

SUPPLEMENTARY MATERIAL

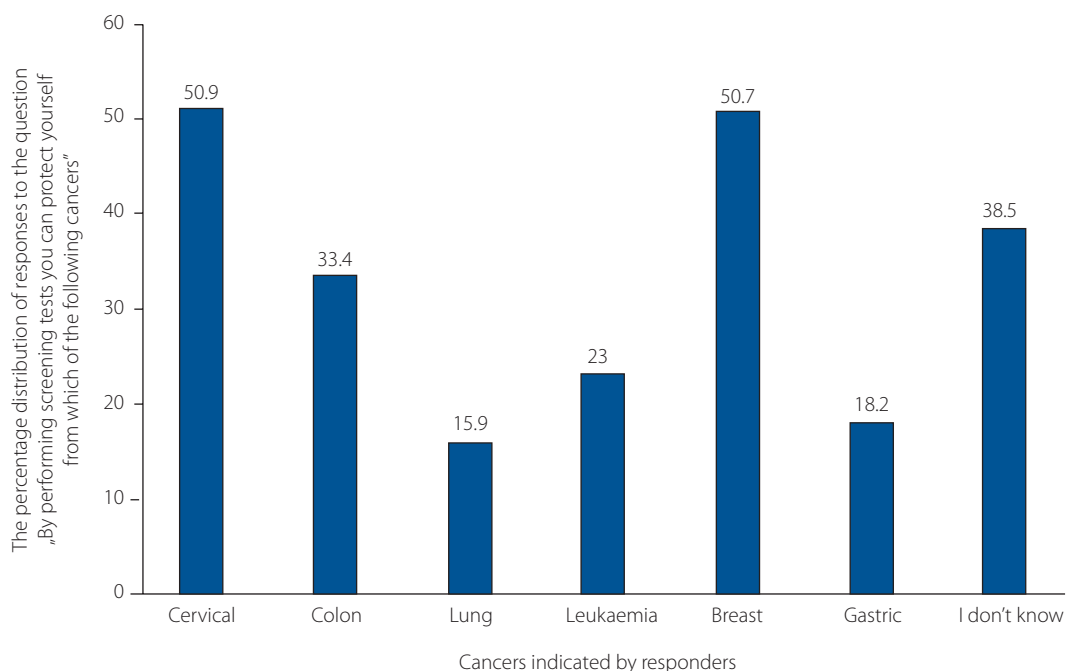


Figure S1. The ability to identify cancers detected by performing screening tests

Table S1. The ability to correctly identify all screening tests in Poland and associate them with the cancers they detect among medical students depending on the year of study

Year of study	Screening programmes	Cancers	Cancers and screening programmes
I	2 (5.7%)	1 (2.9%)	1 (2.9%)
II	7 (18.4%)	9 (23.7%)	6 (15.8%)
III	6 (19.4%)	6 (19.4%)	6 (19.4%)
IV	4 (21.1%)	3 (15.8%)	3 (15.8%)
V	13 (52.0%)	11 (44.0%)	11 (44.0%)
VI	8 (88.9%)	8 (88.9%)	8 (88.9%)
p	< 0.001	< 0.001	< 0.001

Table SII. Overall views on factors not related to cancer risk

Factor	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
5G exposure	14 (1.3%)	53 (5.1%)	203 (19.5%)	223 (21.4%)	548 (52.6%)
Drinking energy drinks	212 (20.4%)	377 (36.2%)	303 (29.1%)	134 (12.9%)	15 (1.4%)
Dietary supplements	24 (2.3%)	123 (11.8%)	285 (27.4%)	395 (37.9%)	214 (20.6%)
Consumption of GMO	118 (11.3%)	238 (22.9%)	240 (23.1%)	261 (25.1%)	184 (17.7%)

GMO — genetically modified organism

Table SIII. Views on cancer risk factors according to gender

Factor	Gender	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	p
Smoking	Female	543 (79.9%)	123 (18.1%)	8 (1.2%)	1 (0.1%)	5 (0.7%)	0.05
	Male	292 (85.4%)	47 (13.7%)	3 (0.9%)	0 (0.0%)	0 (0.0%)	
	Indeterminate sex	17 (89.5%)	1 (5.3%)	0 (0.0%)	0 (0.0%)	1 (5.3%)	
Obesity	Female	322 (47.4%)	256 (37.6%)	74 (10.9%)	24 (3.5%)	4 (0.6%)	0.009
	Male	185 (54.1%)	119 (34.8%)	26 (7.6%)	12 (3.5%)	0 (0.0%)	
	Indeterminate sex	4 (21.1%)	8 (42.1%)	4 (21.1%)	3 (15.8%)	0 (0.0%)	
Sedentary lifestyle	Female	211 (31.0%)	246 (36.2%)	147 (21.6%)	71 (10.4%)	5 (0.7%)	0.227
	Male	94 (27.5%)	142 (41.5%)	71 (20.8%)	33 (9.6%)	2 (0.6%)	
	Indeterminate sex	3 (15.8%)	5 (26.3%)	6 (31.6%)	5 (26.3%)	0 (0.0%)	
Unhealthy eating habits	Female	330 (48.5%)	256 (37.6%)	61 (9.0%)	28 (4.1%)	5 (0.7%)	0.393
	Male	169 (49.4%)	141 (41.2%)	24 (7.0%)	7 (2.0%)	1 (0.3%)	
	Indeterminate sex	6 (31.6%)	9 (47.4%)	3 (15.8%)	1 (5.3%)	0 (0.0%)	
Drinking alcohol	Female	308 (45.3%)	254 (37.4%)	73 (10.7%)	44 (6.5%)	1 (0.1%)	0.144
	Male	135 (39.5%)	127 (37.1%)	47 (13.7%)	28 (8.2%)	5 (1.5%)	
	Indeterminate sex	7 (36.8%)	7 (36.8%)	3 (15.8%)	2 (10.5%)	0 (0.0%)	
Harmful substances in the workplace	Female	454 (66.8%)	186 (27.4%)	34 (5.0%)	2 (0.3%)	4 (0.6%)	0.391
	Male	246 (71.9%)	86 (25.1%)	9 (2.6%)	0 (0.0%)	1 (0.3%)	
	Indeterminate sex	16 (84.2%)	2 (10.5%)	1 (5.3%)	0 (0.0%)	0 (0.0%)	
Radon radiation	Female	230 (33.8%)	211 (31.0%)	194 (28.5%)	38 (5.6%)	7 (1.0%)	0.021
	Male	96 (28.1%)	97 (28.4%)	102 (29.8%)	40 (11.7%)	7 (2.0%)	
	Indeterminate sex	7 (36.8%)	6 (31.6%)	6 (31.6%)	0 (0.0%)	0 (0.0%)	
Not breastfeeding	Female	34 (5.0%)	72 (10.6%)	213 (31.3%)	247 (36.3%)	114 (16.8%)	< 0.001
	Male	20 (5.8%)	22 (6.4%)	198 (57.9%)	78 (22.8%)	24 (7.0%)	
	Indeterminate sex	1 (5.3%)	0 (0.0%)	6 (31.6%)	7 (36.8%)	5 (26.3%)	



Table SIII cont. Views on cancer risk factors according to gender

Factor	Gender	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	p
Hormone replacement therapy	Female	48 (7.1%)	87 (12.8%)	425 (62.5%)	114 (16.8%)	6 (0.9%)	< 0.001
	Male	24 (7.0%)	33 (9.6%)	251 (73.4%)	30 (8.8%)	4 (1.2%)	
	Indeterminate sex	2 (10.5%)	3 (15.8%)	6 (31.6%)	8 (42.1%)	0 (0.0%)	
HPV infection	Female	199 (29.3%)	173 (25.4%)	275 (40.4%)	29 (4.3%)	4 (0.6%)	0.005
	Male	63 (18.4%)	81 (23.7%)	184 (53.8%)	14 (4.1%)	0 (0.0%)	
	Indeterminate sex	4 (21.1%)	5 (26.3%)	9 (47.4%)	1 (5.3%)	0 (0.0%)	
HBV infection	Female	141 (20.7%)	223 (32.8%)	277 (40.7%)	37 (5.4%)	2 (0.3%)	0.003
	Male	51 (14.9%)	80 (23.4%)	192 (56.1%)	18 (5.3%)	1 (0.3%)	
	Indeterminate sex	5 (26.3%)	4 (21.1%)	9 (47.4%)	1 (5.3%)	0 (0.0%)	

HBV — hepatitis B virus; HPV — human papilloma virus

Table SIV. Views on factors not related to cancer risk according to gender

Factor	Gender	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	p
5G exposure	Female	9 (1.3%)	43 (6.3%)	156 (22.9%)	159 (23.4%)	313 (46.0%)	< 0.001
	Male	3 (0.9%)	9 (2.6%)	46 (13.5%)	63 (18.4%)	221 (64.6%)	
	Indeterminate sex	2 (10.5%)	1 (5.3%)	1 (5.3%)	1 (5.3%)	14 (73.7%)	
Drinking energy drinks	Female	149 (21.9%)	262 (38.5%)	186 (27.4%)	78 (11.5%)	5 (0.7%)	0.019
	Male	59 (17.3%)	109 (31.9%)	111 (32.5%)	53 (15.5%)	10 (2.9%)	
	Indeterminate sex	4 (21.1%)	6 (31.6%)	6 (31.6%)	3 (15.8%)	0 (0.0%)	
Dietary supplements	Female	15 (2.2%)	73 (10.7%)	180 (26.5%)	269 (39.6%)	143 (21.0%)	0.392
	Male	8 (2.3%)	50 (14.6%)	99 (28.9%)	118 (34.5%)	67 (19.6%)	
	Indeterminate sex	1 (5.3%)	0 (0.0%)	6 (31.6%)	8 (42.1%)	4 (21.1%)	
Consumption of GMO	Female	93 (13.7%)	163 (24.0%)	167 (24.6%)	163 (24.0%)	94 (13.8%)	< 0.001
	Male	20 (5.8%)	75 (21.9%)	70 (20.5%)	94 (27.5%)	83 (24.3%)	
	Indeterminate sex	5 (26.3%)	0 (0.0%)	3 (15.8%)	4 (21.1%)	7 (36.8%)	

GMO — genetically modified organism

Table SV. Relationship between the respondents' field of study and the perception of cancer risk factors

Factor	Field of study	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	p
Smoking	Non-medical	701 (79.3%)	166 (18.8%)	11 (1.2%)	1 (0.1%)	5 (0.6%)	< 0.001
	Medical	151 (96.2%)	5 (3.2%)	0 (0.0%)	0 (0.0%)	1 (0.6%)	
Obesity	Non-medical	397 (44.9%)	345 (39.0%)	101 (11.4%)	37 (4.2%)	4 (0.5%)	< 0.001
	Medical	114 (72.6%)	38 (24.2%)	3 (1.9%)	2 (1.3%)	0 (0.0%)	
Sedentary lifestyle	Non-medical	224 (25.3%)	340 (38.5%)	207 (23.4%)	106 (12.0%)	7 (0.8%)	< 0.001
	Medical	84 (53.5%)	53 (33.8%)	17 (10.8%)	3 (1.9%)	0 (0.0%)	
Unhealthy eating habits	Non-medical	385 (43.6%)	373 (42.2%)	85 (9.6%)	35 (4.0%)	6 (0.7%)	< 0.001
	Medical	120 (76.4%)	33 (21.0%)	3 (1.9%)	1 (0.6%)	0 (0.0%)	
Drinking alcohol	Non-medical	335 (37.9%)	354 (40.0%)	118 (13.3%)	71 (8.0%)	6 (0.7%)	< 0.001
	Medical	115 (73.2%)	34 (21.7%)	5 (3.2%)	3 (1.9%)	0 (0.0%)	
Harmful substances in the workplace	Non-medical	589 (66.6%)	249 (28.2%)	39 (4.4%)	2 (0.2%)	5 (0.6%)	0.01
	Medical	127 (80.9%)	25 (15.9%)	5 (3.2%)	0 (0.0%)	0 (0.0%)	
Radon radiation	Non-medical	272 (30.8%)	262 (29.6%)	270 (30.5%)	67 (7.6%)	13 (1.5%)	0.068
	Medical	61 (38.9%)	52 (33.1%)	32 (20.4%)	11 (7.0%)	1 (0.6%)	
Not breastfeeding	Non-medical	25 (2.8%)	62 (7.0%)	373 (42.2%)	289 (32.7%)	135 (15.3%)	< 0.001
	Medical	30 (19.1%)	32 (20.4%)	44 (28.0%)	43 (27.4%)	8 (5.1%)	
Hormone replacement therapy	Non-medical	34 (3.8%)	89 (10.1%)	627 (70.9%)	125 (14.1%)	9 (1.0%)	< 0.001
	Medical	40 (25.5%)	34 (21.7%)	55 (35.0%)	27 (17.2%)	1 (0.6%)	
HPV infection	Non-medical	167 (18.9%)	233 (26.4%)	446 (50.5%)	35 (4.0%)	3 (0.3%)	< 0.001
	Medical	99 (63.1%)	26 (16.6%)	22 (14.0%)	9 (5.7%)	1 (0.6%)	
HBV infection	Non-medical	126 (14.3%)	267 (30.2%)	443 (50.1%)	45 (5.1%)	3 (0.3%)	< 0.001
	Medical	71 (45.2%)	40 (25.5%)	35 (22.3%)	11 (7.0%)	0 (0.0%)	

HBV — hepatitis B virus; HPV — human papilloma virus

Table SVI. Relationship between the respondents' field of study and the perception factors not related to cancer risks

Factor	Field of study	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	p
5G exposure	Non-medical	13 (1.5%)	46 (5.2%)	174 (19.7%)	183 (20.7%)	468 (52.9%)	0.729
	Medical	1 (0.6%)	7 (4.5%)	29 (18.5%)	40 (25.5%)	80 (51.0%)	
Drinking energy drinks	Non-medical	180 (20.4%)	326 (36.9%)	257 (29.1%)	106 (12.0%)	15 (1.7%)	0.151
	Medical	32 (20.4%)	51 (32.5%)	46 (29.3%)	28 (17.8%)	0 (0.0%)	
Dietary supplements	Non-medical	19 (2.1%)	101 (11.4%)	250 (28.3%)	340 (38.5%)	174 (19.7%)	0.197
	Medical	5 (3.2%)	22 (14.0%)	35 (22.3%)	55 (35.0%)	40 (25.5%)	
Consumption of GMO	Non-medical	103 (11.7%)	209 (23.6%)	208 (23.5%)	217 (24.5%)	147 (16.6%)	0.14
	Medical	15 (9.6%)	29 (18.5%)	32 (20.4%)	44 (28.0%)	37 (23.6%)	

GMO — genetically modified organism

Table SVII. Planning to embrace screening programmes

Screening programme		Field of study		p
		Non-medical	Medical	
Women				
Cervical cytology (after 25 y.o.)	No	85 (14.9%)	11 (9.3%)	0.111
	Yes	485 (85.1%)	107 (90.7%)	
Mammography (after 50 y.o.)	No	40 (7.0%)	2 (1.7%)	0.027
	Yes	528 (93.0%)	116 (98.3%)	
Women and men				
Colonoscopy (after 50 y.o.)	No	319 (36.1%)	32 (20.4%)	< 0.001
	Yes	565 (63.9%)	125 (79.6%)	

y.o. — years old

1. Age:
 2. Gender:
 - a. Female
 - b. Male
 - c. Prefer not to say
 3. Year of study:
 - a. I
 - b. II
 - c. III
 - d. IV
 - e. V
 - f. VI
 4. Faculty:
 5. Field of study:
 6. University:
 7. Place of residence:
 - a. Rural
 - b. City with up to 50.000 inhabitants
 - c. City with 50.000–100.000 inhabitants
 - d. City with over 100.000 inhabitants
 8. Body weight:
 9. Height:
 10. Marital status:
 - a. Single
 - b. Married/ domestic partnership
 - c. Prefer not to say
 - d. Other, please specify:
 11. I am chronically ill:
arterial hypertension, diabetes mellitus, thyroid diseases,
others
 - a. Yes
 - b. No
 12. The main source of world information:
 - a. TV and radio
 - b. Print media
 - c. Websites
 - d. Social media
 - e. Friends/family
 - f. Specialist literature
 13. How many hours daily do you spend watching TV?
 - a. I do not watch TV
 - b. Less than an hour
 - c. 1–2 hours
 - d. 2–4 hours
 - e. More than 4 hours
 14. How many hours daily do you spend using the Internet?
 - a. I do not use the Internet
 - b. Less than an hour
 - c. 1–2 hours
 - d. 2–4 hours
 - e. More than 4 hours
 15. Do you use social media?
 - a. Yes, everyday
 - b. Yes, few times a week
 - c. Yes, less than once a week
 - d. No
- European Code Against Cancer**
16. Have you ever heard about the European Code Against
Cancer?
 - a. Yes
 - b. No
 17. How did you find out this set of recommendations?
 - a. TV and radio
 - b. Print media
 - c. Websites
 - d. Social media
 - e. Friends/family
 - f. Specialist literature
 18. Do you know which of the following are screening tests
in Poland?
 - a. Colonoscopy
 - b. Cytology
 - c. Chest X-ray
 - d. Gastroscopy
 - e. Complete blood count (CBC)
 - f. Mammography
 - g. I do not know
 19. By performing screening tests you can protect yourself
from which of the following cancers:
 - a. Gastric cancer
 - b. Cervical cancer
 - c. Leukaemia

- d. Colon cancer
- e. Lung cancer
- f. Breast cancer
- g. I do not know

Everyday life/daily life

20. Do you smoke?
- a. Yes
 - b. No

Smokers — questions 21.–23.

21. Please rate your intensity of smoking:
- a. Less than half of cigarette packet a day
 - b. 1–2 cigarette packets a day
 - c. More than 2 cigarette packets a day
 - d. I smoke irregularly

22. How long have you been smoking cigarettes?
- a. Longer than 10 years
 - b. 5–10 years
 - c. Less than 5 years

23. What type of tobacco do you smoke?
- a. Classical filtered cigarettes
 - b. Filtered hand-rolled cigarettes
 - c. Unfiltered hand-rolled cigarettes
 - d. E-cigarettes (with cartridge or liquid reservoir)
 - e. Alternative tobacco products (Iqos, Glo, others)

24. Do you control your BMI (body mass index) to be in the 18.5–24.9 kg/m² margin?
- a. Yes
 - b. No

25. How often are you physically active?
- a. I'm not physically active
 - b. Occasionally (less than once a month)
 - c. Once a week
 - d. More than 2–3 times a week

26. What means of transport do you use daily?
- a. Car
 - b. Public transport
 - c. Bicycle
 - d. Scooter
 - e. On foot

27. Do you follow the principles of healthy eating?
- a. Yes
 - b. No

28. How often do you eat red meat?
- a. Every day or almost every day
 - b. More than once a week
 - c. Less than once a week
 - d. I don't eat red meat

29. How often do you eat vegetables and fruits?
- a. Every day or almost every day
 - b. More than once a week
 - c. Less than once a week
 - d. I don't eat vegetables and fruits

30. How often do you drink alcohol?
1 unit of alcohol = small beer (300 ml), half full glass of wine (100 ml), small glass of vodka (30 ml)
- a. 1–2 units a day
 - b. More than 3 units a day
 - c. Less than 5 units a week
 - d. More than 5 units a week
 - e. More than 10 units a week
 - f. Less or not at all

31. Do you use sunscreen with SPF (sun protection factor) to protect from UV radiation?
- a. Yes
 - b. No

32. Do you use solarium?
- a. No
 - b. Up to 20 times a year
 - c. More than 20 times a year

33. Do you limit staying outside during the hours of the highest sunlight levels in the summer between 10am and 4pm?
- a. Yes
 - b. No

34. Do you check your skin marks?
- a. Yes
 - b. No
 - c. irregularly
 - d. Never

35. Do you consider the risk of exposure to harmful substances (asbestos, benzene, arsenic, fumes, etc.) in choosing your future workplace?
- Yes
 - No
36. Have you breastfed or consider it in the future?
- Refers to women
- Yes
 - No
 - Not applicable
37. Are you vaccinated against HBV?
- Yes
 - No
38. Are you vaccinated against HPV?
- Yes
 - No
39. Would you vaccinate your children against HBV and HPV?
- Yes
 - No
40. Do you embrace from cervical screening cytology programme or would like to in the future?
- Refers to women
- Yes
 - No
 - Not applicable
41. Would you consider taking part in mammography screening programme after the age of 50?
- Refers to women
- Yes
 - No
 - Not applicable
42. Would you consider taking part in colonoscopy screening programme after the age of 50?
- Yes
 - No
43. How often do you perform testicular self-examination?
- Refers to men
- Once a month
 - Less than once a month
 - I don't perform testicular self-exam action
 - Not applicable
44. How often do you perform breast self-examination?
- Refers to women
- Once a month 2–3 days after period
 - Once a month regardless of the period timing
 - Less than once a month
 - I don't perform breast self-examination
 - Not applicable
- Please mark your opinion about following statements
45. Smoking increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
46. Obesity can contribute to cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
47. Sedentary lifestyle increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
48. Unhealthy eating habits increase the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
49. Drinking alcohol increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes

50. Drinking energy drinks increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
51. Harmful substances in the workplace can increase the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
52. Radon radiation (natural radiation released by construction materials) increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
53. Not breastfeeding increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
54. Hormone replacement therapy (HRT) increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
55. HPV (human papillomavirus) infection increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
56. HBV (hepatitis B virus) infection increases the risk of cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
57. Consumption of GMO (genetically modified organisms) food leads to cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
58. 5G (fifth generation of cellular network technology) leads to cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
59. Using dietary supplements protects against cancer development.
- Definitely not
 - Probably not
 - I don't have an opinion
 - Probably yes
 - Definitely yes
- Survey content:** The questions that we posed to our respondents (translated into English)
- The University of Warmia and Mazury in Olsztyn
 - Warsaw University of Technology
 - Poznan University of Technology
 - University of Warsaw
 - Wrocław University of Science and Technology
 - The Maria Curie-Skłodowska University in Lublin
 - AGH University of Science and Technology in Krakow
 - Bydgoszcz University of Science and Technology
 - Police Academy in Szczytno
 - The Medical University of Gdańsk
 - Józef Piłsudski University of Physical Education in Warsaw
 - Academy of Fine Arts in Warsaw
 - Poznań University of Physical Education
 - Academy of Physical Education in Katowice
 - AGH University of Krakow
 - Rzeszow University of Technology
 - Medical University of Lodz
 - Academy of Art in Szczecin

19. The Medical University of Białystok
20. Lublin University of Technology
21. Jagiellonian University in Kraków
22. University of Łódź
23. Jagiellonian University Medical College
24. Medical University of Silesia
25. University of Gdańsk
26. Medical University of Warsaw
27. WSB Merito University in Poznań
28. University of Applied Sciences in Elbląg
29. The Opole University of Technology
30. SWPS University in Warsaw
31. The University of Białystok
32. Wrocław School of Banking
33. Collegium Civitas in Warsaw
34. Ignacy Mościcki State Academy of Applied Sciences in Ciechanów
35. Kujawy and Pomorze University in Bydgoszcz
36. University of Ecology and Management in Warsaw
37. Poznań University of Medical Sciences
38. The Academy of Business and Health Sciences in Łódź
39. The Karkonosze University of Applied Sciences in Jelenia Góra
40. Wrocław University of Economics and Business
41. The Silesian University of Technology
42. Warsaw Film School
43. The Nicolaus Copernicus University in Toruń
44. The John Paul II Catholic University of Lublin
45. The University of Zielona Góra
46. The Academy of Fine Arts and Design in Katowice
47. Medical University of Lublin

A list of universities represented by our respondents