

ANNUAL RETURNS 2018

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EXECUTIVE SUMMARY

IMPLEMENTATION

1. A total of 3,032 Yellow Fever Vaccination Centres (YFVCs) in England, Wales, and Northern Ireland were contacted for the 2018 Annual Returns Survey (1 January 2018 to 31 December 2018).
2. The response rate was 93%.

THE YELLOW FEVER VACCINATION CENTRES

3. The most common organisations were NHS GP practices (58%), followed by pharmacies (28%).
4. The average number of staff giving yellow fever (YF) vaccines per centre was 2.3 (median: 2).
5. The average number of health professionals per centre, who had received any training was 1.5 (median: 1).

YELLOW FEVER VACCINE DOSES

1. The average number of yellow fever vaccine doses given per centre in 2017 was 49.8 (median: 24).
2. The total number of doses given was 139,943. If non-responding centres had the same prescribing patterns as responding centres, the number would be 150,376.
3. The 20-29 year olds accounted for the largest proportion of vaccinated individuals (25.3%).
4. The total number of booster doses was 3,739 (2.7% of all doses given). The numbers for booster doses by reasons exceeded this number indicating that the actual number is likely to be higher.
5. The predominant reason for giving boosters was compliance with the International Health Regulations (IHR) followed by continuation of protection and patient insistence.

SERIOUS CLINICAL EVENTS

6. A total of 27 clinical incidents were reported.
7. Individuals were given a vaccine in error in 19 instances. The most common reasons were 'diluent only' (7), other (6), contraindication (4), followed by 'out of date' (2).

YELLOW FEVER VACCINE WASTAGE

8. The total number of wasted doses was 1,468. The most commonly mentioned reasons for wastage were cold chain breakdown (45.5%), 'out of date' (34.6%), procedure fault (12.7%), other (6.7%), and product fault (0.4%).

AIMS

This report concerns the 2018 Annual Returns Survey of YFVCs ('centres' from hereon) in England, Wales, and Northern Ireland.

METHODS

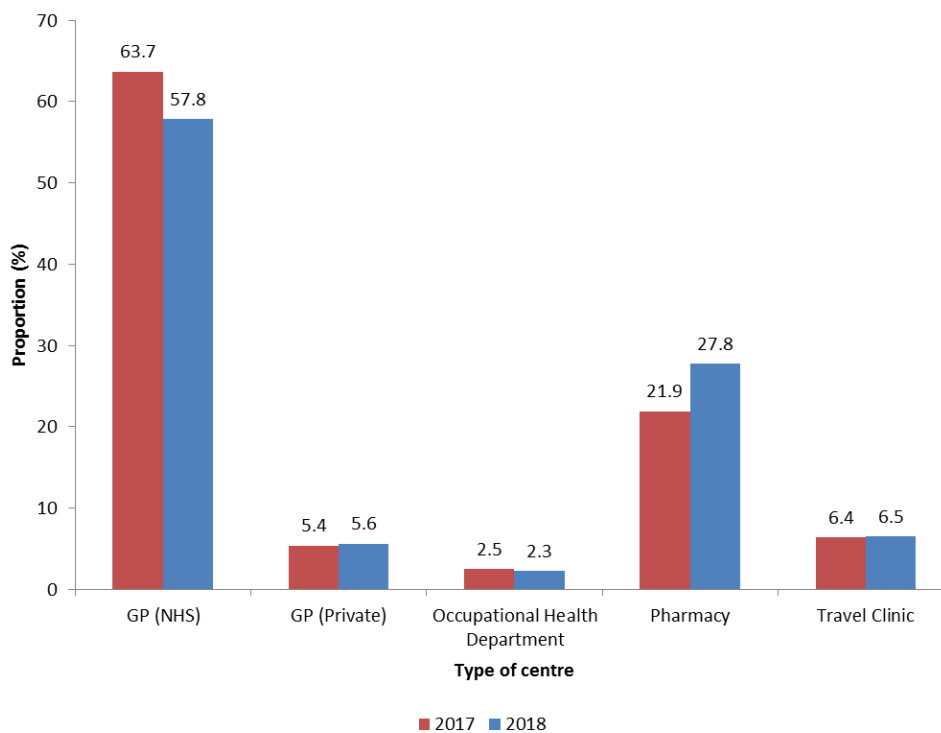
A questionnaire was created in SurveyMonkey online survey software (SurveyMonkey, San Mateo, California, US). A generic weblink was disseminated to centres, designated between 1 January 2018 and 31 December 2018, via multiple channels: email to centre staff, news items on NaTHNaC's website, newsletter to subscribers of news on both NaTHNaC's TravelHealthPro and Yellow Fever Vaccination Zone websites, and social media posts (Facebook, Twitter). Operational leads at major travel clinic and pharmacy chains we contacted via email. The online questionnaire was open for responses between 21 January and 31 May 2019.

RESULTS

The total number of centres contacted was 3,032 and the response rate was 93% (military centres were excluded from analyses for confidentiality reasons). In comparison, the response rates in the previous four years were 86%, 86%, 80%, 80%, and 71%.

The total number of responses collected was 3,189 with a currently designated YFCV ID. Of these, 303 were either duplicates (N=282) or had IDs not currently designated (N=95). Only the latest response from a centre was kept for analysis where there were duplicates, and responses from undesignated centres were discarded. Of the 3,032 centres with current designation status on 15 January 2019, a total of 2,812 centres responded (93% response rate).

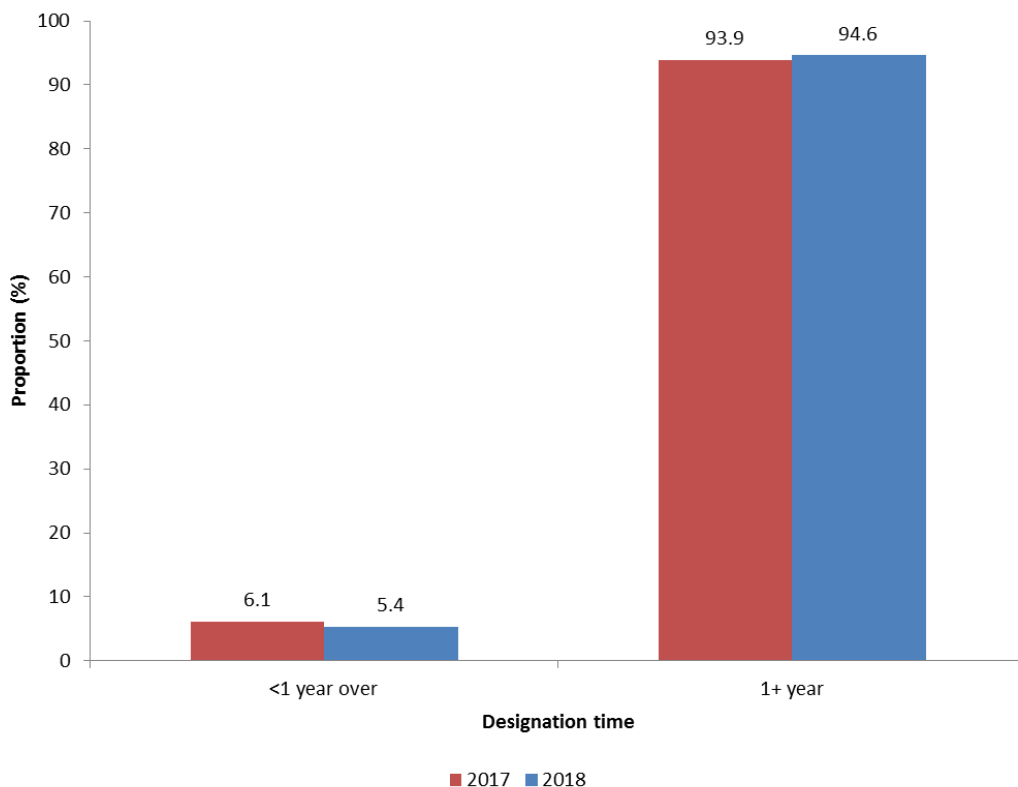
Figure 1 Yellow Fever Vaccination Centre organisation type.



The most common organisation types were NHS GP practices (58%), followed by pharmacies (28%), travel clinics (7%), private GP practices (6%), and occupational health departments (2%). In comparison, there was a

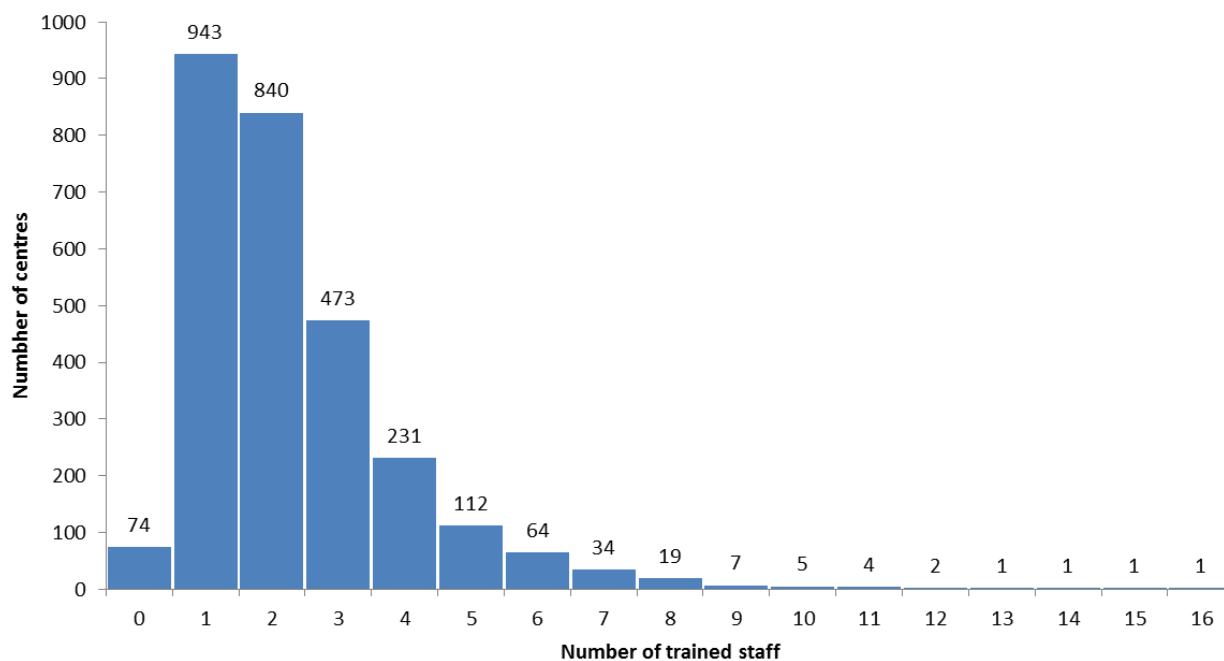
decrease in the proportion of GP surgeries and an increase in the proportion of pharmacies (Figure 1). A small proportion of centres (5.4%) had been registered for less than a year (Figure 2).

Figure 2 Yellow Fever Vaccination Centre designation status.



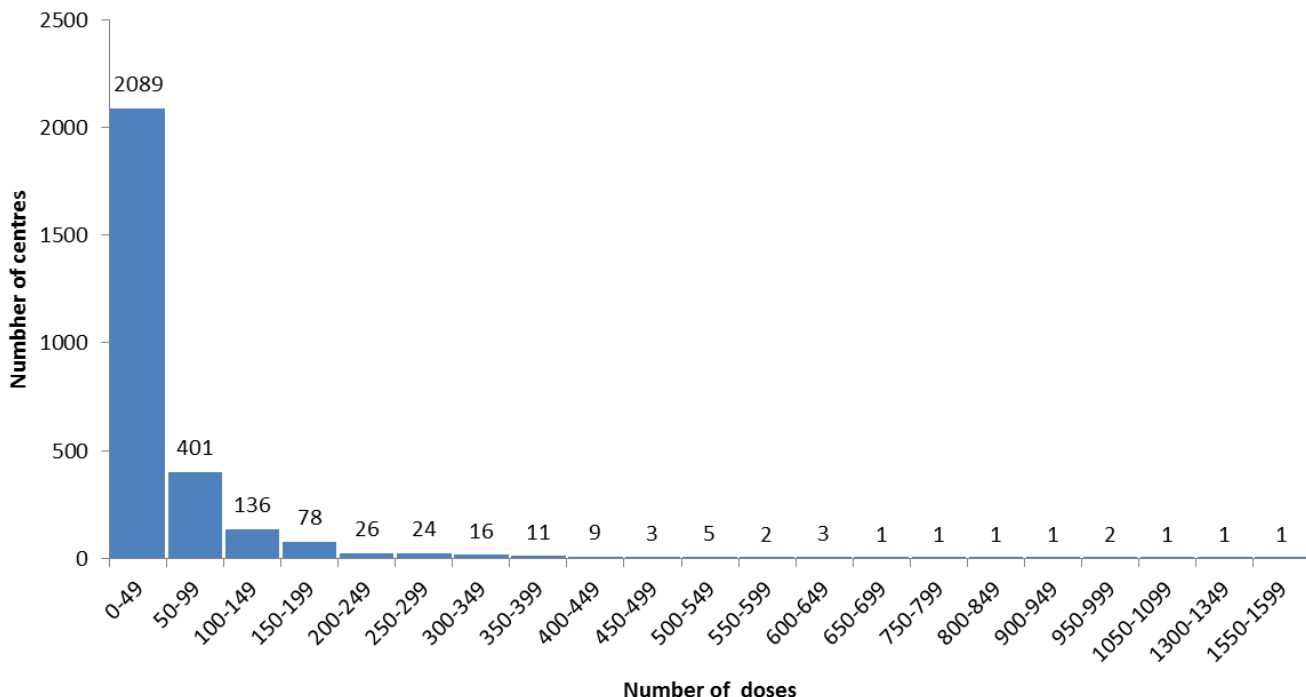
The average number of health professionals giving yellow fever vaccines per centre was 2.33 (median: 2). (Error! Reference source not found.).

Figure 3 Staff trained per Yellow Fever Vaccination Centre.



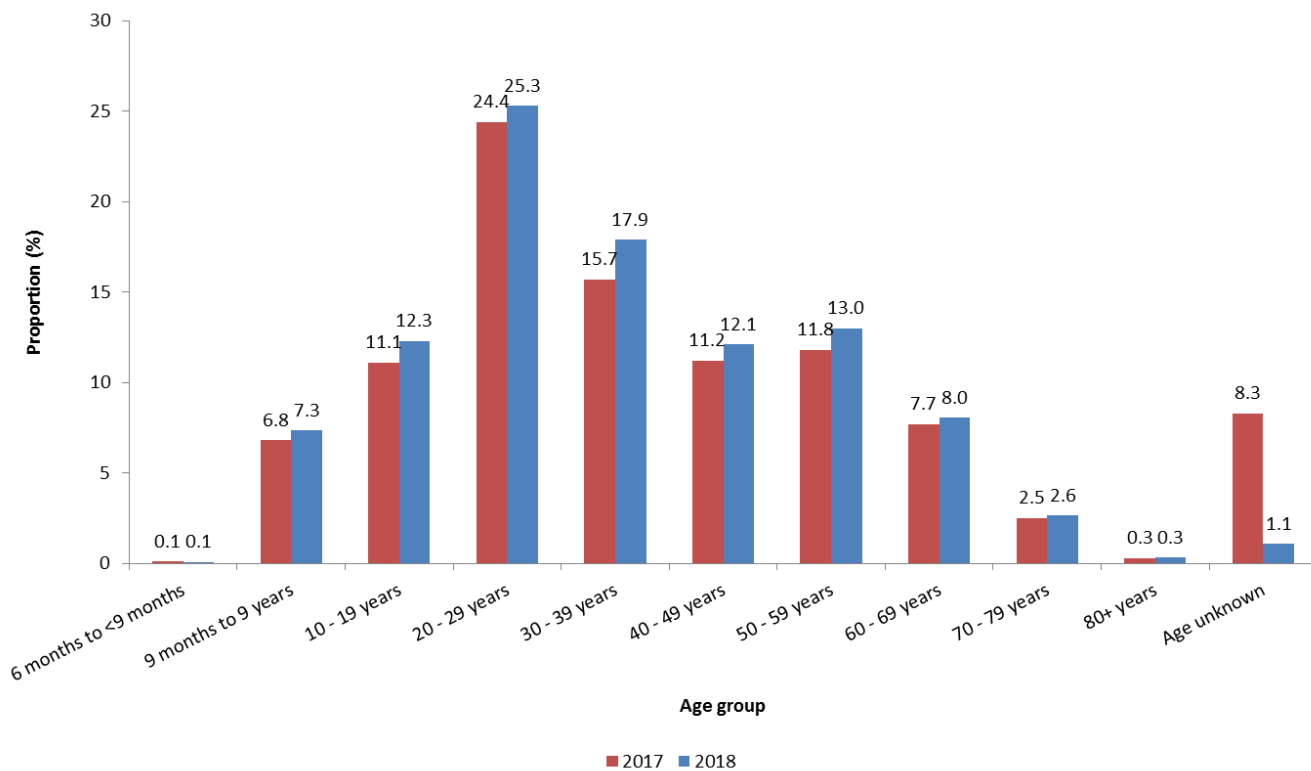
The average number of health professionals per centre, who had received training was 1.46 (median: 1) (Figure 3).

Figure 4 Yellow fever vaccination doses per centre.



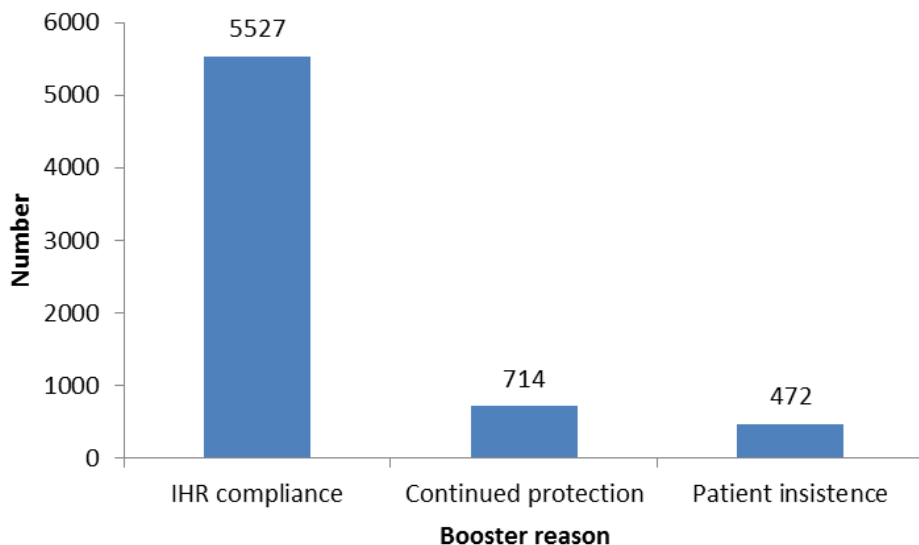
The total number of yellow fever vaccine doses given in England, Wales and Northern Ireland was 139,943. If non-responding centres had the same prescribing patterns as responding centres, the total number of doses would be 150,476. The average number of yellow fever vaccine doses given per centre was 49.8 (median: 24) (Figure 4).

Figure 5 Yellow fever vaccinations by age group.



The age distribution of individuals given yellow fever vaccines was bell-shaped and skewed towards younger adults (Figure 6). The 20-29 year olds accounted for the largest proportion of YF vaccines given (25.3%).

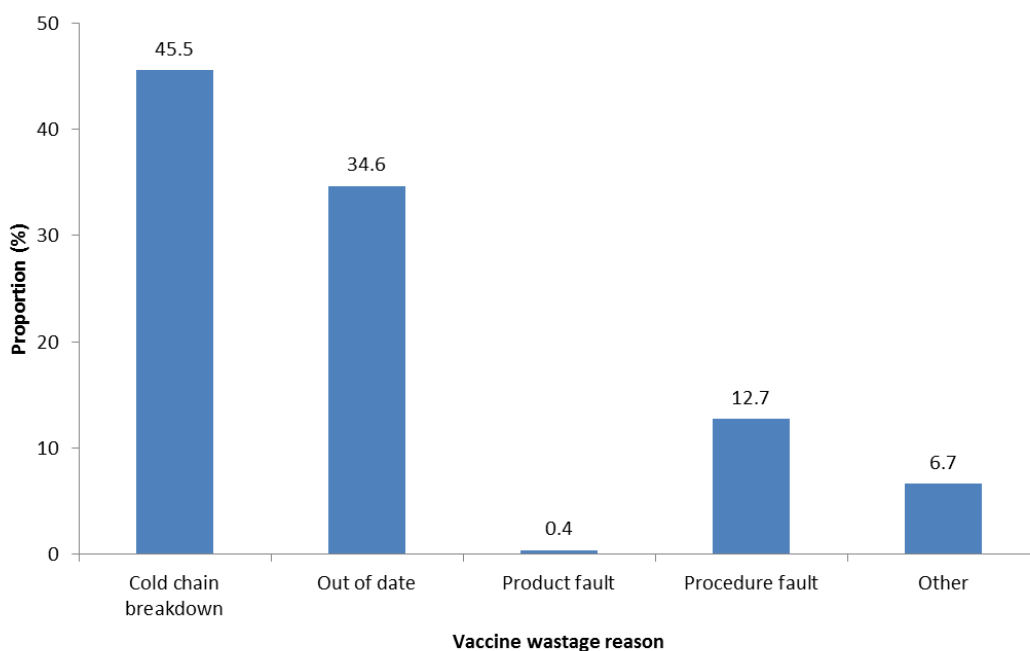
Figure 6 Number of yellow fever boosters by reason.



There were inconsistencies with the number provided by the centres when asked about the number of booster doses given (N=3739, 2.7% of all doses given) and the total number when asked for the reason for giving a booster dose (N=6713, 4.3% of all doses given). There were 194 centres which reported the number of booster doses inconsistently (8.9% of responding centres), compared with 131 in 2017 (4.9% of responding centres).

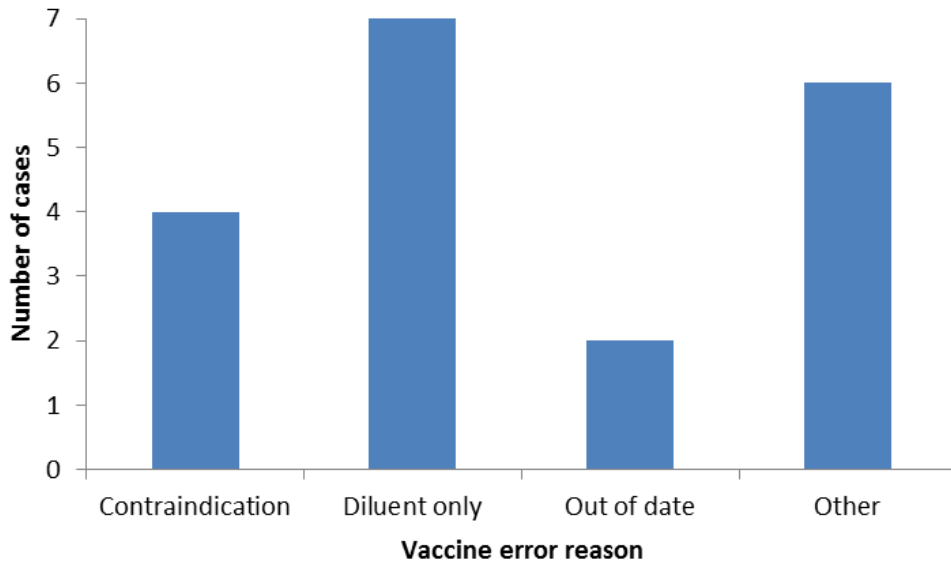
The reasons for giving boosters were compliance with IHR (5,527 booster doses), continued protection (714), and at patient insistence (472) (Figure 6). It therefore seems likely that the number of boosters is higher than 3,739 and this should be considered when interpreting the results.

Figure 7 Yellow fever vaccine wastage by reason.



The total number of wasted doses was 1,469. The most commonly mentioned reasons for wastage were cold chain breakdown (45.5%), 'out of date' (34.6%), procedure fault (12.7%), other (6.7%), and product fault (0.4%) (Figure 7).

Figure 8 Yellow fever vaccine error by reason.



A total of 27 clinical incidents were reported were reported. Of these, one resulted in a fatality due to a serious adverse vaccine reaction in a traveller who had a contraindication to the vaccine.

Individuals were given a vaccine in error in 19 instances. The most common reasons were 'diluent only' (7), other (6), contraindication (4), followed by 'out of date' (2) (Figure 8).