

Report of the profile of COVID-19 cases in healthcare workers in Ireland

Report prepared by HPSC on 10/08/2020

Note: Data are provisional

Summary

Healthcare worker (HCW) status is determined both by self-classification and workplace. The definition includes anyone who self-identifies as a HCW irrespective of where they work. In addition, all staff that work in any healthcare facility (includes cleaners, household staff etc.) are classified as HCWs. The category includes healthcare workers employed both by public and private providers.

This report includes data as of 10^h August 2020 at 15:15 am for events created on CIDR up to midnight Saturday 8st August 2020.

Characteristic of HCW COVID-19 cases	Number	%
Total number of COVID-19 cases	27177	-
Total number of HCW cases	8520	31.3
Number of new HCW cases reported between 2 – 8 August	16	-
Median age (IQR)	41 (31-50) years	-
Total number hospitalised	329	3.8
The median age (IQR) of hospital inpatient	46 (34-54) years	
Total number admitted to ICU	53	16.2*
The median age (IQR) of HCW in ICU	51 (43-60) years	-
Total number of deaths	8**	0.09
The median age (range) for deaths	54 (30-68) years	-

*This relates to hospitalised cases and it is 0.6% of all HCW cases.

**Seven confirmed and 1 probable COVID-19 case.

There was a total of 27177 COVID-19 cases reported as of 08/08/2020 12.00 midnight, 8520 (31.3%) were healthcare workers (HCWs).

The median age of COVID-19 case HCWs is 41 years (range 17-78 years). The proportion of females is disproportionately high (74.0%) among HCW COVID-19 cases compared to non-HCW COVID-19 cases (49.0%), most likely due to some HCW specialities e.g. nursing, being female dominated. The majority (58.3%) of notified HCWs were from the HSE East. CIDR (Computerised Infectious Diseases Reporting) is a dynamic information system and data are continuously validated and updated.

This report includes all HCW COVID-19 cases (n=8520) reported to HPSC, including confirmed, probable and possible cases. There are 63 (0.7%) probable or possible HCW COVID-19 cases included in the report.

Table 1. Number and proportion of HCW COVID-19 cases by epidemiological week

Epi Week (Calendar Date)	Number of HCWs	Total number of cases*	Proportion of HCWs (%)
10 (1 – 7, March)	3	16	18.8
11 (8 – 14, March)	23	128	18.0
12 (15 – 21, March)	205	683	30.0
13 (22 – 28, March)	441	1631	27.0
14 (29 March - 4 April)	947	2433	38.9
15 (5 – 11, April)	1631	4580	35.6
16 (12 – 18, April)	1624	5664	28.7
17 (19 - 25, April)	1253	3892	32.2
18 (26 April – 2 May)	825	2583	31.9
19 (3 –9 May)	501	1500	33.4
20 (10-16 May)	487	1187	41.0
21 (17-23 May)	149	585	25.5
22 (24-30 May)	106	425	24.9
23 (31 May - 6 June)	73	242	30.2
24 (7 – 13 June)	23	114	20.2
25 (14-20 June)	29	102	28.4
26 (21-27 June)	18	63	28.6
27 (28 June- 4 July)	25	94	26.6
28 (5-11 July)	44	139	31.7
29 (12- 18 July)	45	154	29.2
30 (19-25 July)	33	124	26.6
31 (26 July – 1 August)	19	287	6.6
32 (2 – 8 August)	16	551	3.1
Total	8520	27177	31.4

*including HCWs; confirmed, probable and possible cases.

Figure 1. Proportion of HCW and non-HCW COVID-19 cases by week in which case was notified (n= 27177)

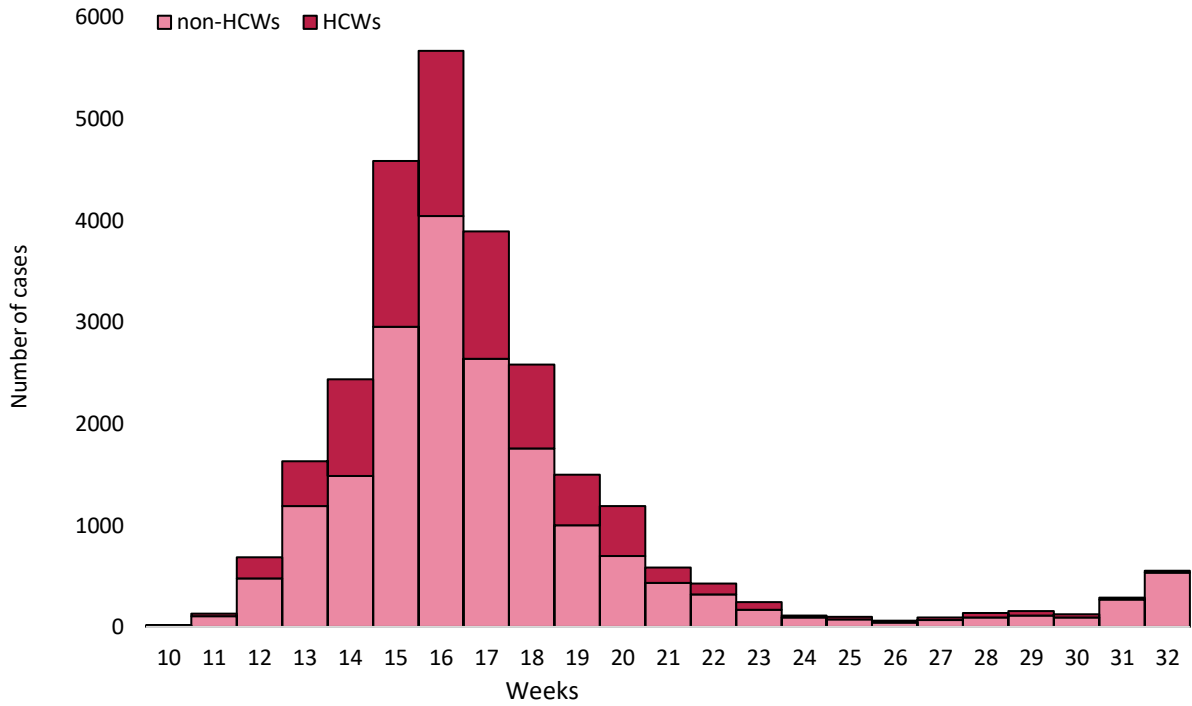
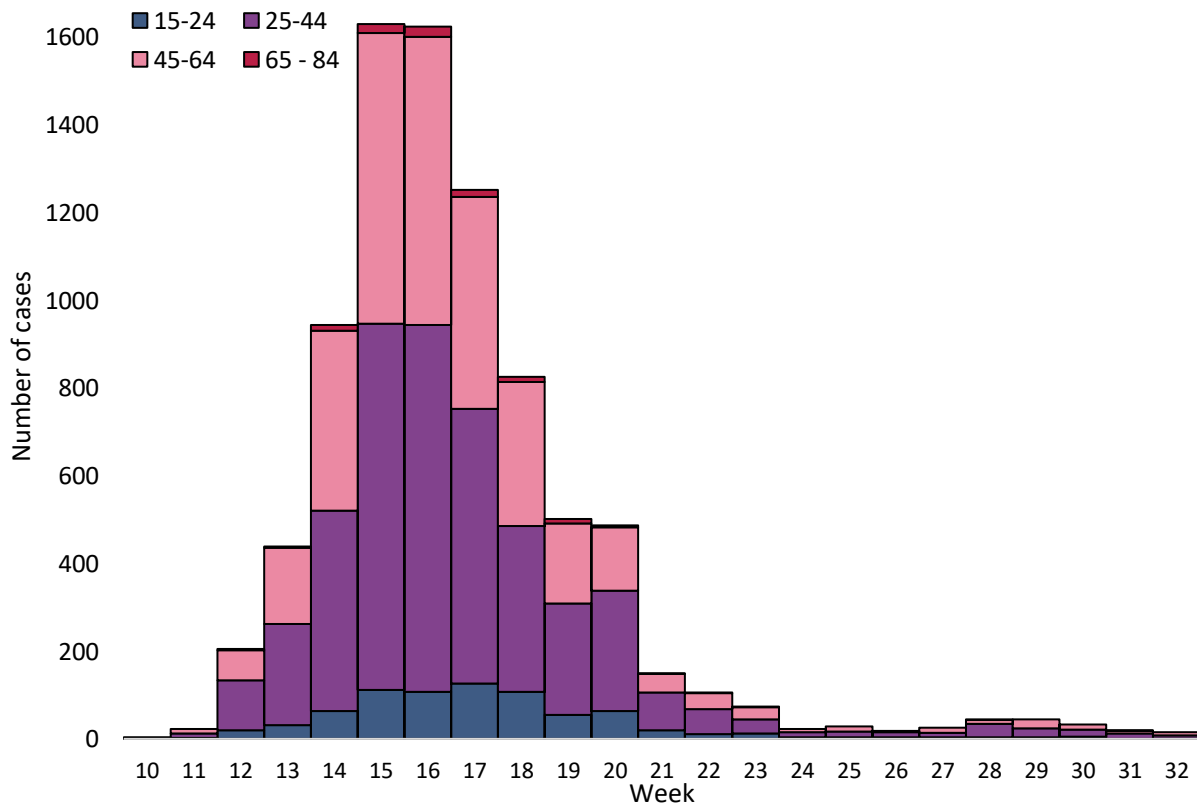
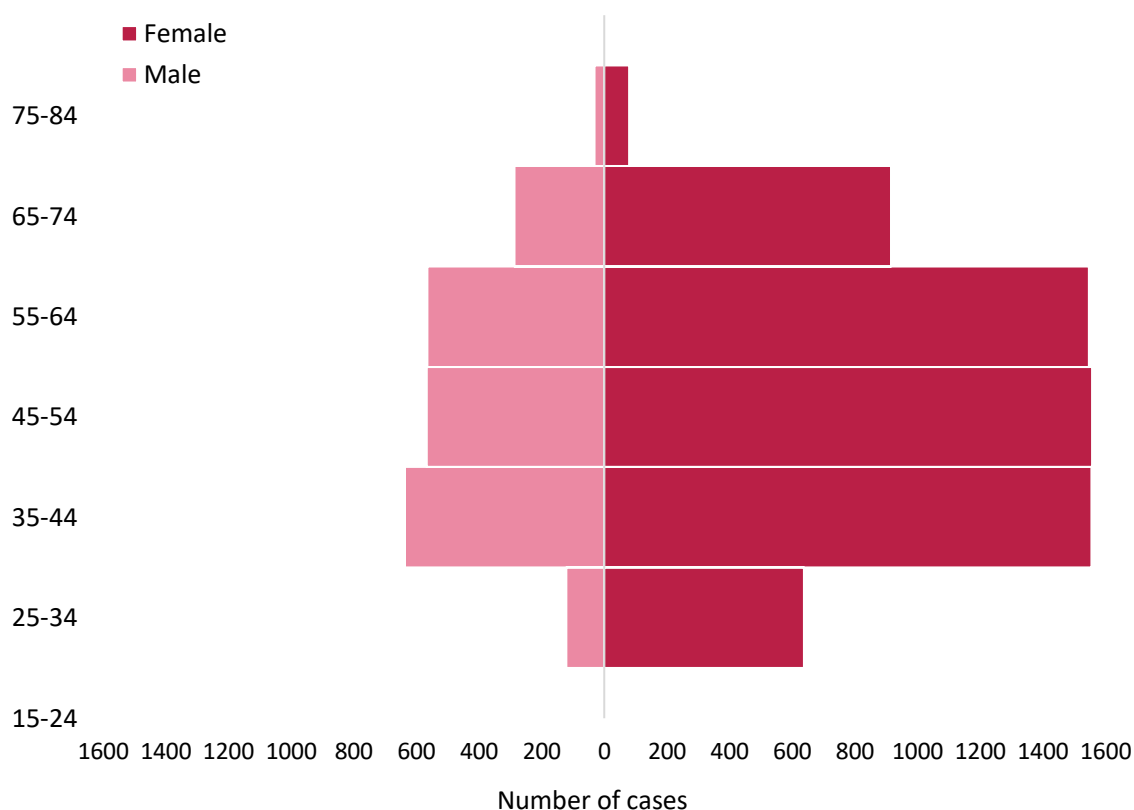


Figure 2. Distribution of HCW COVID-19 cases by week in which case was notified * and age group (n=8511)



* Age was not available for 9 cases.

Figure 3. Distribution of HCW COVID-19 cases by age and sex (n=8496) *



* Age and sex were not available for 24 cases.

Table 2. Number and proportion of HCW COVID-19 cases by HSE area

HSE area	Number of HCWs cases	Proportion of all HCW cases (%)	Number of new HCW cases since last week
HSE E	4967	58.3	8
HSE M	453	5.3	0
HSE MW	371	4.4	2
HSE NE	1175	13.8	2
HSE NW	310	3.6	1
HSE SE	353	4.1	3
HSE S	459	5.4	0
HSE W	432	5.1	0
Total	8520	100.0	16

Table 3. Number and proportion of HCW COVID-19 cases by CHO area

CHO area	Number of HCWs cases	Proportion of all HCW cases (%)	Number of new HCW cases since last week
CHO1	830	9.7	1
CHO2	432	5.1	0
CHO3	371	4.3	2
CHO4	459	5.4	0
CHO5	353	4.1	3
CHO6	918	10.8	0
CHO7	1828	21.5	6
CHO8	1109	13.0	2
CHO9	2221	26.1	2
Total	8520	100.0	16

Table 4. Number and proportion of HCW COVID-19 cases by role

HCW Role	Number of HCWs cases	Proportion of all HCW cases (%)	Number of new HCW cases since last week
Nurse	2751	32.2	4
Healthcare assistant	2265	26.6	5
Doctor	524	6.1	0
Cleaning/household staff	195	2.3	1
Catering/Kitchen worker in a healthcare facility	155	1.8	0
Admin/Clerical worker in a healthcare facility	153	1.8	0
Physiotherapist	118	1.4	1
Porter	97	1.1	0
Pharmacy worker	72	0.8	0
Occupational therapist	40	0.5	0
Radiographer	37	0.4	0
Other HCW	1228	14.4	1
Not Specified	885	10.4	4
Total	8520	100.0	16

Table 5. Number and proportion of HCW COVID-19 cases linked to an outbreak by outbreak location

Outbreak location	Number of HCWs cases	Proportion of all HCW cases (%)	Number of new HCW cases since last week
Nursing home	2099	24.7	0
Hospital	730	8.5	2
Private house	710	8.3	2
Residential institution	450	5.3	2
Comm. Hosp/Long-stay unit	232	2.7	1
Workplace	34	0.4	2
Travel related	30	0.3	0
Extended family	17	0.2	0
Community outbreak	14	0.2	0
Public house	2	0.0	0
Restaurant / Cafe	2	0.0	0
Hotel	1	0.0	0
Other	23	0.3	0
Not linked to an outbreak	4176	49.0	7
Total	8520	100.0	16

Table 6. Number and proportion of HCW COVID-19 cases with underlying medical conditions

Underlying clinical conditions	Number	Proportion (%)
Yes	2966	34.8
No	4747	55.7
Unknown	807	9.5
Total	8520	100.0

Of all HCW COVID-19 cases 329 had been admitted to hospital (3.8%). The median age of hospital inpatient HCWs was 46 years (IQR: 34-54 years). (Table 7)

Table 7. Description of hospitalised HCW COVID-19 cases by sex, age, underlying condition and role (n=329)

In ICU	Number	Proportion (%)
Sex		
Female	223	67.8
Male	106	32.2
Age groups (years)		
15-24	21	6.4
25-34	65	19.7
35-44	63	19.2
45-54	110	33.4
55-64	63	19.2
65-74	6	1.8
75-84	1	0.3
Underlying clinical conditions		
Yes	175	53.2
No	137	41.6
Unknown	17	5.2
HCW role		
Nurse	117	35.6
Healthcare assistant	79	24.0
Doctor	32	9.7
Cleaning/household staff	8	2.4
Admin/Clerical worker in a healthcare facility	5	1.5
Catering/Kitchen worker in a healthcare facility	5	1.5
Porter	4	1.2
Other HCW	51	13.7
Not Specified	28	8.5

Of all HCW COVID-19 cases, 53 were admitted to ICU (0.6%). Sixteen percent of hospitalised COVID-19 HCWs were admitted to ICUs. The median age of HCWs admitted to ICU was 51 years (IQR: 43-60 years). (Table 8)

Table 8. Description of HCW COVID-19 cases admitted to ICU by sex, age, underlying condition and role (n=53)

In ICU	Number	Proportion (%)
Sex		
Female	27	50.9
Male	26	49.1
Age groups (years)		
15-24	2	3.8
25-34	5	9.5
35-44	7	13.2
45-54	19	35.8
55-64	18	34.0
65-74	2	3.8
Underlying clinical conditions		
Yes	42	79.2
No	11	20.8
HCW role		
Nurse	21	39.6
Healthcare assistant	10	18.9
Doctor	7	13.2
Cleaning/household staff	1	1.9
Admin/Clerical worker in a healthcare facility	1	1.9
Porter	1	1.9
Other HCW	8	15.1
Not Specified	4	39.6

Table 9. Other HCW COVID-19 cases admitted to ICU by role

Other allied HCWs	Number
Ambulance watch manager	1
Clinical Trainer	1
Undefined role in nursing home	1
Paramedic	1
Security Guard in Hospital	1
OT Assistant	1
Unknown	2
Total	8

Table 10. Number of confirmed COVID-19 cases by WHO transmission classification*

Transmission classification*	Number	Proportion (%)
Community transmission - including possible community transmission**	1176	13.8
Local transmission	7198	84.5
Travel related	146	1.7
Total	8520	100.0

*WHO definition of transmission classification is specified below:

- Community transmission is evidenced by the inability to relate confirmed cases through chains of transmission for a large number of cases, or by increasing positive tests through routine screening of sentinel samples.

- Local transmission indicates locations where the source of infection is within the reporting location.

- Imported cases only indicates locations where all cases have been acquired outside the location of reporting.

** Community transmission relates to those in table 11 below who are in the two categories community transmission and under investigation.

‘Most likely source of transmission’ is a composite variable created by combining several data fields on CIDR. The rate of HCWs with ‘under investigation’ transmission source category (n=856 10.0%) is expected to decrease due to continuous improvement of the transmission source variable algorithm and the completeness of surveillance data.

Table 11. Most likely source of transmission of COVID-19 in HCWs

Likely source of transmission	Number	Proportion (%)
Healthcare setting acquired: staff*	6212	73.0
Close contact with a known confirmed case	971	11.3
Travel related	146	1.7
Community transmission	320	3.8
Healthcare setting acquired: patient	15	0.2
Under investigation	856	10.0
Total	8520	100.0

*Includes HCWs with most likely source of transmission notified as ‘Healthcare setting acquired: staff’ AND HCWs with most likely source of transmission field not completed on CIDR who had close contact with a COVID-19 case in healthcare or workplace setting AND HCWs with most likely source of transmission field not completed on CIDR who are linked to an outbreak in a Comm. Hosp/Long-stay unit / Hospital / Nursing home.

Table 12. COVID-19 case HCWs with most likely source of transmission: Under investigation by categories

Under investigation transmission source categories	Number of cases	Proportion
Reported in the last two weeks – ongoing public health investigation	1	0.1%
Missing all exposure data* necessary to classify transmission source	145	16.9%
Missing some key exposure data necessary to classify transmission source	710	82.9%
Total	856	100.0%

*Missing international travel and country of infection, setting of close contact with a COVID-19 case, CIDR notification of most likely transmission source, and case is not linked to an outbreak.

Table 13. COVID-19 case HCWs with key exposure data not completed on CIDR

Key exposure data not completed on CIDR	Number of cases
Not linked to an outbreak	856
Missing information on contact with a known confirmed case	601
Missing travel and country of infection information	146

Figure 4. Most likely source of transmission of COVID-19 by HCW role (n=8520)

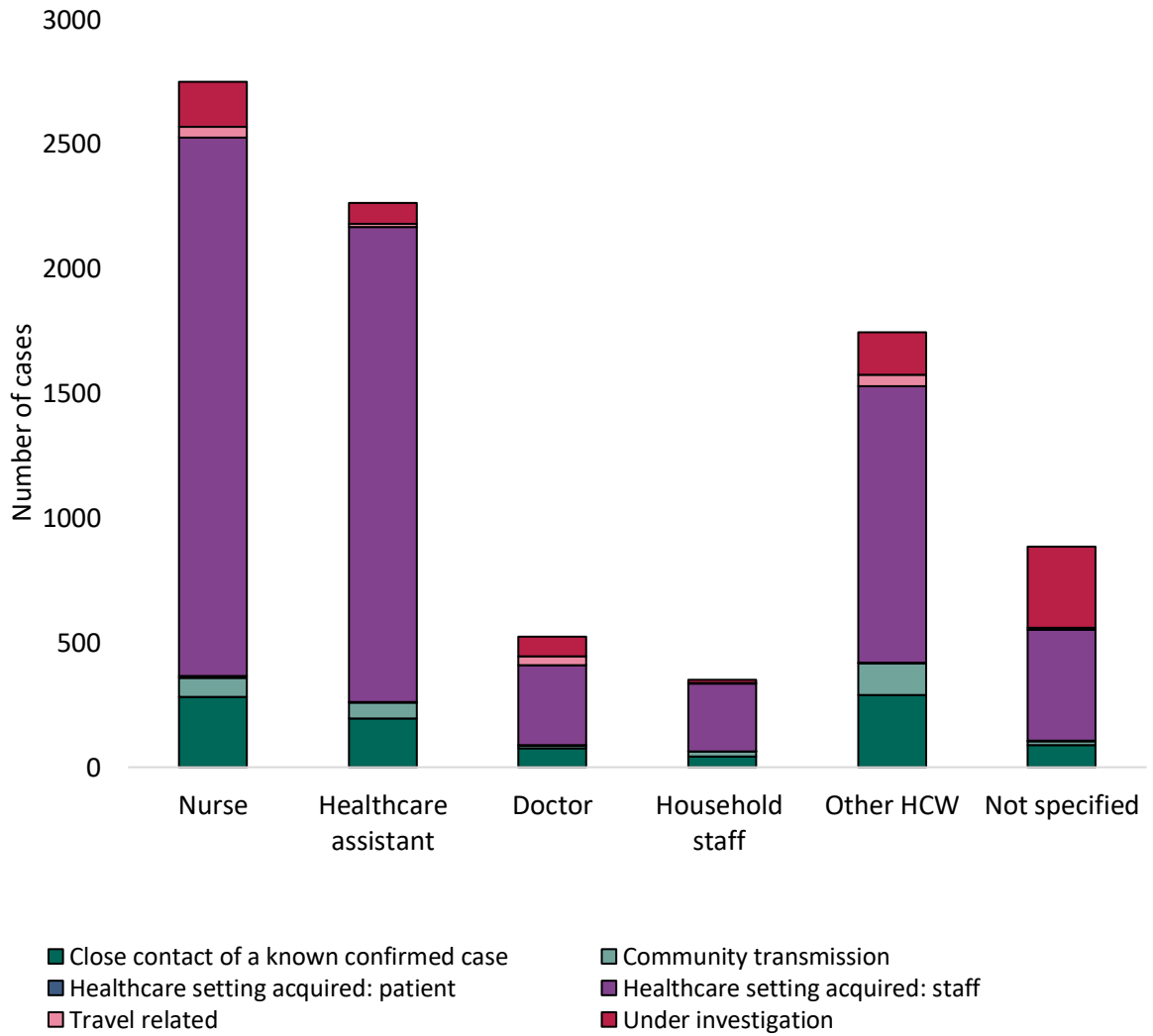


Figure 5. Most likely source of transmission of COVID-19 among HCWs by notification week (n=8520)

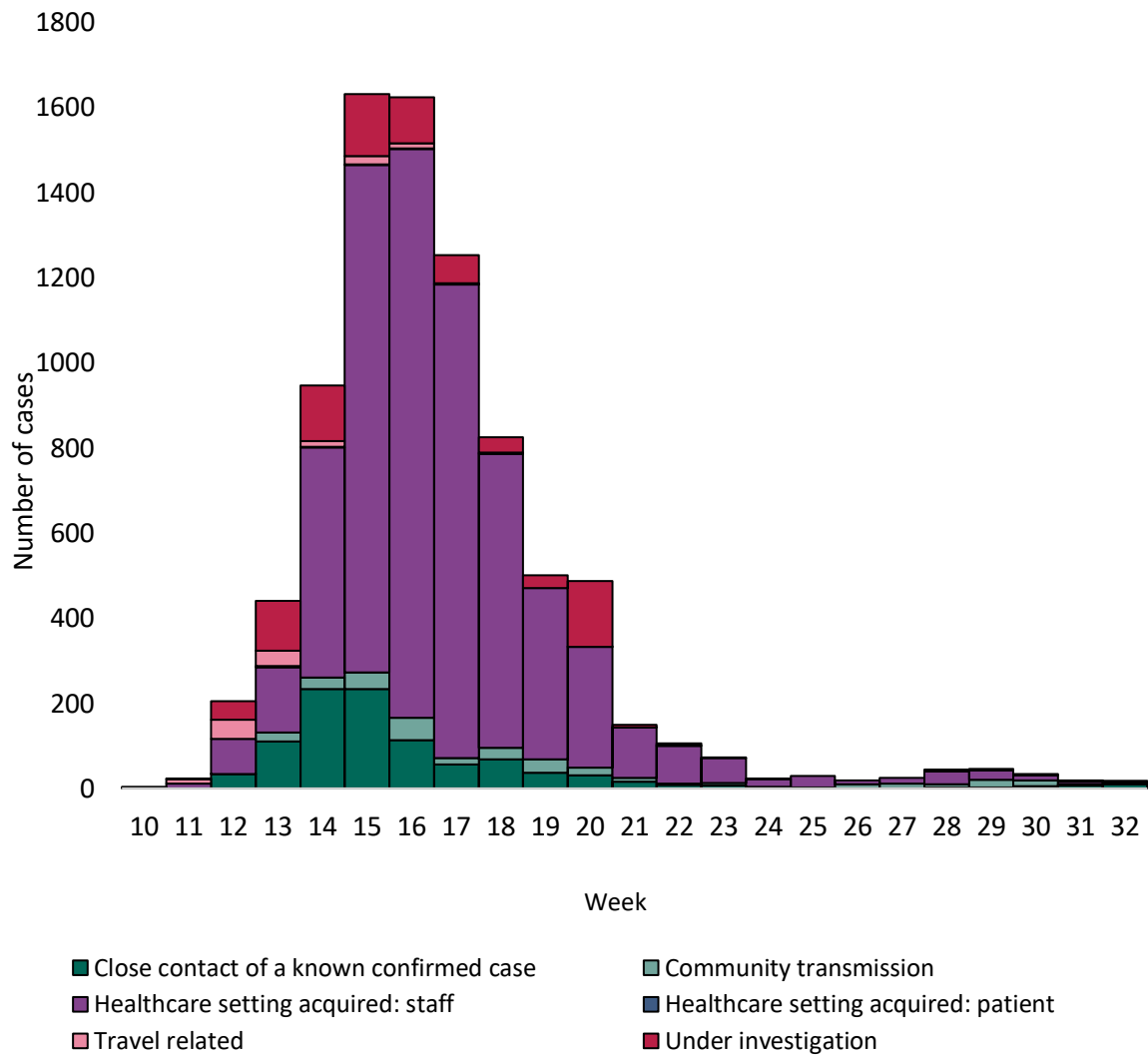
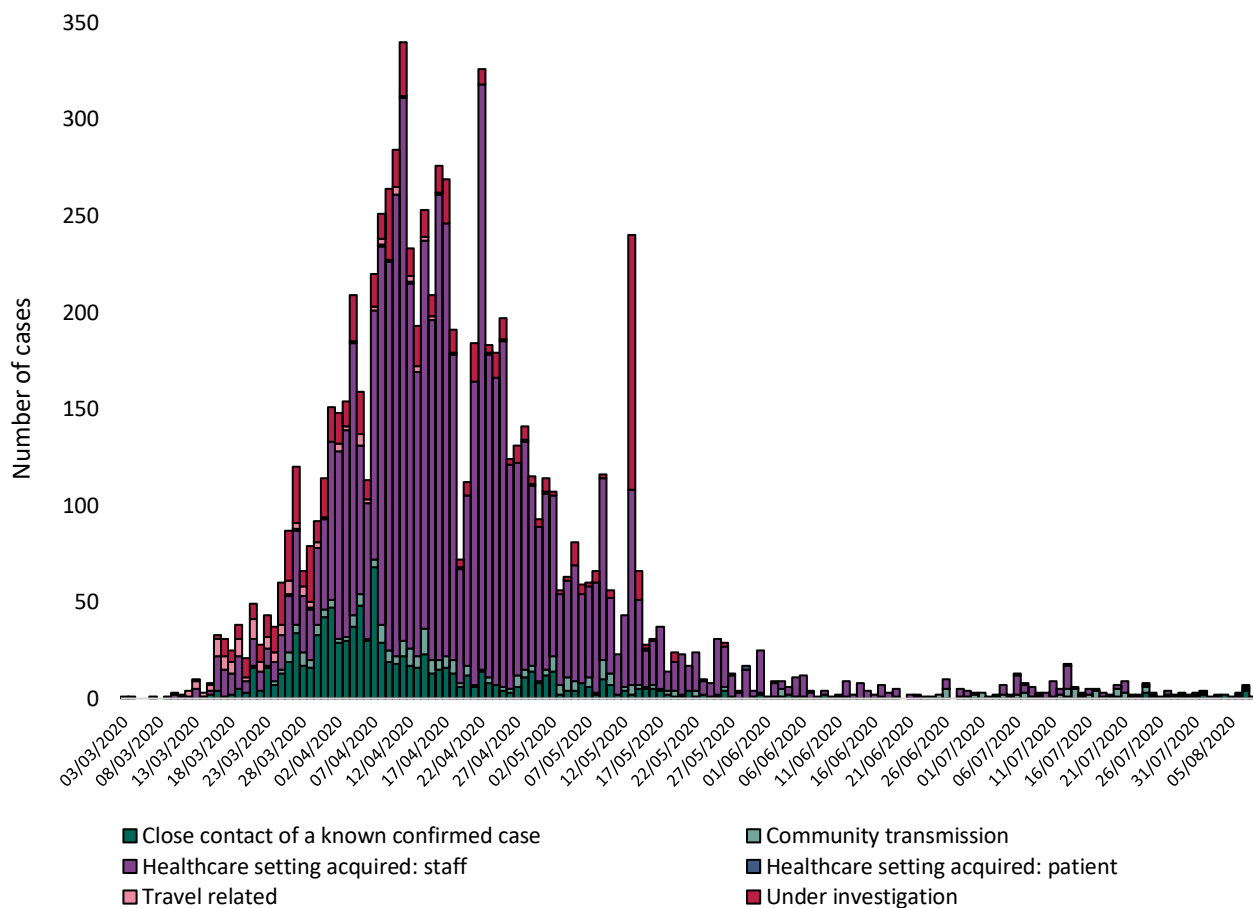


Figure 6. Most likely source of transmission of COVID-19 among HCWs by notification date (n=8520)



The peak on May 13th is due to a delay in reporting of 239 HCW cases by one hospital in HSE East. These cases were reported to HPSC on May 13th and had symptom onset between March 16th and May 11th.

Figure 7 Most likely source of transmission of COVID-19 among HCWs by notification date from 01/06/2020 to 08/08/2020 (n=300)

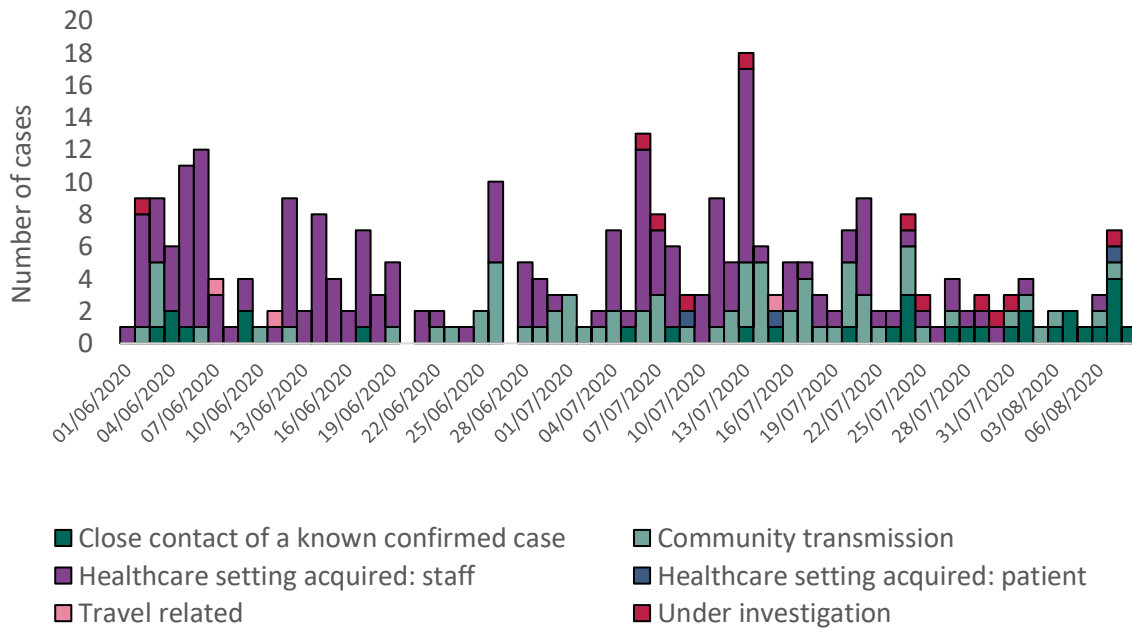
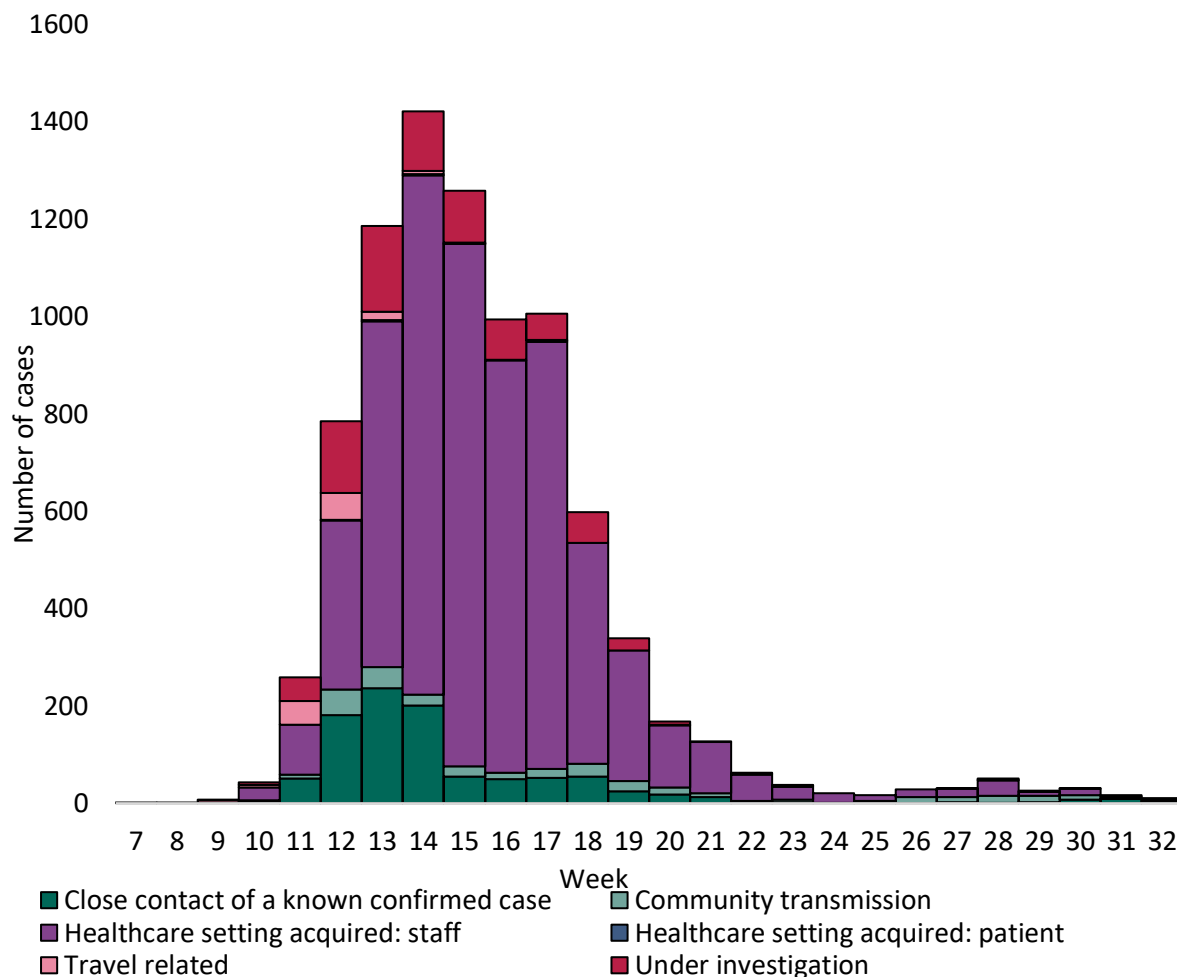


Figure 8. Most likely source of transmission of COVID-19 among HCWs based on epidate* (n= 8520)



*Date of onset if available, when date of onset is missing the date closest to the most likely transmission date is used (e.g. diagnosis date, laboratory sampling date).

Acknowledgements

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