Down with dementia

The dream of living to a ripe old age becomes a nightmare if your mind disintegrates en route. Yet there has been some much-needed good news about this condition, finds **Liam Drew**

MY PATERNAL grandfather died shortly before I was born. The man my father's stories conjured up was physically and mentally tough: a first world war veteran who was boisterous with his drinking buddies and, at home, an old-fashioned head of the household.

But beside those tales sat his life's sad, unelaborated footnote; that he ended his days demented and degraded.

When I ask directly, my dad recalls his father sitting silently for hours, endlessly nursing an empty tea cup, oblivious to all. But my parents prefer not to go into detail. My mum says: "People just didn't talk about dementia 40 years ago."

Today, though, we talk about dementia a lot. With life expectancy continuing to rise and the baby-boomer population bulge standing on the cusp of old age, Western countries face what is sometimes called a looming tsunami of dementia. Such is the urgency that last month London hosted the first G8 summit on the subject, where the world's eight richest countries agreed to coordinate their research efforts against the problem.

The epidemic will place huge strain on healthcare systems; in the UK, the annual cost of caring for someone with this condition is more than the average salary. And on a personal level, the prospect of a long life loses its appeal if it ends this way.

But wait a minute. All the gloomy predictions have been based on a central assumption that people will continue to develop dementia at the same rate as they always have. It is a reasonable assumption – age is the primary risk factor for dementia – but it may well be wrong. There is emerging evidence that the dementia rate in developed countries has fallen.

Since the average age of the inhabitants of Western countries is rising, this may not be enough to stop the total number of people with dementia from increasing. So we still need to plan accordingly at the societal level. But our individual chances of succumbing appear to have decreased. For once, this is a good-news story about dementia.

The search is now on to uncover what has driven these trends, so that they can be maintained and maybe even amplified. "I think this gives some basis for cautious optimism," says Kaare Christensen, an epidemiologist at the University of Southern Denmark in Odense, who led some of the research. "There seems to be huge potential for further progress – if we don't destroy it."

How well our minds function in old age is a major determinant of our quality of life. A small decline in cognitive abilities is an almost inevitable part of ageing. For most people this is a gentle downward turn in mental agility, frustrating but with no great impact.

If this fall-off is more than usual for someone's age, but not enough to interfere with their day-to-day living, it is classed as mild cognitive impairment. This is a high-risk state for progression to dementia.

Dementia is a general breakdown of the intellect and personality, with disintegration of memory, attention and emotional control. Of all the diseases linked to ageing, for me this is the most fearsome. It is degrading for the person concerned and heartbreaking for those around them.

About two-thirds of dementia cases are caused by Alzheimer's disease, in which neurons die off amid distinctive clumps of protein. The next most common form is vascular dementia, caused by deterioration of the brain's blood vessels and often involving

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minor strokes. There are other, less common subtypes, plus a growing belief that dementia at very old ages typically involves a mix of different forms of disease.

What's always been known is that the risk of dementia rises markedly with age – seemingly inexorably. Very few cases occur before the age of 60, and between 60 and 70 the condition is still restricted to an unlucky 1 per cent or so. After this point, though, the odds worsen significantly: about 5 per cent of 70 to 80-year-olds are affected, and beyond 80 the risk rises ever more sharply (see graph, page 34).

The logic has always seemed inescapable: the more 80-year-olds there are around, the more people there will be with dementia. The number of people with dementia globally is often predicted to triple by 2050.

Unequivocally good news

But over the past few years there have been hints that the actual numbers didn't fit this picture. Research suggested that dementia was on the retreat. The studies weren't conclusive, though – either they were too small or their findings statistically borderline.

Now, however, leading medical journal *The Lancet* has published two studies involving thousands of people within the space of a few months, which definitively challenge the orthodoxy.

One compared two surveys of dementia numbers in the UK, done 20 years apart. The first, from 1994, led to the conclusion that there were about 650,000 people with the condition. With the increase in average age of the population over the intervening years, the repeat survey – which used exactly the same tests and definitions – should have found nearly 900,000 people with dementia. But the count came up over 200,000 short. Looking at how the illness affected specific age groups, it appeared that people were developing dementia later in life (see chart, page 34).

The finding came as a welcome surprise to Carol Brayne, the epidemiologist at the University of Cambridge who led the study. "It has been a very positive experience," she says. The editorial that *The Lancet* ran to accompany the paper described the findings as "unequivocally good news".

The other study looked at the health of two groups of Danish people in their mid-90s, born a decade apart, in 1905 and 1915. The nonagenarians were asked to complete a battery of physical and mental tests. While the two groups had similar physical health, those born in 1915 markedly outperformed ›