Health of people in rural parts of Britain is being neglected

Zosia Kmietowicz *London*

The healthcare needs of people living in rural parts of the United Kingdom are being neglected, as health policies continue to focus on centralising services in large cities while ignoring those of more distant communities, says a BMA report.

Up to a quarter of people in the United Kingdom live in rural settings, and research shows that for some illnesses they have worse health than people in urban areas, says the report. For example, people from more remote parts of the United Kingdom are less likely than those in cities to have their stomach, breast, or colorectal cancers diagnosed. They also die sooner from prostate and lung cancer than people who live closer to specialist cancer centres.

The report says the image of the "rural idyll" is unfounded

and that there are pockets of poor and disadvantaged people living throughout rural areas, often close to people living in very different circumstances.

Dr Vivienne Nathanson, head of ethics and science at the BMA, said: "Deprivation in rural communities has been ignored for a long time. There is a real case of the haves and the have nots. There are those with private transport who can access

services, while those with lower incomes have limited access and choice."

Poor recruitment of doctors can also restrict access to health services, says the report. Although some rural areas have large numbers of doctors applying for GP posts, others, such as very remote and deprived areas, have problems. Posts in these areas tend to stay vacant for longer than those in deprived urban areas.

Without private transport, access to health care can be difficult in rural areas

The report calls for a rethink in the way health services are developed and for a separate agenda for rural areas. It makes 15 key recommendations on how the difficulties facing rural communities can be tackled. Improving public transport in rural communities is essential and needs to be taken into account when health services for these areas are planned, says the report. New ways to provide health services to rural communities also need to be considered.

The report gives an example of how telemedicine has helped people in the Falkland Islands, where some people live 100 miles from a health centre. Patients can send photographs and test results through the internet.

To aid recruitment in rural areas more medical students should be given the opportunity to choose a rural placement, says the report. And more people from rural communities should be encouraged to go to medical school, as they will often then opt to work in such areas once qualified. □

Healthcare in a Rural Setting can be seen at www.bma.org

Early contact with infant siblings reduces risk of multiple sclerosis

Susan Mayor *London*

People who had more exposure to infant siblings during the first six years of life have a lower risk of developing multiple sclerosis than people with less exposure, potentially because of increased childhood infection and related immune responses, says a study published this week.

The study looked at 136 adults (average age 43.5 years) with multiple sclerosis confirmed by magnetic resonance imaging and 272 controls (average age 43.6 years) matched by sex and year of birth. The participants, all residents of Tasmania, were interviewed between March 1999 and June 2001.

The aim was to assess whether a range of factors, including exposure to infant siblings in early life, was associated with the risk of developing the disease (*JAMA* 2005;293:463-9).

The results showed that a

longer duration of contact with a younger sibling aged less than two years in the first six years of life was associated with a lower risk of developing multiple sclerosis and a delayed age of onset of the disease. The risk of developing multiple sclerosis was 43% lower (adjusted odds ratio 0.57 (95% confidence interval 0.33 to 0.98)) in patients who had between one and three years of contact with a younger infant sibling than in patients who had contact of less than a year (the reference group). Three to five years of contact gave a 60% lower risk (0.4 (0.19 to 0.92), and five years or more gave an 88% lower risk (0.12 (0.02 to 0.88) (P for trend 0.002).

The study then explored possible mechanisms for the protective effect of exposure to an infant sibling. Previous studies

have shown that multiple sclerosis is associated with a later onset of childhood infections. A particularly strong association was found for later infection with Epstein-Barr virus (EBV), a common type of herpes virus (*BMJ* 2003;326:731). Infection results in a higher level in adulthood of IgG antibodies directed against the virus, which has also been shown to be associated with multiple sclerosis.

The new study showed that in the control group a history of exposure to infant siblings was associated with a lower IgG response to EBV, indicating that this might be a protective factor against multiple sclerosis. Control participants with at least one year of contact with an infant sibling had a lower risk of glandular fever (infectious mononucleosis) and a lower risk of very high composite EBV IgG titres than other participants in the control group (adjusted odds ratio 0.33 (0.11 to 0.98)).

Anne-Louise Ponsonby, of the National Centre for Epidemiology and Population Health at the Australian Nation-

al University, Canberra, and lead researcher of the study, said: "The finding that higher infant contact in early life was associated with reduced EBV antibody titres and a reduced likelihood of infectious mononucleosis among healthy controls strengthens the inference that infant contact in early life may alter childhood infection patterns and related immune responses and reduce the risk of MS [multiple sclerosis]."

Dr Ponsonby said that the findings might be explained by the "hygiene hypothesis," which proposes that contracting infections in early life lessens the risk of developing allergic and autoimmune disorders by influencing the development of the immune system. Having siblings may increase the number of early life infections. A protective role for early life infection in the development of multiple sclerosis is consistent with several features of the disease, she said, including the apparent recent increase in incidence that has accompanied a decline in rates of childhood infection. □