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**VACCINES
4LIFE**

ADDRESSING BARRIERS TO ADULT VACCINATION



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ADULT VACCINATION 
A Canadian Perspective

Addressing Barriers to Adult Vaccination: A Canadian Perspective

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Necessary components

Effective vaccination programs

- Evidence of (and belief in) burden of disease
- Evidence for (and belief in) effectiveness of vaccine
- Advocacy
 - Public health, healthcare providers, patients
- Effective delivery system
- Assessment of performance
- Accountability

Burden of disease - evidence

- Many adult vaccines prevent infections where etiology is difficult to diagnose
 - E.g. many microbes cause pneumonia
- Good evidence for burden



Vaccine effectiveness Evidence

- Challenges with evidence
 - Prevention of non-specific versus specific outcomes
 - e.g. influenza versus influenza-like-illness; pneumococcal pneumonia versus all pneumonia
 - Variability year to year in influenza vaccine effectiveness
 - Uncertainties about duration of protection with new vaccines
- Nonetheless
 - Good evidence that recommended vaccines are a benefit to adults

Vaccine/group	Percent vaccinated
Influenza vaccine, 65+	67%
Influenza vaccine, adult 18-64 years with chronic conditions	44%
Influenza vaccine, pregnant women	10%
Pneumonia vaccine, 65+	37%
Pneumonia vaccine, adults 18-64 years with chronic condition	17%
Hepatitis B vaccine, adults with liver or kidney disease	45%
HPV vaccine, women 16-24 years	45%
Pertussis vaccine, pregnant women	8%

Burden of disease Belief

- We are frightened by things that:
 - Are new, unusual or foreign
 - Have a high case fatality
 - *Meningitis: 95 cases; 15 deaths (1 in 8 people die)*
 - *Influenza: 350,000 cases; 2500 deaths (1 in 7000 people die)*
- It is easier to believe in things we can identify



Vaccine effectiveness Belief

- Challenge
 - Perception that vaccines need to be 100% (or nearly 100%) effective

“ _____ doesn't work well enough to warrant me getting vaccinated/recommending vaccination to my patients”

- Statins reduce your risk of a heart attack, or of dying from coronary artery disease by 28%
- Lowering blood pressure reduces risk of MI by 20%-25%, and of stroke by 35%-40%
- Blood thinners for atrial fibrillation reduce the risk of stroke by 50-60%
- Bisphosphonates reduce the risk of osteoporotic hip fractures by 40-50%

Vaccine effectiveness

Belief

- Challenge
 - Perception that vaccines need to be 100% (or nearly 100%) effective
- Getting past the double standard
 - Re-framing in communication and education

Advocacy

- Prevention is always a hard sell
 - Success is invisible, non-dramatic, not personal
 - Rewards are delayed
 - Benefits to not accrue to the payer
 - Healthcare providers prefer to make sins of omission rather than sins of commission
- Thus
- Strong, vocal, persistent advocates for prevention are always essential

Effective delivery system

- Simple
- Clear
- Reliable
- Stable
- Well-known
- Minimal resources (time, money, though) required from all participants
 - Vaccine delivery staff
 - Health care providers
 - General population

Ontario pediatric immunization schedule

Age	Vaccines to be given	Route for Administration
2 months	DTaP-IPV-HIB (Pediace)l Pneumococcal Conjugate 13 (Prevnar-13) Rot-1 (Rotarix) OR Rot-5 (RotaTeq)*	IM – vastus lateralis (leg) IM – vastus lateralis (leg) Oral
4 months	DTaP-IPV-HIB (Pediace)l Pneumococcal Conjugate 13 (Prevnar-13) Rot-1 (Rotarix) OR Rot-5 (RotaTeq)*	IM – vastus lateralis (leg) IM – vastus lateralis (leg) Oral
6 months	DTaP-IPV-HIB (Pediace)l Rot-5 (RotaTeq) only – Rotarix does not require a dose at this age*	IM – vastus lateralis (leg) Oral
12 months	MMR (MMRII, Priorix)** Meningococcal Conjugate C (Neis-Vac-C, Menjugate)*** Pneumococcal Conjugate 13 (Prevnar-13)	SC – upper outer tricep area IM – deltoid IM - deltoid
15 months	Varicella (Varivax III, Varilrix)**	SC – upper outer tricep area
18 months	DTaP-IPV-HIB (Pediace)l	IM - deltoid
4-6 years	MMRV (Priorix-Tetra, ProQuad)** Tdap-IPV (Adacel-Polio, Boostrix-Polio)****	SC – upper outer tricep area IM - deltoid
11-12 years (given in school in Grade 7)	Hepatitis B (Engerix, Recombivax) (1.0 ml dose) HPV-9 (Gardasil 9) Meningococcal Conjugate ACYW-135 (Menactra)	IM - deltoid (2 doses, 6 months apart) IM - deltoid (2 doses, 6 months apart) IM - deltoid
10 years after Tdap-IPV	Tdap (Adacel, Boostrix)	IM – deltoid

Adult vaccination

Zoster vaccine

- Canadian recommendation
 - RZV for adults 50 years of age and over
 - RZV may be considered for immunocompromised adults ≥ 50 years of age based on a case-by-case assessment of the benefits vs risks.
- Ontario
 - LZV recommended for adults over the age of 65 years
 - LZV provided free (supply in family physician office) for adults aged 65-70 years

Adult vaccination

Influenza vaccine, 2018/19

- Influenza vaccine supplied in family physician offices and by pharmacies
- High-dose influenza vaccine recommended for older adults
 - Pharmacies not permitted to administer high-dose vaccine

Creating an effective system

- Paying for vaccines
 - Mitigating public health budget impact
 - Removing the double standard compared to drugs
 - Creating guidance for decision making
- System design – requires:
 - A deliberate plan, assignment of resources, continuous assessment of progress and revision
 - Scoping for what changes are already happening
 - E.g. moving away from annual physical exams to periodic preventive health visits
 - Careful thought about the full range of possibilities

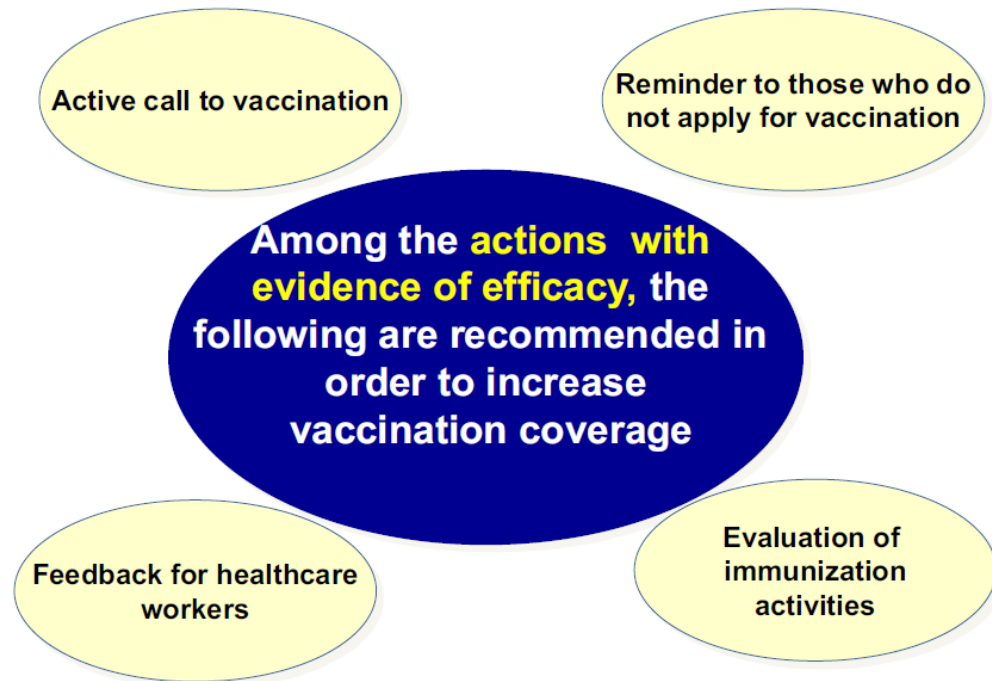
Assessment of performance Accountability

Percentage of Canadian adults up-to-date with vaccines, 2013-18

Vaccine/group	Percent vaccinated
Influenza vaccine, 65+	71%
Influenza vaccine, adult 18-64 years with chronic conditions	39%
Influenza vaccine, pregnant women	10%
Pneumonia vaccine, 65+	37%
Pneumonia vaccine, adults 18-64 years with chronic condition	17%
Hepatitis B vaccine, adults with liver or kidney disease	45%
HPV vaccine, women 16-24 years	45%
Pertussis vaccine, pregnant women	8%
Herpes zoster vaccine, 65+	??

What about the short term?

- Individuals
 - Talk about vaccines; amplify public health messages
 - Remind your family, friends to get vaccinated
- Health care providers:



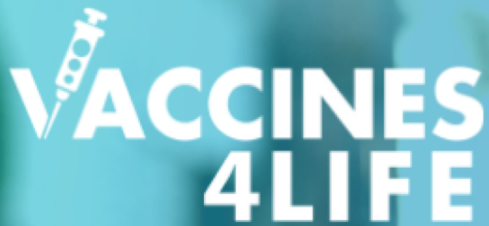
Ottawa family health team

Improving access to vaccines

- EMR searches for patients missing vaccination
 - Notification of patients by phone/email
 - Vaccination reminders present in charts
 - Vaccination reviewed at every patient visit
- Stocking of some vaccines for patient purchase
- Providing information and DIN numbers, so patients can find out if their insurance covers particular vaccines
- Promotion
 - posters and pamphlets in waiting room; information on website
 - social media posts
- Medical directive for patients with vaccine prescription
- Storage of second dose

Question and Answer Period

Please use the Q&A feature at the bottom of your screen.



INTERNATIONAL FEDERATION ON AGEING
15TH GLOBAL CONFERENCE
NIAGARA FALLS, CANADA | 1-3 NOVEMBER 2020

Pre-Conference Summit | 31 October 2020

Informing the global agenda for a life course approach to adult vaccination through a one-day Vaccines4Life Summit with a focus on:

- Understanding the public impact of vaccine preventable diseases
- Inspiring change through examples of good practice from around the world
- Galvanising action through targeted communication strategies

Register for the conference at ifa2020.org