RCN Policy Unit

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Productivity and the nursing workforce

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Introduction and Key Points

This policy briefing has been written particularly for Directors of Nursing and their senior team. It describes some of the key issues for productivity and the nursing workforce and includes a summary of some technical issues around productivity, and a synopsis of what is known about productivity measures and productivity improvement.

It also coincides with the launch of *Releasing Time to Care: The Productive Ward* which provides an opportunity for ward staff to review how they work with a view to:

"…maximising the time spent by clinical, managerial and administrative staff on activities aimed at improving services for patients."[1]

As with any change programme, the productive ward programme may raise challenges for nurses and nurse leaders. It is appropriate for nurse leaders to focus on ways of working, improving ward functions and streamlining practice, and releasing staff from inappropriate or wasteful activity - this should be with a view to reinvest staff time thus saved back into improving patient care - rather than simply to 'eliminate waste'. Measuring productivity in health care can be a contentious area because steps to increase workforce productivity might be linked to financial costs and either exhorting staff to work harder for the same remuneration, and/or as a means of reducing workforce numbers.

Below is a list of key questions which need to be addressed for successful implementation of any service change that looks at the ways in which care is delivered and how staff use their time:

- **What are the outcomes you hope to achieve?**

- **What is the area for greatest benefits gain?** How will you measure these?

- **Who needs to be involved and in what way?** Identification and engagement of stakeholders is an essential prerequisite prior to any change of this nature.

- **How will patients and their families be involved?** Talking to them will provide great insight into how things can be improved from their perspective

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[1] NHS Institute for Innovation and Improvement (2007) *Releasing Time to Care: The Productive Ward*

- **Is there strong clinical leadership?** Service improvement tools and approaches work much more effectively where there is strong clinical leadership and an associated culture of continuous service improvement.

- **Is there clinical engagement?** Are *all* ward staff and other key staff involved in the process right from the start? This should include decision making about choosing outcomes of most relevance.

- **Do the right people have the necessary authority to make changes happen?** Clarification of areas of accountability and governance are important to the process of implementation

- **How will any time saved be used?** A very key question which staff who participate in such programmes will undoubtedly raise as measuring productivity might be perceived as a way of reducing staff numbers.

- **How will any changes made be sustained and spread to other areas?** And how will lessons learnt be shared across directorates/departments and fed back to commissioners, patients and staff?

The Context

There has been considerable public and political interest in NHS productivity recently as a consequence of government increased NHS financial investment. The Treasury (and its' Chancellor/Prime-Minister-to-be Gordon Brown) has made it clear that as public services account for a substantial part of the economy, productivity is a policy priority:

"Increased public services productivity is also important because it gives people the public services they require, ensures that taxpayers receive better value for money, and helps to lay foundations for a high productivity economy through improved education, health and transport infrastructure."[2]

However the technical relationship between productivity and investment is unclear. In 2001 the National Audit Office said: "If costs and benefits were incurred by the same people and were in easily comparable form then

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[2] HM Treasury (2006) Productivity in Public Services. www.hm-treasury.gov.uk/

analysis would be simple and value for money clear. In practice, this is rarely the case."[3]

The more recent investigation by the Office of National Statistics (ONS) in 2006 into the correlation between investment and productivity concluded that they found "little evidence of improved quality of outcomes"[4].

Professor John Appleby, chief economist at the King's Fund, believes productivity measurement to be so complex and difficult that validity of measurement results are open to debate:

"...the true answer is that we just do not know. What do you measure - patients being treated, the success of their treatment or their quality of life afterwards?"[5]

Certainly the NHS appears to have increased both the volume of work undertaken at the same time as reducing waiting times for treatment. But is this the most important indicator of productivity to the public? The NHS Confederation view is:

"Productivity should start with the quality of patient care, what patients' value and what represents improvement in the health of the population. Any measures that fail to start here miss a very important perspective"[6].

The RCN would agree with the NHS Confederation view, but also include the *quality* of patient care and the patient experience as important measures.

It is clear that the perspective of who is measuring productivity, why, and what they are measuring, is fundamentally influential to the outcome because it will reflect a particular set of priorities, underpinning values and starting points.

Releasing Time to Care: The Productive Ward

The productive ward programme applies the principles, tools and processes of *Lean Thinking* to a ward situation. *Lean Thinking* was originally developed by Toyota for production processes within car manufacturing. The productive ward programme aims to identify:

"The least wasteful ways to provide better, safer healthcare to your patients – with no delays"[7].

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[3] National Audit Office (2001) '*Modern Policy-Making: Ensuring Policies Deliver Value for Money. A report by the comptroller and auditor general*' HC 289 Session 2001-2002: 1 November 2001

[4] http://www.statistics.gov.uk/articles/nojournal/PublicServiceProductivityHealth(27_2_06).pdf

[5] Interview with J Appleby for BBC News on-line '*where has all the money gone?*' Feb 2006

[6] NHS Confederation (2006) '*What is productivity?*' Part 2 of the 'shaping the debate' series

This approach follows five principles:

- Specify value

- Identify the value stream or patient journey

- Make the process and value flow

- Let the customer pull

- Pursue perfection. [8]

The ward team are thus taken through a series of learning modules which incorporate these principles and introduce a range of service improvement tools and approaches from which they can examine the way they work and how this can be improved. The usefulness of these tools - like any others - is dependent upon the context, how they are applied, implemented and for what purpose.

Key Questions: Getting the Most from Service Improvement Tools

The RCN supports initiatives which have the potential for service improvement and enhancing the working lives of nurses. However there are some key questions that senior nurses need to consider at the start of introducing the productive ward programme – or any other change process - to nursing staff and their wards. These questions are based on evaluations of the RCN's ten years plus experience of devising and delivering leadership and team development programmes[9 10 11 12 13].

The RCN experience of delivering development programmes in many different organisations in the UK and internationally is that the biggest challenge lies in enabling participants to apply the learning to their work and carry this forward to make a real and *sustainable* change to patient care. The processes of change need to be addressed and thought through at the start along with how to embed improvements in the local context. The RCN has found that focussed attention to the following questions will

[7] NHS Institute for Innovation and Improvement (2007) *Going Lean in the NHS* Warwick University

[8] Op cit

[9] Cunningham G and Kitson A (2000a) An evaluation of the RCN Clinical Leadership Programme: Part 1, *Nursing Standard,* 15 (12), pp. 34-37

[10] Cunningham G and Kitson A (2000b) An evaluation of the RCN Clinical Leadership Programme: Part 2, *Nursing Standard*, 15 (13), pp. 34-40

[11] Long V (2005) Worth the Investment *Nursing Management* 12(3) 20 -21

[12] Large S, Macleaod A, Cunningham G, Kitson A (2005) *A multiple case study evaluation of the RCN Clinical Leadership Programme in England.* Royal College of Nursing : London

[13] Benson A & Cunningham G (2006) *The Clinical Teams Project: Evaluation Report.* Royal College of Nursing : London

really help to support the implementation, embedment and sustainability of service improvements:

- **What are the outcomes you hope to achieve?**

  This is an important first step question – clarity and agreement about desired outcomes will help to focus the change process.

- **What is the area for greatest benefits gain?**

  This question is obviously linked to the above but also needs to be asked in terms of which tasks or activities are currently the least effective or efficient, and which activities would most benefit from increased time investment.

- **Who needs to be involved and in what way?**

  Identification and engagement of stakeholders is an *essential* prerequisite prior to any change or improvement process. Getting ward staff involved – at the very start - is a 'make or break' step because success depends upon people changing their behaviour and working practices.

  Which individuals or groups must be actively involved in making the changes happen or enabling them to happen? Which individuals or groups must be engaged because of their potential to stop it happening? How are staff going to be facilitated through the changes with opportunities to discuss their fears and concerns?

- **How will patients and their families be involved?**

  Patients and their families can and should be involved in service improvement. They are uniquely positioned to comment on what makes a difference to them.

  Listening to what patients have to say about their care provides great insight and the RCN Clinical Leadership and Practice Development programmes we use a technique called 'patient stories'. Observation is also a key tool with patients and their families in a prime positions to observe ward activity.

- **Do the right people have the necessary authority to make changes happen?**

  Clarification of the areas of accountability and governance are important to the process of implementation - i.e. who can make decisions, when and how, with what reporting mechanisms. It is also important to ensure that people can access the necessary

resources and are confident in their authority to make decisions – the latter may require leadership development.

- **Is there strong clinical leadership?**

  Service improvement tools and approaches work much more effectively where there is strong clinical leadership and an associated culture of continuous service improvement. Effective leadership is also crucial to effective team working. Leadership development may be a requirement prior to or alongside the productive ward programme if this has not already taken place.

- **Is there clinical engagement?** Are *all* ward staff and other key staff involved in the process right from the start? This should include decision making about choosing outcomes of most relevance.

- **How will any time saved be used?**

  The productive ward programme focuses on specific activities with a view to identification of how they can be undertaken more effectively, one outcome being they will often be done more quickly. **The key question is therefore how staff time will be reinvested back into nursing care.**

  This is likely to be raised by ward staff at the outset because of suspicions that moves to improve productivity may simply equate to a 'do more with less' approach. The RCN is keen to ensure that time released through the productive ward programme really does get reinvested in nursing care.

- **How will any changes made be sustained and spread to other areas?**

  Sustaining change following the excitement of a new initiative is always a challenge. Adequately addressing the questions raised above will support good practice to continue. The NHS Institute of Improvement and Innovation have produced a tool for self - assessment of the sustainability for change which is worth completing prior to the start of the any service improvement initiative[14].

There is a list of other helpful resources in Appendix 1.

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[14]www.institute.nhs.uk/option,com_joomcart/Itemid,26/main_page,document_product_info/products_id,237.html

Defining Productivity

Definitions of productivity are bound up with the related terms 'efficiency' 'effectiveness' and 'value for money'. The diagram below is a useful summary of the:

- components of 'value for money'

- the process of converting costs (finances) into physical inputs such as labour, buildings, and drugs

- then to physical outputs such as an episode of care

- and finally to outcomes, for example, improved quality and length of life.

The success of this process is known as the *effectiveness* of the service.
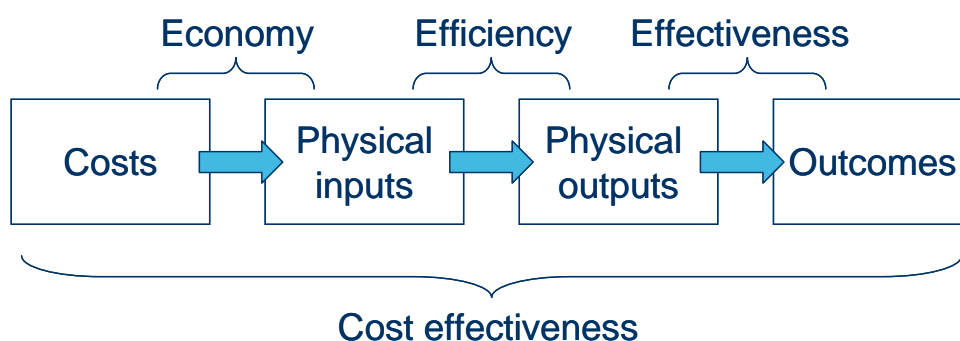

Fig 1 – the components of value for money[15]

Productivity is a related but *general* term regarding the ratio or relationship between one or more outputs to one or more inputs. A more technical descriptor is the relationship between production of an output and one, some, or all, of the resource inputs used in accomplishing the assigned task. It is measured as a ratio of output per unit of input over time, usually presented as output per person-hour or person-minute.

Measures of Productivity

There are three current approaches to NHS productivity measurement[16]:

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[15] Adapted from an excellent summary of the evidence on value for money by S Martin, P C Smith and S Leatherman (2006) '*Value for money in the English NHS: Summary of the evidence*' The Health Foundation. www.health.org.uk/QQUIP

[16] Summary taken from a range of articles including www.publicfinance.co.uk, the DH, the ONS and FT briefing service

- **Basic** Comparison of outputs (treatment activity) to inputs (labour and capital)

- **Quality of treatment** Outputs can then be adjusted to take into account quality measures (or *outcomes*) such as mortality, morbidity, infections, and patient experience, before comparing them to inputs.

- **Economic performance** Productivity can also take into account the impact of the cost of ill health to the economy and economic performance

Traditionally NHS productivity has been calculated in a simplistic fashion with output growth estimated as a weighted average of the growth in twelve very broad activity categories called the Cost Weighted Efficiency Index[17]. This was problematic because simply 'counting the numbers' in each category masks an assumption that quality (or outcomes) have remained static across years. In addition almost all the data within this index placed an undue emphasis on hospital based services.

Since June 2004 the number of separately identified activity categories has increased significantly with the new *experimental* Cost Efficiency Measure derived mainly from data published in the National Schedule of Reference Costs 2003/4 that covers over 1,700 activity categories[18].

Advantages of the new NHS Outputs Index are:

- Improvements in capturing changes in case-mix as a result of using more detailed activity data

- Reducing the downward impact on output resulting from shifting activity from inpatients to outpatients

- Broadening coverage to include more primary care categories

This is likely to have secured some improvements in the *accuracy* of output measures.

However whilst a lot of attention has been paid to reduced waiting times - frequently offered as a proxy for NHS efficiency - the main challenge for productivity measurement is to capture the '*health gain*' element of NHS outputs. That is what the health intervention actually added to any change in health status.

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[17] For e.g. categories included Outpatients, A&E, NHS Direct calls answered, Elective in-patients, etc
[18] DH (2004) 'The '*Experimental' NHS Cost Efficiency Growth Measure*'

This is a complex area for investigation not least because external factors also impact on health status. So although attempts have been made to measure changes in extra life years secured within each treatment category by using two broad variables - changes in the mortality associated with each intervention and changes in the age profile of patients[19] - it is still difficult to disentangle how far those gains might be external to the health intervention and due to general improvements in population health.

Is the NHS Productive?

The difficulty in a definitive answer to this question is that it depends upon what is measured. So although bed occupancy, patient throughput, and in-patient acuity have all increased whilst waiting times have decreased, this does not in itself answer the question which must relate financial cost of the service to both health outcomes and NHS staff activity.

The ONS assessment of NHS productivity 1995 to 2004 found mixed results:

- Productivity appeared to have decreased by between 0.6% and 1.3% per year when the existing measure of productivity was used (i.e. dividing NHS outputs such as the number of surgical operations by NHS inputs such as capital and workforce)

- An alternative method using a wider range of NHS outputs such as patient survival rates, waiting times and public health improvements put the average annual change at between +0.2% and -0.5%

- A combined range of measurements suggested at best an average increase in productivity by just 0.2% a year.

- A sustained increase was found only when the ONS incorporated the impact of improved health status to the economy.

Several major projects began in 2006 to design better metrics for measuring NHS outcomes and outputs. The NHS Institute for Innovation and Improvement productivity metrics is one such dataset which includes clinical productivity, financial performance, workforce utilisation, procurement and prescribing. However work on productivity metrics is in the early stages as indicated by the recent ONS decision to delay its work on productivity estimates for NHS trusts, general practitioners and adult social services by a further year until a more comprehensive and accurate system of National Accounts is introduced in 2008.

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[19] G Bevan, et al (2007) '*Estimating health and productivity gains in England from selected interventions*' QQUIP Feb 2007

The Importance of Measuring Nursing Workforce Productivity

Over the last decade the Government has delivered unprecedented increases in levels of spending on the NHS. But some now claim that this record growth has not improved the actual impact of NHS care on health. And some commentators predict that the key issue for the next general election will be whether – and how - the public sector can improve efficiency, effectiveness and productivity of its services.

Health expenditure constitutes the largest single item of expenditure on UK public services[20] within which expenditure on the nursing workforce is a large percentage. This, alongside raised public expectations for service quality and value for money, means nursing workforce productivity has become a key focus for attention and investigation - with the Government clearly stating that increasing efficiency, productivity and overall value for money a key priority for the NHS [21].

Whilst there remains a lack of consistency in approach and disagreement about how to measure productivity[22], it is clear that senior nurses will need to be able to demonstrate the productivity of their workforce in a way that takes into account the explicit capture of quality outcomes and development[23] rather than mere outputs such as nursing numbers and patient throughput.

What Should Nurses Measure?

The biggest remaining challenge particularly for the nursing profession is how to generate estimates of 'quality' change within activity categories. In other words how far improvements in health can be attributed to interventions by nurses which includes the *way* in which those interventions are delivered and *how* staff at all levels have used their time to maximise impacts.

In addition to the complexity of the above, measuring productivity in health care is a contentious area because increased workforce productivity has sometimes been perceived to be about financial savings to be made from either exhorting staff to work harder for the same remuneration, and/or as a means of reducing workforce numbers.

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[20] O*p Cit*

[21] HSJ (2006). 'A pound wasted is one not spent on NHS values'. *Health Service Journal* 15th June

[22] Holcomb, B., Hoffart, N., and Fox, M. (2002). 'Defining and measuring Nurse Productivity: A Concept Analysis and Pilot Study.' *Journal of Advanced Nursing* 38(4), 378-386

[23] Dixon J. (2000). '*Modernising the NHS: Productivity and Performance*'. BMJ 320:1462-1464.

It is clear that simply counting how many patients, how fast they are treated and discharged is insufficient. This approach will miss the impact of nursing interventions on care quality and clinical outcomes. The productive ward programme when used with regard to the key RCN questions previously set out is one means of helping nurses look at their productivity in a ward situation and improve it.

The RCN Policy Unit is currently leading research regarding financial input, nurse staffing levels and workload, cost effectiveness, and clinical outcomes. The RCN Institute is engaged in a variety of iniatives that encompass measuring the impact of nursing interventions on patient care, raising standards in the delivery of essential nursing care, and leadership and team development in the clinical situation.

Conclusion

Productivity in health care is both complex and political. It is important that senior nurses understand the range of issues involved because they are becoming part of the public sector narrative. Therefore they must position themselves to become fully engaged in local discussions and decisions about productivity and its measurement because of the subsequent impact on patient care and the working lives of nurses.

The productive ward program offers an opportunity to revisit ways of working with a view to improving patient care and releasing staff time for further reinvestment in direct patient care.

Appendix 1

Resources

The RCN holds a number of resources that support the implementation of change and the creation of workplace cultures which enable service improvement. For example Facilitation Standards can be located at:

http://www.rcn.org.uk/resources/practicedevelopment/about-pd/tools/

And a series of Clinical Team Effectiveness Guides can be downloaded from the link below:

http://www.rcn.org.uk/publications/

Hard copies can be obtained by contacting RCN Direct on 08457 726 100 quoting publication code 003115.

For further information on workplace resources for practice development contact: Practice.DevelopmentEnquires@rcn.org.uk

The RCN can also provide tailored leadership, team development and practice development programmes. For further information please contact: janet.donnelly@rcn.org.uk