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How food regulators communicate with consumers about food safety

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Abstract

Purpose

The purpose of this paper is to report how food regulators communicate with consumers about food safety and how they believe consumers understand their role in relation to food safety. The implications of this on the role of food regulators are considered.

Methodology

Forty two food regulators from Australia, New Zealand and the United Kingdom participated in a semi-structured interview about their response to food incidents and issues of food regulation more generally. Data were analysed thematically.

Findings

Food regulators have a key role in communicating information to consumers about food safety and food incidents. This is done in two main ways; proactive and reactive communication. The majority of regulators said that consumers do not have a good understanding of what food regulation involves and there were varied views on whether or not this is important.

Practical implications

Both reactive and proactive communication with consumers are important, however there are clear benefits in food regulators communicating proactively with consumers, including a greater understanding of the regulators' role. Regulators should be supported to communicate proactively where possible.

Originality/value

There is a lack of information about how food regulators communicate with consumers about food safety and how food regulators perceive consumers to understand food regulation. It is this gap that forms the basis of this paper.

Introduction

Food regulation is an important part of public health; specifically it reduces morbidity and mortality associated with consuming food that could be contaminated with microbial pathogens and other hazards (Antle, 1999). Food regulation is effective in protecting the health of the public because it works to manage and control food risks through the use of appropriate measures (FAO/ WHO, 1997). However, there are challenges associated with food regulation, for example, food safety itself is difficult to measure, and the costs of the food regulatory system are borne by the food industry, consumers and governments (Antle, 1999). This paper identifies how food regulators communicate food risks to consumers, and how they believe consumers understand food regulation, and in particular the role of food regulators. Previous research suggests that food regulators view the public as underestimating the risks associated with food and as having limited understanding of scientific information about food safety (De Boer et al 2005). This paper presents strategies used by food regulators to improve communication of food risks. Participants in this study identify the use of both reactive and proactive communication strategies. The success of these strategies depends upon consumer knowledge of food regulation, with consumers more likely to seek information if they are aware of the role of food regulatory agencies. For the purposes of this paper food regulation is defined as the system which develops, implements and enforces regulatory and non-regulatory measures designed to manage food

safety risks. This occurs across a variety of settings and locations. In this context we refer to 'food regulators' and 'food regulatory actors' interchangeably as the individuals who work within this system.

Consumers are important stakeholders in food regulation and the management of food risk because of their purchasing behaviour and risk of exposure to potentially unsafe foods (Houghton et al., 2008). We know that there is a difference in the perception of food risk between consumers, 'experts' and food regulators (Slovic, 1992, Verbeke et al., 2007). Therefore understanding how food risks are communicated from food regulators to consumers becomes vital to ensure these differences in perception are recognised and managed. There is limited research about how food regulators perceive consumers to understand food regulation with existing literature suggesting the food regulators believe that consumers overestimate the risk of new technologies such as genetically modified food and underestimate microbial risks (De Boer et al 2005). It is this gap that forms the basis of this paper.

Effective communication is related to consumer confidence in food safety which has been identified as important in light of numerous food incidents (Henson and Caswell, 1999). Consumer trust in food depends in part, on consumer trust in regulatory authorities that provide information about food risks, in particular the extent to which consumers trust that these agencies will protect consumer interests (Grunert, 2002). Therefore, consumer confidence in the safety of food can be enhanced by improving consumer trust in societal actors (De et al., 2007), including food regulators. Consumers are more likely to trust regulators if they perceive that they share the same values and priorities (Poortinga and

Pidgeon, 2003, Cope et al., 2010). Understanding different perspectives about food regulation is important because this can affect perceptions of how well food risks are managed. Therefore it is important that food regulators appreciate and understand consumer perspectives to maximise the effectiveness of food risk management (Houghton et al., 2008). Consumer confidence in food regulation has at times been low (Knox, 2000) and factors appearing to impair this trust include a consumers' perceived exaggeration or distortion of information (Knox, 2000). In particular, consumers' perception that food regulators lack consideration of consumer concerns about food safety has led to decreased consumer confidence (Knox, 2000). Consequently, coordinated, interdisciplinary collaboration is required (Knox, 2000) and the first step to this process is understanding how regulators perceive consumers' understanding of food safety and food regulation, including their roles as food regulators. This is part of the purpose of this research.

This paper identifies how food regulators communicate with consumers about food safety and how regulators believe that consumers understand food regulation, including the role of regulators themselves particularly in times where there is potential for or an actual food incident. A food incident is defined as 'any situation within the food supply chain where there is a risk or potential risk of illness or confirmed illness or injury associated with the consumption of a food or foods' (Commonwealth of Australia, 2012). In this paper the authors draw a link between proactive and reactive communication strategies and consumer understanding of what regulators do and ask how the changing needs of consumers fit into communication about food risk. Current consumer research around food regulation has "tended to characterise how people perceive food risks, without addressing people's perceptions of the policies and motivations of those who manage these risks"

(Houghton et al., 2008) (p. 19). We seek to go beyond current research by looking at how regulators think consumers perceive the roles of regulators.

Methods

Study

This study was part of a larger examination of trust in the food system from the perspectives of food regulators, the food industry and the media, conducted across three countries – Australia, the United Kingdom (UK) and New Zealand (NZ). The larger study investigated how consumer trust in food can be re(built) before and after a food incident. Interviews were conducted with food regulators and actors from the food industry and media. A model outlining strategies to (re)build consumer trust was developed and interviewees were later invited to provide feedback on the usefulness of this model using a survey. A protocol paper outlining this wider study has been published elsewhere (Wilson et al., 2013).

Recruitment

Individuals working in the food regulation setting were recruited for this research. Recruitment was through purposive sampling, which enabled participation of individuals who were information rich (Patton, 2002) and had relevant experiences to share (Popay et al., 1998). The roles of actors working in food regulation settings are varied, therefore a sampling strategy was developed to ensure coverage of regulators working in different areas including policy development (organisations and individuals responsible for contributing to and managing government policy around food safety), standards setting (organisations and individuals responsible for setting food standards, for example law

related to food composition), implementation (organisations and individuals responsible for how food policy is implemented across countries) and inspection and enforcement organisations and individuals responsible for ensuring food businesses comply with food standards for example environmental health officers in local councils); at state and federal levels.

Potential participants and organisations were contacted by one researcher in Australia and NZ and two researchers in the UK. Contact was made through email, including a follow-up email and phone call if a response was not received. When making contact with participants, the purpose of the study was explained, they were given an information sheet and letter of introduction and were invited to participate in an interview.

Data collection

Data were collected using semi-structured interviews with an interview schedule (Table 1). The interview schedule was piloted separately in Australia and the UK to check for usability. Minor changes were made to increase flow of the interview schedule based on feedback from piloting. The interview schedule was designed to discuss food regulators' ideas about food safety, responses to food incidents in general, and in the context of a specific, hypothetical scenario (Table 1). The hypothetical scenario was based on real events and designed to start conversation with participants about food incidents.

(Table 1: Interview schedule and hypothetical scenario used in interviews with food regulatory actors)

Interviews were conducted face-to-face or over the telephone at a time and location convenient for the participant. Phone interviews were used when participants were geographically distant from the interviewers. Interviews ranged from 30-60 minutes. Three interviewers collected data, one in Australia and NZ and two in the UK. These interviewers met regularly through Skype during data collection to ensure consistency in questioning. Interviews were conducted in Australia and the UK between July and November 2013 and in NZ in October 2013 until theoretical saturation of themes was reached (Guest et al., 2006). Interviews were digitally recorded using a voice recorder after consent to conduct the interview had been obtained.

Data analysis

Digital voice files were deidentified and transcribed verbatim. In this study, nonverbal cues, emphasis and pace were deemed less important and were not transcribed. Interview transcripts were checked against the digital voice file by each interviewer for accuracy. Deidentified transcripts were then imported into NVivo 10.0 (QSR International, Doncaster). An initial list of codes, based on the research objectives, was developed by the research team (including academics and industry partners working in the food regulation setting) and included: 'response to real food scares', 'response to the hypothetical scenario', 'role of interviewees in food regulation', 'enablers in managing food incidents', 'challenges in managing food incidents', 'stakeholders in food safety work', 'use of social media' and 'consumer trust in food'. Transcripts were then coded by one researcher using this initial list following the six stages of thematic analysis (Braun and Clarke, 2006). As coding progressed,

further themes and sub-themes were added based on the objectives of the research and information in the data, for example 'communication strategies'. Coding was checked and agreed upon by team members at regular team meetings and at two data analysis workshops during the data analysis phase of the research. Other members of the research team reviewed up to five transcripts each to confirm the themes arising from the primary researcher's analysis.

Ethics approval

This research received ethics approval from the relevant University Social and Behavioural Research Ethics Committee. Written informed consent was obtained from all participants.

Results

Forty two food regulatory actors participated in an interview (26 from Australia, 5 from NZ and 11 from the UK). Three main themes are presented here including (1) consumers and regulators have an important relationship, (2) communicating with consumers about food safety (including proactive and reactive communication) and (3) how regulators believe that consumers understand their role.

Consumers and regulators have an important relationship

Participants in this study agreed that the relationship between regulators and consumers is an important one because regulators have a clear role in protecting consumers from food safety concerns:

...the job of the regulator is to develop policy and food regulation that actually protects consumers but in a minimally effective way, if you see what I mean? (AU2)^[1]

Well, the regulators exist to protect consumers. They protect consumers from a food safety perspective and from being misled....consumers need someone to protect them, the food police if you like, so they are the authorities. (UK9)

The reference to 'a minimally effective way' reflects the desire to regulate in such a manner that it is effective in protecting the consumer but employs the minimum amount of regulation to do so.

Communicating with consumers about food safety

Communicating with consumers about food safety was perceived to be difficult. There was frequent commentary about how such communication could be achieved. One participant commented:

Then we have the same problems with, I guess, briefing the Australian public or the broader community as to how do we do that? (AU25)

There were two main ways in which communication with consumers was described; reactive and proactive. Reactive communication refers to communication about food safety in response to a specific event, such as a food incident and strategies included use of the media via press releases, formal alerts and warnings, use of trusted contacts to assist in disseminating messages and releasing alerts and warnings through social media such as

Twitter and Facebook. Proactive communication refers to communication about food safety all of the time, not just in response to one specific event and strategies included use of the media through building relationships, regular postings on social media and through formal stakeholder engagement and stakeholder committees. The strategies used by regulators for both reactive and proactive communication are now discussed.

Strategies used for reactive communication

Using the media was cited as an important strategy for reactively responding to food scares, because being reactive generally entails the need to get a message out quickly to the public. Regulators reported the importance of the media in briefing the Australian public about food scares:

Well, we've tried to do it through putting up media releases on our website....thankfully a lot of the media outlets all watch that space and they tend to pick up on it. (AU25)

Formal alerts and warnings are also part of food regulators' standard, reactive response in times of food scares, to help communicate messages:

...people can subscribe to alerts and warnings from the [organisation] by email and even by text and many councils do that anyway so the chances are before we have our faxes out that they will already have had a heads up on the problem. (UK9)

Regulators agreed that it is important to avoid unnecessary fear when communicating reactively with consumers during a food incident, however how this can be done was not clearly defined:

I actually think we just need do our jobs well and I think what we – communication in many respects is the key - tell it all, tell it now – because if you’re ever seen to be hiding anything God, you’ve shot your credibility. But what you’ve got to be careful about is in telling it all, telling it now, is not being overly – not to frighten people so there’s actually a fine balance there. (AU2)

These examples demonstrate the ways in which regulators may use a reactive approach to communicate with consumers in times of a food incident.

Strategies used for proactive communication

Regulators also identified proactive communication strategies. One UK food regulator highlighted that forming relationships with media proactively fosters better relationships to assist when there is a need to distribute a reactive (urgent) message:

We do [work with the media]..... for the day to day news, we need to establish a relationship with all of the key correspondents and commentators that will come to us. So we recognise that we can’t choose them but we need to identify those who are influential and who will be of use to us and establish some sort of relationship with them....that they know us and we know them so there is an established relationship, certainly at the organisational level and increasingly at the personal level now. (UK7)

Food regulators discussed strategies within their organisations that enabled them to communicate with consumers about food safety on a day to day basis. For example, at one organisation proactive communication was achieved through a committee that focuses on consumer engagement and communication. At another organisation, day-to-day, proactive communication with consumers was achieved through organisational websites and social media:

Clearly through our various mechanisms consumers can easily see what we do. They can express a view on what we do and they can participate in our decision-making processes in terms of consultation and those sorts of things. It's a very open and transparent system of engagement and, as I said, there are no secrets so consumers have access to all the information that we have when we go about making our decisions. (AU3)

Proactive communication was further described as taking opportunities to promote the work of the organisation when possible, for example through social media or other situations, such as a radio interview on topics related to food safety:

Regularly communicating...., so with social media, have sort of regular – not so that it becomes boring but regular posts about 'do you know where to go if you've got a food complaint?'it's like about open windows so wherever the opportunity presents itself. So I might be doing a radio interview about whatever, let's say use by dates, and I will somehow weave into the conversation who does what in the food system. (AU7)

These examples demonstrate the varied ways in which regulators may use a proactive approach to communicate with consumers about food safety outside times of a food incident or crisis.

Regulators' views on consumer understanding of regulator roles

In addition to finding out how regulators communicate with consumers about food and food incidents, a second purpose of this research was to identify regulators' perceptions of consumers' understanding of their role. Consumer willingness to accept and act upon food risk information is dependent upon the perceived credibility of the source which is related to the competence of that source, trust in the source and goodwill (Westerman et al., 2014). Potentially, whether or not consumers listen and act on messages from regulators could be influenced by whether or not they have an understanding of what they do.

Regulators reported that that consumers do not know or care about food safety until something goes wrong and this attitude impacts how regulators communicate with consumers about food safety incidents. That is, whether or not regulators engaged in reactive or proactive communication was influenced by their views about how consumers understood their role. For example, if regulators did not think that consumers understood what they do, then they were more likely to favour the use of reactive communication.

Regulators interviewed reported that generally, consumers do not know or understand the specifics of the role of regulators. For example:

In general I think consumers know that we are the standard setting body. [They] may not really know exactly what we do but they know that we have food standards, yeah, but whether they fully understand how it all comes together and what role we play in food regulation – maybe it's to them, they don't need that level of detail. They just mainly would know, I think, of the recall part of it because that's the one that really impacts and they see the signs at the shops and stuff like that. (AU4)

Another said:

I think on the whole they know who we are. I think the level of what we do, I think that's unclear. I think we're just seen as the – we go round and check for rats and rubbish, I think. I think that's the perception of consumers generally, that we go round in white coats and ask questions and close premises down and that's it, sort of thing. (UK5)

Regulators presented differing opinions about whether there was benefit associated with consumers having an understanding of the role of regulators. First, we present benefits identified by regulators in consumers understanding their roles and second, we present reasons identified by regulators that do not confer benefit.

Benefits of consumers understanding the role of regulators

Some regulators identified benefits of consumers understanding their role. Regulators interviewed said that the lack of understanding of consumers about what regulators do could make proactive food safety communication more difficult. This is because for consumers to really engage with a proactive approach to regulation – which involves taking

on information even when it is not vital for health to know it at that point in time – it will help if consumers know why regulators are telling them that information. For example, one regulator said it is important for consumers to know what regulators do because this enables a proactive approach that will help when and if anything goes wrong:

Oh most definitely. Yeah, very important that – I mean they're part of the program as well as it sort of promotes us as a service because a lot of people might not know we even exist until they've got a problem, but if the stickers are on the door they can see, yes, council does have a role in food safety and food hygiene and it becomes a bit more in the consumers' face and they become a bit more aware that, yes, we're out there; yes, we're doing a job and, yes, you can come and talk to us about these sorts of things if you need to. (AU10)

Another regulator said that if consumers understand regulators' roles then consumers are more likely to take food safety seriously and have a better understanding of the appropriate risk:

I reckon that we should do more about educating people about the processes because I think that there's a degree of complacency. You know, there's an issue at the moment with raw milk... it's about making sure that people understand why these things are in place and that the risks that there are – that are inherent if this sort of regulation is not put into place and the reason that we have pasteurisation and homogenisation is – that there's good reason for that and it's not about depriving people of the pleasures of making fancy cheeses from raw milk. So I think that – you know, earlier generations have appreciated that because they knew what

the risks were, you didn't have to educate them, but the current generation have to be made aware of the risks if those protections were taken away. (AU17)

Another benefit of consumers understanding the role of regulators was that it may assist regulators to do their jobs:

...if they don't know what we do - you know, the consumers are our biggest eyes and ears. One of my officers will go into a business for an hour, maybe two hours at most, to do an inspection, look around and that's the snapshot they get of that business for the next year or 18 months. You think of all the hours of open trading and what goes on, actually what we rely on are the consumers and residents of local areas to go 'hang on a minute, last Sunday I saw somebody loading some carcasses into a van at three o'clock in the morning down by some railway arches; what was going on there? (UK3)

Another said that knowledge of what regulators do is becoming more important with the changing needs of consumers, for example it is especially important for consumers with special dietary needs, such allergies:

I'm not sure they all do know much about us and I mean obviously we'd like them to know because we'd like to be the first port of call, you know, to go onto our website and look at stuff. For example, we do a lot of work on allergies and we do a lot of allergy alerts, which is where we alert people to the fact that food which is supposed to be safe, you know, gluten free and by mistake has got gluten in it. (UK2)

Clearly, regulators in this study identified a number of benefits to consumers understanding what they do, including enabling regulators' engagement in proactive communication.

The need for consumers to understand the role of regulators is limited

On the other hand, others presented views that there is only a limited need for consumers to understand the role of regulators. One participant said that consumers only need to know what regulators do in times of a food incident, reinforcing the reactive communication approach:

I guess in their day to day lives it doesn't really matter that they know but when it does - when it is something like a food complaint we're constantly explaining our role and the role of the states and territories in food regulation and food complaints.

(AU12)

However, this approach suggests that the fact that consumers don't know what regulators do means that regulators have to spend more time explaining their role in times of a food incident to justify their involvement and get consumers to listen to them, which takes time away for the communication about crucial issues. This could be avoided if proactive communication was favoured.

Other participants said that it is useful for consumers to know the basics – such as that there are systems in place – but anything further than that is not necessary.

I think what the public needs to know is that there are effective mechanisms in place to make sure industry is aware of its responsibilities to produce safe food and the

system's there to verify that they're doing what they're supposed to be doing.....the public needs to know that there are deterrents in place for poor performance and that governments are taking action when they find serious issues which could potentially impact on public health. (AU20)

However, it was also acknowledged that the changing needs of consumers might change the perception that consumers just need to know that there is a system in place that is working, and nothing else:

I know previously our results in that area have suggested that consumers just want to know food is safe. They don't necessarily want to be involved in the way that it comes to be safe. That said, it's changing. We have more savvy consumers that want more and more information about what they're consuming, where it's come from, things like that, so it wouldn't surprise me that the mentality has changed a little bit more and they would like to know more rather than less and who is doing this. (AU26)

This suggests that the amount of information consumers need to know about the role of regulators may be based on their own individual needs and situations.

Discussion

This paper identifies strategies used by food regulators to communicate with consumers about food safety and food incidents. Regulators were found to use a reactive communication style, whereby regulators communicate with consumers about food safety

primarily in times of crises, and/ or a proactive communication style, whereby they communicate with consumers outside times of crisis, with the view to form relationships to facilitate easier reporting when reactive communication is necessary. The majority of regulators interviewed in this study thought that consumers do not have a good understanding of what food regulation involves. Some regulators said that there is only a limited need for consumers to know what regulators do, for example during a food incident, so that they listen to and act on the messages communicated by regulators. Other regulators said that there are benefits of consumers knowing what regulators do on a day-to-day basis. Benefits include consumers being more likely to take food safety seriously and having an understanding of the appropriate risk. Further, consumers can assist regulators to do their jobs. This knowledge appeared to be especially important for consumers with special dietary needs who may need to be more aware of food regulator messages, such as allergies.

Previous research suggests that consumer awareness of regulators is low because regulators mainly liaise with stakeholders who are not consumers (for example the food industry) (Walls et al., 2004, TNS Social Research, 2008). However, because regulatory agencies have a large role in responding to crises, there is real potential for regulators to be firmly in the public eye during these times (Walls et al., 2004). One study assessed consumer awareness of the role of one specific regulator; while few participants reported having direct experience or contact with this regulatory organisation, many were aware of it through secondary sources such as the media or personal contacts (Walls et al., 2004). The same study found that when consumers do not know much about an organisation, consumer perception of that organisation is more open to change for the worse based on adverse

events (Walls et al., 2004). Therefore it would seem that having an understanding of what government agencies do, including food regulators, helps to protect reputation in a time of crisis.

Communicating effectively with consumers about food risks is important (van Dijk et al., 2008) Consumer willingness to accept and act upon food safety information is dependent upon the perceived credibility of food regulators' messages which is related to trust and goodwill (Westerman et al. 2014). Trust and goodwill arise from empathy; competence; honesty and transparency; commitment; and accountability all of which require an ongoing commitment to communication (Chapman et al. 2014), through using proactive communication strategies.. Evidence shows that proactive behaviour by regulators through providing information about what is being done to identify, prevent and manage food risks and presenting consistent information about preventative programs and enforcement elements is a particularly effective method of communicating with consumers (Cope et al., 2010). Consumers have shown a preference for risk management strategies for food safety that are communicated regularly (Cope et al., 2010). Van Kleef et al (2006) who found that directing efforts towards preventing food incidents was preferable when compared to a reactive approach by both experts and consumers. Proactive communication can involve information not only about what the risks are, but also about what is being done by regulators to reduce these risks, (van Dijk et al., 2008).. Proactive communication with consumers increases consumer confidence in how food risks are managed by food regulators (Van Kleef et al., 2006) through increasing awareness on what is being done to avoid or reduce risks (Van Kleef et al., 2006). However, the provision of information to consumers, whether it be through proactive or reactive methods, must be tailored to consumer need, because of the presence of 'information

overload' (Van Kleef et al., 2006) which means that people won't necessarily take information in (Ward, 2010, Meyer et al., 2014).

Participants in this research said that the media have an important role in getting a message out to consumers during a food incident, when regulators use a reactive approach. This is supported by previous evidence about the important role of the media in reporting food scares (Henderson et al., 2014) and other health-related events (Gollust and Lantz, 2006, Hilton and Hunt, 2011, Gollust, 2012). This study highlighted relationships developed with a media actor, during times of non-crises. These relationships may assist in reactive reporting during a food incident.

Despite some regulators in this study reporting that an understanding of what regulators do can enable a more proactive approach to food regulation, most regulators interviewed said that consumers do not know what the role of a food regulator is (with some exceptions of consumers with allergies). Lack of consumer knowledge has important implications for food regulators. Our data suggest that knowing what regulators do is likely to enable regulators to engage more proactively with consumers through ongoing communication about food safety issues. Regulators are under the assumption that consumers do not know the active role they play in maintaining consumer safety. From the perspective of the regulator, this is a barrier to proactive communication. If consumers do not understand that the risks do exist, but are mitigated by the regulator, they are unlikely to take note of the messages being promoted.

Proactive communication can re-sensitise consumers to food risk. Some of the regulators in this study said that proactive communication could assist with making food risk visible again. This can be seen in the regulators' discussion of allergy data. That is, the regulators said that for those with allergy, it is important that consumers have a greater understanding of what regulators do. Perhaps the need for there to be a proactive role for the regulators of the future will come from the increasing number of consumers with complex food needs. In previous research, consumers with a food allergy were found to be more negative about the safety of food within their own homes (De et al., 2007). If a major food incident occurs which jeopardises consumers' trust in food, it is important that consumers seek information from a credible source. Proactive strategies enable awareness of regulation making the seeking and acceptance of information from food regulators more likely.

Conclusion

This study presents regulators' views on how to communicate with consumers about food safety, and consumer understandings of the roles of food regulators. It provides insight into how regulators can most effectively communicate food safety messages to consumers with the view of reducing food safety related morbidity and mortality. In future research, it is vital to interview consumers about their ideas, because previous research has identified differences in consumer and regulator perceptions (Cope et al., 2010). The optimal approach to consumer risk communication has been shown to vary by country, and therefore it is important to take cultural differences into account when communicating with consumers about food safety (van Dijk et al., 2008). In this study, we did not find any differences between the perceptions of regulators from Australia, NZ and the UK. This study tells us that regulators have well-developed ideas about how they communicate with

consumers about food, and whether or not they think consumers understand their roles. This research adds to knowledge exploring regulatory actors' perceptions of what consumers think, which clearly influences their work. However, future research is needed to clearly identify whether the perceptions regulators' have about consumers presented in this paper match what consumers actually think and do.

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^[i] Interview identification system with 'AU' indicating Australia, 'UK' United Kingdom and 'NZ' New Zealand