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BIOSAFETY AND BIOSECURITY EDUCATION IN UKRAINE: SITUATION, GAP AND NEEDS ANALYSIS

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04-06 OCTOBER 2014

PROJECT “INTERNATIONAL NETWORK OF UNIVERSITIES AND RESEARCH INSTITUTES TO RAISE AWARENESS ON DUAL-USE IN BIOTECHNOLOGY”

The presented study is a part of this project and devoted to gathering information on the educational opportunities and the current level of awareness on **Biosafety**, **Biosecurity** and **dual-use** in the universities of Ukraine.

METHODS

The “Questionnaire for Educators/Faculty members” was used for gathering information. The purpose of the questionnaire is to assess and develop strategies to increase knowledge and awareness on **biosafety**, **biosecurity** and **potential misuse issues** among the life sciences community.

Any personal information is used for the scope of the Project only and it will not be disclosed to third parties in circumstances other than those described above.

INTERVIEWEES

- 51 people participated in the survey
- All the interviewees come from academic institutions, including 9 life science universities, 10 medical universities and 7 other institutions
- 86,3 % of the interviewees have so far attended workshops or seminars focused on Biosafety, Biosecurity and dual use before current interviewing.

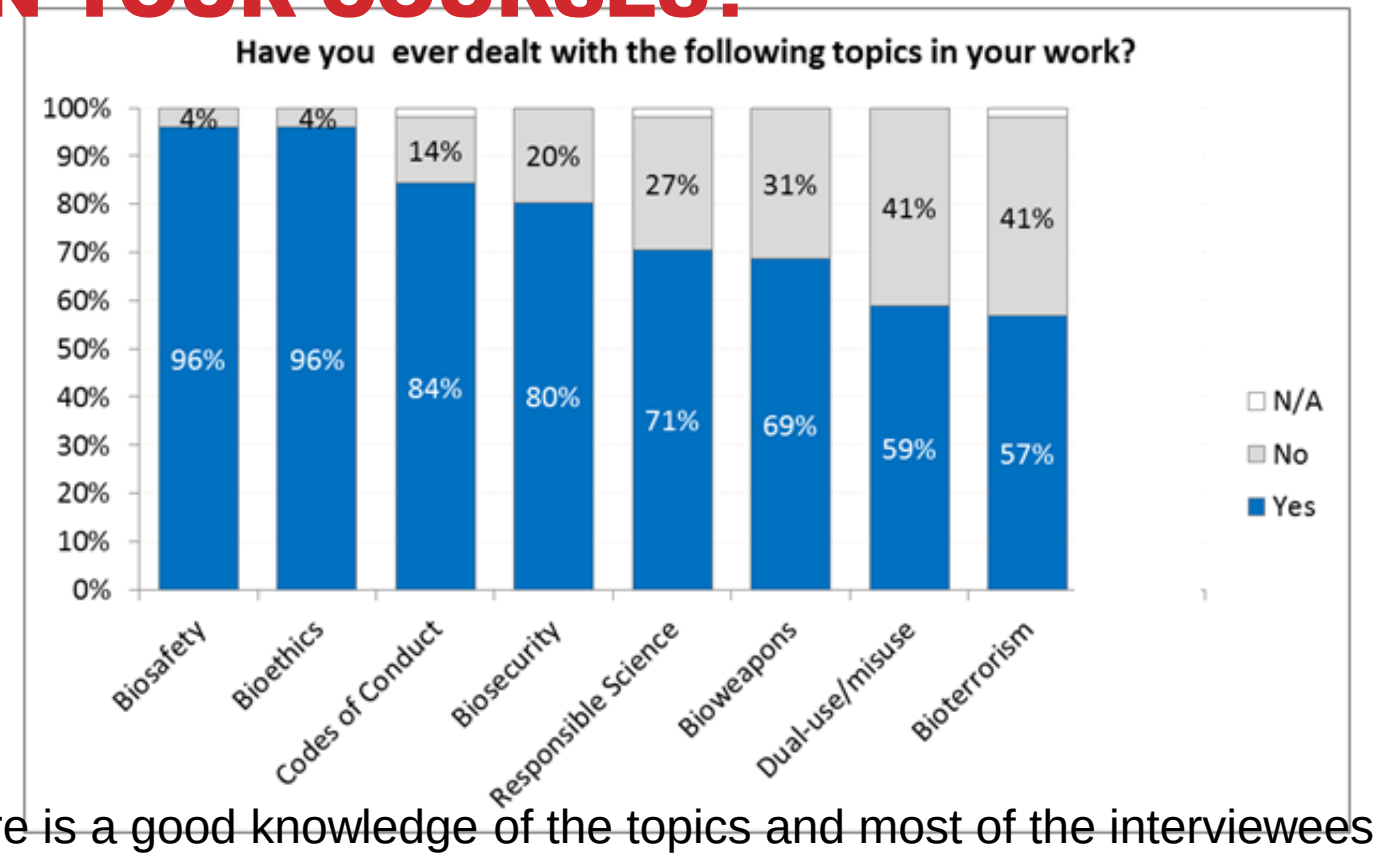
INTERVIEWEES

- The majority of participants are female (38), while male interviewees only amount to 1 fourth of the total
- Almost three fourths of the participants are older than 40 (37% between 40 and 50 and 35% over 50), but there is also a component of younger professors (one fourth is under 40 years old)

INTERVIEWEES

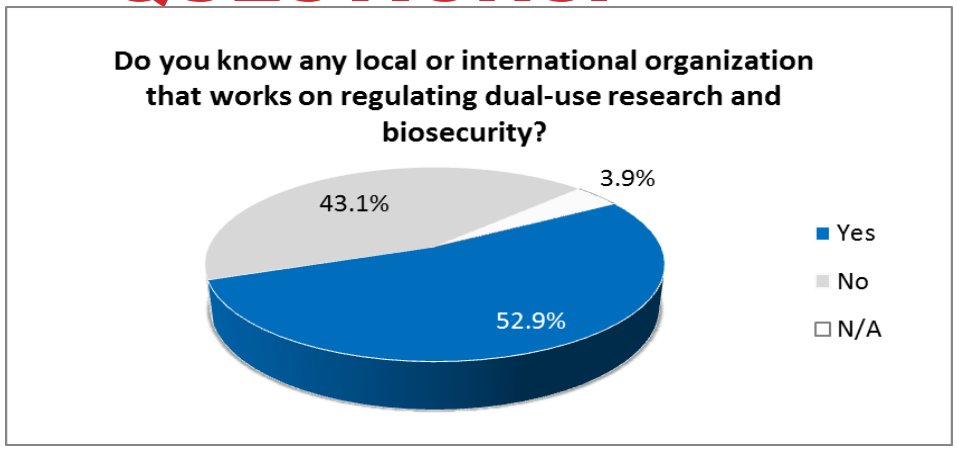
- 23 professors (45% of the total) come from medical universities, 19 (37%) from life science universities, with the remaining 18% of academics comes from different fields of study.
- About half of the interviewees teaches bachelor classes, 35% teaches at master level, only 7% of the total holds doctorate lectures.

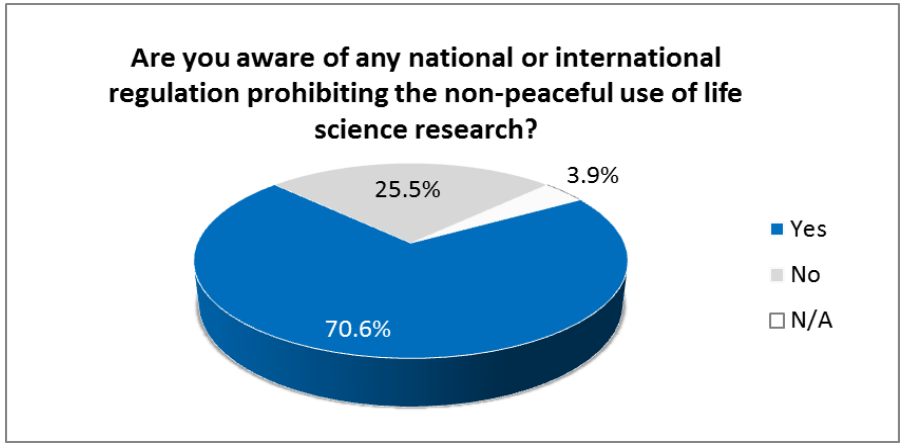
ANALYSIS OF RECEIVED ANSWERS ON QUESTION "HAVE YOU EVER DEALT WITH THE FOLLOWING TOPICS IN YOUR WORK OR IN YOUR COURSES?"



There is a good knowledge of the topics and most of the interviewees had previously dealt with them in their professional career

ANALYSIS OF RECEIVED ANSWERS ON QUESTIONS:



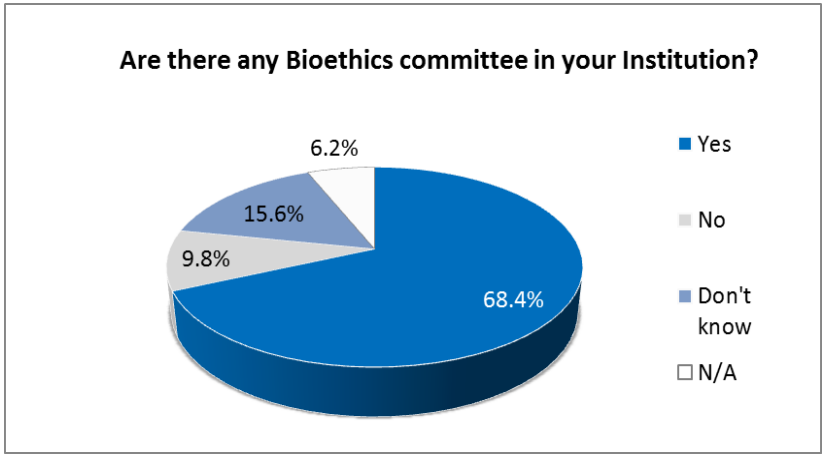


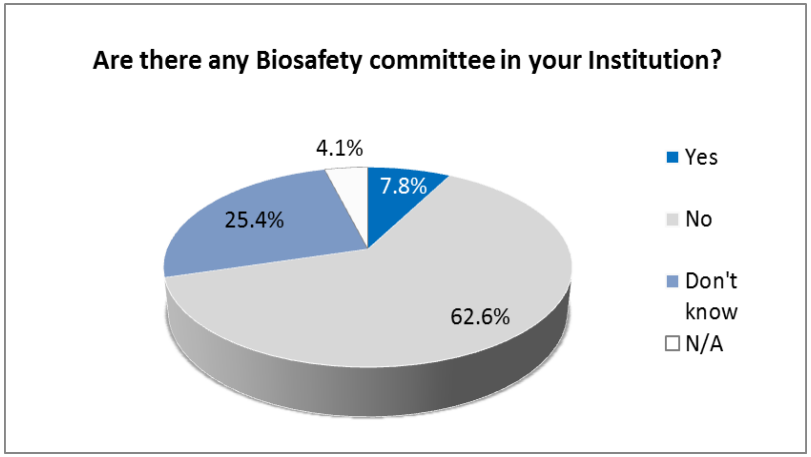
"Do you know any local or international organization that works on regulating dual-use research and Biosecurity?

"Are you aware of any national or international regulation prohibiting the non-peaceful use of life science research?"

About half of the professors knows local or international organizations working on Biosecurity regulations, and more than 70% is aware of national or international rules prohibiting the non-peaceful use of life science research

ANALYSIS OF RECEIVED ANSWERS ON QUESTIONS



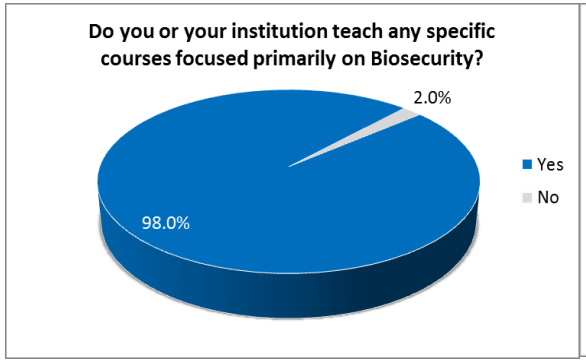


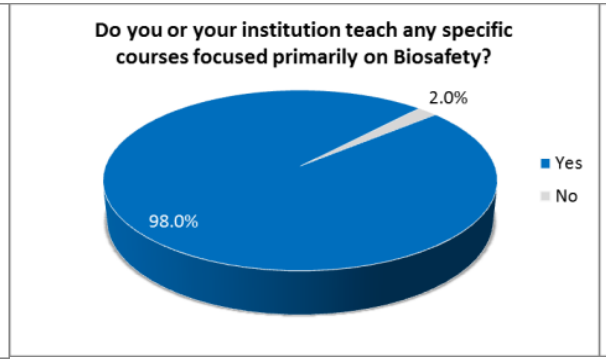
"Are there any Bioethics committee in your Institution?"

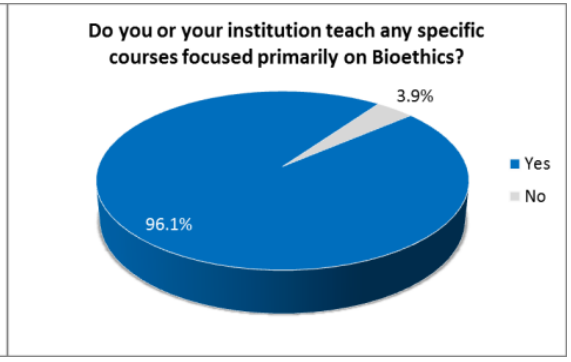
"Are there any Biosafety committee in your Institution?

The presence of bioethics committees in the surveyed institutes is quite high (almost 70%). On the contrary very few institutions have internal Biosafety committees (even if about 30% of the interviewees did not answer)

ANALYSIS OF RECEIVED ANSWERS ON QUESTIONS







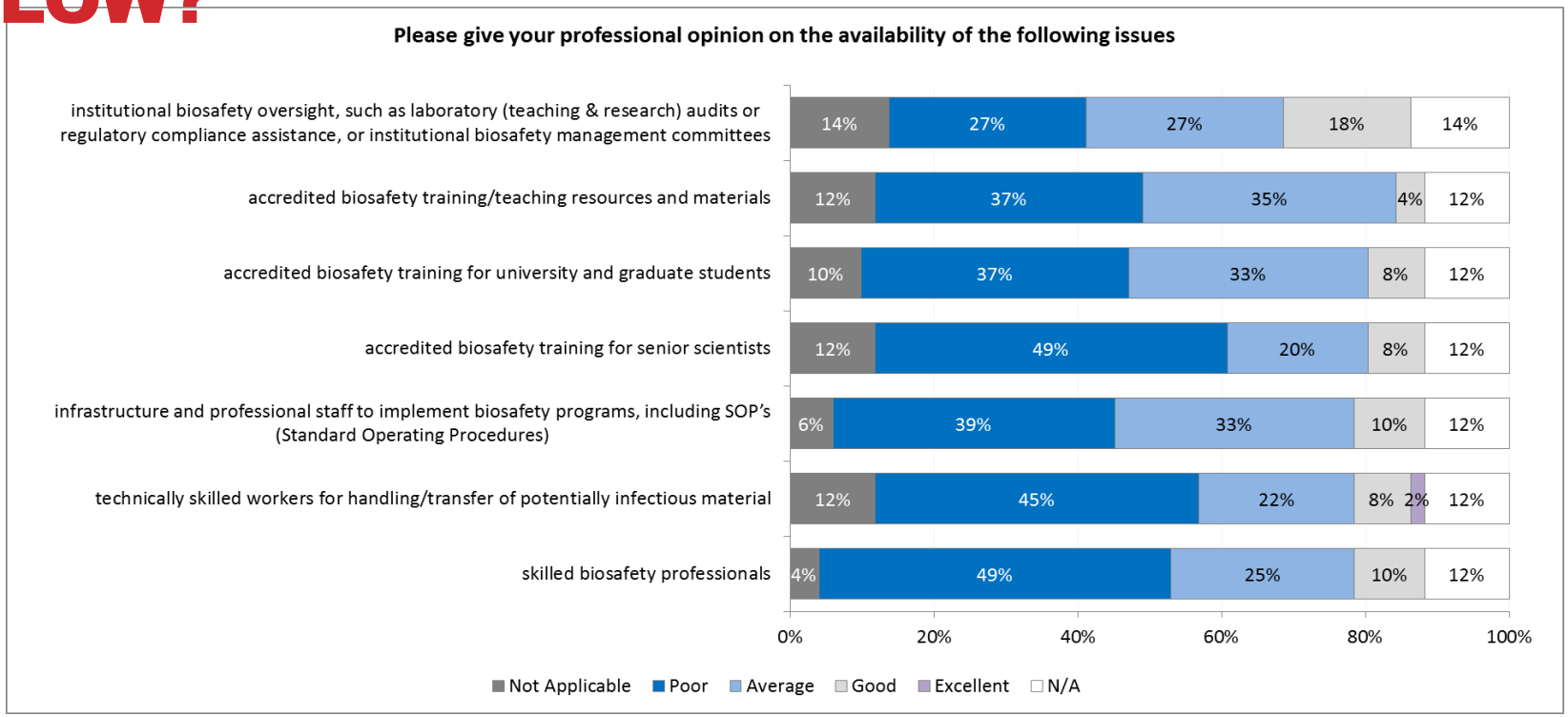
"Do you or your institution teach any specific courses focused primarily on Biosecurity?"

"Do you or your institution teach any specific courses focused primarily on Biosafety?"

"Do you or your institution teach any specific courses focused primarily on Bioethics?"

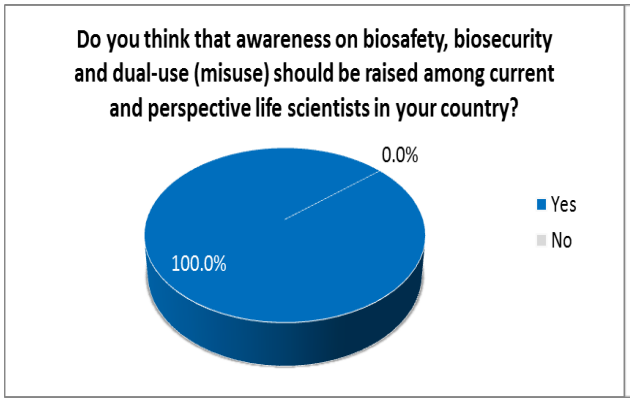
The surveyed Ukrainian academic institutions almost always have courses that focus primarily on **Biosecurity**, **Biosafety** or **Bioethics**.

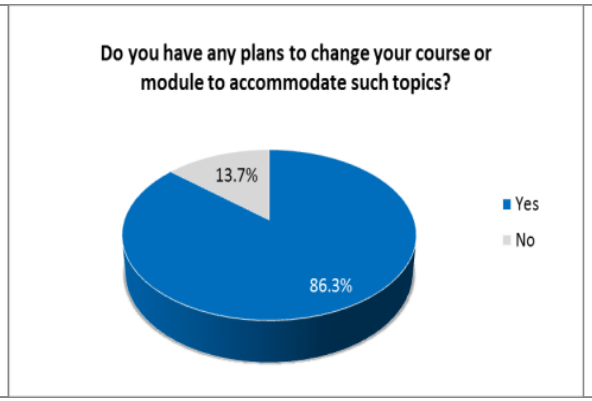
ANALYSIS OF RECEIVED ANSWERS ON QUESTION "PLEASE GIVE YOUR PROFESSIONAL OPINION ON THE FOLLOWING ISSUES USING THE SCALE PROVIDED BELOW?"

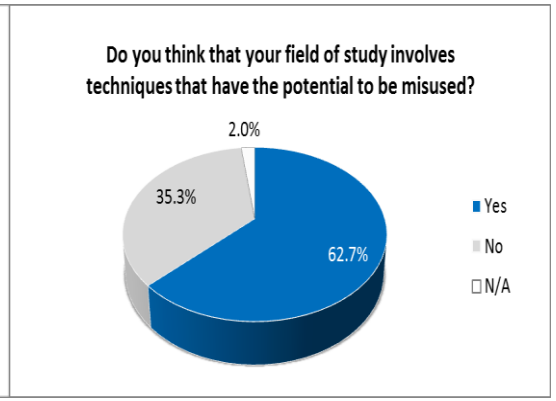


Most of the participants were able to rate their country's situation with a good grade of precision, and with encouraging results.

ANALYSIS OF RECEIVED ANSWERS ON QUESTIONS:







"Do you think that awareness on Biosafety, Biosecurity and dual-use (misuse) should be raised among current and perspective life scientists in your country?

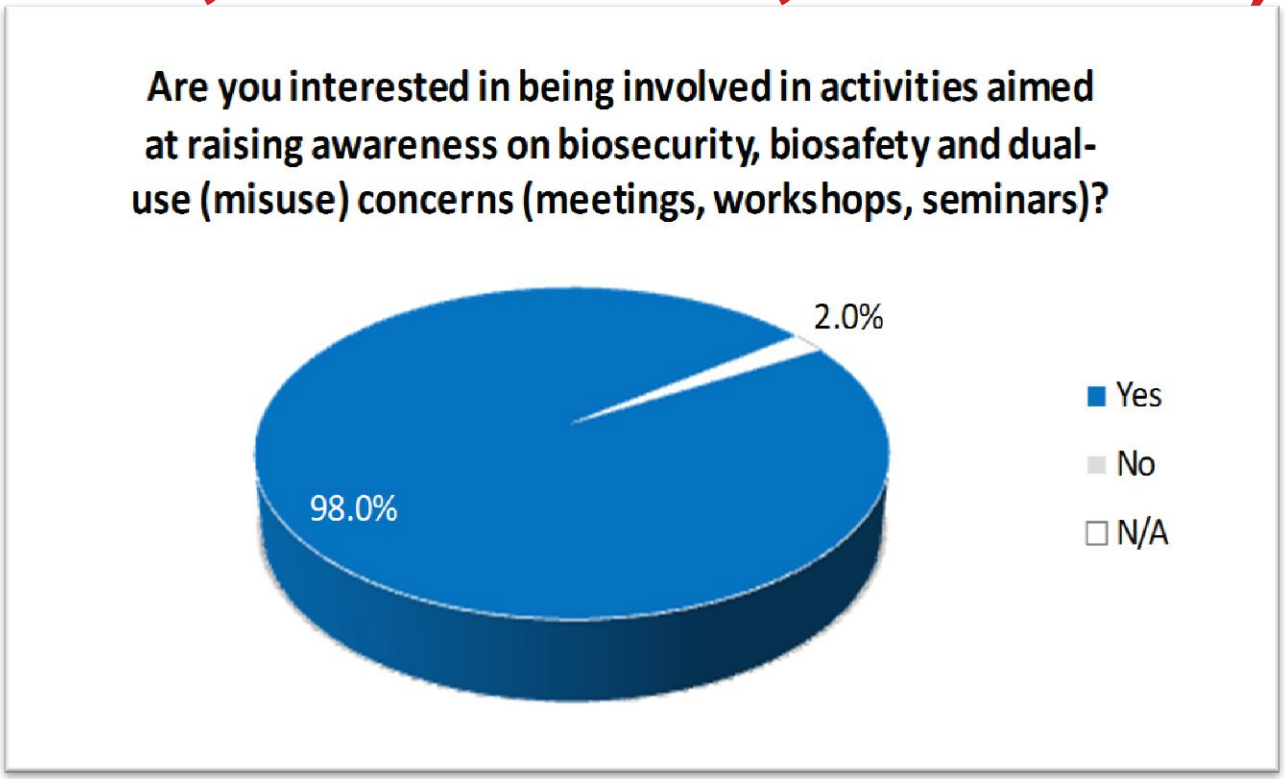
Do you have any plans to change your course or module to accommodate such topics?"

"Do you think that your field of study involves techniques that have the potential to be misused?"

ANALYSIS OF RECEIVED ANSWERS ON QUESTIONS:

Most of the participants recognize the seriousness of the topics discussed and consequently the importance of implementing a series of activities to better inform and educate the students and the new generation of scientists

INVOLVED IN ACTIVITIES AIMED AT RAISING AWARENESS ON BIOSECURITY, BIOSAFETY AND DUAL-USE (MISUSE) CONCERNS (MEETINGS, WORKSHOPS, SEMINARS)?”



Almost every participant confirmed its interest in being involved in activities aimed at raising awareness on these topics

CONCLUSIONS

- The interviewees have shown high level of awareness on Biosafety, Biosecurity and dual-use issues.
- The interviewees indicated presence of Bioethics committees and absence of Biosafety committees in their institutions
- In spite of absence any approved separate curriculum on Biosafety and Biosecurity, the respondents noticed that the surveyed Ukrainian institutions almost always have courses that focus primarily on Biosecurity and Biosafety.

CONCLUSIONS

- The participants noted an above average level of availability of resources and infrastructures used for teaching on Biosafety
- The interviewees recognize necessity of implementing a series of activities to educate the students and have some plans to change their courses or modules to accommodate such topics
- For this purpose it will be very beneficial to develop and implementation of training materials and guidelines on Biosafety, Biosecurity and dual-use issues.

THANK YOU!