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The effect of financial incentives on gatekeeping doctors: Evidence from a natural experiment

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Abstract

In many health care systems generalist physicians act as gatekeepers to secondary care. Under the English fundholding scheme from 1991/1992 to 1998/1999 general practices could elect to be given a budget to meet the costs of certain types of elective surgery (chargeable electives) for their patients and could retain any surplus. They did not pay for non-chargeable electives or for emergency admissions. Non-fundholding practices did not bear the cost of any type of hospital admissions. Fundholding is to be reintroduced from April 2005.

We estimate the effect of fundholding using a differences in differences methodology on a large 4-year panel of English general practices before and after the abolition of fundholding. The abolition of fundholding increased ex-fundholders' admission rates for chargeable elective admissions by between 3.5 and 5.1%. The effect on the early wave fundholders was greater (around 8%) than on later wave fundholders. We also use differences in differences for two types of admissions (non-chargeable electives, emergencies) not covered by fundholding as additional controls for unobserved temporal factors. These differences in differences in differences estimates suggest that the abolition of fundholding increased ex-fundholders' chargeable elective admissions by 4.9% (using the non-chargeables DID) and by 3.5% (using the emergencies DID).

JEL classification: I18; I11

Keywords: Budgets; Health care; Gatekeeping; Fundholding; Admission rates

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1. Introduction

The physician 'gatekeeper' is one of the most common features of managed health care systems (Glied, 2000). In the US gatekeepers are found in various forms of Health Maintenance Organisations (Phillips et al., 2004; Cunningham et al., 2001). Examples of gatekeeping elsewhere include Denmark, Israel, Italy, the Netherlands, New Zealand, Norway, Spain, and the UK.

The gatekeeper has a dual role, simultaneously acting as an expert clinical agent on behalf of the patient, and a rationing agent on behalf of the funders of care (employer, government, or other insurer). Medical ethics tend to focus the attention of physicians on individual patients and the benefit each will derive from additional care, rather than on the implications for the costs borne by the funders. Funders of health care therefore sometimes introduce supply side cost sharing (Ellis and McGuire, 1993), attempting to alter the incentives for physician gatekeepers so that they will take more account of the costs of care provided to their patients. For example, in the US many managed care organisations pay physician gatekeepers by capitation, so that the cost of hospital admissions falls on the physician (Gaynor and Mark, 2002; Hellinger, 1996; Grumbach et al., 1998). There is relatively little empirical evidence on the effects of providing such incentives to gatekeepers. In this paper we use the occasion of a large natural experiment in the English National Health Service (NHS) to examine the effects of giving gatekeepers a budget, charging them for care received by their patients, and allowing them to keep any budget surplus.

The incentives under fundholding were similar to those under physician capitation contracts in US managed care organisations. All NHS patients must be registered with a GP, and – other than in an emergency – no NHS patient can gain access to secondary care without a referral from a GP. GPs are independent contractors, rather than NHS employees and during the period of our study were paid under a contract that included lump sum components, fee for service, target payments and capitation. All NHS secondary care, and almost all primary medical care, is provided without charge to the patient and is funded by general taxation.

In 1991 the Conservative UK government introduced a split between purchasers and providers (hospitals) of health care in the NHS. Health Authorities (HAs), geographically defined units covering on average initially about 300,000 citizens, became purchasers of health care and were funded by a budget from the Department of Health. Hospitals became separate entities as NHS Trusts and were removed from the direct control of HAs. They remained within the public sector but were required to compete for contracts from purchasers in what was known as the NHS internal market.

As part of the 1991 reforms larger general practices were given the option to become fundholders (Glennerster et al., 1994). Fundholding practices were given a budget by their local HA to purchase certain types of elective secondary care procedures (*chargeable electives*) from hospitals.[1] The costs of all other secondary care (*non-chargeable elective* procedures

[1] There were several types of fundholder. In this paper we distinguish only between "fundholders" defined as practices which had budgets for elective secondary care and "non-fundholders" which either had no budget or had a budget which only covered community health services. Thus our definition of a fundholding practice includes what were known as standard fundholders plus the small number (around 90) of standard fundholders who were grouped together in total purchasing pilots which had budgets which covered all forms of secondary care.