Debate & Analysis

Rationalising data use for general practice:

a missed opportunity?

BACKGROUND

Practices and practitioners are required to produce bespoke reports using data for an ever-increasing range of purposes, including, among others, appraisals, contractual monitoring, quality assurance, and performance management by several bodies, without regard to unnecessary duplication of effort. Examples include producing numerous individual patient care plans for clinical commissioning groups (CCGs), a minimum of one completed audit cycle every 5 years for each GP as part of General Medical Council revalidation, and responses to the 130 questions of a Care Quality Commission (CQC) inspection. This huge non-clinical workload adds stress to practices and may be contributing to the current GP recruitment and retention crisis.

The priorities of data use cannot solely be monitoring and performance management; to improve population outcomes (for example, premature mortality, morbidity, hospital admissions, time lost from work), we argue that general practice must also use data to strengthen its essential public health role. Local populations' characteristics should be examined to better understand both health needs and the effect of interventions on outcomes, beyond the limited scope of the Quality and Outcomes Framework (QOF).1 This requires:

- the availability of timely, accurate information on practice populations' characteristics and outcomes, to enable practices (individually or as groups) to define local healthcare needs;
- addressing needs so that the development of effective practice policies target all patients who might benefit, including early interventions to prevent or delay morbidity;² and
- monitoring the implementation and effect of these policies, using process, intermediate, and final-outcome data.

Although this article considers mainly data extraction, interpretation, and presentation, a distinction needs to be made between these processes and the processes of data collection and entry. The designers of information systems need to support users to enter data efficiently and accurately onto the patient record, while ensuring that informed consent is given

"The priorities of data use cannot solely be monitoring and performance management; to improve population outcomes ... general practice must also use data to strengthen its essential public health role."

at all stages by those to whom these data relate.

The care.data programme, led by NHS England and the Health and Social Care Information Centre, aimed to 'bring together securely, health and social care information from different settings'.3 The programme's aspirations included helping researchers develop new treatments and improving the monitoring of performance.3 However, the programme ran into controversy about data sharing, due to consent issues. It has been delayed since early 2014, and is currently being piloted by CCGs in four areas of England, with reporting awaited.

THE ROLE OF GENERAL PRACTICE IN **IMPROVING OUTCOMES**

Population morbidity and mortality are heavily influenced by demographic and lifestyle factors, which can vary considerably between different practice populations. Thus, practices will need to recognise these and tailor accordingly their policies and activities (both clinical and organisational) to ensure maximum effectiveness. To minimise inequity of services, practices also need to understand and address the needs of particular groups (for example, patients with sensory impairment, homeless patients, and patients with limited English) that affect access and use of services.

In recent years, general practice has concentrated on the management of the growing numbers of people with long-term conditions. The QOF has succeeded in improving the care of people with common chronic conditions and in helping to limit hospital admissions for conditions sensitive to ambulatory care. However, studies to date have not provided clear-cut evidence that the QOF has had a beneficial effect on premature population mortality.4 It is time to explore other ways of reducing mortality. Identifying and managing health problems earlier in their course, by exploiting the potential within consultations for case finding and primary prevention, may prevent or delay the progression to chronic comorbidity. Prevention activities should be tailored to the needs of local populations. However, responsiveness to population characteristics is not well developed among practices.5

One of the most powerful measures of general practice performance to predict premature mortality (and mortality from coronary heart disease and stroke) is the proportion of patients recorded on practice hypertension registers,6-7 because hypertension is widely under-detected (data from the Health Survey for England show that approximately only 60% of adults with raised blood pressure have a diagnosis of hypertension).8 Levels of detection of other conditions are also below the expected population prevalence, for example, chronic kidney disease, chronic obstructive pulmonary disease, non-diabetic hyperglycaemia, dementia, and depression.9-11

PROPOSALS

Principles

We suggest the following principles are considered by policymakers, in the context of a practical framework, when deciding how best to support practices, either individually or in 'neighbourhood' groups, to improve population outcomes.

- 1. Enable practices to find and interpret data relevant to understanding better the health needs of their population.
- 2. To avoid exacerbating current workload pressures, no unnecessary data should be collected. The designers of patient records need to retain the confidence of patients, to maximise the ease and accuracy of data entry, and to streamline data extraction and reporting. The agencies demanding performance data from practices should collaborate to define a parsimonious common dataset that will fulfil their collective needs,

"Data management should facilitate the development and implementation of locality-sensitive [SMART] action plans, by knowing population needs and by locating the greatest potential for achievable health improvements ...".

- and minimise preparation time and duplications.
- 3. Use data rationally to help identify opportunities for improving outcomes, and to develop and implement policies responsive to identified population needs, with simple, well-defined objectives.
- 4. Maximise engagement by ensuring that these activities are 'owned' by practices, and tailored to their needs and capabilities. Prioritisation decisions should rest locally within the context of regulatory frameworks.

Framework

A likely sequence of steps in which practices (individually or as groups) might use data to their maximum effect:

1. To identify patient groups with the greatest need for health improvement, local profiling can combine data on population markers to small area levels of postcode sectors with patient-level data collected by practices. Data chosen might cover demography (for example, age structure, ethnicity), socioeconomic profiles (for example, deprivation, barriers to healthcare access), and healthrelated variables (for example, risk factor prevalence, estimates of people with long-term conditions, levels of multimorbidity). 12 This profiling also needs to include comprehensive recording of individual patient characteristics (obesity, alcohol, exercise) and specific needs (for example, non-English speaking, learning disabilities, homelessness). Because data are available from many sources (for example, My NHS, CQC, Primary Care Web Tool, Health & Social Care Information Centre, Public Health England GP Profiles, NHS England GP Patient Survey), practices will need to be provided either with tools to navigate these sources or with newly developed software packages able to access the full range of required data. Another option might be to expand, to make more userfriendly, and to promote an existing data source (for example, my NHS).

- 2. Practices should better understand their current activities and capacity, by accurately interpreting internal management data (for example, appointments, budgets, prescribing safety indicators, indicators on diagnostic delay) and data already presented for external monitoring (for example, to QOF, CCGs, CQC).13
- 3. Data management should facilitate the development and implementation of locality-sensitive action plans, by knowing population needs and by locating the greatest potential for achievable health improvements (replacing less effective or redundant activities). Practices need to recognise how the mechanisms of primary care could be used to improve population health, for example, that detecting more hypertension reduces mortality rates. Action plans' objectives should be 'SMART' (specific, measurable, achievable, results-focused, and timebound), with accurate assessments of required resources (for example, staff time, equipment, space, skill mix). Implementing a number of simple plans that each achieves marginal gains may be both feasible and collectively beneficial.
- 4. The amalgamated monitoring be robust, mechanisms must transparent enough to allow appropriate, constructive outside scrutiny, and sufficiently sensitive to detect changes practice performance. Ideally, practices themselves should run monitoring, refining and building upon existing processes with, if needed, additional complementary components, but omitting superfluous or inessential elements.
- 5. Information systems need to be interactive and adjustable to inform practices' ability to respond to changes both in the local population (for example, demographics) and internally (for example, staff numbers, skill mix).

CONCLUSION

Effective data management should inform

ADDRESS FOR CORRESPONDENCE

Louis S Levene

Honorary Lecturer, Department of Health Sciences, College of Medicine, Biological Sciences and Psychology, University of Leicester, Centre for Medicine, University Road, Leicester LE1 7RH, UK.

E-mail: lsl7@le.ac.uk

high-quality primary care. Today, we are suffering from too much data reporting and too little data-driven healthcare planning at practice/neighbourhood level. It is time for the various organisations and policymakers that demand data from practices to pause for reflection; they need to facilitate data use that will identify local populations' health needs, support practices in developing policies tailored to these needs and aimed at improving outcomes, and agree a parsimonious common dataset for monitoring.

Louis S Levene,

Honorary Lecturer, Department of Health Sciences, University of Leicester, Leicester.

Nicola Walker,

Clinical Research Fellow, Department of Health Sciences, University of Leicester, Leicester.

Richard Baker.

Professor, Department of Health Sciences, University of Leicester, Leicester.

Andrew Wilson,

Professor, Department of Health Sciences, University of Leicester, Leicester.

Catherine Honeyford,

Research Associate, Imperial College, University of London, London.

Provenance

Freely submitted; externally peer reviewed.

Competing interests

Richard Baker is a recipient of an NIHR senior investigator award. The views in this article do not necessarily reflect those of the NIHR or the Department of Health. The other authors have no competing interests.

©British Journal of General Practice

This is the full-length article (published online 29 Jul 2016) of an abridged version published in print. Cite this article as: Br J Gen Pract 2016; DOI: 10.3399/bjgp16X686485

REFERENCES

- Baker R, England J. Should we use outcomes data to help manage general practice? ${\it Br J}$ Gen Pract 2014; DOI: 10.3399/bjgp14X683005.
- 2. Institute of Medicine. Primary care and public health: exploring integration to improve population health. Washington, DC: National Academies Press, 2012.
- 3. NHS England. The care.data programme collecting information for the health of the nation. https://www.england.nhs.uk/ourwork/ tsd/care-data/ (accessed 30 Jun 2016).
- 4. Kontopantelis E, Springate DA, Ashworth M, et al. Investigating the relationship between quality of primary care and premature mortality in England: a spatial whole-population study. BMJ 2015; DOI: http://dx.doi.org/10.1136/bmj.
- Tarrant C, Angell E, Baker R, et al. Responsiveness of primary care services: development of a patient-report measure qualitative study and initial quantitative pilot testing. Health Services and Delivery Research 2014; 2(46).
- 6. Levene SL, Baker R, Bankart MJG, Khunti K. Association of features of primary health care with coronary heart disease mortality. JAMA 2010; 304(18): 2028-2034.
- 7. Levene LS, Bankart J, Khunti K, Baker R. Association of primary care characteristics with variations in mortality rates in England: an observational study. PLos One 2012; 7(10): e47800.
- Health & Social Care Information Centre. Health survey for England — 2013, trend tables [NS]. 2014. http://www.hscic.gov.uk/catalogue/ PUB16077 (accessed 30 Jun 2016).
- Mainous AG III, Tanner RJ, Baker R, et al. Prevalence of prediabetes in England from 2003-2011; population-based, crosssectional study. BMJ Open 2014; DOI:10.1136/ bmjopen-2014-005002.
- 10. National Cardiovascular Intelligence Network. NHS diabetes prevention programme (NHS DPP) non-diabetic hyperglycaemia. London: Public Health England, 2015. https://www. gov.uk/government/uploads/system/uploads/ attachment_data/file/456149/Non_diabetic_ hyperglycaemia.pdf (accessed 6 Jun 2016).
- 11. Public Health England. Disease prevalence models. 2013. http://www.apho.org.uk/ DISEASEPREVALENCEMODELS (accessed 6
- 12. Honeyford K, Baker R, Bankart M, Jones DR. Estimating smoking prevalence in general practice using data from the Quality and Outcomes Framework (QOF). BMJ Open 2014; DOI:10.1136/bmjopen-2014-005217.
- 13. Sullivan E, Baker R, Jones D, et al. Primary healthcare teams' views on using mortality data to review clinical policies. Qual Saf Health Care 2007; 16(5): 359-362.