IMMUNISATION COALITION

Nigel Stocks

Professor and Head

Discipline of General Practice University of Adelaide

Innovating vaccine delivery

2:00 pm

Innovating vaccine delivery

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Background

- *How can we improve rates of influenza vaccination – what are the most effective evidence based measures?*

A research study in Australia

- *Effectiveness of patient reminders on influenza vaccination coverage among adults with chronic conditions: a feasibility study in Australian general practice*

Changing policy and practice

- *An Australian example*

How can we improve rates of influenza vaccination – what are the most effective evidence based measures?

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United States Preventive Services Task Force

- General categories
  - *enhancing patient access to vaccination*
  - *improving community/patient demand; and*
  - *provider and healthcare system-directed interventions*
- Specific interventions that have been
  - *reducing patient out-of-pocket costs for vaccinations,*
  - *patient or family incentive rewards, and*

How can we improve rates of influenza vaccination – what are the most effective evidence based measures?

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Cochrane review

- *Patient reminder and recall interventions to improve immunization rates.*

  Julie C Jacobson Vann Robert M Jacobson Tamera Coyne-Beasley, Josephine K Asafu-Adjei, Peter G Szilag. Version published: 18 January 2018
  https://doi.org/10.1002/14651858.CD003941.pub3

- *75 studies*

- *Including telephone and autodialer calls, letters, postcards, text messages, combination of mail or telephone, or a combination of patient reminder or recall with outreach*

Authors' conclusions

Patient reminder and recall systems, in primary care settings, are likely to be effective at improving the proportion of the target population who receive immunizations.

How can we improve rates of influenza vaccination – what are the most effective evidence based measures?

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Cochrane review

- *Improving vaccination uptake among adolescents*. Leila H Abdullahi, Benjamin M Kagina, Valantine Ngum Ndze, Gregory D Hussey, Charles S Wiysonge. 17 January 2020. https://doi.org/10.1002/14651858.CD011895.pub2
- *16 studies*
- *Various strategies : health education, financial incentives, mandatory vaccination, and class-based school vaccine delivery.*

Authors conclusions

- *Most of the evidence is of low to moderate certainty. Therefore, additional research is needed to further enhance adolescent immunisation strategies. In addition, it is critical to understand the factors that influence hesitancy, acceptance, and demand for adolescent vaccination in different settings*

How can we improve rates of influenza vaccination – what are the most effective evidence based measures?

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Cochrane review

- *Interventions to increase influenza vaccination rates of those 60 years and older in the community.* Roger E Thomas, Diane L Lorenzetti. Version published: 30 May 2018. https://doi.org/10.1002/14651858.CD005188.pub4
- *61 studies*
- *Including postcards, personalised phone calls, form letters, home visits, free vaccines, educating patients and facilitators*

Authors' conclusions

- *We identified interventions that demonstrated significant positive effects of low (postcards), medium (personalised phone calls), and high (home visits, facilitators) intensity, that increase community demand for vaccination, enhance access, and improve provider/system response.*

A research study in Australia

Effectiveness of patient reminders on influenza vaccination coverage among adults with chronic conditions: a feasibility study in Australian general practices (David Gonzalez, Oliver Frank, Jessie Edwards, Elizabeth Hoon, Carla de Oliveria Bernardo, Anton Knierieman, Nigel Stocks.)

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- *Clustered non-randomised feasibility study in Australian general practice*
- *Patients aged 18-64 years with at least one medical risk factor attending participating practices between May and September 2021*
- *Software installed at intervention practices identified unvaccinated eligible patients when they booked an appointment, sent vaccination reminders (SMS on booking and 1 hour before appointments), and printed automatic reminders on arrival*
- *Control practices provided usual care*
- Clustered analyses adjusted for sociodemographic differences among practices were performed using logistic regression.

A research study in Australia

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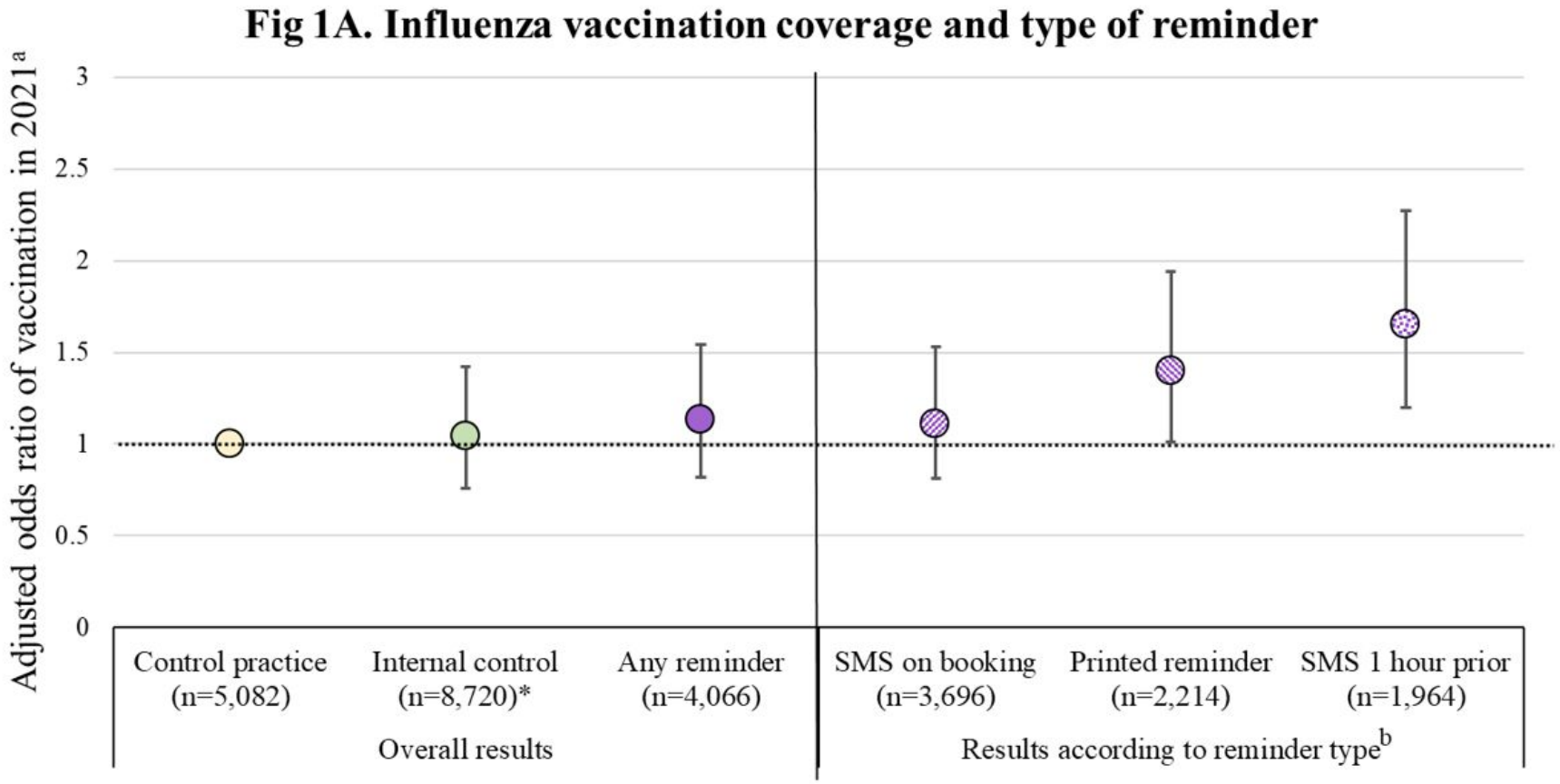
Effectiveness of patient reminders on influenza vaccination coverage among adults with chronic conditions: a feasibility study in Australian general practices

- *A total of 12,786 at-risk adults attended 16 intervention practices (received reminders=4,066; 'internal control' receiving usual care=8,720), and 5,082 individuals attended eight control practices.*
- *Baseline influenza vaccination uptake (2020) was similar in intervention and control practices (~**34%**). After the intervention, uptake was similar in all groups (control practices=**29.3%**; internal control=**30.0%**; intervention=**31.6%** (p-value=0.203).*
- *However, SMS 1 hour before appointments increased vaccination coverage (**39.3%**, adjusted **OR=1.65; 95%CI 1.20;2.27**; number needed to treat=13), especially when combined with other reminder forms.*
- *That effect was more evident among adults with chronic respiratory, rheumatologic, or inflammatory bowel disease.*

A research study in Australia

IMMUNISATION COALITION

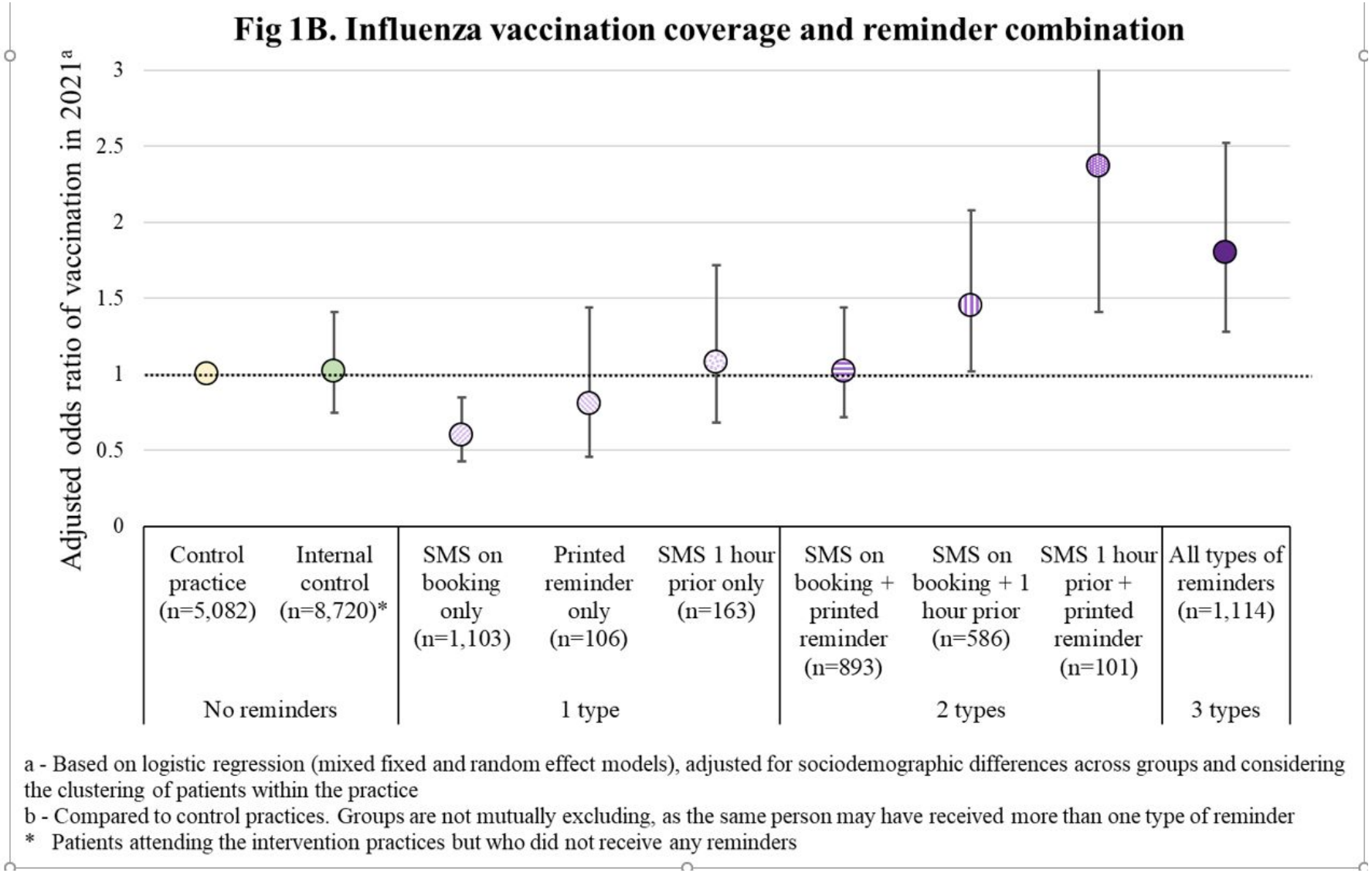


a - Based on logistic regression (mixed fixed and random effect models), adjusted for sociodemographic differences across groups and considering the clustering of patients within the practice

b - Compared to control practices. Groups are not mutually excluding, as the same person may have received more than one type of reminder

* Patients attending the intervention practices but who did not receive any reminders

A research study in Australia



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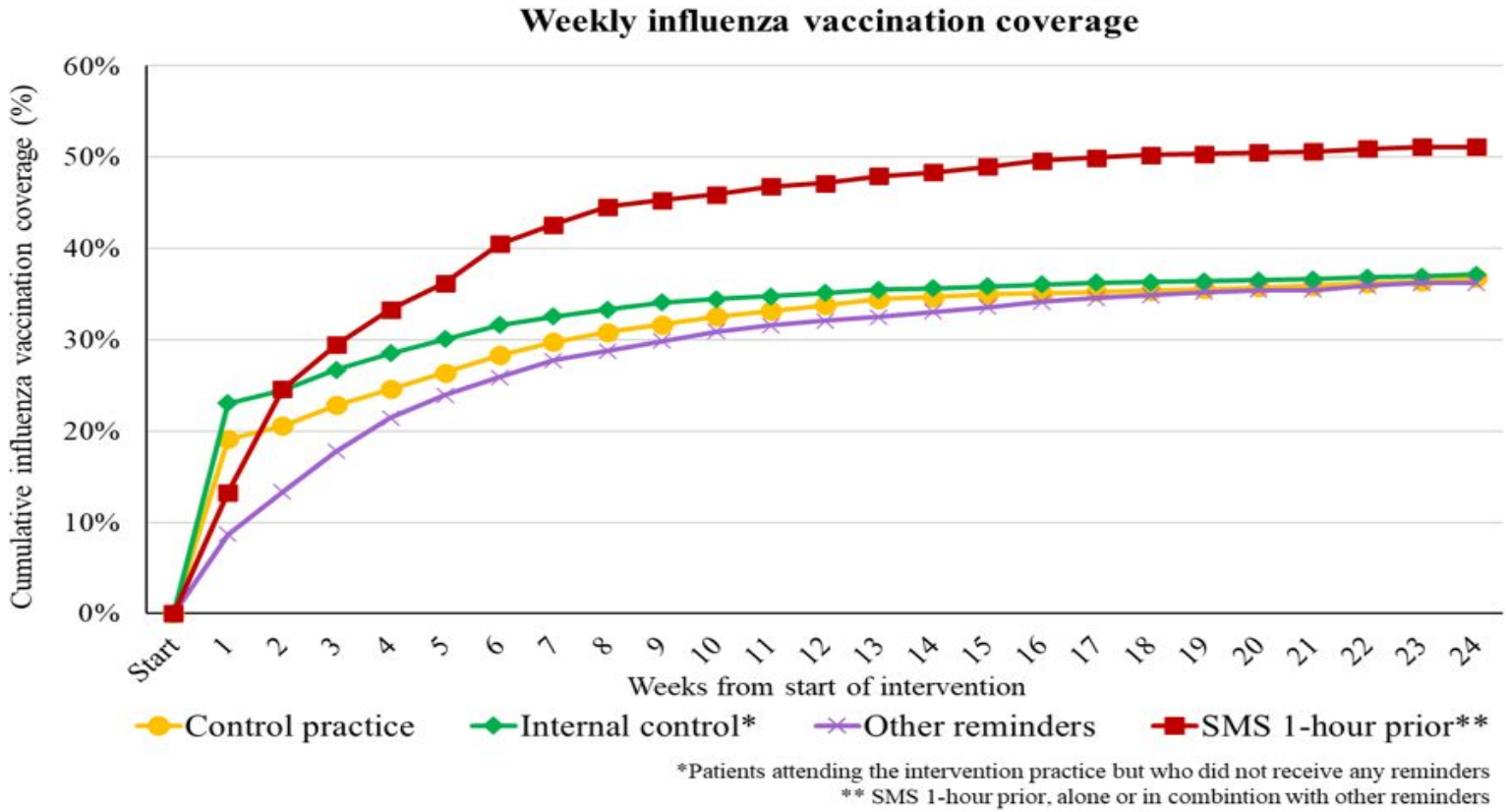

Figure 2. Weekly cumulative influenza vaccination coverage after the start of the intervention (May 2021) according to the type of reminders received. Unadjusted results. Patients aged 18-64 years with a medical risk factor (cardiovascular, neurological, respiratory, haematological or immunocompromising conditions, chronic kidney disease, diabetes mellitus or other metabolic conditions, rheumatoid or psoriatic arthritis, ulcerative colitis, Crohn's disease)

A research study in Australia

IMMUNISATION COALITION

Effectiveness of patient reminders on influenza vaccination coverage among adults with chronic conditions: a feasibility study in Australian general practices

- *This study showed that SMS reminders are most effective at increasing influenza vaccination uptake when delivered close to an already-scheduled appointment and in combination with at least one other reminder, especially printed reminders.*

- *While SMS reminders may not be universally effective in increasing influenza vaccination rates, they represent a low-cost, low-burden strategy for people with chronic respiratory, rheumatologic and inflammatory bowel diseases.*

- *Using SMS reminder systems offered several advantages over traditional reminders. They are cost-effective, easy to implement, and can be tailored to specific groups that will likely benefit most.*

Changing policy and practice

- *In 2019, the average national influenza vaccination coverage in Australia was 42% among children aged 6 months to <5 years.[6, 7]*

6. National Centre for Immunisation Research and Surveillance. Vaccine Coverage. Available at https://ncirs.org.au/our-work/vaccine-coverage. Accessed on 30/01/2023.

7. De Oliveira Bernardo, C., et al., Influenza immunisation coverage from 2015 to 2017: A national study of adult patients from Australian general practice. Vaccine, 2019. 37(31): p. 4268-4274.

Changing policy and practice

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- May 2021

  RACGP Board Dinner in Adelaide

- February 2023

  Email:

  Were you aware that Influenza Vaccination for children <5 is now itemised in the schedule: https://www.health.gov.au/sites/default/files/2023-02/national-immunisation-program-schedule.pdf

  Progress!

  Kim

  Kim Sampson

  Chief Executive Officer

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National Immunisation Schedule (Childhood)

Age	Diseases
Birth	• Hepatitis B (usually offered in hospital)
2 months (can be given from 6 weeks of age)	• Diphtheria, tetanus, whooping cough, hepatitis B, polio, *Haemophilus influenzae* type b (Hib) • Rotavirus • Pneumococcal • Meningococcal B—Aboriginal and Torres Strait Islander children
4 months	• Diphtheria, tetanus, whooping cough, hepatitis B, polio, *Haemophilus influenzae* type b (Hib) • Rotavirus • Pneumococcal • Meningococcal B—Aboriginal and Torres Strait Islander children
6 months	• Diphtheria, tetanus, whooping cough, hepatitis B, polio, *Haemophilus influenzae* type b (Hib) • Pneumococcal—Aboriginal and Torres Strait Islander children in WA, NT, SA and Qld
6 months to under 5 years	• Influenza (annually)
12 months	• Meningococcal ACWY • Measles, mumps, rubella • Pneumococcal • Meningococcal B—Aboriginal and Torres Strait Islander children
18 months	• *Haemophilus influenzae* type b (Hib) • Measles, mumps, rubella, chickenpox • Diphtheria, tetanus, whooping cough • Hepatitis A—Aboriginal and Torres Strait Islander children in WA, NT, SA and Qld
4 years	• Diphtheria, tetanus, whooping cough, polio • Pneumococcal—Aboriginal and Torres Strait Islander children in WA, NT, SA and Qld • Hepatitis A—Aboriginal and Torres Strait Islander children in WA, NT, SA and Qld

Children with certain medical conditions are eligible for additional vaccines for free such as pneumococcal and meningococcal. Speak to your vaccination provider to see if your child requires additional vaccines. All information is correct as at March 2023.

HAVE QUESTIONS?

- visit **health.gov.au/childhoodimmunisation**
- **Make an appointment** with your vaccination provider

Australian Government
Department of Health and Aged Care

National Immunisation Program
A joint Australian, State and Territory Government initiative

Changing policy and practice

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- *Prof Michael Kidd – Deputy Chief Medical Officer*
- *Immunisation branch*
- *Emails …..*
- *Health Minister Greg Hunt, Opposition Spokesperson Mark Butler, local members…….*
- *SA vaccination committees, NISC..*
- *Problems*
  - *COVID pandemic*
  - *A seasonal vaccine*
    - *Continuous vaccine supply issues (speak to industry)*

Changing policy and practice

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- *Uptake of influenza vaccination*
- *New schedule not in the “Blue book”*
- *? Incentives*

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Thank you

Any questions?