

# Organization of hospital nursing, provision of nursing care, and patient experiences with care in Europe

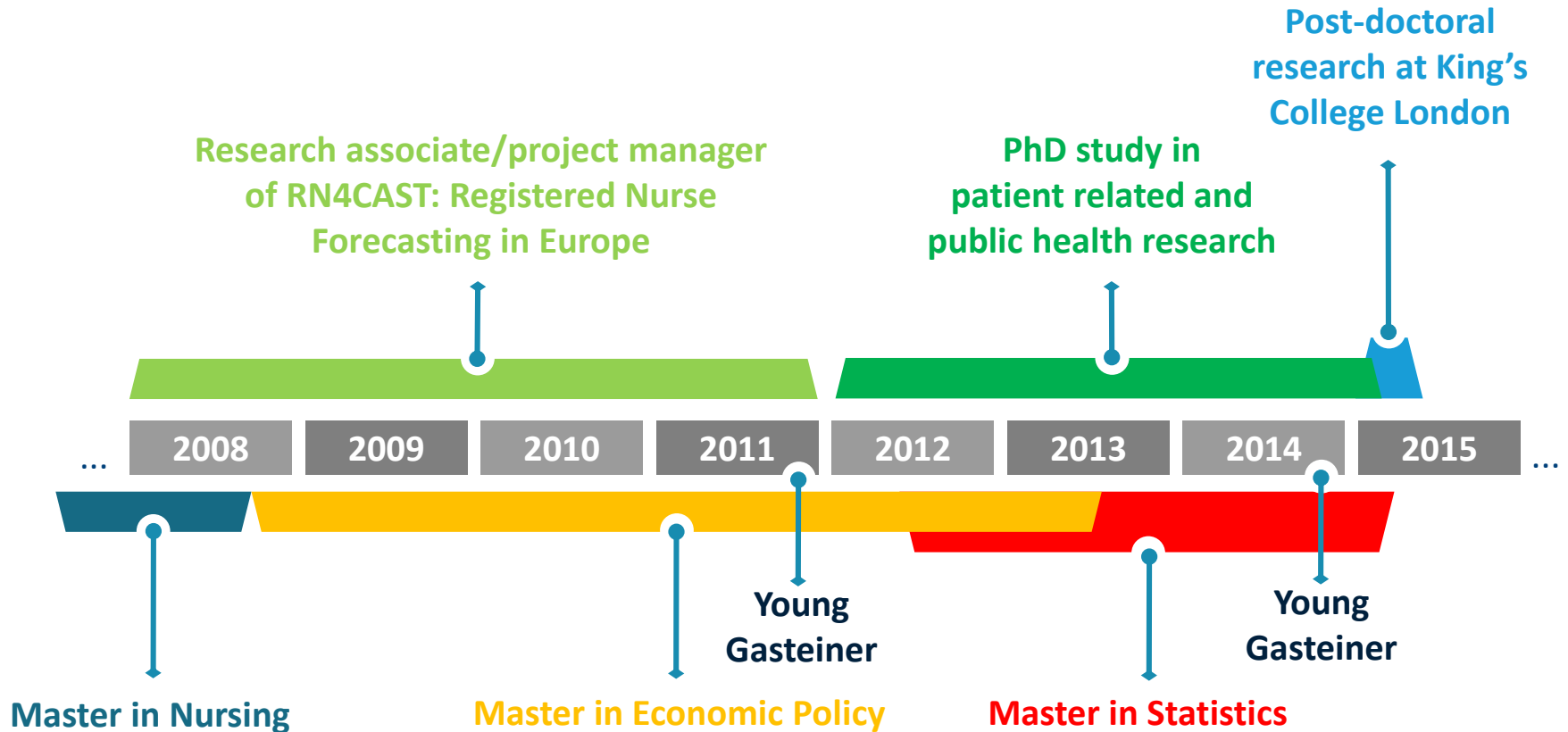
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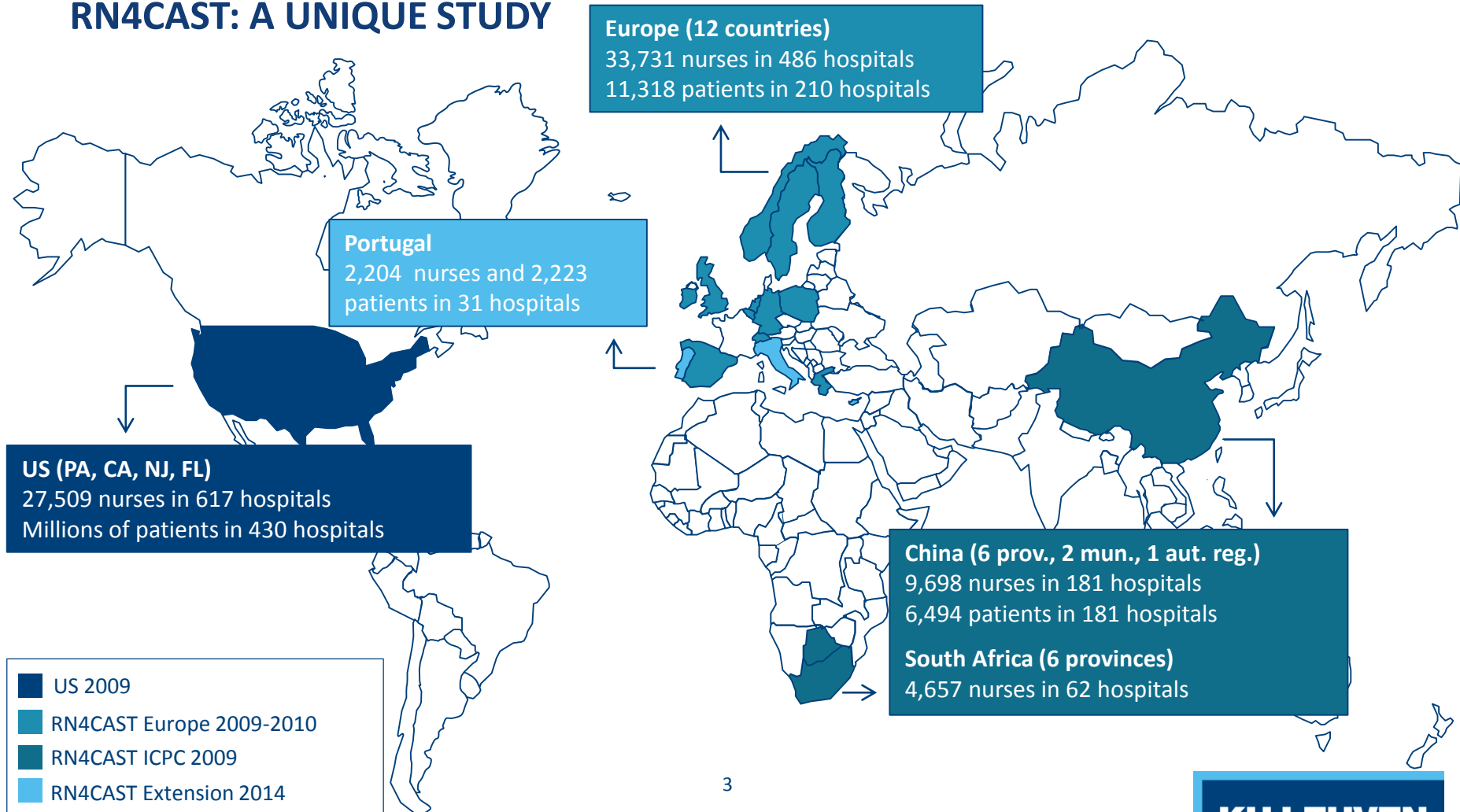
# WHO AM I: BUILDING A CAREER IN HEALTH SERVICES

## RESEARCH EXPERIENCE, FURTHER EDUCATION, LINK TO POLICY MAKING



# NURSING: KEY TO PATIENT SAFETY

## RN4CAST: A UNIQUE STUDY



# NURSING: KEY TO PATIENT SAFETY

## RN4CAST: FINALLY GENERATING EUROPEAN EVIDENCE



2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014

• Staffing and patient mortality  
Aiken et al. JAMA

• Staffing and patient complication rates  
Needleman et al. NEJM

• Education and patient mortality  
Aiken et al. JAMA

• Work environment,  
staffing and patient experiences  
Aiken et al. BMJ for RN4CAST

• Staffing, education  
and patient mortality  
Aiken et al. Lancet  
for RN4CAST

# NURSING: KEY TO PATIENT SAFETY

## GENERATING WORLDWIDE EVIDENCE

### Migratory status and non-nursing tasks

*International Journal of Nursing Studies*  
& *Second book volume PROMeTHEUS*

### Nurse work environment and burnout

*International Journal of Nursing Studies*

### Staff nurses' versus managers' perceptions of work environments

*Medical Care*

### Care left undone and patient experiences with care

*Medical Care Research and Review*

PhD

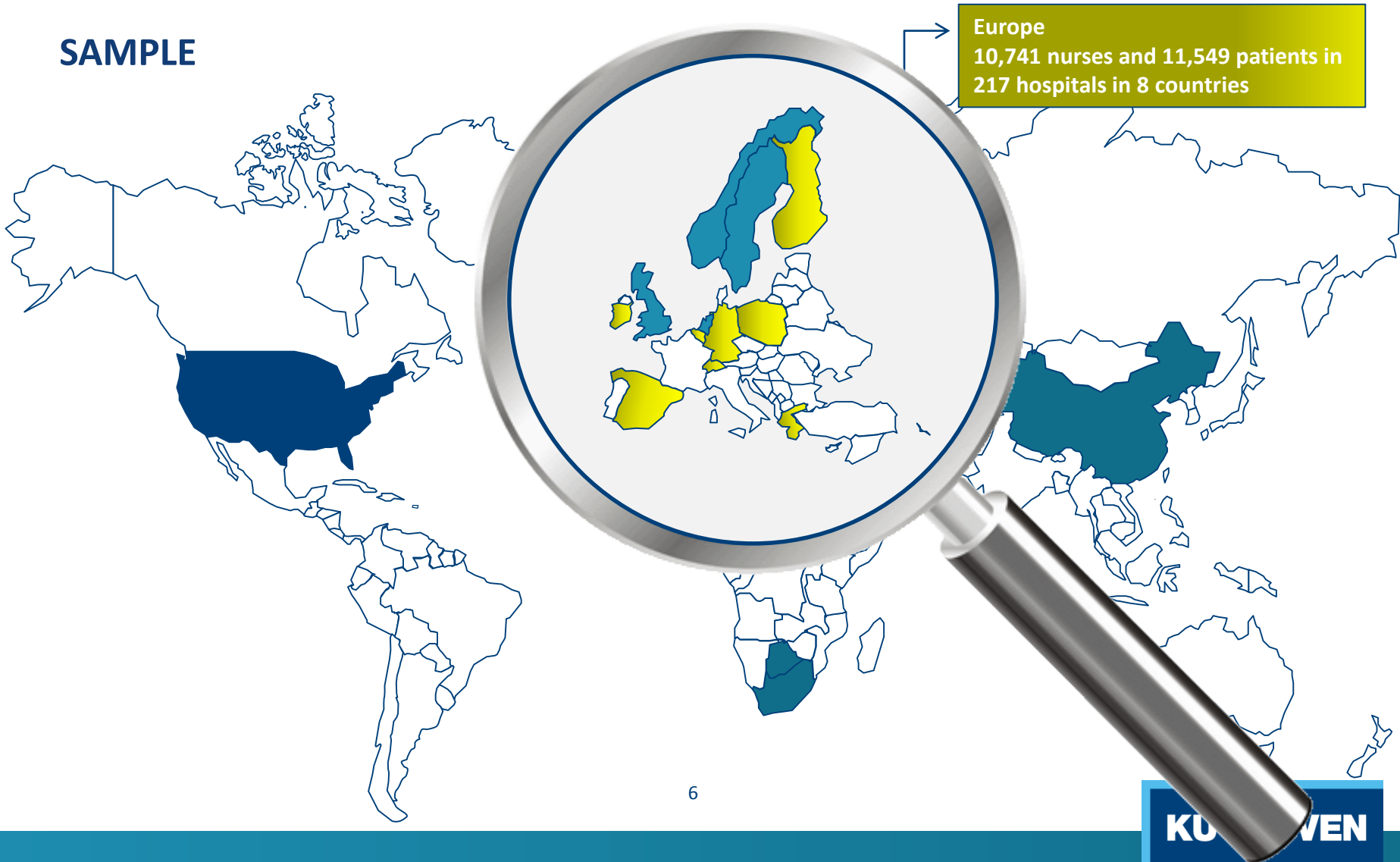


RN4CAST

+50 publications in international peer-reviewed journals

# CARE LEFT UNDONE AND PATIENT EXPERIENCES

## SAMPLE



# CARE LEFT UNDONE AND PATIENT EXPERIENCES

## WHAT IS ALREADY KNOWN

- High quality care inheres in the interaction of nurses with patients
- Increased research interest in process variables such as care left undone

## NEW CONTRIBUTION

- Patient experiences are an indicator of quality deficiencies in structures and processes of nursing care
- Emphasis of the synergy between nursing education and nurse staffing

# CARE LEFT UNDONE AND PATIENT EXPERIENCES

## STUDY AIMS

1. Specify the extent to which nursing care that is left undone **mediates** the relationship between the organization of hospital nursing and patient experiences with hospital care
2. Specify how the importance of tasks left undone, as an intervening variable, is **moderated** by the effects of the educational level of hospital staff nurses



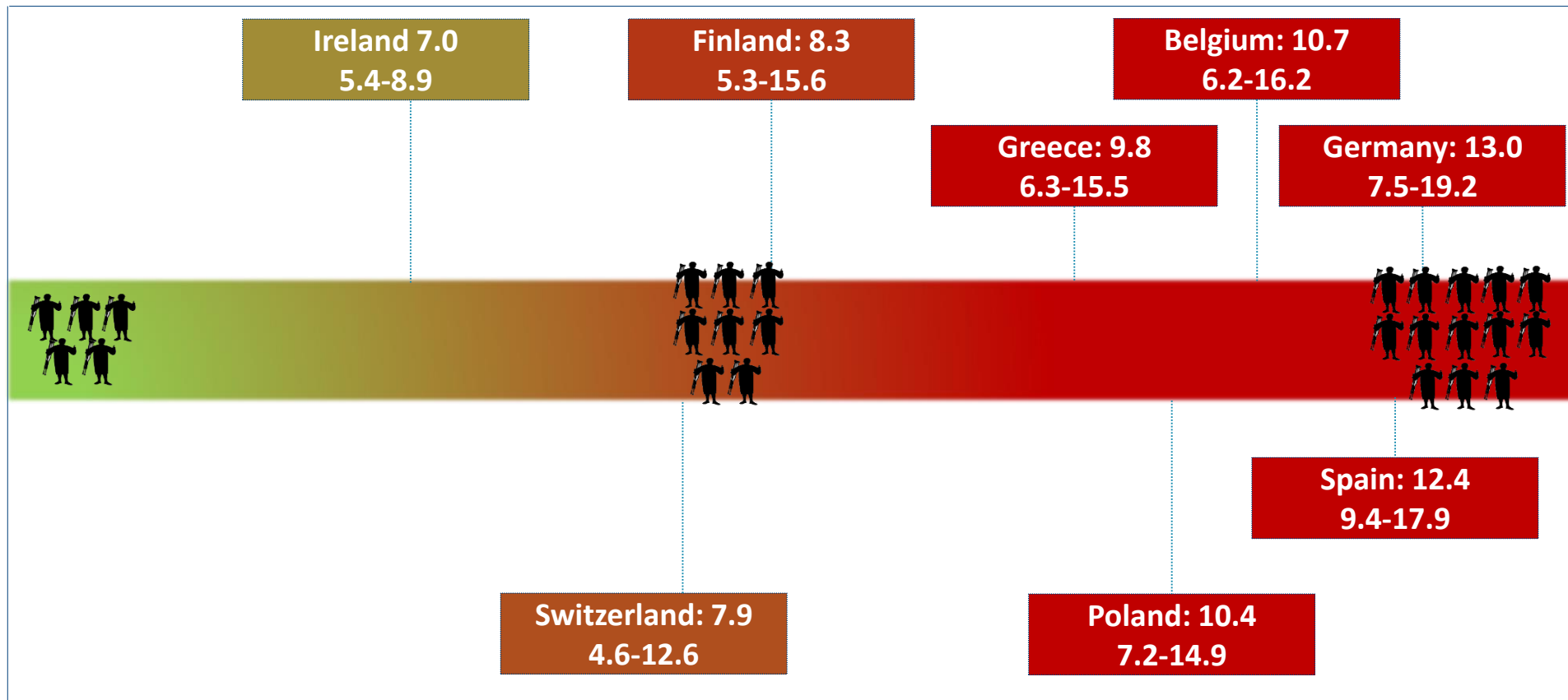
# CARE LEFT UNDONE AND PATIENT EXPERIENCES

## FINDINGS: VARIATION IN PATIENT SATISFACTION/CARE LEFT UNDONE

	Patient survey		Nurse survey	
	% Patients rating the hospital 9 or 10	% Patients definitely recommending the hospital	Average number of clinical care activities left undone	Average number of planning/communication activities left undone
Belgium	46.50 (24.56-82.76)	58.31 (19.23-80.77)	1.79 (.66-3.32)	1.99 (.36-2.94)
Finland	58.70 (25.81-77.23)	65.22 (35.71-8.00)	1.31 (.15-2.92)	1.43 (.60-2.73)
Germany	47.42 (23.53-71.43)	65.23 (17.65-85.71)	1.76 (0.83-2.38)	2.55 (1.83-3.48)
Greece	41.96 (15.00-76.47)	56.64 (20.97-84.62)	3.20 (1.27-4.29)	2.20 (0.75-3.10)
Ireland	60.18 (36.00-80.00)	74.10 (60.00-96.67)	1.42 (1.00-2.15)	2.27 (1.50-3.13)
Poland	54.17 (33.57-76.32)	56.61 (34.43-69.75)	1.29 (0.62-1.95)	2.09 (1.22-2.93)
Spain	34.87 (0-68.18)	54.11 (18.52-83.33)	1.39 (0.83-1.92)	2.08 (1.51-2.73)
Switzerland	61.20 (36.11-100)	76.94 (40.00-100)	1.02 (0.45-1.88)	1.58 (0.67-2.35)

# CARE LEFT UNDONE AND PATIENT EXPERIENCES

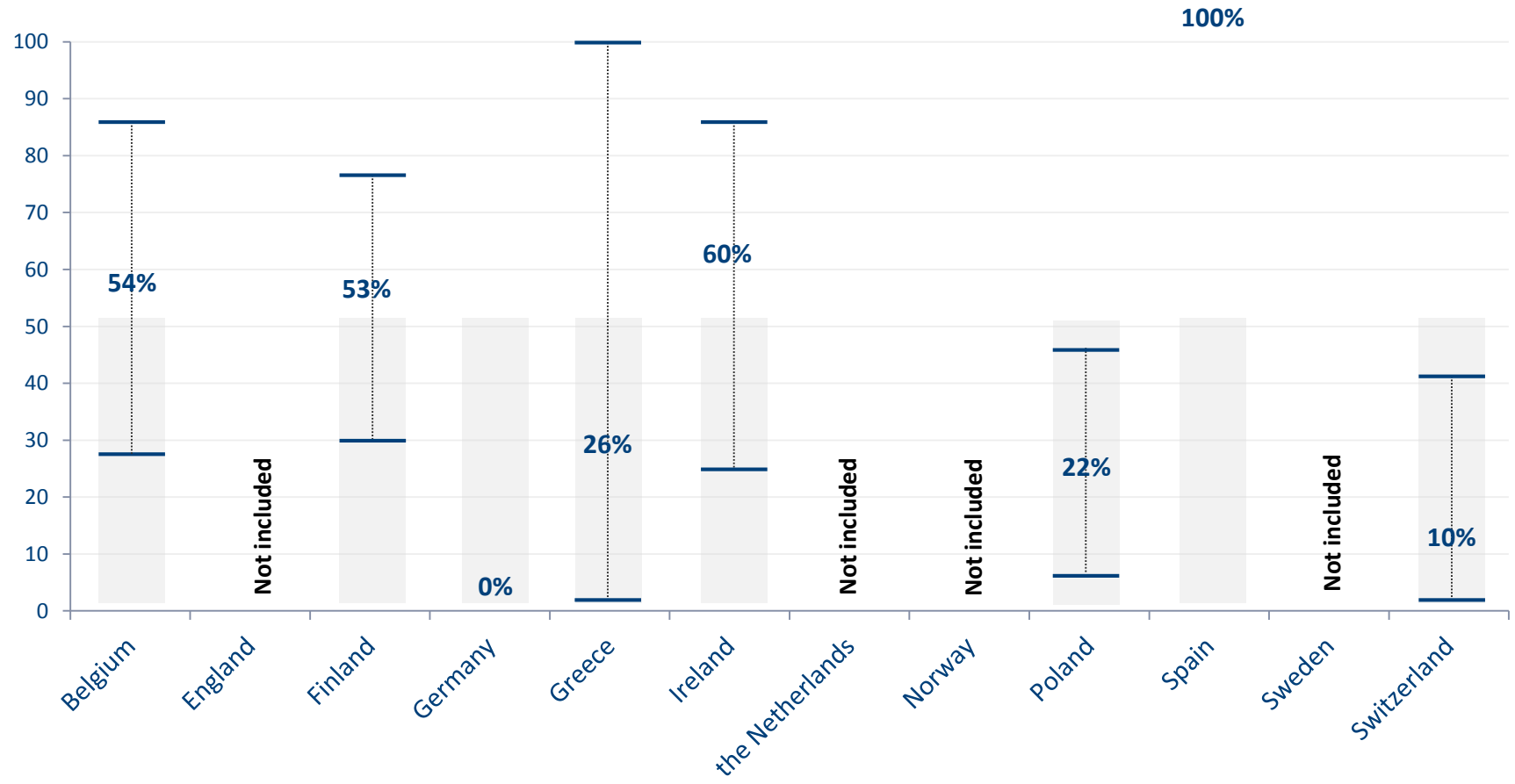
## FINDINGS: VARIATION IN NURSE STAFFING (PATIENTS PER NURSE)



Weighted by hospital level

# CARE LEFT UNDONE AND PATIENT EXPERIENCES

## FINDINGS: VARIATION IN NURSE EDUCATION LEVEL (% BACHELOR NURSES)



Weighted by hospital level

# CARE LEFT UNDONE AND PATIENT EXPERIENCES

## ANALYTIC STRATEGY

Three linked data sources

Common identifiers		Patient survey data		Nurse survey data			Adm. data
Country	Hospital	Patient	Rating of the hospital	Nurse staffing	Clinical care undone	Education levels	Teaching status
$(c)$	$(h)$	$(p)$	$(y_{phc})$	$(x_{hc})$	$(m_{hc})$	$(w_{hc})$	$(c_{hc})$
BE	1	1	0	9.45	3.2	60.40	0
BE	1	2	0	9.45	3.2	60.40	0
BE	1	3	0	9.45	3.2	60.40	0
BE	2	6	.	7.50	2.05	75.50	1
BE	2	7	0	7.50	2.05	75.50	1
NL	1	1	0	6.50	1.60	40.80	0
NL	1	2	1	6.50	1.60	40.80	0

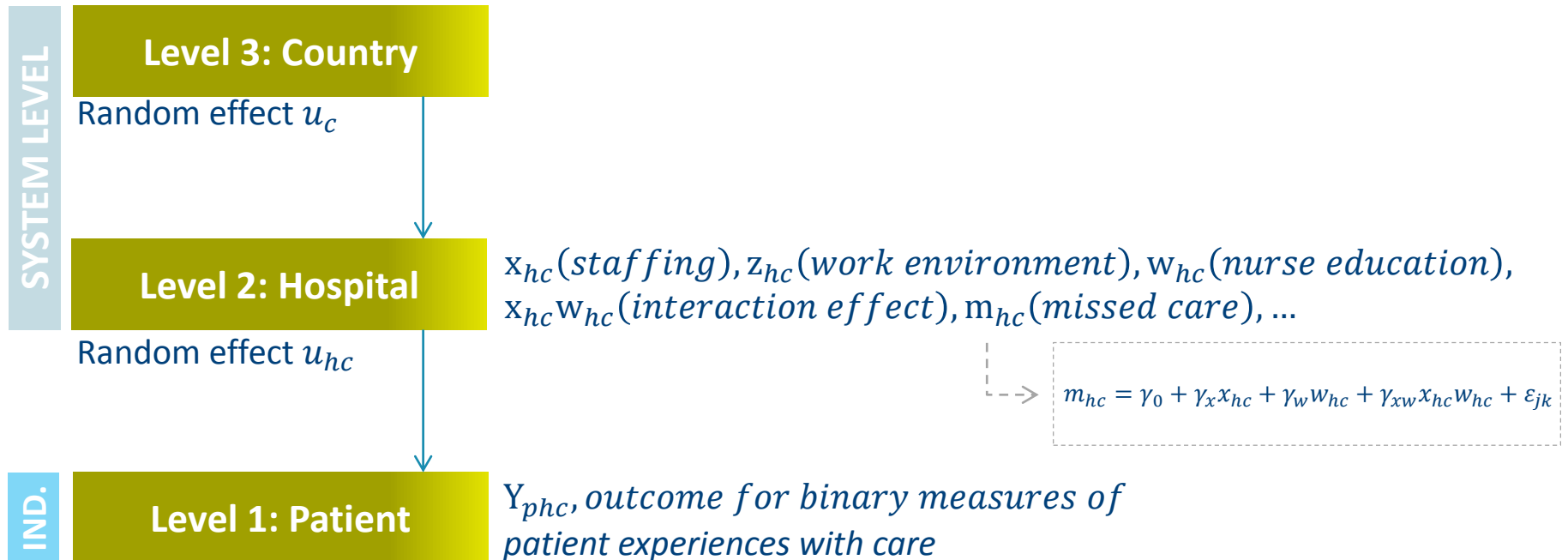
IND. LEVEL

SYSTEM LEVEL

# CARE LEFT UNDONE AND PATIENT EXPERIENCES

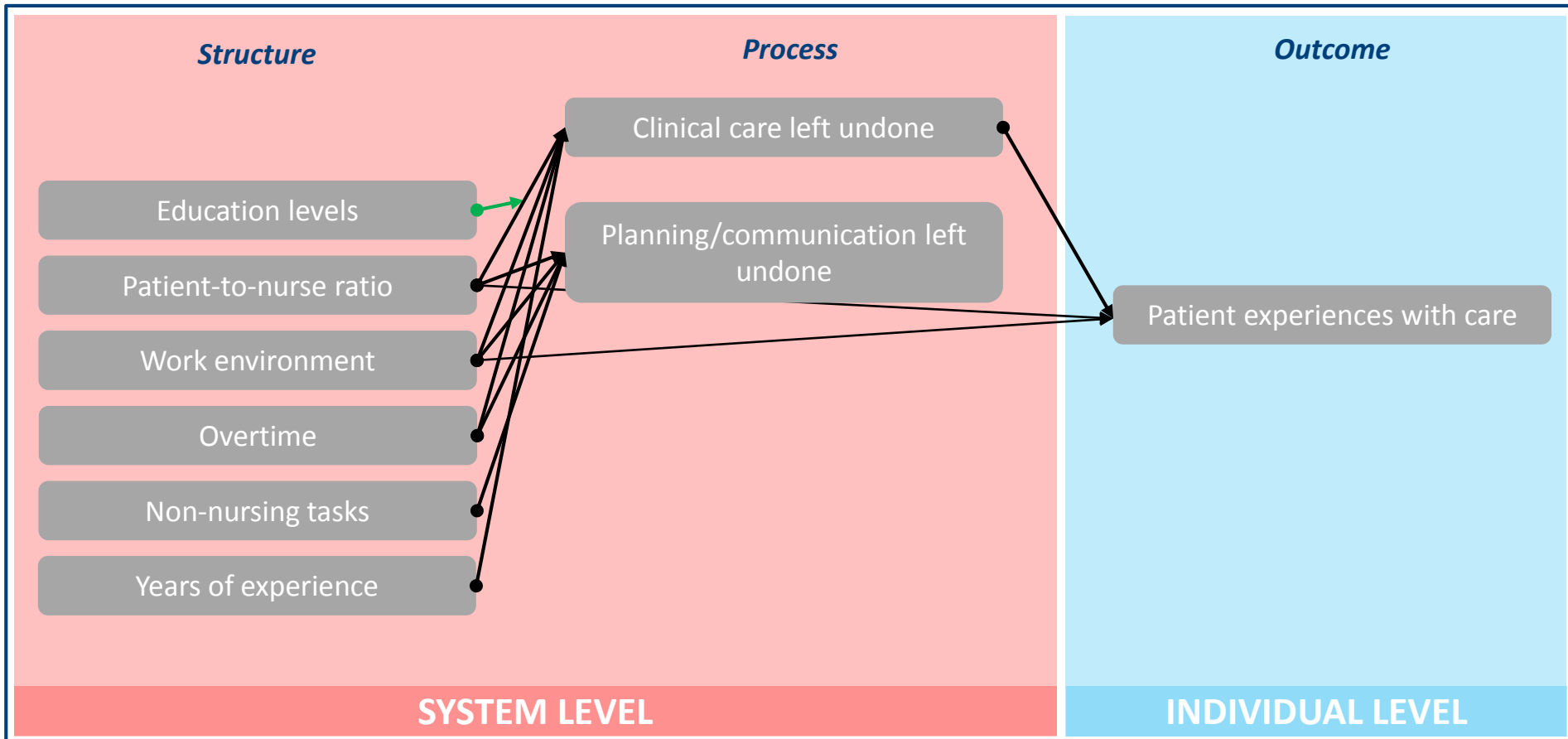
## ANALYTIC STRATEGY

Three-level (moderated) mediation



# CARE LEFT UNDONE AND PATIENT EXPERIENCES

## FINDINGS



# GENERAL DISCUSSION

## AVENUES FOR FURTHER RESEARCH

- Evaluating cost offsets of nursing system delivery strategies
- Extension to non-hospital settings

## POLICY CONSIDERATIONS

- Place a premium on well-educated nurses
  - ... and effectively leverage nurses' roles
  - ... and allow nurses to engage in lifelong learning
- Nurse staffing ratios
  - Mandate specific ratios
  - Matching skills and experience of nurses to the need of patients
  - Reporting staffing levels to the public/regulatory body
- Level-specific interventions to create positive work environments

**THANK YOU**

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