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Hamster health care

Time to stop running faster and redesign health care

Across the globe doctors are miserable because they feel like hamsters on a treadmill. They must run faster just to stand still. In underdoctored Britain they must see ever more patients, fill in more forms, and sit on more committees just to keep the NHS afloat. In the government sponsored, single payer system in Canada; the mandatory insurance systems in Japan or continental Europe; or the managed care systems in the United States doctors feel that they have to see more patients to maintain their incomes. But systems that depend on everybody running faster are not sustainable. The answer must be to redesign health care.

Doctors are increasingly dissatisfied with the amount of time they can spend with patients. A recent survey by the Commonwealth Fund found that three quarters of doctors in the five countries studied believed that "spending more time with patients is a highly effective way to improve patient care."[1] Evidence from general practice in Britain shows that longer consultations are of higher quality,[2] and patients want more time with doctors. Yet 62% of doctors in Britain, 43% in the United States, 42% in Canada, 38% in Australia, and 32% in the Commonwealth Fund study reported that "not having enough time with patients is a major problem."[1] The result of the wheel going faster is not only a reduction in the quality of care but also a reduction in professional satisfaction and an increase in burn out among doctors.[3] Retirement seems the only way to get off the wheel.

Hamster health care has its origins in the increasing complexity of health care, the way it is paid for, and the rising expectations of patients. Whether in a formal fee for service system, salaried practice, or in systems where doctors are paid a certain amount for each patient each year, doctors have been brought under increasing pressure as they try to provide better care, and they are caught between stingy payers and patients with high expectations.

Perhaps the purest examples of hamster care are in Canada and Germany. In these countries there is a fixed budget for all services provided by doctors and a standardised schedule of fixed fees. Doctors try to earn their target income by providing more and more services. But as the number of services provided by all doctors rises and exceeds set total budgets, so the fee for each service goes down. Like frantic hamsters the doctors run ever faster—but to no avail. In Canada the decline in fees is reinforced by limits on total income. Once that income limit is reached there is no incentive to see patients and so physicians take what is euphemistically called "reduced activity days." In other words, there is little incentive to keep practice doors open after a certain amount of income has been reached. After that point the doctor's time has no value even though demand continues from patients who have free access to primary care.

Hamster health care is not unique to fee for service or single payer systems. For example, in the United States, most doctors participate in the traditional Medicare system (a discounted, fixed fee for service system) as well as several managed care plans, most of which are typically preferred provider organisations, that reimburse doctors through a system of discounted fees for services. Because the managed care insurance market has consolidated both nationally and regionally, the typical American doctor is receiving payment from a smaller number of more powerful managed care plans. Pressure from the powerful payers has meant falls in fees in real terms in most managed care markets. Even in large health maintenance organisations, such as Kaiser Permanente, where doctors are salaried, doctors complain of the hamster care problem. It is known within Kaiser as the "Kaiser reward"—the more efficient you are in seeing patients the more patients you get to see.

British doctors will recognise the Kaiser reward. Within the hospital system good performance can mean more patients but not proportionately more resources—and there is no increase in salary. Rising emergency admissions swamp the system, and harder work is accompanied by rising waiting lists. There is a sense of going backwards. In primary care doctors work harder but patients must often wait longer to see them, leading to growing dissatisfaction all round.[3 4]

Many health economists see no problem with hamster care—after all, it is more service for less money. But a system that exhausts doctors and other healthcare professionals is not sustainable. In part it is the result of organising medical practice in a way that is ill suited to an information age and a world of sceptical, better informed patients who know about and want the best care.

Solutions to hamster health care will come from getting off the wheel, not running faster. Doctors need to redesign their work to meet their patients' needs within the economic constraints, just as we have seen in the financial services and other service industries. That means using information technology creatively (particularly the internet) to communicate with patients and manage the process of patient care as part of a

BMJ 2000;321:1541–2

fundamental redesign of clinical practice. Kaiser Permanente is committing a billion dollars to this task in an effort to redesign the way it offers health care. The Institute of Medicine in the United States will soon produce a report on redesigning health care, and Britain's Foresight report on health care contains many ideas including the creation of virtual cyber physicians and rolling back healthcare into the community.[5] These groups are to be applauded for their efforts and thoughts, but globally we need experiments that redesign care to take advantage of new technology. To date we have just bolted these technologies onto hamster care, spinning the wheel ever faster.

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Hebdomadal rhythms of the heart

Why do deaths peak at the start of the week? Because we don't like Mondays

Dean Swift, in caustic vein, dubbed Monday the parson's holiday. But it certainly isn't a day of rest for the medical profession. The results of several recent studies warn that cardiologists in particular are likely to have a busy time.[1–3] One study from Scotland by Evans and colleagues, published in the *BMJ* earlier this year, showed that in men and women under 50, mortality from coronary heart disease was about 20% higher on Mondays than on other days of the week.[4] From North America, another study, which investigated a series of patients who had received implantable defibrillators with event recorders, showed that there was a clear peak in the occurrence of life threatening ventricular arrhythmias on Mondays.[5]

That fluctuations in rates of heart disease are linked to time is hardly news. It has been known for awhile that coronary events are two or three times more common in the early morning than during the rest of the day,[6] and that both north and south of the equator there is a winter peak and a summer trough.[7] This isn't really very surprising. Apart from creatures living deep on the ocean floor, the physiology of most biological organisms varies with the 24 hour rhythm of night and day and the passage of the seasons. Circadian variations in pulse rate, blood pressure, and the aggregation of platelets are as familiar to doctors as the sunflower's phototropic gyrations are to gardeners. Seasonal cycles of reproductive activity and growth in plants and animals follow changes in temperature, the availability of light, and the abundance of food. They are evolutionary adaptations to the rotations of our planet within the solar system. So daily and seasonal changes in the occurrence of disease can easily be linked to daily and seasonal changes in our internal and external environment. The week though, is an arbitrary division of time—a human invention that dances to no cosmic tune—and the reason for an excess of coronary heart disease on Mondays is less straightforward.

To find out about the origins of the seven day cycle that we call a week, I asked Jeeves (www.ask.com). Although it was hard to be sure of the reliability of the information he provided, it seems that weeks probably began as a subdivision of the Babylonian calendar. Quite why, in the first millennium BC, the Babylonian astronomers settled on a period of seven days is a mystery. Lunar months, which last an awkward 29.5 days, can be divided more exactly by 5, 6, or 10, and a solar year would be better fitted by periods of 5 days. Whatever the reason, a 7 day week turned out to be remarkably durable. The ancient Jews incorporated it into the Old Testament account of the creation, according to which God laboured for 6 days and rested on the seventh. And Christians not only took it up for their calendar, but soon claimed to have thought of the idea in the first place. The venerable Bede, in the 8th century AD, wrote: "For although it is true that barbarian nations are believed to have weeks, it is nonetheless obvious that they borrowed this from the people of God."[8] Not all countries and civilisations chose this period. In the 1920s and 1930s, the Soviet Union experimented with shorter weeks of 5 and 6 days, and the ancient Egyptians preferred a longer 10 day cycle. The French did too—at least for a brief spell after their revolution. *Le Calendrier Républicain*, instituted in 1793, divided each month into three décades, but a regime of 9 days' work before a break proved so unpopular that it was abandoned after little more than 10 years.

Which brings us back to cardiovascular events on Mondays and the suggestion made by Evans and colleagues that the drinking of alcohol at weekends is a cause. It is a long standing medical tradition that whenever possible patients should be blamed for their own disease, but perhaps a profession that is second only to publicans and veterinarians in terms of deaths from cirrhosis of the liver[9] ought to be more chary of this sort of explanation. In the current climate, it is bound to occur to someone that the quality of treatment provided by hungover medical practitioners on Monday mornings needs investigation. What's more, as the electronic responses to the paper pointed out, it is hard to square with what we know about the cardioprotective effects of moderate alcohol consumption.[10 11]

BMJ 2000;321:1542–3