# Rural maternity care: Can we learn from Wal-Mart?

#### **Abstract**

In many countries rural maternity care is under threat. Consequently rural pregnant women will have to travel further to attend larger maternity units to receive care and deliver their babies. This trend is not dissimilar from the disappearance of other rural services, such as village shops, banks, post offices and bus services. We use a comparative approach to draw an analogy with large-scale supermarkets, such as Wal-Mart and Tesco and their effect on the viability of smaller rural shops, depersonalisation of service and the wider community. The closure of a community-maternity unit leads to women attending a different type of hospital with a different approach to maternity care. Thus small community-midwifery units are being replaced, not by a very similar unit which happens to be further away, but by a larger obstetric unit which operates on different model, philosophy and notions of risk. Comparative analysis allows a fresh perspective on the provision of rural maternity services. We argue that previous discussions focusing on medicalisation and change in maternity services can be enhanced by drawing on experience in other sectors and taking a wider societal lens.

Key words: birth, rural, centralisation, medicalisation, retail sector, comparative studies

## Introduction

Issues around the sustainability of rural maternity care have been well documented in industrialised countries where increasing numbers of rural maternity units have been closed or are threatened with closure, for example in Australia (Ponton *et al.* 2005; Roach & Downes 2007), Canada (Kornelsen and Gryzbowski 2006; Sutherns and Bourgeault 2008), the United States (US) (Nesbitt *et al.* 1990), New Zealand (NZ) (Barnett and Barnett 2003) and Europe (Wiegers 2003; Smith and Smith 2005; Tucker *et al.* 2005; Hundley *et al.* 2007; Pitchforth *et al.* 2009; Pilkington *et al.* 2008). The provision of maternity services to small, often scattered, rural populations can be difficult due to a decline in the local population and economy, the recruitment and retention of rural health care staff, centralisation of services and notions of cost and safety (Tracy *et al.* 2006; Heller *et al.* 2002; Barnett and Barnett 2003). Although it should be noted that the closure or down grading of maternity units has not been a uniquely rural phenomenon as smaller urban units have also been closed in the UK (e.g. Smith and Smith 2005; Walsh and Downe 2004).

Maternity care raises interesting questions for health care provision since most women use it some time in their life, but only a small proportion need emergency care. It is recognised that "maternity services are best provided as close to women's homes as possible, preferably in familiar and relatively informal surroundings such as health centres and general practice surgeries" (Hirst and Eisner 1999: 181). Young (1999: 19) noted that there are "large areas of the UK, particularly Scotland, with *no* maternity units" and similarly, there are many rural areas in the US without obstetric care (Nesbitt 1996) whilst in rural Canada the "difficulties of providing maternity services locally have been thoroughly acknowledged" (Sutherns and Bourgeault 2008: 865).

The organisation of rural maternity care is inextricably linked to a range of factors, including socio-economic developments, technological developments, local culture, demography, developments within the wider health care system, availability of appropriately qualified staff, political decision-making at local, national and international level, the quality of the transport and communication infrastructure and the weather and geography. Similar factors impact upon the provision of other rural services such as health posts, small community hospitals, post offices, petrol stations, libraries, bank branches, schools, pubs, village shops, garages, banks and public transport links (Ramsay and Beesley 2007; Forsythe and Carter 1983; Jacobson and Albertson 1987).

At face value the closure of a rural maternity unit could be compared with the discontinuation of the local bus service or the closure of the local hardware store. Although notionally accepted that broader societal factors influence the organisation of maternity services, there is a limited literature examining the processes by which this happens. In this paper we present a comparative analysis, linking two phenomena which affect rural areas disproportionately: (1) centralisation of maternity services; and (2) introduction of large-scale supermarkets which are part of a chain such as Wal-Mart or Tesco. By drawing specific comparisons, the analysis is useful in highlighting and understanding the importance of wider societal developments in explaining changes in the provision and experience of maternity services in rural areas and in understanding expectations and norms.

# Large-scale supermarkets

Wal-Mart is an especially good comparative example because it has been the biggest discounter (chain store) in the US since 1991 (Jia 2008). Wal-Mart started in Bentonville, a small town in Arkansas, and it initially pursued an aggressive strategy of establishing new shops in small to medium-sized towns in the southern USA (Ozment and Martin 1990). In these smaller, often rural, towns it would compete with existing small local shops, but it avoided competition with other large national retailers. Within the retail industry Wal-Mart is renowned for its economies of scale, cost-sensitive culture, price-competitiveness and its investment in information technology (Jia 2008; Hallsworth et al. 1997). Today Wal-Mart is the largest retailer in the world and the largest company in the US (Halebsky 2004). In the UK Wal-Mart owns ASDA. TESCO is the third largest shopping chain in the world and UK newspapers widely reported that its weekly turn-over had reached £1 billion (e.g. Wall 2009). The rapid development of both these large supermarket chains and their impact on local markets and consumers has led to the establishment of their 'own' consumer watchdogs and campaign groups, such as *Wal-Mart Watch* and *Tescopoly*.(1)

# A comparative approach

We used a comparative approach (Ragin 1987; Clasen 2004) to analyze the changes that have occurred in the past decades in the provision of maternity care and retail services in rural areas of industrialised countries with relatively large rural hinterlands. One of the key advantages of comparative research is that it can offer researchers a fresh, new perspective based on in-sights gained in different academic (sub-)disciplines or fields of studies. For example, taking analytical concepts from one academic field such as sociology of emotion and employing these in another field, for example medical sociology (van Teijlingen et al. 2007), or vice versa. In this comparative paper we apply concepts from medical sociology in the area of rural sociology.

# Rural development in maternity care and retail

We draw an analogy between changes in maternity care provision and the introduction of new stores by large supermarkets chains in rural areas. The key characteristics common between maternity services and the retail sector are summarised in Table 1 and we expand further on these elements in the subsequent text. One key point from the examples given in Table 1 is that a rural woman does not simply have to travel further to access another service in a different, slightly further located, place when her local maternity unit or shop closes.

We argue that, in terms of maternity care and retail business, she is also more likely to end up using a service based on a different philosophy. In retail terms this service is more likely to be based on a branch of a large multi-national conglomerate and, in the case of maternity service provision, in a larger hospital unit based on a more medical model of care. The increasing proportions of births taking place in large hospitals and the increasingly medicalised environment of the delivery suite is part of a process of medicalisation. Medicalisation means "defining a problem in medical terms, usually as an illness or disorder, or using a medical intervention to treat it" (Conrad 2005, p. 3). It can also be regarded as a change over time from a largely social model to a more (bio) medical model (van Teijlingen 2005). It is the process of, as well as the effect of, social change, as it affects society's values, norms and expectations and is affected by it. There will, of course, be many hybrid versions of the polarised categories in Table 1; maternity care users might like to keep their rural midwifery-led maternity unit to get for more personal

antenatal and postnatal care whilst opting to give birth in the central obstetric unit. Or rural consumers may do their weekly shopping in urban centres or market towns and their top-up or daily shopping for cigarettes, bread and milk in their local shop. Thus exercising a degree of choice, consumers may use two different retail systems at different times and/or locations to their advantage.

# Philosophy of care and service user experience

When the local village shop or petrol station disappears rural customers are more likely to end up doing their shopping in the next rural town where the supermarket chain has opened a store. Having access to a larger supermarket means, of course, a greater choice of produce, and perhaps lower prices (Basker 2005; Artz and Stone 2006, p. 1302). There might also be socio-cultural changes in rural communities as a direct consequence of the establishment of a large supermarket. As Arnold and colleagues (1998) highlighted, Wal-Mart can shift consumer tastes and preferences towards its own ideology. However, the change to larger retail units also means, for many customers, having to travel greater distances to more a centralised location, and thus increased travel costs. It also means less informal relationships between staff and customers.

In terms of large retailers, the change will be towards a supermarket with its economies of scale, depersonalised service and the "uniformity of a limited number of superstores" (Halebsky 2004: 116). The latter refers to the branches of a large chain store being very similar in design and layout in very different localities. Some argue that in such superstores local shop keepers with their personal touch, "the people who know your name when you enter the store to shop" are replaced by the "arguably faceless, corporate providers of consumers goods" (Lavallee and Boyer 2006, p. 257). The vast number of customers visiting large supermarkets from more diverse communities restricts the opportunity for personalised care. Supermarkets are also purposely designed to reduce the need to interact with humans and advancing technology such as self-service checkouts allow customers to complete their shopping without having to speak to anyone. Specialised counters in large supermarkets such as the fishmongers, cheese counter or in-store bakery where costumers interact with staff rather than simply picking pre-weighed and packed produce, are promoted very much as a special dedicated service where as this would be the norm in local rural shops.

Similarities can be seen in accounts of maternity care in centralised obstetric hospitals compared to local maternity units. Care in centralised hospitals has been likened to a conveyer belt system (Martin 1987), where midwives work against the clock (Lavender and Chapple 2004, p. 328), with increasing rates of obstetric interventions, especially Caesarean sections (Johanson et al. 2002; Porter et al. 2003), and women being a 'passive object' in such a health care system (Oakley and Houd 1990, p. 118; Lankshear *et al.* 2005, p. 367). This contrasts to local maternity units where women commonly highly value personalised care and familiarity with staff (Pitchforth *et al.* 2008). In the same way as supermarkets seek to incorporate some of the features of local shopping through specialised counters, hospitals increasingly incorporate different models of care such as midwifery-led units that promote a less medicalised model of care and more homely and familiar environment. In both sectors this allows larger units to offer security and peace of mind in covering every eventuality under one roof (Pitchforth *et al.* 2009).

Impact on wider community

There is a growing literature on the impact of giant supermarkets, such as Wal-Mart (headquarters in US) or TESCO (headquarters in UK), on the local rural economy, employment and the wider community. For example, the growth of Wal-Mart has led to slightly less people being employed in retail in the US than would have been the case if Wal-Mart had not been there (Neumark et al. 2008). Also the introduction of a Wal-Mart store will typically drive down prices in the locality. Shoppers may react to such introduction by changing their shopping behaviour and "by altering their locational and/or store spending patterns and loyalties" (Findlay and Sparks 2008, p.87). Existing smaller shops often struggle to compete and may be forced to close (Arnold et al. 1998; Graff 2006; Rocks et al. 2005; Jia 2008), or to put it more emotionally: "very price-competitive Wal-Mart location could draw the life-blood from several surrounding communities" (Hallsworth et al. 1997, p. 231). Artz and Stone (2006, p. 1302) evaluated the impact of the establishment of Wal-Mart on local markets in Mississippi, USA, where a new store "particularly in rural areas .... captures a significant amount of business from existing grocery retailers." However, impact does not appear to be even across the retail sectors as Basker (2005, p. 228) found that the negative "Wal-Mart's effect is strongest for products traditionally sold in drugstores", in other words, local general stores are most likely to lose out from large retail opening shop in their community. Since Wal-Mart originally located its stores in "very small towns, towns too small to interest competing discount retailers" (Graff 2006, p. 56), it was to be expected that rural drugstores lost out when Wal-Mart came to town, as do local petrol stations (Graff 2006, p. 63). Accepting that specific small businesses fail because of the Wal-Mart opening a shop, some have rejected the idea that Wal-Mart has a negative impact on the size and profitability of the small business sector overall (Sobel and Dean 2008).

Clearly, the move towards fewer centres for specialist care will affect rural maternity services (Ireland et al. 2007, p.111). This move is largely driven by changing notions of risk in society, which is becoming more and more risk averse (Beck 1992). Notions of risk reduction are, of course, not solely statistical or epidemiological, they are also socially constructed and subjective, and hence risk perception is a key concept to our understanding of the phenomenon (Adam 1995; Alaszewski et al. 1998). Growing emphasis on risk reduction has led to the centralising deliveries into more specialist obstetric/ neonatal services. The latter are typically based in specialist obstetric (teaching) hospitals in big cities, thus such maternity services are by definition not available in rural areas. The closure of small rural maternity units and hospitals also has potential health impacts on the wider communities rather than just on individuals as maternity-service users. The discontinuation of health services may reduce economic security (Muus et al. 1995), and trigger off a cycle of decline (O'Toole et al. 2002), which in turn can have a negative effect on individual quality of life (James 1999: 1024), and/or community identity (Joseph and Kearns 1996). These phenomena help explain the strength of the local protest of some of the small communities, be it against the arrival of Wal-Mart or the closure of the local birth unit.

#### Protest

Community reactions against proposed Wal-Mart developments and the closure of small maternity units have been similar. Protests, lawsuits, and local objections are generally based on more than simple economic considerations (Ozment and Martin 1990). Communities have protested against planning applications from Tesco or Wal-Mart for developing stores in their locality (Halebsky 2004; Lavallee and Boyer 2006), although in the case of maternity units local protest is usually against removal of a local unit rather than the development of a larger one, or in

some cases the proposed down grading of small hospital to a midwifery-led maternity unit (e.g. Fell and Haroon 2008). Barnett and Barnett (2003) noted that in southern NZ three out of nine community trusts were specially established to resist the closure of maternity services or the establishment of maternity care in a local area where none existed before. These NZ community trusts are "voluntary non-profit organisations, owned and controlled by local communities" (Barnett and Barnett 2003: 59). Some of the more successful 'retail' and 'maternity care' protesters seem to have channelled their efforts through single-issue local pressure groups (Lavallee and Boyer 2006). Such protest, especially around maternity care provision, can attract wide media attention. As one journalist summed up the UK media coverage of protests against maternity units closure "the lure of tiny babies and adoring mums proved irresistible to journalists" (Warshall 1989, p. 5).

One key observation is that local opposition from both communities and individuals is often mixed. For both the large retail shop and the specialist obstetric hospital people will have some positive feelings or preferences, i.e. we generally like lower prices and more choice in the retails sector and the availability of specialist hospital services when obstetric emergencies. In rural communities experiencing a proposed change in either the retail or maternity care sector we may see local protest, but this is rarely unanimous. For example, a media analysis of comments made about the proposed changes to a small obstetric hospital in the north of Scotland which would make it a midwifery-led unit found that although most comments were negative about the proposed change, nearly 30 percent were positive (Thomson et al. 2008, p. 797). Similarly in the retail field, Halebsky (2004: 123) in his study of the politics of retail development has a lovely quote for a shopper in a US town where a campaign had been organised against a proposed Wal-Mart: "Prices at some local places are so ridiculous it's outrageous ... Viva Wal-Mart."

## Sense of community or belonging

The importance of belonging is also very important in understanding the sometime emotive reactions to the introduction of different services and comparisons can again be drawn in the nature of protests and political activism. Typically major retail developments have been "both denounced and welcomed in market towns and rural areas" (Findlay and Sparks 2008, p. 86). In terms of community backlash against a Wal-Mart proposal to set up in a small New England town in the United States, Lavellee and Boyer (2006, p. 258) argued that the local protest "lies at the heart of how individuals define themselves through the places they choose to live." Whilst James (1999) in her study of the closure of 52 small community hospitals in Saskatchewan (Canada) underlined the meaning and importance of these local institutions for rural communities. Health services potentially contribute to the experience of place since they offer a measure of security, identity and economic viability (James 1999, p. 1024). In addition the symbolic value of 'having been born in the village' helps create a sense of belonging, a notion which Joseph and Kearns (1996) referred to as 'symbolic capital'. Furthermore, there is evidence that people living and working in remote and rural areas are more likely to maintain social links locally than their urban counterparts. For example, Atterton (2007) researching social networking by business owners in the Highlands and Islands of Scotland found that the strongest social networks existed in the most remote small town.

This said, it is important to neither become nostalgic about nor promote a too idyllic picture of living in rural areas. Some rural people will travel a considerable distance to buy certain goods and services anonymously (e.g. pornography, condoms) or to get a pregnancy test without the rest of the community knowing about their business. In terms of local protest against either retail of

maternity services development, there will be an element of general resistance to change. Moreover, Atterton (2007) also found that rural in-migrants were less likely to have access to strong informal networks, precisely because they were outsiders, which can lead to people feeling excluded (Munro and Carlisle, 1998).

#### **Discussion**

Access to services in rural areas is generally poorer than in urban areas. The lower population density means that people tend to have to travel greater distances to access many services, often in areas with poorer public transport and roads, and where travel can be at the mercy of the weather. Moreover, through the past decades we have seen the decline of services in many rural areas with the closure of small schools, libraries, garages, pharmacies, pubs, post offices and the discontinuation of local bus services. Some of these closures can simply be ascribed to (or blamed on) market forces (Phillips and Swaffin-Smith 2004). Changing demographic and work patterns, social, economic and cultural changes and changes in our shopping behaviour over the past decades have also contributed to a reduction in rural services and provisions (Findlay and Sparks 2008).

The impact of these changes is likely to differentially affect different groups in society. Obviously, the changes in maternity care affect women more than men, although to impact on families (rather than just women) should not be underestimated. A study of maternity services in remote and rural Scotland showed that direct and indirect costs, in terms of loss of productivity, can be substantial for women and families around the time of birth and that costs increase markedly if travel to a centralised unit is required (Tucker *et al.* 2006). This may be expected to place greatest burden on socioeconomically deprived groups and women but further is required to establish fully and to understand how these effects may differ by context (Smoyer-Tomic *et al.* 2008). Although car ownership is higher in the UK in rural areas than in urban ones, there are poor families in rural areas without access to a car, which means the centralisation of shops and health services is a disproportionate burden for them.

In our comparison between the rural retail and maternity services we identified a number of shared characteristics (Table 1). We reviewed some of the social issues around changes in both kinds of services, particularly some of the local protest against a proposed introduction of a Wal-Mart shop in a local community or the closure of a rural maternity unit. Protests and resistance can be rooted in a sense of threat to the community.

# Centralisation and medicalisation of childbirth

It is important to see the centralisation of maternity services in particular and, health policy making in general, as influential factors in rural communities. Rural women have to travel longer distances to access obstetric and paediatric services due to the centralisation of these services in specialist hospitals in big cities. The analogy we have drawn between large supermarkets and maternity units shows that centralisation is not just the movement of services from rural to urban areas. Rather our key argument is that the provision of maternity care and the experience of the service users will be fundamentally different in centralised health care systems.

Importantly, medicalisation also implies the need for medical intervention, standardisation and a reduction in natural variation (Conrad and Leiter 2004). Medicalisation has thus commonly been used an as explanation for increasing caesarean section rates and intervention during birth. Our comparison between maternity care and the retail sector shows the characteristics associated with 'medicalisation' such as reliance on technology, less personalised care and focus on efficiency

gains are common in both sectors. Our analysis thus highlights the value of using a wider societal lens to understand changes in provision and experience of maternity care. The changes associated with medicalisation are common with other sectors where centralisation is increasing.

The way in which both retail and maternity services are offered has an impact on, not only shoppers or pregnant women's expectations of that service, but also that of the wider society. Several authors have suggested that the way society approaches pregnancy and birth more generally reflects its key norms and values (Oakley 1989; Gélis 1991). Increasing births in a medical environment may add to our society's belief in the superiority of technology over nature (Davis-Floyd and Sargent 1997). Our analysis shows that medical sociology discussions of medicalisation can be enhanced by drawing on broader cross-sector phenomena. To date discussions of medicalisation have tended to be divisive, emphasising inter-professional differences between midwifery and medical approaches to childbirth. Understanding the ways by which norms, expectations and behaviours are shaped in relation to other sectors may provide further insight.

Our proposed analogy would benefit from further expansion and testing. There are, of course, certain limitations. Maternity service configuration is more affected by skills shortages as mentioned above whilst many Wal-Mart jobs are particularly low-skilled and low pay (Halebsky 2004) and hence easier to fill locally. Since the centralisation of obstetric care is driven by notions of risk and perceptions of safety which are less pertinent to centralisation processes in the retail sector. Although, it may be that if organisations such as Wal-Mart and Tesco could frame their provision of goods and services in terms of risk reduction, they might be even more dominant in the market.

Our analysis has focused on the process of centralisation in both sectors. In reality the ways in which the retail sector is developing is dynamic and dependent on context (Coca-Stefaniak 2005), and largely based in the private sector. Using the different models and particularly 'hybrid' models of the extremes we have presented may offer learning for both sectors. For health policy makers in publicly-funded services the analogy may encourage the consideration of maternity services in the wider context of the community and the social and economic function and value of services. Services that are socially desirable are not always economically valuable. In the same way as policies may be made to offer incentives to local businesses in the retail sector in order to help maintain the integrity of rural towns and villages, this maybe linked to the broader role and functioning of health services in rural areas. The pervasiveness of choice, technology and convenience is apparent in both centralised models and again may provide learning for policy responses.

#### **Conclusion**

The central theme in our article has been that there are certain similarities between centralisation/ urbanisation in the organisation of maternity services and global developments taking place in the retail sector. We made a comparison with the retail sector and reflected on the changes occurring in rural communities when branches of large multinational supermarkets such as Wal-Mart or Tesco set up shop in a rural town. Table 1 distils similarities between (a) the small rural shop and local midwifery-led maternity unit and (b) a branch of a multi-national supermarket and a large

obstetric hospital. Economies of scale appear to be the key economic factor and centralisation of services a key political one. For health and retail service users the effects are likely to include a change in availability of the range of services and goods and getting less personalised services. However, the effects are likely to be experienced differently by different sub-groups in society; therefore further research is needed in the impact of centralisation of services on social and gender inequality.

The centralisation of both maternity care and the retail industry has generated local protest and hostile community reactions, although such reactions are not unanimous. Moreover, the comparison between maternity care and the retail sector shows that the characteristics often associated with 'medicalisation' such as reliance on technology, less personalised care and focus on efficiency gains are common in both sectors and likely to influence our norms and expectations of services in either sector. Comparative analysis has previously been lacking in research around rural maternity services and we argue that this can be very useful particularly when it comes to the discontinuation of maternity services in rural areas and understanding reactions from individuals and communities in rural areas.

## **Footnotes**

1 Consumer watchdogs such as *Wal-Mart Watch* (http://walmartwatch.com/) and *Tescopoly* (http://www.tescopoly.org/) are coalitions of various consumer and protest groups and are largely internet based.

#### References

Adams, J.1995. Risk. University College Press, London

Alaszewski, A., Harrison, L., Manthorpe, J. (Eds) 1998., Risk, health and welfare. Open University Press, Buckingham.

Arnold, S.J., Handelman J., Tigert, D.J. 1998. The impact of a market spoiler on consumer preference structures (or, what happens when Wal-Mart comes to town). Journal of Retailing and Consumer Services 5 (1), 1-13.

Artz, G.M., Stone, K. 2006. Analyzing the impact of Wal-Mart superstores on local food store sales. American Journal of Agricultural Economics **88** (5), 1296-1303.

Atterton, J. 2007. The 'Strength of Weak Ties': Social networking by business owners on the Highlands and Islands of Scotland. Sociologia Ruralis 47 (3), 228-245.

Barnett, R., Barnett, P. 2003 "If you sit on your butt you'll get nothing!" Community activism in response to threats of rural hospital closure in southern New Zealand. Health and Place **9**, 59-71.

Basker, E. 2005. Selling a cheaper mousetrap: Wal-Mart's effect on retail prices. Journal of Urban Economics **58**, 203–229.

Beck, U. 1992. Risk Society: Towards a New Modernity. Sage, London.

Clasen, J. 2004. Defining comparative social policy. In: Kennett, P. (Ed), A Handbook of Comparative Social Policy. Edward Elgar Publishing, Cheltenham, UK, pp.91-102.

Coca-Stefaniak, A., Hallworth, A.G., Parker, C., Bainbridge, S., Yuste, R. 2005. Decline in the British small shop independent retail sector: exploring European parallels. Journal of Retailing and Consumer Services **12**, 357-371.

Conrad, P., Leiter V. 2004. Medicalization, markets and consumers. Journal of Health and Social Behavior **45**, 158-176.

Conrad, P. 2005. The shifting engines of medicalization. Journal of Health and Social Behavior 46, 3-13.

Davis-Floyd, R.E., Sargent C.F. 1997. Introduction. In: R.E. Davis-Floyd, R.E., Sargent, C.F. (Eds.), Childbirth and Authoritative Knowledge: Cross-Cultural Perspectives. University of California Press, Berkeley, USA, pp.1-51.

Fell, G., Haroon, S. 2008. Learning from a Rapid Health Impact Assessment of a proposed maternity service reconfiguration in the English NHS. BMC Public Health 8, 138 (online) < http://www.biomedcentral.com/1471-2458/8/138

Findlay, A., Sparks, L. 2008. Weaving new retail and consumer landscapes in the Scottish Borders. Journal of Rural Studies **24**, 86-97.

Forsythe, D., Carter, I. 1983. The local view: A case study approach. In: Forsythe, D., Carter, I., Mackay, G.A., Nisbet, J., Sadler, P., Sewel, J., Shanks, D., Welsch, J. (Eds), The Rural Community and the Small School. Aberdeen, The University of Aberdeen Press, pp.137-170.

Gélis, J. 1991. History of Childbirth: Fertility, pregnancy and birth in early Modern Europe. Polity Press, Cambridge.

Graff, T.O. 2006. Unequal competition among chains of supercenters: Kmart, Target, and Wal-Mart. The Professional Geographer **58** (1), 54-64.

Halebsky, S. 2004. Superstores and the politics of retail development. City and Community 3 (2), 115-134.

Hallsworth, A., Taylor, M., Jones, K., Muncaster, R. 1997. The US food discounter's invasion of Canada and Britain: A power perspective. Agribusiness 13 (2), 227-235.

Heller, G., Richardson, D.K., Schnell, R., Misselwitz, B., Künzel, W., *Schmidt S.* 2002. Are we regionalised enough? Early-neonatal deaths in low-risk births by size of delivery units in Hesse, Germany 1990-1999. International Journal of Epidemiology **31**, 1061-1068.

Hirst, J., Eisner, M. 1999. Narrowing the gap: social class, age, and ethnic differences. In: Marsh G., Renfrew, M. (Eds.), Community-based Maternity Care. Oxford University Press, Oxford, pp.175-194.

Hundley, V., Tucker, J., van Teijlingen, E., Kiger, A, Ireland, J., Harris, F., Farmer, J., Caldow, J., Bryers, H. 2007. Midwives' competence: Is it affected by working in a rural location? Rural and Remote Health, 7: 964 (online) <a href="http://www.rrh.org.au/publishedarticles/article\_print\_764.pdf">http://www.rrh.org.au/publishedarticles/article\_print\_764.pdf</a>

Ireland, J., Bryers, H., van Teijlingen, E., Hundley, V., Farmer, J., Harris, F., Tucker, J., Kiger, A., Caldow, J. 2007. Competencies and Skills for Remote and Rural Maternity Care: A Review of the Literature, Journal of Advanced Nursing, **58** (2), 105-115.

Jacobson G.M., Albertson, B.S. 1987. Social and economic change in rural Iowa: The development of rural ghettos. Human Services in the Rural Environment **8**, 58-65.

James A.M. 1999. Closing rural hospitals in Saskatchewan: on the road to wellness? Social Science and Medicine **49**, 1021-1034.

Jia, P. 2008. What happens when Wal-Mart comes to town: An empirical analysis of the discount retailing industry. Econometrica 76 (6), 1263-1316.

Johanson, R., Newborn, M., Macfarlane, A.J. 2002. Has the medicalisation of childbirth gone too far? British Medical Journal **324**, 892-895.

Joseph, A.E., Kearns, R.A. 1996. Deinstitutionalization meets restructuring: the closure of a psychiatric hospital in New Zealand. Health and Place 2, 179-189.

Kornelsen, J., Gryzbowski, S. 2006. The reality of resistance: the experiences of rural parturient women. Journal of Midwifery and Women's Health **51**, 260-265.

Lankshear, G., Ettore, E., Mason, D. 2005. Decision-making, uncertainty and risk: Exploring the complexity of work process in NHS delivery suites, Health, Risk and Society 7 (4), 361-377.

Lavallee, T.M., Boyer, M.A. 2006. Globalization and local governance: Implications from Wal-Mart's expansion, International Studies Perspectives **7**, 254-266.

Lavender, T., Chapple, J. 2004. An exploration of midwives' views of the current system of maternity care in England, Midwifery **20**, 324-334.

Martin, E. 1987. The woman in the body- A cultural analysis of reproduction. Open University Press, Milton Keynes.

Munro, S., Carlisle, S. 1998. How do Communities Care? Report presented to the Highland Carer's Trust. The Princess Royal Trust, Inverness, Scotland.

Muus, K.J., Ludtke, R.L., Gibbens, B. 1995. Community perceptions of rural hospital closure. Journal of Community Health **20**, 65-73.

Nesbitt T.F., Connell, G.H., Rosenblatt, R. 1990. Access to obstetric care in rural areas: Effect on birth outcomes. American Journal of Public Health **80**, 814-818.

Nesbitt T.S. 1996. Rural maternity care: new models of access. Birth 23, 161-165.

Neumark, D., Zhang, J., Ciccarella, S. 2008. The effect of Wal-Mart on local labor markets. Journal of Urban Economics 63, 405-430.

Oakley, A. 1989. Who cares for women? Science versus love in midwifery today. Midwives Chronicle 10, 214-221.

Oakley, A. Houd, S. 1990. Helpers in Childbirth: Midwifery Today. Hemisphere Publishing Corporation, New York, USA.

O'Toole, K., Nesbitt, P., Macgarvey, A. 2002. Amalgamation of health services in South-West Victoria: reinvention or survival? Australian Journal of Rural Health 10, 51-56.

Ozment, J., Martin, G. 1990. Changes in the competitive environments of rural trade areas: Effect of discount retail chains. Journal of Business Research **21**, 277-287.

Phillips, M., Swaffin-Smith, C. 2004 Market towns-victims of market forces? International Journal of Retail and Distribution Management **32**, 557-568.

Pilkington, H, Blondel, B, Carayol, M, Breart, G., Zeitlin, J. 2008 Impact of maternity unit closures on access to obstetrical care: The French experience between 1998 and 2003. Social Science and Medicine 67 (10): 1521-1529

Pitchforth E, van Teijlingen E, Watson V, Tucker J, Kiger A, Ireland J, Farmer J, Rennie A-M, Gibb S, Martin E, Ryan M. 2009. 'Choice' and Place of Delivery: A Qualitative Study of Women in Remote and Rural Scotland. Quality & Safety in Health Care 18, 42-48.

Pitchforth, E., Watson, V., Tucker, J., Ryan, M., van Teijlingen, E., Farmer, J., Ireland, J., Thomson, E., Kiger, A., Bryers, H. 2008. Models of intrapartum care and women's trade-offs in remote and rural Scotland: A mixed-methods study. BJOG: An International Journal of Obstetrics and Gynaecology 115, 560-569.

Ponton, K., Chapman Y, Francis K. 2005 Innovative model of maternity care supporting vulnerable rural populations. Australian Journal of Rural Health **13**, 368-372.

Porter, M., Bhattacharya, S., van Teijlingen, E., Templeton, A. 2003. Does Caesarean section cause infertility? Human Reproduction **18**, 1983-1986.

Ragin, C. 1987. The Comparative Method. Moving Beyond Qualitative and Quantitative Strategies. Berkeley: University of California Press.

Ramsay, D., Beesley K.B. 2007. 'Perimeteritis' and rural health in Manitoba, Canada: perspectives from rural healthcare managers. Rural and Remote Health 7 (online) 850. Available from: http://www.rrh.org.au

Roach, S.M., Downes, S. 2007 Caring for Australia's most remote communities: obstetric services in the Indian Ocean Territories. Rural and Remote Health 7 (online) 699. Available from: http://www.rrh.org.au

Rocks, S., Gilmore, A., Carson, D. 2005. Developing strategic marketing through the use of marketing

networks. Journal of Strategic Marketing 13, 81-92.

Smith, F.P., Smith, C. 2005. UK childbirth delivery options in 2001-2002: Alternatives to consultant unit booking and delivery. British Journal of General Practice **55**, 292-297.

Smoyer-Tomic, K.E., Spence, J.C., Raine, K.D., Amrhein, C., Cameron, N., Yasenovskiy, V., Cutumisu, N., Hemphill, E., Healy, J. 2008. The association between neighbourhood socioeconomic status and exposure to supermarkets and fast food outlets. Health and Place **14** (4), 740-754.

Sobel, R.S., Dean, A.M. 2008. Has Wal-Mart buried mon and pop?: The impact of Wal-Mart on self-employment and small establishments in the United States. Economic Enquiry **46** (4), 676-695.

Sutherns, R., Bourgeault, I.L. 2008. Accessing maternity care in rural Canada: There's more to the story than distance to a doctor. Health Care for Women International **29**, 863-883.

Thomson, E., Farmer, J., Tucker, J., Bryers, H. 2008. Informing debate or fuelling dispute? Media communication of reconfiguration in Scotland's rural maternity care. Social Policy & Administration 42, 789-812.

Teijlingen van, E. 2005. Models of pregnancy and childbirth: A sociological analysis of the medical model. Sociological Research Online **10**(2) Available from www.socresonline.org.uk/10/2/teijlingen.html

Teijlingen van, E., Reid, J., Shucksmith, J. Harris, F., Philip, K., Imamura, M., Tucker, J., Penney, G. 2007. Embarrassment as a key emotion in young people talking about sexual health. Sociological Research Online **12**(2) Available from www.socresonline.org.uk/12/2/van\_teijlingen.html

Tracy, S.K., Sullivan, E., Dahlen, H., Black, D.M., Wang, Y.A., Tracy, M.B. 2006. Does size matter? A population-based study of birth in lower volume maternity hospitals for low risk women. BJOG: An International Journal of Obstetrics Gynaecology **113**, 86-96.

Tucker, J., Kiger, A., Hundley, V., Harris, F., Caldow, J., Farmer, J., Bryers, H., Ireland, J., van Teijlingen, E. 2005. Sustainable maternity services in remote and rural Scotland? A qualitative survey of staff views on required skills, competencies and training. Quality and Safety in Health Care **14**, 34-40.

Tucker, J., Farmer, J., Bryers, H., Kiger, A., van Teijlingen, E., Ryan, M., Pitchforth, E. 2006. Sustainable maternity service provision in remote and rural Scotland: implementing and evaluating maternity care models for remote and rural Scotland. NHS Scotland, RARARI, Dumfries.

Wall, E. 2009. TESCO now takes £1bn each week. Daily Star (17 April 2009).

Walsh, D., Downe, S. 2004. Outcomes of free-standing, midwife-led birth centres: a structured review. Birth **31** (3), 222-229.

Warshall, S. 1989. A basis for closure? AIMS Quarterly Journal 1 (1), 5-6.

Wiegers, T.A. 2003. General practitioners and their role in maternity care. Health Policy 66, 51-59.

Young, G. 1999. The case for community-based maternity care. In: Marsh, G., Renfrew, M. (Eds), Community-based Maternity Care. Oxford University Press, Oxford, pp. 7-26.