EVIDENCE ON THE DETERMINANTS OF SAFE AND HIGH QUALITY CARE:
Overview of research evidence from the RN4CAST project (www.rn4cast.eu)

International RN4CAST results:

- **Understaffed wards have higher rates of surgical mortality.** An increase in a nurses' workload by one patient increased the likelihood of an inpatient dying within 30 days of admission by 7% (Aiken et al 2014).

- **Patients in hospitals with lower proportions of nurses with degrees have poorer outcomes.** Every 10% increase in bachelor's degree nurses was associated with a decrease in the likelihood of an inpatient dying within 30 days of admission by 7%. Patients in hospitals in which 60% of nurses had bachelor's degrees, and in which nurses cared for an average of six patients, would have almost 30% lower mortality than patients in hospitals in which only 30% of nurses had bachelor's degrees and in which nurses cared for an average of eight patients (Aiken et al 2014).

- **Poorer practice environments for nurses are associated with worse nurse-reported patient outcomes.** Improved work environments and reduced ratios of patients to nurses were associated with increased care quality and patient satisfaction (Aiken et al 2012). Nurses with better work environments were half as likely to report poor or fair care quality, and to give their hospitals poor or failing grades on patient safety. Each additional patient per nurse increased the odds of nurses reporting poor or fair quality of care) and poor or failing safety grades. Patients in hospitals with better work environments were more likely to rate their hospital highly and to recommend their hospitals, whereas those with higher ratios of patients to nurses were less likely to rate them highly or to recommend them.

- **Better practice environment for nurses work are associated with improved job satisfaction and lower burnout for nurses.** Seven factors were associated with intention to leave the profession at European level: nurse-physician relationship, leadership, participation in hospital affairs, older age, female gender, working full-time and burnout (Heinen et al 2013). Doctor–nurse collegial relations affected burnout levels of nurses at ward level (Li et al 2013).

- **Missed care (or care not done because of time pressures) is associated with lower staffing and is linked with poorer patient safety outcomes.** The number of patients per registered nurse was significantly associated with the incidence of ‘missed care’ (Ball et al 2013). Care was more likely to be left undone in wards where nurses perceive the practice environment to be poor. The most frequent nursing care activities left undone included 'Comfort/talk with patients' (53%), 'Developing or updating nursing care plans/care pathways' and 'Educating patients and families'. In hospitals with more favourable work environments, lower patient to nurse ratios, and lower proportions of nurses carrying out non-nursing tasks frequently, fewer nurses reported leaving nursing care undone (Ausserhoffer et al 2014).

Irish RN4CAST results:

- The dearth of information on nursing staff profiles (educational level, experience) in Irish acute hospitals is likely to undermine attempts to determine both the most effective way to deploy nursing staff throughout the hospital, and the identification of appropriate staff skills mix at ward/unit level. Ultimately such deficit is likely to impact both patient and nurse outcomes (Scott et al 2013).

- Ward staffing levels across the acute hospital sector in Ireland seem to be based largely on historical staff complement and not patient acuity or dependency levels. Many nurses are concerned about the ability of patients to manage their care following discharge.

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• Nurses expressed little confidence in hospital management’s willingness to respond to problems in patient care reported to them by staff; or in management’s commitment to safety issues.
• Nurses in over one quarter of hospitals reported a deterioration in care over the year prior to data collection. Early retirement initiatives, the moratorium on replacing staff and other austerity measures mean that the situation is likely to have deteriorated further since data collection.
• A majority of nurses reported moderate to high levels of burnout and low levels of job satisfaction. Certain aspects of the work environment in the acute hospital sector such as support from line managers were viewed positively, while ‘staffing and resource adequacy’ and ‘nurse participation in hospital affairs’ were viewed negatively, sometimes very negatively, by nurse respondents. Hospital average scores hide significant within hospital variation on these issues.
• Thirteen out of the nineteen hospitals, for which data were provided, reported average bed occupancy rates of over 85%. Nine of these hospitals reported occupancy rates of above 95%. One hospital reported an average occupancy rate of 100% and one hospital reported an occupancy rate of 120%.
• A gap exists between the patient safety approach hospitals declare and the reality as experienced by staff, as measured by nurse survey. The patient safety agenda has developed rapidly since the data collection period.
• The ward practice environment and the proportion of nurses with degrees working in the specific ward were found to significantly impact patient safety outcomes (Kirwan 2013).

References (full lists of authors: www.rn4cast.eu)


