

PALI report

COMMUNITY ENGAGEMENT: Role of fungi in Respiratory Health.

HEALTH PROMOTERS OF KWALE COUNTY.

25TH SEPT 2023

1. BACKGROUND

Brief introduction on the community engagement awareness World lung Day 25/ 09/2023

World Lung Day is an annual event dedicated to raising awareness about lung health and respiratory diseases. This year, our focus is on the often-underestimated impact of indoor fungi on respiratory health within households. Join us in spreading awareness and educating the community about the effects of indoor fungi and how to safeguard our lung health. WHO 2022 fungi priority list was developed due to the emergence of fungal pathogens a growing threat to human health. Advocacy on how Indoor fungi significantly impacts on respiratory health ought to be emphasized. Urban populations spend most of their times indoor thereby predisposing them to potential indoor fungal pollutants. Both children and adults are predisposed, given the similar chances of exposure (Zaleha Md Isa, 2011). Rural-urban migration, and proliferation of high-rise apartments with poor ventilation are now a huge challenge in Nairobi, Kenya. Consequently, increased human activities has heightened the dispersal of fungal spores across different spheres of life (Zaheer Ahmad Nasir, 2014; Olga Ilinskaya, 2018). However, there is limited public awareness and information on indoor fungi contamination in Kenya's urban residential homes. To address this issue, we propose a to organize a one-day event on community engagement initiative aimed at improving the perception and understanding of indoor fungi's health effects in Kenya.

Objectives:

1. To increase awareness among the general population about the presence of indoor fungi and their potential health effects on respiratory health.
2. To provide accurate and accessible information on indoor fungi, including identification, prevention, and potential health risks.
3. To encourage communities to take proactive measures to reduce indoor fungi exposure and improve indoor air quality.
4. To engage local leaders and community influencers in disseminating information and advocating for healthier living environments.

Implementation Plan:

I. Community engagements:

We conducted an interactive workshop in collaboration with local community center that were community health promoters. Trained facilitators from Kenya Medical Research Institute, County government of Kwale, Ministry of Health Kenya were provided with information on the above objectives and effective preventive measures. The Workshop included hands-on demonstrations, group discussion and pre and post questionnaires sessions.

II. Educational Materials:

We Developed informative brochures, pamphlets, and posters in local languages. These materials were distributed during community engagement to reinforce key messages.

III. Digital Outreach: Leverage on social media platforms and websites to disseminate educational content on indoor fungi. Engaged with online communities to share information, answer queries, and address concerns related to indoor fungi and respiratory health.

IV. Involvement of Community Health Workers: Community health promoters. They were key communicators in disseminating information about indoor fungi and its health effect.

Monitoring and Evaluation: Conduct pre- and post-engagement surveys was used to assess changes in knowledge, attitudes, and behaviors related to indoor fungi.

2. PARTICIPANTS' PROFILE

The training participants included Kemri Kwale staff, Community Health Promoters and other stakeholders from different parts of Kwale County.

PROCEEDINGS

Session I: Introduction to Workshop and Objectives



Fig1. Various stakeholders who were in attendance.

The stake holder's engagement was opened with a word of prayer from Juma Ali Hoka in charge of Kombani Madrasa. Olga Mashedi welcomed the participants, and we laid out the objectives of training. Also Dr. Athman Chiguzo, Ag. Deputy Director CVDC Kemri Kwale warmly welcomed the participants, thanked them for sparing time to attend the session, delivered the welcome and the inaugural note and invited Miss. Olga Mashedi to continue with the training whereby she discussed the agenda and called Miss. Sharon Khanguha to set the norms of trainings in detail. She also asked participants to share their expectations and fears regarding training. Pre-training assessment test was taken from the participants through questionnaires.

Training norms were set with consensus from the participants. These were as follows:

- Participants respect each other's' point of view

- Respect the diversity in the group
- Put cell phones on silent
- All participants actively participate in discussion

Session II: Sensitization about fungi and respiratory diseases.



Fig 2: Sensitization on the role of fungi in Respiratory health by Ms. Mashedi Olga.

In this session participants were introduced what fungi is and different types of fungi. Fungi is a group of microbes producing organisms feeding on organic matter which include molds, yeast, mushrooms and toadstools. Common types of fungi were highlighted. There are the useful fungi and the harmful fungi. Indoor air pollution is a major concern with regards to PH in that indoor air is conducive for fungi growth and development. Fungi respiratory allergens include- allergic bronchial asthma, allergic broncho-pulmonary mycoses. Allergy is a disease with many faces that can affect different organs like upper and lower respiratory tract, eyes, intestinal tract and the skin type. Fungi pathogens that were discussed these included *Aspergillus fumigatus* and *Aspergillus flavus*. *Aspergillus flavus* produces aflatoxin which is both a toxin and a carcinogenic.



Fig. 3 One of the Stakeholders engaging on how they understand fungi during the sessions.

The participants were also educated on various methods which fungi adapt in the home environments for example: that fungi can go through cement thus during construction a house or water tanks build using cement should be given at least 21 days before they are used. Water tanks and pots should be cleaned regularly for ease of management.

We had an interactive Q& A session and some the questions a asked the participants some questions which included ***When did they last change their bedding's, carpets, and curtains.*** Some participants answered that ***they only did this during special occasions, others were not aware that curtains, carpets needed to be frequently cleaned.*** Effects of fungi in respiratory system was also explained with the help of presentations and the trainer divided the participants into three Focused groups discussion to discuss on the solutions on how to control fungi at home which included:

1. Reduce water content.
2. Aeration
3. Washing curtains regularly
4. Avoid dampness in homes!
5. Check for leakages.
6. Clean your storage containers regularly.

The three groups were asked to deliver their findings and answers through presentations each group had a group leader to present the discussions agreed upon by the group members.

GROUP ONE: PRESENTER JOSPHAT WANJALA

1. Reduce water content.

- Proper drainage
- Regular Sun drying

2.Aeration

- Ensure rooms are well ventilated and well spaced.
- Regular cleaning of window or curtains
- Practice opening our windows.

3.Washing curtains regularly.

- Wash curtains on weekly basis.
- Change curtains on weekly basis.

4.Avoid dampness in homes.

- Dry any spills.
- Practice ironing.
- Use damp proof course when building.

5.Check for leakages.

- Ensure water pipes are well fixed regularly.
- Repair broken water pipes.

6.Clean your storage containers.

- Ensure you clean and disinfect water tanks regularly.
- Clean and disinfect jerricans regularly.

GROUP TWO: PRESENTER SHARON KHANGUHA

1.Reduce water content

- Regular cleaning of bathrooms/ toilet after use.
- Avoid drying hands by using clothes, curtains or table clothes.

2.Aeration

- Regular cleaning of floor mats and carpets.
- Regular cleaning and changing of beddings i.e., pillows, sheets and blankets.
- Use of fans

3.Washing curtains regularly.

- Change curtains on weekly basis.
- Have more curtains.

4.Avoid dampness in homes.

- Ensure the carpets are dry before putting them on the floor.
- Proper ventilation in the bathroom.
- Ensure windows are wide enough.

5.Check for leakages.

- Water pipes at home should be fitted well.
- Plumbers should design water pipes and water flow at home.

6.Clean your storage containers.

- Sundry storage containers after cleaning.
- Heating.

GROUP THREE: PRESENTER MWATIME MOHAMED MKONGA

1.Reduce water content

- Regular ironing of beddings.
- Heat the House using fire furnace!

2.Aeration

- Have one permanent ventilator when building.
- Wearing loose clothes.
- Hanging or drying clothes outside.
- Construct spacious rooms.

3.Washing curtains regularly.

- Change curtains on weekly basis.
- Have more curtains!

4.Avoid dampness in homes.

- Ensure the carpets are dry before putting them on the floor.
- Proper ventilation in the bathroom.
- Ensure windows are wide enough!

5.Check for leakages.

- Water pipes at home should be fitted well.
- Plumbers should design water pipes and water flow at home.

6.Clean your storage containers.

- Heating.
- Use disinfectants!

After the presentations the trainer congratulated all the participants for the work well done and she added that people should wear protective clothes, depending on the task for example to wear gloves while washing and fumigation. We highlighted proper spacing and arrangement of equipment in the house and that pillowcases should be washed regularly to prevent fungal infection in respiratory system during sleeping. Through this interactive session and group work, it was showcased that fungi can be controlled and thus the main source of respiratory infection will be reduced by 65% when people are completely involved in the process.

7. TRAINING EVALUATION BY PARTICIPANTS



A) Pre-Training Assessment of the Participants

At the beginning of the training, participants were given training questionnaires to share their views about knowledge on fungi. The participants provided feedback by filling questionnaires. This was to shade light on what the participants understand about fungi, its effects to human health and how to control fungi at homes. As per the answers given, the participants knew very little about fungi (See Annex iii pre training questionnaire.)

B) Post- Workshop Trainer's Evaluation Questionnaire

With regards to training, participants shared that training was very helpful and the content and exercises used in training helped them understand the topic and its significance. The participants showed an improvement in their level of knowledge about different types of fungi, their effects on living things and the relationship between fungi and respiratory infections mostly caused by allergens. Participants found the training material to be very helpful and shared that presentations were very easy to understand because simple and easy language was used in the training materials other factors such as time division and topics covered in during the training were well-received by the participants.

Key findings

1. Most participants had never known about Fungi and how it affects the lungs
2. Most of them did not know about the effects of fungi in the households
3. Most did not have knowledge on how to control fungi in households
4. Most did not understand the various ways on how fungi entry into the human body

Feedback from CHPs

i) More days for workshop

ii) invite more people.

iii) allocate more time for training.

iv) use simple English not scientific jargons.

v) use mass media to create awareness and involve provincial administration i.e., chiefs.

C) Trainer's Evaluation

The general feedback of participants about trainer was very positive as majority of the participants fully agreed and were appreciative of trainer's level of knowledge, style and presentation, preparation and research about the topics and the efficient use of training material. Moreover, participants also admired that trainer engaged participants in discussions and encouraged them to raise questions and not only this, his/her overall behaviour towards participants was also good which made it easy for them to learn and understand. While sharing their opinion, participants said that all the sessions were informative and relevant to their area of interest; A rating scale comprising of five scales (Strongly agree, Agree, Neutral, Disagree and Strongly

disagree) was used to evaluate various aspects of training and trainer (See Annex iv Trainer's Evaluation questionnaire.)



8. LESSONS LEARNT AND BEST PRACTICES:

The format of the workshop helped keep it moving smoothly. More interactive sessions and participants views were ensured by the trainers, which helped participants understand training contents. The participants learnt that allergies in human beings are majorly caused by fungi.

9. RECOMMENDATIONS

The participants suggested that when such activity will be planned more time should be allocated to practical sessions on different types of fungi found in homes. During the next training medical doctors should be involved toad is on the medication available in Kenya to cure different diseases caused by fungi to be living things. The training ended at 1300hrs with a word of Christians prayer from Madam Gertrude Mwashighadi and participants went for lunch Break.

: POST- WORKSHOP TRAINER'S EVALUATION QUESTIONNAIRE

Pre-Workshop Questionnaire: Understanding Indoor Fungi and Respiratory Health

Dear Participants,

Thank you for registering for our upcoming workshop on "Effects of Indoor Fungi in Households" in observance of World Lung Day. This questionnaire is designed to help us tailor the workshop to your needs and expectations. Please take a few minutes to complete this survey.

Section 1: Participant Information

1.1. Name (Optional):

1.2. Email Address (Optional):

1.3. Location (City, Country):

1.4. Occupation/Profession:

Section 2: Workshop Expectations

2.1. What motivated you to attend this workshop?

2.2. What specific topics or questions related to indoor fungi and respiratory health would you like to see addressed during the workshop?

Section 3: Current Knowledge

3.1. On a scale of 1 to 5, with 1 being very limited and 5 being very knowledgeable, how familiar are you with the concept of indoor fungi and its impact on respiratory health?

1

2

3

4

5

3.2. Have you or anyone in your household experienced any respiratory health issues that you suspect may be related to indoor fungi? If yes, please briefly describe.

Yes

Not Sure

3.3. Do you have any prior experience or knowledge of strategies for preventing indoor fungi growth in households? If yes, please describe briefly.

Yes

No

Section 4: Personal Goals

4.1. What do you hope to achieve or learn from this workshop?

4.2. Do you plan to apply the knowledge gained from this workshop in your household or profession? Please explain.

Section 5: Additional Comments

5.1. Is there anything else you would like to share or any specific concerns or questions you have related to indoor fungi and respiratory health?

Section 6: Consent for Workshop Documentation

6.1. Do you consent to your responses in this questionnaire being used for documentation and analysis related to the workshop (anonymously, without personal identification)?

Yes

No

Thank you for taking the time to complete this questionnaire. Your responses will help us tailor the workshop to meet your needs and ensure a valuable learning experience. We look forward to seeing you at the workshop!

Warm regards, [Your Organization's Name]