The **Public Services** Programme

How do Attitudes and Incentives Shape Dental Treatment? Creating a Clinical, Economic and Psychological Research Database

Quality, Performance & Delivery





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Background

For all professionals providing public services, the way formal incentives interact with individual attitudes and professional norms is central to policy and institutional design.

Dentists are a key example: how best to pay dentists is central to NHS dentistry policy in the UK. Prior to 2006, all NHS dentists were employed under one of two different systems: either a fee-per-treatment basis, or a quasiemployment contract in which the payment did not depend on the number of treatments, but was a fixed annual fee based on the total number of NHS patients on the dentist's list.

In 2006, England and Wales moved from this combination of systems to an 'activity-based' system involving payment based on the number of courses of treatment (CoTs) the dentist provided, weighted by the complexity of the treatment. Scotland remained on the 'traditional' system of contracts.

The incentives for over- or under-treatment are clearly different under these various forms of contract, as are the incentives for providing preventative care.

Aims

We aimed to:

Create, for the first time, a crossnational database linking measures of dentists' attitudes and beliefs to data on the treatment given by the same

> dentists over the course of a year, and information about the contracts under which

Feb-06

Dec-05

Jun-06

Aug-06 Oct-06

Apr-06

Figure 2a: Overall Treatment Provision

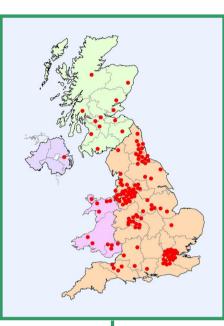


Figure 1: The NHS Trusts investigated for dentists' attitudes and beliefs

What We Did

The attitudes and beliefs of 98 recently qualified dentists practising in dental primary care from across the UK were measured by a specially designed postal questionnaire. This involved the formidable task of negotiating approval from 74 NHS Trusts across the UK (Figure 1);

We gathered data on clinical treatment from routinely collected payment records (via the Practitioner Services Division in Scotland and the NHS Business Services Authority in England and Wales) and standardised them for cross-country compatibility.

To test our predictions of how payment systems affect attitudes and treatment, we used empirical and theoretical models, incorporating contract types, dentist attitudes and treatment information.

Findings

Following the introduction of new activitybased contracts for dentists England and Wales, the overall amount of treatment increased significantly in England and Wales, compared to Scotland (Figure 2a). However, depending on whether dentists had previously

> been paid on a fee-peritem or quasi-employment basis, their levels of activity went down or up respectively.

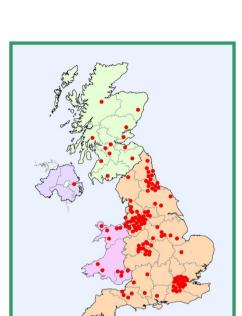
The types of treatment changed in England and Wales following the introduction of new contracts. Simple

treatments (Band 1: routine examinations, scale and polish) decreased (Fig. 2b), while complex treatments (Band 3: treatments involving laboratory work) increased (Fig. 2c).

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Figure 2c: Provision of Complex Treatment Figure 2b: Provision of Simple Treatment

Figure 2: Dentists' provision of treatment before and after the introduction of 'activity-based' contracts in England and Wales in April 2006. Scotland provides a control group where no change of contract occurred.



- they were working.
- To pilot the use of this unique database by evaluating the impact of dentists' contracts on dentists' attitudes, beliefs and treatment provision, by means of the 'natural experiment' of the introduction of new contracts in England and Wales, though not in Scotland, in April 2006.

Dentists' attitudes also changed. The questionnaire revealed that after the introduction of the new contract, dentists had a significantly less positive attitude to work and were more afraid of making mistakes.

Find out more...





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