

Introduction

In the [RECaN project](#) EONS highlighted important differences in cancer nursing across Europe. The EONS Cancer Nursing Index (ECNI) was developed by the [EONS Advocacy Working Group](#) to illustrate the development and status of this profession in Europe. The index (with scores from 0-100) covers the following dimensions: Education and Career Development, Patient and Occupational Safety, Recognition, Working Conditions and Impact and Workforce statistics. The results from the ECNI 2020 have been used to highlight the importance and impact the recognition of European cancer nursing. More information on ECNI 2020 including national profiles for each country could be found [here](#)

The ECNI 2022 also include data on staffing levels and cancer nurses' experiences from the covid-19 pandemic. However, these data are not included in the national profiles since no comparison data from 2020 is available. These data will be presented separately.

The ECNI 2022 focuses more on the experiences from the responding cancer nurses' workplaces (rather than the national perspective), allowing for the great regional and local variety indicated in the ECNI 2020 data. The Index is based on data from the following sources:

1. EONS Survey on Patient and Occupational Safety (anonymous survey among cancer nurses, 2020 and 2022 respectively)
2. Work force statistics (obtained from ec.europe.eu/Eurostat and OECD in 2020). When the ECNI 2022 were completed, no updates had been published so both ECNI 2020 and 2022 include the same scores.

A scoring system was developed to reflect the level of development for the different Index dimensions/items. For items with a variety of responses from the same country, the most frequently reported response was used. The purpose of the Index is primarily not to rank some countries as better than others, moreover to illustrate cancer nursing profiles, differences and areas in need of development. The Index could be used to aid the development of cancer nursing in each country as well as for general European progress.

The ECNI offers a snapshot of the current status in cancer nursing across Europe, reported by the profession. The results largely depend on number of and profiles of responses from each country.

Dimension/item	Maximum score	Mean general score 2022 (min-max)	Score 2020	Score 2022	Comments
OVERALL SCORES	100	55 (19-84)	44	54	
EDUCATION AND CAREER DEVELOPMENT (5 items presented below)	23	10 (0-23)	5	8	
Specialist education on university level	5		5	5	
EONS Cancer Nursing Framework recognized and supported	5		0	3	
Master programs in cancer nursing	4		0	0	
Advanced cancer nursing roles established	5		0	0	
Professors in cancer nursing	4		0	0	
PATIENT AND OCCUPATIONAL SAFETY (8 items presented below)	36	20 (0-33)	21	19	
Safety guidelines (hazardous drugs) available	5		5	2	Various responses for 2022 To obtain the highest scores (5) for this item all responding nurses should have reported that guidelines are in place at all workplaces.
Guidelines during pregnancy (hazardous drugs)	5		5	5	
Pregnant and /or breastfeeding women assigned other tasks that don't involve direct contact with cytotoxic/radioactive drugs	5		5	2	'Sometimes' To obtain the highest scores (5) for this item all responding nurses should have reported

					that pregnant/breast feeding women are forbidden to perform task with risks for exposure to cytotoxic/radioactive drugs at all workplaces.
Systematic testing for occupational exposure (surface swipes)	3		0	0	
Speak-up or whistle blower policy implemented for all members of staff	3		0	3	
Access to cytotoxic spillage kit and PPE	5		1	1	To obtain the highest scores (5) for this item all responding nurses should have reported that cytotoxic spillage kit and PPE are available at all workplaces.
Formal training before administering cytotoxic drugs	5		0	2	Various responses for 2022 To obtain the highest score (5) for this item, formal education should have been reported by all responding nurses to be obligatory before managing cytotoxic drugs at all workplaces.
Nurses not preparing cytotoxic drugs	5		5	4	'Very rarely'
WORKING CONDITIONS AND THE IMPACT ON CANCER CARE (4 items presented below)	20	14 (9-17)	13	16	
Level of adherence to European Working Time Directive (EWTd)	5		5	4	
Risk of negative consequences if asking for alternative duties pregnancy/breast feeding	5		0	2	Various responses in 2022
To what extent hospital beds are closed due to cancer nursing shortages	5		4	5	
To what extent cancer treatments were delayed due to cancer nursing	5		4	5	
RECOGNITION (4 items presented below)	18	10 (0-15)	5	11	
Does the country have a cancer nursing society?	5		5	5	
Does the country have a national cancer plan that includes nursing care?	3		0	3	
Does your workplace/center have Board positions dedicated for cancer nursing?	5		0	3	
To what extent is nurse-led cancer care implemented in your workplace/center?	5		0	0	
WORK FORCE STATISTICS (1 item)	3	1 (0-3)	0	0	
Number of practicing nurses/1000 citizens (www.europe.eu/Eurostat and OECD)	3		0	0	

Strengths and recommendations for improvements

Overall, Poland total score was 54. Other countries with similar total score were Estonia (total score 55), Serbia, Germany, Greece (total score 53), and Switzerland (total score 52).

Poland could improve their scores in all five dimensions for the next revision of the Index. Scores for Education and Career Development dimension would be higher, if more Polish nurses reported to be familiar with the EONS Cancer Nursing Framework and if Poland not only implemented master programs in cancer nursing, but also appointed professors in this specialty.

Patient and occupational safety could improve, if general guidelines for handling hazardous drugs and specific guidelines for reducing the risks of exposure during planned/pregnancy/breast feeding were reported to be fully implemented. All responding Polish nurses reported that speak-up/ whistle blower policy were implemented for all members of staff, nevertheless more areas of concern relate to insufficient training before administering hazardous drugs, availability of cytotoxic spillage kit and PPE, and systematic surface swipes for occupational exposure. Some Polish nurses reported that, they are still involved in preparation of hazardous drugs, whereas in majority of European countries those tasks are performed by pharmacists in strictly controlled environment.

On the positive side, improvement was reported in Working Conditions and Recognition. Scores for Recognition were higher comparing to ECNI2020, since cancer care was included in Poland's national cancer plan and cancer

nurses are gradually invited to decision-making bodies in cancer centers. Nurse-led cancer care is yet to be implemented.

Finally, Poland has lower number of practicing nurses compared with most countries in the ECNI. Despite this, cancer nurses in Poland report that hospital beds never close and that cancer treatments never are delayed due to nursing shortage.

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