

RN4CAST: Evidence from Europe and the U.S. for Improving Nurse Retention and Patient Outcomes

Linda H. Aiken

www.rn4cast.eu



Nurse Work Environments Are Linked to Patient Safety and Nurse Retention

- **“Organizational behavior is as important as clinical practice” in keeping patients safe.**
World Alliance for Patient Safety, 2009
- **“The typical work environment of nurses is characterized by many serious threats to patient safety.”** Institute of Medicine, 2004
- **“Improving hospital care environments by changing organizational behavior results holds promise for improving care quality & safety, and nurse retention.”** RN4CAST, 2011

Figure 1 Health Expenditure as a percentage of Gross Domestic Product in the study countries

NORWAY

The hospitals will be organised as five regional enterprises

Hospital nurses on strike

Spanish Nurses Suffering from **BURNOUT**

Healthcare reform in Germany
Strike in perspective

Nurses STRIKE

The government says it wants to ease NHS staff shortages with 2,000 nurses from abroad over the next four years.

Hospital restructuring in Sweden

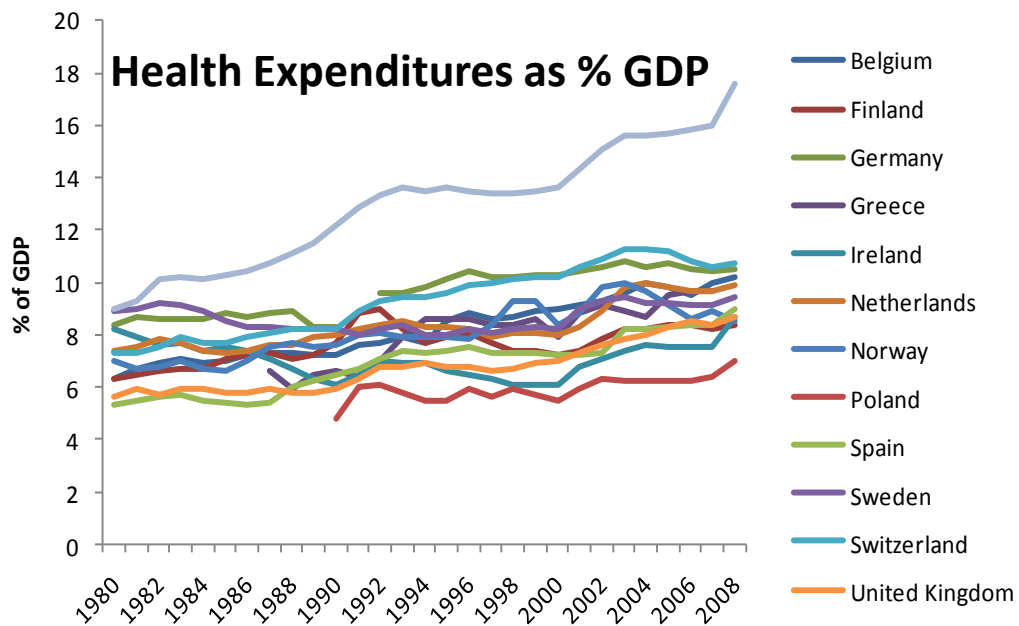
Nurses seriously injured as patient attacked

Pledge on NHS overseas recruits

appelle à une générale du infirmier le 4 cembre

NURSING BURNOUT

Depuis l'été 2001, quelque 250 infirmiers et infirmières espagnoles ont franchi les Pyrénées pour venir exercer dans des cliniques et hôpitaux français



All countries need to improve hospitals

Nurse Assessments (percents)

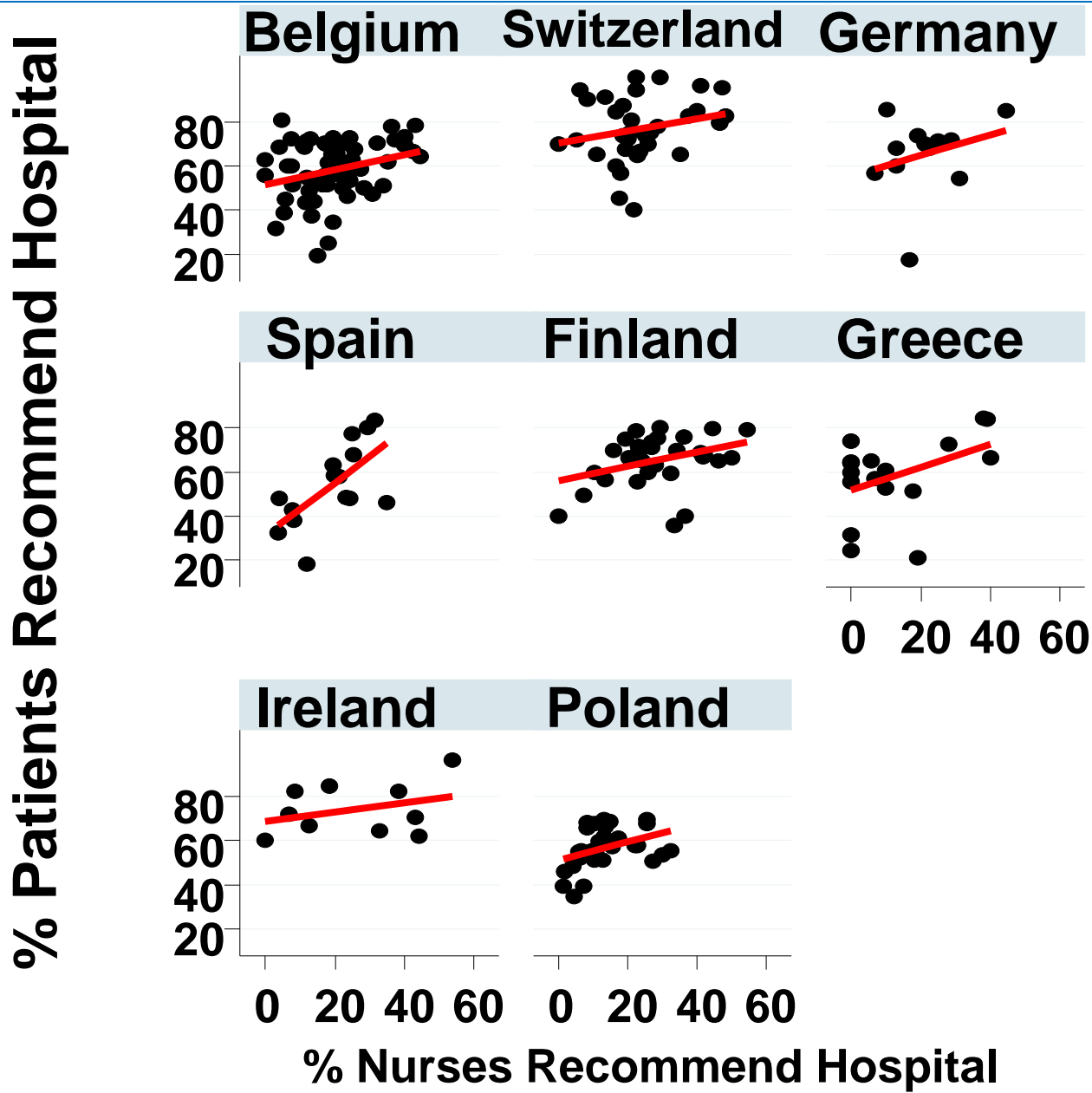
	Unit quality poor/fair	Poor or failing safety grade	High burnout	Job dissatisfaction	Intend to leave
Belgium	28	6	25	22	30
Switzerland	20	4	15	21	28
Germany	35	6	30	37	36
Spain	32	6	30	38	27
Finland	13	7	22	27	49
Greece	47	17	78	56	49
Ireland	11	8	42	42	44
Netherlands	35	6	10	11	20
Norway	13	5	24	21	25
Poland	27	18	40	26	44
Sweden	27	11	29	22	34
England	19	7	42	39	44
United States	16	6	34	25	14

Patients' Assessments of Hospitals: Room for Improvement

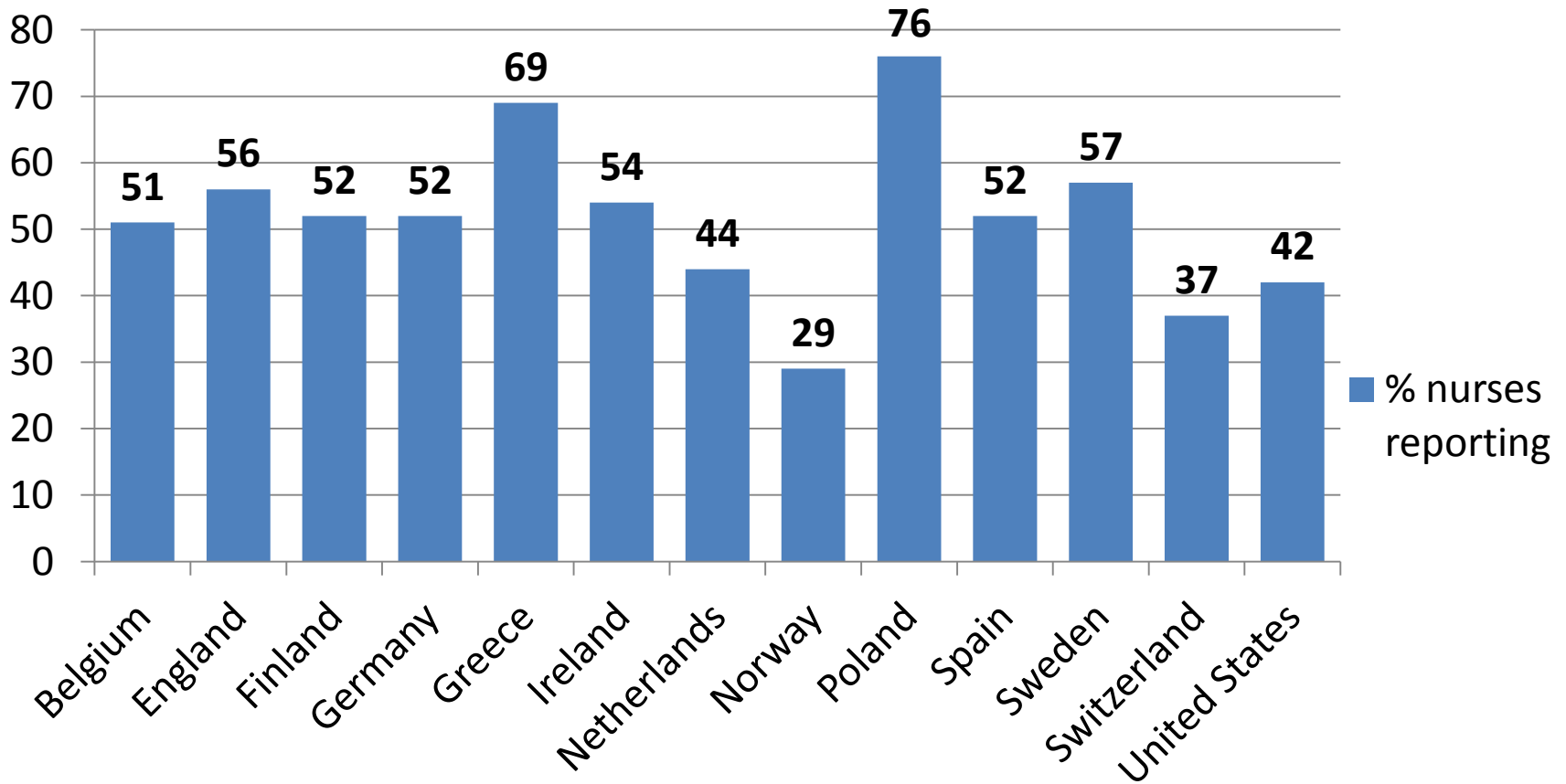
In percent

	Rate hospital 9 or 10	Recommend Hospital
Belgium	47	60
Switzerland	60	78
Germany	48	66
Spain	35	56
Finland	61	67
Greece	42	53
Ireland	61	74
Poland	55	57
United States	59	64

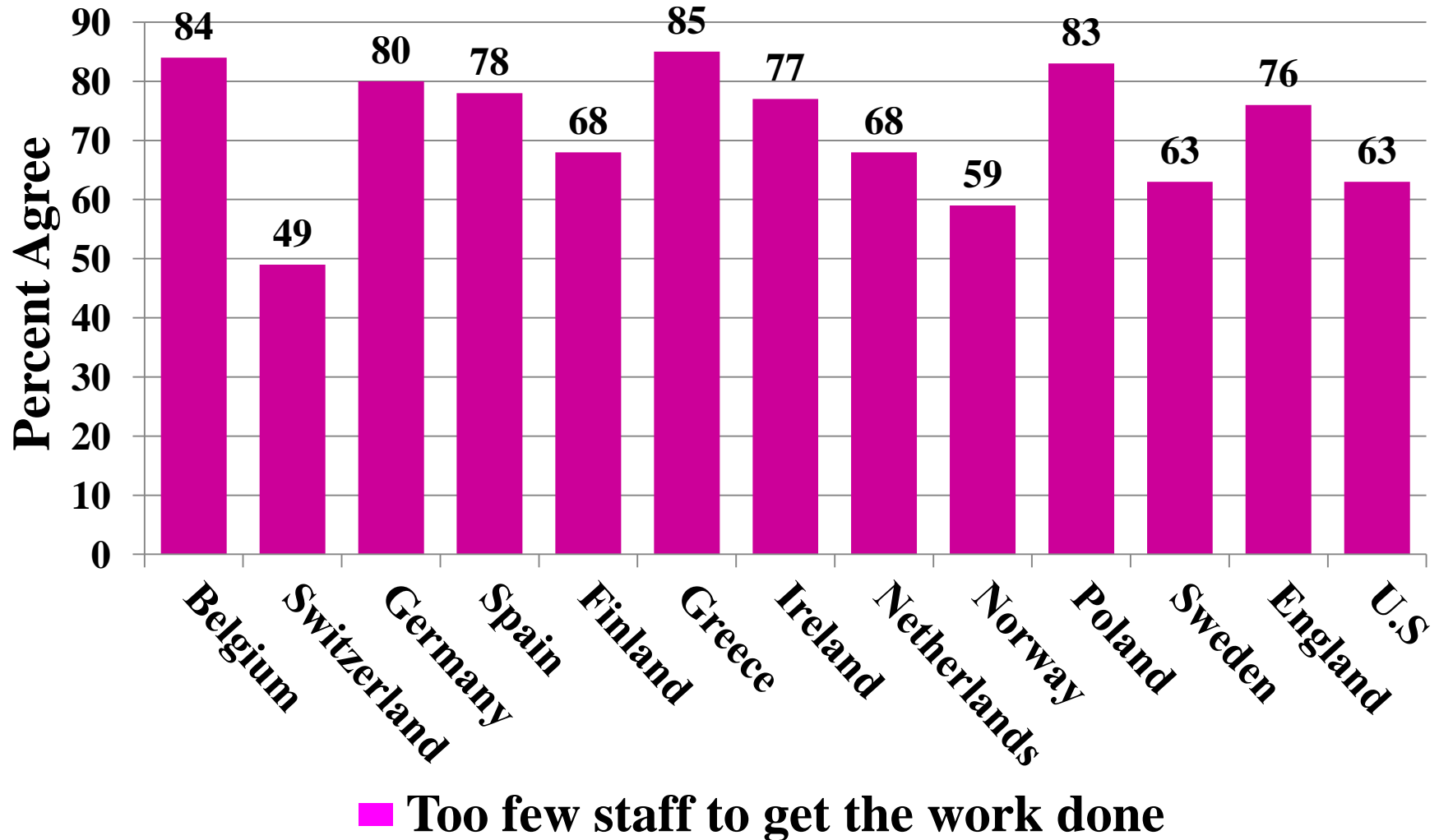
Nurses and Patients Agree Which Hospitals Are Good



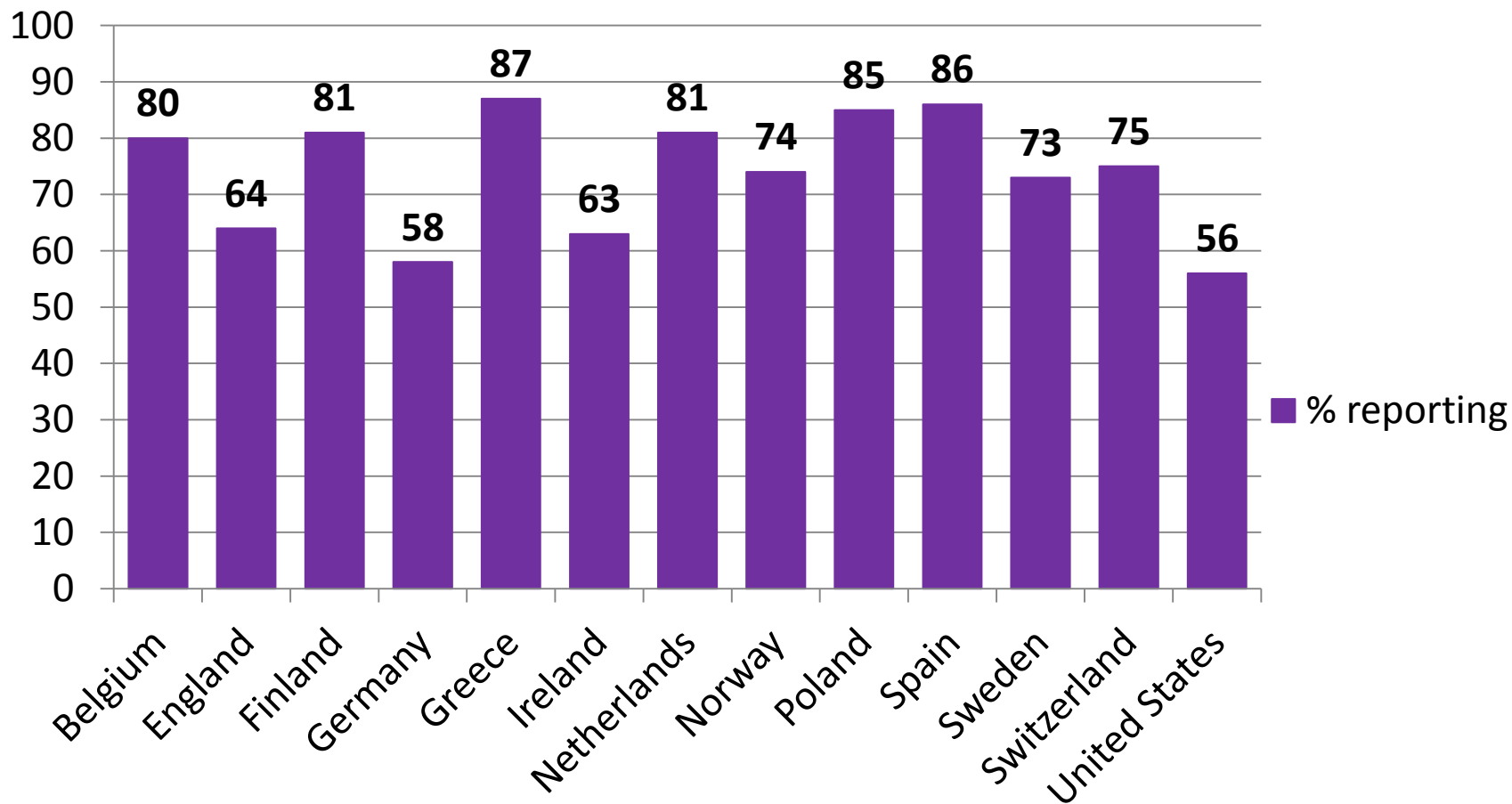
% Nurses Reporting Poor/Fair Hospital Work Environment



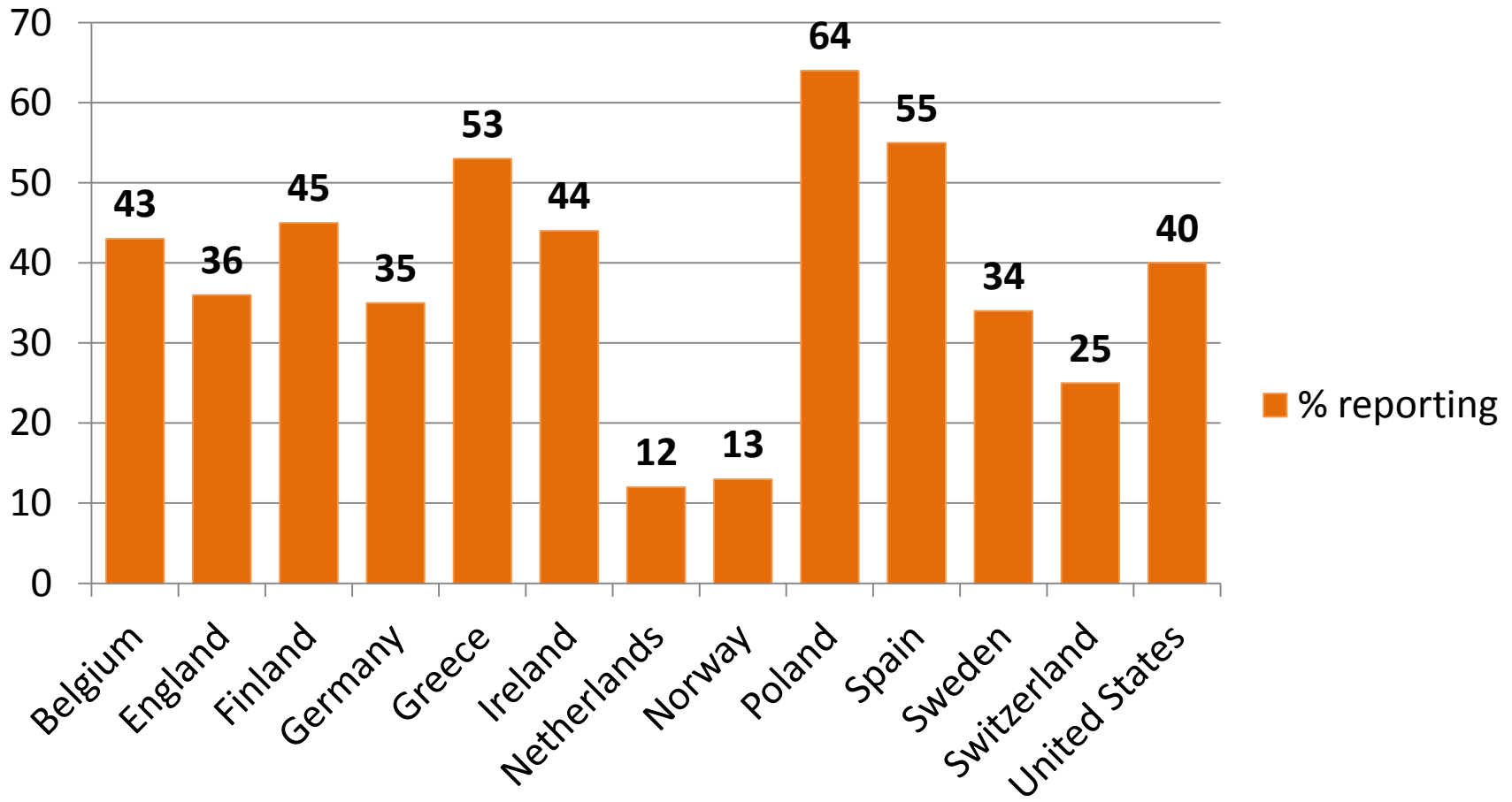
Percent Nurses Reporting Too Few Staff to Provide Quality Care



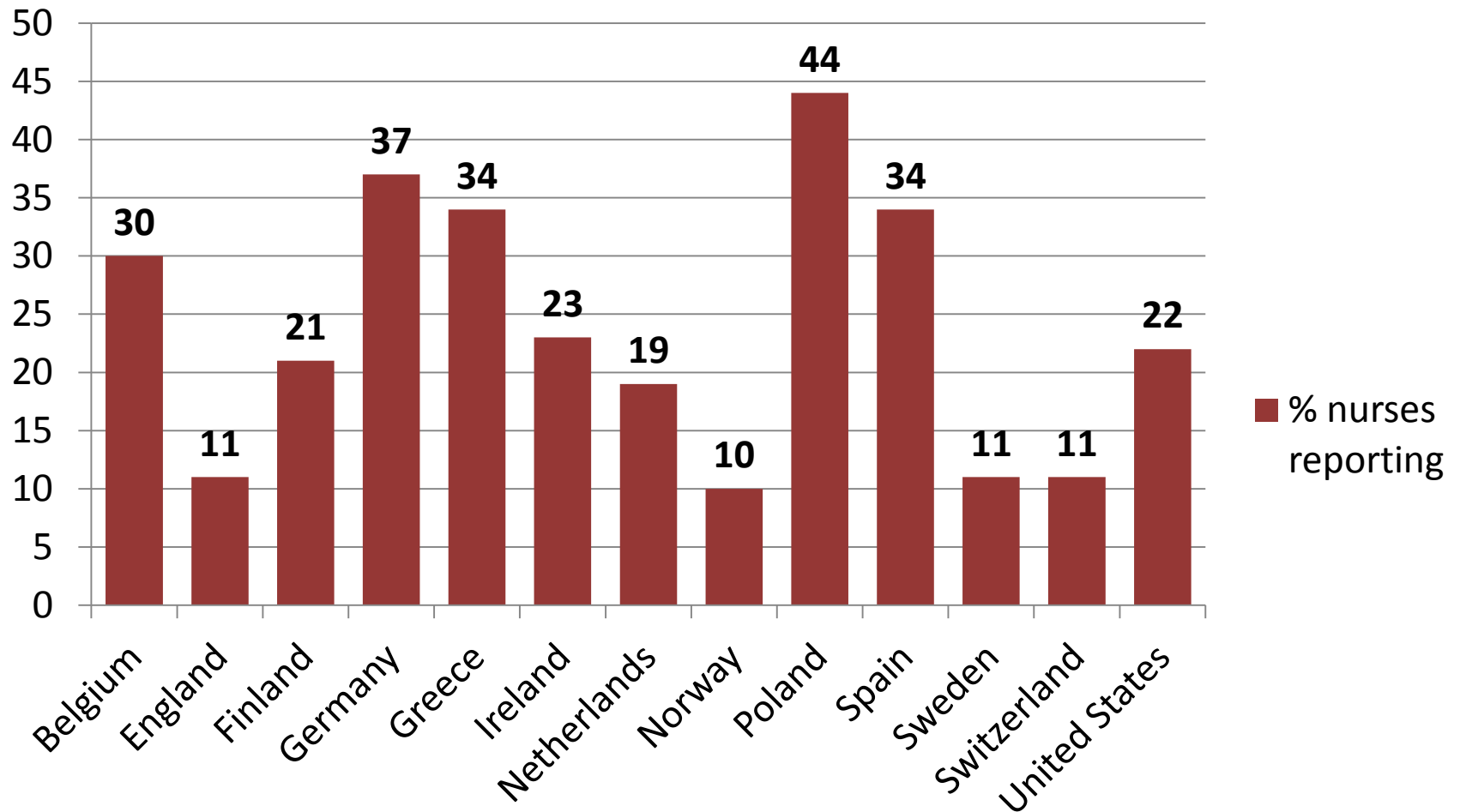
% Nurses not confident management will resolve problems



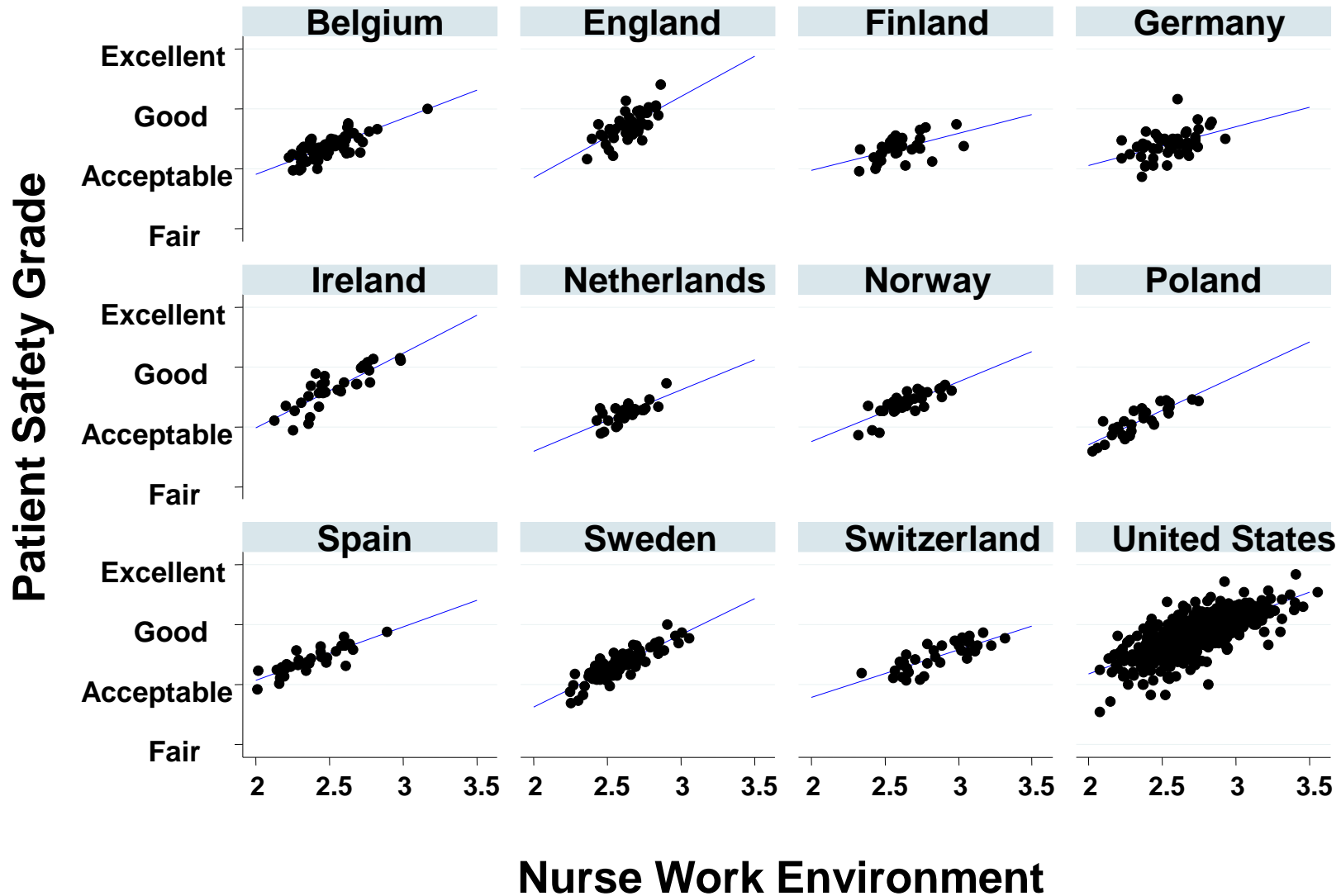
% Nurses not feel free to question the decision or actions of those in authority



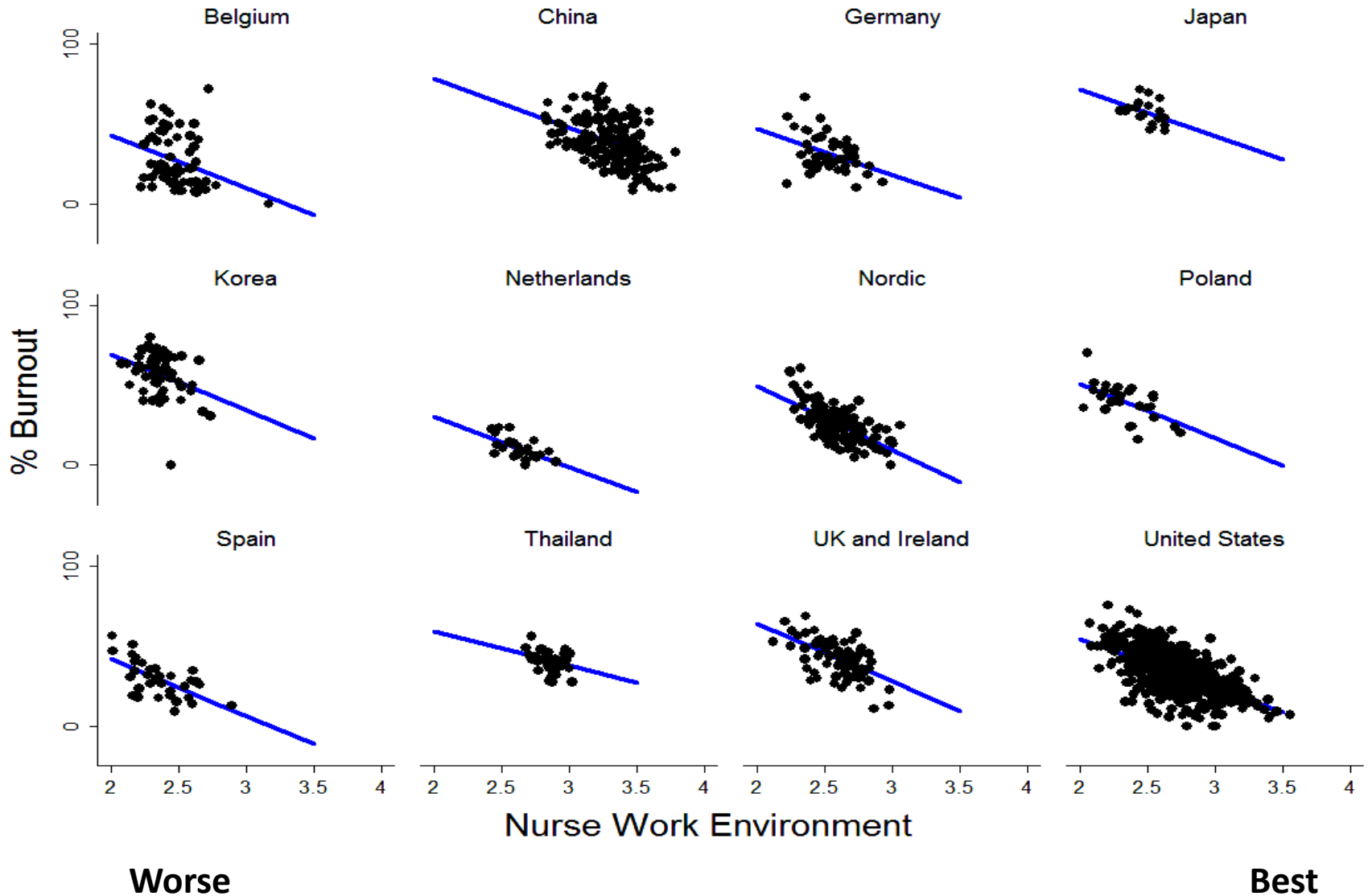
% Nurses reporting absence of positive working relationships between physicians and nurses



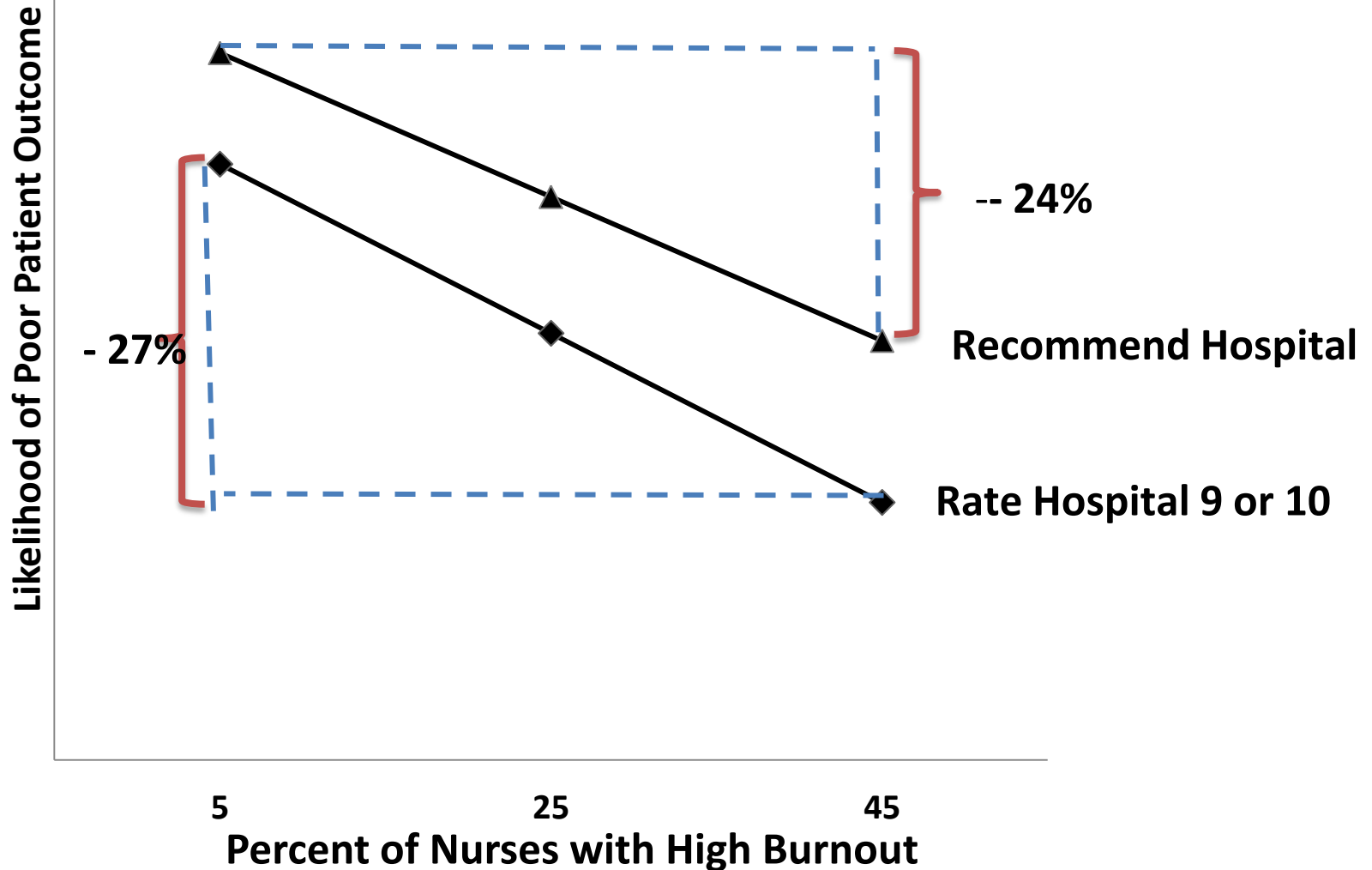
Hospital Safety Grade is Higher in Hospitals with Better Work Environments Every Country



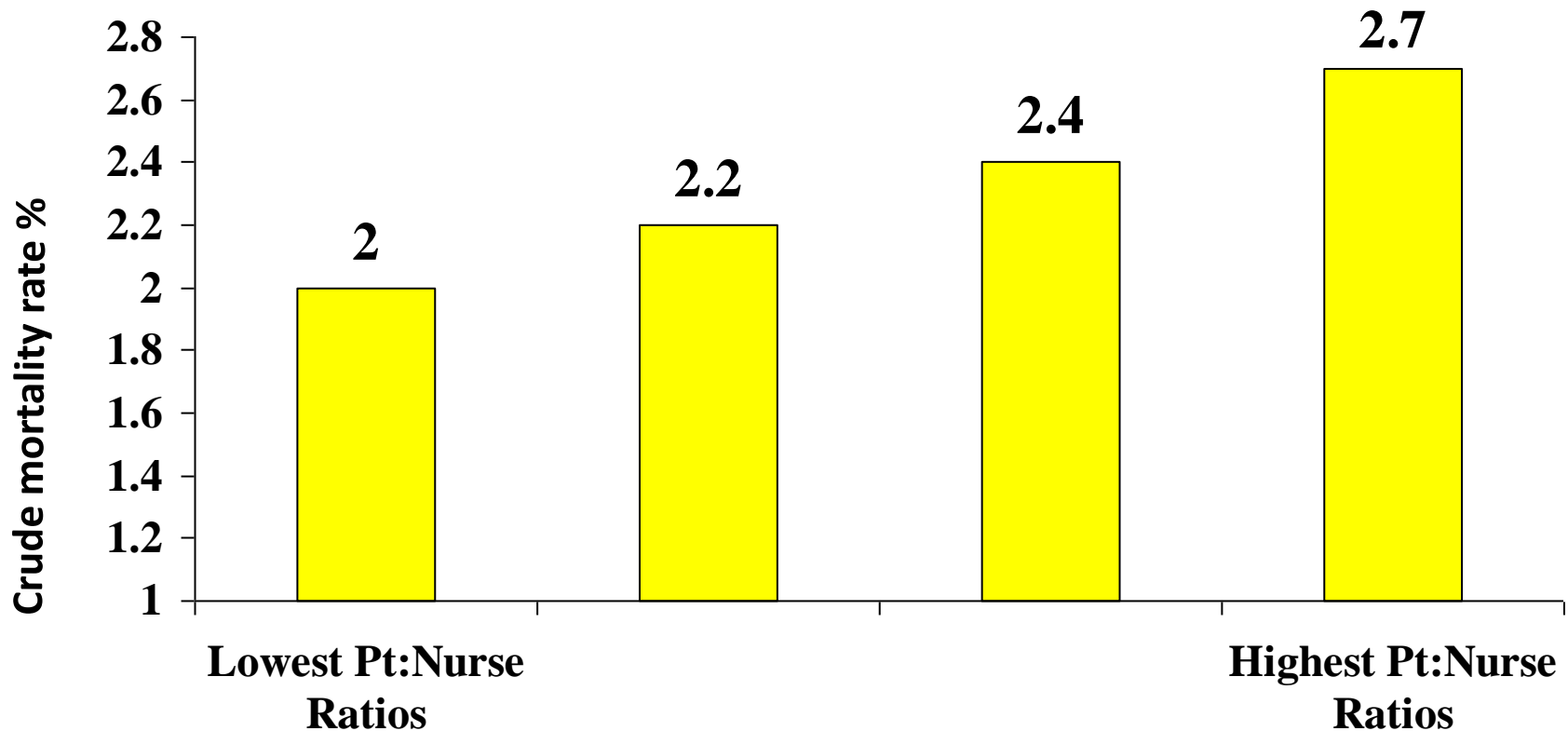
Hospitals with Better Work Environments: Lower Nurse Burnout Every Country



The Effects of Nurse Burnout on Patient Outcomes



England: Mortality Rates are Significantly Lower in English Hospitals In Which Nurses Care for Fewer Patients, 1999



Belgium Study of Nurse Staffing and Mortality Following Elective Cardiac Surgery

Van den Heede, Sermeus, Aiken et al., IJNS 2009

- **Mortality in general post operative units was significantly lower when patients received more hours of nursing care**



Effect of Nurse Staffing on Hospital Mortality in Europe

- **Preliminary results on 4 countries: Belgium, Sweden, Norway, Finland**
- **Patient selection: general, orthopedic, and vascular surgery**
- **Risk adjustment: age, sex, Charlson Co-morbidity Index**
- **Each additional patient per nurse was associated with a 10% increase in the likelihood of patients dying in the hospital following common operations**

Quality of Work Environments Mediate Effect of Staffing on Mortality

- **Impact of better staffing much greater in hospitals with best work environments**
- **Decrease in nurse workload of 1 patient per nurse lowers mortality by**
 - **9% in best work environment hospitals**
 - **4% in mixed work environments**
 - **No effect in hospitals with poor environments**

Summary and Recommendation

- **International evidence suggests that good hospital work environments are associated with better quality of care, patient safety, & nurse retention**
- **Recommendation: A high priority should be placed by managers and policymakers on improved hospital work environments**