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Review

Socioeconomic variation in the financial consequences of ill health for older people with chronic diseases: A systematic review

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ABSTRACT

Chronic disease has financial consequences for older adults, but it is unclear how this varies between conditions with different disease trajectories. The aim of this study was to review evidence on the financial burden associated with cancer, heart failure or stroke in older people, to identify those most at risk of financial adversity. We systematically searched nine databases for studies with data on the illness-related financial burden (objective), or on the perception of financial hardship (subjective), of older patients and/or their informal caregivers in high-income countries. We identified thirty-eight papers published in English between 1984 and 2012. Studies fell into three categories: those reporting direct, out of pocket, costs (medical and/or non-medical); studies of the indirect costs associated with illness (such as wage or income loss); and papers reporting general financial or economic burdens secondary to illness. Three out of four studies focused on people with cancer. More affluent people had greater out of pocket costs, but were less financially burdened by illness, compared with older adults from lower socioeconomic backgrounds. Disadvantaged patients and families were more likely to report experiences of financial hardship, and spend a higher proportion of their income on all expenses related to their diagnoses. This review illustrates how little is known about the financial adversity experienced by patients with some common chronic conditions. It raises the possibility that higher expenditure by more affluent older people may be creating inequalities in how chronic illness is experienced. The development of effective strategies for financial protection at older ages will require more information on who is affected and at which point in their illness trajectory.

Contents

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1. Introduction

One in five people living in developed countries are over 60 years of age. Over the next four decades, this is forecast to rise to one in three [1]. The elderly are a disproportionately important group for health services, as they make up the majority of health care recipients. In the UK, for example, people over 65 account for two-thirds of general and acute hospital bed use [2].

Population ageing presents challenges to countries with tax funded welfare systems, as the proportion of working population falls. In most European countries, there are already fewer than five working-age people for every elderly person, and this ratio is expected to fall further in the coming decades [3]. A reduction in the income derived from tax combined with rising health and social care costs is creating significant shortfalls in the funds required for older adult services. For social care alone, the British government predicts a £6 billion funding gap by 2026 [4].

One way to compensate for limited tax resources is to increase the contributions required from individuals. Following the global economic downturn, countries such as Greece and Spain have increased direct payments for health services. In the US, out of pocket spending for chronic conditions rose by almost a fifth between 1996 and 2005 [5]. Across the Organisation for Economic Co-operation and Development (OECD) countries, the average share of healthcare expenditure borne directly by patients was 19% in 2009 [6]. As health systems shift towards community-based care, and hospital lengths of stay have fallen [7], the demands on social care services have grown. In many countries, these require the patient to make full or partial payment.

The financial implications of illness may be profound and the inequitable and potentially regressive consequences of co-payments are well-known. High levels of out of pocket payments for health care, predominantly a feature of low and middle-income countries, can expose households to financial catastrophe [8]. Patients' families are also taking on more of the caring work, which may reduce their incomes, if they have to cut their working hours or stop work altogether [9]. Individuals who have given up work to provide care may become financially dependent on the care recipient, which can cause anxiety when the patient needs to move to a different care setting [10]. People who experience difficulties paying for care are known to forgo, or delay, necessary treatment [11].

Older adults may be particularly at risk from the adverse effects of illness-related costs. On average, 13.5% of over 65 year olds in OECD countries live in income poverty (i.e. their income is less than 50% of the national median), compared with 10.6% among the population as a whole [12]. As people live longer, they are liable to develop more complex needs and require health and social care over extended periods of time [13]. Understanding who is most at risk of experiencing the adverse consequences of illness-related costs is an essential step towards ensuring financial protection in health. Identifying vulnerable population subgroups could inform policies on appropriate supports and solutions, and it may allow targeting of interventions at those most in need.

In this study, we investigate socioeconomic variation in the financial consequences of ill health for older people with cancer, stroke or heart failure. We aimed to compare the financial consequences of conditions with contrasting disease trajectories. Whereas cancer patients commonly undergo a steady progression with a clear terminal phase, gradual decline in people with heart failure is characterised by episodes of acute deterioration and some recovery, with a more sudden and seemingly unexpected death [14]. Older stroke patients, meanwhile, have a trajectory marked by episodes of sharp decline. The overall aim of this study was to compare the financial consequences of illness across three conditions, and determine the characteristics of those people most at risk.

2. Methods

Our methods were based on the Centre for Reviews and Dissemination's Guidance for undertaking reviews in healthcare [15].

2.1. Identification of studies

First, we searched the following electronic databases for studies published from start date up until September 2012: MEDLINE (Ovid), Scopus (SciVerse), Embase (Ovid), Web of Science (Web of Knowledge), CINAHL Plus (EBSCO), The Cochrane Library (Cochrane Collaboration) and the Centre for Reviews and Dissemination databases (DARE, NHS EED and HTA). Two researchers and a librarian developed a search strategy incorporating synonyms and spelling variants, based on key papers and how they had been indexed. Indexing terms were used in conjunction with 'free text' terms to capture the financial circumstances of elderly patients with cancer, heart failure or stroke and their families. The searches were adapted to each database (see example of search strategy used in Fig. 1) and were not limited by study design or language of publication.

Secondly, we visually scanned reference lists from relevant articles and studies meeting the inclusion criteria. Further studies were identified by searching the online archives of journals with a focus on cancer, stroke and heart failure, and by screening relevant websites.

2.2. Inclusion and exclusion criteria

The 7483 references identified from our electronic database search were imported into Endnote X5 and duplicate publications removed. Two researchers shared title and abstract screening to identify potentially eligible studies for inclusion, based on the following criteria: the study population included older adults with a diagnosis of cancer, heart failure or stroke, or caregivers of patients with one of these diagnoses; the study reported the objective or subjective financial impact of illness on patients and/or their caregivers; the study setting was a high-income country. The full texts of the 144 articles retained were retrieved for a second, full text, screening. At this second stage, studies were excluded if: they were reviews that were not systematic or non-academic articles; published in a language other than English, French, Italian or Spanish; did not include a measure of participants' socioeconomic status. The 72 remaining references were screened for a final, third time and only those which reported financial impact according to at least