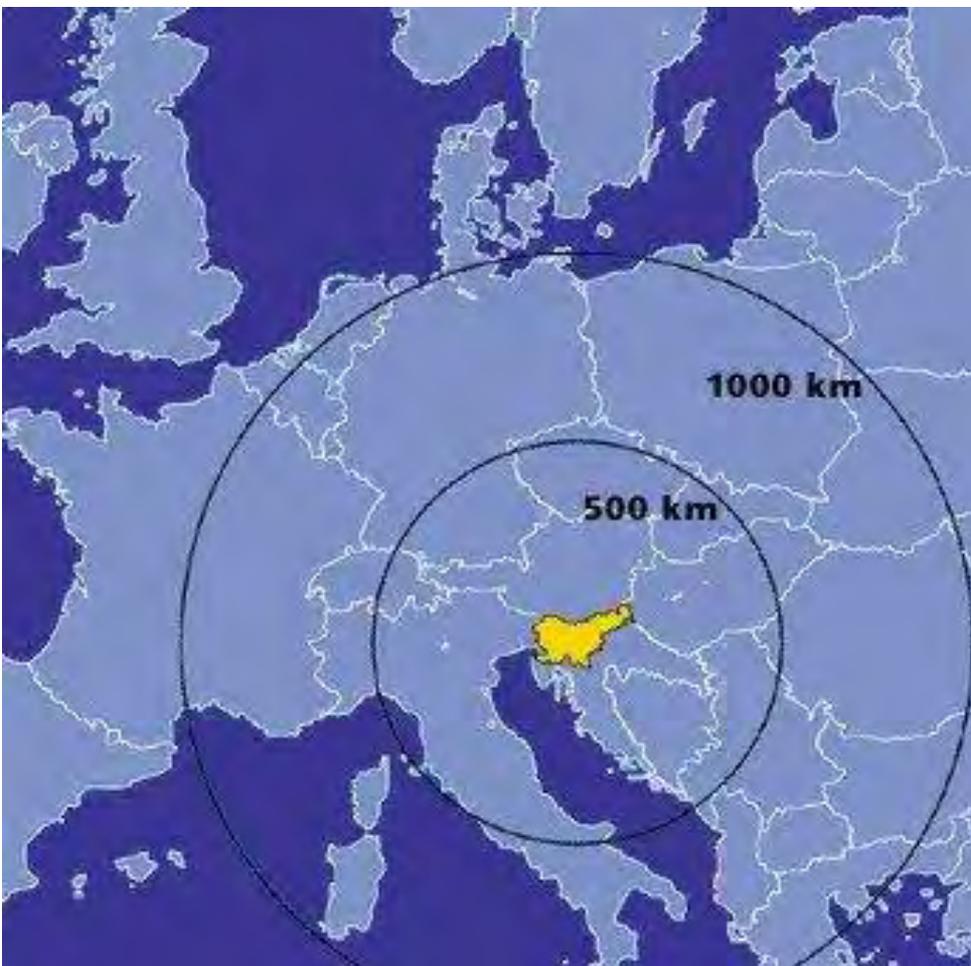


Evidence-Based Practice among Nurses in Slovenian Hospitals: A National Survey

Dr Brigita Skela-Savič

Associate Professor, Dean

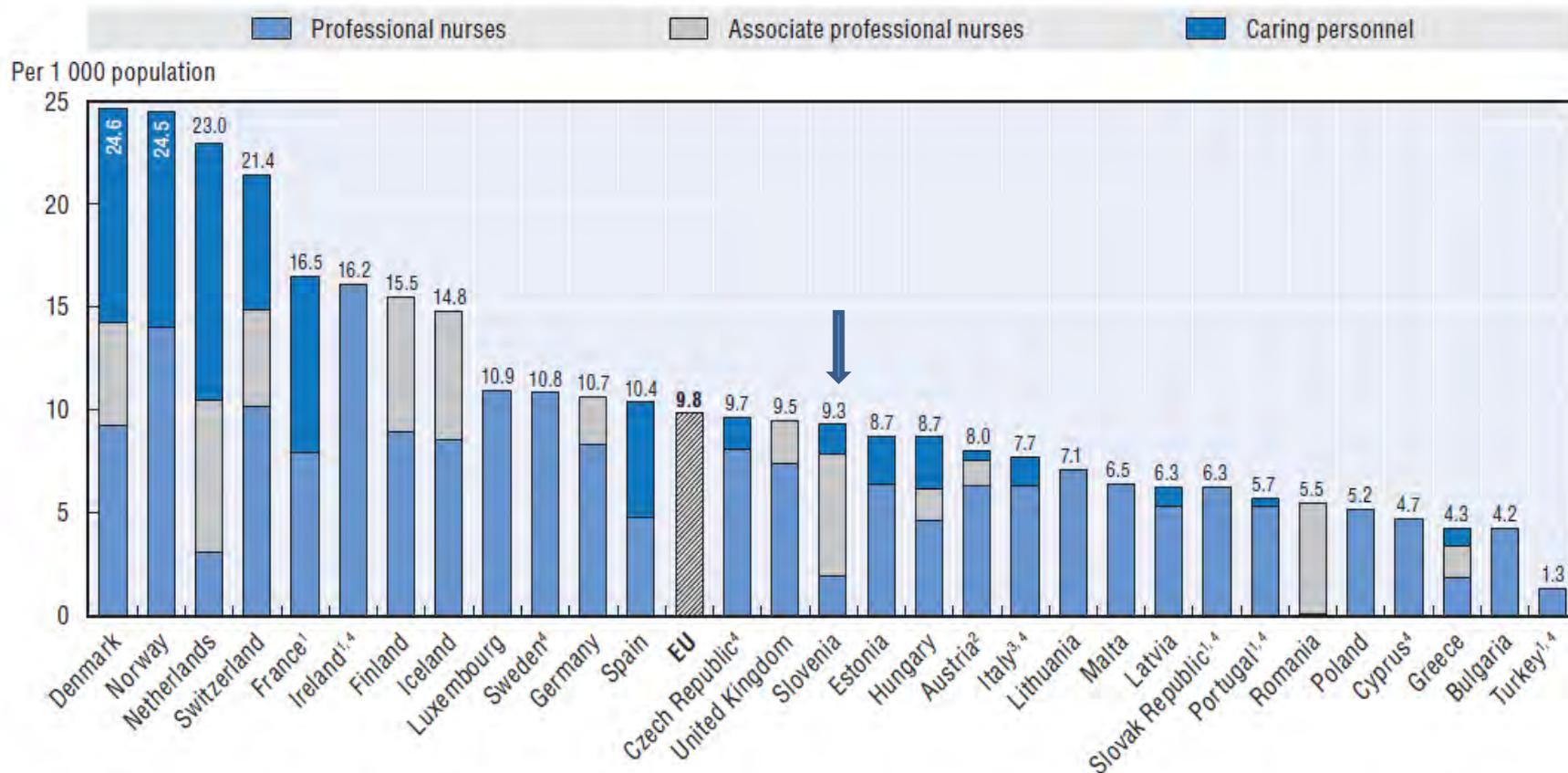
Faculty of Health Care Jesenice, Slovenia



GEOGRAPHY AND SOCIODEMOGRAPHY

- 2 millions of population, approximately half of whom live in urban areas,
- Member of EU from 2004, member,
- Located between the Alps, the Pannonian Plain, the Mediterranean Sea and the Balkans,
- A democratic parliamentary republic.

3.2.1. Professional nurses, associate professional nurses and caring personnel per 1 000 population, 2008 (or nearest year available)



1. Data include not only nurses providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. (adding another 5-10% of nurses).
2. Austria reports only nurses employed in hospitals.
3. In Italy, data refer to all nurses who are licensed to practice.
4. The breakdown between professional and associate professional nurses is not available.

Source: OECD Health Data 2010; Eurostat Statistics Database.

StatLink  <http://dx.doi.org/10.1787/888932336692>

Introduction (1-2):

- Extremely limited EBP implementation among nurses.
- Nurses are expected to provide high-quality, safe, effective, fast and patient-oriented care.
 - Educated nurses possessing the knowledge and skills required for clinical work who are critical of the quality of nursing care (Nsemo et al. 2013).
- Knowledge of research and evidence-based care has become an integral part of nursing education both at the undergraduate and graduate levels. In practice, this knowledge has resulted in new areas of work, including advanced nurse practitioner roles (Woodward et al. 2007; Loke et al. 2014; Yoder et al. 2014).

Research and Evidence based nursing (2):

- Evidences show that nurses have not yet embraced research as part of their professional identity.
 - increasing the integration of research culture and research paradigm into nursing study programs (Kelly et al. 2013, Loke et al. 2014).
- Research results have revealed a very restricted level of EBP implementation among nurses (Brown et al. 2008; Boström et al. 2009; Mashiach 2011; Boström et al. 2013; Stokke et al. 2014).
 - inadequate institutional support for implementing new practices, averse organizational culture, opposition from managers, physicians, nurses, lack of knowledge and education, experience, resources, (Gerrish & Clayton 2004; Rycroft-Malone et al. 2004; Pravikoff et al. 2005; Kajermo & Boström 2010; Solomons & Spross 2010; Melnyk, Fineout-Overholt et al. 2012a; Stokke et al. 2014; Yoder et al. 2014; Melnyk et al. 2014).

Aim of study (1):

- The aim of the study was to identify
 - the extent to which nurses in Slovenian hospital settings implement EBP,
 - to establish their beliefs on EBP and possible correlations between these beliefs and EBP implementation, and
 - to identify possible explanatory factors.

Methods (1-4):

- **INSTRUMENT:**

- EBP Beliefs Scale and EBP Implementation Scale (Melnik et al. 2008b).
- 16 demographic questions: basic, educational and training activities (), access to information databases, self-assessment of research and EBP knowledge, job satisfaction.
- The EBP Beliefs Scale: 16 closed-ended questions, Cronbach's Alpha = 0.914.
- EBP Implementation Scale: 19 closed-ended questions, Cronbach's Alpha = 0.969.
- In total, the questionnaire consisted of 51 items.
- Factorial analysis:
 - The EBP Beliefs Scale: 3 factors, explained 57.88% (44.36%, 8.57% and 4.93%): 'Positive beliefs on EBP' and 'Aversion to EBP'.
 - EBP Implementation Scale: 1 factor, explained 63.58%.

- SAMPLE (N = 534, 39,47%):**

	Mean (SD)	Min - Max
AGE in years	40.39 (8.58)	24 - 65
GENDER	Number (N)	%
Female	477	89.3
Male	49	9.2
Not given	8	1.5
EDUCATIONAL ACHIEVEMENT		
RN	34	6.9
BSN	434	81.3
MSN or MSc in other area	54	10.1
Not given	9	1.7

TRAINING AND EDUCATION OVER THE LAST FIVE YEARS (answer: YES)	Number (N)	%
Research	169	31
EBP in nursing	151	28.3
ACCESS TO INFORMATION DATABASES (answer: YES)	197	36.9

PERCEIVED LEVEL OF KNOWLEDGE (1 to 5)	Mean (SD)	Min - Max
Research	2.87 (0.93)	1 - 5
EBP in nursing	2.94 (0.94)	1 - 5
JOB SATISFACTION (1 to 5)	3.74 (0.83)	1 - 5

- **DATA COLLECTION AND STATISTICS:**
- The research was conducted between 15 January and 18 March 2015.
- Each hospital confirmed its participation by adopting a decision at the relevant expert meeting.
- Data were analyzed using statistical software SPSS 22. We used basic descriptive analysis, chi-square test, Pearson's correlation coefficient, Principal Axis Factoring approach to factor analysis (rotation method: Oblimin with Kaiser Normalization), and linear regression. The level of statistical significance was set at $p < 0.05$.

Results (1-3): Beliefs on EBP

Items:	N	Mean	SD
I believe that EBP results in the best clinical care for patients.	525	4.10	.815
I am clear about the steps of EBP.	519	3.24	1.006
I am sure that I can implement EBP.	515	3.31	.932
I believe that critically appraising evidence is an important step in the EBP process.	518	3.77	.846
I am sure that evidence-based guidelines can improve clinical care.	523	4.00	.793
I believe that I can search for the best evidence to answer clinical questions in a time efficient way.	521	3.52	.830
I believe that I can overcome barriers in implementing EBP.	519	3.37	.839
I believe that I can implement EBP in a time efficient way.	518	3.25	.867
I am sure that implementing EBP will improve the care that I deliver to my patients.	516	3.75	.850
I am sure about how to measure the outcomes of clinical care.	517	3.36	.959
I believe that EBP takes too much time.	506	3.20	.865
I am sure that I can access the best resources in order to implement EBP.	507	3.19	.845
I believe EBP is difficult.	512	3.31	.858
I know how to implement EBP well enough to make practice changes.	513	3.11	.900
I am confident about my ability to implement EBP where I work.	515	3.34	.844
I believe the care that I deliver is evidence-based.	299	3.56	.835

Mean: 5-point scale (1-strongly disagree, 5-strongly agree)

Items: EBP implementation, portion of implementation	N	Mean	SD	Portion (%) of impl.
I use research evidence to change my clinical practice.	491	1.88	.992	37.6
I critically appraise evidence from a research study.	493	1.96	1.045	39.2
I generate a PICO question about my clinical practice.	458	1.71	.993	34.2
I informally discuss evidence from research studies with my colleagues.	483	2.28	1.154	45.6
I collect data on a patient problem.	490	2.95	1.394	59
I share research evidence in the form of a report or presentation with more than 2 colleagues.	480	2.00	1.178	40
I evaluate the outcomes of a practice change.	483	2.17	1.170	43.4
I share EBP guidelines with my colleagues.	486	2.11	1.139	42.2
I share research evidence with patients/family members.	474	1.75	1.016	35
I share research evidence with multidisciplinary team members.	488	2.05	1.105	41
I read scientific articles.	492	2.54	1.152	50.8
When I read a scientific article, I critically appraise the conducted study.	486	2.32	1.114	46.4
I access systematic review databases.	485	1.98	1.109	39.6
I follow national guidelines.	490	2.34	1.284	46.8
I use EBP guidelines or systematic reviews to change clinical practice where I work.	477	2.10	1.142	42
I evaluate a care initiative by collecting patient outcome data.	483	2.23	1.214	44.6
I share the results/data obtained with colleagues.	493	2.32	1.216	46.4
I change my practice based on patient outcome data.	488	2.38	1.215	47.6
I promote the use of EBP to my colleagues.	490	2.04	1.126	40.08

Mean: 5-point scale (1 – never in 8 weeks, 2 – once to three times in 8 weeks, 3 – four to six times in 8 weeks, 4 – six to eight times in 8 weeks, 5 – more than eight times in 8 weeks)

Regression model

	Respondent beliefs on EBP								EBP implementation			
Independent variables, Characteristics	$(R^2 = 0.311)$ Positive beliefs on EBP				$(R^2 = 0.222)$ Aversion to EBP				$(R^2 = 0.205)$ EBP implementation			
	b	SE _b	b	p	b	SE _b	b	p	b	SE _b	b	p
Perceived knowledge of research	.251	.092	.240	.007	.031	.096	.030	.748	.213	.085	.206	.013
Perceived knowledge of EBP	.169	.087	.164	.052	-.337	.093	-.333	.000	.175	.084	.166	.039
Perceived job satisfaction	.270	.068	.236	.000	-.114	.072	-.100	.112	.193	.072	.154	.008
Training and education in nursing research (last 5 years)	-.255	.166	-.129	.127	.040	.162	.021	.807	.000	.152	.000	.998
Training and education in EBP in nursing (last 5 years)	.056	.162	.028	.730	.374	.162	.191	.022	-.176	.149	-.084	.238
Access to information databases					.092	.118	.048	.435	-.202	.114	-.099	.078
Length of employment in nursing	.018	.007	.159	.008	-.014	.016	-.143	.401				
Age in years					.005	.019	.045	.793				
Educational achievement: RN					-.125	.233	-.034	.592	.067	.293	.012	.820
Educational achievement: MSN or MSc	.185	.167	.065	.270	-.212	.191	-.068	.269	.113	.179	.036	.528

Discussion:

- Participants understand the benefits of EBP;
- EBP implementation: unfamiliar with the processes involved in evidence-based care, unsure of their ability to implement evidence-based care in practice and lack of the knowledge;
- Results on EBP implementation were far below our expectations and therefore a surprise, although previous research results confirm the same (Stokke et al. 2014; Levin et al. 2011; Wallen et al. 2010; Melnyk et al. 2008b; Varnell et al. 2008).
- The results of Slovenian research by Skela Savič and Kiger (2015) have shown that nurses spent only 2% of their work time engaged in research activities.

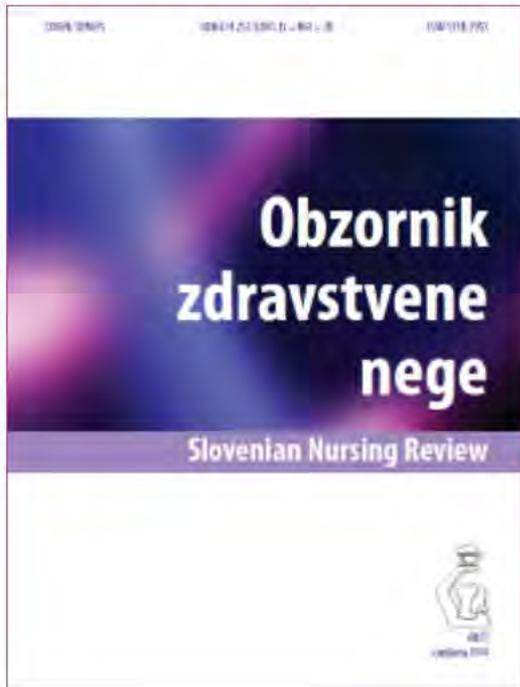
Actions in national level:

- **Nursing managers** in Slovenian hospitals should encourage the development of head nurses in the field of research and evidence-based practice.
- **In study program in nursing** we should include more knowledge in research and evidence based practice.
- The national **future vision of nursing development** should clearly include research and EBP and be incorporated at all levels of hospital care.



Invitation for publication

Slovenian Nursing Review

[HOME](#)[ISSUES](#)[FOR AUTHORS](#)[EDITORIAL BOARD](#)[SLOVENIAN](#)

INTRODUCTION

Published in the Slovenian Nursing Review (Slov Nurs Rev) are the original and review scientific and professional articles and the news on current events in the field of nursing, midwifery and other interdisciplinary health and social sciences. The articles explore the developmental paradigms of the relevant fields in accordance with their scientific, theoretical and philosophical bases, which are reflected in the experimental and non-experimental research, qualitative studies and reviews. The articles consider nursing and other health sciences as scientific and professional disciplines and include the key dimensions of their development such as theoretical concepts, models, ethics and philosophy, clinical practice, health promotion, the development of practice and more demanding modes of health care delivery, education, management, quality and safety, health policy and others.

The articles published in the Slovenian Nursing Review, which are interdisciplinary oriented, significantly contribute towards the professional development of nursing, midwifery and other health professions in Slovenia, the Balcans, and the countries of the Central and Eastern Europe which share common characteristics of nursing development of post-socialist countries.

The Slovenian Nursing Review follows the international standards in the field of publishing endorsed by the international editorial board and a critical selection of

[SEARCH THE SITE](#)[SEARCH THE ARTICLES](#)[LINKS](#)[CONTACT](#)

07773

Age

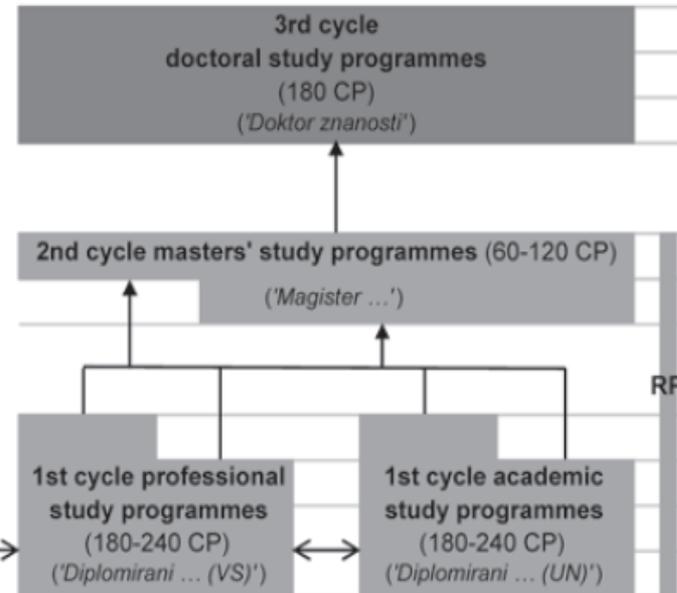
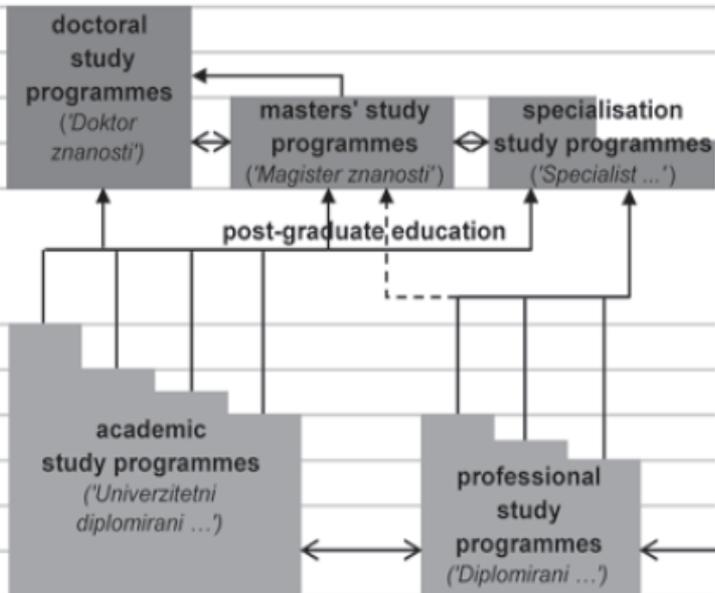
Age

27
26
25
24
23

25
24
23
22
21
20
19

27
26
25
24

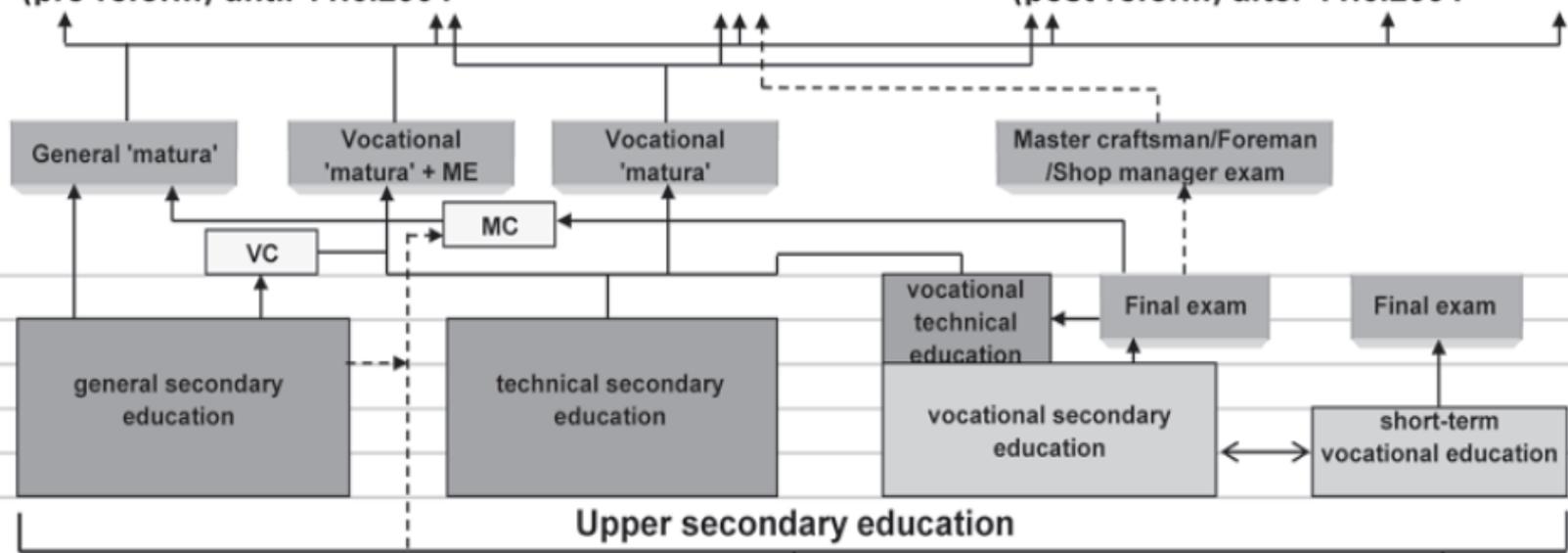
23
22
23
22
21
20
19



Higher education (pre-reform) until 11.6.2004

Higher education (post-reform) after 11.6.2004

19
18
17
16
15



Upper secondary education

15

10th year