

The ways in which nursing teams in the nurse led units make decisions about discharge also need to be explored. Nurses may, rightly or wrongly, be more conservative in discharging patients. They may err on the side of caution, but the benefits of these conservative decisions can only be judged with longer term follow up.

Do these two new studies help us understand the differences between medical and nursing care? We think they usefully remind us that nursing care is not necessarily less costly and that the extra costs may be worth the benefits but that health outcomes need to be measured carefully in studies of sufficient power. It should not be assumed that the outcomes of nursing and medical care are equivalent.

The skills of healthcare professionals and their assistants are much in demand and constitute a limited

resource that needs to be deployed in the most cost effective way. Although UK health policy supports the development of nursing roles, as nurses take on more duties and responsibilities we must also question what, if anything, is being lost from nursing, to whom and does it matter?

Nicky Cullum *professor*

(nac2@york.ac.uk)

Karen Spilsbury *research fellow*

Department of Health Sciences, University of York, York YO10 5DD

Gerry Richardson *research fellow*

Centre for Health Economics, University of York, York YO10 5DD

Competing interests: KS and GR have conducted and published evaluations of nurse led intermediate care.

- 1 BBC News Online. Training nurses to do surgery. <http://news.bbc.co.uk/2/hi/health/3580453.stm> (accessed 10 Mar 2005).
- 2 Currie MP, Karwatowski SP, Perera J, Langford EJ. Introduction of nurse led DC cardioversion service in day surgery unit: prospective audit. *BMJ* 2004;329:892-4.
- 3 Raftery JP, Yao GL, Murchie P, Campbell NC, Ritchie LD. The cost effectiveness of nurse led secondary prevention clinics for coronary heart disease in primary care: follow up of a randomised trial. *BMJ* 2005;330:707-10.
- 4 Walsh B, Steiner A, Pickering RM, Ward-Basu J. Economic evaluation of nurse led intermediate care versus standard acute care for post-acute medical patients: cost minimisation analysis of data from a randomised controlled trial. *BMJ* 2005;330:699-702.
- 5 Griffiths P, Harris R, Richardson G, Hallett N, Heard S, Wilson-Barnett J. Substitution of a nursing-led inpatient unit for acute services: randomized controlled trial of outcomes and cost of nursing-led intermediate care. *Age Ageing* 2001;30:483-8.
- 6 Steiner A, Walsh B, Pickering RM, Wiles R, Ward J, Brooking JI. Therapeutic nursing or unblocking beds? A randomised controlled trial of a post-acute intermediate care service. *BMJ* 2001;322:453-60.
- 7 Griffiths PD, Edwards MH, Forbes A, Harris RL, Ritchie G. Effectiveness of intermediate care in nursing-led in-patient units. *Cochrane Database Syst Rev* 2004;(4):CD002214.
- 8 Briggs A. Economic evaluation and clinical trials: size matters. *BMJ* 2000;321:1362-3.

Large scale food retail interventions and diet

Improving retail provision alone may not have a substantial impact on diet

Ensuring communities have good access to healthy affordable food is one of the government's joined up strategies to improve public health and reduce health inequalities.^{1 2} Policy solutions for deprived communities without good access—food deserts—have focused on improving provision of food retail as part of a wider suite of recommendations for population dietary change focused around awareness, affordability, and acceptability.³ However, the evidence for the widespread existence of food deserts and their impact on population health has been contested.^{4 5} This has meant that although retail based policy recommendations to reduce diet related health inequalities now exist,^{1 2} the evidence to inform how, when, and where to reduce these inequalities is only now emerging.

Recently completed projects in Newcastle, Leeds, and Glasgow have started to provide us with this evidence.⁶⁻⁸ The Newcastle study concludes that food deserts exist only for a minority of people who do not or cannot shop outside their immediate locality and for whom the locality suffers from poor retail provision of foods that compose a healthy diet. Key predictors of healthy eating were found to be dietary knowledge, relative affluence, and healthy lifestyle—retail provision was not independently associated with diet.

The Leeds and Glasgow studies were both prospective evaluations of the impact of large scale food retailing. Utilising an uncontrolled before-after design the Leeds study concluded that access to food improved notably after the intervention. The average

distance travelled to the main food store fell to under 1 km, and the percentage of people walking to the main food store tripled to over 30%. Substantial increases in consumption of fruit and vegetables of between 0.25 and 0.5 portions per day were also reported, particularly for respondents who switched to the new provision. In contrast the Glasgow study, a controlled quasi-experimental study, found little evidence for an overall effect of the intervention for fruit and vegetable consumption in portions per day. For those consumers who switched their main food shopping to the new store an improvement in consumption of around 0.35 portions per day was seen though the evidence for this was very weak. A substantial positive improvement in one measure of psychological health (GHQ-12) and a weak positive effect on self reported health was seen in switchers.

How should this evidence be interpreted? Firstly, the term food desert, although a striking metaphor, has unintentionally led to such polarisation of views by researchers, policy makers, and other interest groups so as to be of limited further use. The authors of the Newcastle study propose that the focus should be on food equity instead.⁶

Secondly, ambiguity remains over whether large scale food retail interventions work. Despite the reporting of positive changes in fruit and vegetable consumption in the Leeds study, pre-intervention and post-intervention designs alone rarely provide compelling evidence that an intervention has been successful. Changes in the prevalence of risk factors and

outcomes may be observed to change over time in the absence of any intervention.⁹ Observed changes therefore may not be due to the intervention itself but to an independent secular trend. Additionally, the effects of other ongoing local, regional, or national initiatives may confound the results of evaluations. Without a matched community control, attributing any independent effect of the intervention itself is difficult. Study designs with community comparisons must adequately control for potential confounding factors.

Overall, retail interventions may have either a small but important effect or no effect on diet and health. Although these studies had similar aims and results, uncertainty over the efficacy of retail led interventions stems from problems of interpretation owing to differences in study design. However, the implications for the future development of dietary interventions are similar. Changes in fruit and vegetable consumption, although small, are consistent with other evidence. Two recent reviews of dietary interventions for cancer risk found an average increase of 0.6 portions of fruit and vegetables per day,^{10 11} and relatively small increases in fruit and vegetable consumption may have encouraging prospects for the prevention of disease.¹² The potential negative impacts of large scale retail interventions need to be understood and accounted for—improved retail provision may also increase the availability of foods associated with poor diet. Activities such as advertising and price promotion that surround store opening may be important mediators of impact and effect. If new retail provision is to have an impact on diet and health, we need a multidimensional approach that also tackles food awareness, affordability, and acceptability in addition to retail change.

Changing access through improving retail provision alone may not have a substantial impact on diet and health. Changing knowledge without ensuring access seems problematic intuitively. An approach that changes knowledge and access simultaneously may

have a better chance of securing improvements in diet and health and a reduction in health inequalities.

Steven Cummins *MRC fellow*

Department of Geography, Queen Mary, University of London,
London E1 4NS
(s.c.j.cummins@qmul.ac.uk)

Mark Petticrew *associate director*

MRC Social and Public Health Sciences Unit, University of Glasgow,
Glasgow G12 8RZ

Leigh Sparks *professor*

Anne Findlay *research fellow*

Institute for Retail Studies, University of Stirling, Stirling FK9 4LA

Competing interests: None declared.

- 1 Department of Health. *Reducing health inequalities: an action report*. London: DoH, 1999.
- 2 Department of Health. *Report of policy action team 13: improving shopping access for people living in deprived neighbourhoods*. London: DoH, 1999.
- 3 Department of Health. *The food and health action plan. Food and health problems: analysis for comment*. London: DoH, 2003.
- 4 Cummins S, Macintyre S. "Food deserts"—evidence and assumption in health policy making. *BMJ* 2002;325:436-8.
- 5 Furey S, Strugnell C, McIlveen H. An investigation of the potential existence of "food deserts" in rural and urban areas of Northern Ireland. *Agriculture Hum Val* 2001;18:447-57.
- 6 White M, Bunting J, Raybould S, Adamson A, Williams L, Mathers J. Do "food deserts" exist? A multi-level geographical analysis of the relationship between retail food access, socio-economic position and dietary intake. London: Food Standards Agency, 2004.
- 7 Wrigley N, Warm D, Margetts B. Deprivation, diet and food retail access: findings from the Leeds 'Food Deserts' study. *Environ Plan A* 2003;35:151-88.
- 8 Cummins S, Petticrew M, Higgins C, Sparks L, Findlay A. *Reducing inequalities in health and diet: the impact of a food retail development—a pilot study. Final report to the Department of Health*. London: Department of Health, 2004.
- 9 Kirkwood B, Cousens S, Victora C, de Zoysa I. Issues in the design and interpretation of studies to evaluate the impact of community-based interventions. *Trop Med Intl Health* 1997;2,11:1022-9.
- 10 Agency for Healthcare Research and Quality. *Efficacy of interventions to modify dietary behavior related to cancer risk. summary, evidence report/technology assessment: number 25*. Rockville, MD: AHRQ, 2000. (AHRQ Publication No. 01-E028.)
- 11 National Institutes of Health, National Cancer Institute. *Five-a-day for better health program. Evaluation report*. Rockville, MD: National Cancer Institute, 2002.
- 12 Khaw KT, Bingham S, Welch A, Lubena R, Wareham N, Oakes S, et al. Relation between plasma ascorbic acid and mortality in men and women in EPIC-Norfolk prospective study: a prospective population study. *Lancet* 2001;357:657-63.

A theme issue "by, for, and about" Africa

Call for papers

2005, it seems, is the year of Africa.^{1 2} As world leaders gathered in Davos to discuss debt relief and pop stars re-released their poverty anthem, the world's attention is drawn to magnificent Africa—a continent of vast cultural and regional diversity and potential but plagued by extreme poverty and disease.

The Roll Back Malaria campaign reports that of the 300 million acute cases of malaria each year around the world (which result in 1 million deaths), over 90% occur in Africa. These mostly affect children under the age of 5.³ A new UN report estimates that more than 80 million Africans will die of AIDS by 2025, and another 90 million—more than one in 10 people on the continent—will become infected.⁴ Tuberculosis, maternal mortality, domestic violence, and undernutrition pose further health challenges.

Undoubtedly, these are problems of poverty. Despite substantial growth in the global economy over

the past half century, most of Africa remains poor, with living conditions not conducive to good health and without access to cheap and effective medicines. Seventy five million more Africans are in poverty than a decade ago, and the depth of that poverty is brutal and widespread. Thirty four of the world's 49 least developed countries are in Africa. Nearly half the region's population lives on \$1 a day or less. Women are disproportionately affected.⁵

Africa's health challenges and solutions are complex, deeply rooted in political, socioeconomic, and cultural issues. Unfortunately, this complexity is rarely reflected in the current discourse on health. Instead, Africa is often inadequately portrayed in the broader world as a "basket case": run by corrupt leaders, vulnerable to terrorist extremes, lacking infrastructure, unable to look after itself. Recently, efforts to help countries in the region to achieve the millennium

BMJ 2005;330:684-5