Community wells could solve arsenic problem (pp. 632–638)

Six safe community wells of between 60 and 140 metres in depth were installed in an area where the water from 80% of the other wells contained elevated levels of arsenic. Each of the new wells was used by about 500 people to supply water for drinking and cooking. Most of the users lived within 150 metres of the wells. The experiment suggests that with 8000–10 000 deep community wells of this kind, the 4–5 million people living in areas severely affected by arsenic contamination in Bangladesh would have a safe water supply. Groundwater pumped from about one-third of the tube wells in the country is likely to cause cancers of the skin, liver, lungs and other internal organs.

Low genital infection but high obesity rates found (pp. 639–645)

Reproductive tract infections in a rural community of east Lebanon were found to be less common than in most other comparable developing-country settings: 1% for any sexually transmitted disease, and 9% for any endogenous reproductive tract infection. Traditional religious values may explain this in part, but easy access to unprescribed antibiotics may also contribute to low disease prevalence. On the other hand, two other conditions were found to be unusually common: one-third of the women had some form of genital prolapse, and 40% were overweight.

Growing burden of musculoskeletal disorders (pp. 646–656)

Self-reported persistent pain related to the musculoskeletal system is thought to affect up to 20% of adults. Over the age of 60, osteoarthritis affects 9.6% of men and 18% of women. Rheumatoid arthritis causes mild-to-moderate disability in most patients and severe disability in 10%. It affects between 0.3% and 1.0% of the general population. The prevalence of osteoporosis is 5% in women aged 50 years, and 50% in women aged 85 years. Osteoporosis is a major risk factor for hip, vertebral and forearm fractures. Low back pain affects nearly everyone occasionally, and between 4% and 33% of the population at any given point in time. The burden of musculoskeletal disorders will increase as populations age.

Pharmacology advances slowly on osteoporosis (pp. 657–664)

Pharmacological treatments that reduce bone loss and fracture risk have become available in recent decades. Evidence of undesirable side-effects in hormone replacement therapy has led to the development of more potent and specific treatments. Newly developed drugs, though effective, tend to be unaffordable for many of those who need them. Calcium and vitamin D in combination is the accepted baseline treatment and preventive measure for osteoporosis. The main aims of treatment are: maximize bone mass, prevent fractures, and, in the event of a fracture, minimize pain and disability.

The harm done by landmines can be reduced (pp. 665–670)

Every year, landmines maim or kill 15000–25000 people, 80% of whom are civilian, and they include large numbers of children. More than a third of the survivors require amputation. Since 1938, 110 million landmines have been laid in 70 countries. They can explode decades after being deposited, and it costs US$300–1000 to deactivate each one. For every 5000 deactivated, three clearance workers are injured, one of them fatally. Public health injury prevention programmes can reduce the number of victims. Improved access to surgery; rehabilitation and prosthetic limbs can mitigate the damage done to them. Eventually, the problem should decline, as 122 countries have ratified the Ottawa Convention of 1999, which bans the production and use of antipersonnel mines.

Back pain is not a disease (pp. 671–676)

Though a leading cause of disability and common in all cultures, back pain is neither a disease nor a diagnostic entity. Acute pain is the most common presentation, and it usually lasts less than three months, with or without medication. Back pain is one of the most common causes of lost work days – 100 million a year in the UK, 28 million in Sweden. Cognitive behavioural therapy and physical fitness may have most to offer in the way of treatment. Drug therapy is rarely beneficial beyond pain relief, and the benefits of bed rest, spas and manipulative treatments have not been verified. Heroic treatment should be avoided.

Medical schools must give higher priority to musculoskeletal disorders (pp. 677–683)

Undergraduate and postgraduate medical training should give more attention to musculoskeletal disorders. These disorders occupy only about 3% of medical school curriculum although everyone is prone to them, they consume large amounts of social and health care resources, and incur high indirect costs through sick leave, sick pensions, early retirement and inability to support oneself. A curriculum covering musculoskeletal conditions is proposed whereby medical schools at least make sure that their graduates can make an adequate clinical assessment, deal with common outpatient problems, and recognize emergencies.

Perspectives: traffic accidents and research (pp. 684–688)

In any year, road traffic accidents kill about a million people and injure 20–30 million. How many of these deaths and injuries are necessary? Vision Zero, a campaign that started in Sweden, maintains that none of them are. The numbers can already be reduced just by applying existing research findings, but for elimination, more research is needed.

For bone and joint problems generally, whether from trauma or other causes, the next advances are likely to come from the current developments in basic biological science.

Public health classic: osteoarthritis (pp. 689–693)

In 1975 a paper on osteoarthritis reported on the significance of inflammation in 170 patients. The observations remain as relevant now as they were when the report was published.