

Community Pharmacy  
.... the best kept secret

# Intervention Survey Report

November 2016

reducing hospital admissions  
enabling prevention  
early dispensing health  
intervention improving efficiency  
liberating capacity

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## **Your Community Pharmacy**

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## BACKGROUND

Around 123,000 people, 9% of the population, visit community pharmacies in Northern Ireland every day.

Every day community pharmacies carry out many valuable healthcare interventions which benefit both patients and the health service. However many of these interventions are not routinely recorded.

CPNI designed this survey in an attempt to uncover, collect and record, for the first time, some of these valuable unseen interventions over a one week period.

## OUTSIDE SCOPE OF SURVEY

It is important to note that interventions or advice occurring as part of a service commissioned already from community pharmacies e.g. smoking cessation, medicines use reviews, repeat dispensing and the minor ailments scheme are **not** included in this survey. These also account for a significant proportion of health service activity given:

- Around 40 million prescription items are safely dispensed annually by the community pharmacy network,
- Over 20,000 people with asthma, chronic obstructive airways disease (COPD), or diabetes are supported to take their medicines through the community pharmacy Medicines Use Review service every year,
- Over 250,000 minor ailments consultations are undertaken annually as part of the community pharmacy Minor Ailments Scheme
- More than 50,000 people have successfully quit smoking over the last 5 years through the community pharmacy stop smoking service.

All pharmacies also provide compliance support services, such as preparing reminder cards or compliance aids for an average of 100 people per pharmacy. Although this is not a formally commissioned service, a level of funding is provided in recognition of the work undertaken and therefore interventions relating to patients in receipt of compliance support have **not** been recorded in this report.

## SURVEY DESIGN

Early September 2016 community pharmacies in Northern Ireland were contacted by CPNI and invited to take part in the survey. Survey documentation including the cover letter and data collection forms are provided in Appendix 1.

Interventions were divided into two categories, Medicines Optimisation and Health and Wellbeing, with pharmacists asked to classify the reason for each intervention as likely or unlikely to cause harm.

## SURVEY PERIOD

Community pharmacies were asked to collate all relevant interventions over a one week period from **Wednesday 21<sup>st</sup> September 2016 to Tuesday 27<sup>th</sup> September 2016 (inclusive)**. The deadline for responses was 5<sup>th</sup> October 2016.

## SURVEY SAMPLE

223 completed survey forms were received equating to a 42% response rate. A similar number of responses were received from multiple (n= 119, 53%) compared to independent pharmacies (n=104, 47%). This constitutes a representative sample of the NI community pharmacy network.

## SURVEY RESULTS SUMMARY

Overall a total of 127,091 interventions were recorded over the one week period by the 223 pharmacies taking part in the survey. This can be extrapolated to:

- **Over 15 million interventions per year** across the community pharmacy network
- **Over 300,000 interventions per week** across the community pharmacy network
- **Over 50,000 interventions per day** across the community pharmacy network
- **Almost 100 interventions every day per pharmacy**
- **Around 10 interventions per hour per pharmacy**

Almost 30% of survey interventions were judged as “likely to prevent harm”, meaning an estimated 4.4 million interventions preventing patient harm are made by the Northern Ireland community pharmacy network every year.

## RESULTS

### 1. RESULTS OVERVIEW

Table 1 provides an overview of the results for the 223 pharmacies responding to the survey.

Table 1

Intervention Type	Total	%	Likely to prevent harm		Unlikely to prevent harm	
			Count	%	Count	%
Medicines Optimisation	92,859	73%	25,212	27%	67,647	73%
Health and Wellbeing	34,232	24%	10,028	29%	24,204	71%
<b>All</b>	<b>127,091</b>	<b>100%</b>	<b>35,240</b>	<b>28%</b>	<b>91,851</b>	<b>72%</b>

Table 2 shows how these results can be extrapolated to reflect this level of interventions across the NI community pharmacy network (533 pharmacies).

Table 2

Intervention Type	Survey Total (1 wk)	NI pharmacy network		Likely to prevent harm NI pharmacy network		Unlikely to prevent harm NI pharmacy network	
		1 week	1 year	1 week	1 year	1 week	1 year
		Medicines Optimisation	92,859	222,862	11,588,824	60,508	3,146,416
Health and Wellbeing	34,232	82,157	4,272,164	24,067	1,251,484	58,090	3,020,680
<b>All</b>	<b>127,091</b>	<b>305,019</b>	<b>15,860,988</b>	<b>84,575</b>	<b>4,397,900</b>	<b>220,444</b>	<b>11,463,088</b>

These results indicate that over **15 million** interventions take place in community pharmacies in Northern Ireland every year and of these **4.4 million** are likely to have prevented harm to patients.

This is likely to be a conservative estimate as many survey responses describe an under-reporting of interventions, particularly during busy periods.

## 2. MEDICINES OPTIMISATION RESULTS

The most common interventions within this category were prescription ordering (10,461), prescription collection from GP (49,192) and the delivery of medicines to patients (12,613). Most pharmacists completing the forms stated that the reported interventions related only to the occasions where vulnerable patients were supported rather than reflecting their regular prescription collection and delivery service. Table 3 shows the full breakdown of these interventions.

**Table 3**

Medicines Optimisation Intervention	Number of Interventions		Total Interventions		
	Likely to prevent harm	Unlikely to prevent harm	Survey	NI Community pharmacy network	
				1 week	1 year
<b>Clinical Intervention</b>					
Major interaction identified	344	365	709	1,702	88,504
Dose query resolved	506	740	1,246	2,990	155,480
Drug usage query e.g. duration of treatment	232	560	792	1,901	98,852
Medicines used outside licensed indication	52	125	177	425	22,100
Duplicated medicines or prescriptions	268	497	765	1,836	95,472
Suspected adverse drug reaction	97	144	241	579	30,108
Interaction with co-prescribed / OTC therapy	293	434	727	1,745	90,740
Medicines safety issue/side effects identified	202	273	475	1,140	59,280
Identification of an allergy	97	160	257	617	32,084
Drug shortage issue resolved e.g. GP contacted	403	1,096	1,499	3,597	187,044
General prescription query – contact needed	726	1,554	2,280	5,472	284,544
Medicine not dispensed as not required	180	785	965	2,316	120,432
Over-prescribing identified	173	344	517	1,241	64,532
Encouraging regular monitoring of bloods	411	402	813	1,951	101,452
Advice on correct route / time of administration	615	2,283	2,898	6,955	361,660
Specific prescription advice	926	1,812	2,738	6,571	341,692
Evidence of non-compliance with treatment	707	1,093	1,800	4,320	224,640
Administration/adherence aids needed	372	629	1,001	2,403	124,956
Care home advice/intervention	163	530	693	1,663	86,476
<b>Total</b>	<b>6,767</b>	<b>13,826</b>	<b>20,593</b>	<b>49,424</b>	<b>2,570,048</b>
<b>Prescription supply related interventions</b>					
Prescription ordered at the request of a patient	3001	7,460	10,461	25,106	1,305,512
Prescription collected from GP surgery	11,614	37,578	49,192	118,061	6,139,172
Prescription delivered to a patient	3,830	8,783	12,613	30,271	1,574,092
<b>Total</b>	<b>18,445</b>	<b>53,821</b>	<b>72,266</b>	<b>173,438</b>	<b>9,018,776</b>
<b>TOTAL</b>	<b>25,212</b>	<b>67,647</b>	<b>92,859</b>	<b>222,862</b>	<b>11,588,824</b>

Table 3 illustrates the distribution of medicines optimisation interventions, while 78% of these interventions are related to prescription supply, these are also worthy of consideration given they relate to actions taken to support vulnerable patients.

The remaining 20,593 more clinically orientated interventions include 6,767 (33%) essential interventions which were made in order to prevent harm to patients. While as previously stated, this is likely to be an underestimate of actual activity, it does provide an indication of a minimum level of activity. **Extrapolating this to the entire community pharmacy network suggests that almost 50,000 clinical interventions occur in community pharmacies in Northern Ireland every week and of these over 16,000 prevent patient harm, meaning around 850,000 cases of potential patient harm are prevented annually through a clinical intervention by a community pharmacist.**

#### TYPE OF MEDICINES OPTIMISATION INTERVENTION

**Table 4**

Type MO Intervention	Survey Total		Likely to prevent harm			Unlikely to prevent harm		
	No.	%	Survey (1 wk)	NI Community Pharmacy Network		Survey (1 wk)	NI Community Pharmacy Network	
				1 wk	1 year		1 wk	1 year
Prescription error or inappropriate prescribing e.g. Drug/dose/ADR	10,650	52%	3,573	8,575	445,900	7,077	16,985	883,220
Specific prescription-related advice	7,142	35%	2,115	5,076	263,952	5,027	12,065	627,380
Adherence issues identified	2,801	13%	1,079	2,590	134,680	1,722	4,133	214,916
<b>Total</b>	<b>20,593</b>	<b>100</b>	<b>6,767</b>	16,241	844,532	<b>13,826</b>	33,183	1,725,516

The above results provide some indication of the types of interventions required, with 3,575 prescription errors/inaccuracies which prevent patient harm, detected in pharmacies taking part in the survey. This extends to **8,575 interventions relating to prescription errors or inappropriate prescribing across the community pharmacy network each week or almost 450,000 each year.**

### 3. HEALTH AND WELLBEING INTERVENTIONS

#### COMMON AILMENTS AND OVER THE COUNTER INTERVENTIONS

**Table 5**

Minor ailments/OTC Interventions		Number of Interventions		Survey Total	NI Community Pharmacy Network	
		Likely to prevent harm	Unlikely to prevent harm		1 wk	1 year
Advice on minor ailments	Adult	828	3,184	4,012	9,629	500,708
	Child	563	1,755	2,318	5,563	289,276
Advice on OTC medication	Adult	2,181	5,105	7,286	17,486	909,272
	Child	932	2,581	3,513	8,431	438,412
Non-supply of OTC medicine e.g. suspected misuse, unsuitable, referral needed		526	503	1,029	2,470	128,440
Promotion of self-care		218	1,331	1,549	3,718	193,336
First aid advice		192	672	864	2,074	107,848
<b>Total</b>		<b>5,440</b>	<b>15,131</b>	<b>20,571</b>	<b>49,371</b>	<b>2,567,292</b>

The results in the above table illustrate the number of informal interventions which occur routinely in all community pharmacies as they support patients in the treatment and management of their minor ailments and health concerns. These interventions which do not include any work related to the formally commissioned Minor Ailments Scheme show **over 2.5 million interventions for minor ailments or over the counter advice and support provided in community pharmacies across Northern Ireland every year.**

It is also worth noting the significant level of support provided to support minor ailments in children, with **almost 700,000 interventions made to support minor ailments in children across the pharmacy network each year.**

These results clearly demonstrate community pharmacies are being used as a first port of call for the treatment and management of minor ailments and health concerns. Encouragingly many people also seek the expertise of the community pharmacist for First Aid advice, with over 100,000 interventions per year.



## REFERRAL/SIGNPOSTING INTERVENTIONS

**Table 6**

Referral/Signposting Interventions	Number of Interventions		Total	NI Community Pharmacy Network	
	Likely to cause harm	Unlikely to cause harm		1 wk	1 year
GP referral	653	1071	1724	4,138	215,176
A&E referral	187	0	187	449	23,348
Out-of-hours referral	203	259	462	1,109	57,668
Dentist referral	74	145	219	526	27,352
Referral to another health or social care service e.g. physiotherapy	81	255	336	806	41,912
Signposting e.g. NI Direct website, Diabetes UK, private counselling services	60	186	246	590	30,680
<b>Total</b>	<b>1,258</b>	<b>1,916</b>	<b>3,174</b>	<b>7,618</b>	<b>396,136</b>

These results demonstrate clearly the important community triage function performed by community pharmacies with pharmacists assessing each person seeking treatment or advice, using their clinical expertise and professional judgement to decide which patients can be safely treated within the pharmacy and who needs to be referred on for further investigation of their symptoms. Extrapolating the results to the entire community pharmacy network indicates **over 360,000 referrals** being made by community pharmacists to other health and social care professionals every year.

While the majority of these referrals are made to GP practice, it seems that **over 80,000 referrals** are made to Out-of-hours centres and Emergency Departments by community pharmacists every year.

Pharmacists also support patients by signposting them to sources of additional support for their health and social care needs with **over 30,000 people signposted annually** to wider community and voluntary support services.

## PUBLIC HEALTH-RELATED INTERVENTIONS

**Table 7**

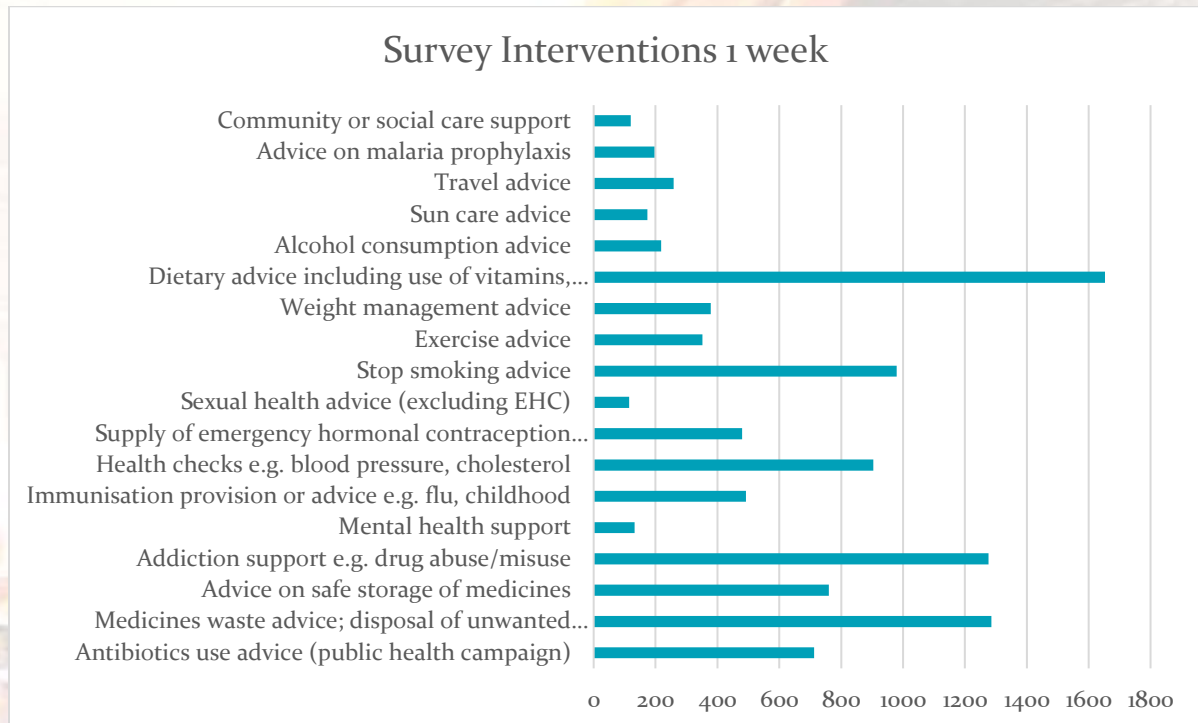
Public Health-related interventions	Number of Survey Interventions	All Community Pharmacies	
		1 week	1 year
Antibiotics use advice (public health campaign)	713	1,711	88,972
Medicines waste advice; disposal of unwanted medicines	1286	3,086	160,472
Advice on safe storage of medicines	760	1,824	94,848
Addiction support e.g. drug abuse/misuse	1276	3,062	159,224
Mental health support	132	317	16,484
Immunisation provision or advice e.g. flu, childhood	492	1,181	61,412
Health checks e.g. blood pressure, cholesterol	904	2,170	112,840
Supply of emergency hormonal contraception (EHC) and advice	480	1,152	59,904
Sexual health advice (excluding EHC)	115	276	14,352
Stop smoking advice	979	2,350	122,200
Exercise advice	352	845	43,940
Weight management advice	378	907	47,164
Dietary advice including use of vitamins, nutritional supplements	1653	3,967	206,284
Alcohol consumption advice	218	523	27,196
Sun care advice	174	418	21,736
Travel advice	259	622	32,344
Advice on malaria prophylaxis	196	470	24,440
Community or social care support	120	288	14,976
<b>Total</b>	<b>10,487</b>	<b>25,169</b>	<b>1,308,788</b>

The results shown in Table 7, demonstrate the vital role community pharmacists and their staff play in supporting public health, with **an estimated 1.3 million public health-related interventions taking place in community pharmacies in Northern Ireland every year.**

It is important to note that those interventions associated with a commissioned public health service e.g. Smoking Cessation, Needle and Syringe Exchange and Supervised Administration, have not been included in these figures.

The diverse range of public health-related interventions taking place during the survey period are further illustrated in Figure 1 below.

**Figure 1**



The most common intervention recorded was the provision of dietary advice, followed closely by the provision of addiction support and advice on the safe disposal of medicines. The role of the pharmacist in supplementing public health campaigns such as providing advice around the appropriate use of antibiotics and immunisation support is also significant. The timing of the survey (September) will undoubtedly have influenced the range of these interventions, with children back to school, people preparing for winter and fewer interventions relating to travel and care in the sun.

These results emphasise the opportunity which the reach of the community pharmacy network offers to commissioners of public health services; as a vehicle to get clear and consistent public health messages and interventions into all local communities.

#### 4. DISCUSSION

This snapshot survey helps to illustrate the uniqueness of the community pharmacy environment.

No other health care resource combines the provision of a range of commissioned services with such a wide spectrum of opportunistic interventions, all without an appointment.


Community pharmacists and their staff often try to convey the diversity of their work but this is the first known attempt to fully collate the unseen, unrecorded interventions which are part of the everyday work in our local community pharmacy network.

This survey also helps describe how challenging this environment is to work in, particularly given community pharmacists do not have the benefit of patient records to consult nor do they have dedicated time set aside to deal with every consultation. Instead they manage their own time effectively, dealing with people as they present, using their professional judgement guided by a skilled process of gentle questioning to decide which patients can be treated safely in the pharmacy and who needs to be referred onwards for further investigation of their symptoms. All the time supported by the strong skill base of their wider pharmacy team.

This survey supports the view of community pharmacy as the **safety net of primary care**, the evidence suggests up to 4.4 million critical interventions are made by pharmacies in Northern Ireland every year which are likely to have prevented harm to patients, equating to an average of over 8,000 interventions per pharmacy.

It is also important to bear in mind the range of other services, formally commissioned by the HSC which occur alongside these interventions, for example, an average Northern Ireland pharmacy in one year:

- Looks after the routine medicine supply for around 3,000 regular patients
- Dispenses around 72,000 prescriptions
- Provides around 120 Medicines Use Reviews for patients with asthma & diabetes
- Supports around 50 people in a 12 week smoking cessation programme
- Treats around 500 people through the Minor Ailments Service
- May provide other specialist services such as palliative care support, needle and syringe exchange and supervised administration of medicines
- Partners a local community group in a community development project such as Building the Community Pharmacy Partnership (BCPP)



All pharmacies also provide compliance support services, such as preparing reminder cards or compliance aids for an average of 100 people per pharmacy. Although this is not a formally commissioned service, a level of funding is provided in recognition of the work undertaken and therefore interventions relating to preparation of compliance aids have not been recorded in this report. Compliance support provided by community pharmacies is viewed as an essential service by many of our older people, allowing them to continue to live independently at home. Without this support many would have no choice but to move to a care home environment. Existing funding arrangements for compliance support provided by community pharmacists are far from ideal, it has been identified as a priority area for short-term review and improvement.

There are many dimensions to the services provided by community pharmacy and people who are unfamiliar with this environment often do not fully appreciate how each function works synergistically. The combination of a core dispensing service, together with over the counter medicine supply, a wider retail function, a skilled workforce and an open access design, together create a perfect environment for opportunistic interventions with large numbers of people. This unique mix of clinical expertise and accessibility, provides a platform on which to expand and build a more cohesive range of patient-centred services, focusing not only on clinical services which maximise the pharmacist's role as the medicines expert but also on prevention and early intervention, working upstream to help patients stay well and prevent illness wherever possible.

We hope this survey is a start in providing another layer of evidence to help demystify some of the many important ways our unique Northern Ireland community pharmacy network supports the public and the health care system. It provides a snapshot of the diversity and often unseen side to the profession but it is just the tip of the iceberg, community pharmacies can and want to do so much more.

While some of the numbers quoted may seem large, it is worth remembering that these are likely to be an underestimate as many pharmacists in their responses told us they simply did not have the time to record all interventions, particularly during busier periods.

**Community Pharmacy Intervention Survey 2016**

Every day community pharmacies carry out healthcare interventions which benefit both patients and the health service. However these interventions are not routinely recorded and as we increasingly move towards evidence-based commissioning we continue to miss out on the opportunity to use these interventions to encourage future investment and development in community pharmacy services.

CPNI is therefore asking all community pharmacies to collate all interventions over a one week period from **Wednesday 21<sup>st</sup> September 2016 to Tuesday 27<sup>th</sup> September 2016 (inclusive)**.

World Pharmacists Day is taking place on 25<sup>th</sup> September 2016 with the theme “**Pharmacists: Caring for you.**” Our survey will coincide with this date and theme as the interventions captured will showcase the level at which community pharmacists’ care for their patients and the range of healthcare advice provided over the one week survey period. We will also be encouraging social media use to promote community pharmacy activity at this time, using the hashtag #valueofpharmacy

This is likely to involve a large number of interventions being recorded so we want to make it as easy as possible for pharmacies to record the information. For that reason the survey will be paper-based and a ‘five bar gate’ tally format (HHH). Copies can then be kept in convenient locations within the pharmacy and the tally marked up as interventions are made. The tally columns have been split into “likely to cause harm” and “unlikely to cause harm,” so in the absence of the intervention being made would the result have been likely or unlikely to cause harm to the patient.

Interventions have been divided into two categories: medicines optimisation and health and wellbeing. Some interventions may fall into more than one category so you may tick more than one box per intervention. Interventions or advice as part of a commissioned service e.g. smoking cessation, MURs, repeat dispensing or minor ailments should **NOT** be captured. There is a third page provided to capture any other information you may feel is relevant. The interventions should all be self-explanatory, but please do not hesitate to contact the CPNI office if you require any clarification.

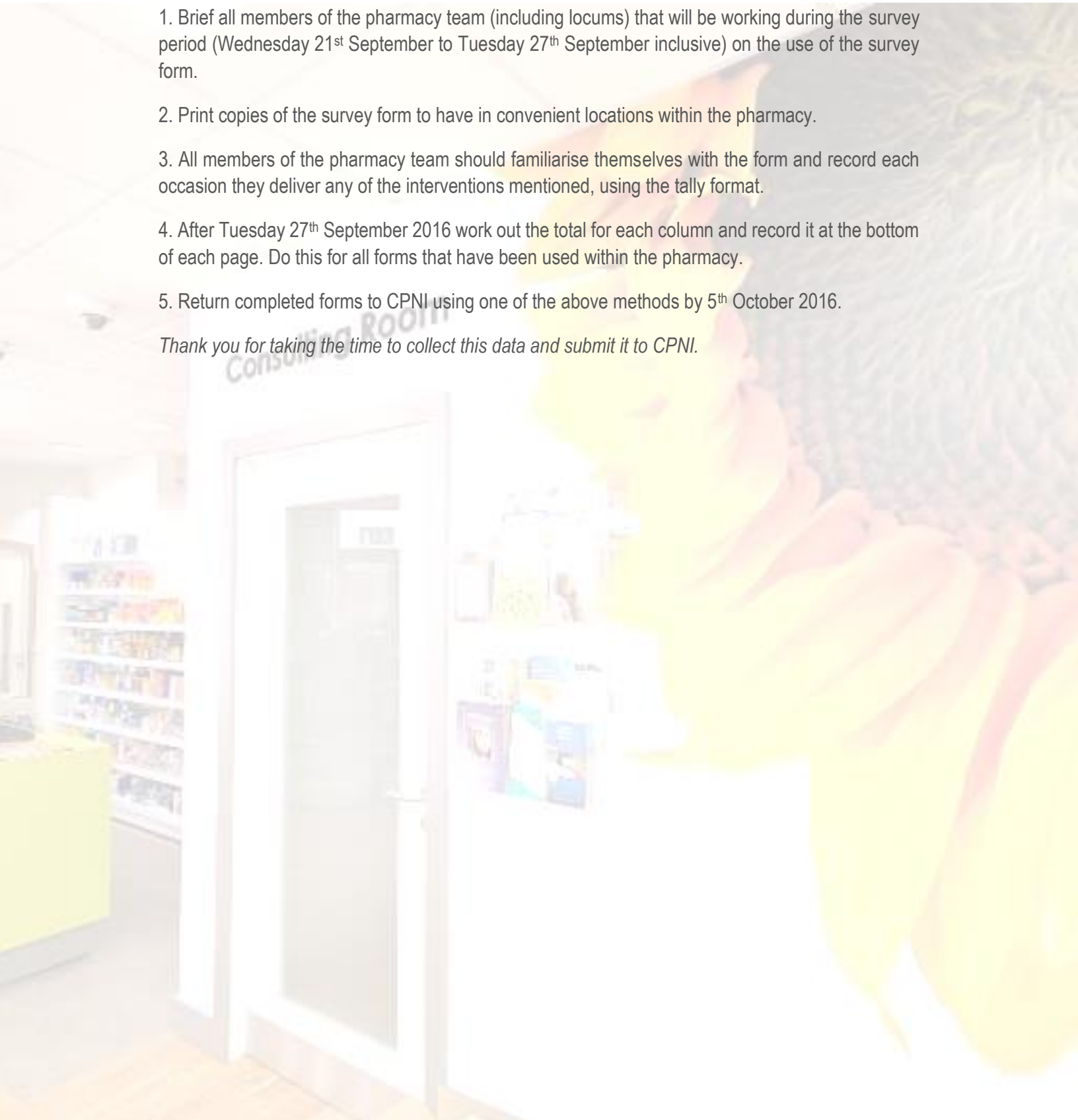
We would ask that surveys are returned to CPNI by 5<sup>th</sup> October, 2016. You can:

- Post surveys to CPNI, 5 Annadale Avenue, Belfast, BT7 3JH;
- Fax to 028 90 646 892; or
- Scan and email to [info@communitypharmacyni.co.uk](mailto:info@communitypharmacyni.co.uk)

**“I would like to help with this survey” ...What do I need to do?**

1. Brief all members of the pharmacy team (including locums) that will be working during the survey period (Wednesday 21<sup>st</sup> September to Tuesday 27<sup>th</sup> September inclusive) on the use of the survey form.
2. Print copies of the survey form to have in convenient locations within the pharmacy.
3. All members of the pharmacy team should familiarise themselves with the form and record each occasion they deliver any of the interventions mentioned, using the tally format.
4. After Tuesday 27<sup>th</sup> September 2016 work out the total for each column and record it at the bottom of each page. Do this for all forms that have been used within the pharmacy.
5. Return completed forms to CPNI using one of the above methods by 5<sup>th</sup> October 2016.

*Thank you for taking the time to collect this data and submit it to CPNI.*



Medicines Optimisation Intervention	Tally	
	Likely to cause harm	Unlikely to cause harm
Major interaction identified		
Dose query resolved		
Drug usage query e.g. duration of treatment		
Highlight use of medicines outside licensed indication to prescriber		
Duplicated medicines or prescriptions		
Suspected adverse drug reaction		
Evidence of any interaction with co-prescribed or OTC therapy		
Medicines safety issue/side effects identified		
Identification of an allergy		
Drug shortage issue resolved e.g. GP contacted for alternative		
GP or other healthcare professional contacted due to prescription query e.g. asthma nurse, hospital discharge letter query, missing prescription item		
Medicine not dispensed as not required by patient		
Over-prescribing identified e.g. returned medicines, from PMR, use of painkillers		
Encouraging regular monitoring of bloods e.g. lithium/methotrexate/warfarin patients		
Advice on correct route and/or time of administration		
Specific prescription advice e.g. high risk medicine, new medicine, change to dosage or formulation, how to use a device		
Evidence of non-compliance with treatment e.g. recurrent running out of medicines, emergency supply requests		
Checked if administration or adherence aids are required e.g. easy-open tops, reminder cards, compliance aids, large print labels		
Prescription ordered at the request of a patient		
Prescription collected from GP surgery on behalf of a patient		
Prescription delivered to a patient		
Care home advice/intervention		
<b>TOTAL</b>		



Health and Wellbeing Intervention		Tally	
		Likely to cause harm	Unlikely to cause harm
Advice on minor ailments	Adult		
	Child		
Advice on OTC medication	Adult		
	Child		
Non-supply of OTC medicine e.g. suspected misuse, unsuitable, referral needed			
Promotion of self-care			
Supply of emergency hormonal contraception (EHC) and advice			
Sexual health advice (excluding EHC)			
First aid advice			
Stop smoking advice			
Weight management advice			
Dietary advice including use of vitamins, nutritional supplements			
Complementary therapy advice e.g. acupuncture			
Homeopathic medicines advice			
Health checks e.g. blood pressure, cholesterol			
Exercise advice			
Sun care advice			
Travel advice			
Advice on malaria prophylaxis			
Alcohol consumption advice			
Antibiotics use advice (public health campaign)			
Medicines waste advice; disposal of unwanted medicines			
Advice on safe storage of medicines			
Signposting e.g. NI Direct website, Diabetes UK, private counselling services			
Referral to another health or social care service e.g. physiotherapy			
GP referral			
A&E referral			
Dentist referral			
Out-of-hours referral			
Addiction support e.g. drug abuse/misuse			
Mental health support			
Immunisation provision or advice e.g. flu, childhood			
Community or social care support			
<b>TOTAL</b>			

ADDITIONAL COMMENTS

