

# West Yorkshire Community Pharmacy Seasonal Flu Vaccination Service Service Evaluation 1<sup>st</sup> October 2014 – 31<sup>st</sup> January 2015

Anonymised Report

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## SUMMARY OF EVALUATION AND RECOMMENDATIONS

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The Seasonal Flu Vaccination service was introduced on 1<sup>st</sup> October 2014 within 220 pharmacies in West Yorkshire. Its aim was to increase flu vaccination uptake in the 'at-risk' patient group whilst ensuring that other patients groups listed had a choice of where to access flu vaccination. Its aims were based on the premise that pharmacy sees more patients on a daily basis than other vaccine providers. Most patients collect medicines for long term conditions every 28 days and the majority of at-risk patients will visit a pharmacy at least five times during the flu' vaccination season (Sept- Jan). This evaluation assessed the delivery of flu vaccination through community pharmacy.

Of the 220 pharmacies that agreed to deliver the service, 181 pharmacies within West Yorkshire (10 CCGs) delivered a total of 8046 flu vaccinations. The number of vaccinations delivered per CCG varied from 333 to 1901; mean 804.6 and median 618. Of the 8046 vaccinations delivered, 4270 were for patients aged 65 and over and 3776 for patients under 65. Just over half of the patients were categorised by the pharmacies as being in the over 65 at risk group, with chronic respiratory (28.1%, 2264/8046 and diabetes (14.4%, 1160/8046) being the second highest groups. The range of vaccinations delivered per pharmacy varied from 1 to 353 with a mean of 44.5 vaccinations per pharmacy and a median of 33 vaccinations per pharmacy.

The majority of patients vaccinated described themselves as White British (89.7% - 7214/8046). With the next highest ethnic category being Asian or Asian British – Pakistani (303/8046 – 3.8%). The peak times of day for vaccination were mid-morning and mid-afternoon, with 620 vaccinations (7.7 %) being delivered on a Saturday or Sunday and 201 (2.5%) consultations being out of hours on a weekday (before 8am or after 6pm); total 10.2% (821/8046) out of hours.

16.8% (950/5663) indicated that they had not had the flu vaccination previously. Of the 950 indicating that they had not had the vaccination previously, 641 (67.5%) were under 65 and 309 (32.5%) were 65 or over.

The service was well received by patients, with most stating that they would use pharmacy again and recommend it to others; liking pharmacy for its convenience and accessibility. This is mirrored in the data showing the times of day the patients accessed the pharmacy with many, especially the under 65 age group accessing out of hours. A substantial number of patients both over and under 65 opportunistically accessed the vaccination for the first time from community pharmacy, with a notable number stating that they would not have had it at all if they had not had it in the pharmacy.

## RECOMMENDATIONS

- Work with the providers who have delivered a large number of vaccinations to share good practice for 2015/16 to improve pharmacy delivery, especially those who vaccinated large proportions in the under 65 at risk groups
- Understand the barriers to those delivering lower numbers of vaccinations to identify ways to increase delivery.
- Consider expanding service to include under 18s and other at risk groups recommended by DH

- Ensure all aspects of the service are implemented by the beginning of September to maximise opportunistic targeting.
- Work with providers to ensure increased accuracy of recording data eg accurate categorization of those patients over 65.
- Add check box to PharmOutcomes to identify those patients receiving the vaccine because they will celebrate their 65<sup>th</sup> birthday during the campaign period

## 1 INTRODUCTION

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Influenza (often referred to as flu) is an acute viral infection of the respiratory tract characterised by a fever, headache, body aches, and fatigue.<sup>1, 2</sup> For healthy individuals, flu is unpleasant but usually self-limiting with recovery within two to seven days.<sup>1,2</sup> It is easily transmitted and even people with mild or no symptoms can still infect others. The risk of serious illness and complications from influenza is higher amongst children under six months of age, older people and those with underlying health conditions such as respiratory disease, cardiac disease or immunosuppression, as well as pregnant women. It can lead to complications such as bronchitis or pneumonia or in some rare cases, cardiac problems, meningitis and/or encephalitis.<sup>1</sup> Influenza during pregnancy may be associated with perinatal mortality, prematurity, smaller neonatal size, lower birth weight and increased risk of complications for mother.<sup>1</sup>

Flu is an unpredictable and recurring winter pressure for the NHS. The most effective way to prevent influenza or severe outcomes from the illness in patients is vaccination. Safe and effective vaccines have been available and used for more than 60 years. Amongst healthy adults, influenza vaccine can prevent 70% to 90% of influenza-specific illness. Amongst the elderly, the vaccine reduces severe illnesses and complications by up to 60% and deaths by 80%.<sup>1</sup> Increasing flu vaccine uptake in clinical risk groups is important to prevent the complications previously described.

Each Year Public Health England works with the NHS to deliver a flu vaccination programme, to offer protection to those who are most at risk of serious illness or death should they develop influenza.<sup>1</sup> Their aim, to actively offer the flu vaccination to 100% of all those in the eligible clinical risk groups, and to vaccinate at least 75% of those aged 65 years and over, and healthcare workers with direct patient contact.<sup>1</sup> For a number of years now the vaccine uptake rates for those aged 65 and over have been close to the European Union target of 75%. Despite continued efforts, over the same period only half of patients in clinical risk groups have been vaccinated.<sup>1</sup>

Previous service evaluations of community pharmacy flu vaccination programmes have demonstrated that community pharmacy can contribute to increasing flu vaccination uptake in all at risk groups and that these schemes are widely accepted by patients.<sup>3,4,5</sup> Pharmacy sees more patients on a daily basis than other vaccine providers. Most patients collect medicines for long term conditions every 28 days and the majority of at-risk patients will visit a pharmacy at least five times during the flu' vaccination season (Sept- Jan).

The NHS Pharmacy Flu Vaccine service was commissioned within West Yorkshire to increase uptake in the 'at-risk' patient group whilst ensuring that other patients groups listed had a choice of where to access flu vaccination. This evaluation assesses the delivery of flu vaccination through community pharmacy.

## 2 AIMS AND OBJECTIVES

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### Aim

- To evaluate the West Yorkshire Community Pharmacy Seasonal Flu vaccination Service delivered between 1<sup>st</sup> October 2014 and 31<sup>st</sup> January 2015.

### Objectives

- To determine the number of patients who have received a flu vaccination through community pharmacy within each CCG area within West Yorkshire
- To determine the demographics (age, ethnicity and postcode) and relevant at risk category of patients vaccinated
- To identify which GP practices the patients who received the vaccination were registered with
- To evaluate patient opinion of the flu vaccination service
- To make recommendations on how the service could be improved

## 3 SERVICE

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The service was commissioned by NHS England West Yorkshire and was designed in collaboration with Community Pharmacy West Yorkshire. The service was based on the PSNC implementation guidance and template documentation and went live on the 1<sup>st</sup> October 2014. All pharmacies in West Yorkshire (10 CCGs) were invited to participate in the service; 220 pharmacies agreed. The eligibility of each patient was checked to ensure they were registered with a GP in West Yorkshire and that they fulfilled one of the at risk groups published by Public Health England which was included in the service. Patients had to be 18 or over and in one of the following at risk groups:

- people aged 65 years or over (including those becoming age 65 years by 31 March 2015)
- all pregnant women (including those women who become pregnant during the flu season)
- people with a serious medical condition such as:
  - chronic (long-term) respiratory disease, such as severe asthma, chronic obstructive pulmonary disease (COPD) or bronchitis
  - chronic heart disease, such as heart failure
  - chronic kidney disease at stage three, four or 5
  - chronic liver disease
  - chronic neurological disease, such as Parkinson's disease or motor neurone disease
  - diabetes
- people who are in receipt of a carer's allowance, or those who are the main carer of an older or disabled person whose welfare may be at risk if the carer falls ill

This service did NOT include the following at risk groups:

- splenic dysfunction and asplenia
- a weakened immune system due to disease (such as HIV/AIDS) or treatment (such as cancer treatment)

- people living in long-stay residential care homes or other long-stay care facilities where rapid spread is likely to follow introduction of infection and cause high morbidity and mortality. This does not include, for instance, prisons, young offender institutions, or university halls of residence
- patients under 18 years of age

Subsequently the pharmacist determined whether the patient met the inclusion criteria within the PGD, ensuring that no exclusion criteria applied and there were no contraindications or confirmed anaphylactic reactions to a previous dose of flu vaccine or any component of the vaccine. If the patient fulfilled the inclusion criteria and no exclusions applied, the vaccine was administered and the patient provided with relevant verbal information and the patient information leaflet (PIL). The administration of the vaccination was recorded on PharmOutcomes, within 48 hours of administration. Entry of the data onto PharmOutcomes triggered an email notification of the administration to the patient's GP. Pharmacies were also required as part of the service specification to provide a proportion of the patients who received the vaccination with a patient satisfaction questionnaire. The answers to the questions were also entered onto PharmOutcomes. Pharmacies were encouraged to use a team approach to raise the topic of flu with all eligible patients and also to set weekly targets regarding how many patients they wished to vaccinate.

Each pharmacist who administered flu vaccines was required to undertake training which included the background to immunology and vaccination, injection technique, anaphylaxis and basic life support training (including administration of adrenaline in emergency circumstances) and the legislative framework of administering vaccination under a Patient Group Direction. This was either sourced by the pharmacy themselves, (for example in the case of multiples) or was provided by Community Pharmacy West Yorkshire.

Community Pharmacy West Yorkshire provided ongoing support to community pharmacies prior to the service starting and also throughout the campaign period. This included:

- Communication with the pharmacies about the service, including initial paperwork for example production of a service specification and service guide
- Providing pharmacies with access to PharmOutcomes to allow simple and efficient recording, GP notification and claims for payment
- Design and procurement of resources (including posters, prescription stickers and balloons) to allow pharmacy teams to directly promote the service to patients
- Hosting information evenings for pharmacy teams to outline the commissioned service and how to make the service a success
- Facilitating training opportunities for pharmacists to become competent in administering the flu vaccine
- Regular feedback and support to the pharmacies providing the service (for example through messages sent via PharmOutcomes)
- Hosting the NHS PGD and other relevant paperwork (such as consent and patient feedback forms) on the Community Pharmacy West Yorkshire website.

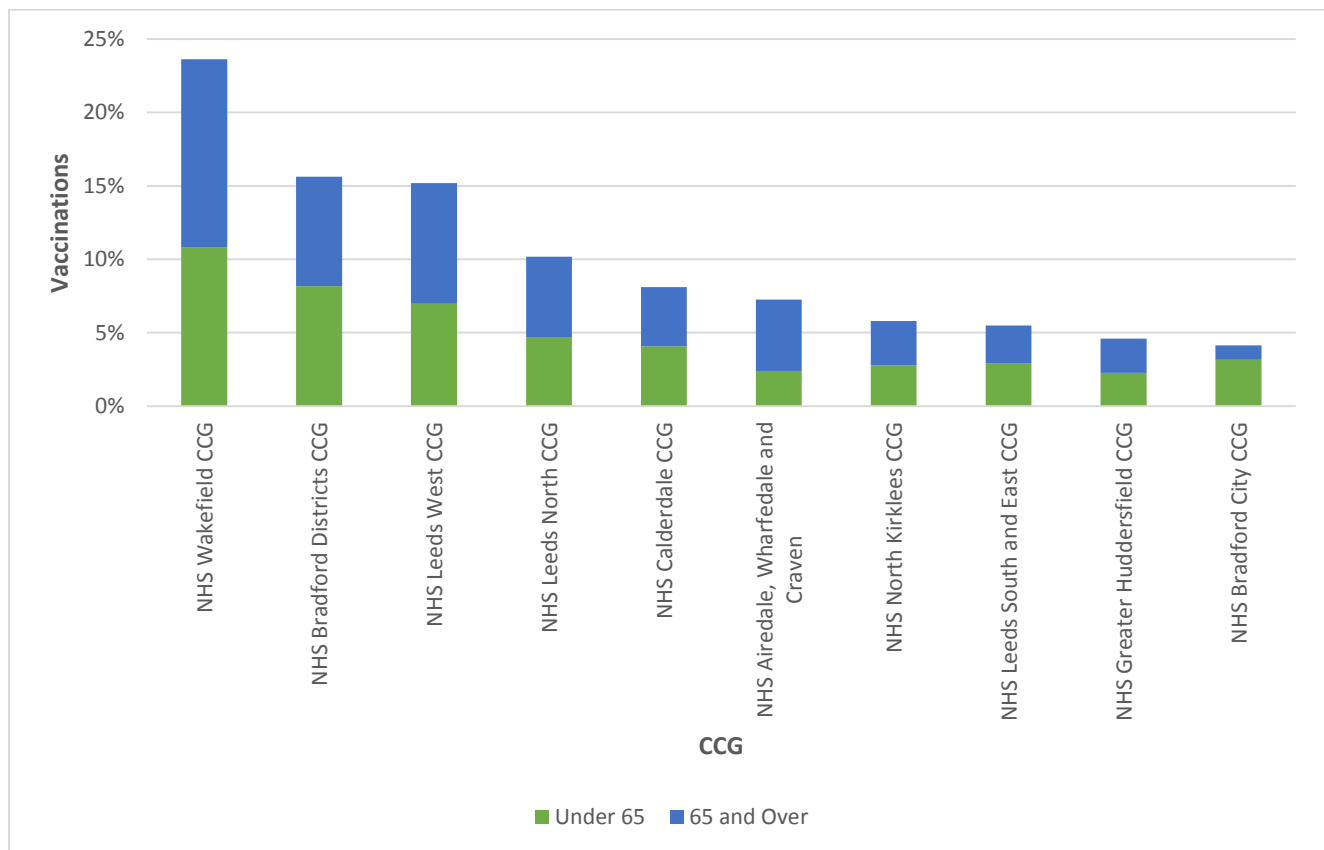
## 4 METHOD OF EVALUATION

All data inputted on to *PharmOutcomes* was evaluated from 1<sup>st</sup> October September 2014 to January 31st 2015. Data was extracted into Excel and reported using descriptive statistics. The age of the patient entered into PharmOutcomes was used to determine whether the patient was categorised as under 65 or 65 and over.

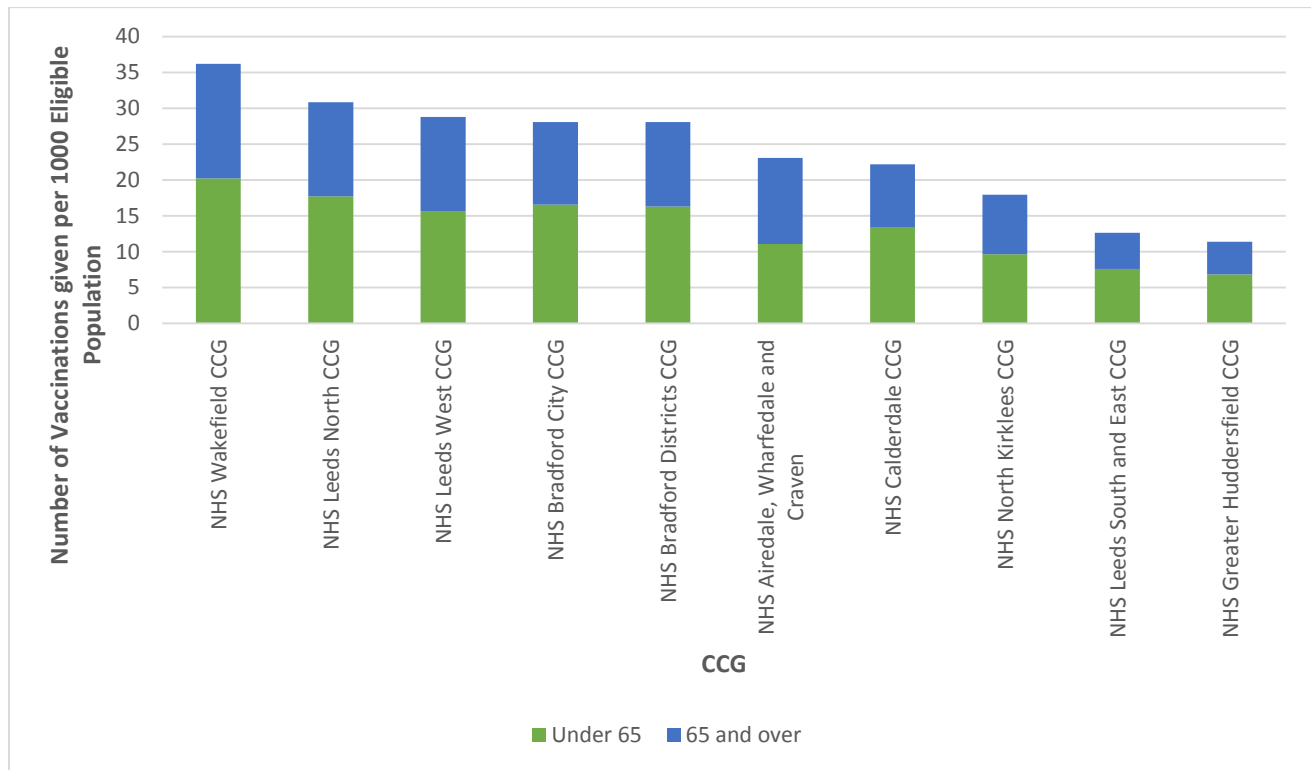
## 5 RESULTS

Of the 220 pharmacies that agreed to deliver the service, 181 pharmacies within West Yorkshire (10 CCGs) delivered a total of 8046 flu vaccinations. The number of vaccinations delivered per CCG varied from 333 to 1901; mean 804.6 and median 618. Of the 8046 vaccinations delivered 4270 were for the over 65 risk group and 3776 the other at risk groups. Overall, NHS Wakefield CCG delivered the highest number of vaccinations (23.6%, 1901/8046), with NHS Bradford Districts CCG being the second highest (15.6%, 1258/8046) (see figure 1). When weighted per 1000 population Wakefield CCG still administered the largest proportion of vaccinations (36.2 per 1000 eligible population) with Leeds North being the second highest (30.8 per 1000 population). Although Bradford City CCG delivered the lowest proportion of vaccinations (4.1%), it delivered the 4<sup>th</sup> highest number per 1000 eligible population (28.1) (see figure 2).

**Figure 1 Percentage vaccinations delivered by CCG**

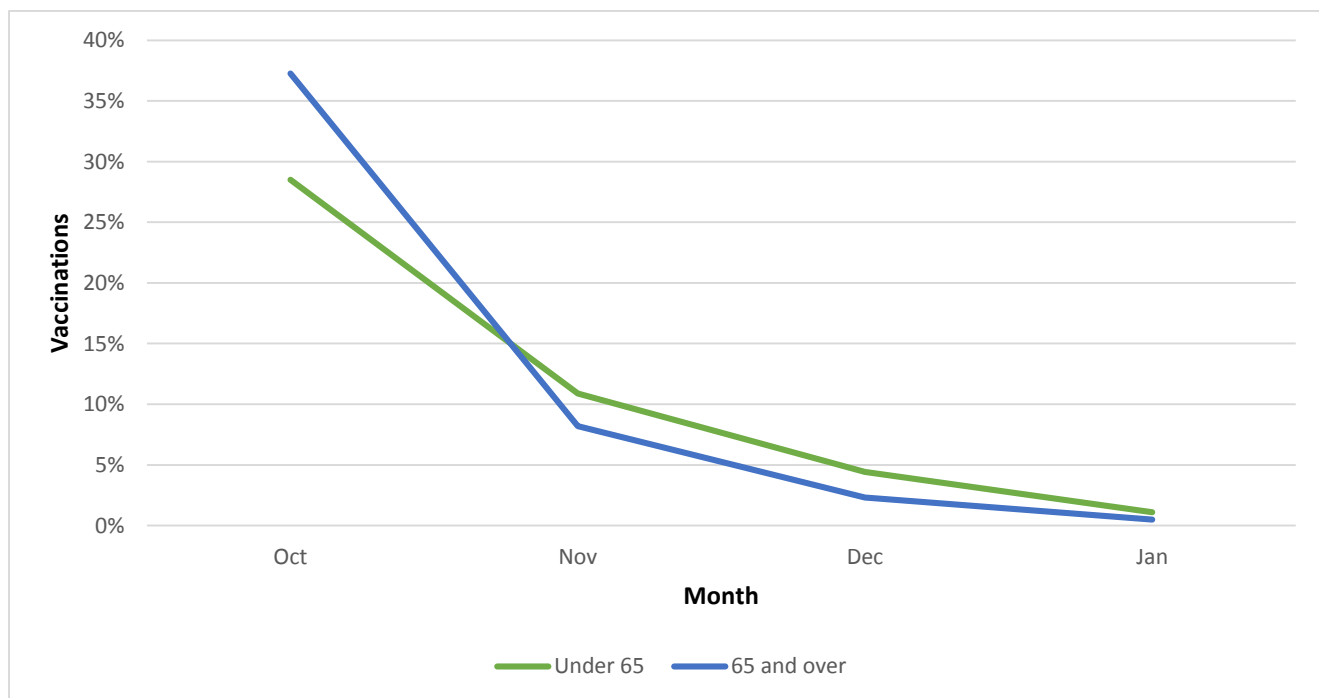


**Figure 2 Number of vaccinations delivered per 1000 eligible population**

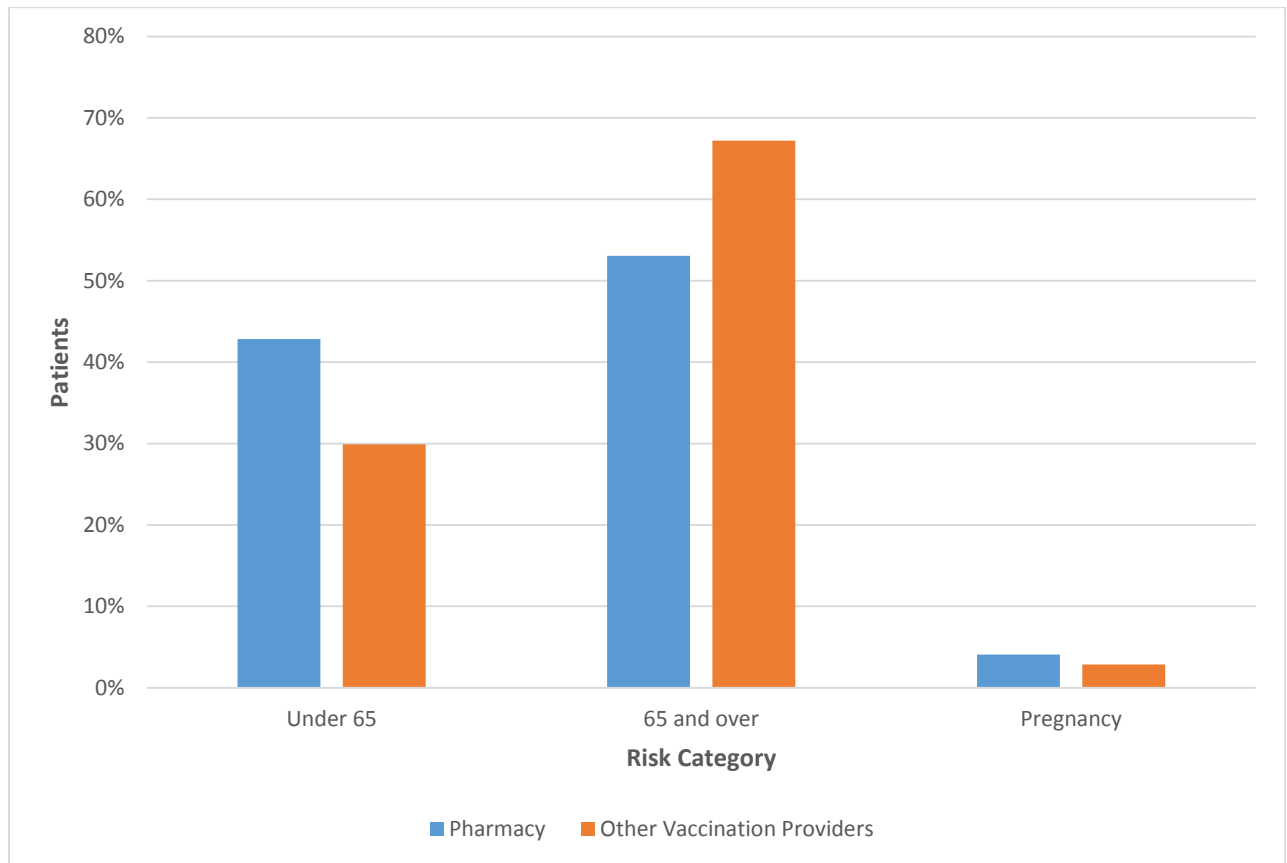


The number of flu vaccinations delivered was highest in the initial months of the campaign with 65 and over decreasing more than the under 65 at risk group (see Figure 3).

**Figure 3 Delivery of Vaccinations per month**

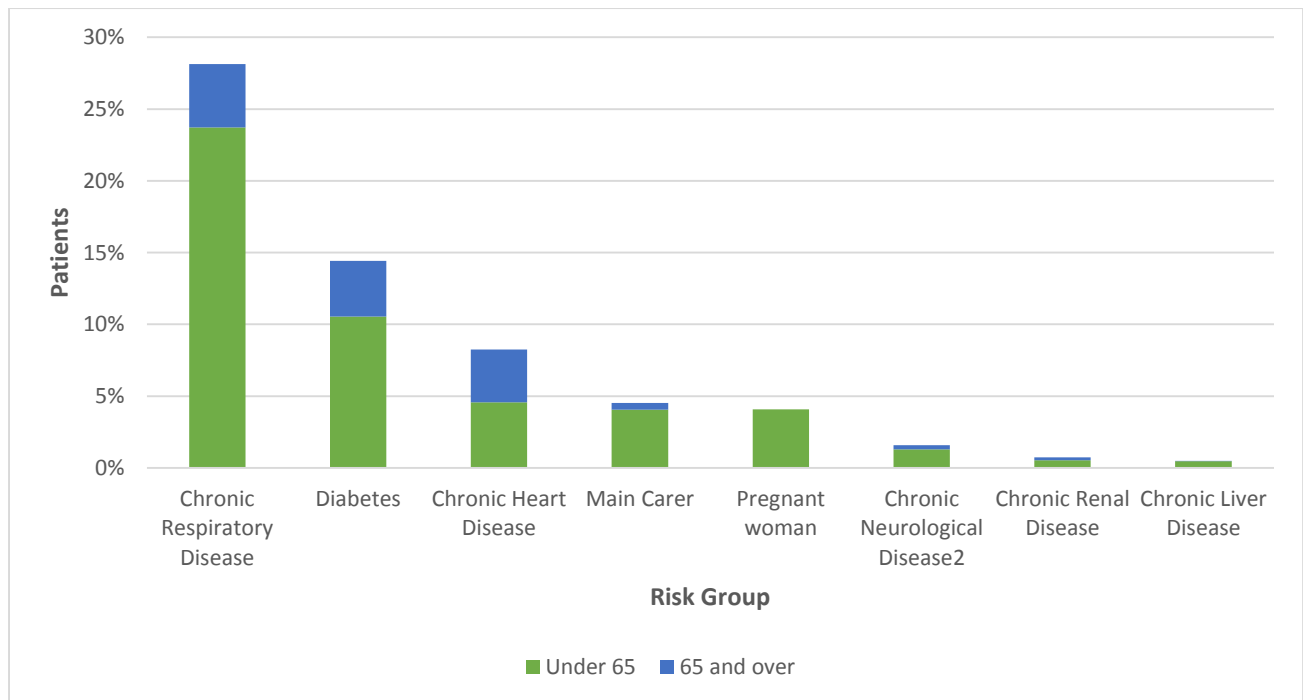


**Figure 4 Proportion of total vaccinations delivered per provider**



Community Pharmacy has delivered a higher proportion of vaccines in the under 65 and pregnant women risk categories than other providers administering flu vaccinations (see figure 4).

**Figure 5 Proportion of all patients vaccinated in each at risk group**

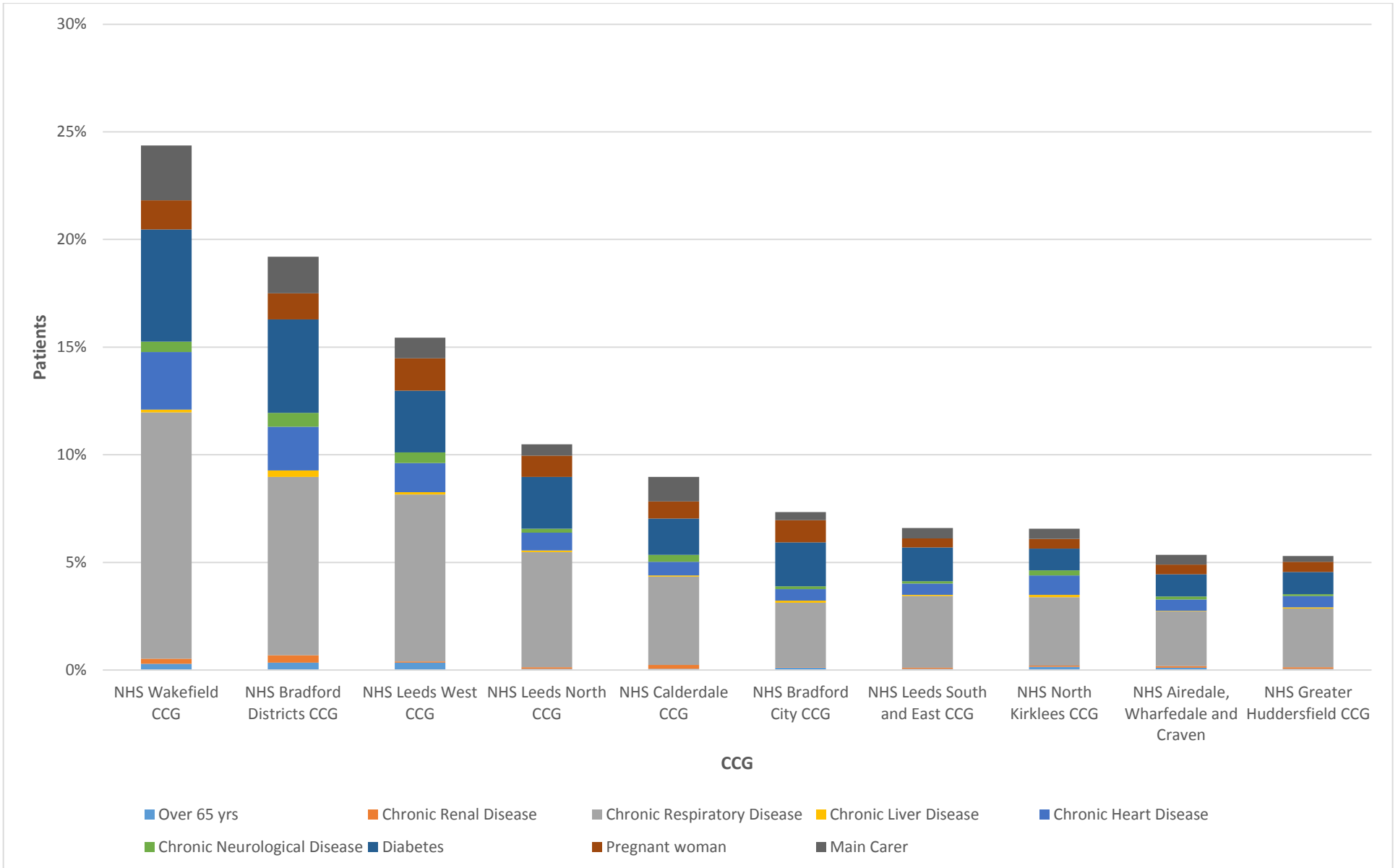




Just over half of the patients vaccinated were categorised by the pharmacists as being in the over 65 at risk group (51.1%, 4112/8046), with chronic respiratory (28.1%, 2264/8046 and diabetes (14.4%, 1160/8046) being the second highest groups (see figure 6). In the under 65 age group chronic respiratory disease was the most common reason for vaccination (23.7%, 1909/8046) followed by diabetes (848/8046). This is mirrored across all CCGs (see figure 6 and table 1).

*NB The age of the patient, calculated from the date of birth in PharmOutcomes, was used to determine whether the patient was under 65 or over 65. A small proportion of those whose age was under 65 had the reason for vaccination being that they fell into the 65 and over at risk category. Some of these patients may have had a birthday which meant that they were 65 before March 31<sup>st</sup> others may have had the age group entered incorrectly. As it is unclear the reason for discrepancy the data has been left unchanged. For this reason in figure 5 and table 1 it appears that a small proportion of patients who are under 65 have been vaccinated because they fall into the over 65 risk category.*

**Figure 6 Proportion of patients under 65 vaccinated within each CCG categorised by risk group (n=3776)**



**Table 1 Proportion of patients under 65 vaccinated within each CCG categorised by risk group**

	Over 65 yrs		Chronic Renal Disease		Chronic Respiratory Disease		Chronic Liver Disease		Chronic Heart Disease		Chronic Neurological Disease		Diabetes		Pregnant woman		Main Carer		Overall	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
NHS Wakefield CCG	11	0.29	9	0.24	432	11.44	5	0.13	101	2.67	18	0.48	197	5.22	51	1.35	96	2.54	920	24.36
NHS Bradford Districts CCG	13	0.34	13	0.34	313	8.29	11	0.29	77	2.04	24	0.64	164	4.34	46	1.22	64	1.69	725	19.20
NHS Leeds West CCG	13	0.34	2	0.05	293	7.76	4	0.11	51	1.35	19	0.50	108	2.86	57	1.51	36	0.95	583	15.44
NHS Leeds North CCG	2	0.05	3	0.08	202	5.35	3	0.08	31	0.82	7	0.19	91	2.41	37	0.98	20	0.53	396	10.49
NHS Calderdale CCG	2	0.05	7	0.19	155	4.10	2	0.05	24	0.64	12	0.32	64	1.69	30	0.79	43	1.14	339	8.98
NHS Bradford City CCG	4	0.11	1	0.03	113	2.99	4	0.11	20	0.53	5	0.13	77	2.04	39	1.03	14	0.37	277	7.34
NHS Leeds South and East CCG	2	0.05	2	0.05	126	3.34	2	0.05	20	0.53	4	0.11	59	1.56	16	0.42	18	0.48	249	6.59
NHS North Kirklees CCG	6	0.16	2	0.05	120	3.18	4	0.11	34	0.90	9	0.24	38	1.01	17	0.45	18	0.48	248	6.57
NHS Airedale, Wharfedale and Craven	4	0.11	3	0.08	96	2.54	1	0.03	20	0.53	5	0.13	39	1.03	17	0.45	17	0.45	202	5.35
NHS Greater Huddersfield CCG	2	0.05	3	0.08	103	2.73	2	0.05	20	0.53	3	0.08	39	1.03	18	0.48	10	0.26	200	5.30

**Figure 7 Proportion of patients over 65 vaccinated within each CCG categorised by risk group (n=4270)**

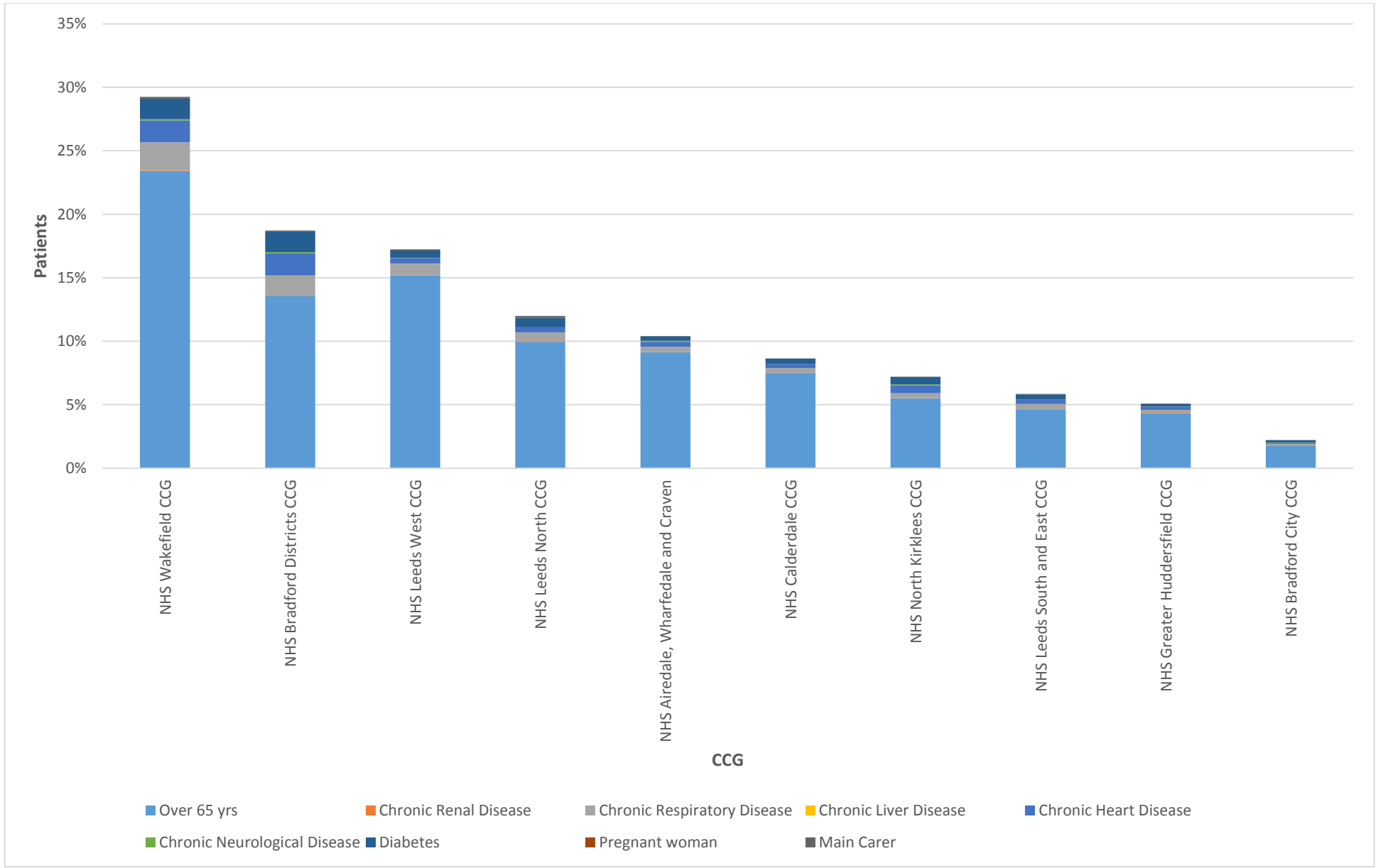
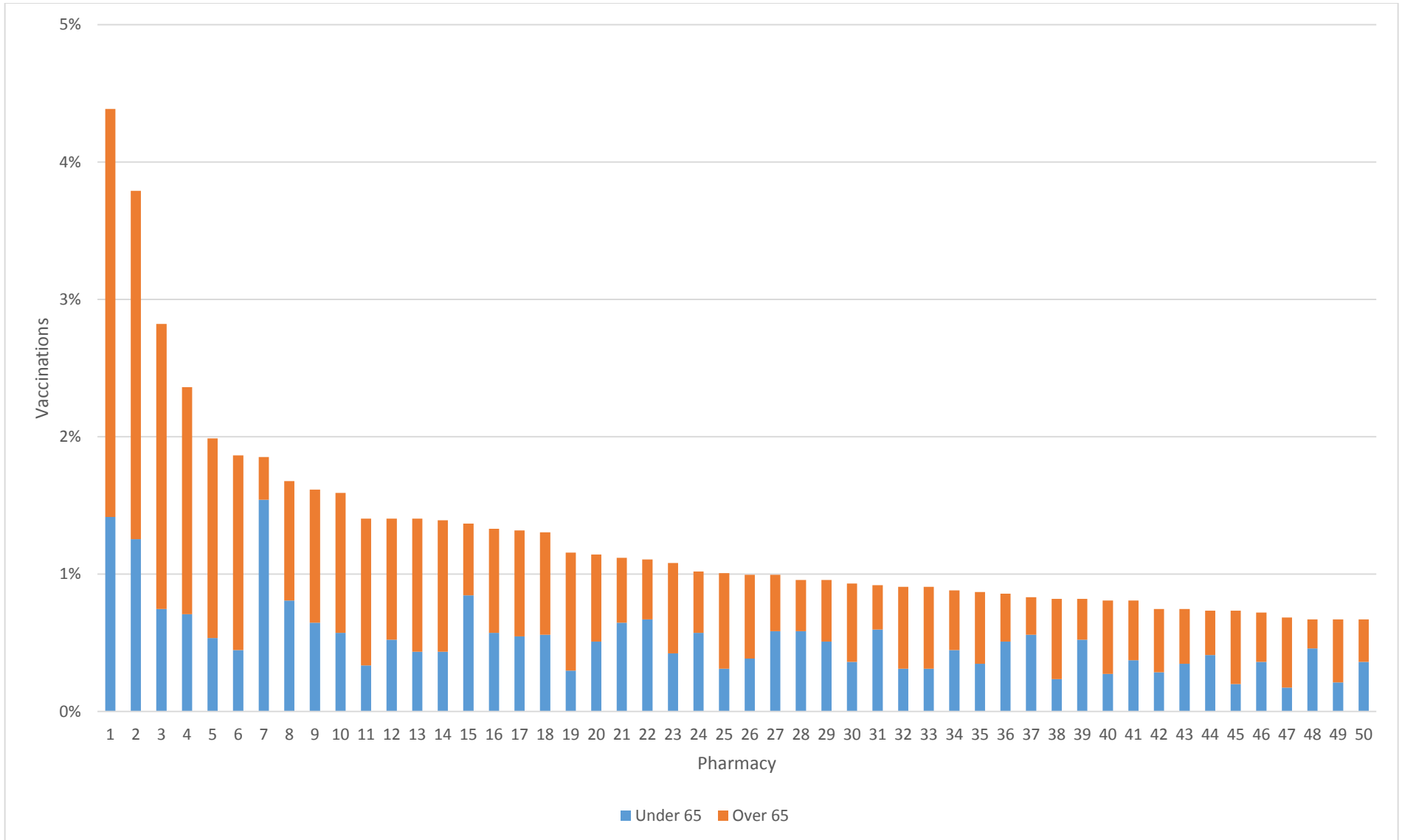


Table 2 Proportion of patients over 65 vaccinated within each CCG categorised by risk group

	Over 65 yrs		Chronic Renal Disease		Chronic Respiratory Disease		Chronic Liver Disease		Chronic Heart Disease		Chronic Neurological Disease		Diabetes		Pregnant woman		Main Carer		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
NHS Wakefield CCG	1000	23.42	2	0.05	94	2.20	0	0.00	73	1.71	5	0.12	69	1.62	0	0.00	6	0.14	1249	29.25
NHS Bradford Districts CCG	580	13.58	1	0.02	66	1.55	1	0.02	74	1.73	5	0.12	69	1.62	0	0.00	3	0.07	799	18.71
NHS Leeds West CCG	648	15.18	1	0.02	38	0.89	1	0.02	19	0.44	1	0.02	23	0.54	0	0.00	5	0.12	736	17.24
NHS Leeds North CCG	425	9.95	4	0.09	28	0.66	0	0.00	17	0.40	0	0.00	31	0.73	0	0.00	7	0.16	512	11.99
NHS Airedale, Wharfedale & Craven	390	9.13	1	0.02	18	0.42	0	0.00	16	0.37	4	0.09	15	0.35	0	0.00	1	0.02	445	10.42
NHS Calderdale CCG	320	7.49	1	0.02	16	0.37	0	0.00	12	0.28	1	0.02	18	0.42	0	0.00	1	0.02	369	8.64
NHS North Kirklees CCG	235	5.50	1	0.02	16	0.37	0	0.00	27	0.63	3	0.07	24	0.56	0	0.00	2	0.05	308	7.21
NHS Leeds South and East CCG	196	4.59	0	0.00	20	0.47	0	0.00	15	0.35	0	0.00	17	0.40	0	0.00	2	0.05	250	5.85
NHS Greater Huddersfield CCG	184	4.31	2	0.05	10	0.23	0	0.00	10	0.23	1	0.02	9	0.21	0	0.00	2	0.05	218	5.11
NHS Bradford City CCG	75	1.76	2	0.05	5	0.12	0	0.00	3	0.07	1	0.02	9	0.21	0	0.00	0	0.00	95	2.22

**Figure 8** Proportion of vaccinations delivered per pharmacy for top 50 pharmacies



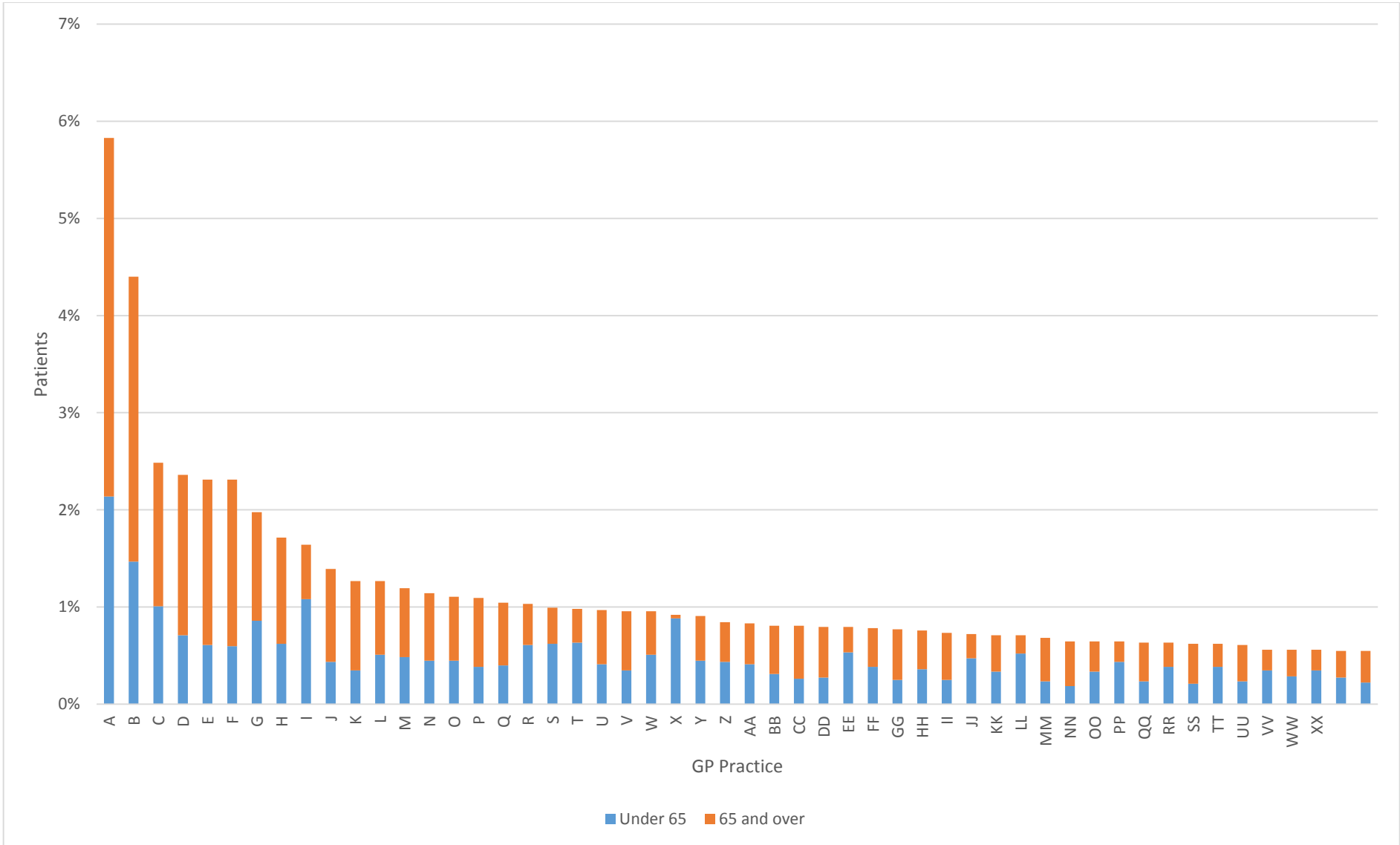
The range of vaccinations delivered per pharmacy varied from 353 to 1 with a mean of 44.5 vaccinations per pharmacy and a median of 33 vaccinations per pharmacy. The top 50 pharmacies delivered 65.8% of all vaccinations (5292/8046) (see figure 8). 308 pharmacists delivered the vaccinations (range 1-322, mean 26, median 14). The maximum number of pharmacists delivering in one provider was 8; the minimum 1. 48 pharmacists delivered over 50 vaccinations each.

(See figure 8 for top 50 pharmacies delivering flu vaccinations)

The patients using the scheme were registered at 327 practices, however 50.1% of vaccination within the scheme came from 35 practices (see figure 9). The mean number of vaccinations per GP practice was 24.6 and the median 11 vaccinations (range 1- 469 vaccinations).

(See figure 9 for top 50 GP practices whose patients have received a flu vaccination)

**Figure 9 GP practice of patients vaccinated through community Pharmacy – Top 50 practices**

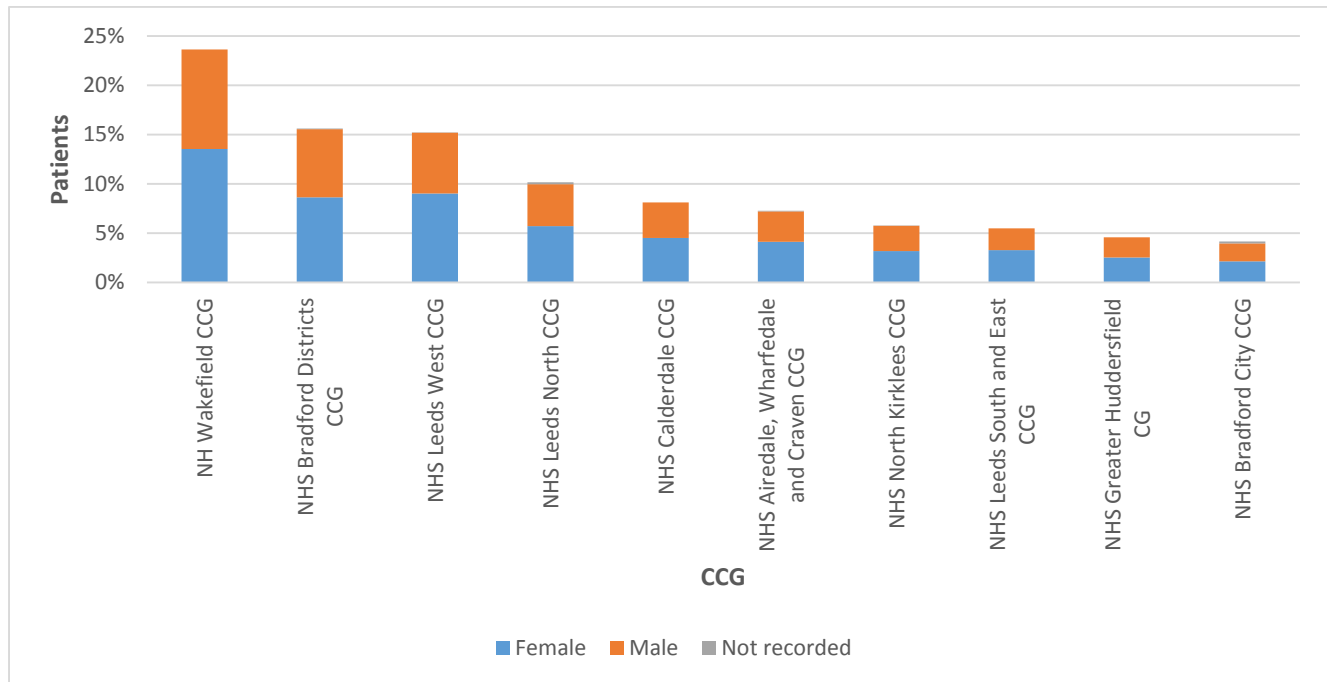




## Patient Demographics

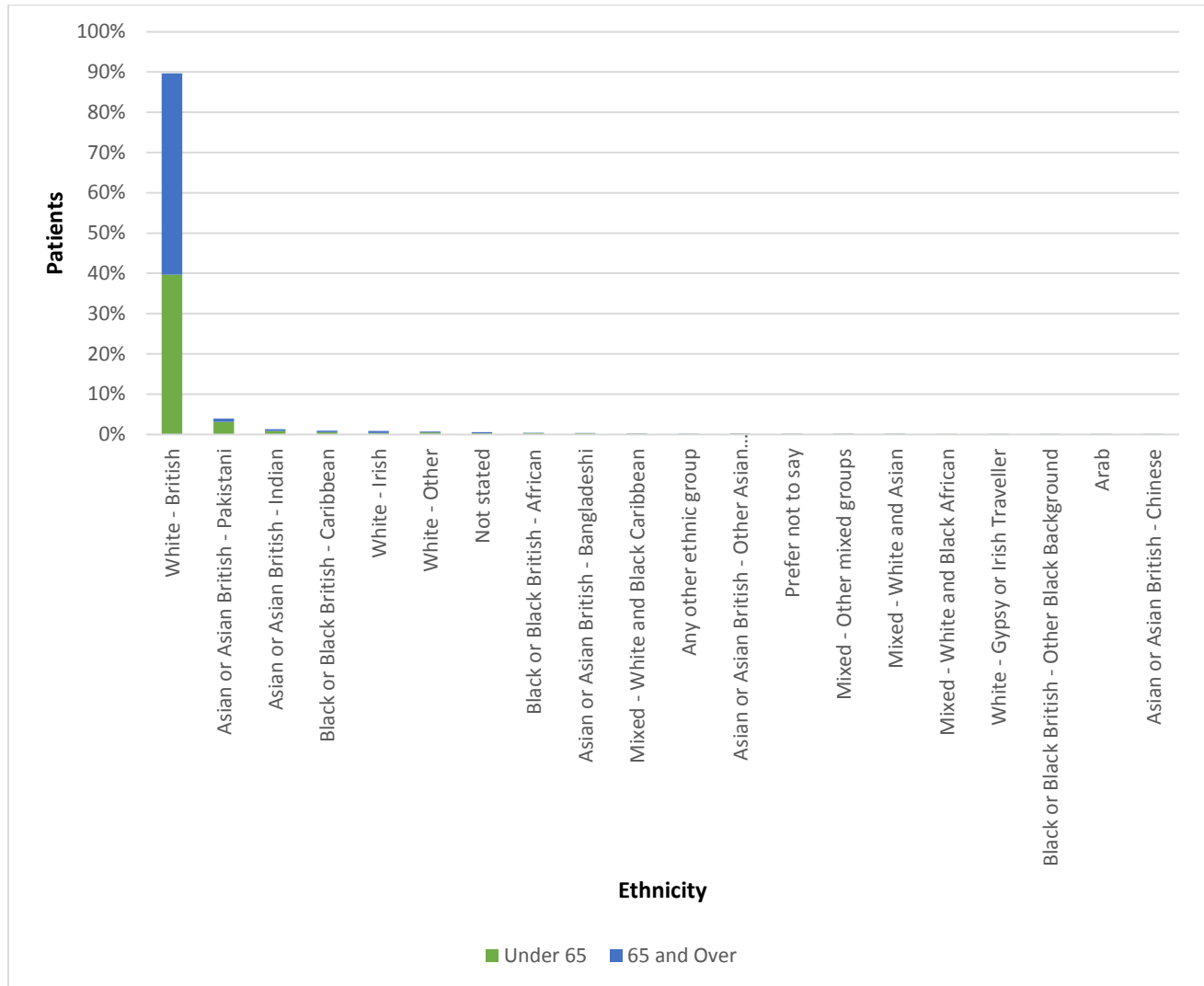
Of the 8046 vaccinations 4560 (56.7%) were for female and 3442 (42.8%) male; the gender was not recorded for 44 patients (0.5%) There was little variation in the male/female ratios between CCGs (see figure 10).

**Figure 10 Delivery of vaccinations per CCG by gender**



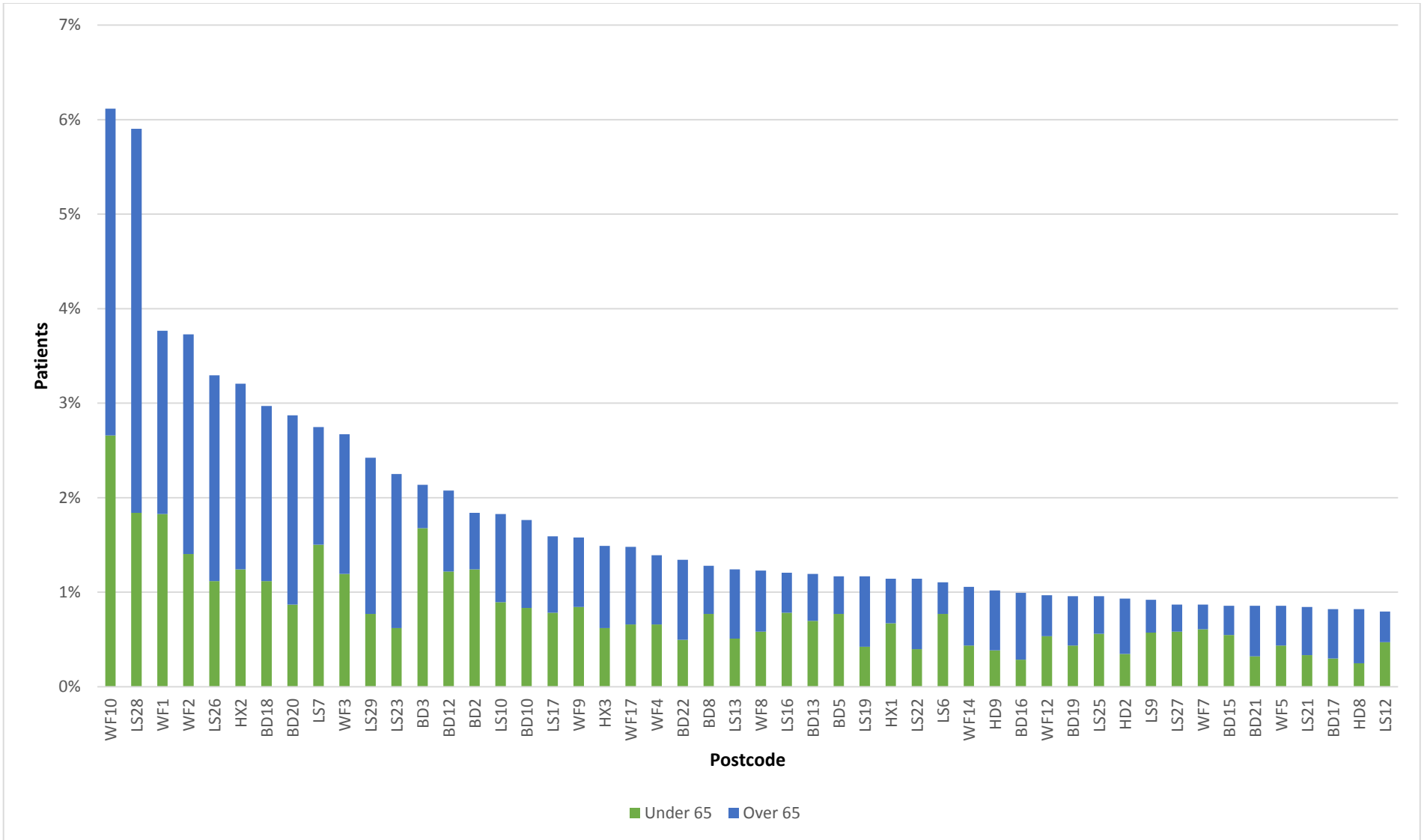
Overall, the majority of patients described themselves as White British (89.7% - 7214/8046). With the next highest ethnic category being Asian or Asian British – Pakistani (303/8046 – 3.8%) (see figure 11).

**Figure 11 Ethnicity of all patients vaccinated**

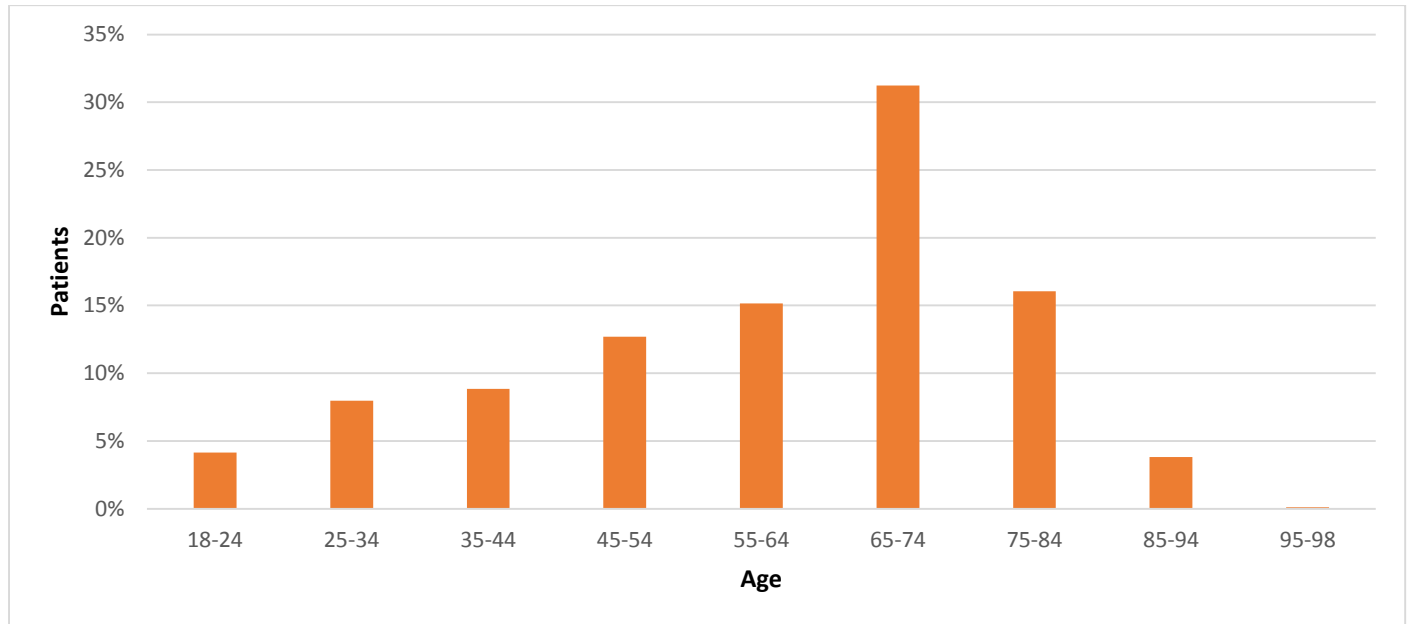


The postcode area with the highest proportion of patients was WF10 (6.1%, 492/8046), with a large proportion also from LS28 (5.9%, 475/8046) (see figure 12).

Figure 12 Top 50 post code areas



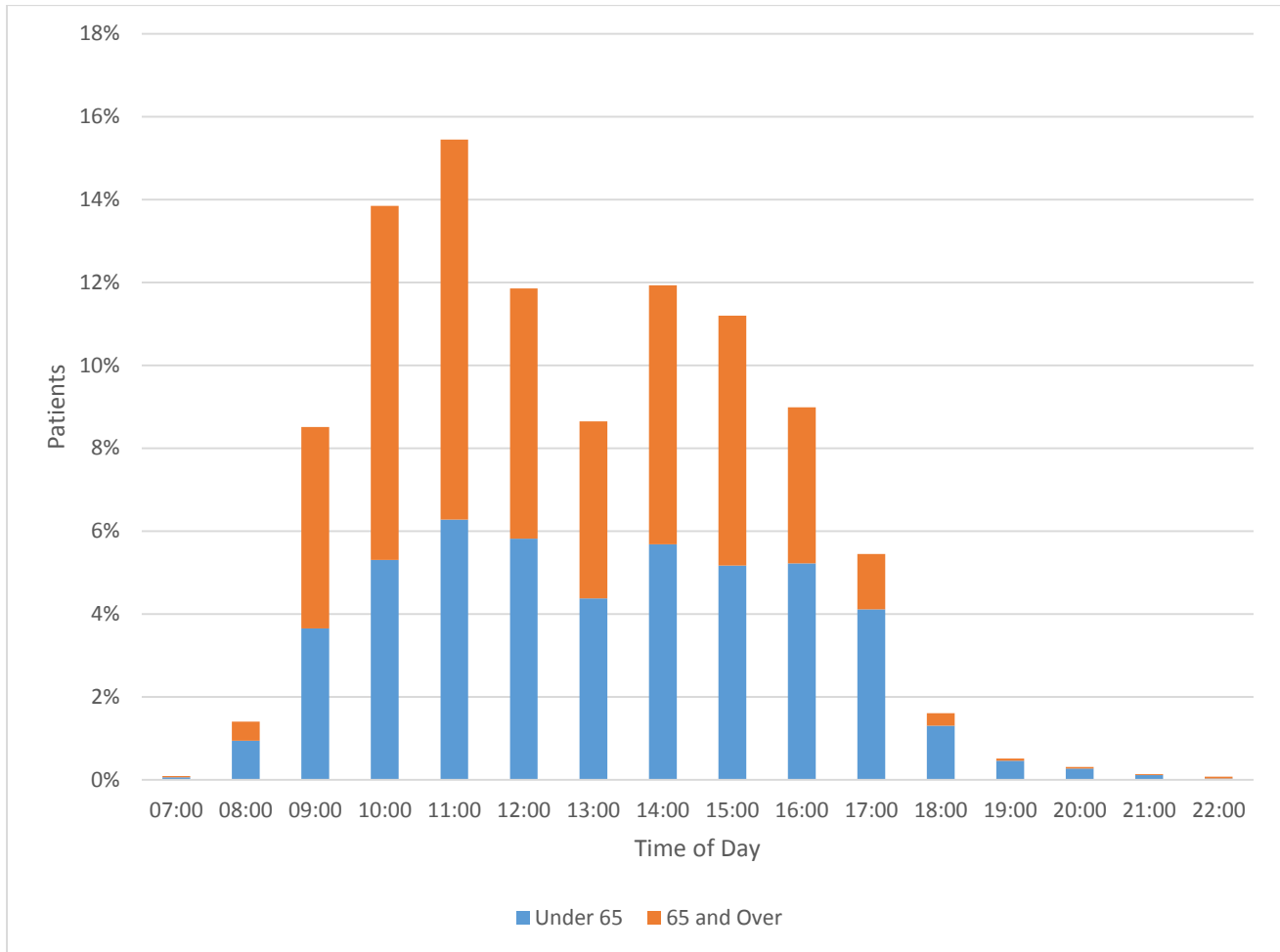
**Figure 13 Age of patients having a vaccine**



Most patients receiving the flu vaccination were between 65 and 74 years old (31%, 2513/ 8046) (see figure 13).

The peak times of day for vaccination were mid-morning and mid-afternoon (see figure 14), with 620 vaccinations (7.7 %) being delivered on a Saturday or Sunday and 201 (2.5%) consultations being out of hours on a weekday (before 8am or after 6pm); total 10.2% (821/8046) out of hours. The percentage of patients under 65 attending out of hours was greater than those patients who were 65 and over (see figure 14).

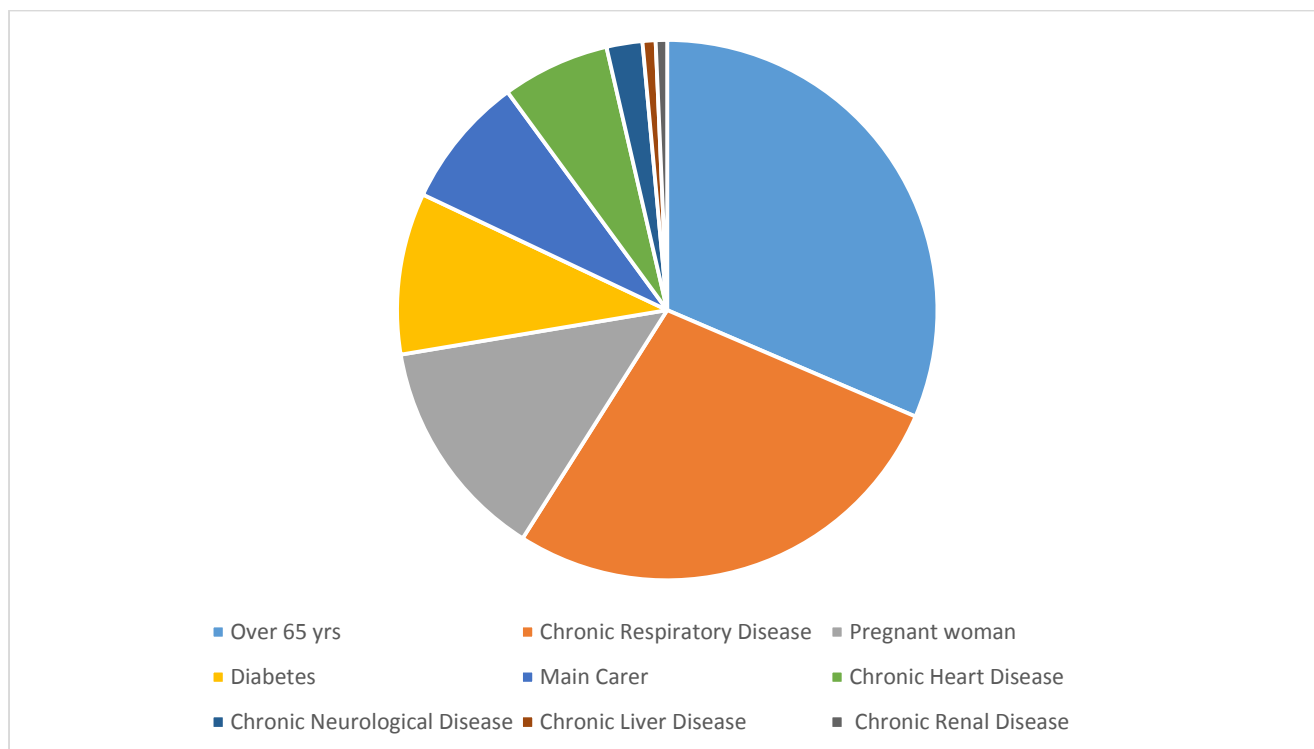
**Figure 14 Time distribution**



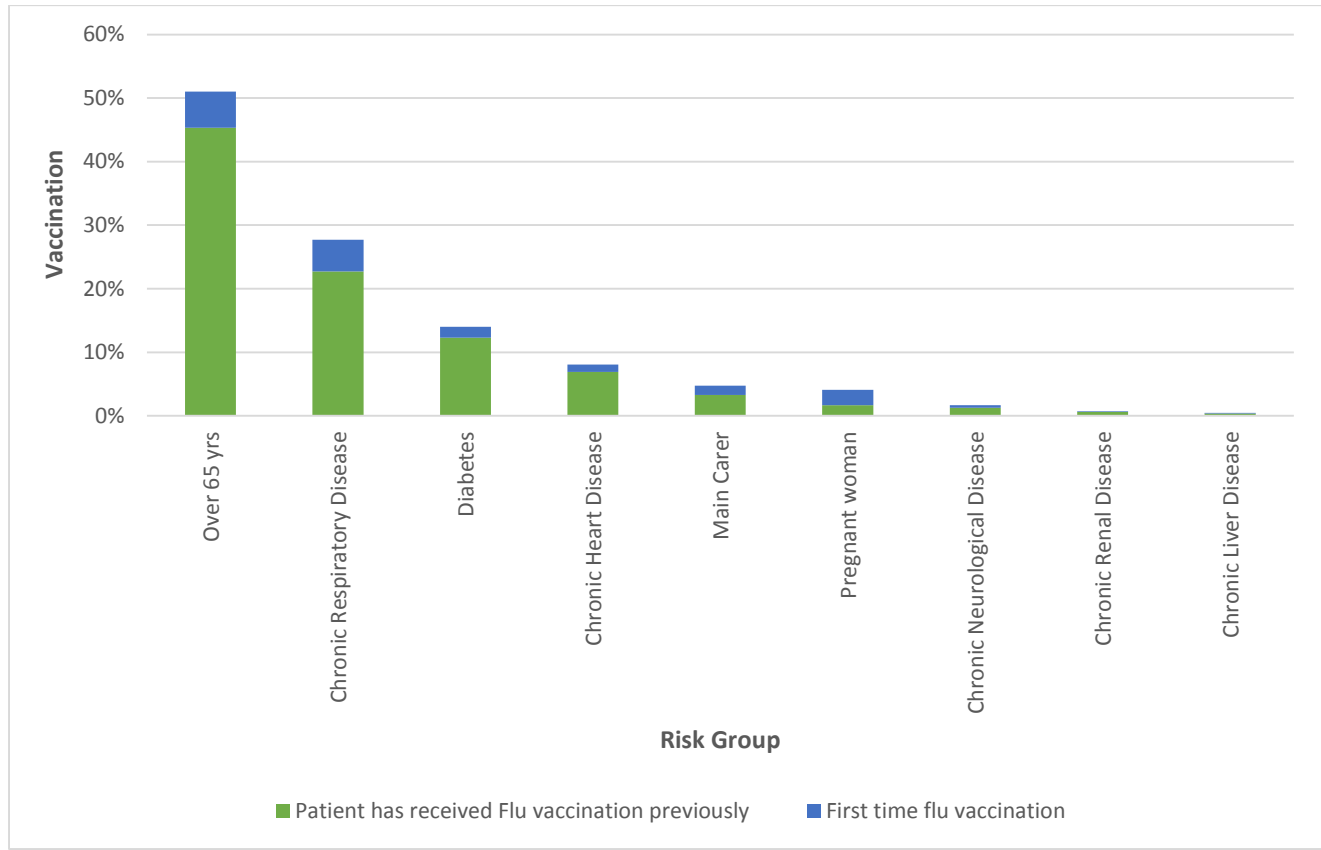
### Patient Satisfaction

Pharmacies were asked to distribute a patient satisfaction questionnaire to a proportion of patients who they administered a vaccination to. 5663 (70.4%) patients responded to all or part of the questionnaire. 16.8% (950/5663) indicated that they had not had the flu vaccination previously 82.7% (4682/5663) had had it before and 0.5% (31/5663) did not respond to the questions. Of the 950 indicating that they had not had the vaccination previously, 641 (67.5%) were under 65 and 309 (32.5%) were 65 or over (see figure 15). Where patients had received the vaccination previously, most had received this at their GP practice (see figure 16). 97.7% (5532/5663) stated that they would recommend the service to a friend. Only 5 patients stated that they would not recommend the service (0.08%) the remainder did not respond (2.2%, 126/5663).

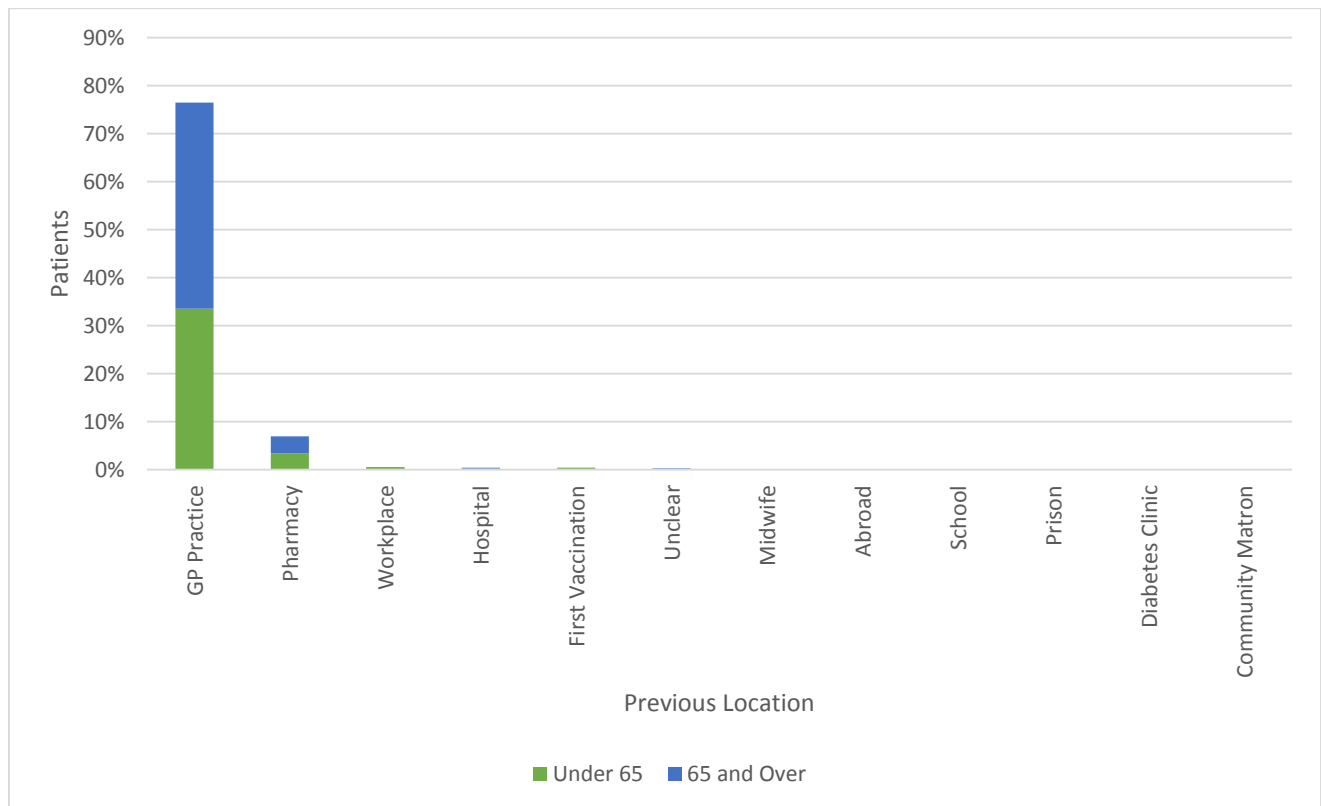
**Figure 15 Risk groups of those stating this was their first flu vaccination (n = 1024)**



**Figure 16 Proportion of patients having received flu vaccination previously in each risk category**



**Figure 17 Previous location of Flu vaccination**

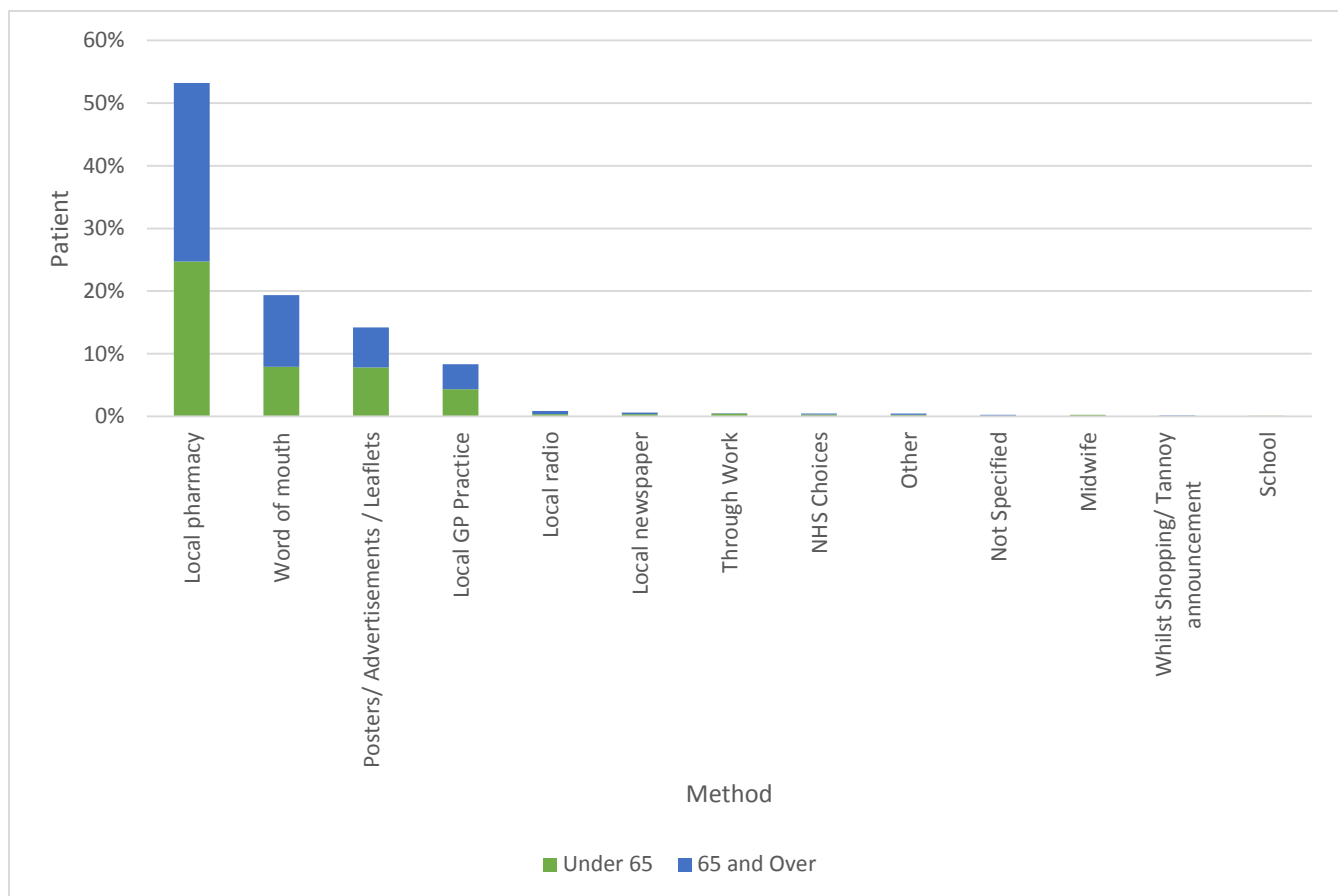


**Table 3 Proportion of patients who would have still had the vaccination even if not available in the pharmacy**

	Number of patients under 65	Proportion of patients under 65	Number of patients 65 and over	Proportion of patient 65 and over	Total patients	Total proportion of patients
No	304	11%	156	5%	460	8%
Yes	1817	66%	2400	82%	4217	74%
Unsure	528	19%	331	11%	859	15%

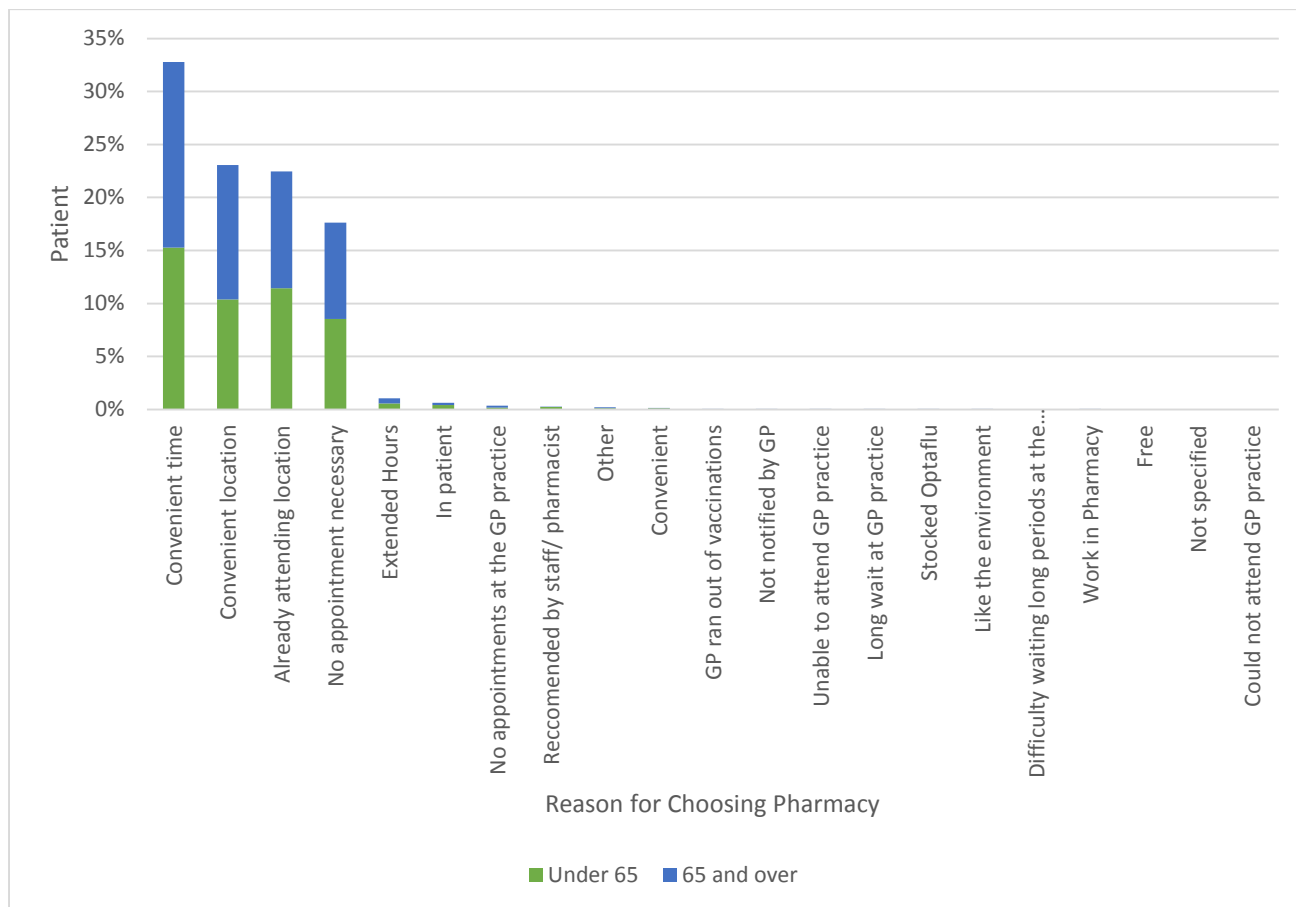
Eight per cent of patients would not have sought the vaccination had it not been available in community pharmacy (see table 3). Most patients (53.2%, 3014/5663) heard about the vaccination service direct from the pharmacy (see figure 18). In the main the patients chose to have their vaccination in the pharmacy because of convenience, whether this was the time, location or because they were already visiting the pharmacy for something else (see figure 19).

**Figure 18 Method by which the patient heard about the service**



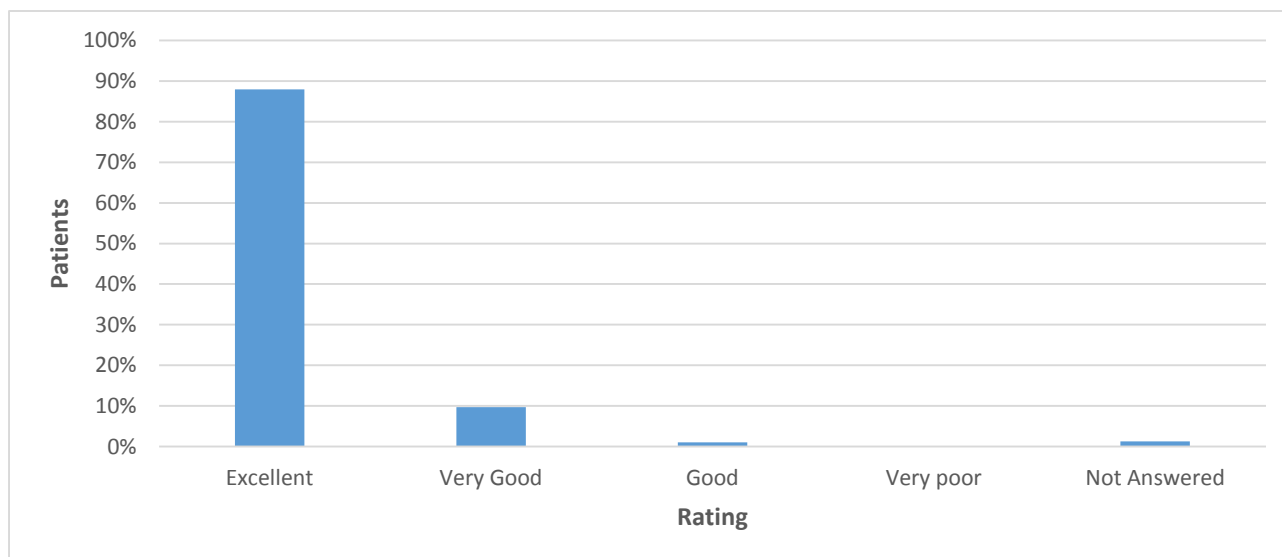


**Figure 19 Reason the patient had the flu vaccination today**



Overall most rated the service as excellent (87.9%, 4978/5663) or very good (9.7%, 551/5663) (See figure 20). 96.0% (5436/5663) said they felt that they received the vaccination in a private area of the pharmacy, 0.2% (14/8046) felt it was not private; the remainder (3.8% - 213/ 5663) did not respond. 68.3% (5494/8046) said that they would use the pharmacy again, 5 patients said they would not (0.08%); 97.7% (5532/5537) said they will recommend to a friend. Only 5 patients said they would not (0.08%).

**Figure 20 Rating of the service by patient**



## 6 DISCUSSION

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Pharmacies in West Yorkshire delivered a high number of flu vaccinations to their patients in both the under 65 and 65 and over at risk groups. This varied between CCG, pharmacy and GP practice. Approximately half the pharmacies in West Yorkshire expressed a willingness to provide flu vaccinations; two-thirds of these delivered vaccinations, some of which were notably high numbers of vaccinations with others only delivering one or two. It is unclear the reasons for the range in delivery, although this is not unique to the flu vaccination and is mirrored across other community pharmacy commissioned services. Further work to explore the successes and barriers to delivery of flu vaccination would be beneficial to inform next year's flu vaccination campaign to increase the number of vaccinations delivered.

Community Pharmacy has delivered a high proportion of vaccines in the under 65 and pregnant women risk categories, higher than other providers administering flu vaccinations, demonstrating its ability to target the harder to reach groups. The majority of patients were vaccinated at the beginning of the flu campaign and the numbers declined as the service continued. The reasons for this are unclear but may include the pharmacies having asked all their patients, lack of priority and focus of the pharmacies as the campaign period progressed or some other reason. The pharmacy service started on the 1<sup>st</sup> October 2014 making the window of opportunity for vaccination smaller than it could have been. If the flu vaccination service is to be recommissioned, early implementation of all aspects of the service would maximise opportunistic targeting by participating community pharmacies.

The service was well received by patients, with most stating that they would use pharmacy again and recommend it to others; liking pharmacy for its convenience and accessibility. This is mirrored in the data showing the times of day the patients accessed the pharmacy with many, especially the under 65 age group accessing out of hours. A substantial number of patients both over and under 65 opportunistically accessed the vaccination for the first time from community pharmacy, with a notable number stating that they would not have had it at all if they had not had it in the pharmacy.

Currently the vaccination service does not include children. Nationally, vaccine uptake is particularly low in children under 16 years of age with clinical conditions that put them at most risk of complications or hospitalisation from flu. The new programme to provide flu vaccine to all children aged two to under 17 years will take time to implement. In the meantime, it is important that children and parents of children in clinical risk groups understand the importance of children being vaccinated against flu and the protection it offers them, particularly children with neurological disease including learning disabilities. Community pharmacies are in a good position to offer flu vaccinations to children under 18.

### **Limitations**

The patient questionnaire asks whether the patient has had the flu vaccination previously, it does not ask how long ago it was received. This may mean that the patient has had the vaccination previously but a long time ago and not in the last few years, underestimating the impact of the community pharmacy vaccination service.

The age of the patient was used to determine whether the patient fell into the under 65 or the 65 and over age groups. A small percentage of those identified by the pharmacist because they were 65 or over had an age entered which was below 65. Some of these may have had a birthday which meant they were 65 before March 31<sup>st</sup> others may have had their age or risk group entered incorrectly. This was the case for 107 patients.

It is unclear how many patients receiving the vaccination for the first time were not eligible in previous years, especially those who were pregnant as this may be their first pregnancy. Figures for ethnicity have not been weighted according to their population sizes.

## 7 CONCLUSION

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This service provided opportunity for community pharmacy to offer opportunistic access to vaccination service without the need for an appointment, to target those requiring vaccination in at risk groups alongside the dispensing process and improve the uptake of flu vaccination in at risk groups. Further work to understand the successes and challenges is needed to support next year's flu campaign.

## 8 RECOMMENDATIONS

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- Work with the providers who have delivered a large number of vaccinations to share good practice for 2015/16 to improve pharmacy delivery, especially those who vaccinated large proportions in the under 65 at risk groups
- Understand the barriers to those delivering lower numbers of vaccinations to identify ways to increase delivery.
- Consider expanding service to include under 18s and other at risk groups recommended by DH
- Ensure all aspects of the service are implemented by the beginning of September to maximise opportunistic targeting.
- Work with providers to ensure increased accuracy of recording data eg accurate categorization of those patients over 65.
- Add check box to PharmOutcomes to identify those patients receiving the vaccine because they will celebrate their 65<sup>th</sup> birthday during the campaign period

## 9 REFERENCES

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