Personal Paper

The arms race and health care

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The probable medical consequences of nuclear war have attracted much attention recently.^{1,2} Less well recognised are the economic effects of preparations for war, both nuclear and conventional, which have vital implications for the quality and quantity of health care both at home and throughout the world.

The data presented here are mainly from the Western world, where such information is more freely available than behind the Iron Curtain. Official USSR figures for their military expenditure are certainly too low, but Western estimates of Russian expenditure on arms are equally certainly too high.^{3,4} There can be little doubt that the Russian economy, and hence standards of health care in the USSR and its satellites, is considerably damaged by its high level of military spending.

Defence budgets are presented in such a way that it is difficult or impossible to estimate how military resources are divided between preparations for nuclear and conventional war,⁵ though figures of 20% for nuclear war for the super-powers and 10% for world military spending are usually quoted. Electronic equipment, delivery systems such as planes and missiles, and personnel can all be used for either nuclear or conventional war.

Domestic arms costs

The defence budget for the United Kingdom for the financial year 1981-2 is £12.7 billion,⁶ not allowing for overspending and inflation which could push the figure well over £13 billion. This represents 5.2% of gross national product (GNP), £250 per head of population, or roughly £17 a week for an average family of four. Curiously, this is almost exactly the figure currently quoted for total government borrowing, which we are constantly told is far too high and should be reduced. Nevertheless, it is proposed that military spending should continue to increase at 3% a year for the next three years at least.

In comparison, the NHS budget for the same year is £9.6 billion. From 1975 to 1979 the defence, education, and health budgets all increased roughly in line with inflation.⁶ Now the education budget is actually to be cut, though the precise effect of this is confused by the fall in school rolls, and the Health Service budget is to be increased by no more than 0.5-1.0% in different regions depending on the effects of resource allocation programmes. This is at a time when the proportion of the population over the age of 80 is steadily increasing. This group receives personal rather than high-technology care; over 75%

of the present cost of the NHS is wages and salaries, and the aging population is therefore a principal reason why expenditure on the Health Service will have to be increased if standards are to be maintained. A few months ago, the then Secretary of State for Health and Social Services, Mr Patrick Jenkin, rejected the report of the Black Committee on health provision and poverty,⁸ solely on the grounds that the implementation of its proposals would cost £2 billion a year, which in his foreword to the report he described as "unrealistic under any circumstances." Even if the whole cost of the Black proposals fell on the Health Service, its budget would still be less than the defence budget; most would in fact fall elsewhere, on local authority and community service costs. There is in the United States⁷ a similar maldistribution of health and health services to that described by the Black Report here.

World costs

World military spending in 1979-80 reached \$450 billion a year or \$1 million a minute,^{8,9} about 10% of this being preparation for possible nuclear war, and in 1982-3 will exceed \$600 billion a year. Far and away the largest spenders are the United States and the USSR, and the former at least seems committed to a further increase, probably the largest by any nation in peacetime, much of it to weaponry with a nuclear potential such as the MX missile and the B1 bomber.

Excessive arms spending is not confined to developed countries; in many developing countries the purchase of arms forms the largest item in their budgets, and it may be no coincidence that in many of these the form of government is a military dictatorship. The experience of Iran under the late Shah shows that this expenditure does not necessarily lead to security, still less to prosperity, for the mass of the people. Trade in arms to developing countries is encouraged by the developed nations for two reasons, ideologically to maintain the political support of the trading partner, and economically to reduce the unit costs of the arms—for instance, tanks, warplanes—to the suppliers' own military forces. Among the largest purchasers of arms are the oil-rich States, but in the poorer countries arms are largely paid for by cash crops, such as tobacco or coffee, when the real need is for subsistence crops for their own population.

In comparison, total official world development aid is a mere \$20 billion a year,⁹ with a little extra from private sources. Current United Nations recommendations are for 0.7% of the GNP of developed countries to be devoted to development aid, and the Brandt Commission proposed that this should be increased to 1%. The average for the member countries of the Organisation for Economic Cooperation and Development at the time of the Brandt Report was 0.35% of GNP, with the figure for the United Kingdom fairly typical; since then both the United States and the United Kingdom have considerably reduced their contribution, the United Kingdom by 15% over two years. On the other hand, Sweden, a non-aligned and non-nuclear nation,

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is one of the few Western states to achieve 1% of its GNP in overseas aid.

Meanwhile, 800 million people, mainly in Southern Asia and sub-Saharan Africa, are living in absolute poverty, defined in the Brandt Report as "income insufficient to secure the basic necessities of life."⁹ According to figures from the United Nations Children's Fund, quoted by Brandt, 30 000 deaths daily in children under the age of 5 result from a combination of starvation and "trivial" illnesses such as measles or gastroenteritis⁹—about the death rate from Hiroshima and Nagasaki every week.

In comparison, the cost of one tank would save 4000 tons of rice by improving storing facilities, that of one jet plane would pay for 40 000 village pharmacies. The eradication of smallpox cost the World Health Organisation the equivalent of two-and-a-half days' world military spending, and it is estimated that one day's expenditure, or about the cost of one Trident submarine with its missiles and back-up facilities, would finance the WHO programmes to eradicate malaria and filariasis (including river blindness, the second commonest cause of blindness in the world after trachoma). One 0.5% of one year's world military spending would pay for enough farm equipment to allow food-deficient low income countries to approach self-sufficiency by 1990.⁹

Apart from the administrative difficulties, diversion of world resources on a scale sufficient to end epidemic disease and poverty in the Third World would admittedly present problems. After nuclear war, the population explosion is the next major threat to world stability and peace, and the prevention of thousands of deaths in childhood and improvement in the general health of the population of the developing countries would inevitably accelerate this at first, with further strain on already overstretched food resources. On the other hand, a massive birth control programme could be instituted by diverting further funds from arms spending, and experience has shown that family size is soon reduced when it is known that children can expect to survive to support their parents in old age.

Resource allocation: material

Apart from the question whether the vast sums now spent on arms in fact add to or detract from national and world security, it has been claimed that they are an essential factor in the economy of the modern Western industrial state; arms exports from the United States in 1979 amounted to \$5.8 billion, from the USSR \$4 billion, France \$2 billion, and the United Kingdom \$620 million.⁹ There is, however, evidence that large military budgets are inflationary and weaken an economy^{7 10}; of the nine leading Western industrial countries in the period 1960-78, the United States and the United Kingdom had the highest military expenditure per cent of GNP and the lowest rate of growth in manufacturing productivity, and Japan and Denmark the lowest arms spending, with a growth in productivity twice that of the United States and the United Kingdom.⁴

The arms race consumes specific material resources, many expensive and in short supply, at an alarming and ever-increasing rate. It has been estimated that 40% of the titanium and 10% of the aluminium, chromium, copper, iron, manganese, nickel, and several other metals consumed in the United States are used for military purposes.⁸ The cost of these, and the nature of the end-products, which contribute nothing to the economy, add to inflation. Supplies of the raw materials will be exhausted sooner and their costs greater, and extracting and processing them will add to environmental pollution, if demand continues to increase exponentially as at present.¹¹

The resource most likely to be exhausted is oil, and the military are prodigal users of fuel. The United States armed Forces

alone consume as much oil as Southern Asia and two-thirds that of the whole of Africa.

Resource allocation: human

The arms trade, the armed Forces, and their supporting services are capital-intensive but also employ large numbers of people, many of them highly trained; about half the world's research physicists and engineers work on arms-orientated research and development.¹² Many of these could be employed for peaceful purposes without extensive retraining or re-deployment; peaceful applications of microelectronics, control of pollution, safer methods of pest control, and alternative energy sources are fields in which engineers, physicists, chemists, and biologists could work, all with obvious medical applications.

It has recently been claimed that disarmament would increase unemployment^{13 14} this, if true, would be of concern to doctors. The evidence, however, points the other way. Factories devoted to military production could readily be converted to peaceful purposes without loss of jobs, and detailed plans have been drawn up showing how this could be done.¹⁵ For example, cardiac monitoring equipment and scanning machines are already produced by firms who at present have large military commitments. Difficulties would undoubtedly arise in a few centres, such as Portsmouth and Plymouth, where the servicing of a large military base is the major local industry, but even here planned introduction of new jobs, financed by savings from military spending, should not be impracticable.

Unemployment could indeed be considerably reduced; in the United States \$1 billion spent on arms creates 40 000 jobs; the same sum spent on nursing creates 80 000 jobs.⁷ If such figures can be extrapolated to the public sector here at the present rate of exchange, the sum of £13 billion now spent on defence could reduce unemployment by over a million. Diversion of private investment in the arms trade to peaceful purposes could create still more jobs.

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