

Influenza Vaccination National Perspective

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www.immunisation.ie

Outline

- Influenza as a disease
 - epidemiology
- Seasonal influenza vaccination programme 2016/2017
- Influenza vaccine
 - Safety and efficacy
- Risk groups
 - Healthcare worker
 - Pregnant women
- Planning for next season
- Key messages

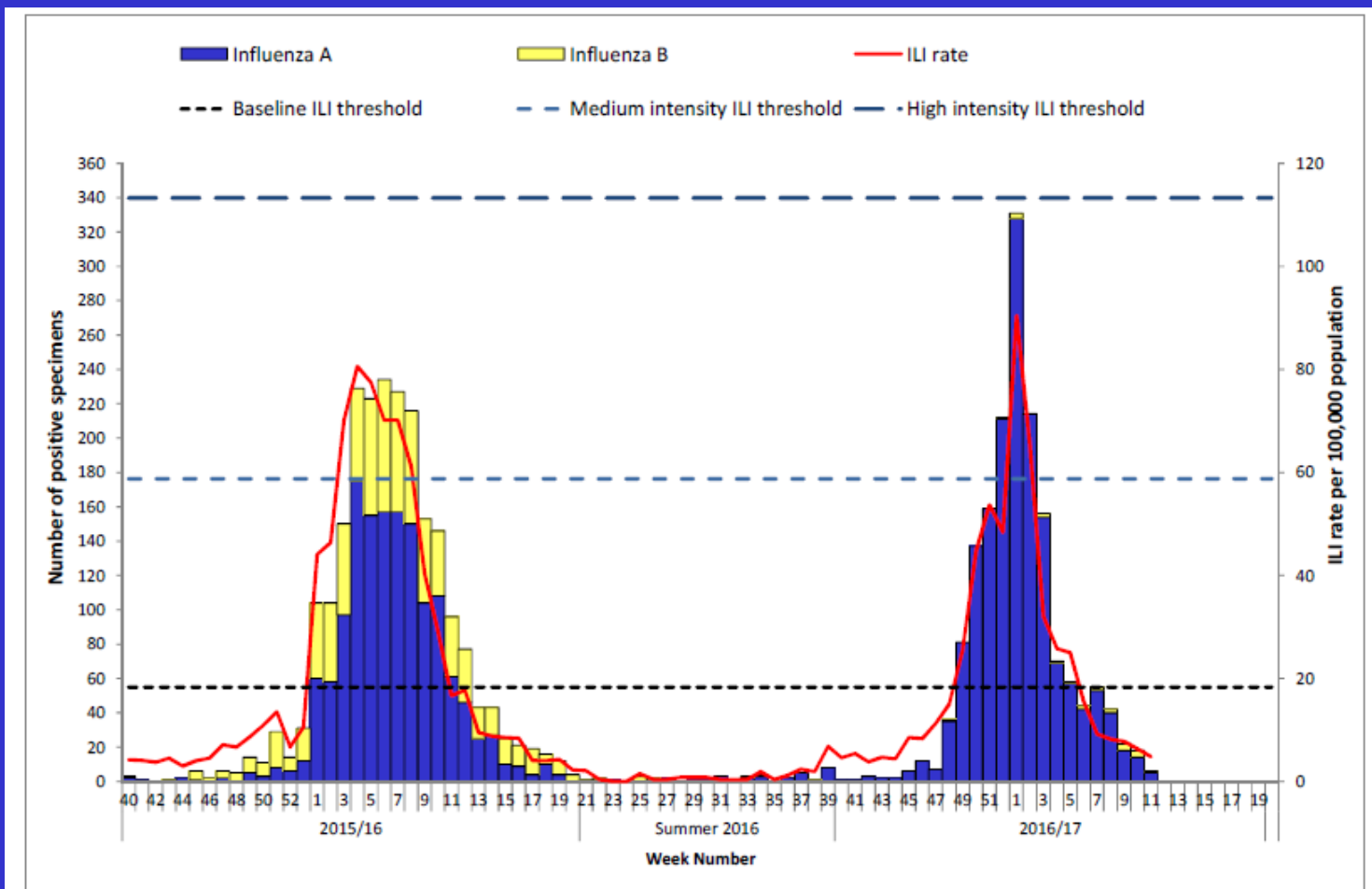


Influenza (Flu)

- Infection caused by flu virus
- Symptoms can range from classic influenza to mild illness or asymptomatic infection
- Spreads by aerosol or touching
- Most at risk include
 - Risk groups
 - Healthcare workers
 - Pregnant women
- Flu is dangerous



Influenza Sentinel GP Consultation Rates per 100,000 population and Number of Positive Influenza Specimens 2015-2017



Risk Groups

- Chronic illness requiring medical follow-up e.g. CF and other chronic respiratory diseases, CHD; Immunosuppression, asplenia or splenic dysfunction; ≥ 65 yrs, Children and teenagers on long-term aspirin therapy, Residents of nursing homes and long stay facilities, HCW, Pregnant women



Seasonal Influenza Vaccination Programme

2016/2017 Annual campaign

EVERY YEAR FLU CAUSES SEVERE ILLNESS AND DEATH.

IF YOU ARE:

- 65+** Over 65
- +** Have a long-term illness
- ♀** Pregnant
- ♂♀** A health care worker

GET YOUR FLU VACCINE NOW.

IT'S A LIFESAVER



For more information, talk to your GP or Pharmacist

HE Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



I'M VACCINATING FOR TWO NOW.

Pregnant women and their babies are at risk from flu.
Protect you and your baby - get your flu vaccine.

IT'S A LIFESAVER



For more information, talk to your GP or Pharmacist.

HE Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive



- Risk groups
- Pregnant women
- Health care workers
- Season continues until end of April



Influenza Vaccine 2016/2017 season

**Inactivated Influenza Vaccine (Split Virion) BP,
suspension for injection in prefilled syringe
Influenza vaccine (split virion, inactivated)**

Strains
2016/2017

Suspension for injection

10 prefilled syringes (0.5 ml) with attached needle

For intramuscular or deep subcutaneous use.


sanofi pasteur MSD



Influenza Vaccine

- **Contraindication**

- Anaphylaxis to any of the vaccine components or a previous dose

- **Precautions**

- Acute severe febrile illness; defer until recovery
- Egg allergy

- **Adverse Reactions**

- Local – redness and swelling.
- General – fever, malaise, myalgia



Vaccine Safety

- Vaccine is safe
- Most common side effect is redness and soreness at injection site
- Less common – fever, malaise, muscle pain
- Rare – Neurological reactions



Vaccine Efficacy

- 70-90%- in healthy individuals <65
- Lower in the elderly and in those individuals with underlying medical conditions although immunisation has been shown to reduce incidence of severe disease including pneumonia, hospitalisation and mortality



Factors Influencing Vaccine Efficacy

- Closeness of the match between the vaccine strain and the circulating virus
- Age of vaccinee:
 - older people do not respond as well
- Health of the vaccinee:
 - people with chronic illnesses and immune system disorders do not respond as well as healthy individuals
- Number of vaccinations:
 - in children under 9 two doses are required in the first year of use
- Type of vaccine used;
 - adjuvanted vaccines can give better immune response



HealthCare Workers

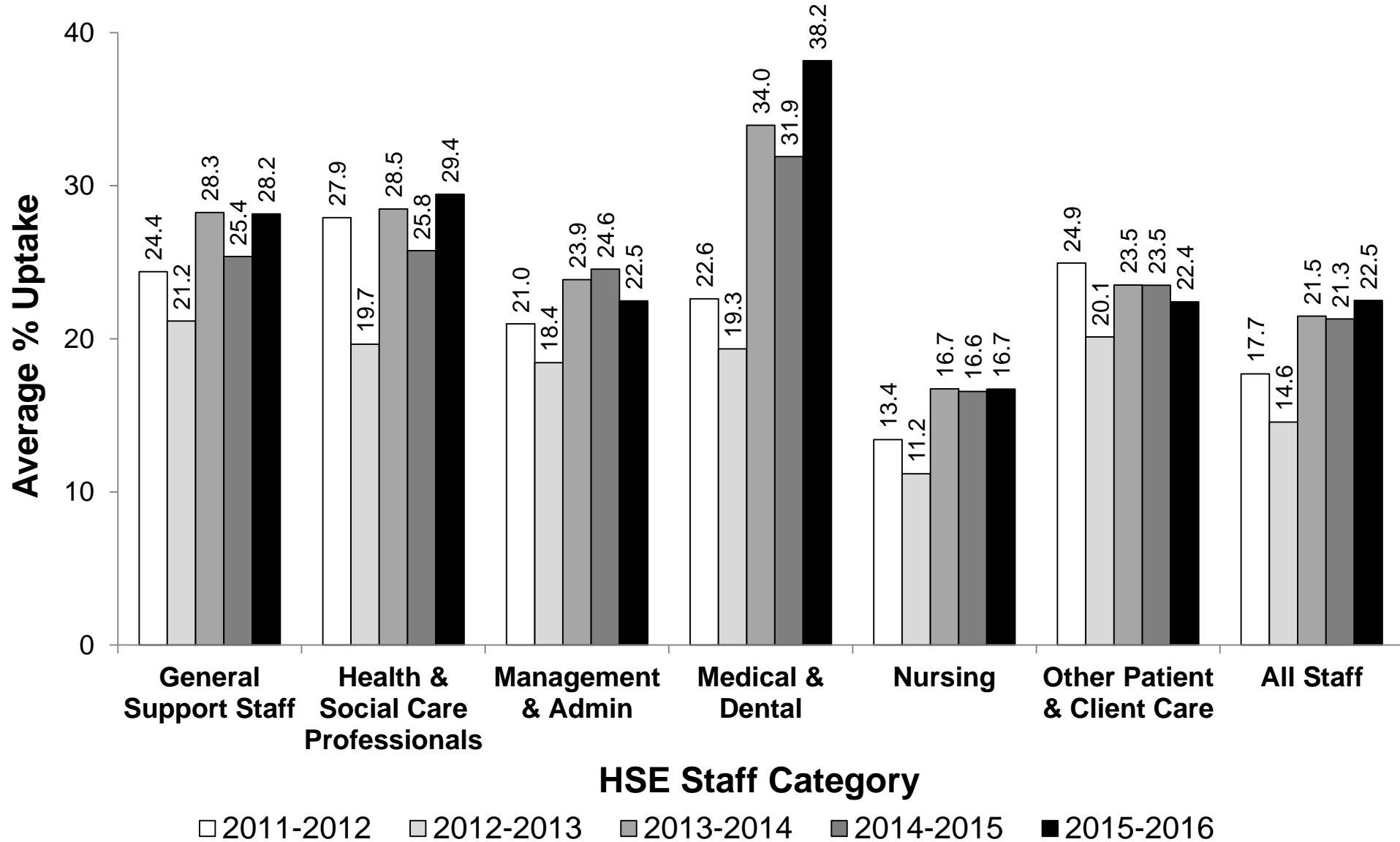
- HealthCare Workers (HCWs) are recommended annual seasonal influenza vaccination

Vaccination:

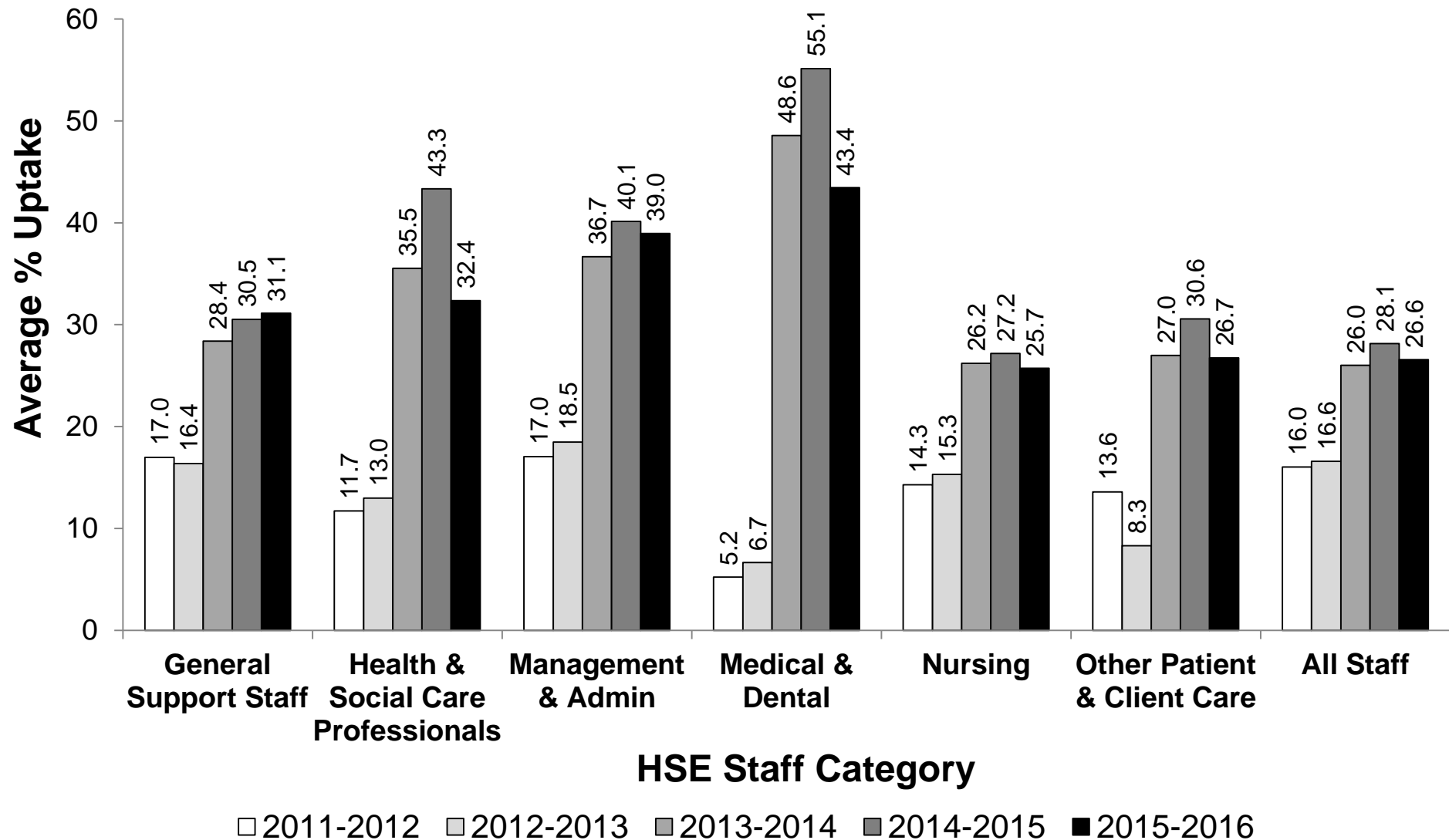
- – Reduces risk of influenza transmission between patients and HCWs
- – Protects against influenza and complications (including death) associated with disease
- – Is an important infection control intervention



Uptake by Hospital HCW Staff Category by Season



Uptake by LTCF HCW Staff Category by Season



Why Should Health Care Workers Be Vaccinated?

“I’m very healthy so my immune system will protect me from flu.”

“I know the symptoms and would stay at home if I got sick so I wouldn’t infect my colleagues or patients.”

“I got the vaccine and it gave me the flu.”

- healthy people can get seriously ill from flu
- >20% HCWs get flu every year
- may only have mild symptoms and continue to work
- highly transmissible 1 day before & 5-7 days after symptoms
- vaccine contains killed viruses so cannot cause flu



Transmission of Influenza by HCW

- In a neonatal intensive care unit¹
 - 19/54 infants were infected and one died
 - 15% of staff were vaccinated against influenza
 - Only 29% of staff who reported influenza-like illness took time off work
- In an organ transplant unit: attack rate 33%²
 - Each patient was in an individual room and 3/4 had no visitors to account for the spread
 - 3/27 (11%) HCWs on the ward had influenza; not vaccinated
- In long-term facility³
 - 65 residents developed influenza
 - Over half developed pneumonia, 19 hospitalised, 2 died
 - 10% of HCW were vaccinated

Influenza infection can remain asymptomatic but infectious⁴

¹Cunney et al. Infect Control Hosp Epidemiol. 2000;21:449–51

²Malavaud S, et al. Transplantation. 2001;72:535–7

³CDC. MMWR 1991;4:129-131

⁴Elder G, et al. BMJ. 1996;313:1241–2



Pregnant Women Why Vaccinate?

Maternal influenza associated with an increased risk of

- hospitalisation and maternal death (1 in 11 in the UK 2009-2012)
- congenital abnormalities
 - cleft lip
 - neural tube defects
 - hydrocephaly
 - congenital heart defects
- spontaneous abortion
- preterm delivery
- birth of a small-for-gestational age infant
- foetal death

Infants under 6 months have the highest rate of hospitalisation and death from influenza



Influenza Vaccine and Pregnancy

- 1960s Administered to pregnant women in the US
- 1997 Included in high risk groups
- 2004 At any stage in pregnancy

- 2009/2010 Recommended in Ireland since 2009/10
- 2012 Highest priority group (WHO)

Trivalent or quadrivalent inactivated vaccine

Recommended for consecutive seasons if needed



Influenza Vaccine Efficacy in Pregnancy

Effective

- Disease reductions of 41-91%
 - 70% reduction in 2009/10
- Vaccination during pregnancy provides passive immunity to infants up to 6 months of age
 - incidence of confirmed influenza reduced by 63%
 - 40% reduction in pre term births (as effective as smoking cessation)
 - 57% reduction in small for gestational age infants
- Into adulthood
 - ? reduce long term effects of pre term/ small for gestational age births



Uptake In Those Aged ≥ 65 years

Sep - Aug	15/16*	14/15	13/14	12/13	11/12	10/11	09/10	08/09	07/08	06/07	05/06	04/05
No. vaccinated	280046	275943	269202	257962	250525	276240	225358	294156	259100	246695	249013	236425
No. card holders†	505859	458141	452931	453422	439980	432650	419010	419327	419767	407196	395458	385162
% Uptake	55.4	60.2	59.4	56.9	56.9	63.8	53.8	70.1	61.7	60.6	63.0	61.4

*September 2015 – July 2016



Vaccine for 2017/2018 Season

- A/Michigan/45/2015 (H1N1)pdm09-like virus;
- an A/Hong Kong/4801/2014 (H3N2)-like virus;
- A B/Brisbane/60/2008-like virus.



Planning

- Lessons Learnt from last season
- Procurement
- Who needs to be targeted?
- Communication Campaign
- Implementation
- Education
- Vaccine deliveries
- Monitoring flu activity
- Monitoring vaccine distribution



Key Messages

- Flu is dangerous
- Flu vaccine is important public health initiative
- Uptake less than optimal
- People in risk groups must be vaccinated
- Flu vaccine is safe
- Need to plan now for next season



Thank You

Further information
www.immunisation.ie

