Breakout Group D:
Assessing Biosafety Training Needs in Low- to Middle-Income Countries

All of us in Group D1

Mary / Andrea

Questions

1. What are the minimum/appropriate biosafety training requirements (in terms of content and duration) for each health care cadre (including laboratorians and auxiliary cadres, such as, cleaners, drivers, morticians) given the challenges with varied literary levels, training time, internet access, etc.)?
2. What existing biosafety trainings have been developed that are specific for to low- to middle income countries? Is there evidence of their success with regard to: local acceptance, practicality, and effectiveness? What lessons learned can we capture from existing training tools that have demonstrated impact?
3. What existing training tools can be readily adapted to low- to middle income settings?
4. Given the number, geographic spread, and diversity of roles of people needing biosafety training, how do we reach them in a way that is practical, feasible, affordable and timely? What are the barriers to effective delivery of suitable training?
5. What biosafety *pre-service** curricula for laboratorians has been developed, implemented, and evaluated for low- to middle income countries? This training addresses long-term training needs

WHAT!?

Summary

- **Question 1. What are the minimum/appropriate biosafety training requirements (in terms of content and duration) for each health care cadre (including laboratorians and auxiliary cadres, such as, cleaners, drivers, morticians) given the challenges with varied literary levels, training time, internet access, etc.)?**
- Before you can say you need training:
  - Need to understand the baseline culture of safety
  - What are the drivers to help change behavior in the setting (e.g., biggest driver is how much $ will be made)
  - Understand the political and socio-cultural environment → ensure that trainings are flexible to changes in political and socio-cultural aspects
  - Need local buy-in (e.g., MOH, champions at the top to filter down to a programmatic level champion – to be the consistent driver of change, sustainability, change)
  - Need to be on the ground
- Need to integrate biosafety as a holistic concept in laboratory safety
  - Comprehensive approach – linking biosafety to infection control, waste management, sample transport, diagnostics, surrounding environment
- Trainings need to be tailored to the various user levels, with uniform messages across the difference groups that are impacted by bio-safety
  - Need to ensure the right people are being trained
  - Track for non-lab personnel, lab personnel (different tracks of training based on risk involved in the type of work they are doing), managers, contractors outside the institution, patient and family messages
- Know what guidelines should be followed (in-country, international, etc)
- Trainings need to be hands-on rather than theoretical
- Trainings should come down to fundamental principles
  - Consider engineering of buildings
  - Patient/clinical manager flow
- Trainings should have periodic evaluation of competency; opportunity for refresher training and training new health care workers as a result of high turnover
- Implement a pre-training assessment to know what the baseline is
- Need a champion that would look at specific areas and will come up frequency of refresher programs, departmental SOPs
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- **What biosafety *pre-service** curricula for laboratorians has been developed, implemented, and evaluated for low- to middle income countries? This training addresses long-term training needs**
- Put key elements of laboratory services into pre-service training
- Need to put together a training framework that could be scaled-up as new job categories come in.
- Going into position with documentation (sops)
- Pre-service depends on how much resource that you have. Developing a training matrix with basic training first based on what needs to be offered first based on customer. Once into the job, doing ongoing hands-on training with mentorship – this can't be taught by biosafety professional. A responsible officer. Training from outside can be infused into that officer.
- Need a bio-risk management program – what is the chain of command, what SOPs exist, how people should be trained. Doesn't need to be complicated. It will take time and won't be just one training. One key part is figuring out the needs, the culture, the local rules that you need to follow (WHO, in-country, CDC guidelines? And what are the requirements), what are the local rules of the funding agency. Need to know all of this before you begin.
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- Anything you do has to be local, practical and sustainable.
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- **Given the number, geographic spread, and diversity of roles of people needing biosafety training, how do we reach them in a way that is practical, feasible, affordable and timely? What are the barriers to effective delivery of suitable training?**
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- **Issue with geographic distribution of staff and people that need the training. How do you push training out to more remote areas?**
- Use zones: facilities within a zone can have combined training in one central location
- TOT model → Center of excellence can conduct a TOT and trainings cascaded down to the lower level. Limitation: requires travel resources
- Web-based training → classroom equivalent training online. Trainers have the resources and tools to train other people and tools also available to anyone who is self-motivate. Can video conference in places with internet available. But need to ensure this is twinned with hands-on training.
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- Motivation: linking with certification agencies so people will get CMEs. Ensure it is not restricted to national level, but can be accessed locally through partners. Could be a role of the organizational champion. Online continuous professional development (CPD) – requires annual recertification. Could integrate a module on biosafety
- Influence academia → to integrate lab curriculum
-
- **What existing training tools can be readily adapted to low- to middle income settings?**
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- Currently available biosafety trainings don't have a competency component.
- Ways to evaluate the effectiveness of training (usefulness, applicability).
  - Need for competency score card for evaluating training for all job classes from maintenance staff, nurse, to lab.
  - Facilities also need evaluation to ensure high quality lab services– QMS, certification, etc.
  - Can be sensitive. Think of options that support more open dialogue.
    - For example, instead of grades, could give colors (red, green, yellow). Allowed participants to see where they need to improve, promotes self-inspection.
    - Competency check, quick (10/15 minutes). Could be one item chosen in the month (segmented approach). Hands-on check.
  - Validation inspection (trainees can explain why they think they are green while scorer can explain why they don't think they are green). A chance for dialogue exchange.
    - Letting them know what needs to be corrected and then following up with them to ensure that action has been taken to correct
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- **Sustainable training program models**
- TOT but challenged by different methods of training and teaching skills. Need to also teach them how to train. Usually we look at trainers as persons with technical expertise, but need to engage curriculum developers at the early stage.
- Mentorship programs
  - Different because needs a critical mass and requires commitment/time from mentors. Could use the programmatic champions as mentors
- Laboratory twinning programs. Peer review – instituation to institution – will help to build collaborative relationships
- FELTP model – field based training/mentorship
- Biosafety organization in the region could be used as a training opportunity.
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- Successful training is a continuous process → need refresher trainings, need champion at facility (biosafety officer with proper certification and provision of training).
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- Motivate by scaring! You will be locked out of system…
- Repository where training tools can be accessed

The REAL Questions

- Who?
- What?
- When?
- Where?
- Why?
- How?

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Summary

1. Where are we?
2. Where do we want to be?
3. What are the gaps?
4. How do we roll it out?
5. How do we follow up?
6. How do we evaluate?

Thank you ! ! !