BORDER CROSSING Tessa Richards

An age old problem

New treatment, new laws—but will either help elderly people?

“How a society treats its elderly people is a yardstick of its civilisation,” said the world’s oldest man, who celebrated his 112th birthday last month. Inevitably, Tomji Tanabe (one of Japan’s 30 000 centenarians) was asked about the secret of his longevity. “Avoiding alcohol and maintaining a daily regime to keep me young” was his reply. Dying was not on his agenda, he said; he wanted to live indefinitely.

If most of us experienced old age in such a positive way we could perhaps simply sit back and marvel at our species’ increasing longevity. Sadly, this is not the case, and governments in nearly all countries are waking up to the fact that their ageing populations pose formidable economic, social, and health challenges.

The latest UN Report on World Ageing (executive summary www.un.org/esa/population/publications/WPA2007/wpp2007.htm) shows the scale and pace of what some term the demographic tsunami. World population is increasing at 1.1% a year, but the number of people over 60 is increasing at 2.6%. The number of people over 60 tripled between 1950 and 2000, and it is projected to triple again by 2050. The fastest growing sector is the “oldest old,” defined as 80 and over.

A figure that worries economists is the dependency ratio—the number of people aged 15–64 for each person aged over 65. Between 1950 and 2007, this declined from 12:1 to 9:1; the projected figure for 2050 is 4:1. These statistics are worrying politicians. Vladimir Putin has described demographic change as “Russia’s biggest problem”; Jose Manuel Barroso, president of the European Commission, says it is one of Europe’s major challenges.

Amid the discussions on how global ageing will affect economic growth, labour markets, migration trends, pensions, housing demand, health services . . . the list goes on, is a fascinating one on the potential of regenerative research to “combat” it. In a

thought provoking paper in the *Scientist* (March 2006; www.grg.org/resources/TheScientist.htm) the authors, which include Jay Olshansky, professor of public health at the University of Illinois, present readers with two scenarios: carry on as we are and be overwhelmed by increases in frailty, disability, and costly age related diseases such as Alzheimer’s, cardiovascular disease, and diabetes—or invest (hugely more) in research into ageing in the hope that it will deliver a new treatment to delay and compress morbidity and mortality.

Recent advances in biogerontology research indicate that this may well be achievable. The goal we should be striving for, Olshansky told me when we talked at last month’s World Ageing Congress (<http://tinyurl.com/ynq7au>), is a treatment that will result in people aged 50 having the health profile and disease risk of today’s 43 year olds. This “longevity dividend” would bolster the economy: fit people spend longer as producers and consumers, and they demand less from health services. Interestingly, in the animal experiments that extended the disease-free life of rats by 40%, the intervention included calorie restriction along with gene manipulation and changes to cell signalling pathways. The message for the obesity tsunami could scarcely be clearer.

Most medical research is focused on individual diseases. What gerontologists are calling for is a new paradigm where comparable effort and investment are put into investigating how ageing predisposes only some of us to develop chronic and disabling diseases. Their argument has persuaded the US budget appropriations committee to put pressure on the National Institutes of Health to increase funding for research into the biology of ageing. It’s not hard to see why: the committee estimates that the medical cost of chronic illness in the US will reach \$16 trillion a year by 2030.

Having an effective treatment to achieve what disease prevention and

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health promotion programmes are largely failing to do is an appealing idea. Baby boomers, who currently spend billions of dollars on ineffective anti-ageing products, will doubtless flock to buy it. But what about poor countries? These countries are “growing old before they grow rich.” For many, access to even essential medicines is limited. The prospect of people in poor countries benefiting from breakthroughs in ageing research seems vanishingly small.

Nor is it much comfort to those currently suffering from neglect and discrimination by virtue of their age. Their number is not captured in any global report, but insight into their plight comes from stories in the press and a steady stream of reports. One last week from the Healthcare Commission showed just how poorly NHS hospitals protect the privacy and dignity of elderly people (p 689).

Urging healthcare providers in either the public or private health sector to do better by elderly people is easy; finding a mechanism to ensure they do is harder. Some believe that the opportunity to seek legal redress under a new extension of the Human Rights Act may help. Among them is Trevor Phillips, head of the new Commission for Equality and Human Rights (*Daily Telegraph* 29 September 2007 www.telegraph.co.uk/news/main.jhtml?xml=/news/2007/09/29/nrights229.xml). How this will work will be discussed at a conference on health rights and human ageing on 16 October in London.

How a society treats its elderly people is a yardstick of its civilisation. The law seems a blunt weapon to counter the effects of societal breakdown, dislocation, and a lack of intergenerational respect and solidarity, but it might help a bit. That said, I think I’ll give my money to the researchers, not the lawyers. One spin-off of healthy ageing is that you can fight your corner for longer.

Tessa Richards, assistant editor, *BMJ*
trichards@bmj.com