

3.8 million Australian adults missing out on free, life-saving vaccinations

Launch of national research centre of excellence to boost adult immunisation

Up to 3.8 million Australian adults are missing out on free vaccinations each year, putting themselves at risk of contracting life-threatening, yet preventable infections,¹ according to a report published in the *Medical Journal of Australia (MJA)* today (March 27, 2017).

The report, entitled *Vaccine Myopia*, coincides with the launch of the University of New South Wales Vaccine and Infection Research Lab (UNSW VIRL), Sydney – a national research centre of excellence designed to tackle the serious issue of low adult vaccination rates, and reduce the gap between infant and adult vaccination.

According to lead author and Senior Lecturer at UNSW VIRL, Dr Rob Menzies, only one-in-two Australian adults (51 per cent) are receiving their Government-funded vaccinations each year, compared to 93 per cent of Australian children, and 73 per cent of Australian adolescents.^{2,3}

"Australia has high childhood immunisation rates by international standards, but we continue to have vast numbers of undervaccinated adults.

"We have a 75 per cent influenza vaccination rate for those aged 65+; a 30 per cent pneumococcal pneumonia vaccination rate for those aged 65+ and a 50 per cent rate for those aged 70+. Only four months ago, the Federal Government introduced a free vaccine for the complicated and painful condition, shingles, for those aged 70+," said Dr Menzies.

"Although our adult immunisation program is well-intentioned, our nation's overall attitude to adult vaccination is shortsighted, and the program is not meeting its targets.

"Despite media and political noise surrounding vaccine-hesitant parents, in the broader scheme of things, non-immunised children form a very small proportion of under-vaccinated Australians, and a shift of perspective is urgently required," Dr Menzies said.

Fifteen vaccinations are currently recommended (but not all funded) for Australian adults.⁴ The Immunise Australia Program (IAP) funds adult vaccines for influenza (flu), pneumococcal pneumonia and shingles, to protect millions of Australian adults from vaccine-preventable diseases.⁵ Vaccinations are provided based on disease severity, vaccine effectiveness, safety, cost, and overall health benefit to the community.⁴

UNSW VIRL Head & co-author, Professor Raina MacIntyre, said Australians aged 65 years and over, who constitute the majority of adults missing out on free vaccinations, have an equal right to protection against life-threatening illness.

"Poor uptake of adult vaccination comes down to perception, and includes not placing older Australians on par with children as a disease-vulnerable group.

"Vaccination rates are significantly higher among infants versus their grandparents, despite the availability of free vaccines for both groups. This demonstrates the lower value that society places on keeping older Australians healthy," said Prof MacIntyre.

According to Prof MacIntyre, UNSW VIRL is designed to tackle the serious issue of low adult vaccination rates, vaccination in high-risk groups and to reduce the immunisation gap between adults and infants in Australia, through research, teaching and advocacy.

"UNSW VIRL aims to identify, and address barriers to immunisation in the elderly, adults and other risk groups, and work on solutions that place adult immunisation rates on par with infants. As a community, we must align ourselves with the true benefit of adult vaccination," Prof MacIntyre said.

"Being sick costs the economy – being hospitalised cripples it. Each year, Australia accrues tens of millions of dollars on vaccine-preventable hospitalisations. Vaccines should be seen as an investment, rather than a cost. Australians over 65 should get vaccinated against pneumonia and influenza, and shingles too when over 70."

Kevin, 74, Sydney, was struck down by episodes of pneumonia and shingles. Having witnessed his father battle severe shingles as a child, Kevin feared the worst when he too, was diagnosed with shingles in 2009.

"My father had shingles when I was 18 years old – he was very severely affected. When I was diagnosed, it was too late for antiviral medication. There wasn't much the doctor could do for me, apart from prescribe pain killers and rest for a week."

Fortunately for Kevin, his shingles experience turned out to be relatively short-lived, compared to his father's years of suffering. But eight years later, Kevin's health was in question again to more devastating effect, as he fell ill with pneumonia.

"I was feverish at night, had headaches, and was feeling really unwell. I returned to the doctor for a swab, and was subsequently diagnosed with pneumonia," said Kevin. **more#**

"Pneumonia was extremely debilitating. The worst part lasted about five weeks. If I had been working, I'm not sure what I would have done. Financially, I would have been ruined."

Looking to the future, Kevin has his eye on success, and is a keen advocate for adult vaccines.

"As a father and a grandfather, I've got to consider my family and my future. I'd urge anyone in a similar situation, to consider immunisation in the same light," Kevin said.

In 2016, the International Federation of Ageing (IFA) issued a mandate, to make vaccination for those aged 65+, a global priority in the foreseeable future, and to consider vaccination to be among the most essential, accessible tools for supporting healthy ageing.⁶

"We need to adopt the IFA challenge here, and to start setting some goals around the vaccination of older Australians.

"To do this, we need a broader understanding of the benefits of adult vaccination for individuals, the workforce, and the community at large," said Prof MacIntyre.

The Dean of UNSW Medicine, Prof Rodney Phillips, Sydney echoed Prof MacIntyre's sentiments, stating, "infection and immunity is one of the key research strengths of UNSW, so UNSW VIRL fits within a major theme of Medicine. Immunisation is key to prevention of disease."

"Australians aged 65+, and those eligible for vaccinations, should take responsibility for their health and talk to their doctor, nurse or pharmacist. Immunisation against vaccine-preventable diseases, such as shingles, pneumonia and influenza saves lives," said Prof MacIntyre.

For more information visit www.unsw.virl.com.au or contact UNSW VIRL @UNSW_VIRL.

About adult vaccination – influenza, pneumococcal pneumonia & shingles

Influenza, or 'the flu', is a highly contagious viral illness transmitted from person-to-person via droplets and small particles produced when infected people cough or sneeze, and through hand contact with contaminated surfaces.^{7,8} Each year, influenza causes more than 3,000 deaths and 13,500 hospitalisations in Australians aged over 50.⁷ Furthermore, it requires more than 300,000 GP consultations, and costs the Australian healthcare system at least \$85 million.⁹ Influenza vaccination is funded for non-Indigenous Australians aged 65 years and older, Aboriginal and Torres Strait Islander Australians aged 15 years and older with chronic, or specific medical conditions.⁵ The vaccine is approved for Australians aged 18+ in medical centres or pharmacy.⁴

Pneumonia is a potentially life-threatening infection that affects the air sacs in lungs, whereby they are filled with pus and fluid, making breathing painful, causing cough and limiting oxygen intake.¹⁰ Pneumonia may be caused by viruses, bacteria or fungi.^{10,11} Pneumococcal pneumonia, caused by the bacterium *Streptococcus pneumoniae* is the only bacterial pneumonia for which vaccination is available.⁴ Pneumococcal pneumonia vaccination is funded for non-Indigenous Australians aged 65 years and older, Aboriginal and Torres Strait Islander Australians aged 50 years and older, and adults aged 18 years and older with chronic, or specific medical conditions.⁵

Shingles (herpes zoster) is caused by the same virus that causes chicken pox, varicella zoster virus, a type of herpes virus.^{12,13} Anyone who has had chicken pox is at risk of contracting shingles.^{12,13} Shingles can affect 98 per cent of the adult population, with complications, such as post herpetic neuralgia (PHN), an extremely painful burning sensation that lasts after shingles rash and blisters disappears.^{12,13} Shingles vaccination is funded for all Australians aged 70 to 79 years.⁵

Other funded vaccines for adolescents include HPV and meningococcal.⁵ Vaccines available in Australia, but not funded for adults under the IAP, include pertussis (whooping cough), tuberculosis, hepatitis A and hepatitis B vaccines.⁴ Common travel vaccines are also available, including those for yellow fever, malaria, typhoid fever, dengue fever, Japanese encephalitis, cholera and rabies.⁴

About UNSW VIRL

UNSW VIRL is a newly formed organisation of internationally-recognised, academic leaders in immunisation and vaccinology research from The School of Public Health and Community Medicine, The University of NSW. The organisation primarily focuses on high risk and vulnerable populations, particularly adult immunisation, including the elderly, migrants, refugees, Aboriginal and Torres Strait Islander people, those with immunosuppression, travellers, armed forces and health workers. UNSW VIRL's research comprises clinical trials, epidemiology, mathematical modelling, health economics, big data and data linkage, social and behavioural research, and policy and evaluation.

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