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# A pilot study on the views of elderly regional Australians of personally controlled electronic health records

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## ABSTRACT

**Purpose:** Australia introduced its version of personal health records in July 2012. Success of the personally controlled electronic health record (PCEHR) relies on acceptance during the early stages. The main aim of this study was to investigate the views of a sample of elderly people in a non-metropolitan region in Australia on the PCEHR, and to assess their acceptance levels of this concept.

**Methods:** A self-administered questionnaire was distributed to a non-probability convenience sample of respondents recruited from meetings of Probus, a community club for active business and professional retirees.

**Results:** Approximately three-quarters of the respondents had computer and Internet access at home. If not accessed at home a computer at a general practitioner's practice was seen as beneficial in accessing the PCEHR. Respondents felt that access to their health record would help them make decisions about their own health and improve their communication with healthcare providers. The majority of respondents were in favour of the PCEHR although some expressed concerns about the security of their PCEHR. There was mixed opinion surrounding the access by health professionals to an individual's PCEHR.

**Conclusion:** This study has revealed important information about views of the PCEHR. While the respondents were generally in favour of the concept, there were still some concerns about the security of the PCEHR suggesting further reassurance may be required. The study also highlighted some measures, in particular provision of General Practitioner computer access points and print-out facilities that may need to be considered during these initial implementation stages in order to improve adoption rates once the technology is fully available.

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## 1. Introduction

The past two decades have seen an increase in the use of electronic technology to deliver healthcare. This rise in electronic health has shown a growing interest in electronic health records (EHR). EHR are medical records in digital format that

are stored on a central database and can be shared by different healthcare providers linked to that database [1]. It is hoped that this transition from paper-based health records to electronic health records will allow for more accurate and timely information exchange between healthcare providers [1]. However, the major barrier to achieving this has been the integration of EHR from the various healthcare providers that

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a patient visits. Personal health records (PHR), which are integrated forms of EHR, are thought to be one of the ways to overcome this problem [2].

In the simplest form, a PHR can be described as a health record that is initiated and maintained by the individual whose health is in question [3]. Traditionally many individuals have kept their own paper-based file of health records [3]. With the growing use of EHR, it is now possible to allow individuals to have electronic copies of their records so that they can create an electronic or a web-based PHR. According to Tang and colleagues, the definition of an electronic PHR is ‘an electronic application through which individuals can access, manage and share [their own] health information, and that of others for whom they are authorised to, in a private, secure, and confidential environment’ [3]. This in turn will allow for improved patient centred care and health outcomes with less cost to the already burdened healthcare system [4].

There has been considerable progress in planning and implementing PHR in countries such as the United Kingdom (UK), the United States of America (USA), Canada and New Zealand [5]. In the UK for example, there is the Summary Care Record for every citizen registered under the National Health Service [6]. It contains health related information such as medical conditions, allergies and medications. The Summary Care Record is created for every citizen except for those who say otherwise, based around an opt-out model [6]. In the USA, there is no national provision of PHR but rather they have provider-initiated PHR where hospitals and other healthcare providers make some of their health related information available to patients via electronic means [7,8]. Canada and New Zealand appear to be in the initial stages of planning for a national PHR [5,9].

In 2010, Nicola Roxon, Australia’s Minister for Health and Ageing announced that by July 2012, Australians will be able to check their medical records online through the introduction of personally controlled electronic health records (PCEHR) [10]. The PCEHR was launched on this date, but due to the complexities surrounding the implementation of such a large project there are unresolved issues and the registrations for the PCEHR remain well below the target of 500,000 by 30 June 2012 [11,12]. The PCEHR is Australia’s version of a PHR. It contains an overall health summary including conditions, medications, allergies, vaccinations and an indexed summary of specific healthcare events [10]. Information contained in the PCEHR will be populated by healthcare providers of the individual such as general practitioners (GP) and hospitals [13]. Individuals are however, given total control over what information they would like to keep on their records and which health professional can view their records [13]. Access for individuals and healthcare providers to the PCEHR is the World Wide Web or Internet regardless of their physical location. Under the current system, the PCEHR is not mandatory to receive healthcare and is created only for those who choose to opt-in [13]. This is in contrast to the opt-out model in the UK’s Summary Care Report. Particular reasons for choosing the opt-in model have not been made available by the authorities. It could be speculated that since not every individual has significant health history, by using the opt-in model, resources can be targeted towards those that will benefit most from the PCEHR. Implementation has taken place in stages with

key groups such as those suffering from chronic conditions, elderly Australians, Indigenous Australians and newborn children given priority [10]. Since a PCEHR is created only for those citizens who opt-in, that is give voluntary consent, it is crucial that the needs and concerns of patients are taken into account in these early stages for the successful implementation of PCEHR.

While there is some research surrounding patient views and PHR in Australia [14–16] and much research outside of Australia, in particular, the UK, Europe and North America [5–8,17,18] there is limited research on elderly populations. In Australia the elderly were one of the targeted groups for the initial rollout of the PCEHR [10]. The aims of the present study are to investigate the views of a sample of elderly people in a non-metropolitan region in Australia on the PCEHR, and to assess their acceptance levels of this concept.

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## 2. Methods

### 2.1. Study design and target population

In order to establish acceptance and opinions about PCEHR, a pilot study was undertaken using a self-administered questionnaire as part of a quantitative research design. The target population were elderly (60 years or above) Australian residents living in the regional area of Bendigo, Victoria. This population is more likely to have health problems, visit healthcare facilities more often and be taking more medications [13]; therefore they are more likely to benefit from the PCEHR. Additionally, the elderly are one of the key groups which will be given priority in the PCEHR rollout therefore acceptance by them may have an influence over acceptance by the wider population [10]. The Australian Bureau of Statistics reports that household computer and Internet access of non-metropolitan residents is generally lower than metropolitan residents [19]. Understanding the concerns of people who live in a non-metropolitan region will help identify issues that may affect the uptake of PCEHR in such regions.

### 2.2. Respondents

The respondents were recruited from three Probus clubs in the Bendigo area using a non-probability convenience sampling method. Probus clubs cater for retired or semi-retired individuals of varying professional backgrounds. Prior to receiving the questionnaire, respondents were given brief information about PCEHR via an introductory talk from one of the researchers at a club meeting and a participant information statement. Probus committee members distributed the questionnaires to interested members at the end of each meeting and respondents were asked to return them using an enclosed reply paid envelope. Return of the completed questionnaire implied informed consent was given to participate. Ethics approval for the study was obtained from La Trobe University, Faculty Human Ethics Committee, FHEC 11/R63.

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