Population health management and its relevance to community nurses

Monica Duncan
Freelance health economist and senior NHS interim manager
monica.duncan@bendun.co.uk

Population health management (PHM) is a data-based approach to identify the current and future health and care risks of the local population. The Social Care Institute for Excellence (2018) describes PHM as a methodology to put together a comprehensive understanding of population health needs by joining up data about:

- Health behaviours and status
- Clinical care access
- Use and quality of available services
- Social determinants of health.

These four areas combine to provide comprehensive baseline information about the locality in terms of health and other challenges faced by residents. This is then analysed to gain further understanding about current and future needs by segmenting the data broadly along the following lines:

- Those who are generally well and who will benefit from health interventions to maintain their general good health, for example, screening programmes for hypertension
- Those who are well but have been identified as being at risk of developing long-term conditions, for example, people who may have mobility problems
- People with long-term conditions who will benefit from early interventions and secondary prevention services to stop or delay progression, for example, people with diabetes or cardiac problems
- People with complex needs or frailty who need individualised co-ordinated care with a high level of continuity.

Factors associated with success are high-quality local data and effective information management systems. The statistical analysis used to model future projections must be robust and supported by credible algorithms that incorporate tacit knowledge from service users and professional staff involved in care delivery. When modelling future demand, allowance must be made for levels of uncertainty, and scenario plans should model the possible interactions of various parameters with audit trails of the assumptions made.

PHM, if used correctly, is an important enabler to improve care outcomes for the local population. The quality of the information produced is only as good as the quality of the data used, the way in which it is used and the extent to which information produced is regarded as credible and useful by both service users and front-line staff.

Community nurses already have a rich supply of tacit knowledge about the local population, which will be invaluable for sense-checking information about local needs and predictive modelling about future needs and the associated resources required. Resources to meet current and future health and wellbeing needs depend on collaborative planning between health and social care organisations, both for the day-to-day running of services and for workforce planning to ensure that the right numbers of appropriately trained staff are available at the right times to deliver care.

Planning involves thinking in different ways about physical characteristics (structure), services (function) and impact on the health and wellbeing of the local population (outcomes) and can be summarised using the Donabedian model (NHS Improvement, 2018) set out in *Figure 1*. In the model, structure relates to both the location and design of the buildings where health, social and other care is delivered. The structures can be enhanced by innovative

ABSTRACT

Local services can provide better and more joined-up care for patients when different organisations work collaboratively in an integrated system. Population health management (PHM) provides the shared data about local people's current and future health and wellbeing needs. Joint care planning and support addresses both the psychological and physical needs of an individual recognising the huge overlap between mental and physical wellbeing. Joint posts and joint organisational development are likely to become more commonplace and community nurses will have a vital contribution to planning and delivery of integrated care to improve health and care outcomes for their local populations.

KEY WORDS

- Population health management
- Predictive modelling
- Integrated care systems
- Collaborative working
- Needs assessment

© 2019 MA Healthcare Ltd

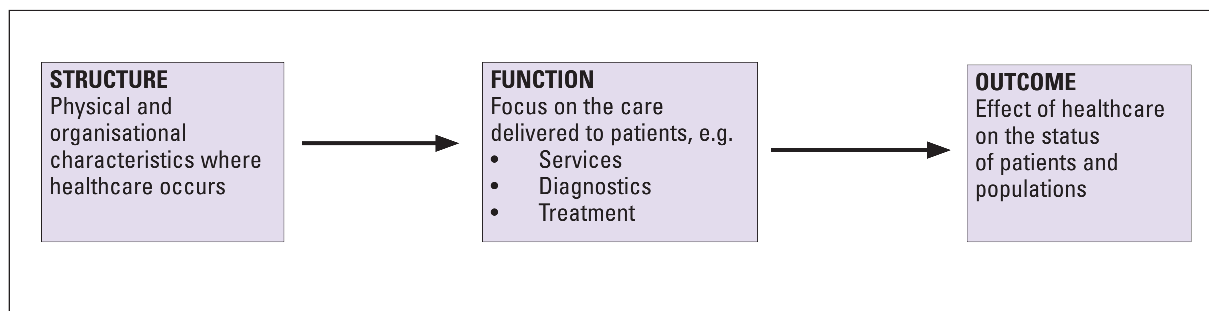

Figure 1. The Donabedian model for quality of care

thinking about how they are linked by, for example, transport, location, opening times and information sharing. Function relates to the reason care is required, or the type of care delivered. The outcomes of care are more than the numbers of people treated; they also include the impact of care provided on the health and wellbeing of the individual receiving the care.

Community nurses need to be involved in scenario planning and have their voices heard in planning both the physical and functional resources that will be necessary to meet current and projected locality needs. They also need to be involved in assessing the impact of care delivered to feed into knowledge about outcomes.

Why is PHM important for community nurses?

PHM is important for community nurses because it informs how integrated care systems will be designed and implemented (NHS England, 2019a). It is fundamental to how healthcare will be delivered in community settings and to enable primary care networks (PCNs) to deliver care as close to home as possible in line with the NHS Long Term Plan (NHS England, 2019b). Community nurses will already be aware of the impact of lifestyle choices on the risk of developing preventable physical and mental illnesses and the consequential impact on both patients and their families, and they will, therefore, play a critical role in the planning of how local PCNs will be designed and evolve.

PHM provides support for local teams to understand and identify the best ways to meet the medical, social and wellbeing care needs of both individuals and communities within a defined population. An example is a PHM Development Programme in Lancashire and South Cumbria that linked data on people living with long-term conditions and mobility issues who had high numbers of GP and A&E appointments and lived in households with assisted bin collections. This linkage made it possible for the team to identify people living with frailty and needing more proactive personalised care to keep them living well at home. The team arranged visits and home adaptations, while social prescribers connected the individuals to support groups in the community to reduce social isolation (NHS England, 2019b).

Deprivation issues such as poor housing, poverty or social isolation can have serious consequences for physical and mental health and often contribute significantly to comorbidities (King's Fund, 2018). Better partnership working using PHM to join up the right person with the right care solution helps improve outcomes, reduce duplication and use resources more effectively. PHM allows community nurses to work more closely with colleagues from other disciplines and organisations, including social care, to redesign their services and take a more proactive approach to supporting their local population in living healthier lives. This transformational change will need leadership styles that focus on consensus rather than organisation-driven targets. It requires a new way of thinking about how to build and maintain relationships across organisations that are focused on collaborative working to improve health and wellbeing in the locality. It also means thinking about how interprofessional teams, including community nurses, can articulate their goals and share knowledge from their different perspectives on how best to work together to solve problems and respond to local needs. One way might be to ask the team what they want to achieve (the goal) and work back to identify challenges to meeting the goal. Such team-building exercises can foster shared responsibility for achieving outcomes and provide a valuable opportunity to learn about interprofessional team work based on collaboration and co-ordination (Reeves et al, 2018). A suggested framework is depicted *Figure 2*.

Access to patient-based information is an example of the type of problem many interprofessional teams may encounter. Different organisations use different systems, and these often do not interface with each other. Patient/client confidentiality is commonly cited as a reason why necessary patient-based information cannot be shared. Leeds has overcome this problem by developing a secure web-based integrated digital care record to enable care professionals to view real-time health and care information across care providers in Leeds using different clinical systems. Information about patients who have used services provided by their GP, at a local hospital, community healthcare, social services or mental health teams is brought together in strictly confidential health records that can only be accessed by care professionals who are directly involved in a patient's care. The Leeds Care Record is helping organisations in Leeds to work together to improve health and social care services in the community. Leeds Care Record is used by

© 2019 MA Healthcare Ltd

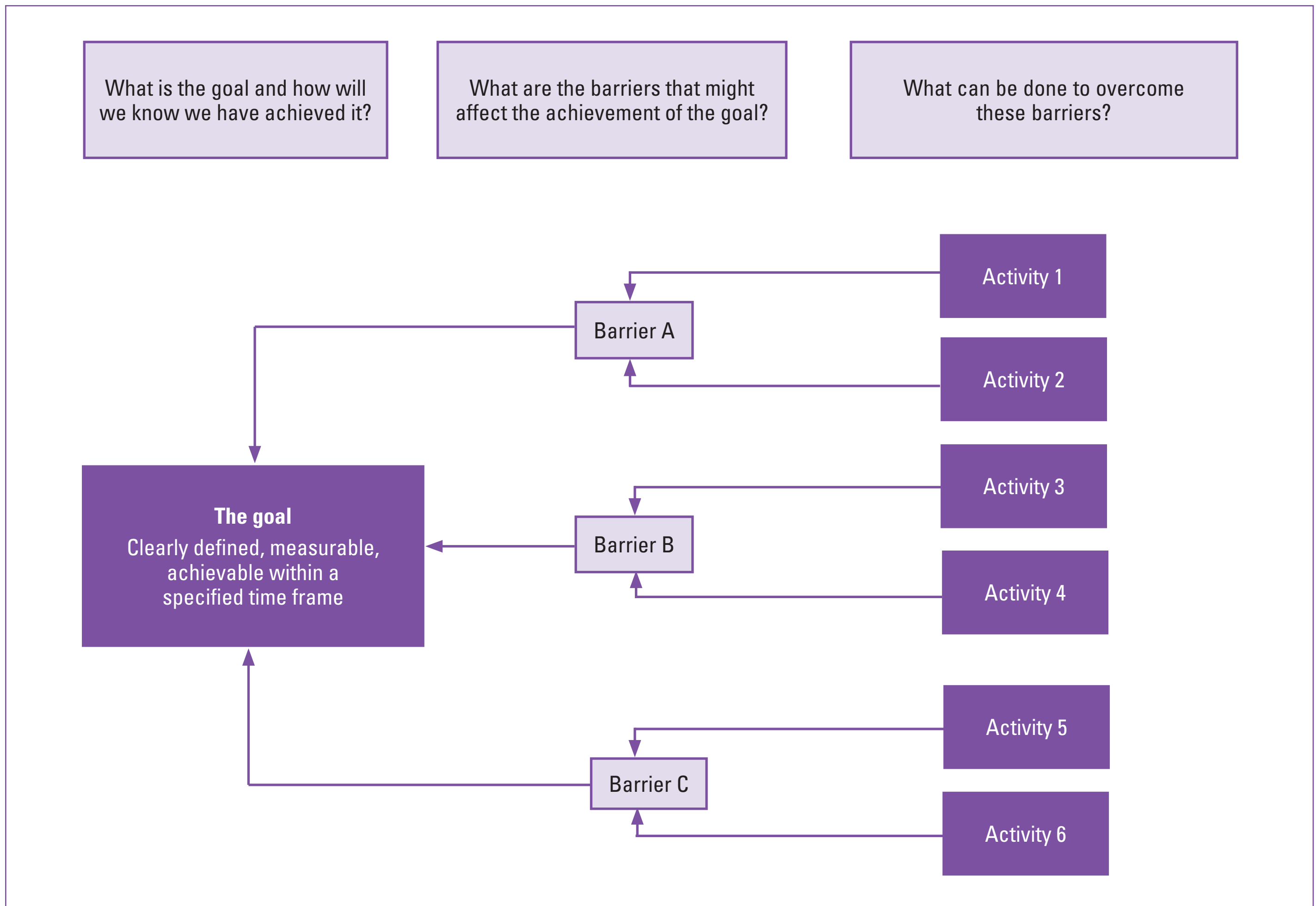

Figure 2. Suggested framework for interprofessional teamwork to achieve shared goals

KEY POINTS

- The introduction of integrated health and social care will change the landscape of care provision
- Joined-up thinking and information about local health, social care and wellbeing needs are essential enablers for population health management
- It is important to involve tacit knowledge from service users and front-line staff who deliver care in assessing current and future population health needs in a locality
- Community nurses have a vital role to play in engaging in current and future service planning, delivery and determination of the outcomes of the care provided

CPD REFLECTIVE QUESTIONS

- How are community, primary, social care and other systems working together in your locality?
- How well does your leadership style fit with the collaborative style of leadership that will be necessary for working closely with colleagues from other disciplines and organisations?
- How are you preparing yourself and your teams to understand the current and future structure, functions and outcomes of care for your locality?

all 106 GP practices in Leeds, Leeds Teaching Hospital NHS Trust, Leeds and York Partnership NHS Foundation Trust, Leeds Community Healthcare NHS Trust and Leeds City Council (Leeds Care Record, 2019).

Another example of where new thinking is impacting on the way in which health and social care is being joined up is in Rotherham (Local Government Association, 2018), where time and effort were invested to support local partners from adult social care, public health, the hospital and community trust, the mental health trust, the GP federation and the umbrella voluntary and community sector organisations to understand each other's perspectives and work together to focus on people rather than organisations. The goal was to integrate pathways for health and social care around the places where service users live. Relevant health and social care budgets are being aligned in Rotherham to provide health and social care in a joined-up way to improve support for local residents and meet their health and wellbeing needs. There are plans to invest in training for care home staff to enable them to look after residents who are frail or in deteriorating health in their residential setting rather than transferring them to hospital, or where this is unavoidable, facilitate

© 2019 MA Healthcare Ltd

المنارة للاستشارات

earlier discharge from hospital Joint senior appointments covering adults, mental health and learning disability services have been made between the council and the clinical commissioning group (CCG) to support this kind of joined-up thinking. Like Leeds, Rotherham has a secure electronic system for sharing health and care information with health and care providers.

Conclusion

In an integrated care system, NHS organisations, in partnership with local councils and others, take collective responsibility for managing resources, delivering NHS standards, and improving the health of the population they serve (NHS England, 2019a). PHM is a fundamental building block for integrated care systems because it provides baseline information about local needs by joining up data about social determinants of health, health behaviours and status, access to services and ways in which existing services are used. This baseline information can then be used to model predictions about how current services can be better aligned and resourced to meet the needs of current and future service users.

Local services can provide better and more joined-up care for patients when different organisations work collaboratively in an integrated system. Improved collaboration can help to make it easier for staff to work with colleagues from other organisations to meet the needs of the people they are trying to help. PHM provides the shared data about local people's current and future health and wellbeing needs. Joint care-planning and support addresses both the psychological and physical needs of an individual recognising the huge overlap between mental and physical wellbeing. Joint posts and joint organisational development are likely to become more commonplace and community nurses will have a vital contribution to planning and delivery of integrated care to improve health and care outcomes for their local populations. **BJCN**

Accepted for publication: November 2019

Conflicts of interest: none

King's Fund. A vision for population health: towards a healthier future. 2018. https://tinyurl.com/wrvcpwn (accessed 26 November 2019)
Leeds Care Record. Leeds Care Record is now a fully integrated digital care record. 2019. https://tinyurl.com/vc3ak46 (accessed 25 November 2019)
Local Government Association. Integrating health and social care: Rotherham case study. 2018. https://tinyurl.com/tka49jr (accessed 25 November 2019)
NHS England. Integrated care systems. 2019a. https://tinyurl.com/y7qxowv9 (accessed 25 November 2019)
NHS England. The NHS Long Term Plan. 2019b. https://tinyurl.com/y4k3mjyw (accessed 25 November 2019)
NHS Improvement. A model for measuring quality care. 2018. https://tinyurl.com/wgf2bjn (accessed 26 November 2019)
Reeves S, Xyrichis A, Zwarenstein M. Teamwork, collaboration, coordination, and networking: why we need to distinguish between different types of interprofessional practice. J Interprof Care. 2018; 32(1):1–3. https://doi.org/10.1080/13561820.2017.1400150
Social Care Institute for Excellence. Integrated care research and practice: population approach. 2018. https://tinyurl.com/u3alhv6 (accessed 25 November 2019)

Community Matrons:
Caring for people with long-term conditions

By Sue Lillyman and Ann Saxon

- Includes reflections on case studies that will assist other case managers to make decisions in relation to care
- Text has been written in guidance with government policy
- Written by leading authors and educationalists

ISBN-13: 978-1-85642-373-1; 234 x 156 mm; paperback; 85 pages; publication 2008; £19.99

Order your copies by visiting **www.quaybooks.co.uk** or call **+44 (0)1722 716935**

© 2019 MA Healthcare Ltd

Copyright of British Journal of Community Nursing is the property of Mark Allen Publishing Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

المنارة للاستشارات

www.manaraa.com