

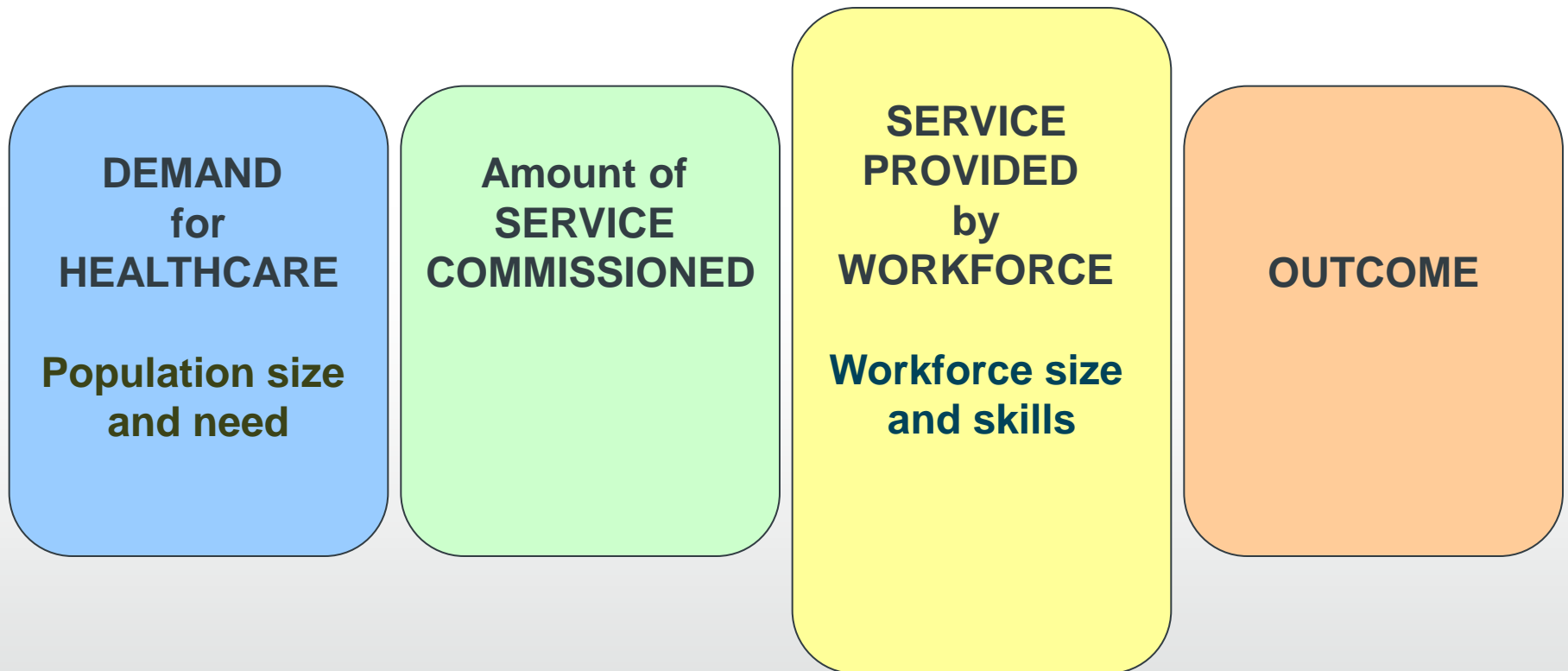
Community workforce modelling: reflection

Canterbury, Kent. September 2016

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Planning the healthcare workforce



Aim of workforce planners:

Q. “How many nurses will we need to deliver care in the future?”

What do we need to know to plan model workforce

Workforce required to **PROVIDE SERVICE**:

- How much service was provided last year?
- By whom? Which staff groups delivered the service?
- How many **posts** were involved?
- What headcount does that **total FTE** relate to?
- What is the **turnover/wastage**?
- How many 'new' ones will we need to replace the losses?
- How many are likely to come from existing pools?
- How many **new entrants** needed?
- Taking attrition into account, how many **training places** does that require?

How many nurses will we need?

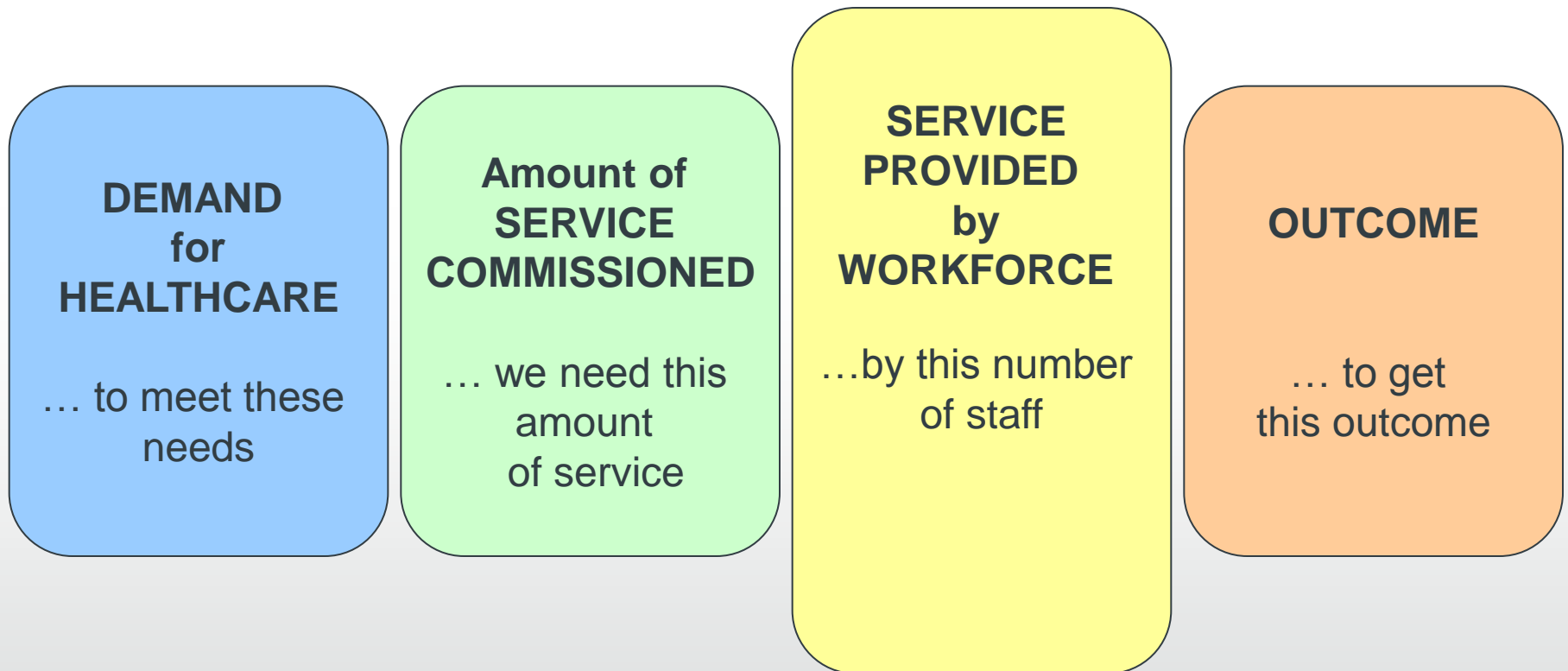
....to do what?

- Deliver the same service as last year?
- To the same number of people – or more?
- To the same types of patients – or older?

To what standard?

- Excellent? ‘Compassionate care’?
- Did it achieve good patient outcomes?
- Were there higher than expected number of deaths or complications?
- Was the patient experience rated highly?
- Was it safe? Were patient lives put at risk?
- Was necessary care completed – any care left undone?

Planning the workforce



Research on nurse staffing & outcomes: in acute hospitals

- 25+ years research
- Systematic review: 96 studies
- Increased RN staffing was associated with lower hospital related mortality in
 - intensive care units (OR 0.91 CI 0.86–0.96)
 - surgical units (OR, 0.84; 95% CI, 0.80–0.89),
 - medical patients (OR, 0.94; 95% CI, 0.94–0.95)

Kane et al (2007) Medical Care 45: 12, 1195-1204



An increase in a nurses' workload by one patient increased the likelihood of an inpatient dying within 30 days of admission by 7%

Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study

Linda H Aiken, Douglas M Sloane, Lois Bryant, Kim Van den Noort, Peter Griffiths, Reinhard Bazzi, Marianne Doornik, Johanna Kinnunen, Maria Klotz, Emmanuel Loeffler, Alessandro Di Nino, Wim Timmermans-Corbes, Anne Marie Rafferty, Rene Schwendemann, Palome Soth, Carol Tishelman, Theo van Achterberg, Walter Serrano, for the RN4CAST consortium*

Summary

Background Austerity measures and health-system redesign to minimise hospital expenditures risks adversely affecting patient outcomes. The RN4CAST study was designed to inform decision making about nursing, one of the largest components of hospital operating expenses. We aimed to assess whether differences in patient to nurse ratios and nurses' educational qualifications in nine of the 12 RN4CAST countries with similar patient discharge data were associated with variation in hospital mortality after common surgical procedures.

Methods For this observational study, we obtained discharge data for 422730 patients aged 50 years or older who underwent common surgeries in 300 hospitals in nine European countries. Administrative data were coded with a standard protocol (variants of the ninth or tenth versions of the International Classification of Diseases) to estimate 30 day in-hospital mortality by use of risk adjustment measures including age, sex, admission type, 43 dummy variables suggesting surgery type, and 17 dummy variables suggesting comorbidities present at admission. Surveys of 26 516 nurses practising in study hospitals were used to measure nurse staffing and nurse education. We used generalised estimating equations to assess the effects of nursing factors on the likelihood of surgical patients dying within 30 days of admission, before and after adjusting for other hospital and patient characteristics.

Findings An increase in a nurses' workload by one patient increased the likelihood of an inpatient dying within 30 days of admission by 7% (odds ratio 1.068, 95% CI 1.031–1.106), and every 10% increase in bachelor's degree nurses was associated with a decrease in this likelihood by 7% (OR 0.929, 0.886–0.973). These associations imply that patients in hospitals in which 60% of nurses had bachelor's degrees and 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 nurses cared for an average of eight patients.

Interpretation Nurse staffing cuts to save money might adversely affect patient outcomes. An increased emphasis on

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(odds ratio 1.068, 95% CI 1.031–1.106, p= 0.0002)

Linda H Aiken et al. (2014). *'Nurse staffing and education and hospital mortality in nine European countries: a retrospective observational study'*
Lancet. published online 26 Feb 2014.

NICE review of
evidence on safe
staffing in community

(released via a Freedom
of Information by HSJ)

Updating 2016
Prof Carrie Jackson et al
for QNI/NHS
Improvement

Safe staffing for adult nursing care in community settings

Evidence review

Ella Fields and Anna Brett

Support from: Josephine Kavanagh and Lucy Rutter

July 2015

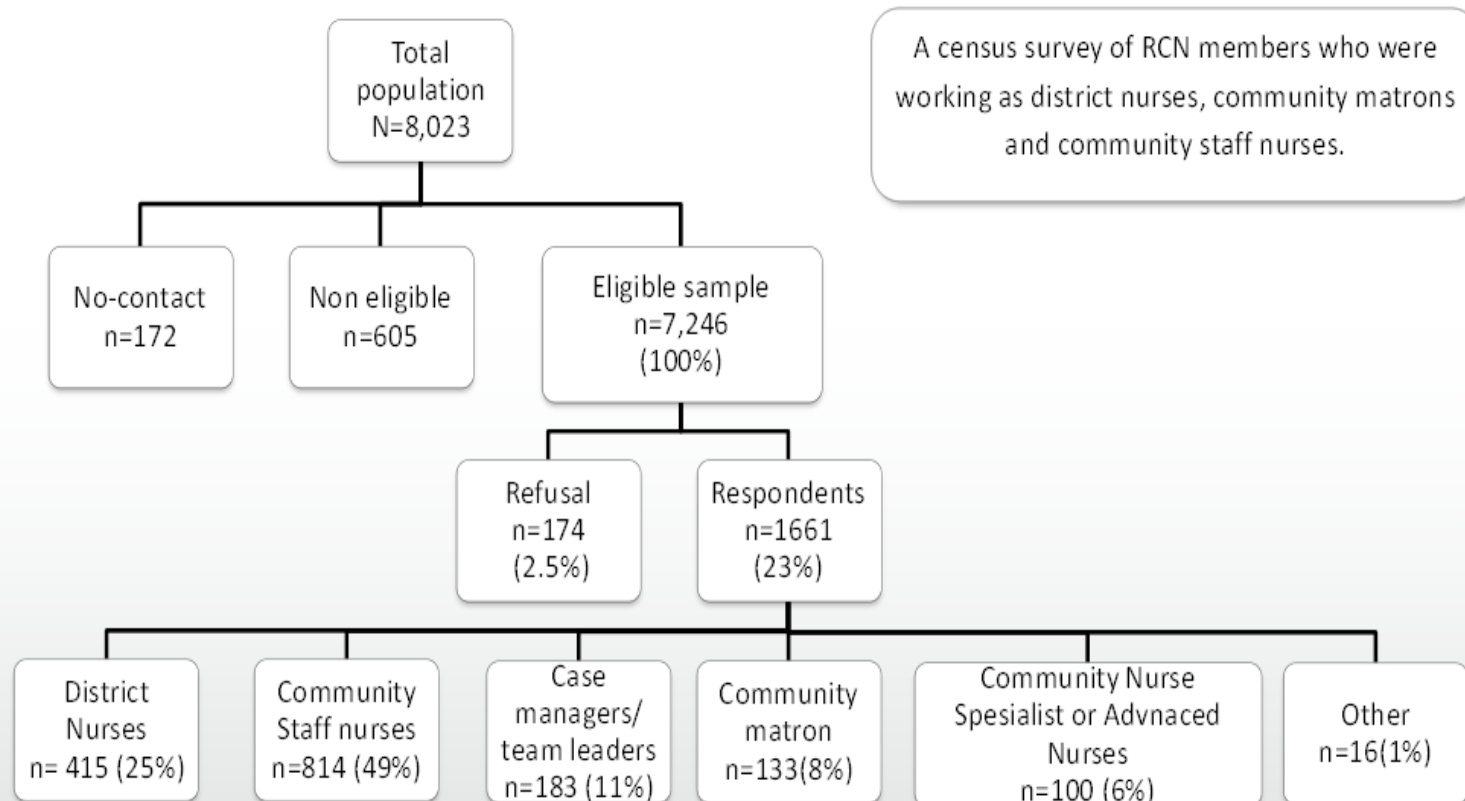
National Institute for Health and Care Excellence

Community planning: are we getting it right?

- What do we know about staffing in community?
 - Local teams
 - Individual Caseloads
- Relationship between staffing and quality/outcomes?
- What does safe staffing mean in community context?

Survey of DNs,
community Nurses
& community matrons

Survey of district & community nurses

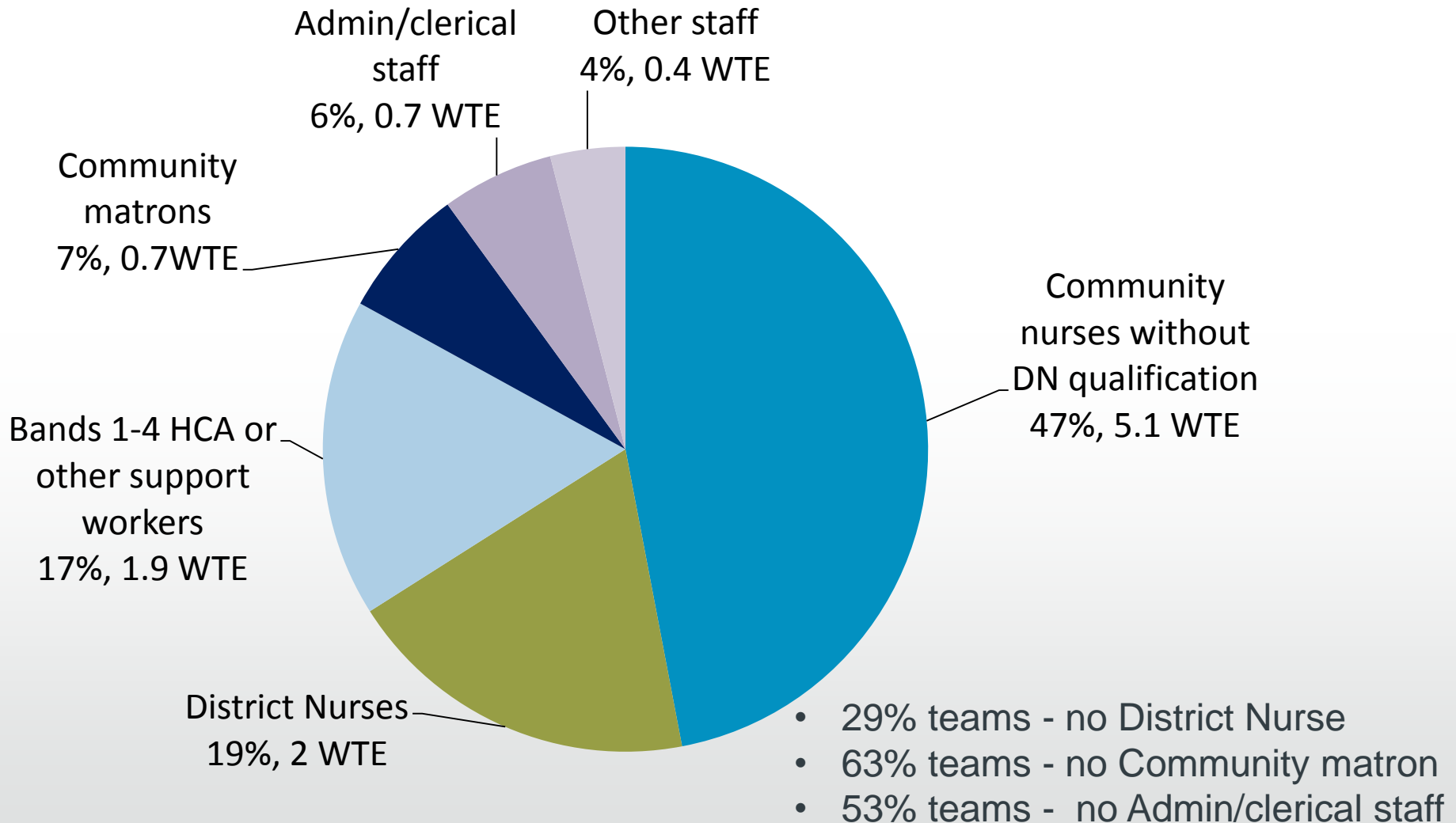


Ball J, Philippou J, Pike G, Sethi J. Survey of community nurses. NNRU King's College London. 2014.

Overview

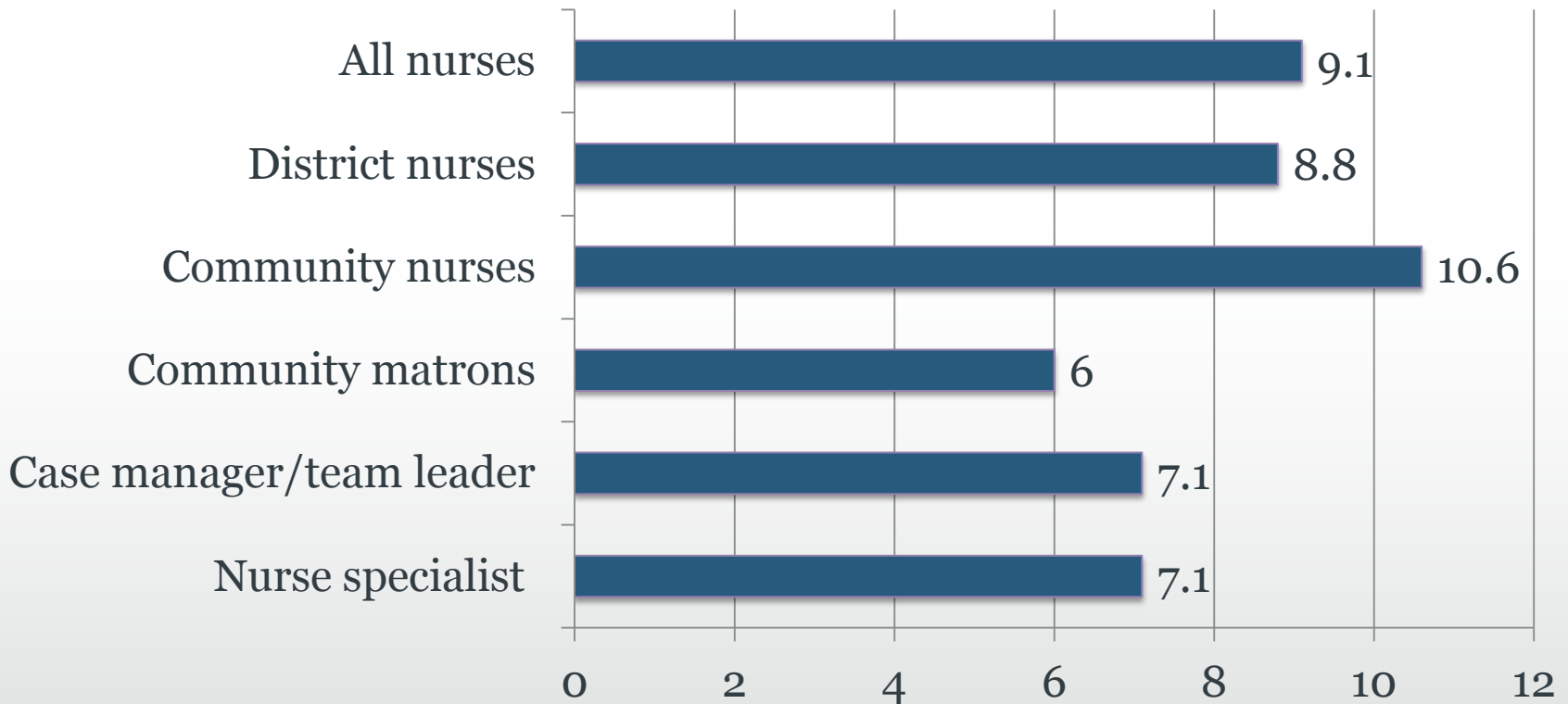
- Nurses working in community and district nursing teams are generally positive about their work
- Enjoy being able to care for people in their homes and to keep patients out of hospitals
- BUT... four in ten (40%) of them would leave their job if they could

Team composition



Caseloads

Mean no. patients seen on last shift by job title (day)



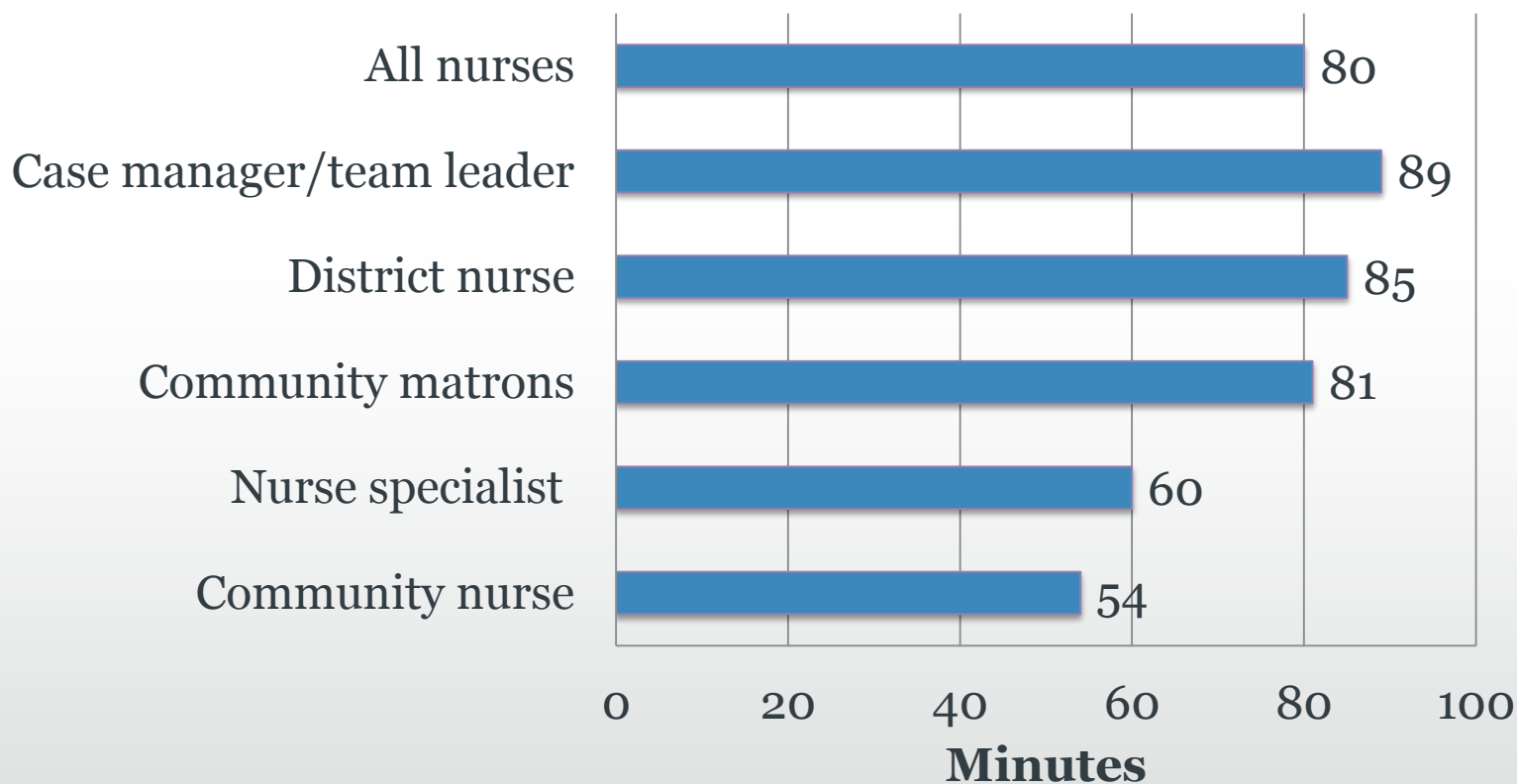
Caseloads & quality of care

No. patients seen on last day shift by reported quality of care





Average extra minutes worked on last shift (daytime)



- Evidence supporting the links between nurses' workloads and perceived quality of care.
- How do we use knowledge of community nursing teams and DN workloads to inform workforce plans?
- Role changes – what is needed to support 'ideal' role of DNs & to practise full scope of competencies?
- Address frustrations to improve recruitment & retention
- Strengthen community health nursing capacity – to deliver care, manage teams, & educate

Thank you!

Any questions?

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[@JaneEBall](#)