

Question	Prompts for facilitators
Part 1	
<b>Discuss in your groups: What questions might genomics help you answer? (5 mins)</b>	<ul style="list-style-type: none"> <li>- Identify resistance mechanisms</li> <li>- Is there likely local transmission or repeated introductions from overseas?</li> <li>- Is there suspected intra- or inter-hospital spread?</li> <li>- Is there potential environmental acquisition?</li> <li>- Are there any particular focuses of transmission (wards etc.)?</li> </ul>
1. What do you need to consider before starting? <ul style="list-style-type: none"> <li>• Think about enablers &amp; barriers</li> </ul>	<p>Consider:</p> <ul style="list-style-type: none"> <li>- Governance and data/sample sharing, especially inter-hospital</li> <li>- Politics -&gt; Particularly in high-capacity settings, tensions between hospitals, public health labs</li> <li>- Capacity &amp; resources (laboratory, surveillance, response)</li> <li>- What data might be available and in what format (patient movement data?)</li> <li>- Who needs to be involved?</li> <li>- Who would perform testing and sequencing?</li> <li>- Do all hospital labs have capacity to reliably identify relevant cases?</li> </ul>
2. What data do you want to collect and why?	<p>Consider metadata. Questions around importation, local transmission and inter-facility spread may require patient movement data, travel history.</p> <p>Clinical history to quantify burden. AST and phenotypic results?</p> <p>Are these data likely to be available? Who would collect them?</p>
3. What samples would you sequence and why?	<p>Consider objectives and capacity.</p> <p>Only hospital, or community too? Environmental sampling?</p> <p>More comprehensive sequencing possible in high capacity setting, but likely don't know the number of cases now, so consider having a strategy as numbers become apparent.</p>
4. What types of analyses might you consider?	<p>We haven't gone into detail about analysis, so only broad.</p> <p>Consider characterisation (reference databases) &amp; transmission (phylo, clustering etc.)</p> <p>Do they have what they need to do this?</p>
Part 2	
1. What would be the key objectives of CR-Ab surveillance?	<p>Consider scope – is this a national system, or local/facility-based?</p> <p>In high-capacity, consider :</p> <ul style="list-style-type: none"> <li>- active surveillance for colonised cases,</li> <li>- real-time/sensitive outbreak detection, and</li> <li>- more research-focused questions like identifying new resistance mechanisms.</li> </ul> <p>In moderate-capacity, high prevalence and limited response capacity may hinder ability to do sensitive outbreak detection, may be more about:</p> <ul style="list-style-type: none"> <li>- monitoring characteristics over time,</li> <li>- identifying high-risk groups/settings for interventions,</li> <li>- monitoring effectiveness of infection control programs (e.g. changes in circulating strains).</li> </ul>
2. How would it interact with existing	<p>No right or wrong here, but consider:</p> <ul style="list-style-type: none"> <li>- Notifiable diseases / public health surveillance capacity</li> <li>- Existing AMR surveillance systems</li> <li>- Relationships between stakeholders</li> </ul>

surveillance systems?	<ul style="list-style-type: none"> <li>- Regulation and data-sharing mechanisms</li> </ul>
3. Would you incorporate genomics into your system, and if so, how?	<p>Hopefully yes for both, but please ask them to consider:</p> <ul style="list-style-type: none"> <li>- Sampling strategy</li> <li>- How genomics can be used to support stated aims.</li> </ul> <p>Settings will likely differ on sampling strategy. Suggest more comprehensive for Country A, for sensitivity to outbreak detection.</p> <p>Consider if targeted approaches, periodic monitoring could be appropriate.</p>
4. What are the data and sample flows?	<p>Please map on butcher's paper.</p> <p>Try to include:</p> <ul style="list-style-type: none"> <li>- How data gets back to end users / decision makers</li> <li>- What data are included</li> <li>- Who is responsible for aspects of the surveillance program (testing/analysis/response)</li> </ul>
5. What are the key challenges you would need to address?	<p>Setting description should provide some things to consider, such as:</p> <ul style="list-style-type: none"> <li>- Governance and collaborations</li> <li>- Resources</li> <li>- Response capacity (IPC / Public health)</li> <li>- Representativeness, especially in the moderate capacity setting, where micro access might be more limited</li> <li>- Politics, particularly in high-capacity settings, tensions between hospitals, public health labs &amp; increasing access to genomics outside public health system risks fragmentation of data.</li> </ul>