

FIG 1. NATIONAL ADULT IMMUNISATION SCHEDULE (2017)

Vaccine	18-29 years	27-64 years	≥65 years
Influenza (IIV)	1 dose annually or per season <sup>a</sup>		1 dose annually or per season <sup>a</sup>
Pneumococcal conjugate (PCV13)	1 dose <sup>b</sup>		
Pneumococcal polysaccharide (PPSV23)	1 or 2 doses (depending on indication) <sup>c</sup>	1 dose <sup>c</sup>	
Tetanus, reduced diphtheria and acellular pertussis (Tdap)	1 dose during each pregnancy <sup>d</sup>		
Human papillomavirus (HPV or HPV4)	3 doses <sup>e</sup>		
Hepatitis B (HepB)	3 doses <sup>e</sup>		
Measles, mumps and rubella (MMR)	2 doses <sup>e</sup>		
Varicella (VAR)	2 doses <sup>e</sup>		

<sup>a</sup> Recommended for adults who meet age requirement.  
<sup>b</sup> Recommended for adults with specific medical condition or indication.  
<sup>c</sup> Recommended for adults who have not been previously vaccinated, or lack evidence of past infection or immunity.

## Vaccination Update (2) of 2 — Older Adults

### Description

## National Adult Immunisation Programme (NAIS)

The feature image shows the National Adult Immunisation Schedule for Singapore. This Schedule was set up in November 2017. The vaccines in the Schedule protect against 11 diseases.

Those especially relevant to older adults are: Influenza, pneumococcal vaccines, Tdap. Hepatitis B, Measles, mumps and rubella (MMR), and chickenpox are recommended for adults who have not been previously vaccinated, or lack evidence of past infection or immunity.

<https://www.moh.gov.sg/resources-statistics/nationally-recommended-vaccines>

### Influenza vaccine

The influenza vaccine takes 2 weeks to be effective after vaccination. Get vaccinated early before flu season starts. In Singapore, the Northern Hemisphere flu season is between November and February. The Southern Hemisphere flu season is between May and July. The vaccine contains strains of flu virus that are most common for that season. Yearly vaccination is recommended as influenza viruses are changing all the time.

### Pneumonia vaccine

All adults should receive PCV13 (Pneumovax 13) once they turn 65, followed by PPSV23 (Pneumovax 23) the following year. The two vaccines protect against pneumococcal bacteria. In older adults pneumonia is more likely to lead to complications of respiratory failure. Hence, protection is the best solution.

### Tdap (Tetanus, Diphtheria, Pertussis)

Older people need a booster of Tdap every 10 years. It protects us from tetanus, diphtheria, and

pertussis (whooping cough). The whooping cough component wanes with age. Hence, the need for a 10 yearly booster. The booster gives us continued protection against tetanus and diphtheria as well.

## **MMR (Measles, Mumps, and Rubella)**

This triple vaccine is needed as a two-dose vaccination if there do not have past infection or immunity.

## **Varicella (Chickenpox) (2 does)**

Recommended for adults who have not been previously vaccinated, or lack evidence of past infection or immunity.

## **Hepatitis B (3 doses)**

Recommended for adults who have not been previously vaccinated, or lack evidence of past infection or immunity.

## **Take home messages**

Vaccinations keep us protected from key infections that are more likely to lead to complications as we grow older. The pneumooccal vaccinations are particularly important and one dose of PCV13 and PPSV 23 is needed after age 65. Those with chronic medical conditions e.g. diabetes mellitus may need earlier vaccinations.

## **References**

1-National Adult Immunisation Schedule, Singapore, 2017. <https://www.moh.gov.sg/resources-statistics/nationally-recommended-vaccines>