

Influenza Outbreak Preparedness & Vaccine Uptake in Rural & Remote Aged Care Facilities

Clinton Gibbs & Priscilla Stanley – Western NSW / Far West Local Health District

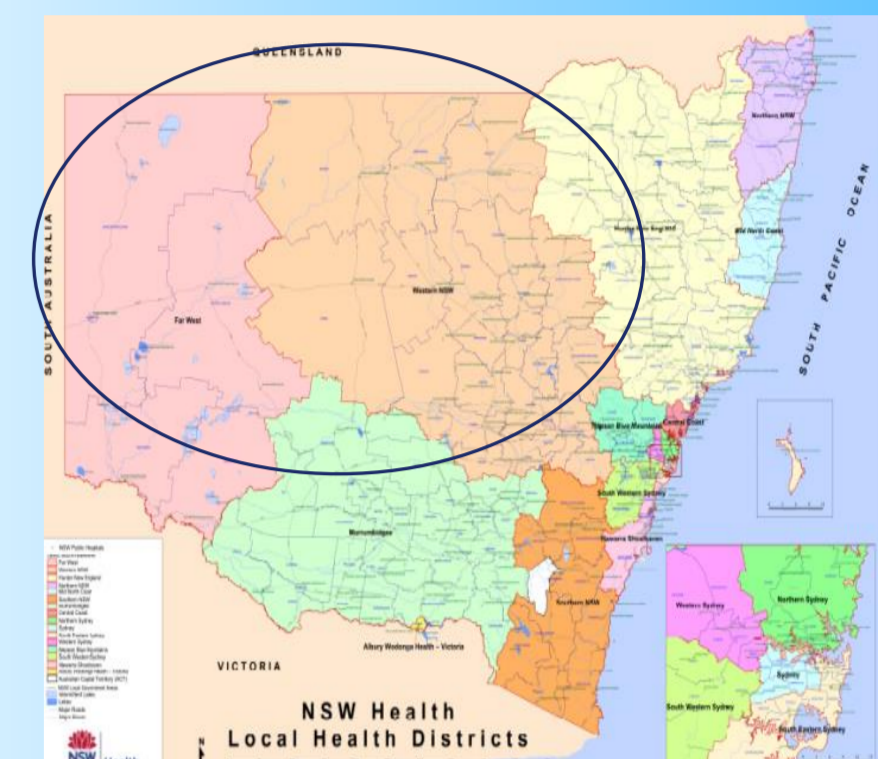
Background

Influenza poses a significant public health problem, especially in older people and those with underlying chronic disease. In 2014 and 2015, 223 residential aged care facilities reported influenza outbreaks resulting in 3382 cases, 404 hospitalisations and 158 deaths across NSW.^{1,2} Staff can also be affected resulting in work absence and significant staffing pressures.³

Vaccination is an effective measure to reduce the risk of infection.⁴ Free seasonal influenza vaccinations are available to people aged 65 years and over under National Influenza Vaccination Program.

In 2015 Western NSW and Far West Local Health Districts (WNSW/FWLHDs) Public Health Unit (PHU), in consultation with the NSW Ministry of Health developed a survey to be distributed to all RACFs in WNSW/FWLHDs. The Public Health Unit aimed to assess influenza vaccine coverage, how vaccines were administered and monitored, access to online resources and intended response activities by RACFs in the event of a case or outbreak.

1. NSW Government, Health (2015). Influenza Monthly Epidemiology Report, NSW. Available from: <http://www.health.nsw.gov.au/Infectious/Influenza/Documents/2015/December-flu-report.pdf> [Accessed 19 December 2016]
2. NSW Government, Health (2014). Influenza Monthly Epidemiology Report, NSW. Available from: <http://www.health.nsw.gov.au/Infectious/Influenza/Documents/2014/December-report.pdf> [Accessed 19 January 2016]
3. Gindler J, Grohskopf LA, Biggerstaff M, Finelli L (2011). A Model Survey for Assessing 2009 Pandemic Influenza A (H1N1) Virus Disease Burden in the Workplace. *CID* 52(1): 173-176
4. Lindley RI (2011). Influenza in Aged Care Facilities. *Reviews in Clinical Gerontology* 21: 91-97
5. Vyas A, Ingleton A, Huhtinen E, Hope K, Najjar Z, Gupta L (2015). Influenza Outbreak Preparedness: Lessons from Outbreaks in Residential Care Facilities in 2014. *CDI* 39 (2): 204-207
6. Ward K, Seale H, Zwar N, Leaske J, MacIntyre CR (2010). Annual Influenza Vaccination: Coverage and Attitudes of Primary Care Staff in Australia. *Influenza and other respiratory viruses* 5 (2): 135-141



WNSW/FW
LHDs

Methods

All active RACFs in WNSW/FWLHDs were emailed and/or mailed a standardised questionnaire. Completed questionnaires were faxed back, emailed back and completed on Survey Monkey. All faxed and emailed surveys were entered onto Survey Monkey by Public Health staff for analysis. Data was exported to MS Excel, cleaned and analysed. RACFs listed as Public ACFs (a NSW Health Facility) or Private ACFs (a privately operated facility). These steps were followed again the following year (2016).



Results

Response rates of 73% in 2015 and 67% in 2016 were achieved. Overall, RACFs reported high vaccination rates in residents (2015: 90.3%, 2016: 83.2%). The mean coverage within facilities for residents was 88.9% (95% CI 84.1-91.5%) in 2015 and 87.6% (95% CI 83.0-92.2%) in 2016. Around half of RACF staff were vaccinated (2015: 49.3%, 2016: 51.3%).

These vaccination rates are consistent with studies of urban RACFs in Australia.^{5,6} The significant proportion of private ACF respondents who listed staff vaccination status as unknown could reflect a lower usage of vaccination registers. Vaccine misinformation/misconception from staff, residents and families was the most commonly recorded vaccine barrier for both years.

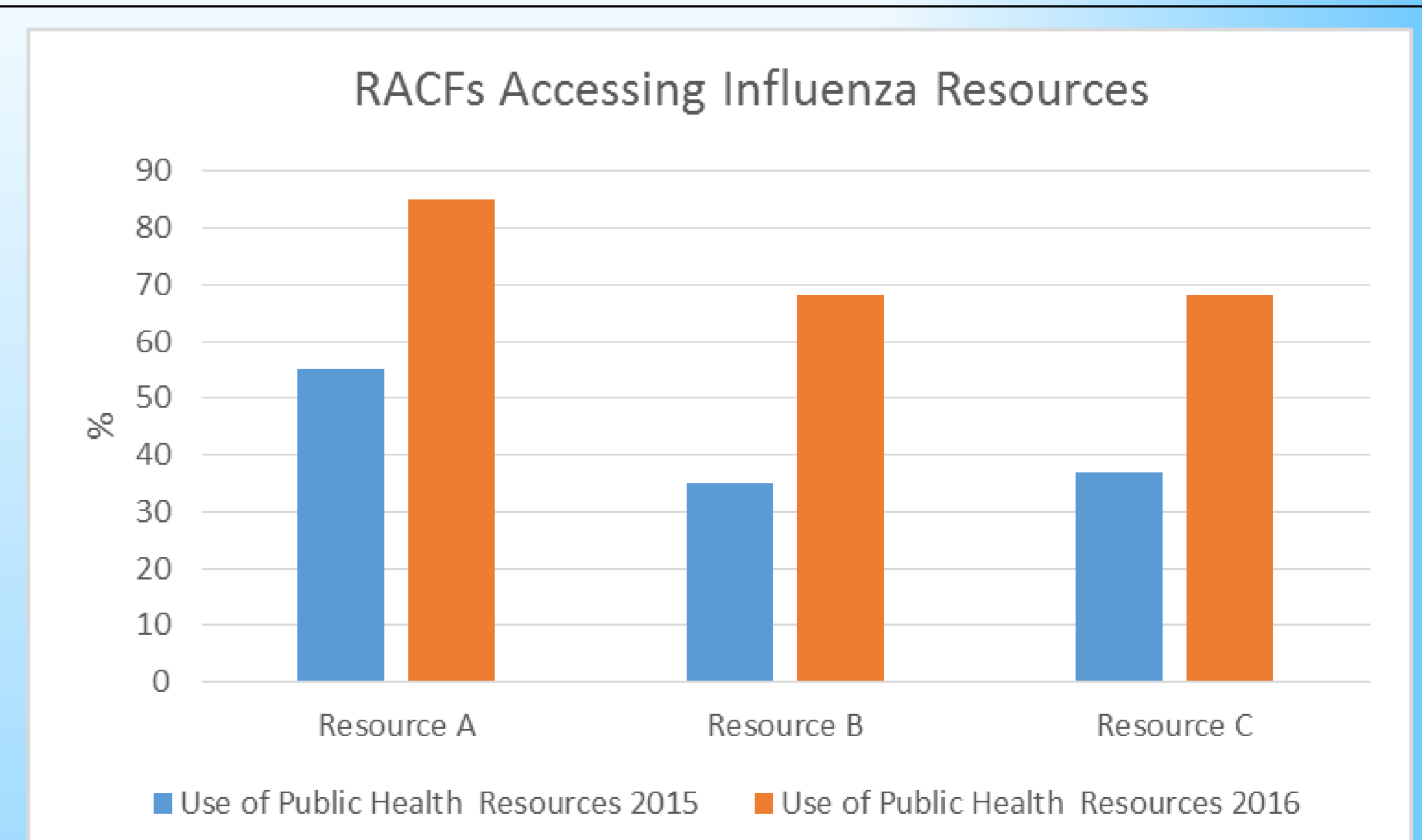
Table 1: Influenza vaccination of residents and staff in Western & Far West NSW ACFs, 2015

Facility type (response rate)	Total persons: n	Vaccinated: n (%)	Unknown: n (%)	Coverage within facilities	
				Mean (95% CI): %	Range: %
All ACFs (N=54/74, 73%):					
Residents	2,330	2,104 (90.3)	42 (1.8)	88.9 (84.1-91.5)	56.3-100
Staff	2,815	1,387 (49.3)	608 (21.6)	49.3 (41.5-57.0)	0.0-100
Public ACFs (N=13/54, 24%):					
Residents	358	307 (85.8)	5 (1.4)	88.2 (85.0-91.4)	70.0-100
Staff	537	324 (60.3)	68 (12.7)	57.3 (40.9-73.7)	0.0-100
Private ACFs (N=41/54, 76%):					
Residents	1,972	1,797 (91.1)	37 (1.9)	91.4 (85.8-96.9)	56.3-100
Staff	2,278	1,063 (46.7)	540 (23.7)	46.8 (38.4-55.3)	0.0-100

Table 2: Influenza vaccination of residents and staff in Western & Far West NSW ACFs, 2016

Facility type (response rate)	Total persons: n	Vaccinated: n (%)	Unknown: n (%)	Coverage within facilities	
				Mean (95% CI): %	Range: %
All ACFs (N=50/75, 67%):					
Residents	2,310	1,922 (83.2)	249 (10.8)	87.6 (83.0 – 92.2)	57.1-100
Staff	2,761	1,417 (51.3)	630 (22.8)	51.3 (44.8 – 57.8)	4.0-93.2
Public ACFs (N=9/50, 18%):					
Residents	175	149 (85.1)	0 (0)	96.4 (92.8 – 100)	88.9-100
Staff	537	236 (44.0)	31 (5.8)	58.9 (42.3 – 75.5)	41.0-83.8
Private ACFs (N=41/50, 82%):					
Residents	2,135	1,797 (84.2)	249 (11.7)	88.1 (84.8 – 91.5)	57.1-100
Staff	2,278	1,181 (51.8)	599 (26.3)	50.6 (43.7 – 57.5)	4.0-93.2

The figure on the right shows an increase in the proportion of facilities accessing public health resources. Respondents were asked to select which action they would take in the case of an outbreak. Most (>85%) indicated that they would apply all responses listed except for *organise influenza testing* however this increased from 53% in 2015 to 66% in 2016. RACFs were asked about how NSW Health could improve vaccine uptake, outbreak preparedness, and support in managing outbreak. The most common responses related to providing more education and information. Making the influenza vaccine mandatory for staff and providing more assistance with vaccination clinics were also popular responses.



Resources - A: Residential & Aged Care Facilities Resources from NSW Health, B: Practical Guide to assist the Prevention & Management of Influenza, C: Influenza Info Kit

Conclusions

This survey assessed RACF influenza vaccination coverage and practices, outbreak preparedness and access to online resources. It also provided an opportunity for RACFs to familiarise themselves with their PHU, for the PHU to provide education and promote resources to RACFs and for RACFs and the PHU to identify barriers and solutions. A need for more education/information was identified and the increase in the proportion of RACFs intending to organise influenza tests and in the use of resources suggests that this process may be an effective way of providing it. A similar survey may be effective for gathering information, providing information and promoting resources to prevent other events such as Gastro outbreaks in RACFs.

Contact Information

Mr Clinton Gibbs
Health Protection
Western NSW & Far West Local
Health Districts
Dubbo, 2830
telephone: (W) 02 68098975
fax: 02 6841 2261
email:
Clinton.gibbs@health.nsw.gov.au