficiencies of community pharmacy.

Additionally, the services of community pharmacy may mean avoided treatment costs as a result of improved health outcomes for patients. While this is estimated in some instances, often insufficient evidence exists to

[38] Local authority: social care, as a sensitivity

[39] UK Government: transfer payments and resource costs

[40] Criminal Justice sector, Victims services

produce a reliable estimate of this impact in the counterfactual scenario. Hence, its scale is excluded. This is an issue for medicine support services (e.g. home delivery of prescriptions) where the volume of activity is high, but the impact on health outcomes per patient is relatively small.

The cost of wasted drugs and compensation payments are only relevant for certain services. With the exception of managing prescribing errors, insufficient evidence exists to estimate the proportion of drugs that would be wasted in the absence of community pharmacy, hence we do not quantify this impact.

Other parts of the public sector

Community pharmacy typically reduces public sector costs in one of two ways:

- Directly, by reducing the need for health and care services to be provided by other government departments (e.g. social care provision by local authorities); and
- Indirectly, through the impact on non-health services (e.g. supervised consumption eases the burden on the justice system by reducing drug-related crime).

In some instances, the avoided costs resulting from the services provided by community pharmacy are estimated, for example where cost estimates are available for avoided criminal justice and social care costs. For some services, due to uncertainty about the value per case and the volume to which this applies in the counterfactual scenario, reliable estimates cannot be provided. For example, good evidence with which to estimate the impact of needle and syringe programmes on the incidence of drug-related crime was not identified, although better evidence exists for supervised consumption.

Patients and/or their carers

Where material and relevant, the time saving to patients from attending community pharmacy as opposed to more distant and/or slower points of delivery in the healthcare system is estimated.

The wellbeing benefits from pharmacists' actions for services ae also estimated where a basis exists for estimating the additional time that patients would be unwell without the service of community pharmacy, for example as a result of having to wait to see a GP. For some services, including many public health and medicine support services, the community pharmacy service may reduce the time over which a patient is ill, but the magnitude of this effect is uncertain. Hence, this impact is excluded in many cases.

Wider society

With the exception of some public health services where there is a lack of supporting evidence, the cost to society is estimated in terms of potential lost economic output. This is especially relevant where the accessibility of community pharmacy services means that less working time is lost than in the next best counterfactual scenario.

The risk to the value of life is only relevant for a few of the services provided by community pharmacy. Where there is sufficient supporting evidence about the scale of this risk if community pharmacy does not provide the service, this avoided cost is included.

Evidence around the cost-effectiveness of Medicines Use Reviews is similarly inconsistent, with much local evidence of positive effect but no conclusive evidence of impact on health outcomes. By contrast, the study by the University of Nottingham into the New Medicine Service provides the type of rigorous and robust evidence base which would aid decision making.

Appendix 4: Estimated impact on the public finances

Table 19 summarises the direct impact of each community pharmacy activity and service assessed as part of this report. It distinguishes the net avoided costs for the NHS and other parts of the public sector from the funding provided by NHSE and local commissioners: this is the difference between the gross value of the avoided costs and the costs that would be incurred in the counterfactual scenario.

In 2023/24, the net value to the public sector, including both the NHS and other public sector bodies, of all analysed activities and services was £5.7bn in avoided costs. This compares with estimated funding by the NHS for the activities and services of £337m, and additional funding from local commissioners of £22m. As shown in Table 19, the net impact on public finances of these services was nearly £5.3bn.

Table 19: Estimated impact on the public finances of community pharmacy's activities and services (2023/24)

Activity/service	Net avoided costs for the NHS (£m)	Net avoided costs for other parts of the public sector (£m)	Funding provides by NHS (£m)	Funding provided by local commissioners (£m)	Net impact on the public finances (£m)
Dispensing	*1,021*	307	*186*	×	1,142
• Managing prescribing errors	765	n/r	×	n/r	765
• Clarifying prescriptions	-1	n/r	×	n/r	-1
• Medicines adjustments	0	307	73	n/r	233
• Delivering prescriptions	-14	×	×	n/r	-14
• Managing drug shortages	95	n/r	×	n/r	95
• Sustaining supply of medicines in emergencies	162	n/r	×	n/r	162
• Flu vaccination service	4	×	36	0	32
• Covid-19 vaccination service	11	×	76	0	-66
Self-care	3,642		151	1	3,490
• NMS	628	×	109	n/r	519
• MAS – non-commissioned	2,564	n/r	n/r	n/r	2,564
• MAS - commissioned	7	n/r	0	1	6
• DMS	7	n/r	5	n/r	2
• CPCS	51	n/r	32	n/r	20
• HFS	385	n/r	5	n/r	380
Public health	217	489	0	20	686
• Emergency hormonal contraception	11	5	n/r	6	10
• Needle and syringe programmes	123	×	n/r	2	122
• Supervised consumption	83	484	n/r	13	554
Total (£m)	**4,880**	**795**	**337**	**22**	**5,317**

Key:

× = Impact included within impact pathway but not assessed (due to lack of data, methodological challenge or immateriality)

n/r = Impact not materially relevant and hence not included within impact pathway