BEHAVIOURAL AND SOCIAL DRIVERS OF HEALTHCARE WORKER INFLUENZA VACCINATION UPTAKE

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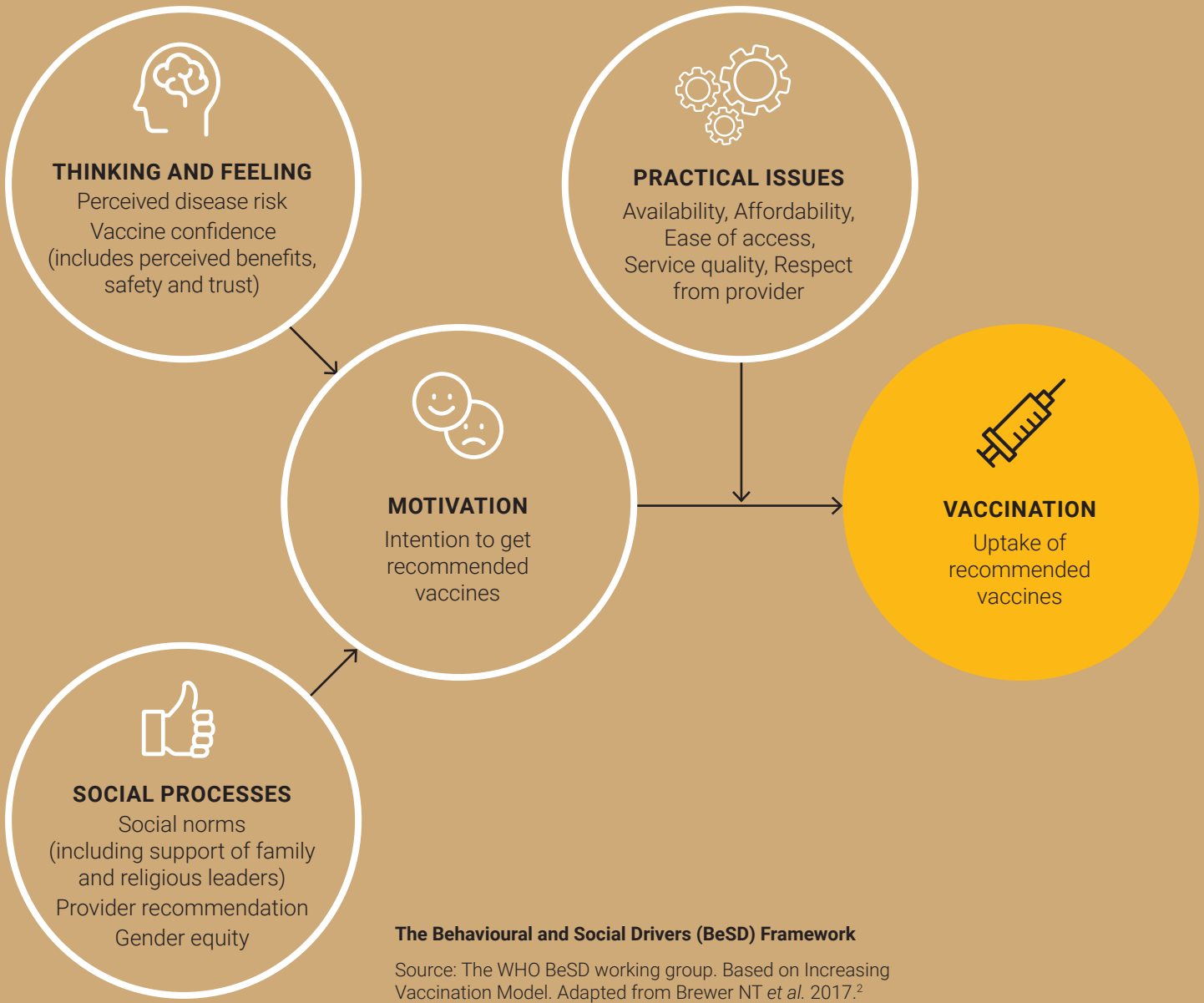
Hesitancy amongst healthcare workers (HCWs) is highly context-specific and will vary between professionals, over time and between vaccines.[1] To support influenza vaccine acceptance and uptake, this report will adopt the World Health Organisation Behavioural and Social Drivers of vaccine uptake framework, which is based on the paper by Brewer *et al*.[2]

The framework includes the following elements:

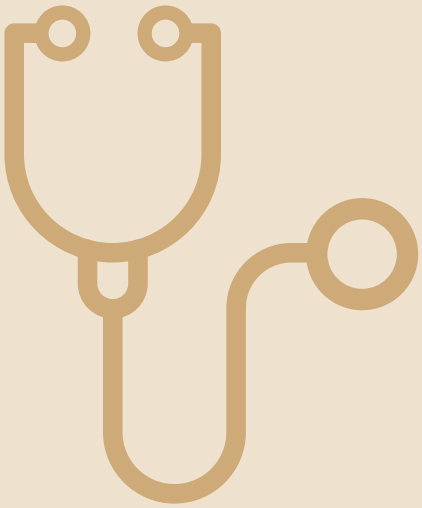
- What HCWs think and feel (confidence in vaccine benefits, safety, perceived risk etc)
- Social processes (influences, workplace norms etc)
- Practical issues (availability, location, timing etc)

What drives vaccination uptake?



The Behavioural and Social Drivers (BeSD) Framework

Source: The WHO BeSD working group. Based on Increasing Vaccination Model. Adapted from Brewer NT *et al.* 2017.[2]



In this report, we will use the term 'healthcare workers' to mean any person who engages in actions where the primary intent is to enhance the health of people.

This definition includes:

Clinical staff members

- Medical doctors (generalist and specialist practitioners)
- Nurses/midwives
- Allied health staff
- Dentists
- Pharmacists
- Students

Non-clinical roles (health management and support workers)

- Management
- Cleaning
- Food service
- Maintenance staff

WHAT HEALTHCARE WORKERS THINK AND FEEL

What people think and feel:

- Confidence in vaccine benefits
- Confidence in vaccine safety,
- Perceived risk - self
- Perceived risk - patients
- Seeing negative information

Focus:

On the cognitive and emotional responses of HCWs towards the vaccine preventable disease and the vaccine.

What is known

Low risk perceptions and denial about the social benefits of influenza vaccination have been repeatedly identified as barriers to vaccine uptake.[3]

Perceptions of risk can often be calculated within incorrect or incomplete information (including a lack of understanding about their role as a transmitter), with staff members perceiving seasonal and pandemic influenza as mild.[4,5]

Regardless of severity, HCWs often state that they decline the influenza vaccine because they believe that they are fit and healthy and that their immune systems are strong, and hence are not at risk of needing protecting from the infection.[6]

Amongst those that receive the influenza vaccine, personal protection is usually the main motivator behind intention and actual receipt, followed by patient protection.[7] Wanting to protect their family and friends has also been identified as an important motivator.[4,8]

Concerns that the vaccine itself may cause influenza and fears about potential side effects are also cited as reasons for declining vaccination.[5,7,8] For example, La Torre *et al.* found that doubts about the vaccine efficacy or believing that the vaccine would not provide any protection, concerns or fears about adverse events, and not caring about influenza represented ideas and beliefs preventing vaccination among HCWs.[9]

Perceived vaccine safety was found to be a predictor of uptake amongst HCWs, both for themselves and as an indicator of whether they recommend vaccines to patients.[10]

WHAT HEALTHCARE WORKERS THINK AND FEEL CONT'D.

Informing your practice

LISTEN TO YOUR HCWS

The COVID-19 pandemic has necessitated a large amount of focus on the development and use of vaccines. There have been people in the community and in the healthcare settings unsure about receiving the COVID vaccine due to concerns around safety and efficacy of the vaccine. In health settings, we have also seen the introduction of mandates for HCWs. There has also been lower than usual influenza activity over the same period. These changes may have an impact on how staff members perceive the need for routine immunisations and how they react to the introduction of any new occupational vaccine requirements.

To enhance your practice:

- Undertake a local survey or in-depth interviews to understand the barriers and drivers amongst HCWs towards immunisation. Questions could focus on confidence around the vaccines, perceived risk, as well as focusing on the delivery of immunisation services on site and what strategies would enhance communication and access.
- Enhance feedback from HCWs regarding what is needed to support their understanding, acceptance, and uptake of vaccines onsite.
- Consider both the individual/group influences, contextual factors and vaccine specific issues that may be impacting on hesitancy.
- Based on the key issues identified, develop your messages and approaches. It is critical at this point to ensure that you invite HCWs (reflecting the targeted workforce), to assist with development of any messages and information products.

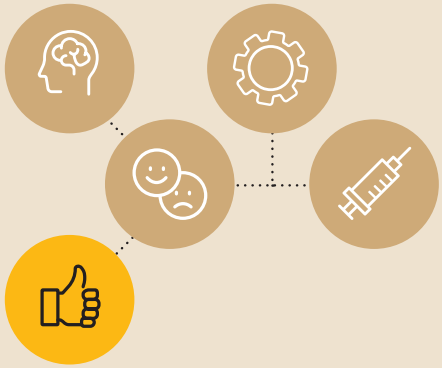
SUPPORTING STAFF UNDERSTANDING

A successful program must include education on the risk of influenza and the overall benefits of vaccination, tailored to specific professional characteristics.[11] However, it is important to remember that building knowledge does not automatically change how HCWs behave. Organisations need to shift away from relying solely on passive education approaches such as online education modules.

To enhance your practice:

- it is recommended that passive approaches (i.e., written guidelines/posters) are combined with strategies that promote active communication either via peer-to-peer, middle managers or via other trusted HCWs. Provide opportunities for questions to be asked and responses given that are tailored to the categories of HCWs i.e., clinical versus non-clinical.
- When developing resources or training materials for staff, it is important to consider both literacy and health literacy levels of staff members. It is also critical to ensure resources are culturally sensitive and tailored to the category of staff that will be receiving them. For example, if developing case scenarios, they need to include a mix of staff types, genders, and cultural backgrounds.
- Staff who have a role in communicating about immunisation, should be encouraged to undertake a training program to learn and practice their skills in listening and engaging in conversations aimed at increasing uptake of vaccines. While there are no dedicated training sessions focused on occupational vaccination, the learnings from these trainings can be transferred to this sector.
  1. Online training on interpersonal communication for immunization for front-line workers: **https://www.unicef.org/eca/reports/interpersonal-communication-immunization**
  2. Sharing Knowledge About Immunisation: **https://ncirs.org.au/our-work/sharing-knowledge-about-immunisation**
- Active listening, presumptive approach, positive reinforcement, acts of sympathy, reasoning and motivational interviewing are just some of the different techniques that can be used when communicating with vaccine hesitant individuals. But we currently do not have a good understanding of which of these approaches is most appropriate and effective when engaging with a vaccine hesitant HCW.[12]
- Lastly it is critical that there is transparency in the messages and information that is given to HCWs. Acknowledging the potential for adverse events and any other safety issues may assist with supporting trust and confidence in the messages. Consider providing a link to AusVaxSafety: **https://ausvaxsafety.org.au/**

SOCIAL PROCESSES



What people think and feel:

- Influential others support vaccination
- Vaccination norms
- Workplace norms
- Decision and travel autonomy
- Trust in vaccine providers
- Confidence in answering questions

Focus:

Includes the HCWs experiences related to getting vaccinated and the influence of others including colleagues, family, and the broader social network.

What is known

A belief that others want you to be vaccinated or that family and friends think you should have the vaccine, has been associated with HCWs intention to receive either a seasonal or pandemic specific vaccine and actual receipt.[13]

Receiving a recommendation from a respected colleague is also associated with higher chances of receiving an influenza vaccine.[14] When a respected colleague gets vaccinated, other HCWs are also more likely to get vaccinated as well.[13]

While other research has found that governmental and managerial support such as declarations can improve immunisation rates for HCWs.[15] Lastly, the media can play a role in HCW vaccine coverage, and can negatively affect attitudes.[16]

Informing your practice

SOCIAL NORMS AND SOCIAL MARKETING

Social norms—the unwritten rules of acceptable behaviour shared by members in a group—can contribute strongly to group members' choices and actions. Recent attention to using social norms to achieve changes has emerged, in part, from the realisation that changing harmful practices through factual information alone is not effective'. "Social marketing" approaches that aim to change social norms by correcting people's misconceptions about what others do are often chosen to achieve this change.

SOCIAL PROCESSES CONT'D.

To enhance your practice:

- Focusing the communication messages on those who do not vaccinate may lead to others declining the vaccine as well. Instead, highlighting the proportion of people across the workforce that have received a vaccine may create a positive social norm. An example could be: Although a small % of HCWs don't receive their flu vaccine, at our site, x% of staff do.
- Consider using personal messages. Perhaps seek a staff member who was previously hesitant towards the influenza vaccination but then changed their mind.[17]
- Consider who the messenger is: the most effective messenger is one the audience likes and trusts.
- An emotional element to the message will also enhance the impact. A message that can provoke the audience emotionally will be more likely to get their attention and motivate them to change their behaviour.[17]

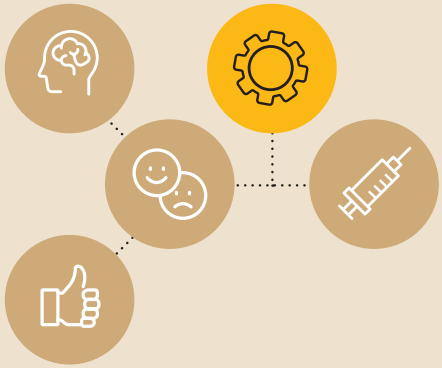
ORGANISED DIFFUSION

In this approach, we move away from relying on the traditional approaches of top-down communication approaches (i.e. emails from hospital CEO, reminders from managers) to a situation where knowledge is shared by peers, with the encouragement and support of Staff Health personnel.

To enhance your practice:

- Identify HCWs from across the organisation that can be engaged as champions of vaccination. They can assist with building relationships with staff that remain uncertain or unwilling to receive the influenza vaccine. These staff members can assist with passing information at hand-over meetings, and to participate in trainings. Middle managers are underrepresented in the influenza vaccination literature. In a recent review, it was suggested that middle managers should be thought of as 'agents of change'[18], as they have the potential to bridge information gaps, transcend professional barriers, champion ideas and insert influence, in ways that the organisations top management are unable to.[19,20] In support of this, Floyd and Wooldridge found that the influence middle managers have on frontline employees was positively related to organisational outcomes such as effectiveness, competitive position, efficiency and financial performance.[21] It is important to note, that some of these champions may need to be supported to communicate about influenza and the vaccine. We cannot assume that they all have the same level of understanding and confidence to communicate with impact.

PRACTICAL ELEMENTS



Practical issues:

- Know where vaccine is available
- Previous uptake of adult vaccination
- Ease of access
- Preferred site
- Availability of on-site vaccination

Focus:

The experiences people have when trying to get vaccinated, e.g. related to accessing vaccination services.

What is known

Inconvenience is often cited as a barrier to vaccine uptake by HCWs, including not having sufficient free time to accomplish the task. A literature review published in 2008 showed that inconvenient delivery of the vaccine remained the third most common reason for vaccine non-receipt among HCWs in countries outside of the US.[22] Related to accessibility, the provision of free vaccine or reimbursement of costs were cited as facilitators of vaccination in many studies and have been recommended by advisory committees.[23]

Public recognition, and promotion of high vaccine uptake has been shown to increase health worker vaccination uptake. However, incentives and rewards on their own are not enough to push up vaccine coverage.[24]

The intent of a declination statement is to ensure that HCWs are appropriately informed of the rationale for influenza vaccination, to promote the message of patient safety, and to dispel commonly held misconceptions about influenza and influenza vaccination. They provide an opportunity for HCWs to retain their autonomy and their right to refuse treatment: they can simply choose to opt out if they do not wish to be vaccinated. What has been established is that the use of declination forms is associated with increased resources to track compliance, the risk of negatively affecting the employer–employee relationship, and the need for institutions to determine the punitive consequences for health workers who refuse to sign the document. In the concluding statement of a recent review examining the use and impact of declination statements the authors emphasised that there may be increases in vaccination coverage, and a decrease in staff misconceptions about the influenza vaccine, if the declination statements were bundled with other measures that emphasised the rationale for and importance of vaccination, and decreased barriers to receipt of the vaccine.[25]

PRACTICAL ELEMENTS CONT'D.

To enhance your practice

Table 1. Interventions that support HCWs influenza vaccination program[26]

SUCCESSFUL INTERVENTIONS	LESS SUCCESSFUL INTERVENTIONS
Free vaccine	Incentives, including prizes and cash
Professional marketing	Inconsistent follow up of non-compliant HCWs
Roving vaccine carts	System level tokens and incentives
Multiple dates and times for vaccination (vaccine readily available and easy to access at worksite)	Education
Best in Class Scorecard	
Competition between facilities to achieve higher vaccination rates	
Any support by leadership	
Senior leadership support	
Declination statements	

Adapted from Ajenjo MC *et al.* 2010.[26]

AUTHOR

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Dr Holly Seale is an infectious disease social scientist and Associate Professor at the School of Population Health at the University of New South Wales in Australia. She has 17 years of experience in undertaking social science research, that focuses on promoting acceptance and uptake of immunisation while applying a "whole-of-life" lens. It incorporates innovative research focused on groups that traditionally have received less attention and continue to have suboptimal uptake: children and adults with chronic medical conditions, culturally and linguistically diverse communities (focus on both migrants and refugees) and on occupational groups. Projects include developing and testing interventions and evaluating policy/programs and communication strategies. Her current research is focused on children and adults with medical comorbidities, refugees and migrants and healthcare workers. She has published 165 journal papers that have focused on qualitative and quantitative research including behavioural insights, clinical trial outcomes, epidemiology, policy reviews and development/implementation of interventions. She is the Deputy Chair for the Collaboration on Social Science and Immunisation (COSSI) network.

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