

General practice registrar education beyond the practice: The public health role of general practitioners



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Background

Public health is the organised efforts of society to prevent disease, promote health and prolong life in the population. While the focus of general practice is on the care of individuals and families, general practitioners (GPs) have an essential role in promoting the health of the population.

Objectives

The objectives of this article are to explore the links between public health and general practice, and to consider their implications for general practice registrar training.

Discussion

Clinical general practice contributes to promoting population health. In addition, many GPs undertake work that extends beyond clinical care. The Royal Australian College of General Practitioners' (RACGP's) curriculum includes population health and the context of practice as one of its five domains. Core skills include the incorporation of a population health perspective into clinical practice, and leadership and advocacy in addressing the health needs of the community effectively and equitably.

General practice connects medicine to the community more than any other medical speciality. It can provide more intelligence about the health of the population than is available from any other medical source. Information about emerging epidemics, the impact of environmental hazards and consequences of changes in social function and economic status of a community are available through the intelligent awareness and observation of general practitioners (GPs).

The extent that the political leadership of a country has the insight, resources and will to act on behalf of its community is reflected in the strength of its support for general practice. Where general practice thrives, as in New Zealand, UK, Canada and Australia, healthcare costs are kept within reasonable bounds, community satisfaction with healthcare is high and services are matched to different degrees of severity and complexity of illness.

Thus, there is a strong relationship between general practice and public health. Nevertheless, there are also important differences that require honest appraisal when designing the education for doctors destined to work in either speciality.

The nature of general practice and public health

General practice

GPs aspire to deliver comprehensive, person-centred and evidence-based care to their patients.¹ They are uniquely positioned to do this by way of their trusting and potentially long-term relationships with patients and their families. GPs' understanding of their patients' cultural and socioeconomic backgrounds and lifestyles, and of patterns of disease in the community, guide advice tailored to the individual about healthy living, medication adherence and appropriate healthcare (Box 1).²

GPs also form the bedrock of our public health system, with statutory roles in disease notification; as providers delivering public health services, such as immunisation and cancer screening in addition to diagnosis and treatment of disease; as advocates for health improvement and better health services within their communities; and as advisors on the nature and magnitude of health risks.

Public health medicine

Public health refers to all organised measures (whether public or private) to prevent disease, promote health and prolong life in the population as a whole. Practitioners focus on the health of populations as a whole rather than on individuals (Box 2). Recent examples that illustrate the breadth of the work carried out by public health physicians and their colleagues are shown in Box 3.

Most public health physicians in Australia work in either government or an academic environment. In Australia, the

Box 1. Examples of how the GP's knowledge of the patient's family history, living environment and cultural context may inform more effective and appropriate care

- Knowledge of a positive family history may alert the GP to a potential diagnosis of aneurysmal subarachnoid haemorrhage in a patient presenting with what otherwise might have been considered benign tension headache.¹²
- GPs working with Aboriginal and Torres Strait Islander communities provide better care if they understand the history of interaction between Aboriginal and Torres Strait Islander and non-Indigenous populations and its significance for health.^{13,14} Awareness of increased prevalence of cardiovascular, respiratory, renal and other conditions in these communities can help inform health promotion, screening, assessment and treatment.⁸
- While antibiotic treatment is not generally recommended for children presenting with uncomplicated sore throat, it may be indicated when the children belong to a community at high risk of acute rheumatic fever.¹⁵
- Awareness of a local outbreak of pertussis may inform testing and prompt earlier treatment of potential cases.

Box 2. Major public health functions in Australia

- Assessment and monitoring of the health of communities and populations at risk in order to identify health problems and priorities for preventive or therapeutic action
- Formulation of public policies designed to solve local and national health problems, and achieve preventive priorities
- Ensuring that all populations have access to appropriate and cost-effective care, including health promotion and disease prevention services
- Timely and comprehensive responses to outbreaks of infectious disease and environmental health risks
- Protection of the integrity of the many systems in place, such as clean water, safe food and the regulatory oversight of aged and child care facilities, which underpin good health in our community

number of public health physicians is in decline.³ In the UK and New Zealand, public health physicians are more actively involved in developing public health approaches to the prevention and management of chronic disease.⁴ It is in this domain where great opportunities exist for closer collaboration between general practice and public health medicine.

Strengthening the link between general practice and public health

Many GPs undertake work that extends beyond the clinical care of patients. They may teach, conduct research, be involved in their local Primary Health Network (PHN), sit on advisory panels for government-funded organisations, or work with non-government organisations such as The Royal Australian College of General Practitioners (RACGP). Of course, not all of these activities are 'public health' in nature, but they call on the practitioners' knowledge of the social determinants of health and epidemiology of illness in the communities where they consult. GPs' knowledge of how the health system works, and the barriers to and opportunities for accessible and high-quality patient care, can be highly informative for students, managers, policymakers and other medical specialists. Such insight is essential in the development of equitable and efficient policy and practice at organisational, state, territory and national levels.

In 2001, a Joint Advisory Group on General Practice and Population Health⁵ concluded that natural affinities between general practice and public health practice should be used as bridges to strengthen the links. The group made recommendations in relation to the organisation and structure of general practice, shared information technology, financial incentives to GPs to extend their care, local clinical partnerships, research and education. Since then, the creation of Medicare Locals and more recently PHNs, which share boundaries with local health districts or hospital networks, has

Box 3. Recent examples that illustrate the breadth of the work carried out by public health physicians

- National, state and local responses to the Ebola outbreak in West Africa involved the development and adoption of protocols for the recognition and management of new cases of this disease, and for communication with and feedback from GPs and other first response clinicians¹⁶
- Working with a public housing provider to implement a Housing for Health program in the homes of Aboriginal and Torres Strait Islander families with newborn babies. This 'survey and fix' program reduces the need for admissions to hospital of Aboriginal children for respiratory, skin and gastrointestinal conditions. This project demonstrated the great power of collaboration with non-health agencies to achieve desired health outcomes
- Assessment of the risks and effectiveness of control measures for exhaust emissions from cruise ships, which were troubling residents around Sydney Harbour¹⁷
- Assessment of the health impact from construction and operation of a third Sydney airport

enhanced the potential for collaboration between state-funded and territory-funded health services and primary healthcare providers in taking responsibility for the health of their shared populations.

Developments in information technology have brought us to the brink of being able to harvest and aggregate information from general practice on health status, service delivery and effectiveness at a population level. Once in place, timely and active surveillance of the effectiveness and reach of healthcare, and subsequent feedback to GPs and public health organisations, has great potential to improve the effectiveness and equity of healthcare, just as the advent of disciplined public health surveillance improved the control of communicable disease in the nineteenth and twentieth centuries.

An ongoing challenge is the largely fee-for-service funding model of Australian general practice. Initiatives such as voluntary patient enrolment, with associated complexity-weighted capitation funding, should be trialled, especially for patients living with chronic illness.⁶ Patient enrolment would establish a population for which each practice provides ongoing care, enabling practice audits and quality improvement activities focused on a defined group of patients.² In the meantime, many practices already use commercial software that identifies their regular patients and provides statistical summaries of diagnostic categories and management that the practice can use for audit and quality improvement.

Training for the public health role of general practice

The RACGP curriculum for Australian general practice 2016⁷ includes population health and the context of practice as one of the five domains of the specialty. The core skills and competencies for this domain are listed in Box 4 and represent an advance on the previous curriculum. They highlight the need to take the epidemiology of disease and social determinants of health into account when making screening, diagnostic and management decisions, and the leadership role of the GP in delivering effective and equitable healthcare. The curriculum has a strong and appropriate focus on the care of vulnerable individuals and families, ranging from clinical interventions to advocacy. There is an expectation of engagement with the community, and broad statements about participating in public health initiatives and integrating public health considerations into clinical practice.

The incorporation of a population health perspective into clinical practice is greatly facilitated by clinical guidelines – such as the *National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people*⁸ – which may be national, regional or focused on particular groups within the community. A current challenge is ensuring that clinicians, including GPs, are aware of and able to access such guidelines as and when needed for an individual patient. Resources such as community health pathways seek to provide such access while reflecting local priorities and service availability.⁹ Software applications can extract data from the clinical record and present doctor and patient with guideline-based recommendations on prevention and treatment.¹⁰ The educational

Box 4. The RACGP curriculum for general practice 2016: Domain 3. Population health and the context of general practice core skills and competencies

- GPs make rational decisions based on the current and future health needs of the community and the Australian healthcare system
 - The patterns and prevalence of disease are incorporated into screening and management practices
 - The impact of the social determinants of health is identified and addressed
 - Current and emerging public health risks are effectively managed
- GPs effectively lead to address the unique health needs of the community
 - Barriers to equitable access to quality care are addressed
 - The health needs of individuals are balanced with the health needs of the community through effective utilisation of resources
 - Effective leadership improves outcomes for patients

Extracted from The Royal Australian College of General Practitioners. The RACGP curriculum for Australian general practice 2016. East Melbourne, Vic: RACGP, 2015; p. 49–50. Available at <http://curriculum.racgp.org.au> [Accessed 15 February 2016].

challenge is to ensure that doctors have the skills for working with patients when both have equal access to the most up-to-date evidence, guiding selection of what is relevant while continuing to provide the human connection we all need when ill or fearful about our health.

This curriculum also provides a basis for considering the extended role of the GP.¹¹ As discussed above, many GPs undertake activities outside their practice that are non-clinical but reflect a broader population health focus. The GP is in the unique position of caring for a broad range of individual patients and their families, generating knowledge and insights that can contribute to equitable improvement of the population as a whole. This provides a unique opportunity, and considerable responsibility. Training for general practice should include development of skills in community engagement, leadership and advocacy.

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