

# Managing Antimicrobial Resistance Through Behavior Change, March 2021

## Why not practice knowledge?

Ulf Magnusson, Anni McLeod, Leif Östman,  
Sandra Nohrborg, Christina Greko, Birgitta Lytsy, Cortney Price

### Brief background

Prevention of infections and spreading of antibiotic-resistant bacteria is a key component in the containment of antibiotic resistance. Fewer infections in a population or sub-population means a reduced need for antibiotics. This is true in healthcare settings and in livestock production.

We know a great deal about what needs to be done to prevent infections and the spreading of resistant bacteria, but this knowledge is seldom translated into practice. Bringing together a range of different sectors – each with their own approaches, experiences and solutions – can lead to insights that help us move forward.

The healthcare sector was chosen here, since it is ultimately responsible for delivering safe care to patients. The livestock sector was also chosen, as it is the farmer who is ultimately responsible for implementing biosecurity to protect his/her animals. The veterinarian can provide advice, but it is up to the farmer to decide if and how to increase disease prevention, including bearing additional costs of improvements made while waiting for their economic returns. There are several parallels between the two sectors concerning the importance of leadership, safety cultures, behaviour and individual motivation.

The focus of the workshop was to: i) debate and discuss what drives – or hinders – the practical implementation of infection prevention measures; and ii) explore how we can more effectively encourage behaviours that reduce infection risks and prevent antibiotic resistance.

### The Workshop – approach and highlights from the discussions

The workshop had some 35 registered participants from private companies, the health and livestock sectors, universities including students, international organisations, ministries and governmental agencies and began with three inspirational presentations, which are described briefly below in the order that they were presented.

Anni McLeod posed four questions to highlight issues worth considering when translating behavioural change theory into practical interventions and provided

examples for each. First, what is the context in which change needs to occur? (Is this an emergency or a long-term problem? What is the legal and political framework, which social norms and customs affect individual behaviour?) Second, who needs to change their behaviour? (Individuals may be differently exposed to risks and may need to change their behaviours in different ways.) Third, how easy is it to change the behaviour in question? (Changes that are difficult, costly or go against beliefs or traditions may be harder to introduce.) And lastly, how can behavioural change be supported and reinforced? (For instance by co-designing new processes, acknowledging possible trade-offs or combining a range of supporting measures?)

Leif Östman underlined that most of our behaviours are based on habit and that our habitual behaviours serve as an efficient way of coordinating with the physical and cultural world that we inhabit. Further, reflecting and learning occurs mainly when our habits are interrupted: when we cannot continue to act as we did before. This means that a ‘crisis’ is an opportunity for change. Notably, interventions focused on changing a person’s habitual way of acting require that we stage interruptions, forcing the person to become engaged. If the interruption is supposed to make big changes in a person’s habitual behaviour, we must take into account that such changes might be complex processes, involving issues of competence, moral and political values and frameworks, etc. Such processes often take time and require support to be successful. Many interruptions of habits give rise to feelings of frustration or curiosity, for instance. Sometimes, these feelings can be very strong and involve fear or antagonism. Any planning of interventions needs to take this into account in order to be successful.

Cortney Price challenged participants to consider the extent to which context determines behaviour. Whether it be supermarket sanitisation, hospital handwashing or livestock farm biosecurity; the environment around decisions has been shown to be a major impediment to people ‘doing the right thing’. Moreover, efforts to convince people to change are often undermined by contextual barriers, including situations where the desired behaviour is just too inconvenient, annoying

or costly for people to implement, despite their best intentions. These phenomena reveal how knowledge and practice often do not correlate. Fortunately, it is possible to reverse-engineer the context to change behaviour. To develop such ‘nudges’, behavioural insights must be available, which requires contextual analyses, dedicated community engagement and rigorous experimentation. When done right, changing the context by making desirable behaviours easier and undesirable behaviours harder can promote safer and more risk-reductive behaviours – even in the absence of knowledge or intention.

Next, the workshop participants discussed the following topics in four breakout groups: i) the most critical behaviours we need to promote in order to improve hygiene and biosecurity, ii) the main barriers to change, and iii) how can we best overcome such barriers and promote change.

The most critical area for behavioural change identified in the workshop was hygiene, with hospital hygiene being of particular importance in healthcare settings and farm hygiene and overall biosecurity being key in the livestock sector. Lack of knowledge about the importance of a practice, e.g., handwashing or hand disinfection, can in some cases be a barrier, but more often there are other barriers present, e.g., lack of time and stress, lack of enabling environment, or

inconvenient facilities and systems. A general barrier for all behavioural change is that it is difficult and takes time for people to change their habits. Some barriers may be general for several settings, while others can be context-specific.

To overcome barriers to behavioural change, we should make the right thing easy to do and the wrong thing more difficult to do. It was reemphasised that any intervention to overcome barriers must be tailored to the specific context in which the change needs to occur. Interventions must also be based on the characteristics of the individuals who need to change, e.g., knowledge, skills, values and culture. Some interventions that might promote behaviour in certain settings include visual reminders, monitoring, gamification, peer pressure and benchmarking. Such so-called ‘nudges’ can trigger subconscious reactions that make target behaviours more attractive or social; ideally, they should be combined with communication and education. It can be beneficial to raise awareness about the issue and to show what the individual gains from change are, in order for the change to happen ‘from within’, even if it is combined with external regulations.

All in all, we found that many challenges and possible approaches were very similar in the healthcare sector and the livestock sector.





## Recommendations

Based on the inspirational talks and the ensuing discussions in the workshop, we put forward the following five recommendations when planning for interventions that aim to mitigate the risk of not practicing existing knowledge:

- Make a thorough analysis of the context where you want to change behaviours (legal and political framework, culture, traditions, social norms and values, knowledge, financial resources, etc.).
- Consider the different risk perceptions, motivations and personal gains/benefits of the people you hope to influence.
- Do not be overly ambitious; be sure to consider how difficult your intervention might be to implement, given the above. Realise that your interventions may stir up emotions such as anger or fear, and be ready to empathise with people and prepared to adjust your approaches accordingly.
- Start with low-hanging fruit – it is better to aim for small changes that you are confident can happen than for overly ambitious ones that may never materialise or are difficult to sustain long-term.

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This brief was written by: Ulf Magnusson, Swedish University for Agricultural Sciences\*; Anni McLeod, freelance consultant; Leif Östman, Uppsala University; Courtney Price, FAO; Sandra Nohrborg, Swedish University for Agricultural Sciences; Christina Greko, National Veterinary Institute Sweden; Birgitta Lytsy, Uppsala University Hospital.

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\*Corresponding author: [ulf.magnusson@slu.se](mailto:ulf.magnusson@slu.se)



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