Questions submitted via the webinar and kindly answered in writing by Dr Amal Al-Maani after the webinar

1. How is the Antimicrobial Resistance observed in Microbiology labs reported to GLASS?

This is monitored internally in each organization by qualified fully trained and full time microbiologist who sign every report with positive culture and AST. The Central public health laboratory observe the quality assurance for enrolled sites and there is requirement for sending 10% of cultures annually to CPHL for confirmation. The antibiogram generated for OMASS report is reviewed by CPHL bacteriology unit and the microbiologist from enrolled sites before publication.

The process is detailed in our annual OMASS report which can be accessed in the MoH website or through my researchgate webpage;

https://www.moh.gov.om/en/web/directorate-general-of-disease-surveillance-control/polices-and-guidlines

https://www.researchgate.net/publication/337244238 Oman Antimicrobial Resistance Surveillance System Annual Report 2018

2. I will like to know if the IPC focal persons in the health facilties and the subnatioal levels work on IPC full-time.

Yes they are

3. I am interested with Code of conduct IPC. How is this monitored at health facility level?

The infection control committee in the facility is taking the monitoring role for the organization and at national level it's the national infection prevention and control department

4. Outside of AMR surveillance in hospitals, how did you set up AMR surveillance in communities?

For the human health part; the communities are covered by primary health care centers which for each region provide in addition to acute care services community programs (school health, ANC, EPI, IMCI, mobile community health care program –ect). The sentinel hospital labs included in OMASS for each region also cover the primary care centers and site where sample was collected is identified. For the antimicrobial utilization those centers data are also generated from their pharmacy which operate by same national medical record system.

what is about IPC through animal and fishery in OMAN

For the time being our department covers the periodic training for veterinarian hoping to have more sustainable IPC services in future as part of one health.

6. Dr Amal Al Maani, you mentioned behaviour change strategies, could you give an example of these challenges and interventions?

Sustaining hand hygiene compliance rates in the health care facilities is an example and building multimodal strategy for intervention that includes understanding of cultural compliance driving factors is important as we did with be a hand hygiene role model national project which I have mentioned in the webinar.

7. The software that is monitoring the organisms that are now being monitored nationally, does it collect data from the laboratories or from health care facilities?

It is the same medical electronic system used national wide as in the health care facilities and it collects data from facility laboratories. The process is detailed in our annual OMASS report which can be freely accessed in the MoH website or through my researchgate webpage; https://www.researchgate.net/publication/337244238 Oman Antimicrobial Resistance Surveillance-Control/polices-

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8. Was it difficult to standardise the system used to collect data in all your health care facilities?

It required adapting the standard reporting system at a national level and writing those standards and training all laboratories on it which took time but was worth it

9. Can you please describe what is the dissemination plan for IPC annual report? Is it publicly available, do you share it among health care providers, do you make dedicated meetings to present the highlights of annual report?

The report is at national level and each organization have their own report. It is not publicly available. We do present it in our public health meeting and send it to the Minister, undersecretary, quality department, directors of health services in the districts and hospitals.

10. Do you have certified programs for IPC specialists in the country? And if yes, what is the duration and who can complete it? Thank you for great presentation

We have 2 years post graduate diploma for nurses but not yet for other health professions

11. as you mentioned, surveillance was your first step, what were the aspects considered in surveillance, pathogens, AMR genes. Can you tell more about data sharing for surveillance, did you have a National database?

The process is detailed in our annual OMASS report which can be freely accessed in the MoH website or through my researchgate AMR project webpage; https://www.moh.gov.om/en/web/directorate-general-of-disease-surveillance-control/polices-and-guidlines

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12. How many hospitals in Oman? and how many staff in the MoH for IPC? And how many of the hospitals are involved in the AMR activities mentioned?

We have 11 secondary care hospitals (one in each governorate) and 4 tertiary care hospitals in the capital area (Muscat). The central department have 5 full time infection preventionists and each facility have 1-2 full time IPC staff and yes all are involved in AMR activities.

13. RE: OMASS, what % of hospitals are reporting their ID/AST results? And are all non-duplicate ID/AST results reported or is it only reference lab data that is reported?

We have now 7 labs from the secondary regional hospitals (representing highly populated governorates in Oman) and 2 tertiary hospitals from capital area. The data is reviewed centrally and duplicates are removed . The process is detailed in our annual OMASS report which can be freely accessed in the MoH website or through my researchgate AMR project webpage; https://www.moh.gov.om/en/web/directorate-general-of-disease-surveillance-control/polices-and-guidlines

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14. Is data shared with all participating hospitals to provide a basis of comparison among Omani hospitals and healthcare providers?

Yes

15. With training of healthcare workers, is it only nurses or all health professionals such as allied health, radiographers etc? And is this only for in-service training or pre-service as well?

All health care professionals including students and its pre-service with renewal every 3 years.

- **16**. At country level, has there been coordination with animal health agency, with increasing zoonoses? How was AMR surveillance done in animals (livestock and wildlife).
 - There are working committees with the animal sector but unfortunately the progress in surveillance from that part is very slow and limited to occasional clinical samples
- 17. Question to Dr Al-Maani: Well done to Oman! I'm so impressed. Is your HAI surveillance mainly laboratory based and do you focus on all types of infections?
 - Thanks. The HAI surveillance is not yet unified and each facility is doing it according to their risk assessment and capacity. There is work going on now to standardise it as electronic reporting system so that health care worker them self-report HCAI and IPC will take role of monitoring, confirmation and data cleaning and analysis.
- 18. Great talk about Oman experience thank you. Could you comment on whether and how you involve patient advocacy groups in senior national or governmental committees on IPC / AMR please? And if it has been useful.
 - Some hospitals have included community influencers in their IPC committee or AMS committee and we have utilised some famous media personnel in our awareness campaign which is useful yes but the impact is not sustained unless they devote themselves to this matter.
- 19. Excellent presentation thank you for sharing the Oman experience. Are there any incentives for facilities to improve their IPC program? And how do you hold them accountable at the national level?
 - The recognition of their performance during national meetings and in HH celebration day or patient safety day. The accountability comes for knowing that the progress and gaps are monitored at central level and through working as one team with focal points and having regular meetings and sharing of experiences, challenges and support from central team. During outbreaks and intense work we do go to the facilities to work hands on with our colleagues there which empowers them a lot and eases the overwhelming part of situation.
- 20. Really excellent presentations! I have one question: what information system for IPC surveillance do you use? is it linked to the AMR information system?
 - It's the same medical record system for hospital and yes, we use the same platform for AMR.