

Risk factors for ill-health in old age

The two papers in this issue of the journal by Kharicha,¹ Iliffe² and colleagues display the best intentions of primary care researchers: to increase understanding through rigorous study, and to make evidence-based recommendations for treatment allocation that will raise health and quality of life. The authors' premises are explicit: 'population screening for unmet need in later life has failed to improve the health of older people', and those 'living alone are thought to be an "at-risk" group worthy of further investigation'. The goal is effective targeting, and the theory is that by concentrating scarce treatment resources on those at 'high risk', more health benefits will accrue, partly through early diagnosis and treatment, and partly through the triage principle of maximising treatment effectiveness. The principles are noble but challenging. Even in the abstract, the goals of targeting to minimise mortality, morbidity, pain and disability as well as treatment hours or costs (consultations or hospital bed days) are not fully commensurable. Finding the optimal solution stretches the most astute linear programmer.

The premises require qualification. While it is a matter of history that the incorporation of the 75+ years annual check into GPs' contracts 'did not work', that was because it was resisted and never fully implemented. The authors cite a large MRC trial of two forms of assessment and management of older patients to support their conclusion that population screening is ineffectual, but the summary description of its findings is too categorical a view. The trial was well designed but undermined by 'not having a control group (randomised to no intervention) because GPs in the UK were contractually required to offer an annual health check to those older than 75 years ... Most participants (92.4%) in the targeted group received only a brief assessment, which did not include a protocol for referral, (so) this approach can be regarded as a minimum intervention and close to a control

group'.³ In other words, this states that the MRC trial did not establish whether 'universal' screening is beneficial to very old people. If introduced, assessment of the outcomes would require a 10-year follow-up.

It is inconceivable that assessments of those not previously in contact with the system and of patients with multiple (and unstable) chronic conditions do not identify both unmet treatment needs and sub-optimal treatment combinations, and result in increased consultations and hospital episodes. The MRC trial did show that targeted assessments and reviews reduce untreated conditions, raise patient satisfaction, and have positive short-term health outcomes. Several previous investigations had done the same.

The theory and practice of 'case finding' have been assiduously studied for over a decade by, among others, Barber and Wallis⁴⁻⁵ in Glasgow and Taylor in Aberdeen.⁶ This work built a subtle understanding of the problem, and demonstrated that 'whatever criteria we use, various combinations of age, sex, and marital status are no more efficient for selective case finding than were the different risk groups that we examined'⁶ (which included those living alone).

Studies since the MRC trial have also shown collateral benefits. Evaluations of the recent increase in nurse-led intermediate care schemes generally find that they do not result in hospital avoidance (for many, the main objective) but, for example, that 'access to case management added a frequency of contact, regular monitoring, psychosocial support, and a range of referral options that had not previously been provided to frail elderly people'.⁷

The particular interest of the new research is whether living alone is an effective targeting indicator. At the outset the authors were ambivalent, for they note that the 'perception of lone status increasing vulnerability ... is often sensationalised (and) there is some evidence that those living alone are a robust group'. In contemporary affluent

societies, and maybe timelessly, living alone is not strongly associated with loneliness or even neglect.^{8,9} For many older people, it is the chosen and preferred living arrangement, as much recent social science research has shown. In western Europe, the likelihood of an older (particularly widowed) person living in a three-generation household is unusually high in Spain, and those who live alone are richer than other older people¹⁰ — clearly, it is their choice. Feminist gerontologists have recently enthusiastically documented the rise of 'living apart together', the reluctance of recently widowed, divorced, or separated older women (and men) to re-marry or, more precisely, their resistance to losing their residential and financial independence.¹¹ Many enter new intimate relationships, but insist on 'living alone', at least in the Council Tax collector's eyes.

The research by Kharicha *et al*,^{1,2} was substantial and systematic, but a convenience sample of non-disabled primary care patients using a postal questionnaire will miss unregistered patients (if only a tiny percentage of the older population) and introduce socioeconomic (particularly educational) bias. Those receiving and anticipating treatment were most likely to respond. The patients were drawn from four group practices in suburban London, 'selected for their interest in primary care for older people ... and electronic medical recording systems'. Convenience samples can be powerful research tools, but bias must be investigated. The sociodemographic attributes of older residents in the approximate catchments of the practices could have been determined from the census. We learn that 'the proportion of older people living alone was slightly lower than the national average of 37%' (surely the comparison is false, the National Statistics figure includes the disabled); but otherwise there was no investigation of representativeness. London's suburbs are atypical, perhaps especially for those living alone: some are very affluent, some have high proportions of non-white residents,

and all have high house prices and rents, as well as good public transport and accessibility to primary care.

Nonetheless, a relatively large sample was achieved of 860 people aged 65 years or over living alone, and the careful comparisons with those who lived with others (controlling for many sociodemographic attributes) produced many fascinating findings about health status, health behaviour, and healthcare utilisation patterns. The findings have to be interpreted carefully, however, for once important controls were introduced (those living alone had a higher average age and a larger proportion were women), just two chronic conditions had clearly significant positive odds ratios, arthritis/rheumatism and glaucoma, while, for mental health, no difference was found in depression or self-reported memory loss.

Barber⁴ and Taylor⁶ showed that it is exceedingly difficult to identify patient attributes that are serviceable targeting criteria. Given that social change is now so rapid, a risk factor in one generation can be a sign of advantage in the next (living alone is not yet that in Britain). Over the last decade, researchers have increasingly explored the merits of targeting those with shared event experiences (rather than attributes), as of falls and emergency hospital admissions. If the science of 'case finding' is to progress, event sequences may be the next port of call. It has been shown, for example, that among 'low achiever' older people, combinations

of ceasing work, the bereavement of spouse or last co-resident parent, taking over a house tenancy, the onset of a disabling condition, and living alone, for some signal the person becoming homeless for the first time in their lives.¹² In some parts of the country, primary care and housing-welfare staff have begun to work collaboratively to identify 'hard to reach', vulnerable older people with relatively high unmet needs and inadequate health care.^{13,14}

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Chronic diseases: what happens when they come in multiples?

Multimorbidity is the coexistence of two or more chronic diseases in an individual.¹ Prevalence studies indicate that it is the normal state of affairs, especially in patients over the age of 65 years.¹ A smaller subgroup of patients are more severely affected by multimorbidity as the combination and severity of their conditions results in significant loss of function, poor quality of life, and frequent hospital

admissions. There is a need to examine the health care of patients with multimorbidity, as they often receive fragmented specialist care which does not meet their needs, or indeed support their professional carers, especially in primary care.

Chronic disease care is now based on protocol driven management for a single disease across primary and secondary care.² The commonly used term

'comorbidity' implies that there is an index disease to which coexistent diseases relate and may share an aetiology and perhaps a solution. In clinical practice individual patients often suffer from a collection of chronic illnesses which may or may not have a common aetiology, but which require greatly differing and often incompatible management. This is why we use the term multimorbidity here.