

Under the skin

Listening to the voices of
older people on influenza
immunisation



Technology
Health and care
Carers Community
Life expectancy
Immunisation
Culture and society
Connections
Inequalities
Retirement
Social care

Summary

Preventing ill-health and reducing the burden of disease is increasingly recognised as vital in the context of an ageing society, and influenza immunisation programmes are a key plank of preventative strategies in many countries across the world.

Rates of influenza immunisation remain good among older adults, however, in recent years, they have begun to stagnate.

In this report, we explore the attitudes of older adults to influenza immunisation, a significant gap in previous research.

Through this research we found:

- Attitudes are a significant factor in influencing rates of influenza vaccination among older adults.
- Vaccine hesitancy among older adults in the case of seasonal flu vaccines – ultimately impacting coverage rates – is a different phenomenon to wider vaccine hesitancy in the general population; it is more specific and less related to broad concerns around trust in institutions.
- Efforts to increase influenza vaccination coverage rates among the older population need to move beyond associating age with vulnerability and towards presenting immunisation as a positive and healthy lifestyle choice.

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Contents

Introduction	4
Seasonal influenza in the context of ageing	6
Preventing influenza	8
Why are attitudes important?	10
Understanding the attitudes of older people toward influenza immunisation	15
Conclusion	31
Annex – methodology note	34

Influenza in 2019

Introduction

Preventing ill-health and reducing the burden of disease is increasingly recognised as vital in the context of an ageing society, but there is often a gulf between the rhetorical commitment to the prevention of ill-health and the promotion of healthy ageing and the reality of investment in programmes across the life course.

While there are clear advantages to early intervention in health promotion efforts, too often this leads to the neglect of programmes to support health and wellbeing in later life. Across a wide range of conditions, there is a need to get intervention right across different stages of the life course, including specifically in mid and later life.

"I think primary care works really well for kids, we've got it ingrained in our heads to go take our kids to the GP, to get them vaccinated, but I just don't think it's working in an adult space."

Stakeholder, Australia

Seasonal influenza (flu) represents a significant global public health concern. A common infectious disease, influenza is responsible for between 290,000 and 650,000 deaths and between 3 and 5 million cases of severe illness per year worldwide.¹ In the context of an ageing society, it is a particular concern, as older people are one of the groups most vulnerable to serious illness and death as a result of catching flu.

The prevention of seasonal influenza is perhaps one of the most prominent examples of preventative interventions, which need to be delivered effectively right across the life course. Unlike the one-off immunisations often given to younger children, seasonal influenza immunisation programmes require regular vaccination, meaning that health services need to forge and sustain engagement with people in mid and later life.

Over recent decades, we have seen significant increases in life expectancy around the world, with immunisation programmes of all kinds playing a role in contributing to this trend. Rates of influenza

¹ WHO (2018) Influenza (Seasonal) [https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal))

vaccination among older people vary significantly from country to country, but have generally seen an upward trend. However, more recently, improvements in vaccination rates have started to stagnate.

In this project, we have sought to understand in more detail the extent to which attitudinal factors underlie these trends.

This is set within a context of growing concern about wider public attitudes to immunisation. In 2019, the World Health Organization (WHO) identified vaccine hesitancy as one of its 'ten threats to global health'.² Vaccine hesitancy is defined as the reluctance or refusal to vaccinate despite the availability of vaccines.

Understanding the attitudinal factors, which underpin current rates of immunisation, and the way in which vaccine hesitancy may manifest in older adults, and in relation to influenza immunisation specifically, is vital if we are to reverse recent trends.

The WHO's current target for rates of influenza vaccination among older people is 75%. However, in recent years only a handful of countries have met this target, and in many countries rates are significantly below target.

Our research involved qualitative research among 48 older members of the public (60+), and 19 public health stakeholders. The research was conducted in Australia, the UK, Canada and Japan to provide insight using a cross-section of developed countries with established vaccination programmes.

² WHO (2019) *Ten threats to global health in 2019* Accessed at: <https://www.who.int/emergencies/ten-threats-to-global-health-in-2019>

Seasonal influenza in the context of ageing

There are four types of influenza: A, B, C, and D, with types A and B responsible for seasonal outbreaks among humans. Seasonal outbreaks of flu occur during the colder months of winter in temperate parts of the northern and southern hemispheres. In contrast, flu circulates all year round in tropical and subtropical areas, with some areas experiencing one or two peaks of outbreaks. According to the WHO, lower respiratory infections, including influenza, are the deadliest type of communicable disease, causing 3 million deaths worldwide in 2016.³ In Europe, influenza is the most impactful communicable disease (when measured in Disability Adjusted Years of Life per 100,000 people).⁴

The risks of influenza are greater for more vulnerable groups, such as pregnant women, young children, people living with chronic diseases and older people, and as a result vaccination programmes tend to target these groups.

Those aged 65 and over are at greater risk of developing serious complications from flu, and of dying of flu, primarily because of changes in immune defences which occur as part of the ageing process.⁵ Complications from flu include pneumonia, inflammation of the heart, brain or muscle tissues, as well as multi-organ failure. Flu can also exacerbate existing chronic conditions more common among older population groups.⁶ The WHO estimates that over 44,000 people in Europe die annually from flu, with over 75% of these deaths occurring in those aged 65 and above.⁷

A recent study has estimated that the global average excess mortality rate related to flu was 2.9-44.0 per 100,000 among people aged 65-74 and 17.9-223.5 per 100,000 among those aged 75+, further demonstrating the relationship between the ageing process and vulnerability to flu.⁸

³WHO (2018) *The top 10 causes of death* Accessed at: <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>

⁴ *ibid*

⁵ 65 and over is a widely used proxy for later life, rather than representing a definitive beginning of later life

⁶ Centre for Disease Control People 65 Years and Older & Influenza <https://www.cdc.gov/flu/about/disease/65over.htm>

⁷ Royal Society for Public Health (2018) *Moving the needle: promoting vaccination uptake across the life course* Accessed at: <https://www.rsph.org.uk/uploads/assets/uploaded/9bdd64f9-6b9e-4d93-86561ce4598bc49e.pdf>

⁸ Boven & Lier (2016) *The Lancet: Global trends in vaccination coverage* Accessed at:

In the context of an ageing world, flu represents a growing threat to health and the resources of health services.⁹ To address this threat effectively we need to be informed by an understanding of how immunisation efforts are perceived by different age groups.

In focus: the UK

Vaccination rate among over 65s: 70.5% (2016)

Vaccine confidence data:

5.7% of UK adults agree that vaccines are important,

8.7% agree they are safe and 7% agree they are effective.

[https://doi.org/10.1016/S2214-109X\(16\)30185-1](https://doi.org/10.1016/S2214-109X(16)30185-1)

⁹ Boven & Lier (2016) *The Lancet: Global trends in vaccination coverage* Accessed at: [https://doi.org/10.1016/S2214-109X\(16\)30185-1](https://doi.org/10.1016/S2214-109X(16)30185-1)

Preventing influenza

The WHO recommends immunisation on a seasonal basis as a means of preventing influenza. Alongside vaccines available for the general population, many governments across the world have developed health programmes targeted at more vulnerable groups, such as vaccination programmes for adults in later life.

In 2003, the WHO adopted a resolution encouraging its member countries to ensure a vaccination coverage rate of 75% among those aged 65 and over (in 2005, the European Parliament urged member states to meet the WHO's target).^{10 11} The only country to achieve this target initially was The Netherlands, although vaccination rates there have fallen below target since 2011/12. All EU/EEA countries recommend vaccination for older people, but the age threshold for this varies. Some countries such as Belgium and Ireland start as early as 50, while most countries set the threshold at 65.

Between 2005 and 2015, across the OECD, the average rate of influenza vaccination among people aged 65 and over decreased from 49% to 43%, significantly below the 75% target.¹² This reduction was largely driven by significant decreases in the rates observed in countries such as Germany and Slovenia.

Although other countries, including Israel, Portugal and Denmark, saw increases in this rate over the same period, only two countries met the WHO's 75% vaccination target; Mexico and Korea (although the UK came close).

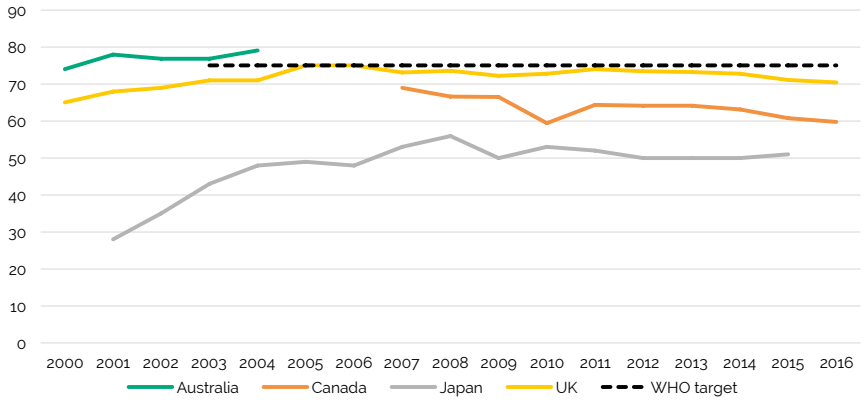
In this report, we focus on countries towards the upper end of the spectrum of vaccination rates. However, even in these countries the WHO target of 75% coverage is not being met – with, for example, rates in Canada and Japan currently 10%+ below the goal. A key reason why these countries were selected was to understand how attitudes fit into a successful vaccination programme and to highlight how these countries can improve.

¹⁰ Jorgensen et al. (2018) <https://doi.org/10.1016/j.vaccine.2017.12.019>

¹¹ WHO Seasonal vaccination policies and coverage in the European Region Accessed at: <http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/vaccination/seasonal-vaccination-policies-and-coverage-in-the-european-region>

¹² OECD (2017), "Vaccinations", in Health at a Glance 2017: OECD Indicators, OECD Publishing, Paris, Accessed on https://www.oecd-ilibrary.org/docserver/health_glance-2017-43-en.pdf?expires=1556890554&id=id&accname=guest&checksum=4B83515C5B388C1192FDF048632DB5A8

Influenza immunisation rates for over 65s



Source: OECD, Health indicators 2018

In focus: Canada

Vaccination rate among over 65s: 59.8% (2016)

Vaccine confidence data:

6.3% of adults in Canada agree that vaccines are important, 12% agree they are safe and 10.5% agree they are effective.

Why are attitudes important?

While there have been some advances in the proportion of over 65s being immunised against influenza, the stagnation of rates suggests that significant barriers remain.

Structural barriers, such as access to care, vaccine availability, and wider socioeconomic factors, are known to impact and limit vaccine uptake, but a growing body of literature suggests that where vaccinations are readily available (e.g. Europe and North America and other more developed areas), social and psychological attitudes towards vaccinations significantly influence vaccination behaviour.¹³

While vaccines are widely seen as a crucial intervention by the global medical community and health authorities, among the public, attitudes to vaccination vary widely.

There are, as outlined above, significant concerns around vaccine hesitancy, and whether the broader resistance to vaccines may lead to plummeting rates of influenza vaccination,¹⁴ resulting in unvaccinated clusters where disease outbreaks can occur.¹⁵ Through our research we have uncovered a more nuanced picture of attitudes to influenza vaccination, which may require a more bespoke response than that currently pursued as part of the wider effort to combat vaccine hesitancy.

What are older people's attitudes to flu vaccination?

While a number of studies have examined individuals' attitudes towards flu immunisation, few look specifically at the attitudes of older adults.

Most of the available literature is country-specific, an important consideration given the susceptibility of attitudes to influence by social and political trends. However, the literature provides some insight into the nature of attitudinal barriers among the general population to vaccines as a whole.

¹³ Boven & Lier (2016) *The Lancet*: Global trends in vaccination coverage Accessed at: [https://doi.org/10.1016/S2214-109X\(16\)30185-1](https://doi.org/10.1016/S2214-109X(16)30185-1) and Wheelock, Miraldo, Parand et al *British Medical Journal*: Journey to vaccination a protocol for a multinational qualitative study Available at: doi:10.1136/bmjopen-2013-004279

¹⁴ Dube et al. (2013) *Vaccine Hesitancy an overview* Accessed at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3906279/>

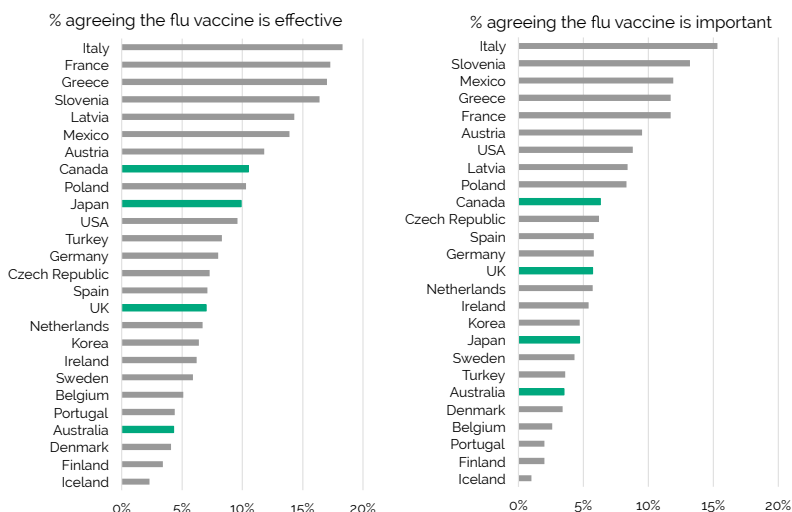
¹⁵ Yaqub, Castle-Clarke, Sevdalis, et al (2014) *Elsevier*: Attitudes to vaccination: A critical review. Accessed at: <http://dx.doi.org/10.1016/j.socscimed.2014.04.018>

While studies among older adults are rarer, one study¹⁶ identified in our research highlighted themes common across multiple countries:

- The safety and effectiveness of vaccines (the flu jab can give you flu/the flu jab doesn't work/vaccines have side effects)
- The perceived importance of preventing flu (didn't know vaccines were important/don't believe they are at risk).¹⁷

Research by the Vaccine Confidence Project, which surveyed 65,819 individuals across 67 countries, provides some insight into how some of these attitudinal factors look like across different countries. Looking at different aspects, including confidence in vaccine safety and effectiveness, the Vaccine Confidence Project found that while sentiment towards the flu vaccine was generally positive, it was less positive within the European region, Western Pacific region and Japan.¹⁸

World public opinion on the flu vaccine



Source: Vaccine Confidence Project, 2016 data

¹⁶ Rogers, Bahr and Benjamin (2018) *Attitudes and barriers associated with seasonal influenza vaccination uptake among public health students; a cross-sectional study* Accessed at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6148773/>
¹⁷ Rogers, Bahr and Benjamin (2018) *Attitudes and barriers associated with seasonal influenza vaccination uptake among public health students; a cross-sectional study* Accessed at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6148773/>
¹⁸ Larson, Figueirido, Xiaohong, Schulz, Verger, Johnston, Cook, Jones (2016) *Vaccine Confidence Project*. Accessed at: <https://www.vaccineconfidence.org/research/vaccine-hesitancy/>

Of the countries examined within this report, Australia was the country most consistently holding more negative perceptions of the flu vaccine, with less than 5% of the public agreeing that the vaccine is important or effective. On the other end of the scale, Canada was the most likely of the countries to agree with both of these statements.

In focus: Australia

Vaccination rate among over 65s: 74.6% (2009)

Vaccine confidence data:

3.5% of adults in Australia agree that vaccines are important,

5.4% agree they are safe and 4.3% agree they are effective.

Another study, based on a survey of 2,000 UK adults, offers insight into the perceptions of older people.¹⁹ The survey found that 40% among those aged over 65 feared possible side effects of vaccination, and 35% doubted vaccine efficacy. Another study found that if a vaccine is believed to be safe, then the uptake of the vaccination is five times more likely.²⁰

Research also demonstrates the multiplicity of factors which influence people's perceptions of the importance or otherwise of avoiding flu. Key factors include the health status, prior experience and wider beliefs of the individual .

For example, there is evidence to suggest that decisions about whether or not someone gets vaccinated are correlated with their perception of risk (to their health).²¹ For example, this could mean that those with existing respiratory conditions or other related comorbidities are more likely to see flu as a risk.

Recent influenza pandemics have also been shown to impact attitudes; research in Ireland showed that vaccine uptake among those aged 65+ was lower after the 2009 H1N1 influenza pandemic

¹⁹ WHO (2018) *Weekly epidemiological record* Accessed at: <http://apps.who.int/iris/bitstream/handle/10665/274263/WER9334.pdf?ua=1&ua=1>

²⁰ Thompson, Robinson, Vallee-Tourangeau (2015) *Elsevier: The 5a's: a practical taxonomy for the determinants of vaccine uptake* Accessed at: <http://dx.doi.org/10.1016/j.vaccine.2015.11.065>

²¹ Jianhua Xu, Zongchao Peng (2015) *People at Risk of Influenza Pandemics: The Evolution of Perception and Behavior* Accessed at: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0144868>

than before the pandemic.²² There is less evidence, however, to suggest why this happens, although concerns around efficacy could be a factor.

Importantly, attitudes to adult vaccination do not emerge in isolation from the wider discourse around immunisation across all ages, which are in turn informed by a broader pallet of demographic and attitudinal factors.²³ For example, in the past, scare stories around childhood vaccinations, such as those related to MMR and autism in the UK, appear to have a detrimental effect on vaccination rates.²⁴

In focus: Japan

Vaccination rate among over 65s: 51% (2015)

Vaccine confidence data:

**4.7% of adults in Japan agree that vaccines are important,
25.1% agree they are safe and 9.9% agree they are effective.**

In our primary research, we sought to understand how the various attitudinal factors outlined above related to perceptions of the seasonal flu vaccine among older people.

²² K Chaintarli, A Barrasa, S Cotter, J Mereckiene, J O'Donnell, L Domegan *Decrease in the Uptake of Seasonal Influenza Vaccine in Persons Aged 65 Years and Older In Ireland since the 2009 Influenza A (H1N1) Pdm09 Pandemic* Accessed at: <http://imj.ie/decrease-in-the-uptake-of-seasonal-influenza-vaccine-in-persons-aged-65-years-and-older-in-ireland-since-the-2009-influenza-a-h1n1-pdm09-pandemic/>

²³ Mitchell Rabinowitz (2018) The influence of political ideology and trust on willingness to vaccinate Accessed at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5784985/>

²⁴ WHO *Impact of rumours and crises* Accessed at: <https://vaccine-safety-training.org/impact-of-rumours-and-crises.html>

Understanding the attitudes of older people toward influenza immunisation

What we did and how we did it

The research undertaken by the ILC sought to build upon existing evidence to provide further insight into the attitudes of older people towards flu vaccination in the context of current public policy pressures and concerns.

The research looked at the attitudes of older people (60+) towards influenza vaccination across four OECD countries: the UK, Canada, Australia and Japan, representing a cross-section of socio-economically developed countries, in which attitudes are known to have a significant influence on levels of vaccination uptake.

To understand the views of this group, the research engaged 12 older people, sampling to ensure a broad mix of demographics, including gender, region and level of education. We also took into account whether or not they had received an influenza vaccination in the past, allowing the research to provide fuller insight.

We also interviewed stakeholders to explore their understanding of the key factors influencing rates of vaccine uptake, their perceptions of the current debate around vaccine hesitancy, of wider public discourse and their attitudes towards vaccinations.

The main objectives for the research among the public were:

- To understand motivations and barriers for older people around vaccination, using influenza as a case study;
- To explore the relationship between practical and attitudinal barriers to increasing rates of influenza vaccination;
- To understand participants' general awareness of vaccines recommended to older people, including the specific influenza vaccines developed for older people;
- To assess the effect of public health information and wider public discussion, including positive and negative news coverage, and information found on the internet, on older people's opinions and attitudes;
- To inform discussions around potential actions to improve rates of vaccine coverage and better protect adults against influenza.

Interviews covered a variety of key dynamics related to vaccination, drawing on the key themes highlighted in previous research:

- People's perceptions around their personal responsibility for their health;
- General perceptions of vaccines;
- Associations with older age and the ageing process;
- Awareness of seasonal flu vaccination programmes;
- Motivations for getting vaccinated;
- Barriers to improving immunisation rates.

Older people want to stay healthy in later life

Attitudes to one's own health offer an important backdrop to understanding the specifics of attitudes to voluntary preventative health interventions, such as vaccinations.

In our research, most respondent members of the public said that they engage in some form of low-level exercise such as walking, golf or gardening. While some participants suffered from back pain, osteoporosis or heart conditions, most said that they tried to stay as active as possible within the limits of their personal health.

"I walk a lot. I don't have a car any more so I walk everywhere."

Female, Australia

"Well, I have just recently joined a gym because I felt I was getting, my balance wasn't as good as it should be and I wasn't as fit. I've got arthritis in my knees and if I walk on uneven ground, they hurt a bit."

Female, Australia

A few interviewees engaged in higher levels of exercise, such as attending the gym, swimming and cycling.

Regardless of the level of exercise in which they engaged, respondents commonly said that they tried to eat as healthily as possible and some take vitamins and/or dietary supplements - although interestingly, this was more prevalent among interviewees from Canada than from other countries.

"I virtually don't have much meat anymore."

Male, Australia

"Well, sadly I've got arthritis in my knees, whereas years ago I did a lot of walking, I always walked everywhere because I don't drive. So, really I don't walk very much now, but I keep the house going, and I don't have cleaners or anything, but yes, I eat healthily."

Female, UK

Those with long-term health conditions seemed particularly aware of the need to pursue a healthy diet. And this was also true of those with a partner with a long-term condition.

"I'm very conscious of my diet and the family diet as well. My family have a history of heart disease, so I've been very conscious of that since I was little."

Female, Australia

When asked what they do to keep themselves in good health, a number of participants identified activities designed to keep their brain stimulated such as reading, creative writing and games, and highlighted the need to look after mental, as well as physical health.

"Also, your mental health as well is very important because your mental health is also related to your physical health. If you are mentally healthy, then it should be of benefit to your physical health. It's all related."

Male, Australia

"I also take supplements just to keep me mobile and I do a lot of writing...so, keeping my mind going and everything is important."

Male, UK

There was a strong consensus among the older people interviewed that people have a personal responsibility to keep themselves healthy.

"Yes. I think good health starts with the person themselves. They have the biggest responsibility."

Female, Australia

"Well, it's your body and your life, and you have to make the most of it."

Male, UK

"When I was working, I believed that to maintain my health is one of my work duties."

Female, Japan

Reasons behind this attitude varied and while no stark differences between countries emerged, there are some more nuanced differences. For example, respondents from Canada and Australia were more likely than those from the UK to argue that the State shouldn't have to bear the financial burden of people's perceived inability to keep healthy. A common example given by those from Canada, the UK and Australia was a perceived increase in prevalence of overweight and obesity.

"If people don't look after themselves, their health, it ends up apart from costing them a lot of money, it ends up costing the nation a lot of money with medical problems that they might have if they don't look after themselves as they get older."

Male, Australia

However, the research showed broad recognition of the need for appropriate support to be provided to people who were disabled or affected by long-term conditions/diseases.

"I mean, some people, there are diseases that you cannot help. So they're an exception."

Female, Australia

"There may be medical reasons why some people just can't help but getting bigger and bigger, but I think for the majority of the population, if you look after yourself and eat properly, you will be a reasonable weight, which will then have impacts on your life and health."

Male, UK

Vaccinations tend to be associated with the young

In our interviews, older people tended to associate the word vaccination with the jabs that children and babies receive such as MMR, polio and flu. Other vaccinations such as shingles, pneumonia, HPV, smallpox, herpes, diphtheria, chicken pox, hepatitis, TB, meningococcal strain A and B, whooping cough, yellow fever and cholera were also mentioned by some participants. When asked about the vaccinations of which they were aware, the most commonly cited were those for polio and smallpox. This may

be because this cohort of older people have lived through the eradication of these diseases during formative stages of their lives, rather than indicating that they consider them to be a current health concern.

Accordingly, the primary association with vaccinations was with children rather than old people, who interestingly were sometimes not mentioned unless specifically prompted.

"Things like measles and chickenpox and all those sorts of things. What's that one that was going where you had to have braces and things? Polio. That was a big one."

Male, Australia

"Well, the first one I had was when I was very young and that was polio, because there was still quite a lot of polio around in Britain."

Male, UK

"Initially it's measles, you know, that kind of thing that babies usually have, but also flu. That's what I think of, yes."

Female, UK

When respondents were prompted on what vaccinations are associated with later life, there was some awareness. The most commonly cited vaccines were those for influenza and shingles. Vaccines for pneumococcal pneumonia and meningitis were only mentioned by a minority.

"A lot of people take the flu vax because it could happen and all that. That's the only vaccination I'm really familiar with at this old age."

Male, Australia

"Flu is certainly the number one, I believe they're working on a vaccine against shingles but I don't know how far along that is yet."

Male, UK

Only a small group of participants spontaneously mentioned vaccinations relating to influenza – and even then their primary focus was on particular strains of flu such as avian, swine flu H1N1 etc. We found limited awareness of seasonal flu as a distinct trigger

for vaccination. These attitudes suggest that flu is not perceived as a dangerous illness.

However, some interviewees were not aware of any vaccines aimed at people in later life, and instead thought of adult immunisation only in terms of boosters or vaccinations for travel.

"You may have a booster of some vaccination for some flu or some childhood disease that may reoccur, but I think when you're older you may need some booster, but I don't think any serious disease vaccinations."

Male, Australia

Our primary research reflected the findings of existing literature that highlight the minimal effect educational background has on attitudes to flu vaccination. The research uncovered that there was not a correlation between background and perception of flu vaccination, regardless of whether or not they had had flu before or what their educational background was.

People are unsure about links between ageing and vulnerability to disease

Perception of the ageing process is, by definition, subjective. Our primary research showed that not everyone has the same associations with ageing. For example, in discussing the links between older age and health, some respondents alluded to the idea of the body "breaking down" through ageing, reflecting trends in wider society which casts ageing and later life as negative phenomena. This is associated with a greater susceptibility to illness.

"Only because we're more susceptible to it and in cases like myself, with diabetes and so forth, we're more likely to get those things if we weren't vaccinated."

Male, Australia

"They can't fight these things off as well as when you're younger."

Female, Australia

"The older you get the less able you are to combat, you know, the effects and symptoms of illnesses, I think."

Male, UK

Others, however, do not perceive a greater risk of catching illness as a result of the ageing process.

"It's hard to say really. I don't think our age group are really very different."

Female, UK

To unpick this further, we explored older people's understanding of changes to the immune system through the ageing process.

Most respondents did not suggest this unprompted. However, once they were prompted, just over half of participants agreed that the immune system does deteriorate with older age. However, this tended to be an association with older people being weaker or more susceptible to illness, rather than linking it to a change in the immune system.

Significantly, however, some respondents did not agree that the immune system deteriorates with ageing and felt that health was more reliant on personal circumstance.

"I have not experienced any serious illness, so I don't think so but what I have noticed is that my physical strength is weaker. This doesn't mean that I get ill easily though."

Female, Japan

"I don't think age matters. It depends on [the] person."

Female, Japan

"I think it can stem from childhood illnesses as well too."

Female, UK

"Well, I think a lot of it has to do with your life that you had. So I know a lot of people who are seniors, they have a really good life because they didn't have as hard a life."

Male, Canada

"What we've put our body through from the time we're, say, 20 to the time we're, say, 50...that will determine how our immune system is as we get older."

Male, Australia

"I've got lifetime immunity. Look it up. None of us elderly seem to be picking up the things that the young ones do. "

Female, Australia

Some people even argued that susceptibility to illness was linked to attitude and mindset.

"I think the people who are more likely to get ill are already ill when they're younger in some shape or form, because they're angry people, they're critical."

Female, Australia

Older people also cited a variety of factors, including diet, exercise and drinking and smoking, as impacting susceptibility to illness in later life, perhaps reflecting the emphasis respondents placed on their personal efforts to be healthy.

"Right now, I just guard myself with vitamin C and proper food and that, so that my immune system will be stronger."

Female, Australia

Other participants also mentioned genetics and even luck as key factors influencing health.

"It depends. It's like anything else in life, unless it's genetic, what you get out of it depends on what you put into it."

Male, Australia

"No. I'm pretty lucky. I've always been pretty good. I don't catch things much."

Male, Australia

"If you're unlucky, you can contract any sickness or illness."

Male, Australia

Mixed views on the importance of vaccines in later life

Perhaps unsurprisingly, people who had had the flu vaccination were more likely to believe that flu vaccination was important than those who had not. Among this group, they said that vaccination was important for a variety of reasons.

For those who considered that in later life your immune system changes and you catch illnesses more quickly, the flu jab was perceived to be a preventative measure.

"Our immune systems just can't handle what they used to be able to handle."

Male, Canada

Some believed that vaccines compromise the immune system in older people whose immune system is already weakened.

"Well, if I took the vaccination, I'd end up with the bloody flu and that could compromise my health in a dramatic way."

Male, Australia

"[The flu vaccine is] not important or helpful because it will compromise their immune systems."

Male, Australia

Some respondents said that even if the flu vaccine was not wholly preventative, it was still effective in preventing the worst of the flu.

"Even if I catch influenza from other people, if I have the vaccination, it will not turn to be a major illness due to my weak resistance etc."

Male, Japan

Similarly there was an evident trend in perceptions that pneumonia and 'bad' strains of flu can be life-changing and can even kill you.

"If it catches you and you don't have the vaccination, you're dead."

Male, Canada

"I think it protects you, you know, so if it's a really bad one...I just feel that if you're out and about, that you should try to protect yourself as much as you can."

Female, UK

This concern extended beyond the person in question, however, with respondents highlighting the importance of protecting others from the impact of flu.

"People with a weakened immune system, that can easily kill them. So yes, I do think they are important."

Female, Australia

"I think there's a lot of worry about the vaccine not being effective. Interestingly, for them, they said that they would now, or would consider getting vaccinated now, because they realised that they could actually pass it on to people in their families, people they care about, things like that."

Stakeholder, Canada

On a similar note, some respondents even highlighted that they were more likely to get the flu vaccine when there was a perception of a serious or bad strain of flu going round.

"We make sure that we get it if there is a special superbug going around and they have shots for that, we'll get that."

Male, Canada

Among some respondents, there was a perception that the vaccine was important, not just because of the significance of the illness, but because of the endorsement from the healthcare community. This reflects findings in academic literature which suggest that the public respond well to recommendations from healthcare practitioners (such as GPs).²⁵

"Well, I'm a fairly a logical person. I think if they're injecting you, then I presume that they're giving you something that's going to stop something happening. I don't know, and especially if you're doing it on a mass scale, then the proof has to be there, and they wouldn't be doing something that didn't work. The NHS wouldn't pay for it, besides which, they'd soon get found out. So, I just believe in the logic of it. Flu jabs prevent flu, so therefore I will do that. I'm not saying I expect it to be 100% effective, because I don't think it is, but the chances of getting it are really reduced by having the jab."

Male, UK

Among those who had not recently been vaccinated against flu, opinions were more divided about the importance of vaccines for older people, with some respondents saying that they didn't like having the flu vaccine.

"Well, certainly not for me, I don't want it. I was talking to somebody the other day and they said that they didn't like having flu jabs and stuff."

Female, UK

Some respondents felt that the vaccine itself was bad for you, with opinion ranging from the vaccine being bad for your health, to vaccines actively containing toxins.

²⁵ Ibid.

"The ingredients of vaccinations are toxic in my opinion. So that's enough. I don't get any vaccinations at all. I refuse."

Female, Australia

Concerns about the flu vaccine were not limited to whether or not it gave recipients flu - there were concerns about the effectiveness of the flu vaccine. Some respondents regarded the vaccine as ineffective because it only protects against a few strains and because some people become ill with flu despite having the vaccine.

"And if you get your flu vaccination then you get the flu."

Female, UK

For others, there was a perception that the effectiveness of the vaccine was down to luck, underlining concerns about effectiveness.

"Well, it stopped me getting the flu but then I've heard of people who get it and they still get the flu. Touch wood, I've been lucky."

Female, Australia

"Unfortunately it doesn't matter how fit you are, or healthy you are, you can get anything. If you're unlucky, you can contract any sickness or illness."

Male, Australia

Interestingly, some respondents had a fairly sophisticated understanding of flu – highlighting the fact that different strains circulated and recognising that this would mean vaccinations were of differing levels of effectiveness.

"These flu viruses are mutating all the time so they change. Who knows that's going to work against them?"

Female, Canada

Some of the negative perceptions appear to be related to the development of the vaccine itself. For example, some respondents raised concerns about the extent to which the vaccine had been tested. However, it should be noted that this was a minority viewpoint.

[On whether they would get the vaccine] "It depends-, obviously it depends on what they are and whether they've been fully tested."

Male, UK

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"Well, it would depend. It would depend on what exactly it [the vaccine] was for, wouldn't it? I don't believe that one should get into bed with big pharma willy-nilly. I always question the ethnicness, if there's such a word."

Female, UK

Alternatively, some felt that instead of vaccines we need to make sure to build up our immune system from childhood onwards.

"We need to build up an immune system at an early age."

Male, Australia

"If you vaccinate against children having chicken pox, measles, mumps, they can't build up the immune system they need to fight off these other hybrid diseases."

Male, Australia

Although specific flu vaccines for older people are available in the countries where the research was conducted, awareness for this was low. This was true across different demographics like age and gender, as well as across the different countries and geographies. It should be noted though that, for respondents aged 60-65, they were less likely to be aware of this vaccine as they are not the target group in these countries.

"No, I am not aware for a particular group. I think they apply to everyone. Maybe it's different, but I am not sure. I didn't enquire about any differences."

Male, Australia

Health professionals are a key source of information on vaccination

Through the course of the research, several themes emerged regarding how respondents received information about the flu vaccine. Consistently mentioned were the reminders to get the flu vaccine from posters in the GP clinic and pharmacy.

"Yes, the surgery invited us to go and have it done."

Female, UK

"There is plenty of info around but doctors there [at the local clinic] are pretty good. They'll tell you if you need to know anything."

Male, Australia

"Nearly every GP local clinic will have information on the flu every winter, and I can find it on the internet easily. I can go to the government website and find out about it."

Male, Australia

News and media, such as TV, print media and radio, were also mentioned by respondents as an important source of information. This was most often linked to the seasonal aspect of seasonal flu, with coverage increasing in October and November in the UK and Canada, alongside public health campaigns in the colder months.

"From the newspapers and from the media. I think from radio and TV. It's well-advertised, and also from people. People know about it."

Male, Australia

"Well, it's on the radio, it's in the papers and television usually."

Female, UK

Information from and discussions with peers, family and friends were cited by interviewees as being key prompts in encouraging uptake of the flu vaccine.

"Well, I think my peer group, really. I think that, well, I've talked, you know? Plus the fact that everyone else seemed to be having it, you know. I thought, well, I better go along and sort it out as well."

Male, UK

"My wife. She said that if I took the vaccine, the symptoms would be better even if I catch a cold."

Male, Japan

However, a minority of interviewees rejected these channels of information and based their opinions on their own research, the sources of which were not always clear.

"It's my own information that I've read up on."

Male, Australia

Practical barriers are significantly less important than attitudes

The original research conducted for this project reflects the findings of previous academic and policy literature, which suggests that attitudinal factors are more important in supporting vaccination rates in more socio-economically developed countries than practical barriers are to deterring from vaccination.

The vast majority of respondents interviewed for this research described the process of arranging an appointment to get the flu vaccine as being easy, with few problems in booking an appointment or accessing the place where vaccinations take place.

"I'll just ring up, make an appointment, and go and get the flu vaccine."

Female, Australia

"It's a medical centre where I go. They have nurses and that. They gave it to me right there and then."

Female, Australia

"Yes. I just phoned them up. They usually keep the serum, whatever you call it, in the fridge at the GP's office. You go in, you have your jab and that's it."

Male, Australia

"Well, Lloyds is in Safeway, Lloyds is open until nine at night, so it's a fantastic service to have a pharmacy that's open until nine."

Male, UK

"Yes. No problem at all. No wait time or anything. I was in the grocery store and the pharmacy, they had the sign on the door and I just walked up and went right in."

Female, Canada

Similarly, cost is not perceived as a barrier to having the flu vaccine. The vaccine is free in certain countries (and internal country regions like Canadian provinces) over the age of 65.

"When you're an old age pensioner, you don't pay for anything. Yes. Anything that's medical, you don't pay for."

Female, Australia

Older people value convenience

This is not to say that practical barriers were not a concern for respondents. Some respondents, for example, mentioned issues like opening hours and transport, expressing a preference for opening hours beyond what is currently available, or concerns about being unable to get an appointment.

"So, now if you make the appointment when you first notice that they are starting to vaccinate, then they seem to have a great big load of people going on a Saturday morning, if you like, between 9:00 and 12:00 and there were just streams of us going. So, it's easier now, much easier, yes."

Male, Australia

"Once they start talking about it, then you should make an appointment because they do fill up fast."

Male, Canada

Similarly, distances to getting the flu vaccine and transport were concerns to those who lived in more remote regions. However, they do not appear to be a significant barrier and some respondents were able to identify efforts to make the vaccine more accessible.

"I always had it at the doctor's office. It's only the last four years here that they've really pushed that you can get it from the drugstore."

Female, Canada

"I got a letter from the GP saying that they were going to be giving it on Saturday, which is never any use for me, because I work 65 miles away from home, so it takes me an hour to get there, so I leave at six in the morning and I get back at 7:30 at night. So, going to my local GP is something that I have to organise."

Male, UK

Stakeholder priorities are misaligned with public concerns

Although accessibility issues are not inconsequential, the research conducted by the ILC showed that they were often secondary to people's attitudes toward the flu vaccine.

This is at odds with the research conducted among public health stakeholders, who often spoke about efforts to increase vaccine

coverage in terms of accessibility issues like opening times and cost to the individual, rather than tackling attitudes toward the seasonal flu vaccine.

"I think there are a number of different reasons and typically they fall into categories which are, kind of, more mechanical, i.e. the availability of the vaccine to them at a time and a location."

Stakeholder, UK

"I think the access, as I said before, really comes into play when you're talking about people who are unwell or people who are frail, I think it's about better information and communication. I mean, I see some pretty ropey stuff to be honest."

Stakeholder, UK

That is not to say, however, that stakeholders don't see attitudes as significant.

"All the studies show that, that it's an attitudinal thing still. I think we can't dismiss cost and access from it but, if you're going to develop a programme, you've got to look at how to get those attitudinal factors."

Stakeholder, Australia

But it does appear that this group perceive the provision of information as the way to meet this challenge.

"People just really misunderstand the flu and the flu vaccine and the need for it, and we know the major one that's going to counter that is having a recommendation from a healthcare provider."

Stakeholder, Australia

"Well, I think you can find good-quality information on the web, but just look at the verb I used. Find. Therefore, it's not immediately available to people necessarily at the point where they're considering whether or not they should immunise themselves."

Stakeholder, UK

Significant similarities across the different countries

Our research found minimal differences between the countries we conducted our research in. However, Japan was an outlier, with some evident differences to the findings from other countries.

Respondents in Japan highlighted a belief that as a member of society you have personal responsibility for the illnesses you catch and for being healthy, a belief less prevalent in the other countries.

"I think that maintaining our health is partly a self-responsibility, when we live as a family, as a society."

Female, Japan

Similarly, associations with wider health issues like diet were less prevalent than in the other countries.

The main differences that existed between the different countries were largely practical. For example, issues of access like cost appear to be more prevalent in Japan. This trend, however, can be seen in other countries, for example in Canada, where the flu vaccine is free for people aged 65 and over in some provinces but not others.

Conclusions

There are several significant themes which have emerged through the research conducted for this report, which offer insights for the response to problems with vaccination rates:

- Our research backs up wider research that attitudes are a significant barrier to overcome in increasing vaccination rates, but also shows that stakeholders often don't focus on this enough.
- Vaccine hesitancy in the case of seasonal flu vaccines is a different phenomenon to wider vaccine hesitancy.
- A potentially more effective way of addressing these issues would be to engage with the public's positive attitudes toward their own lifestyles rather than through more traditional messaging.

Attitudinal factors are a significant barrier to increasing vaccination coverage

Our research demonstrates that attitudinal barriers are more significant than practical ones in efforts to increase flu vaccination rates.

Our research shows that changes in practical considerations, such as opening times, would be welcomed by older people, but it does not appear that these are likely to provide the step change needed to improve vaccination rates among those in later life.

The attitudinal barriers broadly break down into the following typology:

- Not everyone sees themselves as vulnerable to flu.
- Not everyone believes the vaccine works.

A different kind of vaccine hesitancy

It is easy to interpret negative attitudes to vaccines with a broad brush, that it is all part of the anti-vax movement, most prominently seen in relation to childhood vaccinations.

However, negative attitudes toward the seasonal flu vaccine are different to those seen in the anti-vax movement. Whereas the anti-vax movement shares many similarities with populism (such as distrust of mainstream media and public institutions), these

were opinions held in the minority among those who had a negative opinion of the seasonal flu vaccine.²⁶

Anti-flu vaccine sentiment appears to be more pragmatic in tone; for example, citing accurate accounts of varying efficacy levels, or the shorter development time for the seasonal vaccine than for vaccines such as MMR.

Because of this, a different approach from policymakers and healthcare practitioners is required, and information campaigns, for example, should not wholly focus on efforts to educate the public in a traditional sense.

"But beyond that, you know, the issue is to share information and encourage good quality information, particularly through health care professionals throughout Europe."

Stakeholder, UK

"I think a bit more tailored marketing for older audiences, which taps into some of these issues that they've got about efficacy and, kind of, the age, and do they really need it if they're not unwell?"

Stakeholder, UK

Although awareness of flu as a problem can be raised, and reassurance can be given about the efficacy of the vaccine, these approaches could reinforce some of the more negative attitudes around vaccines and in so doing undermine vaccination rates among older people.

Vaccination could be framed in terms of healthy lifestyles

By and large, older people see that flu is a health concern and often associate being older with being more vulnerable to illness and as being synonymous with decline. However, this does not necessarily translate into them seeing themselves as being vulnerable.

"One of the things that we learned was that older adults don't think about vaccination in isolation, they think about it in terms of their overall health care."

Stakeholder, Canada

²⁶Kennedy (2019) *European Journal of Public Health: Populist politics and vaccine hesitancy in Western Europe: an analysis of national-level data* Accessed at: <https://doi.org/10.1093/eurpub/ckz004>

“Even people I’ve spoken to who are well into their 80s, who consider themselves to be healthy and, therefore, they perceive something like the flu vaccine to be a very good thing for the vulnerable older people, of which they’re not one.”

Stakeholder, UK

There is an opportunity here, however, to align messaging around the seasonal flu vaccine with the opinions and beliefs that older people already have. Our research demonstrated that older people see a value in efforts to keep themselves healthy. Behavioural insights can be used to understand how public health messaging can be used to work with the grain of existing opinion and speaking to people’s values, rather than changing people’s beliefs.²⁷

Reframing seasonal flu vaccines, not as an intervention for the very ill or frail, but instead linking it with healthy lifestyles, may speak to people’s wider health behaviours, as well as address the negative associations of ageing.

²⁷ Behavioural Insights Team (2015) *EAST Four simple ways to apply behavioural insights*
Accessed at: https://www.behaviouralinsights.co.uk/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf

Annex – methodology note

ComRes, a social research consultancy based in the UK was commissioned by the ILC to recruit the sample, manage the fieldwork and conduct the research. ComRes conducted the research in accordance to the guidelines and standards of the Market Research Society and ESOMAR.

A screening process was used by ComRes to ensure that the sample used was as balanced as possible and represented a broad cross-section of demographics.

Aspects controlled for were: age; gender; region; level of education (as a proxy for social grade) and whether or not they had received an influenza vaccination in the past. This was done through applying quotas.

Groups excluded to ensure the quality of the sample were:

- Anyone who works, or whose family or close friends work, in the healthcare and/or pharmaceutical industry;
- Anyone who had been interviewed in-depth for a market research study within the last 3 months.

The demographic breakdown of the sample used was as follows:

	Age			Gender identity		Highest level of education			Recall receiving the flu vaccine before	
	60-69	70-79	80+	Male	Female	School up to 18	Further education ¹	Higher education ²	Have	Have not ³
Total (n=48)	44%	42%	15%	54%	46%	42%	23%	35%	67%	33%

¹This includes those with an apprenticeship, diploma, NVQ or equivalent.

²This includes those with a bachelor's degree or higher academic qualifications.

³This includes a minority of people who have received the flu vaccine in the past (over 10 years ago) but no longer receive the flu vaccine due to a change in attitudes.

The below table describes the sample size per country alongside the fieldwork dates for interviewing members of the public.

Country	Public sample size	Fieldwork dates
UK	12	26th February – 11th March 2019
Australia	12	1st – 8th March 2019
Canada	12	5th – 11th March 2019
Japan	12	15th – 27th April 2019
Total	48	26th February – 27th April

<p>Stakeholders were identified for interview by ILC and included experts in immunisation, public health and ageing, including those working for organisations such as public health bodies or think tanks. The below table describes the sample size per country alongside the fieldwork dates for interviewing stakeholders.</p> <p>Country</p>	<p>Stakeholder sample size</p>	<p>Fieldwork dates</p>
UK	3	5 th April – 1 st May 2019
Australia	3	5 th April – 9 th May 2019
Canada	3	16 th April – 8 th May 2019
Japan	2	16 th April – 10 th May 2019
Total	8	5 th April – 10 th May 2019



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