

What might happen to pharmacy in future years when all the oil is gone?

By Noel Baumber, a pharmacist from Grantham, Lincolnshire

It is not just the Royal Pharmaceutical Society whose existence is causing consternation. Current consultations, plans and wish lists for pharmacy's future, I contend, are all based on the wrong strategy. The real problem is that we are still building an infrastructure for the "oil age" and not for what comes after.

It was significant that talk of global recession shot through the stock exchanges of the world as economic growth faltered and the Dow Jones industrial average dropped 10 per cent in the first two weeks of January. The US Federal Reserve System's response was to try to stimulate the US economy and put \$150bn in the hands of people who would spend it, namely, the poor.

Primary concerns in the US economy have centred on the record national debt of \$59.1 trillion, which amounts to \$516,348 per US household (on top of \$112,043 personal debt). To discharge it, each householder would have to pay \$31,000 per year for 75 years. This illustrates why a high gross domestic product and sustainable growth are important.

It seems that we have all forgotten that energy underpins our standard of living. The bad news is that we know sustainable growth is impossible. By the end of December 2007 we had used just over half of the world's 2.013 trillion barrels of oil. We are now on the down slope of the Bell curve and supply is diminishing by 5 per cent per annum. Oil wells run dry over 10 to 15 years and eventually oil becomes either too expensive to extract, or is left as a strategic reserve.

In his book 'Oil apocalypse', Vernon Coleman predicts that the effects signalling the end of the oil age will be felt when oil becomes scarce and prices start an inexorable rise in 2012, only four years from now. Politicians appear to be ignoring the issue, but our whole way of life depends upon oil. Coal is not an alternative, as David Strahan points out in *New Scientist* ("Coal: bleak outlook for the black stuff", 19 January 2008). Oil powers our lighting, heating, communications and transport. It provides us with the basic building blocks for plastics, pharmaceuticals and for industrial processes.

How can we redirect resources to build the kind of pharmaceutical infrastructure that will help to sustain our world at a far lower standard of living? The global race for economic growth is at odds with the need to slow down and make the best use of the oil that remains. All governments need to plan to reduce consumption since that buys us time.

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Pharmacy's institutions, including academia and the pharmaceutical industry, need to research what can be done. We need sustainable technologies, minimal bureaucracy, and to jettison everything that will not work in a darkened world. The projected professional body for pharmacy will have work to do that it did not anticipate, but it should also be structured to take that responsibility on board and deliver rapid results.

We have to start questioning what constitutes a sustainable way of life. Cost benefit analyses will have to take into account the energy consumption of alternative proposals. For instance, is more energy consumed in the envisaged "paperless" electronic prescription service than in the life of the FP10's traditional paper chain? As electricity becomes more expensive and power supplies become interrupted and intermittent should we abandon the idea of the N3 distribution of prescription information for the sake of reliability?

What is the power consumption of a pharmacy? Are there optimal sizes of pharmacy?

Diesel oil is a significant part of the consumer pound, so distance is a new factor in the chain of manufacture and supply that already engages supermarkets in cost comparisons and may put an end to out-of-season fruit. This will surely affect the frequency of wholesale services. It could also impact on home deliveries, although a pharmacy van can save 100 to 200 patients' car journeys per day reducing congestion and pollution. For access we shall certainly need relatively local pharmacies and medical facilities, not just a smattering of centralised hospitals. Trams and trains can run on electricity, but not if the infrastructure is missing, and that would be a priority for commuters, managers and locums.

Can the NHS retrench and remain affordable, or will rising energy costs finally put an end to the presumption that treatment will be free at the point of need? The state may remain the only provider of the means to larger facilities through taxation, but later on there may come a point where barter and the exchange of services takes over from a collapsing currency. This will be an impossible situation for corporate pharmacy saddled with the failure of globalisation to make the transition back to a village economy. Values will change.

What will people need and how can we adjust to help them? Pharmacies have the advantage that they are part funded by income from sales of over-the-counter medicines. They may be called on to maximise that income and rely less on NHS funding and learn how to charge. Doctors may once again have to re-examine their role and earn their living in private practice the way that veterinary surgeons and dentists do.

Investigation will dig deeper. What products can the pharmaceutical industry no longer continue to make? Will counterfeit products fill the gap? Will all medicines be re-evaluated by the National Institute for Health and Clinical Excellence to derive a tighter national formulary as a result? The 20th century revolution in packaging and presentation that fills my two waste skips each week may be forced by circumstance into bulk supply and dispensing in reusable glass containers.

The Royal Pharmaceutical Society has managed to unwind the small print while retaining the essentials of ethics, but most of the restraints and demands upon pharmacies are enshrined in law. Much of that legislation could become irrelevant or inappropriate, but end up unrepealed.

What are the security issues for our homes and places of work when an economy dies?

Society will become more desperate and lawless. If they do not already have them, pharmacies may need external shutters. Small communities will be far more stable than cities and more likely to develop the local infrastructure that will be needed.

Nuclear, solar, wave and wind power remain as essential alternatives and we shall need them to produce a central core of electricity. What lies ahead is a political nightmare. A world population of 6.6 billion is unsustainable without oil and coal and the consequences of starting late to consider the decline will be calamitous. Urgency demands a complete overhaul of the Government's political mentality and, here, pharmacy could lead the way.