





A Report by the Health Protection Surveillance Centre

September 2020

Report prepared by:

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HSE Health Protection Surveillance Centre. Uptake of the Seasonal Influenza Vaccine in Acute Hospitals and Long Term/Residential Care Facilities in Ireland in 2019-2020. Dublin: HSE HPSC; 2020

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Summary and key points

This report relates to influenza vaccination uptake among health care workers (HCWs) and residents in long term/residential care facilities (LTCFs) for the 2019-2020 influenza season. Uptake in HCWs in 56 hospitals (including six private) and 280 LTCFs (including 237 HSE funded, managed and staffed) is presented.

Uptake among residents (permanent and those admitted for respite care) in LTCFs was estimated by staff carrying out a point prevalence survey during the last week of January 2020.

In this report HSE funded, managed and staffed hospitals and LTCFs are referred to as 'HSE' or 'Public' hospitals and LTCFs. Also, 'uptake' has been calculated as the numerator (overall number of vaccinated individuals) divided by the corresponding denominator (overall number of eligible individuals) and expressed as a percentage.

Appendices to this report are available as a separate MS-excel file(s) on the HPSC website^{*}. *Please note: data provided in this report may differ from previous seasonal influenza vaccine uptake reports due to updating and correcting of previously submitted* data, particularly in relation to the public funding status of some LTCFs.

Key findings

Influenza Vaccine Uptake in Public Hospitals, 2019-2020 (Table A, Figure A)

- All but one of 51 public hospitals[†] participated in the 2019-2020 survey
- Based on 50 complete returns
 - Uptake among all hospital HCWs was 58.9%
 - Two (4%) hospitals exceeded the 2019-2020 75% national uptake target
 - Uptake varied by HSE Hospital Group (range 38.7-74.6%); the highest uptake reported in 'Dublin North East (RCSI)' and lowest in 'Midwest (UL)'
 - Uptake varied by HSE staff category (48.4-76.4%), the highest uptake was reported among 'medical and dental' professionals and lowest among 'general support' staff

Influenza Vaccine Uptake in Public LTCFs, 2019-2020 (Table B, Figure B)

- 236 public LTCFs participated in the current survey
- Based on 236 complete returns
 - Uptake among LTCF-based HCWs was 45.5%
 - o 24 (10.1%) LTCFs exceeded the 75% national uptake target
 - Uptake varied by Community Health Organisation (CHO) (range 37.9-55.9%) with the highest uptake reported in CHO7
 - Uptake varied by HSE staff category (41.6-59.2%); the highest value was reported among 'medical & dental professionals and lowest among 'other patient and client care' staff

Uptake among residents in Public LTCFs

Date of survey: last week of January 2020 (Table C) Among long-term residents

- Uptake was 89.3% (range 83.9% [CHO2] 94.1% [CHO7]) Among respite residents
 - Uptake was 67.1% (range 14.3% [CHO6] 91.3% [CHO7])

^{*} http://www.hpsc.ie/a-z/respiratory/influenza/seasonalinfluenza/influenzaandhealthcareworkers/

⁺ No returns were available from Children's Hospital Ireland (Tallaght University Hospital Unit)

Table A. Influenza vaccine uptake in Hospital-based HCWs by Hospital Group, Staff Category Grade, Staff Size and Influenza Season, 2011-2012 to 2019-2020, Ireland (based on complete returns only)

							Seasona	al % Uptake in H	lospital HCWs
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017‡	2017-2018	2018-2019	2019-2020
Number of Participating Public Hospitals providing	36	32	41	39	46	48	49	51	50 ⁺
complete returns									
Hospital Group [†]									
Children's Hospital Group§	27.1	23.3	28.8	27.9	35.8	55.1	60.3	66.8	72.6
Dublin Midlands (TCD)	18.1	21.5	25.0	31.0	34.0	40.7	43.6	57.7	62.5
Dublin North East (RCSI)	25.6	29.0	37.2	28.6	31.2	43.2	58.8	68.2	74.6
Ireland East (UCD)	19.8	18.3	29.6	24.8	26.3	36.7	45.9	55.4	61.5
Midwest (UL)	n/a	n/a	13.4	17.9	17.5	25.2	41.5	41.6	38.7
South/South West (UCC)	9.6	10.8	17.1	13.2	14.7	23.2	36.1	45.6	54.5
West/North West (Saolta UHG; NUIG)	11.3	10.7	16.3	17.2	15.5	20.7	37.1	39.2	45.4
Other*	n/a	n/a	n/a	47.5	46.8	45.2	53.7	60.2	62.3
HSE Grade Category									
General Support Staff	22.1	22.5	26.7	25.1	25.8	30.4	38.3	43.3	48.4
Health & Social Care Professionals	25.0	20.0	30.2	29.7	29.7	41.0	54.4	62.6	68.5
Management & Administration	21.0	18.5	25.3	23.1	24.8	30.6	40.3	48.1	50.1
Medical & Dental	21.9	23.5	33.4	36.6	41.0	54.7	66.4	71.6	76.4
Nursing	12.4	12.6	18.4	17.2	18.9	27.5	39.8	50.4	58.1
Other Patient & Client Care	19.7	21.7	24.2	24.7	23.3	31.3	35.9	44.3	48.6
Eligible Staff Category Size									
<250	15.0	6.7	8.1	8.9	12.7	23.1	40.1	42.4	49.4
250-499	28.9	21.2	19.8	22.5	24.3	32.2	46.5	49.4	50.5
500-999	19.3	14.2	22.1	24.4	24.8	34.3	46.1	52.2	60.0
1000-1999	14.4	14.0	21.1	18.3	23.1	31.3	44.4	49.0	56.2
≥2000	19.0	20.2	27.1	26.5	26.7	35.6	44.7	54.6	60.8
Uptake (%)	18.1	17.6	24.1	23.5	25.2	34.0	44.8	53.2	58.9
Number of Participating Private Hospitals providing complete returns	1	0	5	3	4	5	7	8	6
Uptake (%) Private Hospitals Only	22.0	n/a	29.4	27.7	21.0	29.8	37.4	41.7	50.8
Uptake (%) All Hospitals	18.1	17.6	24.4	23.6	25.1	33.8	44.4	52.3	58.3
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n/a = not available/data not reported

*Other=non-acute publicly funded hospitals i.e. National Rehabilitation Hospital, Dun Laoghaire ¹See <u>http://www.hse.ie/eng/services/list/3/acutehospitals/hospitalgroups.html</u> for details of hospital groups and their location

Data for 2016-2017 changed from previous published annual report as the uptake for the Mater Misericordiae University Hospital was changed from 32.9% to 38.9% in October 2017

\$Renamed as Children's Hospital Group from Acute Paediatric Group and includes three hospitals: Children's University Hospital, Temple Street, Our Lady's Hospital for Sick Children, Crumlin, and, new in 2018-2019, Children's Hospital Ireland (Tallaght University Hospital (paediatric) Unit)

¹Children's Hospital Ireland (Tallaght University Hospital (paediatric) Unit did not provide a return in 2019-2020 season

Table B. Influenza vaccine uptake in LTCF-based HCWs by CHO, Staff Category Grade, Staff Size and Influenza Season, 2011-2012 to 2019-
2020, Ireland (based on complete returns only)**

								al % Uptake ir	
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Number of Participating Public LTCFs providing complete returns	56	108	87	66	81	101	129	218	236
Community Health Organisation (CHO) Area [‡]									
Area 1	16.7	11.0	23.8	27.4	21.0	24.7	26.3	30.2	37.9
Area 2:	11.2	10.3	14.5	23.2	17.8	19.9	37.6	44.6	43.0
Area 3	14.0	14.1	26.2	52.7	30.6	41.7	35.3	47.1	44.8
Area 4	5.8	12.5	11.4	22.2	22.7	24.0	43.6	46.7	46.6
Area 5	21.0	7.3	15.7	14.3	15.6	22.2	28.7	43.0	50.7
Area 6	59.6	22.1	31.1	29.7	22.1	25.1	34.2	48.5	51.4
Area 7	23.6	15.1	17.3	28.5	25.1	29.7	37.2	41.0	55.9
Area 8	17.5	20.7	23.4	24.5	22.1	31.7	32.4	41.4	43.6
Area 9	24.8	23.2	31.2	38.3	35.9	28.8	51.0	52.9	51.4
HSE Grade Category									
General Support Staff	14.9	14.5	21.0	20.1	24.0	26.9	30.6	37.7	43.5
Health & Social Care Professionals	15.9	8.6	23.8	22.5	22.0	35.3	39.4	55.7	46.7
Management & Administration	20.6	16.4	11.3	26.8	24.3	30.9	39.6	49.0	51.4
Medical & Dental	10.2	12.7	30.9	38.2	43.5	21.2	38.7	56.3	59.2
Nursing	17.3	13.2	20.1	26.7	21.9	26.8	31.2	41.6	47.2
Other Patient & Client Care	20.5	11.4	20.5	23.3	21.7	22.7	33.2	40.0	41.6
Eligible Staff Category Size									
<50	13.4	15.3	20.5	26.7	25.1	30.8	39.2	41.9	46.8
50-99	21.3	16.0	21.7	26.2	23.5	26.9	36.3	43.1	45.9
100-149	27.9	17.1	25.7	38.4	19.6	25.5	38.4	40.8	53.3
≥150	7.8	9.3	14.0	19.4	23.1	26.5	29.6	41.8	40.6
Uptake (%)	17.8	12.3	19.0	24.1	23.0	26.9	33.2	41.9	45.5
Number of Participating Private LTCFs* providing complete returns*	14	29	30	25	17	21	59	51	44
Uptake (%) Private LTCFs Only*	19.2	20.8	30.1	28.9	34.6	29.4	32.6	36.5	38.9
Total Number of participating LTCFs providing complete returns	70	137	117	91	98	122	188	269	280
Uptake (%) All LTCFs	18.0	14.4	23.3	25.7	25.9	27.8	33.0	40.0	43.1

*LTCFs who are private or whose funding status was not verified at time of writing** Previously published figures for 2011-2012, 2013-2014, 2014-2015, 2016-2017, 2017-2018 and 2018-2019 adjusted to reflect the fact that Royal Hospital, Dun Laoghaire and Cheshire Home, Donegal are not fully funded/managed/staffed residential facilities.

[‡] Area 1: Donegal; Sligo/Leitrim/West Cavan; Cavan/Monaghan; Area 2: Galway; Roscommon; Mayo; Area 3: Clare; Limerick; North Tipperary/East Limerick; Area 4: Kerry; North Cork; North Lee; South Lee; West Cork; Area 5: South Tipperary; Carlow/Kilkenny; Waterford; Wexford; Area 6: Wicklow; Dun Laoghaire; Dublin South East; Area 7: Kildare/West Wicklow; Dublin West; Dublin South City; Dublin South West; Area 8: Laois/Offaly; Longford/Westmeath; Louth/Meath; Area 9: Dublin North; Dublin North Central; Dublin North West

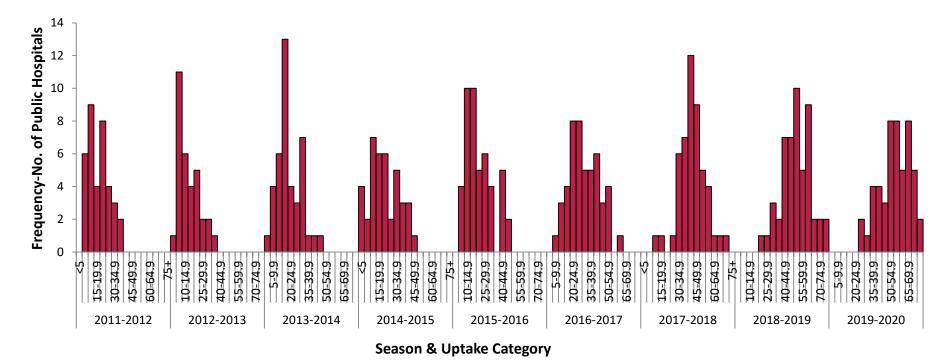


Figure A. Number of public hospitals by percentage uptake category and influenza season, 2012-2012 to 2019-2020, Ireland

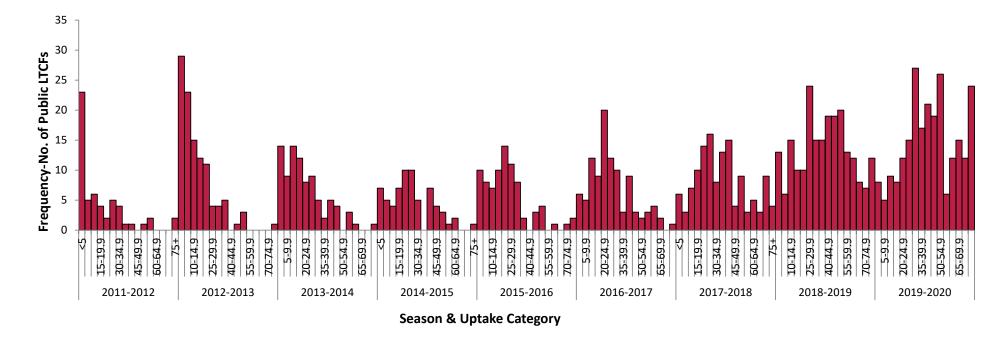


Figure B. Number of public LTCFs by percentage uptake category and influenza season, 2012-2012 to 2019-2020, Ireland

Table C. Percentage uptake of influenza vaccine in point prevalence surveys among residents of LTCFs by CHO, 2017-2018 (n=2), 2018-2019 (n=1), 2019-2020 (n=1)**, Ireland (based on complete returns only)

	2017-2018 season								2018-2019 season				2019-2020 season			
	**Point Prevalence Survey #1-				Point Prevalence Survey #2-			Point Prevalence Survey #3-				Point Prevalence Survey #4-				
	Last W	eek Noveml	oer 2017 app	orox.	Last Week April 2018 approx.			Last Week Jan 2019 approx.				Last Week Jan 2020 approx.				
	Long-term Respite residents residents		•	Long-term Respite residents residents		Long-term residents		Respite residents		Long-term residents		Respite residents				
Community Health Organisation (CHO) Area	Overall % Uptake	No. of LTCFs	Overall % Uptake	No. of LTCFs*	Overall % Uptake	No. of LTCFs	Overall % Uptake	No. of LTCFs*	Overall % Uptake	No. of LTCFs	Overall % Uptake	No. of LTCFs*	Overall % Uptake	No. of LTCFs	Overall % Uptake	No. of LTCFs*
Area 1: DL; SO/LM; CN/MN	87.9	44	63.3	20	89.1	23	71.7	13	87.3	65	54.0	39	88.1	58	63.2	32
Area 2: G; RN; MO	92.2	2	100.0	2	95.8	3	53.8	3	85.0	12	51.5	9	83.9	8	39.1	6
Area 3: CE; L; TN/EL	78.3	4	38.9	3	95.5	7	51.8	6	94.2	5	91.3	5	91.2	7	54.1	5
Area 4: KY; NC; NSL; WC	90.7	9	40.3	6	94.7	16	23.9	8	84.2	21	51.1	11	87.5	23	45.1	13
Area 5: TS; CW/KK; WD; WX	89.0	5	61.3	4	51.2	7	56.7	4	92.4	19	55.8	8	89.1	28	86.0	14
Area 6: WW; DS; DSE	94.1	1		0	88.1	2	27.3	2	92.6	3	12.5	2	92.1	3	14.3	2
Area 7: KE; DW; DSC; DSW	96.7	2	95.5	2	97.8	4	88.9	4	96.6	3	84.2	3	94.1	4	91.3	3
Area 8: S/OY; LD/WH; LH/MH	87.3	4	59.1	1	88.3	6	100.0	2	91.0	14	61.1	6	90.5	11	41.2	6
Area 9: DN; DNC; DNW	92.1	6	55.4	6	98.9	6	56.1	4	92.5	9	81.0	5	92.8	6	49.2	4
All Public only LTCFs	89.4	77	57.5	44	87.6	74	56.0	46	88.9	151	57.7	88	89.3	148	67.1	85
All LTCFs, including private	89.2	123	58.7	64	88.5	107	48.0	63	89.3	182	53.1	95	89.4	194	66.5	104

*Even though a survey was completed by each LTCF, not all had respite residents, hence the different number of 'reporting' LTCFs for both long-term and respite residents in each point prevalence survey; **Previously published figures for 2017-2018 and 2018-2019 adjusted to reflect the fact that Royal Hospital, Dun Laoghaire and Cheshire Home, Donegal are not fully public funded/managed/staffed residential facilities

Results

Section 1. HCW-based Hospital Survey

Hospital participation

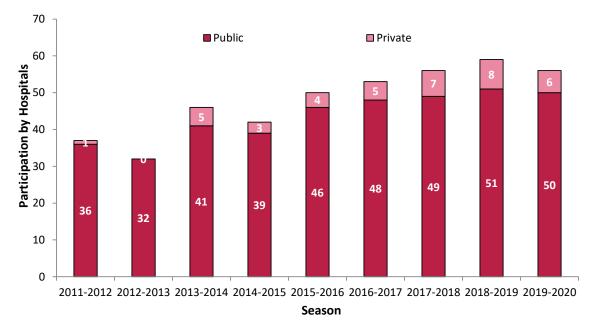


Figure 1. Reporting by 64 current eligible hospitals (including 51 public and 13 private) in 2019-2020 by influenza season, 2011-2012 to 2019-2020, Ireland

HCW vaccine uptake in public hospitals

			,			
	Total No.	Total No.				No.
	Eligible	Vaccinated		Median %	Range %	Participating
Season	HCWs**	HCWs	% Uptake	Uptake	Uptake	Hospitals
2011-2012	45058	8157	18.1	16.6	5.0-40.0	36
2012-2013	41490	7293	17.6	12.2	3.5-38.8	32
2013-2014	47760	11517	24.1	18.1	2.6-45.9	41
2014-2015	49917	11723	23.5	20.1	1.1-47.5	39
2015-2016	57494	14474	25.2	19.8	6.9-47.0	46
2016-2017	62324	21195	34.0	29.6	6.4-63.7	48
2017-2018	64554	28947	44.8	43.8	13.8-74.8	49
2018-2019	66857	35585	53.2	52.2	22.0-84.8	51
2019-2020	67452	39721	58.9	57.4	26.2-91.3	50

Table 1. Details of seasonal influenza vaccine uptake among HCWs in public hospitalsby influenza season, 2011-2012 to 2019-2020, Ireland*

*based on complete returns only; ¹Data for 2016-2017 changed from previous published annual report as the uptake for the Mater Misericordiae University Hospital was changed from 32.9% to 38.9% in October 2017

** values are rounded because of the reporting of whole-time equivalent staffing numbers by some hospital rather than actual numbers of staff

HCW Uptake by Hospital Group

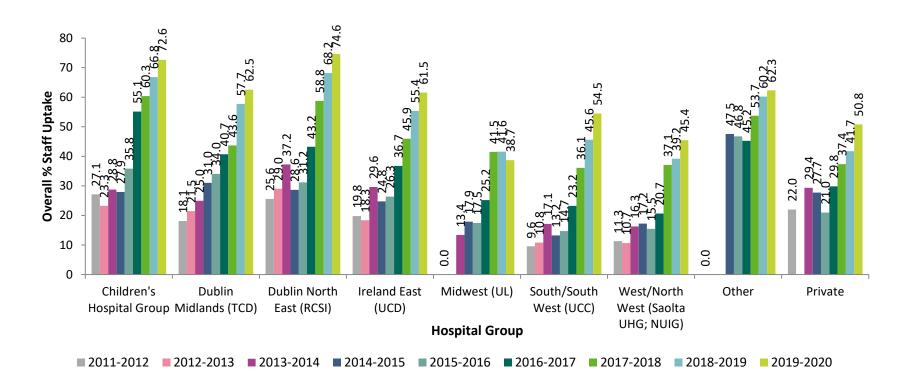
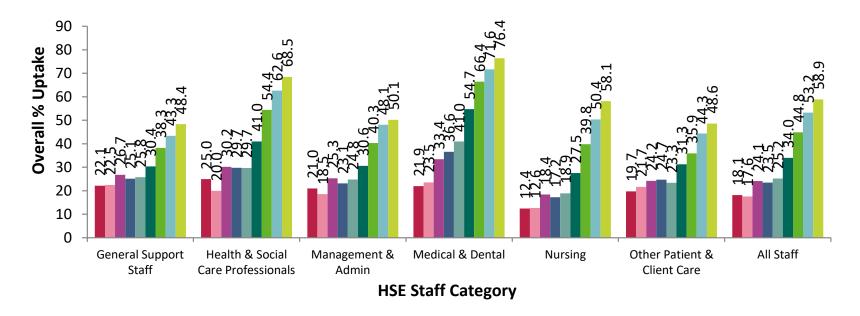


Figure 2. Uptake among HCWs in public hospitals by influenza season and Hospital Group, and, separately in private hospitals, 2011-2012 to 2019-2020, Ireland (based on complete returns only)§

⁵ Notes: 1) data for the Midwest (UL) and in 2011-2012 and 2012-2013 was not reported; 2) excludes returns from 8 facilities that reported as hospitals in previous seasons, but have now been correctly recorded as long term care facilities. See <u>http://www.hse.ie/eng/services/list/3/acutehospitals/hospitalgroups.html</u> for a description of hospital groups and their location; 3) National Rehabilitation Hospital is neither a private hospital or a hospital that falls within the 7 HSE hospital groups and therefore has been categorised under 'other'

Hospital HCW Uptake by Staff Category



■ 2011-2012 ■ 2012-2013 ■ 2013-2014 ■ 2014-2015 ■ 2015-2016 ■ 2016-2017 ■ 2017-2018 ■ 2018-2019 ■ 2019-2020

Figure 3. Uptake among HCWs in public hospitals by HSE grade category and influenza season, 2011-2012 to 2019-2020, Ireland (based on complete returns only)

HCW Uptake by Hospital Staff Size

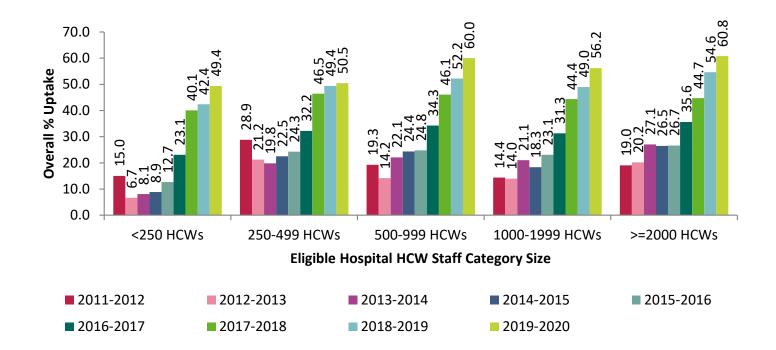


Figure 4. Uptake among HCWs in public hospitals by staff size group and influenza season, 2011-2012 to 2019-2020, Ireland (based on complete returns only)

HCW Uptake in Hospitals & National Target

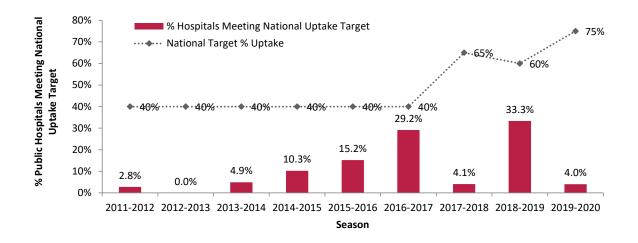


Figure 5. Percentage of public hospitals meeting the national uptake target, by season, 2011-2012 to 2019-2020, Ireland (based on complete returns only) (for 2011-2012 to 2016-2017, the (annual HSE service plan) national target was 40%, 65% in 2017-2018, 60% in 2018-2019 and 75% in 2019-2020)

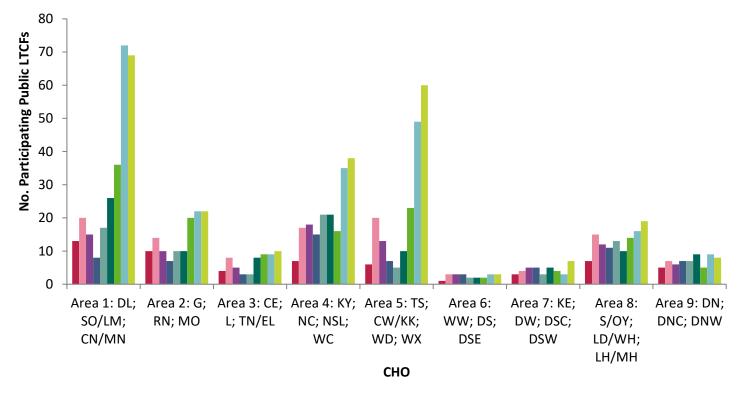
Section 2. HCW-based LTCF survey



LTCF Participation

Figure 6.1 Participation by LTCF type, level of reporting and influenza season (2011-2012 to 2019-2020 season), Ireland

LTCF Participation by Community Health Organisation (CHO)



■ 2011-2012 ■ 2012-2013 ■ 2013-2014 ■ 2014-2015 ■ 2015-2016 ■ 2016-2017 ■ 2017-2018 ■ 2018-2019 ■ 2019-2020

Figure 6.2 Participation by public LTCFs by influenza season and CHO and season (2011-2012 to 2019-2020), Ireland (based on complete returns only)

LTCF Participation by Staff Size

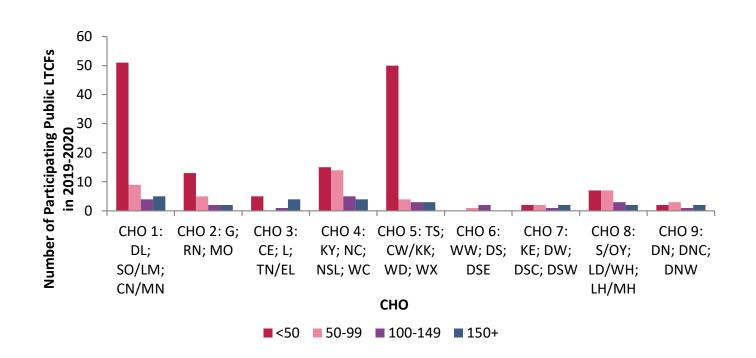


Figure 6.3 Participation among HCWs in public LTCFs by category of staff size and CHO, 2019-2020 influenza season, Ireland (based on complete returns only)

LTCFs - HCW vaccine uptake

Table 2. Details of seasonal influenza vaccine uptake among HCWs in public LTCFs
by influenza season, 2011-2012 to 2019-2020, Ireland*

	Total No.	Total No.				No.
	Eligible	Vaccinated		Median %	Range %	Participating
Season	HCWs**	HCWs	% Uptake	Uptake	Uptake	LTCFs
2011-2012	3861	687	17.8	10.0	0-90.38	56
2012-2013	10823	1327	12.3	11.1	0-76	108
2013-2014	8704	1658	19.0	18.2	0-80	87
2014-2015	7031	1691	24.1	24.7	0-77.14	66
2015-2016	7058	1625	23.0	22.2	0-100	81
2016-2017	9633	2595	26.9	24.5	0-75	101
2017-2018	13928	4621	33.2	35.1	0-93.33	129
2018-2019	13205	5531	41.9	40.3	0-96.66	218
2019-2020	14130	6424	45.5	43.7	0-100	236

*based on complete returns only

** values are rounded because of the reporting of whole-time equivalent staffing numbers by some hospital rather than actual numbers of staff

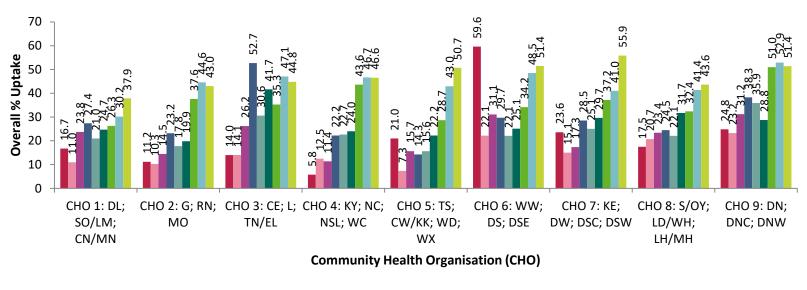
LTCFs - HCW vaccine uptake by Facility Type

Table 3. Details of seasonal influenza vaccine uptake among HCWs in public LTCFsby influenza season, 2011-2012 to 2019-2020, Ireland*

Facility Type* (Public Only)	No. LTCFs	Total Eligible	Total Vaccinated	% Uptake
Other Care	2	28	18	64.3
Elderly/Older Person's	122	9776	4930	50.4
Mental Health	59	1685	706	41.9
Hospice Care	1	21	9	42.9
Mixed Care	1	152	60	39.5
Intellectual Disability	45	2000	598	29.9
Learning Disability	5	462	102	22.1
Other Disability	1	6	1	16.7
Total	236	14130	6424	45.5

* As reported by LTCFs themselves

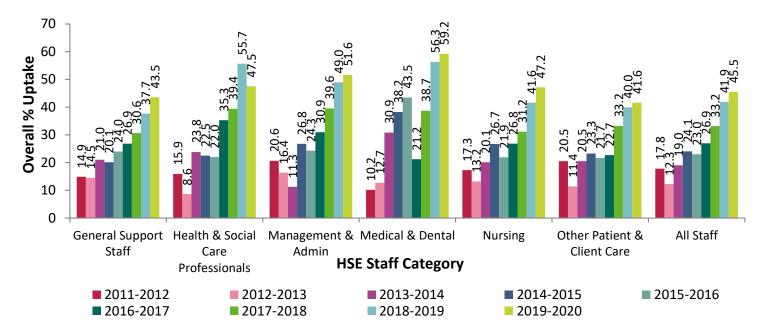
HCW Uptake in LTCFs by Community Health Organisation (CHO)



■ 2011-2012 ■ 2012-2013 ■ 2013-2014 ■ 2014-2015 ■ 2015-2016 ■ 2016-2017 ■ 2017-2018 ■ 2018-2019 ■ 2019-2020

Figure 7. Uptake among HCWs in public LTCFs by influenza season and CHO, 2011-2012 to 2019-2020, Ireland (based on complete returns only)

See footnote at bottom of page 10 for details of each Community Health Organisation and their location



HCW Uptake in LTCFs by Staff Category

Figure 8. Uptake among HCWs in HSE funded and staffed LTCFs by HSE grade category and influenza season, 2011-2012 to 2019-2020, Ireland (based on complete returns only)

HCW Uptake in LTCFs by Staff Size

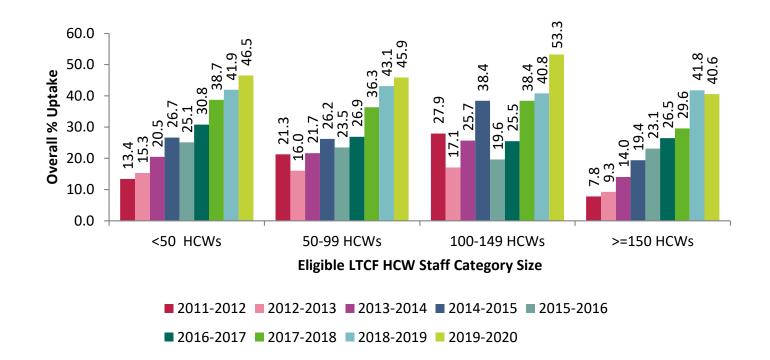
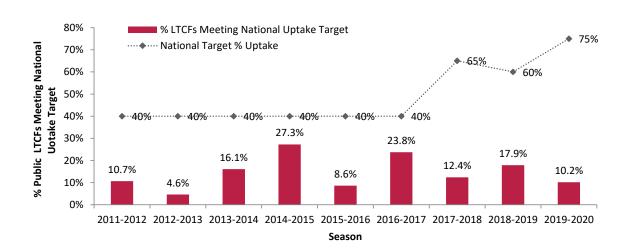
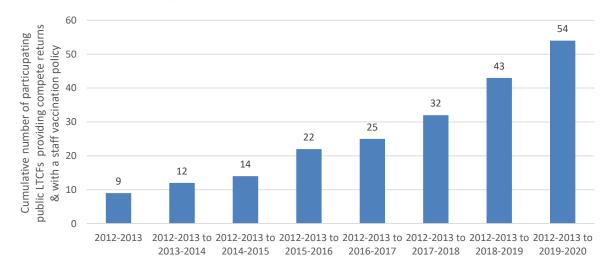


Figure 9 Uptake among HCWs in public LTCFs by category of staff size and influenza season, 2011-2012 to 2019-2020, Ireland (based on complete returns only)



HCW Uptake in LTCFs & National Target

Figure 10. Percentage of public LTCFs meeting the national uptake target, by season, 2011-2012 to 2019-2020, Ireland (based on complete returns only) (for 2011-2012 to 2016-2017, the (annual HSE service plan) national target was 40%, 65% in 2017-2018, 60% in 2018-2019 and 75% in 2019-2020

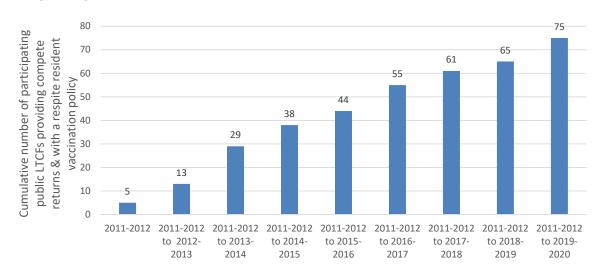


Staff Vaccination Policy in LTCFs

Figure 11. Cumulative number of participating public LTCFs that reported having a *Staff* vaccination policy, 2012-2013 to 2019-2020, Ireland*

*There is an assumption made by the authors that once a policy is put in place by the LTCF it is maintained thereafter

Section 3. Uptake among residents in LTCFs-Point Prevalence Surveys



LTCF participation

Figure 12. Cumulative number of participating public LTCFs that reported having a *Respite Resident Vaccination Policy* by influenza season, 2011-2012 to 2019-2020, Ireland*

*2017-2018 to 2019-2020 figures based on LTCF participation in the annual point prevalence surveys and 2011-2012 to 2016-2017 figures based on LTCF participation in the combined HCW and resident uptake surveys; there is an assumption made by the authors that once a policy is put in place by the LTCF it is maintained thereafter



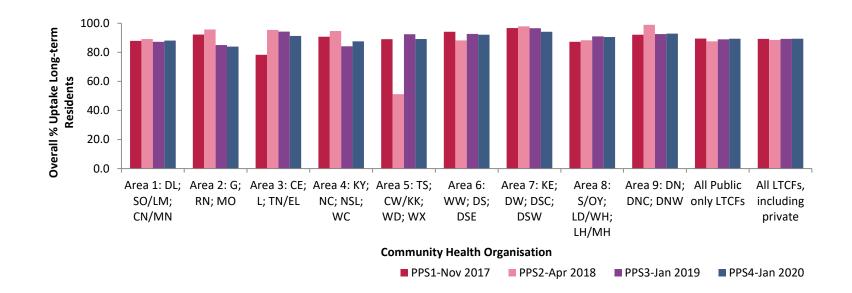


Figure 13. Uptake among *Long-term Residents* in LTCFs in Point Prevalence Surveys in November 2017, April 2018, January 2019, and January 2020, Ireland

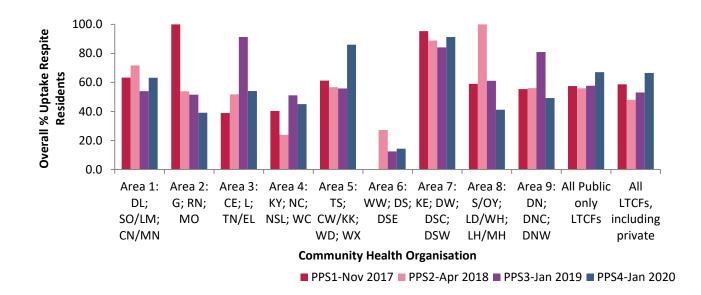


Figure 14. Uptake among *Respite* Residents in LTCFs in Point Prevalence Surveys in November 2017, April 2018, January 2019 and January 2020, Ireland

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