

# Analysis of income from prescription charges

ROGER WALKER

**Introduction** The National Audit Office Wales has recently published a report on securing income from prescription charges.<sup>1</sup> From a sample of 2,000 prescription forms priced in September 1999 they concluded there was a shortfall in the collection of prescription charges equivalent to £15m a year.

The report did not identify whether there was any variation in the collection of prescription charges between contractors or the factors that could have contributed to this. Anecdotally it has been claimed that multiple contractors are more systematic in collecting prescription charges. This study, therefore, investigated if there was a difference in the number of prescription charges collected by independent and multiple contractors and whether this was influenced by the level of deprivation in the ward in which the pharmacy was based.

**Method** Prescriptions dispensed in Gwent health authority were analysed for 14 months from September 1999. The number of items dispensed and charges collected by each pharmacy were recorded. Pharmacies were classified as a multiple (more than five branches in the United Kingdom) or independent and allocated by postcode to one of 131 electoral wards (approximate population 4,000 each). Scores for indicators of deprivation routinely used for health planning purposes within the authority (Townsend index; smoothed all-person, all-cause mortality under 75s [SPAC]; overall health index [OHI], and self-reported limiting long term illness [LLTI]) along with indicators of eligibility for prescription charge exemption (number of claimants for income support, number under 16 and over 60 years of age) were allocated to each ward. Pharmacies were excluded if they changed ownership during the study period.

Data were analysed using SPSS (version 10). Differences between groups were determined using the Mann-Whitney test and results pre-

## FOCAL POINTS

- There have been several recent reports that pharmacies are not collecting the appropriate number of prescription charges
- This study investigated whether independent and multiple contractors were equally likely to collect prescription charges and whether this was influenced by the deprivation index of the ward in which the pharmacy was based
- The results indicate independents collected fewer prescription charges than multiples, but independents were more likely to be located in deprived communities with more individuals eligible for exemption from a prescription charge
- Small pharmacies appear to collect fewer prescription charges than expected

sented as median (inter quartile range). Data were also analysed by forward stepwise regression.

**Results** Data were collected for 113 pharmacies, of which 48 (43 per cent) were branches of multiples. Altogether 8.9 million items were dispensed and 649,483 (7.3 per cent) prescription charges made.

There was no difference in the number of items dispensed by each independent (70,276 [48,175, 101,842]) or multiple (66,561 [53,398, 101,696];  $P>0.05$ ). However, independents collected fewer prescription charges (4,314 [2,549, 6,384]) than multiples (5,922 [3,441, 8,541];  $P<0.001$ ).

The Townsend and SPAC scores revealed no difference in the location of independent or multiple pharmacies. However, independents had higher scores for LLTI (109 [91, 119], multiple 95 [84, 108];  $P<0.05$ ) and OHI (1.1 [-0.5, 2.5], multiple 0.25 [-1.6, 1.7];  $P<0.05$ ) suggesting they served more deprived communities.

Independents were also located in areas with more individuals on income support (10.6 per cent [8.7, 14.5], multiples 9.5 per cent [7.3, 12.3];  $P<0.05$ ), more over the age of 60 (1,169 [956, 1,573], multiples 1,088 [835, 1,542];  $P=0.015$ ) and more under the age of 16 [1,214 (888, 1,667), multiples 953 [765, 1,480];  $P=0.012$ ).

Forward stepwise regression revealed that significant ( $P<0.001$ ) predictive values for the percentage of prescription charges collected were: independent/multiple status, LLTI and number of items dispensed. In the case of the last named, the more items dispensed then disproportionately more prescription charges were collected.

**Discussion** The results indicate that although independents collected fewer prescription charges than multiples it was probably because they served populations from deprived wards with more individuals who fulfilled prescription exemption categories. It was of interest to note that pharmacies that dispensed fewer items collected a disproportionate, small number of charges. The reasons for this need to be explored further.

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## Reference

1. Auditor General for Wales. Maximising income from prescription charges. National Audit Office Wales; 2000.

Gwent Health Authority, Pontypool, Gwent NP4 0YP and Welsh School of Pharmacy, Cardiff University, Cardiff CF10 3XF  
Roger Walker

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