**ESRC AMR Project: Phase 2 Interview Questions Template**

Overview of our project and introductions. Contact details.

The project focusses on chicken and pig supply chains (within the UK and internationally) to begin to explore the challenges to, and roles and responsibilities of, retailers in tackling AMR. This is an emerging field and in order to deepen our understanding of the challenges we are looking across supply chains to find out how the multiple actors from farm to shelf negotiate and communicate to enact change across food systems. To this end although we are interested in antibiotic usage / animal welfare, we are also keen to learn how other factors such as consumer expectations and carcase balance, or the demands of retailers or government agencies influence and interact with possibilities for change. Our questions fall into 5 key areas*:* 1. How AMR has emerged / is emerging as relevant to business practices in different supply chains and at different nodes across supply chains. 2. What standards, programmes and targets are being worked with and why. 3. The Implementation of Antibiotic Stewardship Programmes across International Supply Chains. 4. The Role of Data Collection for Risk Management. 5. Engagement and Training.

Consent to participate, consent to be recorded, consent to take photographs (if appropriate), consent for transcript (if appropriate) to be placed in UK Data Archive, consent to anonymise and publish. Right to withdraw up to publication. Data security.

A. ORGANISATION OF SUPPLY CHAIN

A1. To help us gain an understanding of the scale of the challenges, before discussing AMR, could you tell me roughly how many farms are you working with directly / indirectly in each sector? And how many animals annually?

[Probe: deal with them directly or indirectly? How are they audited?]

A2. What proportions of the farms and /or animals are from the UK / elsewhere?

A3. Which parts of the supply chain are under your direct or indirect control? Are there other companies responsible for particular parts of the chain? Do you own / buy the animals or are they supplied to you?

A4. Tell me about your markets and customers [if they are open to this]? Which retailers do you supply? Other customers (e.g. fast food chains)?

[Probe scale of this business, including volumes and value of product].

B. FRAMING & MANAGEMENT OF AMR CHALLENGES

B1. In terms of the emerging AMR problem, how has this presented itself to the company? So, legislative changes, data collection and surveillance, on-site practices, pressure from retailers…

B2. How are the roles and responsibilities for managing AMR organised within the firm, and how do these relate to the position of the firm in pork/poultry supply chains?

B3. How have your corporate responses to tackling AMR evolved over the last couple of years?

B4. Do you have any examples of challenges and their solutions within the different supply chains?

B5. Are there differences between how you approach overseeing UK and international supply chains? Are there are any countries that you feel have particularly good systems in place? Why?

B6. Do you expect to see changes in your supply chains for poultry and pork as a result of Brexit? What might be the advantages or challenges of this for tackling AMR?

C. INFLUENCES

C1. What key reports, policies and guidelines on AMR has your company found the most useful in terms of feeding into strategies around AMR? Examples?

[Probe: See what the interviewee raises, but could probe on O’Neill report, as well as FAO/WHO/OIE ‘One Health’. Also probe on their views of whatever is mentioned].

C2. How well do the report suggestions fit with the capabilities of your suppliers and expectations of your clients?

C3. How would you like to see policy and guidelines develop in the UK and internationally?

C4. Where in supply chains do you see blockages to managing any AMR threat?

D. STANDARDS

D1. What standards and programmes (e.g. antibiotic stewardship programmes linked to the British Poultry Council and National Pig Association, Red Tractor and RUMA) is your company working with?

[Probe: possibly on the targets, e.g. 50mg/kg target, Critically Important Antibiotics (CIAs), or withdrawal times, depending on interviewee awareness of these].

D2. Has your company been involved in the development of these initiatives, programmes and standards? If so, how and who? What have been their experiences of the processes?

[Probe: What do you feel have been the key factors in the trajectories of the different initiatives and standards? Scientific evidence or other formal influences / power relations?]

D3. What influence does your company have in making sure these standards and programmes are implemented in practice.

[Probe: sensitive issues of implementation costs and who carries these]

D4. What differences are there to make to managing standards and responsibilities across the different supply chains?

D5. What differences are there to make to managing standards and responsibilities for animals from different countries?

D6. What data is generated from the standards and programmes? Do you share this with retailers?

D7. What are your views on how well these standards and programmes tackle AMR, and what would you like to see in terms of developments?

[Probe: Do you foresee any potential animal or staff welfare issues with the ways targets are currently structured?]

D8. Have you encountered problems in AMR awareness or commitment at any points in the chains?

E. IMPLEMENTING STANDARDS/INITIATIVES IN THE SUPPLY CHAIN

E1. Have you encountered problems in AMR awareness or commitment at any points in the chains?

E2. Have different approaches or interventions been necessary within pig and poultry supply chains?

E3. Much of the focus to date has been on ABU on farm. Thinking beyond the farm, what other strategies and practices are relevant to containing the spread of resistance? How have these changed in recent years?

[Probe: traceability; transport; cleaning; processing…]

E4. The focus of this research is primarily on the responsibilities of retailers in tackling AMR, in what ways do you feel retailers are well-placed to tackle AMR and which less so?

E5. In what ways do the expectations and practices of retailers help or hinder the management of AMR risks?

F. RISK MANAGEMENT AND DATA

F1. What sorts of data about ABU, or otherwise relevant to AMR, are you collecting (or asking suppliers to collect), for what purposes (e.g. standards) and shared with whom (and how)?

e.g. i. AMU Quantity / Types / Proportion of Animals Treated / What for

ii. Biosecurity Mixing Stock, Movement of Staff, Visitors & Equipment, Wildlife…

iii. Hygiene Routines & Schedules

iv. Environment Streams, Soil etc.

v. Feedstuffs Supply, Storage

vi. Abattoirs Separation of stock, cleaning practices,

vii. Further processing Traceability, line management…

viii. Shipping Separation of products, storage conditions, cleaning practices.

F2. How important do you feel data collection is for understanding and tackling the AMR problem? Where do responsibilities sit?

F3. Do you map/model AMR risk in your supply chains?

F4. Where are the divides between your responsibilities and the responsibilities of other actors in the different food chains?

[Probe: What are the different roles of you as the processor, but also retailers, farmers, vets, shipping companies, packing companies within all of this?]

F5. Is there data you would like to i. have access to but don’t? ii. be collected but isn’t?

G. AWARENESS, ENGAGEMENT & TRAINING

G1. Who are your key target groups for raising awareness about AMR?

[Probe: staff, shareholders, suppliers, clients]

G2. How have you gone about this? Challenges? What materials would you like to see produced? Why?

[Probe: Are there any awareness or education challenges thrown up by seasonal work in food and farming]

G3.Do you feel there is a need for consumer education about the AMR challenge? Why? How?

[Probe: What needs to change in consumer expectations / shopping and cooking practices if the AMR challenge is to be tackled?]