

# Health Service Workforce and Health Outcomes: A Scoping Study

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*Report for the National Co-ordinating Centre  
for NHS Service Delivery and Organisation  
R & D (NCCSDO)*

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*prepared by*

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## **Overview**

The context for this scoping exercise is the increasingly prominent profile that workforce issues have in the delivery of effective, timely and appropriate health care. In a Refreshing of the National Listening Exercise carried out by the SDO Programme during 2002, workforce issues emerged as the top priority for further SDO research. They have come to the fore for a variety of reasons. Problems concerning the recruitment, retention and morale of staff have increased in recent years. At the same time attention has been drawn to the relationship between workforce issues and the organisation and delivery of health care in a number of documents, including *The NHS Plan* (Department of Health, 2000e) and the National Service Frameworks (NSFs). Along with other initiatives, this scoping exercise was designed to inform the SDO's Workforce Commissioning Group about research priorities in this area, and enable it to commission appropriate empirical research.

This report assesses the impact of different mixes of medical and nursing staff on quality, clinical effectiveness, health outcomes and length of hospital stay. Evidence on variations in outcomes between professional groups are examined.

### **Key conclusions**

- **Ratios** Most studies revealed that better health outcomes were associated with higher doctor:patient and/or nurse:patient ratios. Some methodological weaknesses were identified.
- **Substitution** Because of the limited scope of the studies it is difficult to form a general conclusion. However, most studies suggest that patient outcomes have changed little in some areas where nurses substitute for doctors.
- **Skill mix** Quality of the studies was generally poor in this area, and results were contradictory.
- **Specialisation** Generalisation proved difficult because while studies were of high quality they were also issue specific. Findings suggest that there is little added value in specialists being involved in the treatment of common chronic conditions, but more value in areas where care was more specialised (such as cancer).
- **Integration** It was commonly found that length of stay and patient satisfaction improve with greater staff collaboration and co-ordination.

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- **Well-being** Evidence here was very limited, but it appears likely that there is a relationship between poor health outcomes and increased staff stress, frequent job turnover and lack of well-being.

More comprehensive research is needed to estimate the true relationship between staffing levels, skill mix and outcomes. The heterogeneity of studies makes interpretation and synthesis difficult.

**Disclaimer**

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**Addendum**

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