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# Cardiovascular Disease Risk Assessment in Australian Community Pharmacy

- Q3 Kevin Mc Namara a,b\*, Gregory Peterson c, Josie Hughes c, Ines Krass d,
- Q4 Vincent Versace a, Robyn Clark e, James Dunbar a
  - <sup>a</sup>Faculty of Health, Deakin University, Melbourne, Vic, Australia
  - <sup>b</sup>Centre for Medicine Use and Safety, Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, Melbourne, Vic, Australia
  - Unit for Medicines Outcomes Research and Evaluation, Pharmacy, School of Medicine, University of Tasmania, Hobart, Tas, Australia
  - <sup>d</sup>Faculty of Pharmacy, University of Sydney, Sydney, NSW, Australia
  - eSchool of Nursing and Midwifery, Faculty of Health, Flinders University, Adelaide, SA, Australia

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#### **Background**

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Population screening and monitoring of cardiovascular risk is suboptimal in Australian primary care. The role of community pharmacy has increased considerably, but without any policy framework for development. The aim of this study was to explore the nature of community pharmacy-based screening models in Australia, capacity to increase delivery of pharmacy screening, and barriers and enablers to increasing capacity.

#### **Methods**

An online survey weblink was emailed to pharmacy managers at every quality-accredited pharmacy in Australia by the Quality Pharmacy Care Program. The 122-item survey explored the nature of screening services, pharmacy capacity to deliver services, and barriers and enablers to service delivery in considerable detail. Adaptive questioning was used extensively to reduce the participant burden. Pharmacy location details were requested to facilitate geo-coding and removal of duplicate entries. A descriptive analysis of responses was undertaken.

### Results

There were 294 valid responses from 4890 emails, a 6% response rate. Most pharmacies (79%) had private counselling areas. Blood pressure assessment was nearly universal (96%), but other common risk factor assessments were offered by a minority. Most did not charge for assessments, and 59% indicated capacity to provide multiple risk factor assessments. Fewer than one in five (19%) reported any formal arrangements with general practice for care coordination. Financial viability was perceived as a key barrier to service expansion, amid concerns of patient willingness to pay. Support from government and non-governmental organisations for their role was seen as necessary.

#### Conclusion

There appears to be a critical mass of pharmacies engaging in evidence-based and professional services. Considerable additional support appears required to optimise performance across the profession.

## Keywords

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Community screening • Absolute risk • Disease prevention • Primary care • Community pharmacy

## Introduction

Q5 Population-level health screening for cardiovascular disease (CVD) risk enables cost effective management of the CVD burden by identifying undiagnosed individuals at elevated risk of disease, and initiation of cost-effective pharmacological

and non-pharmacological treatments to prevent CVD onset [1]. General practice has traditionally been entrusted to deliver such screening, but relying solely on this profession has produced suboptimal rates of population screening [2]. Issues such as workforce shortages, other work demands, prioritisation of patients' presenting needs, perceived

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\*Corresponding author. Email: kevin.mcnamara@deakin.edu.au

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inadequate remuneration, belief that preventive health is not a core GP activity, and clinical inertia all contribute to variation in general practice performance [3]. In addition, there are atrisk subgroups within the population who are less likely to access general practice care.

Internationally, trials have demonstrated the feasibility of screening individuals for risk of CVD including diabetes in community pharmacy settings, to facilitate general practice referrals, and reduce cardiac-related hospital admissions [4]. In Australia and elsewhere, the delivery of screening services is often in the absence of directly supportive policy, cardiovascular-specific screening guidelines or service funding arrangements. This lack of formal recognition might lead to variation in pharmacy screening models and service quality, and a lack of confidence among general practitioners and the general public surrounding the legitimate scope of phar-06 macist services and competencies [6]. Inadequate or absent government funding or long-term commitment may also discourage investment in infrastructure, training and pharmacist time if alternative sources of service reimbursement are perceived as inadequate [5]. Without certainty of policy or funding support, it may prove challenging for a pharmacy to expand screening services, to deliver screening to a consistently high standard, and to integrate with primary care for diagnosis and treatment.

The aim of this exploratory analysis was to determine the nature of community pharmacy-based screening models in Australia, capacity to increase delivery of pharmacy screening, and barriers and enablers to increasing capacity. This will provide policymakers with important perspectives of pharmacists' potential contribution to population screening and the support needed to achieve the desired performance.

## **Methods**

## Study Design, Setting and Participants

An open survey weblink was emailed to the nominated contact pharmacist (usually the owner or manager) in all pharmacies across Australia with quality accreditation from the Quality Care Pharmacy Program (QCPP)<sup>1</sup>. Over 90% of Australian community pharmacies were QCPP-accredited at the time of survey dissemination.

## **Survey Instrument**

A questionnaire was designed for online self-completion. All responses were voluntary. Respondents were asked a mix of open and categorical response options to describe [1]

<sup>1</sup>The Quality Care Pharmacy Program is a national program of quality assurance for community pharmacy for both health service and business management. Accreditation requirements include evidence of appropriate staff training, service delivery protocols, and generic standards for screening and risk assessment.

pharmacy characteristics and resources, [2] characteristics of the community served, [3] CVD risk assessment services provided, [4] capacity of the pharmacy to provide screening services, and [5] barriers and enablers to service delivery.

There were 122 questions in total, the majority of which related to current provision of services. To reduce overall survey complexity, adaptive questioning was widely used to restrict questions on individual services to those reporting provision of the specified services. Particular attention was paid to describing attributes of service models relevant to absolute CVD risk assessment, endorsed by Australian guidelines for all adults aged 45 years or more without existing CVD [8]. Similar to many countries, Australian guidelines endorse the use of an algorithm to calculate the numerical probability, expressed as a percentage, of an individual having a cardiovascular event over a specified number of years (in Australia's case, five years). At a minimum, this required a knowledge of diabetes status, age, gender, smoking status, systolic blood pressure, and total:HDL cholesterol ratio. A number of questions specifically explored health checks incorporating multiple risk factor assessments

Respondents were also given the option to provide the location of their pharmacy so community characteristics could be described using an Australia-wide area level measure of socioeconomic status. The Index of Relative Socio-economic Advantage and Disadvantage (IRSAD-categorised as deciles) and Australian Standard Geographical Classification-Remoteness Areas (ASGC-RA) were used to assess the socioeconomic representativeness of respondents' communities relative to the Australian distribution [9]. The online format allowed questions to be tailored to individual respondents based on the services they indicated as being provided in their pharmacy. Duplicate responses identified as coming from the same pharmacy were deleted. As this was a scoping exercise, incomplete survey data were retained for analysis.

The survey tool was piloted sequentially with six community pharmacists prior to survey dissemination. This process was used to confirm the face validity of questions and response options, typical time taken for survey completion, and ease of navigation of the overall online survey. Minor modifications were made where appropriate to improve the clarity of questions and response options, and the efficiency with which the survey could be completed.

## **Survey Administration**

Quality Care Pharmacy Program distributed an email on behalf of the research team promoting the survey to its members. A link to the open online survey, hosted using the LimeSurvey platform, was included in the email. General reminders were issued via the QCPP newsletters and branch bulletins at four and six weeks after the initial survey, respectively. Respondents who provided their pharmacy's location details were entered into a draw to win a tablet device.

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