European Observatory on Health Care Systems

Health Care Systems in Transition

Belarus

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Foreword

The Health Care Systems in Transition (HiT) profiles are country-based documents that provide an analytical description of the health care system and of any reform programmes under development. HiTs form the basis of the information system on health care systems and reforms at the World Health Organization Regional Office for Europe (WHO/Europe).

The aim of the HiT initiative is to provide relevant comparative information to support the development of health care systems and reforms in countries in the European Region of WHO. This initiative has four main objectives:

- to learn about different approaches to financing, organization and delivery of health care services in the European Region of WHO;
- to describe the process and content of health care reform programmes and to monitor their implementation;
- to highlight common challenges and areas that require more in-depth analysis and which could benefit in particular from cooperation and exchange of experiences between countries;
- to provide a tool for dissemination and exchange of information on health care systems and reform strategies between different countries in the WHO European Region.

The HiT profiles are produced by country experts in collaboration with staff in WHO/Europe's Health Systems Analysis programme. In order to maximize comparability between countries, a standard template and a questionnaire have been developed. These provide detailed guidelines and specific questions, definitions and examples to assist in the process of developing the HiT profile. Quantitative data on health services are based on the *WHO/Europe health for all database*, *OECD health data* and *World Bank data*.

Compiling the HiT profiles poses a number of methodological problems. In many countries, there is relatively little information available on health care systems and the impact of health reforms. Most of the information in the HiTs

is based on material submitted by individual experts in the respective countries. As a result, some statements and judgements may be coloured by personal interpretation. In addition, the wide diversity of systems in the WHO European Region means that there are inevitably large differences in understanding and terminology. As far as possible, these have been addressed by the development of a set of definitions, but some differences may remain. These caveats are not limited to the HiT profiles, however, but apply to most attempts to study health care systems.

The HiT profiles are a source of descriptive, up-to-date and comparative information on health care systems, which should enable policy-makers to identify key experiences relevant to their own national situation. They constitute a comprehensive source of information which can form the basis for more in-depth comparative analysis of reforms. The current series of HiT profiles covers over half of the countries in the European Region. This is an ongoing initiative with plans to extend coverage to all countries in the Region, to update the material at regular intervals and to monitor reforms over the longer term.

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The HiT on Belarus was written by Genryh Karnitski and edited by Suszy Lessof.

Introduction and historical background

Introductory overview

Belarus is located in the centre of Europe and borders Latvia, Lithuania, Poland, the Russian Federation and Ukraine. It covers 208 000 km^2 and has a population of some 10 million. Population density is low (49.2/km^2) but the majority (65.5%) live in urban areas[1]. Belarus is divided into six administrative regions or oblasts[2] that are further subdivided into districts or rayons[3]. The capital, Minsk, has the status of an independent administrative/territorial unit and is home to approximately 15% of the total population (1.7 million). Almost 80% of the population are defined as Belarussians. Just over 10% are categorized as Russians and there are also small Polish and Ukrainian minorities. Religious affiliation is predominantly Russian Orthodox with smaller Roman Catholic and Jewish populations. Over 80% of people speak Russian and a slightly lower number Belarussian. There has been a growing trend to use the Belarussian language in official settings since independence.

The climate is fairly moderate although the winters are cold. The land is predominantly low lying. Forests extend over much of the northern territory while the south was characterized by its vast tracts of arable land. However, the aftermath of the Chernobyl disaster in neighbouring Ukraine has left widespread contamination and undermined the role of Belarus as a grain producer. Agricultural production has fallen, damaging both the economy and the nutritional status of the population.

Belarus has few natural sources of power and, since gas deposits have yet to be fully exploited, there is a marked reliance on energy imports. The heavy

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[1] As of 1 January 1996 there were 24 cities with populations over 50 000; seven cities of 100 000–200 000 population; and seven cities with more than 200 000 inhabitants.
[2] Brest, Gomel, Grodno, Minsk, Magilov and Vitebsk.
[3] There are 118 rural rayons, 1447 rural councils, 109 towns and 102 cities, with 25 city rayons.

industry that characterized the Soviet period has suffered badly in the face of spiralling energy costs and the disruption caused by the break up of the centrally-planned manufacturing system.

Fig. 1. Map of Belarus[4,5]

There was a profound economic collapse and a dramatic fall in GDP in the years following immediately on independence, with a breakdown in trade, falling production and rapid inflation, with all its consequences both for the health system and the health status of the population. It is unclear whether the recent accords with the Russian Federation will create long-term growth but there is a growing sense of economic stability.

Life expectancy is below western European averages, at 62.9 years for men and 74.3 for women (1996)[6], and mortality and morbidity rates are well in excess of those for European Union states. The leading causes of death are

[4] The maps presented in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitations of its frontiers or boundaries.
[5] CIA. The World Book. Bethseda, National Technical Information Service (NTIS) 1996.
[6] *Source*: The Ministry of Health of Belarus 1997.

cardiovascular disease and cancer. Major causes of ill health include respiratory diseases, accounting for approximately 30% of registered illnesses in adults and 63% of illness in children, and diseases of the circulatory and digestive systems. Tuberculosis is increasing with 43 new cases per 100 000 population in 1995, giving a total of 173 cases per 100 000, compared to 166 per 100 000 in 1994[7]. There are also major problems associated with alcohol misuse and road traffic accidents, which take a particular toll of men in the age range 39–49 years. Fertility rates and population growth have declined, and there continue to be more abortions than live births (166 to 100 in 1996). However, both maternal and infant mortality have fallen since the 1970s, and continuing improvements are being made despite high levels of infant morbidity and the increase in numbers of low birth-weight babies.

The direct impact of the Chernobyl explosion on the health status of the Belarus population is not entirely clear but it does not seem to have had a major impact on mortality rates as yet. Life expectancy is lower than in western Europe, but it has only declined slightly in recent years, and age standardized rates are in line with those experienced by much of the former Soviet Union. However, 22% of the population were directly exposed to radiation, and the incidence of thyroid cancer since 1986 has exceeded expected levels by some 80 times and other tumours and leukaemia have increased markedly. This suggests that the full impact of the disaster on mortality has yet to be felt.

Historical background

Belarus has long been a crossroads for trading routes and has been subject to a series of changes in national status. From the thirteenth to the eighteenth centuries it was part of Lithuania and Poland, but with the various partitions of Poland, Belarus was transferred to Russian sovereignty. Following the collapse of tsarist power and the foundation of the Soviet Union the Belarussian Soviet Socialist Republic was created (1919) and was ultimately divided, in the Treaty of Riga, between the USSR and Poland. In 1922 it became part of the USSR and, following the Second World War and German occupation, was enlarged at the expense of the eastern parts of Poland to its current borders. In 1990 with the Soviet period coming to an end, Belarus adopted a declaration of sovereignty and in 1991 gained full independence. It became a founding member of the new Commonwealth of Independent States (CIS).

[7] *Source*: The Ministry of Health of Belarus 1995.

The nineteenth and early twentieth centuries

The history of health care in Belarus reflects the influences of the various national systems exercising sovereignty over the territory. The most profound influences, however, were successively Russian and Soviet. At the start of the nineteenth century, with the transfer of Belarussian lands to the Russian Empire, the Russian approach to health care and hygiene began to take root. Community health care departments were established, with powers to regulate public health issues, community physician and obstetrician posts were introduced (1801), and elements of medical specialization began to emerge. In 1854 public health committees were set up. The provision of medical education, which had been centred on the Grodno Medical Academy (1775–1781), was enhanced with the founding of schools of obstetrics in Magilov (1865), Vitebsk (1872) and Grodno (1875). There were also initiatives to train feldsher-obstetricians (Magilov 1875, Vitebsk 1874 and Minsk 1908), obstetricians and nurses (Gomel 1906), and dentists (Minsk 1908). The schools of dentistry in Minsk and that for feldsher-obstetricians in Vitebsk were private although, until the turn of the century, medical training was typically in the public sector. By 1860 there were 268 practising physicians, and in 1862 both Magilov and Minsk had scientific societies of physicians which held their own congresses. These were followed by similar initiatives in Grodno and Vitebsk in 1869 and 1874, respectively.

In the first decade of the twentieth century the 'zemstvo system' of local government was introduced and sought to provide health care for the rural population through local health posts and cottage hospitals. Urban areas were already relatively well provided for since the population of the towns and cities, in the most part, were in reach of a network of hospitals and outpatient departments. There was also a reasonably well-defined system of hospital insurance. Additionally, there was the equivalent of a sanitary and epidemiological service, in the form of the public health laboratories which were set up in all the major cities and a network of public health (or sanitation) doctors who were appointed to monitor and control epidemics, etc. The first post set up was in Minsk in 1891, and this was followed by appointments in Vitebsk and Gomel (1897), Magilov (1909), and by an extension of the system to the regions (1908–1910) and then the districts (1912–1913).

By 1913 there were 240 hospitals with 6445 beds and 274 maternity beds. There were 1167 physicians and 2180 paramedical personnel. However, there was no unified, common system of health care in Belarus. Various institutions and departments handled different issues. City administrations were responsible for urban health care while the zemstvo, with the help of charity organizations, handled health in rural areas. Health services were patchy, but nonetheless

there was an extensive network of public health supervision and providers of care.

The First World War and the early soviet period

The First World War saw a major disruption of the network of health care institutions and a sharp fall in the number of health care personnel. The progress made in hygiene was undermined and the network of public health controls broke down. There were outbreaks of cholera and typhoid fever. The direct consequences of conflict and displacement, the disruption of food supplies and of medical provision, all had a negative impact on the health status of the population.

The October revolution introduced a new system of government committed to a major reorganization of the health system and to the principle of free and accessible health care for the whole population. The organization of health provision was to be multi-departmental. Private practice and user charges were abolished. In January 1919 a Health Care Commissariat was established and issued a succession of decrees, enhancing the key principles of the Soviet health care system. Health care was to be:

- state-owned and delivered;
- free-of-charge;
- oriented towards preventive measures;
- centrally planned.

This reiteration of principles was accompanied by their implementation and the establishment of new fields of health care. These developments included maternal and child health focusing, in particular, on preventive medicine, occupational health and the provision of care to workers and their families through the workplace. Rehabilitation and convalescence were seen as important specialties and were often centred in health 'resorts'.

There was a strong emphasis on the health of the workforce and of the nation's children. A network of hospitals, outpatient departments, polyclinics, obstetric centres and other health care institutions was set up. There were also state-sponsored developments in the chemical and pharmaceutical industries.

The Soviet system was most fully implemented in the western oblasts of Belarus. By 1941 the number of medical institutions was twice that of 1913 and bed numbers had increased 4.6 times. There were 20 times as many obstetric beds and a higher rate of hospital deliveries. Public health measures had been re-established and the rate of infectious diseases was dropping. However, health gains were to be short lived as the Second World War engulfed Belarus.

The Second World War and the later soviet period

The occupation of Belarus during the Second World War was devastating. As many as 25% of the population perished and those that survived experienced extreme privations. The health care infrastructure was similarly devastated. All large hospitals were destroyed, as were some 80% of other health institutions including medical institutes and 79% of sanitary-epidemiological centres. Losses were estimated at 610.6 billion roubles. There was a striking re-emergence of those infectious diseases that had previously been controlled by the sanitary-epidemiological networks, including typhoid, dysentery, malaria and spotted fever.

In the immediate post-war period the soviet and republican health ministries devoted enormous energy to reducing the incidence of infectious diseases and eradicated malaria, typhoid and spotted fever among others. This emphasis on 'sanitary protection' and on legislation of the environment, water supply and other industrial sectors was typical of much post-war activity.

However, despite this focus on preventive measures and public health, the post-war period also saw an increasing reliance on inpatient care at the expense of outpatient provision. Great store was set by the development of health care institutions and in particular the building of district hospitals to serve rural areas. This was to allow for the isolation of infectious cases and while it ensured access of the rural population to services it tended to create excess bed numbers and encourage both over-staffing and over-utilization.

Health care in Belarus in the post-war period, and prior to the dissolution of the USSR, was dominated by the Semashko system, which guided both development and delivery. It explains not only the focus on infectious diseases and 'sanitary' measures, but also the reliance on legislation and the dominance of occupational health services and enterprise-based delivery. Premised on a belief in the overwhelming importance of the industrial worker, this approach tended to neglect the impact of noncommunicable diseases and also to undervalue medical staff. Doctors and nurses, as non-productive elements of society, were paid substantially less than workers in manufacturing, and this has left a legacy of low pay and low morale.

These general themes persisted and can be seen to have influenced the laws on health protection of June 1970 and June 1993 which sought to determine state health care policy in the republic and define the legal, social economic and administrative basis of the health care system. They were significant in setting out the principles underpinning the system but were overly reliant on the legislative element and neglected implementation.

Towards the end of the Soviet period perestroika and glasnost appeared, bringing with them acknowledgement at the highest levels of the system's

failings. There were also increasing concerns about the economic situation in the USSR and a desire to constrain expenditure. The over-provision of beds and staff was recognized as having contributed to the high costs of health care. It was also widely accepted that centralization gave no incentives to respond to patient need and had created widespread inefficiency.

The central, soviet government sanctioned experiments in decentralization in Kemorovo and Leningrad to test new models of financing. These were broadly influential and elements of the reforms were sanctioned within the Republic of Belarus. In an initiative seen as a pilot for wider reforms, hospital managers, at least in theory, were given greater autonomy to:

- manage hospital budgets;
- sub-let space within hospitals and retain profits generated;
- hire and dismiss staff and negotiate staff contracts;
- charge for services and retain any profits generated;
- enter into contracts with enterprises for the provision of packages of care for employees.

There was also official recognition of the legitimacy of some private practice – the first time it had genuinely been tolerated since the soviet system was established. Despite the growth in private or quasi-private dentistry and cosmetic surgery, the reforms as a whole had little impact on the ground, chiefly because their introduction was followed so swiftly by independence.

Independence

On 27 July 1990 the Supreme Soviet of the Republic passed the Declaration of State Sovereignty, and Belarus took its first steps towards the building of an independent, democratic state. A failed coup attempt in Moscow in October 1991 saw all Soviet republics declare independence, and on 25 December 1991 the USSR was formally abolished. Belarus became a sovereign, constitutional state.

The new Constitution of 15 March 1994 defined the nature of the Republic, which is built on the principle of the power of the people, who are to exercise their will through referenda and through elected, representative bodies. The structure of government was clearly defined, with the Supreme Soviet of the Republic of Belarus as the only legal source of state power and the highest representative body. Executive power is vested in the directly elected president who is also head of State. The first President of the Republic, A. Lukashenko, was sworn in, in July 1994. It is the role of the President to appoint the Cabinet of Ministers. The President may also dismiss cabinet members. The judicial system was established as an independent branch of power, headed by the

Supreme Court. A separate Constitutional Court, nominated by the Supreme Soviet, has legislative powers and oversees constitutional issues.

A major financial crisis and the short-term closure of much of the manufacturing base accompanied independence. There was a marked decline in production, living standards and real health care expenditure, which had direct implications both for the health system and for health status. However, independence also saw fundamental changes introduced, which will continue to influence the nature of health care reforms into the future, beyond the return of economic stability. There was:

- the acquisition of sovereignty and the independence to develop health care policy in the republic;
- enabling legalisation to allow and regulate private ownership and private practice;
- a new Constitution and new health care laws;
- a decentralization of state powers on the basis of the Law on Local Administration.

These changes serve to pave the way for health sector reform, but the government has made a conscious decision to proceed with caution. There has been no radical attempt to overhaul the structure of the health care delivery system. Despite the closure of small numbers of rural clinics with inpatient beds, the pattern of polyclinics and hospitals at rayon and oblast level is unchanged. Funding continues to be largely collected and distributed as under the soviet system, and payment of hospitals and doctors is generally as it was prior to independence. There is, however, awareness that reforms will be necessary and there has been an enormous amount of discussion of potential changes, including serious deliberations about the possibility of shifting to a social insurance model of health care provision.

There have been a number of pilot projects testing new models of health system management. In 1992–1993 a complex scheme was developed whereby the money would follow the patient. This obliged rayons or oblasts sending patients for treatment to secondary or tertiary centres outside their geographical boundaries to pay for the cost of care (all prices were set centrally). It was hoped that this would create incentives for health institutions to treat patients locally and was intended to ensure that funding matched activity levels. While it was discussed prior to independence this scheme was only introduced post-1991. However, economic constraints rapidly made it inoperable and it was abandoned in the height of the financial crisis of 1993. Since then, and with the return of a degree of economic stability, there have been further pilot initiatives. These include an extension of quasi-private practice, experiments with voluntary insurance and with new roles for hospitals in delivering care on a fee-for-

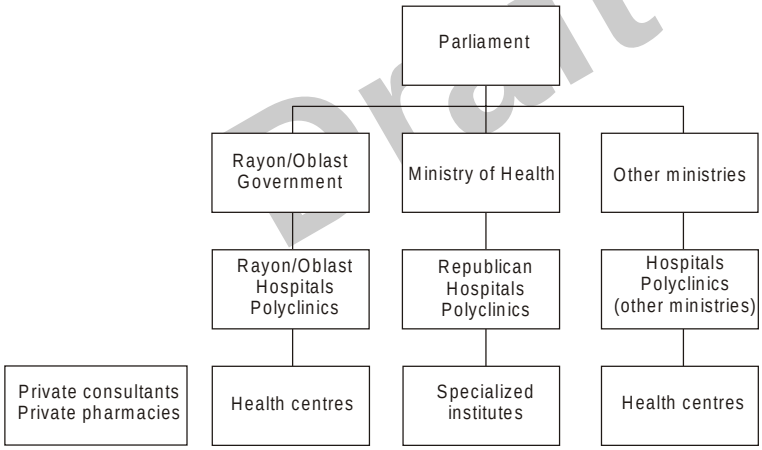
service basis. These are very much at an early stage and are generally small and confined to the capital, but they are seen as a means of testing out possible models for reform.

Organizational structure and management

Organizational structure of the health care system

The organizational structure of the Belarus health care system has not changed significantly since independence. Its core principles and major features are outlined in the law "On health care". This reiterates much of what is familiar from the soviet era not just in regard to free access to health care but in terms also of organization and structure. The system acknowledges the role of the state both central and local, although increasingly, responsibility is being passed to the local level and greater emphasis is being placed on the corresponding duties of the individual for their own health.

Fig. 2. Organizational chart of the health care system



The legislative framework specifies that the health care system includes all those institutions involved in health care delivery regardless of ownership. This definition covers state institutions delivering preventive and curative services; the Sanitary Epidemiological Centres, state and private pharmaceutical enterprises and all other organisations with a health related remit. The system is officially oriented towards preventive measures in the primary setting;

'secondary prevention'[8]; diagnosis; and the provision of effective treatment/curative measures. The state is further charged with the provision of emergency health care; the treatment of socially significant diseases ('social diseases'); the maintenance of sanitary and epidemiological wellbeing; and the development of health promotion and other strategies which will enhance the population's living standards and health status.

Organizational structure of the health care system

Health care in Belarus is provided by a hierarchy of hospitals and polyclinics that correspond to the organization of local government[9]. Rayons are the district-level administrative unit; they normally support a hospital with inpatient beds and one or more polyclinics, housing primary care physicians and offering a comprehensive range of specialist outpatient services. In rural areas rayons also support small village health posts, some of which may have inpatient beds. The oblast is the regional tier of government and provides, as a minimum, an oblast-level general hospital and polyclinic which is expected to service more complex referrals from rayons. There are also dedicated oblast hospitals which deal exclusively with obstetrics, paediatrics, cardiology or other specialist areas and special polyclinics for women and children. Central government supports republican-level services which include a full range of specialist hospitals and polyclinics offering tertiary care and research centres. The appropriate tier of local government acts as the third-party payer and the health care providers report to it initially, while ultimately being answerable to the Ministry of Health for medical standards. Public health duties, including disease surveillance, environmental monitoring and preventive programmes, are the responsibility of the Sanitary-Epidemiological network which is distributed in line with rayon and oblast divisions but reports directly to the Ministry rather than to local health committees.

In terms of organizational overview, there is a proliferation of statutory bodies with responsibility for health care as set out in Fig. 2. The bulk of strategic tasks are in fact carried out by the Ministry of Health, and the providers, together with local authorities, actually manage the delivery of health care. In addition, a variety of policy setting and monitoring roles are assigned to state-level groups. The major responsibilities as set out in legislation are divided as follows:

[8] Specifically early diagnosis, including the identification of disease in its pre-clinical stages.
[9] The country is divided into six oblasts or regions which are further sub-divided into districts called rayons. Each oblast and rayon has a locally elected government or authority which provides services.

- The Supreme Soviet, is charged with:
  - developing and implementing health care policy;
  - setting the strategy for health care development;
  - approving national health care programmes; and
  - ensuring that laws in the field of health care are observed.

    The role of the Supreme Soviet is to define the parameters of the state's responsibility for health care. Deputies have demonstrated a strong commitment to the principles of free care at the point of use and there has been parliamentary resistance to all attempts to limit constitutional guarantees of unlimited care or to reform the system significantly.

- The Cabinet of Ministers is nominally responsible for:
  - developing and approving state health plans and health care development programmes;
  - overseeing medical science, pharmaceutical and medical technology production;
  - health education and health promotion;
  - epidemiological surveillance and 'sanitary protection', including environmental standards and radiation control.

    While there is cabinet-level overview of the contents of health care plans and the health reforms, most detailed activities are carried out by a coordinating council. This council is chaired by a deputy prime minister and minister of health and considers detailed measures and the administration of the health system. The Cabinet of Ministers scrutinizes the council's work and formally approves its deliberations.

- The State Interdepartmental Coordination Council for Population Health Care has the following functions:
  - to formulate state health care strategy drawing on international experience, local conditions and the laws of the Republic;
  - to develop health care legislation and monitor and enforce Republican health care laws;
  - to establish state health care programmes to address key health protection issues;
  - to develop and implement cross-sectoral initiatives, to secure key health goals, and to coordinate the work of other ministries and agencies across territorial boundaries;

- to develop recommendations on financial health policy;
- to create economic stimuli to encourage health promotion and health care development;
- to evaluate the effectiveness of existing health policy and the health care system.

While much of the work of the coordinating committee draws directly on the expertise of the Ministry of Health, it does represent an opportunity for other ministries and agencies to contribute to health policy. It also provides a forum for the Ministry of Health to encourage other ministries to re-evaluate their own activities in light of population health needs.

- The Ministry of Health

The Ministry of Health plays a key role in the health care system. It is technically responsible for all medical, pharmaceutical, rehabilitative, and sanitary-epidemiological institutions, regardless of ownership. It takes the lead in setting health policy at a national level and provides guidance to local government and health-related information to the population. It also licenses private practitioners. Despite some streamlining of the Ministry it is still divided into the six key divisions of the soviet period; Curative Health Care Services; Maternal and Child Health; Medical and Nursing Education; Sanitary and Epidemiological Services; Sanatoriums and Resorts; and Liaison. In brief, the Ministry:

- has administrative oversight of the main bodies delivering health care;
- sets standards for care, coordinates and supervises the activity of hospitals, polyclinics, enterprise-based services, pharmacies and the health care facilities of other ministries;
- monitors professional training of physicians, nurses and pharmacists;
- manages medical scientific institutes and sets state targets for bio-medical research;
- manages the sanitary-epidemiological surveillance system and proposes relevant legislation.

The Ministry's public health or sanitary-epidemiological role includes a number of distinct functions. Together with its Sanitary and Epidemiological Centres, which report vertically to the Ministry, and other associated organizations, it:

- establishes sanitary-epidemiological requirements, oversees the drafting and enforcement of relevant legislation and coordinates the work of other agencies with sanitary or epidemiological implications;

- carries out measures to ensure the safety of food and water supplies;
- monitors environmental and industrial hazards and takes steps to control risk factors;
- regulates the population's living conditions in line with sanitary and hygiene requirements;
- sets health promotion; disease prevention and family health targets;
- carries out strategic planning of disease prevention initiatives aimed at vulnerable groups.

The Ministry also aims to:

- develop and implement specific programmes in the field of health care, social provision, and mass physical culture through target initiatives which may attract Republican funding;
- coordinate complex multisectoral initiatives allocating areas of responsibility and negotiating tax and other benefits for enterprises investing in health protection;
- establish priorities for research and development in the aftermath of the Chernobyl catastrophe and implement programmes to meet the consequent health needs;
- identify and implement health sector reforms.

All health care providers answer to the Ministry on issues of preventive medicine, diagnostics, treatment and pharmaceuticals. The Ministry also carries out other functions, as specified in the "Orders and Instructions of the Ministry of Health Protection".

- Local Government (i.e. bodies of state power and administration at the oblast- and rayon-level) is responsible for:
  - the state of health of those who live in their territories;
  - financing local health care institutions;
  - promoting and developing the material and technical base of local institutions.

  Oblast and rayon governments control budgets derived from local taxation and must provide a full range of local services, including health care. They have increasing autonomy to decide on the allocation of funds between different priority areas but are broadly guided by republican recommendations. Each local government body has a health committee which, in consultation with local health care providers, proposes a budget for the forthcoming financial cycle. This still relies on the principle of

adjusting the previous year's budget[10] for inflation in the sector, with the inflation figure determined by the Republican government. However, it is for the local government body to decide what the actual budget will be. The oblast or rayon is also responsible for any capital expenditure on buildings or equipment. Budget setting is, then, a complex process of negotiation and of the balancing of priorities. Current experience suggests that enormous efforts are made locally to maintain the moneys made available for health. This includes returning to consider health budgets throughout the financial cycle and making extra payments when possible. In addition, local government retains overall responsibility for monitoring standards, although it has delegated many hands-on management decisions to providers. Local government also rolls out national target-programmes and may receive some Republican funds to support these efforts.

- Other Ministries and State Enterprises as health care providers:
  - fund and manage polyclinics offering primary health care;
  - provide ambulatory and inpatient secondary care services.

  The Republic of Belarus, like many CIS states, has a series of parallel health care networks: the Ministries of Defence and of the Interior; the internal security department; the national railway; and some large firms which operate health facilities[11]. Funding of other ministerial services does not come through the health budget but is provided by the relevant ministry, and the level of services depends on the ministry concerned. The Ministry of Defence offers a fairly comprehensive range of care that covers all conscripts doing military service as well as career staff, while the post office offer a more limited range of chiefly ambulatory services. All health care institutions remain accountable to the Ministry of Health for standards.

  Most enterprises providing health care to staff offer only primary care and ambulatory services, although the largest have a small number of inpatient beds and provide sanatoriums and convalescent homes. Some enterprises fund all the costs associated with the provision of health services within the workplace while others have proved unable to meet the salary costs of medical staff, who may then be funded though local government budgets. Again standards must comply with those set centrally.

  While these parallel networks do not appear to be either logical or sustainable they are fiercely defended by their funders and there are no plans to dismantle them.

[10] Annual budgets are crudely based on the existing numbers of beds and staff in the local health sector.
[11] In total nine other ministries operate parallel health services.

Other Ministries also make a contribution to health status in that they all determine policy objectives which may impact on health and compete for resources. However, while they may on occasion share responsibility for multisectoral initiatives, in general they do not have any statutory responsibility for health.

The Ministry of Finance plays an important role in that it is responsible for budget setting for the whole of the Republic of Belarus and negotiates health spending as a percentage of GDP with the Ministry of Health. It is also responsible for the control of hard currency which is needed to acquire equipment and pharmaceuticals from abroad. However, it takes no part in the detailed management of the health system, although in the long term it may have a role in adjusting the taxation system to facilitate reforms in the health sector or to encourage health promoting initiatives by employers.

The Ministry of Labour and Social Affairs also plays a significant role in the health of the population since employment and social policies impact directly on benefit levels, the provision of social care and the environmental factors that affect health. However, despite some social beds which care for the elderly destitute, the majority of long term care is provided within mainstream health services and the Social Insurance Fund does not contribute directly to health costs.

All the above is reminiscent of the soviet system with the republican-level organs setting out policy objectives and norms which are to be implemented by the oblasts and the rayons, (although these now have more flexibility and autonomy). Funding too follows soviet flows with republican budgets funding republican facilities and the oblasts and rayons supporting the hospitals, polyclinics and health posts located within their spheres of influence. Minsk City has introduced some changes to ensure equality between its different districts but, by and large, the organizational structure of the soviet health care system remains intact and the interrelationship between the various bodies remains recognizable. However, there has been some change, and new actors and stakeholders are beginning to contribute to the system.

The private sector, although relatively rudimentary, is establishing itself on two fronts. First, there is an increase in the number of physicians offering private consultations. These tend to be at the low technology end of medicine, due to the cost of purchasing and maintaining equipment. Secondly, there are successful pilots in the area of quasi-private polyclinics with examples in Minsk offering non-essential dental and cosmetic services on a fee-for-service basis to patients who bear the cost directly. These clinics have the status of state enterprises which allows them considerable autonomy. They are expected to

charge within state agreed limits, to cover all their own costs, including the purchasing of equipment and to pay rent and taxes. They can also pay staff at levels well in excess of mainstream hospitals. The experiments to date have been very successful and demonstrate a market for health care exists and can generate enough surplus to fund renovations of clinic facilities, modern equipment and bonuses for staff. However, at the moment the private sector is tiny and exerts little influence on the health care delivery system as a whole. It has, however, attracted a positive response and may be expected to play a greater part in the provision of care in the future.

The growth of the private sector is likely to be linked to the development of voluntary insurance, which is also in its infancy in Belarus. Currently small, pilot schemes cater for very limited numbers and offer cover for supplementary services only. Insurance companies are not risk bearing. However, planners and policy makers see voluntary insurance as a means of reducing the pressure on mainstream services and it is likely that its role will increase. There is also discussion of shifting general funding from a tax-based system to statutory insurance.

One of the difficulties of extending schemes that are based on insurance or on out-of-pocket payments by patients is the lack of a supportive legal framework for the private sector and the complexity of regulations governing income generation by hospitals. So, although there is basic legal provision for their activities, the vast majority of providers[12] remain within the public sector. There are similar obstacles when it comes to defining new forms of organization such as a voluntary or not-for-profit sector.

There was no tradition of a not-for-profit sector in the Soviet Union, where even volunteers' services were coordinated by the state. However, since independence, Belarus has seen the emergence of some voluntary groups. Most activity has been centred around the disaster at Chernobyl and has focused on attempts to provide support for the worst-affected children. The Red Cross has also contributed to policy discussions, and some independent patient groups are developing a role as pressure groups. However, none are yet in a position to deliver services and all are hampered by the lack of a legal framework to govern the working of organizations with charitable objectives.

Similarly, professional groupings are beginning to emerge but have yet to establish a formal role in independent Belarus. The Trade Union of Health Care Workers and the new associations of doctors have been consulted on some policy issues and participate to a degree in planning and carrying out reform functions. However, morale within the health sector remains low and the scope for input is limited.

[12] With the exception of pharmacies, the bulk of which have been privatized.

In conclusion, it can be seen that change within the health system of Belarus has not significantly affected organizational structures. Neither the devolution of powers to the regions, nor pilot projects testing market models have affected the fundamentals of organization. However, this does not imply that there is no desire to change.

The soviet system was criticized for being overly centralized and bureaucratic and for blocking efficiency and change, and these criticisms still form the basis of deliberations within the Ministry of Health. There is an awareness that problems persist and must be addressed. However, the government, in the face of economic crisis, made a conscious decision to focus efforts on the maintenance of health care delivery rather than to risk introducing radical change. They chose to prioritize stability over reform but have also made a clear commitment to further change.

The biggest reform programme under discussion is the possibility of shifting to a statutory insurance scheme which would imply major reorganization of funding and regulatory bodies. However, if this does take place it will not be in the immediate future. In the short term, change is likely to be more tentative and piecemeal. Nonetheless, new players are emerging and will extend their roles as progress is made and they may prompt corresponding adjustments in organizational structures.

Planning, regulation and management

The health services of the Republic of Belarus have changed less in terms of planning, regulation and management than many former soviet republics. The system is still based almost exclusively on an integrated model of health care delivery with providers directly employed by third-party payers. Private practice and private clinics running as state enterprises are very much the exception rather than the rule. The health committees of local government (oblasts or rayons) continue to act as regional and district health authorities, and fund hospitals and polyclinics on the basis of activity levels measured through the proxy of bed numbers and staffing levels. They are also meant to address nationally-determined health priorities by furthering the target programmes and developing the health promotion initiatives, that are advocated by the centre.

Prior to independence, health committees were formally responsible for first line scrutiny of local health care institutions but in practice played little active part in the planning, regulation and management of services. Post independence and with the advent of decentralization and the dilution of the authority of the Ministry of Health there is more scope for local health committees to

take a proactive role in planning. Some positive change can be observed, particularly in Minsk. However, this shift is not unproblematic.

Economic strains are exacerbated by a skills shortage. The soviet system did not prepare local authorities or hospital managers for autonomous decision-making, and there has been little in the way of training since independence. The quality of local responses to increased responsibility has tended to depend on the flair of individuals and their ability to adapt, which exacerbates inequality between regions. Poor lateral communications between oblasts and a lack of effective individual networks also means that those managers who are struggling garner little support from colleagues who are coping better.

It appears that the rural areas that are experiencing the greatest financial hardship also have the most profound skills deficit. There is a developing 'strategic management vacuum' which has left providers to their own devices and involves them, in effect, in a daily struggle for continued existence. Certainly there are growing inequalities between regions and between districts within regions which the Ministry of Health is powerless to redress. Nor can the Ministry of Finance do much to redistribute funds. As health sector reforms move up the political agenda there is an increasing likelihood that additional autonomy will be granted to local authorities, stretching still further their limited capacity to respond.

Planning

Until 1991 the health care system was centrally planned at a soviet level. Standards and targets that originated in Moscow were rolled out, via republican capitals, to the regions. The soviet approach was intended to ensure equality between and within republics.

However, the emphasis on achieving centrally-agreed norms meant that provision did not necessarily respond effectively to the health needs of local populations. While there were efforts to adjust funding flows in line with variations in standardized mortality data, little was done in terms of customizing provision to local preferences.

Belarus inherited the relatively inflexible planning mechanisms of the USSR. Planners in the Ministry of Health continue to set broad targets for health services and these are passed down to oblast and rayon levels where detailed local plans are drawn up within the main framework. All levels continue to work within the parameters defined before independence with an emphasis on standardized provision and maintaining historical levels of services.

The historical concerns about infectious diseases, which led to the over-provision of inpatient beds and the long-term neglect of noncommunicable

diseases in the soviet era, still influence planners today. The soviet tradition of concentrating resources in maternal and child health also continues, as does the provision of health care through the workplace and the inclusion of convalescence and rest homes in mainstream health services.

Planning functions include formulating strategic plans through the setting of priorities and establishing capital and human resource plans. The Ministry of Health acts as a de facto national policy planning agency in drawing up an initial response to all of these issues. In particular it sets health priorities. Priority-setting exercises are carried out in consultation with local specialists. The Ministry also refers to international experience and to WHO. It then puts together a series of nested national target plans which reflect the agreed priorities. These are intended to guide the decisions of oblasts and rayons. Current primary targets areas are health care reforms, mother and child health, communicable disease control, Chernobyl disaster consequences, CINDI[13], and AIDS. The State Interdepartmental Coordination Council for Population Health Care adopted these as priorities and supports the Ministry of Health's efforts to coordinate and supervise the implementation of relevant programmes throughout the Republic. However, the centre does not fund priority areas nor is the Ministry able to impose its wishes on the regions.

Oblast and rayon administrations are meant to agree corresponding local targets as part of their own planning cycles but it seems that they frequently neglect these key areas. This is in part because local health mangers are ill-equipped to take on strategic issues at a population level. More importantly, it reflects the fact that, in addition to delivering on target-programmes, oblast governments are charged with maintaining health care delivery. This is enormously difficult, given the economic climate, and planners tend to respond to what they perceive as the more immediate needs of the locality, rather than medium- or long-term objectives. In the struggle to keep core services functioning on a day-to-day basis, there is little time to review their relevance or appropriateness. Instead, planners fall back on soviet precedent and seek to maintain existing patterns of care.

Capital plans are also crippled by lack of resources. Almost all planning of capital expenditure and construction has been devolved to the regional level where decisions are meant to be made on the basis of demand and the scope of local finances. However, in practice, planners have the most restricted scope for capital investment. There is almost no budget available for new buildings or for repairs to existing ones. They have had to abandon attempts to detail in advance programmes of work including those for the most basic repairs and are reduced to ad hoc and opportunistic bids for money as it becomes available

[13] Countrywide Integrated Noncommunicable Diseases Intervention Programme

at the local, regional or national level. The situation with regard to the purchase or repair of equipment is little better. Individual providers negotiate with health committees for the most urgent demands to be met on a case-by-case basis. The Ministry of Health uses the licensing system to ensure that those institutions able to fund the acquisition of equipment invest in appropriate technology.

While pharmaceuticals can hardly be considered capital investments, the Ministry of Health does purchase and import certain essential drugs centrally. Planners are responsible for purchasing decisions and base quantities to be bought on consumption levels for the previous year. Most other pharmaceutical purchases are made by individual hospitals or consumers and are ad hoc.

The planning of human resources in the health sector continues to be a major activity of the Ministry of Health and has altered little in practice. Prior to independence, the numbers of students admitted to medical and nursing schools was calculated on the basis of the number of hospital beds to be serviced, the expected level of outpatient consultations and the number of vacancies within the health system. The current approach rests on the same assumptions. Regions put forward projections of the health personnel needed in line with local population levels and the expected rate of wastage of existing staff. The Ministry and medical education institutes then adjust the number of admissions to training programmes to meet upcoming needs. While there have been limited bed closures, bed numbers have remained broadly constant as do assumptions about the numbers of staff needed to maintain the existing level of service. This means that the numbers of places at medical and nursing schools in 1997 are not significantly different to those of 1991.

Planners within the Ministry of Health are well aware of the relatively high number of doctors per head of population and of the high doctor-to-nurse ratio when compared with north western Europe. There are plans to gradually reduce the intake to medical schools and to phase out a number of medical posts, but planners are bound by well-established custom and practice. Their attitudes are also informed by the fact that medical staff are cheap to employ in Belarus. The possibility that high numbers of doctors might generate additional health service expense is not taken into consideration, largely because it formed no part of the soviet approach to planning. However, it may also owe something to a deep-seated belief amongst health service planners that the population will drive demand regardless of physician numbers.

Rather than concentrating on cutting staff numbers, republican workforce planning focuses on initiatives to utilize human resources more effectively. Planners are now working to enhance the training of general practitioners (formally known as family therapists) and extend their role. They are also seeking to reduce the high number of recognized specialties and sub-specialties within

medicine. At a regional or district level, workforce planning is minimal with efforts devoted to funding existing staff posts and maintaining the status quo.

Planning activity should not however, be taken to imply that plans are implemented. The impact of the collapse of the Belarus economy on all planning processes can hardly be overstated. The sphere of planning has shrunk dramatically and resource scarcity and economic uncertainty have made it all but impossible to ensure that plans are implemented This is particularly so at local level. The focus has been almost exclusively on survival and on the need to maintain intact the health care infrastructure. The fact that planning cycles continue and are recognized as important is to some extent symbolic. They are viewed as a bulwark against chaos in a time of profound transition and articulate the commitment of central and local government to equitable access to health care for all. They do not guarantee that projected activities will take place.

An economic upturn might ease pressure on the system and allow planners a greater chance of influencing change. However even greater financial security will not wholly resolve the problems of translating intentions into practice, particularly when plans call for a shift of resources away from secondary care or capital programmes and into primary care. This is because the form that decentralization has taken in Belarus allows local health authorities to ignore national priorities even where these represent a more rational use of resources.

Local planners will always be vulnerable to pressure from local providers who have a vested interest in maintaining the status quo. Furthermore the funding formulas in use are heavily reliant on bed numbers. Putting plans which call for bed closures or staffing cuts into action will simply lead to financial penalties for those institutions actually implementing the proposed reforms. As long as bed numbers are still the basic building block on which financial and human resource decisions are taken, there can be no financial incentives to rationalize the system.

Regulation

The basic regulatory framework of the Republic is based on the soviet system. Legal parameters are agreed by central government and the Ministry of Health, and the standards set are enforceable in law by the Ministry itself and, when appropriate, by local authorities or branches of the sanitary-epidemiological network. Relevant, paving legislation was adopted in the years immediately after independence in order to provide a statutory basis for this regulatory activity and the system now covers:

- the production, import and sale of pharmaceuticals;
- the import and purchase of high technology;

- the education and professional training of health personnel;
- hospital standards, financial mechanisms and employment practice;
- medical personnel;
- private medicine.

Central government tends to use licensing to enforce standards while the controls exercized by local government and the San-Epid network rely more heavily on legal sanction and enforcement notices which can require individuals or organizations to respond to a directive or remedy a hazard. The San-Epid network in particular is involved in inspection, health and safety and environmental monitoring and the control of outbreaks of infection, and has considerable powers.

Pharmaceuticals are either locally produced or imported. Local production is being encouraged by government in an attempt to contain costs but accounts for only 30% of drugs used. Quality criteria are set out by the Ministry and monitoring and enforcement is by the San-Epid station local to the production plant. They are also responsible for ensuring that production standards do not in themselves present a hazard. Certain 'essential' drugs[14] are purchased by the Ministry of Health and they exercise quality control at the purchasing stage. The remainder of drugs are purchased either by hospitals in individual contracts with private suppliers or by outpatients. Hospital directors are held responsible for the efficacy of the materials purchased and used by their own hospitals and the local health committee is entitled to exercise oversight of quality. Pharmacists and importers may also be called to account for the quality of the product supplied. A wide range of pharmaceuticals is available without prescription and the regulatory mechanism that limits prescribing to the medically qualified is underdeveloped in Belarus. However, there are controlled drugs in Belarus and, in line with WHO recommendations, these are restricted in availability with the pharmacists supplying them responsible for implementing effective management. This and other professional activities of pharmacists are supervised by the local health committee and since many pharmacists are privatized the mainstream local government body has a broader regulatory role of their business or enterprise functions.

Mainstream medical equipment is regulated and controlled by local government. However, high-technology items are the responsibility of the Ministry of Health and are subject to licenses issued centrally. The most sophisticated machinery is imported and only the Ministry of Health can license such imports. So although local government bodies do have the right to make autonomous purchasing decisions, they are required to seek approval where high-technology

[14] For tuberculosis, chemotherapy, etc.

and/or the expenditure of hard currency is involved. Decisions on licensing are not made exclusively with regard to cost, but are also based on the ability of the institution wishing to acquire the equipment to ensure it is operated by staff of an appropriate calibre and with suitable training. Individuals do not have to seek accreditation to use particular machines; rather it is the responsibility of the hospital director and ultimately his health committee to ensure only qualified and trained personnel undertake procedures.

Problems in the regulation of equipment are now related more to the maintenance of old or existing items than to purchasing. There ought, in theory, to be annual checks by the local health committee of the hospital and its equipment in order to ensure standards are maintained, but even in the soviet era these were never carried out in a meaningful sense. The attempt even to regulate in this manner has had to be abandoned in the face of the lack of resources to really care for equipment adequately. There has had to be an acceptance of the make-do-and-mend mentality and no regulators can realistically implement their role in light of the resource scarcity. In reality then, regulation of equipment, once in place, has been abandoned and the hospital directors are left to do what they can in maintaining the plant they have.

The education and training of medical personnel is overseen by the Ministry of Health's education division which works with the Ministry of Education to fulfil its responsibility for standards in nursing and medical schools which all remain within the public sector. There have been some preliminary efforts to restrict numbers entering the system and some initial reform of the undergraduate syllabus but the situation is largely unchanged from 1990–1991. Notable exceptions are the removal of political theory from medical school curricula and an increased attention to the role of noncommunicable diseases.

The initial postgraduate training of specialists in medicine, surgery, paediatrics and now general practice is exclusively under Ministry of Health control. The duration and content of the training and experience required to reach specialist status is determined by the Ministry which is also responsible for quality issues. Postgraduate or continuing education courses are also overseen by the Ministry although many take place in oblast centres. The Ministry is empowered to carry out periodic checks of medical schools, postgraduate training centres and specialist institutes involved in the development of staff and is able to delegate these powers to the regions. Occasional checks to ensure the maintenance of standards do take place but in general regulators leaves management to the institutions themselves.

Desirable health care standards and conditions for hospitals and polyclinics are defined nationally and it is the responsibility of local health committees to monitor practice. There were plans to introduce a formal accreditation system with clearly-defined quality criteria to be checked by local authorities, but

these were blocked by parliament, who felt only the Ministry of Health should license institutions. Given that the Ministry lacked the capacity to fulfil this role, the proposed legislation was abandoned. Rather, local authorities are expected to review the standard of facilities, equipment and staff qualifications. However, given that there is little remedy for any shortcomings, this regulation has little meaning. The finance and accounting procedures of health care institutions are overseen by the rayon or oblast government. It is now legally permissible for hospitals to charge for non-essential procedures and while prices are set centrally it is local government that regulates this practice. Although no institution can operate without the consent of local government, there are no examples of oblasts or rayons denying a public sector institution the right to practice.

The Ministry also agrees norms for working hours, workload of personnel, payment systems and salaries and it is the task of local government bodies to review conditions. There is some potential for conflict between the Ministry and the increasingly autonomous hospital managers over issues of remuneration. Although at the present time almost all staff are paid at standard rates and hospital directors control only small amounts of funds to create incentives or reward staff, growing independence and separately negotiated contracts would undermine the equity of employment practice. There are already examples of staff in the quasi-private sector earning two and three times the salaries of their colleagues in mainstream institutions and such earning differentials are likely to increase as service delivery diversifies.

The regulation of staff quality is also problematic. On qualification, individual physicians are only entitled only to practice as generalists but may pursue specialist training. Once the initial five-year post-registration period has been completed, all doctors may go through an 'attestation' or upgrading procedure. This process is carried out by a special commission within the Ministry of Health and is designed to ensure fitness to practice in any given specialist area, and to upgrade suitably qualified staff to second- or first-class status.

It is expected that this attestation cycle be repeated every five years. It involves completing a multiple-choice test of theoretical knowledge and producing evidence of practical work experience. The reference of the physician's departmental chief provides evidence of quality of work. It is also required that doctors demonstrate that they have participated in appropriate postgraduate training at least once in the previous five years, thus building on the soviet tradition of in-service training. Doctors graded as of second- or first-class status receive an additional salary increment and enhanced status.

However, this attestation process is not a fully-fledged licensing procedure. Nor is it mandatory, although it is normal practice for doctors hoping to advance their careers. The commission does not have the power to remove a doctor's right to practice, except in cases of gross misconduct. Nor do physicians require

approval from the commission to work in a particular specialist area. Doctors who are upgraded on the basis of their specialization in one field retain their status even if they move into another specialty. Hospitals and polyclinics have few sanctions against doctors doing poorly in an attestation review and may, in fact, require staff to go through the process as a remedial measure. Theoretically, hospital directors can dismiss failing staff but there is no evidence of this happening. In practice, the only sanctions that managers have is to assign unsatisfactory physicians to nursing duties for a limited period or to transfer them to a polyclinic.

Doctors are generally in favour of the attestation process as it offers the possibility of advancement, but they are concerned at the influential role of the reference from the hospital director, which is seen to compromise the objectivity of the system. There are also concerns that the five-year interval between reviews prevents competent doctors from gaining promotion as rapidly as they might wish. While hospitals tend to carry out their own internal review of individual performance every two years, a positive outcome does not bring with it any formal benefits and there is also little risk to doctors who do poorly. Nurses are not currently subject to a similar accreditation process although they may be subject to internal review.

Private doctors, however, are expected to apply for a license both for themselves as physicians and for the premises in which they practice. Licensing procedures for individual practitioners are similar to the attestation process but must be completed every two years. There is no stipulation as to the level of seniority of doctors entering private practice although the Ministry would like to introduce a requirement that they have achieved a minimum of second class status. Private practices must be registered as limited liability or cooperative enterprises and facilities must meet basic health and safety standards. The Ministry of Health is now handling all licensing of private medicine but until 1 November 1995, oblasts and rayons were issuing 'temporary' five-year licenses which are still valid. The Ministry acknowledges that some doctors are practising privately without first registering and are thus escaping regulation altogether. It would like to fully enforce the licensing system and it ultimately extend it to the public sector to reinforce the attestation process.

While private practitioners are expected to go through explicit licensing and regulatory procedures, there is no regulation of the emerging voluntary insurance system. Private insurance companies, while they are sanctioned in law, do not answer to any formal regulator. There are no immediate plans to address this issue but if voluntary insurance is to expand an appropriate regulatory framework will be needed.

The Ministry of Health perceives the main problem affecting both regulation and planning, as being the lack of appropriate structures, to provide scientific

guidelines for decision makers. This reflects both a realization of the importance of health sciences in the rational determination of priorities and the continuing influence of the traditions of the soviet era with their reliance on clearly defined planning tools. The Ministry of Health plans not only to extend licensing, but also develop the use of protocols in clinical practice. It is hoped to set out indicators defining length of stay, appropriate treatment schema, etc. for a range of conditions, and to encourage their use by physicians. This would encourage research-based practice and would provide a framework for the monitoring of quality at a process level.

The intention is also to delegate more specific regulatory and planning functions to the regions, allowing for greater local input. It is hoped that this will improve the efficiency of regulation and encourage more critical monitoring of public sector providers. If the adoption of an insurance-based approach goes ahead, many of the functions of local government would pass to the insurance funds as the new third-party payers. It is still to early to speculate on the exact nature of the planning and regulation mechanisms these funds would use, but contracting would be likely to play a major part in managing relations between funds and providers.

Management

The role of government in the management of the integrated health system persists in that government bodies have overview of health care providers at a republican level (the Ministry of Health); at oblast level (oblast governments and their health committees); and rayon level (rayon health committees). They also act as third-party payers.

However, ‘purchasing decisions’ are not taken explicitly but rely on custom, practice and historical activity levels. There are no effective contracts governing the relationships between oblast or rayon bodies and providers and no clear quality criteria. Although regulations do set out minimum standards that institutions should attain, these focus largely on material issues and staffing levels and tend to ignore questions of the quality or humanity of care. Third-party payers do not involve themselves in less tangible matters like efficiency and effectiveness.

There are no separately constituted governing bodies or boards of management supervising provider activities and there is no formal provision for the participation of local citizens in the management of institutions at this level. Primary care providers in feldsher-led health posts or physician-led health stations report to the director of the nearest rayon or oblast hospital, and secondary and tertiary care providers are directly accountable to the relevant health authority.

Public health services are provided primarily by the Sanitary and Epidemiological Centres which are under the jurisdiction of the Ministry of Health. District stations report upwards through regional centres to the Ministry itself and are not primarily accountable for management matters to local government bodies.

This model of management does little to ensure that providers feed into the planning process at a population level. However, the reforms have attempted to enhance the autonomy of individual managers to plan their own institution's short-term activities. Day-to-day concerns have increasingly become the domain of hospital and polyclinic directors who may, in theory, take employment decisions; negotiate contracts with staff; and generate income through the sale of services or the agreement of contracts with local enterprises. Despite this increased autonomy, there is little evidence that managers are able to fully exploit their new sources of power as finances are so constrained.

Decentralization

There is a strong commitment to decentralization at a rhetorical level and increasingly this commitment can be seen to influence practice. Although formal relations between organizational structures have only been redefined at the margins, there has been a deconcentration of central powers to health authorities at a regional and district level. Responsibilities for determining priorities remains with the Ministry of Health, but the target-programmes that the centre puts forward are now at the level of recommendations rather than directives. The intention remains that local authorities will roll out the national plans but they are entitled to impose their own local priorities. Nor are the norms laid down by the Ministry of Health for other areas of service delivery regarded as mandatory any longer. This is in part because oblasts and rayons are being held increasingly responsible for local budgets.

Funding of local health care always came via local government channels, but tax-raising and spending powers have been further devolved since independence. However, local authorities' independence to make capital expenditure decisions and to spend surplus revenues in line with locally determined priorities is notional only at the current time, since all oblasts are struggling with funding shortfalls.

It is the case, nonetheless, that when an economic upswing occurs, health authorities will be in a position to make autonomous decisions on spending above the statutory minimum set out by central government. There is already evidence that those health committees in urban areas with a manufacturing base have managed to provide more funding for their provider units than in less wealthy rural areas.

Belarus has little experience of national government passing responsibilities to organizations outside the governmental structure and few, if any, quasi-public organizations. The underdevelopment of the voluntary insurance sector has also meant that government has not had to develop mechanisms for establishing indirect public control of other organizations carrying out a health protection remit. Delegation has not, therefore, been a feature of the reform process. However, as plans to extend voluntary insurance are implemented and with the possibility of social insurance funds taking on the role of third-party player, these issues will become increasingly important.

Just as the role of nongovernmental organizations is limited, so is the experience of privatization. The transfer of ownership and government functions to the private sector was initially confined largely to the pharmaceutical sector. Many pharmacies were sold on independence but central government continues to exercise rigorous control over pharmacists, regulating practice. There are also numbers of doctors offering private consultations and again those that comply with licensing laws are well regulated. Lastly, there are now a small number of pilot projects in Minsk that are testing the possibility of providing dental and cosmetic services in a quasi-private setting. Again, regulation is extremely detailed with price-setting by the Ministry of Health and close monitoring of practice by local government. Notwithstanding their limitations, these experiments constitute a real shift in terms of the government's attitude towards privatization. The projects to-date have demonstrated that there is a market for health that can sustain higher wages for staff and investment in equipment and facilities. However, the government's ambivalence about the outright sale of public assets and the lack of a legal framework to protect quasi-private undertakings suggests development along these lines will be measured. It will also be vulnerable to any downturn in the economic situation. Voluntary and non-profit organizations[15] lobbying and handling social functions have benefited little from the decentralization of authority within the health sector, and have played only a minimal part in statutory service delivery.

The intention to decentralize power within the health system was initially limited by the Republic's incremental approach to reforms. Early experiments to devolve powers were only partially successful, in large part because of the enormous economic difficulties facing the regions. With the greater stability of the late 1990s there is evidence of a more radical transfer of responsibilities to local government. However, there is still insufficient administrative and financial capacity at a local level to cope with unlimited increases in responsibility and many sub-national bodies have proved unable to extend their authority effectively. Indeed, in certain instances, i.e. capital planning and health promotion,

[15] Often concentrated in the areas most affected by Chernobyl.

the absence of centres of genuine authority and a lack of coordination amongst such centres appears to have led to powers being abdicated rather than devolved. The skills shortage is particularly acute in those regions like Magilov which also face the greatest shortages of resources.

There are also emerging instances of regions using their new autonomy to ignore central government guidance in ways which disrupt the establishment of priority programmes. Local health committees are inclined to respond to pressures from local providers and may choose to divert resources away from primary care in order to satisfy pressures for the maintenance of hospital facilities or specialist services. This 'freedom' to agree goals that may conflict with national priorities as set out by the Ministry of Health typifies the latest phase of the decentralization process, and poses real questions about planning of health care delivery in the long term.

Health care finance and expenditure

The financing of health care has been profoundly affected by the country's economic situation. It is all but impossible to understate the depths of the financial crisis experienced immediately following independence. Macroeconomic indicators in 1994 showed GDP had fallen to 64% of its 1990 level. Industrial production was at 65.1%, and capital investments at 47.5%, of 1990 rates. Employment stayed at 89.8% of 1990 levels but official figures mask the number of manufacturing enterprises which were temporarily 'closed'. In the single year 1993–1994 there was a 20% fall in GDP, industrial output and retail turnover and a 15% drop in agricultural production. The same year saw a 25% drop in capital investment[16]. Throughout the period there was rapid inflation and steep rises in the prices of raw materials and fuel.

The situation has since stabilized. However, despite a curbing of inflation in 1996–1997 and the reopening of many of the factories that had been forced to close, Belarus is still enormously restricted in its financial capabilities. While workers were largely paid on time during 1997, rates of pay failed to reach levels equivalent to those obtaining before independence. The budget for the health sector as defined by the Ministry of Finance is pegged at 5% of GDP and is widely held to be inadequate for the tasks at hand. Much of the focus of debate on health sector reform is motivated by the perceived need to bring additional or new moneys into the health sector and to limit demand to more affordable levels.

Main system of finance and coverage

The health service funding system is almost exclusively compulsory and is based on general taxation[17]. The Ministry of Health together with the Ministry

[16] *Source*: Ministry of Statistics and Analysis.
[17] The parallel health systems of other ministries and enterprises are financed by the agency concerned and not through the formal health budget. Details of funding levels are not disclosed.

of Finance agree the health sector budget and thus the percentage of tax revenue to be devoted to health care. This provides the basis for the calculation of regional and district health budgets. However, under the law, "On local self administration", district and regional administrative bodies are responsible for funding health care provision on a territorial basis. Rayon and oblast governments, therefore, collect relevant taxes locally, agree the health sector allocation with their health committees and distribute funds to hospitals, polyclinics and other services. Central government collects the funds for republican services from other tax sources. There are no earmarked sin taxes as such, although taxes on alcohol and tobacco contribute to the national budget as a whole but oblasts and rayons may chose to introduce local fines which are counted as additional tax revenue and spent specifically on the health sector.

No payroll or compulsory insurance contributions are made directly to the health budget, although the Social Insurance Fund does cover the cost of some rehabilitation and contributes to the care of limited numbers of the elderly in old people's homes. Large enterprises also contribute through their provision of work-based polyclinics. There is limited republican funding for key target-programmes, particularly those addressing social diseases such as tuberculosis and diabetes, and hospitals either receive 'free' (centrally-purchased) drugs to treat these cases or are reimbursed for extra-budgetary expenditure associated with treating them. Anecdotal evidence suggests that no more than 5% of funds are received via this route.

The fact that taxation is collected locally and that local authorities often depend heavily on the rental income from the property they own[18] has severely disadvantaged those regions which are suffering most economically. They have real difficulty in collecting sufficient revenue to meet their statutory obligations and there are frequent examples of local authorities failing to pay agreed budgets to local health care providers. While health committees have a record of lobbying hard in defence of health services and while local government bodies have made health a priority, there are still shortfalls in income. There are numerous examples of local government bodies paying late or in part only and having to 'top up' health providers' budgets if and when more income becomes available. This gives rise to real concerns about the ability of hospital managers to plan and, more significantly, threatens the emergence of inequity in health care provision across regions.

Despite the real difficulties experienced in funding health care, population coverage is universal with entitlement based on citizenship and/or permanent residence. No groups other than temporary residents are excluded from free health care guarantees. There have been no formal restrictions placed on rights

[18] Also termed taxes on land property.

of access although there was an attempt to have 'the money follow the patient' whereby regions referring outside their territorial boundaries paid for care. This might have excluded residents of disadvantaged regions, but the entire model broke down in the face of a lack of money and regions may now refer to secondary or tertiary centres without regard to expense. There are no plans to introduce further constraints of this type although reformers are keen to see the introduction of measures to strengthen the gatekeeping role of family therapists and general practitioners.

While full coverage is guaranteed by law, there are concerns that the pressures on finances have led to tacit rationing. Where doctors have to chose between treating one of two patients, they will review the established medical criteria of age, survival rate, complications and so on but where choices are more diffuse economic factors may play a part. Certainly there is evidence that the practice of making 'under-the-table' payments is widespread, which might be expected to exclude the poorest individuals from treatment. However, the decline in the number of visits to doctors, number of hospital admissions and average length of stay is so small as to provide reassurance that no barriers to access are being created by these under-the-table payments.

There are no opportunities to opt-out of the system although it is legally permissible, under the law, "On health care", to buy voluntary health insurance to supplement state coverage[19]. It must be exclusively to cover additional services that are medically defined as non-essential, since Article 47 of the constitution is interpreted as precluding charging for any mainstream medical services within the hospital system.

Take up of voluntary insurance which is offered exclusively by private companies is negligible, and is confined to a few rich individuals and a handful of employers offering such schemes as a perk to employees. Patients covered are those being treated within mainstream health services who want extra massage or bath treatments that would not normally be offered. In December 1997 there were thought to be no more than half-a-dozen such companies, mostly in Minsk. They appeared to offer only a clearly specified number of treatments in return for the subscription and to charge patients for all additional services used on an item-by-item basis. Hospitals were reimbursed on a fee-for-service basis, normally at cost. None of the companies were risk-bearing and they acted, in effect, as brokers selling on hospital services rather than insurers. They are used to circumvent the problems associated with hospitals charging directly for services, which include concerns about the constitutionality of such activities and the lack of administrative capacity to invoice and collect charges effectively. Because the voluntary insurance sector is so new there is little

[19] No incentives or tax breaks are offered to those opting to purchase voluntary insurance.

formal regulation and hardly any data available. However, the expectation is that voluntary schemes will expand.

In addition to hopes that voluntary insurance schemes will bring new budgetary resources into hospitals, there is serious consideration of shifting the whole finance system to a social insurance model. There was an attempt in 1992 to introduce a statutory insurance system to supplement health services funding. It was to be mandatory for those in work and to be based on payroll-linked contributions. However, there was no support for the measure in parliament and it failed. The possibility of such a reform was again being discussed in 1996–1997 and a widely-held belief that the government could not hope to fund health care adequately prompted the proposal of a draft law on health insurance in November 1997.

It is still unclear whether the draft law will be presented to parliament in its present form or whether it will secure the approval of deputies, who in the past have always resisted attempts to introduce any restrictions to the package of care available. As it stands, the proposal is for employers to take on the burden of health care, paying a contribution per employee into a regional health insurance fund. The government will be responsible for paying a contribution on behalf of all those not in employment into a second parallel fund. All citizens will continue to be covered but entitlement will be restricted. This will involve the Ministry of Health in defining a basket of care to which the insured population will be entitled.

While the draft law preserves the principles of universal coverage, solidarity and equity, it raises some profound concerns. These are in part because the organizational structure and division of responsibilities between national, regional and local funds and the funds for those in work and those not in employment are yet to become clear. The possibility of providers acting simultaneously as insurers has emerged, but the impact the abolition of the purchaser-provider split might have on efficiency has not been explored. It also seems that insurance contributions may be set locally by insurance funds, which would undermine incentives for insurers to encourage cost containment and raises the spectre of escalating premiums. This is particularly worrying, given that the industrial base is far from secure and may have very real difficulties meeting the burden of health care funding even if this is kept within strict limits. The suggestion that employers' contributions may also have to cover the costs of all public health initiatives, emergency services and prevention activities creates further concerns about their ability to meet the demands for funds to be placed on them.

It is believed that further work will take place during 1998 in an attempt to resolve issues including those of the organization of funds, the setting of

premiums, the coverage of those not in employment, like children and the elderly, who are likely to make the greatest demands on health services and the extent to which employers can realistically be asked to foot the bill for a comprehensive range of care.

The Ministry also hopes to progress definitions of a guaranteed basket of care which can help to contain costs without leaving any of the population vulnerable. There are tensions between the desire to exclude treatments like bath therapies, massage and stays in sanatoriums and the powerful soviet traditions of all inclusive services with an occupational health bias. Planners and policy-makers are also well aware of the threat to equity posed by the devolution of decision making to territorial funds and by over-reliance on voluntary insurance. Nonetheless, the needs to pursue decentralization, to bring new moneys into the budget and to introduce some limits to the care available are felt to be sufficiently compelling to attempt the move towards social insurance.

In the interim attempts to rationalize the system of finance and coverage with a view to increasing efficiency may continue on a piecemeal basis. It is hoped that efforts to make health care institutions financially and legally independent will take root and that third-party payers in the form of local health committees will increasingly develop quasi-market relationships with providers. Suggestions that contracts govern relations between local government and hospitals and that third-party payments be made on a per capita basis with funding weighted towards primary care and health promotion circulate widely. There is not, however, a clear timetable for these reforms or a discernible mechanism for implementing minor changes. It may be that the possibility of wholesale change will inhibit these more gradual steps and lead to a hiatus in the reform process.

It is quite clear that none of the proposals tabled to-date are intended to undermine the commitment to free, universal health care or to challenge the role of the state as the main provider. However, given the difficulties already experienced in maintaining equity between regions and in ensuring that those unable to make under-the-table payments are not disadvantaged in accessing care, the proposed shift in funding creates legitimate cause for concern. There are also likely to be difficulties in implementing major reforms given the lack of financial and other management skills in the more deprived regions. The Ministry of Health appears to support significant reform but, at the same time, to be extremely aware of the potential for a damaging breakdown in health care provision. There seems to be agreement that change will require detailed planning and should be undertaken with a degree of caution. The likely time scale is still unclear.

Health care benefits and rationing

All citizens of Belarus are entitled to a comprehensive package of free health care benefits under Clause 47 of the Constitution. The contents of the package are not specified but it is clearly understood to include all care offered by state institutions with the following exceptions:

- pharmaceuticals prescribed for outpatients;
- some dental services, including dental prostheses;
- cosmetic surgery;
- glasses;
- most visits to health resorts;
- some preventive examinations.

Citizens have always been obliged to pay either in part or fully for the above and the extent of charges made on different groups is determined by law. Members of groups defined as vulnerable (pregnant women, war veterans, diabetics, tuberculosis patients, etc.) are exempt for all charges, while children pay only part of prescription costs. No new restrictions have been introduced since independence, and attempts to extend charges and introduce co-payments were blocked as unconstitutional. Notwithstanding, there is a powerful lobby for constitutional change and the extension of charges as a means of generating revenue for the health system. Any measures to introduce cost-sharing or to reduce the basic package are expected to push up the demand for voluntary insurance.

The reasons for the exclusions from the basic package are historical and are no longer wholly appropriate. While there is widespread agreement that cosmetic surgery and visits to health care resorts are non-essential, the charges levied for outpatient drugs are problematic. They are believed to encourage patients to defer treatment or, since all inpatient drugs are free, to seek inappropriate hospital admission to avoid prescription charges. These behaviours push up the costs of the system as a whole.

In reality there are difficulties providing unlimited health care on demand and there are frequent reports of under-the-table payments which may limit access to care. There is also an unofficial proliferation of waiting lists. There is a degree of uncertainty as to how to prioritise extra-regional referrals in the case of demand exceeding the capacity of the system to supply services. It seems that in these instances access to services is determined by the quality of the contacts individual physicians have with their colleagues in secondary or tertiary facilities and/or the ability of patients to pay out-of-pocket.

Planners and policy makers believe that the constitution effectively offers a blank cheque to the population. They believe that this has led to a culture of over-consumption of health care with patients expecting to be the main arbiters of what tests or treatment they require. It appears to be normal practice for patients to demand extensive investigations, to refer themselves to specialists for second and third opinions and to challenge the diagnoses they are offered. This combines with the underdeveloped role of the family therapists or general practitioner as a gatekeeper for secondary care to create unnecessarily high demand in the secondary sector. As of 1997–1998 it is hoped to begin work towards the introduction of a clearly defined basket of care. This will form part of any future law on health insurance and is intended to restrict the patients right to treatment not clearly supported on medical grounds. However, it is too early to tell what the details will be at this stage.

Complementary sources of finance

Complementary sources of finance are believed to make an important contribution to the health sector but detailed figures are often not collected or not made available. The picture is complicated by the fact that nine separate ministries and many large enterprises run parallel health services and do not report expenditure levels to the Ministry of Health. In addition, there are no reliable estimates of the extent of under-the-table payments. Nonetheless some broad trends can be discerned.

Table 1. Main sources of finance (%)

Source of finance	1980	1990	Present
Public			
Taxes	80%	78%	77%
Statutory insurance	–	–	–
Private			
Out-of-pocket (official/unofficial charges)	10%	10%	15%
Private insurance and private medicine	–	–	2%
Other			
Other ministry and enterprise facilities	10%	10%	5%
International aid (Chernobyl related)	–	2%	1%

Source: Informal estimate Ministry of Health.

These figures are no more than a rough guide to trends but illustrate both the fall in the contribution of enterprises as they faced increasing economic

hardship and the increased reliance on individual payments. Out-of-pocket expenditure reflects the cost of out-patient pharmaceuticals and under-the-table payments which appear to be making up some of the shortfall in health service funding. It is believed that over this period real-term expenditure has fallen substantially.

Out-of-pocket payments

There are no formal cost-sharing arrangements in operation in Belarus and no official charges for hospital or ambulatory care except pharmaceuticals for outpatients and a small bundle of services, which were also excluded from soviet provision. Attempts by the Ministry to introduce charges, including for hotel services, were blocked by parliament. It is however legal for hospitals to charge patients for care that is regarded as non-essential such as cosmetic surgery or alternative therapies. However, not many hospitals have exercised this right. This is in part because so few of the population are in a position to pay for services, particularly in poorer areas. It is also because hospitals are not geared up to market their services. Furthermore, polyclinics and hospitals appear administratively ill-equipped to collect fees. There is also real ambivalence amongst hospital managers as to the value of income generation. At independence, any funds earned were heavily taxed (at up to 80%), and although there have been tax cuts to allow hospitals and polyclinics to retain a greater proportion of their earnings (from 30% of profits) there are fears that any 'profits' made will be seen as grounds for local government to cut funding. These concerns also deter hospital directors from sub-letting space as an income generating measure, as allowed by the reforms. The contribution fees and rent make to health service funding is therefore negligible. Even those hospitals running pilot projects with voluntary insurance companies avoid maximizing income and charge the private companies at cost for services rendered because of uncertainty about the status of any retained profit.

Nonetheless patients do make substantial out-of-pocket payments. While inpatient drugs are provided free of charge, outpatient prescriptions must be purchased directly by the patient unless they belong to a sub-group of society recognized as vulnerable, or suffer from a specified chronic condition or a 'socially important' infectious disease. In these instances, pharmacists are expected to dispense drugs free of charge and invoice the rayon or oblast, who reimburse prescription costs from the local health budget or use republican funds provided for the support of target-programmes. Medical aids and prostheses are not normally state-funded but must be purchased by the individual unless they belong to a vulnerable group. The cost of pharmaceuticals has spiralled since independence and the amount spent by private citizens is now

substantial, although difficult to report accurately. There is even evidence that patients seek admission to hospital rather than pay prescription costs.

Conventional private medicine also accounts for some out-of-pocket payments, but despite the rush of applications from physicians wishing to register as single-handed private practitioners when it was legalized, the sector is still very underdeveloped. It appears that many of the 1000 private doctors registered with the Ministry of Health do not practice. It is unclear how many physicians are still working privately under licenses issued by oblasts and rayons prior to November 1995 but again the suggestion is that many generate little if any income. There also seem to be doctors offering their services privately who are not registered but it is virtually impossible to comment on the scale of their activity. It seems that a population used to the state providing 'free' health care is reticent about supporting private medicine and perhaps more importantly have lacked, until recently, sufficient money to contemplate buying health services. The capital, Minsk, has two pilot projects which buck this trend. They are quasi-private clinics offering dental and cosmetic services respectively and are both successful. They pay staff double what they might receive in the mainstream health service, have invested in new equipment and demonstrate that there is a market for health care. Nonetheless private medicine accounts for no more than 2% of health spending.

Most 'private' contributions are in the form of under-the-table or envelope payments to doctors and nursing staff and are not recorded in any way. Anecdotal evidence suggests that this practice, which was widespread in the soviet era, has grown further since independence. It seems that, in practice, outpatients may be charged for referrals, sickness certificates or certificates exempting them from prescription charges while inpatients are frequently expected to pay for hotel services, for additional tests, for anaesthesia and for operations. It is also commonplace for inpatients to be asked to purchase their own drugs and dressings despite state guarantees, and they are often required to provide their own food. That said, medical staff are reported to run their own system of taxation and cross-subsidy to support the most vulnerable. It seems doctors ask those patients able to pay to buy more pharmaceuticals or dressings than they actually need. The 'surplus' is then used to care for patients who cannot afford an out-of-pocket contribution.

The increase in under-the-table payments is associated with the funding shortfall in the health services and the failure of medical salaries to keep pace with inflation. While there are no firm estimates as to the extent of this practice, it has been suggested that between 7% and 20% of the income of health sector workers may be derived form these 'unofficial subsidies'. The Ministry of Health recognizes the danger that this poses to equity but is poorly placed to address the issue. All proposals to develop complementary sources of funding

or to introduce co-payments have been blocked. Initiatives to reduce staffing levels and allow performance related pay, which might have raised salaries and reduced the demand for 'gratuities', were largely frustrated by employment legislation. The Ministry can only hope that political developments will allow the reforms to progress and give them the scope to bring new funding sources into the system thus ending the reliance on under-the-table payments.

Voluntary health insurance

Voluntary health insurance is only offered by private sector commercial companies and covers an insignificant minority of the population. Its take up is confined to rich individuals and a handful of employers and the vast majority of health services are still funded through general taxation. There are only around half-a-dozen private insurance firms in existence and none of them have their own facilities. Instead they purchase services directly from hospitals or polyclinics often utilizing the higher quality facilities (polyclinic and hospital) of the 'closed' health system which was previously only accessible to the nomenclature. Because the constitution will not allow for hospitals to charge for any services which might be deemed medically necessary, hospitals can only provide insurance companies with offerings which can clearly be seen to be non-essential such as massage or aromatherapy. These are provided purely as an adjunct to conventional treatment funded by the state within mainstream facilities. Hospitals tend to charge companies at cost because of concerns about the implications of being seen to make a profit although they may benefit through having their facilities decorated and/or improved. In December 1997 none of the companies in operation was risk-bearing. Instead, policies were for the provision of a set number of services with the customer buying any additional services on an item-by-item basis.

There is little data available on the voluntary insurance sector and almost no formal regulation but the Ministry of Health is broadly in favour of the extension of voluntary health insurance as a means of supplementing health budgets. Indeed, there is a belief that further cuts in real terms health budgets will encourage uptake. However, there is recognition of the need to put a regulatory framework in place before the system expands.

External sources of funding

The major external sources of financing are in the form of credits from other states and banks, which are chiefly used for central government's procurement of medicine and medical equipment, and to implement core target-programmes[20].

[20] In particular, management of diabetes, treatment of tuberculosis and of various cancers.

There are also limited amounts of foreign, humanitarian aid almost all associated with the Chernobyl disaster. Most of this has been concentrated on those children who were most severely affected. However, this is organized on a small scale and does not approach the needs of the communities affected. These sources together have never constituted more than 2% of the health budget and are tending to dry up as the 1990s progress.

Belarus, as a country which has not experienced civil war or ethnic infighting, has been overlooked by the aid community. In addition, its lack of natural resources or economic potential has made it relatively unattractive to overseas investors who are motivated by long-term profit. It has, therefore, seen none of the interest expressed in more lucrative parts of the former Soviet Union. It is unlikely that significant external funding will be attracted although the World Bank is attempting to build the country's management capacity.

Health care expenditure

All attempts to comment on trends in health care expenditure over time are complicated by the rampant inflation experienced in the years immediately following independence. While the indexation of pensions and other benefits had been established by 1994, salary increases did not keep pace with inflation so the costs of health care provision were falling in real terms. There was also a marked drop in GDP (adjusted for inflation) as factories closed down and industrial production plummeted.

Trends in health care expenditure (see Table 2) must be viewed in the light of these factors. The value of the health budget in current prices is distorted by the experience of hyperinflation and although this has now slowed markedly, the loss of ground has never been made up. While the percentage share of GDP spent on health remains relatively constant this actually translates into a profound cut in health sector resources from 1991, given the falling value of GDP. The public share of total expenditure on health also fell over the period shown. It is impossible to give accurate figures for the value of complementary sources of finance because of the under-the-table nature of many out-of-pocket payments. However, the percentage of costs borne by the individual has grown as pharmaceutical prices rose ahead of general health care costs and under-the-table payments proliferated.

Comparisons with western European countries (see Fig. 3) highlight the relatively low percentage of GDP spent on health in Belarus, although the proportion of expenditure which comes from the public purse matches European norms more closely. The relatively stable level of health care expenditure

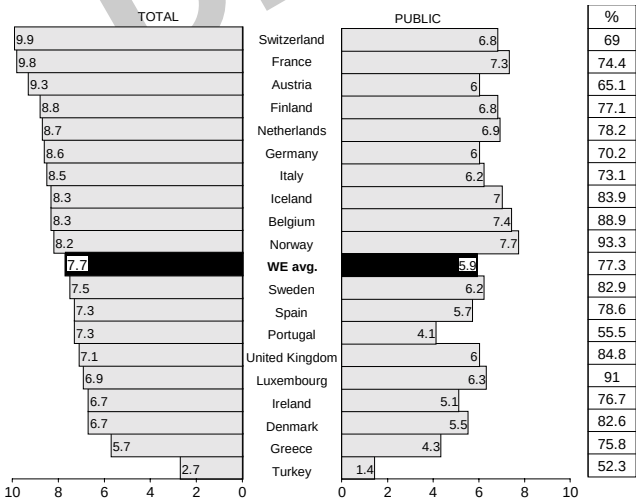
Table 2. Trends in health care expenditure in Belarus, 1980–1994

Total expenditure on health care	1980	1985	1990	1991	1992	1993	1994
Value in current prices (10 million **xxx)**							
Value in constant prices (10 million **xxx)**							
Value in current prices, per capita (**US $PPP**)							
Share of GDP (**%**)							
Public as share of total expenditure on health care (**%**)							

Source: OECD health data, 1996.

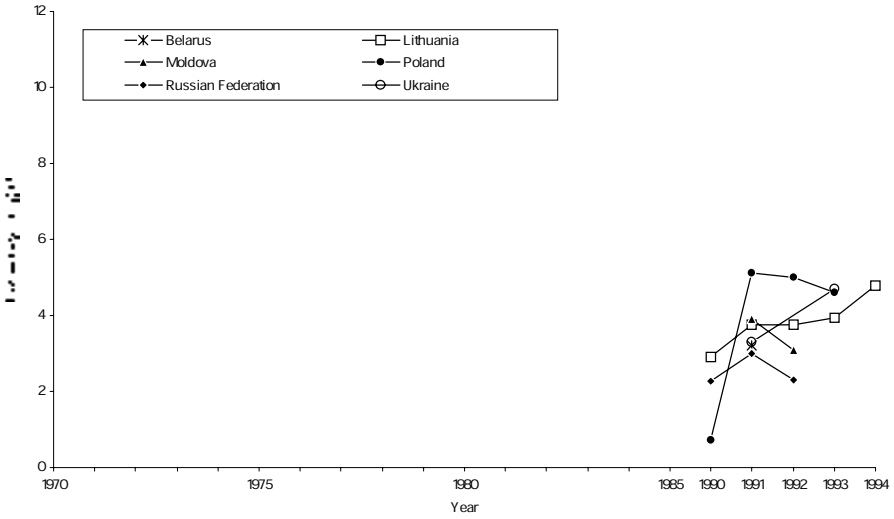
as a percentage of GDP from 1970–1993 contrasts sharply with the tendency of western European countries to devote a rising share of national income to health care over the same period (see Fig. 4). This divergence is accentuated by the fact that the value of GDP in Belarus fell in absolute terms over the period shown. Adjusted figures (see Fig. 5) go a little way towards offsetting the impression of the Belarussian health system as profoundly underfunded, allowing as they do for the lower costs of health care delivery. Nonetheless the situation is clearly bleak, particularly when contrasted with the percentage of GDP devoted to health across the whole WHO European Region (see Fig. 6). Belarus falls behind most former soviet republics in health spending and devotes a lower percentage of national income to health care than the CIS average. The economic stabilization of the last two years does not belie the shortage in resources still experienced by health services.

Fig. 3. Total and public health care expenditure as a share of GDP (%) in western Europe, 1993



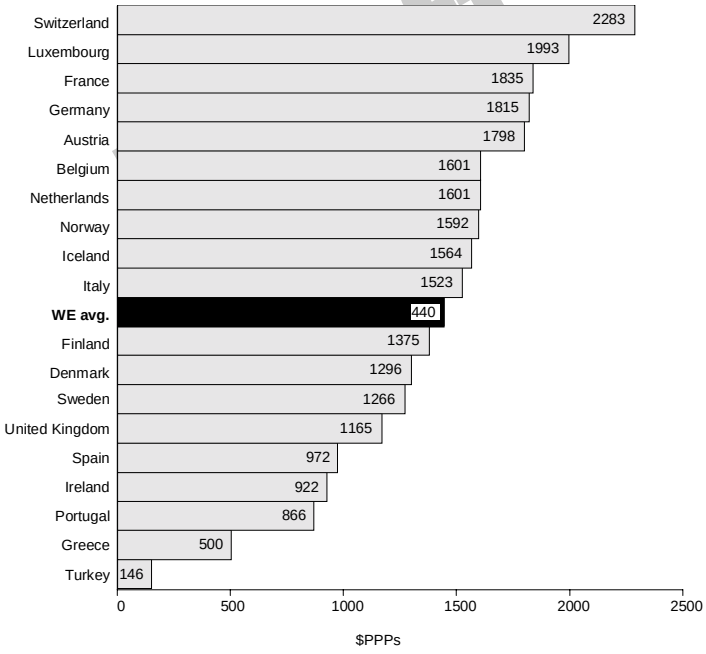
Source: OECD health data, 1995.

Fig. 4. Trends in health care expenditure as a share of GDP (%) in Belarus and selected European countries, years 1970–1997



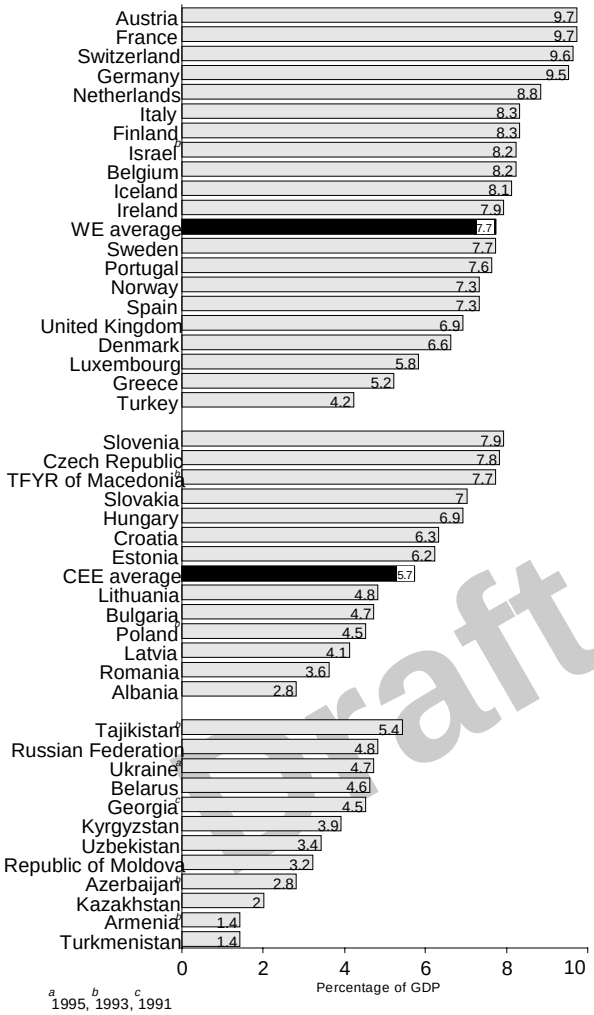
Source: WHO Regional Office for Europe, health for all database, 1995.

Fig. 5. Health care expenditure in US $PPPs per capita in western Europe



Source: OECD health data, 1995.

Fig. 6. Total expenditure on health as a percentage of GDP in WHO's European Region, 1994



*Sources: w*estern Europe: OECD health data, 1996 except Israel (WHO Regional Office for Europe, health for all data base); CEE countries: World Bank except Croatia (Health Insurance Institute), Estonia (UNDP) and Latvia (Ministry of Health); CIS: ministries of health except Armenia and Belarus (UNDP), Georgia (WHO Regional Office for Europe, health for all data base), Kyrgyzstan (Ministry of Finance), Tajikistan (State Committee for Statistics and Economic Situation) and the Russian Federation (MedSocEconInform Institute).

Belarus

Structure of health care expenditures

The structure of health care expenditures in Belarus has changed to a considerable degree, while preserving the overall shape and character of soviet spending. Features of note are that:

- the bulk of health services funding continues to come from public sources, despite the gradual increase in the share of expenditure from out-of-pocket sources;
- capital investment, after a boom in the 1970s and 1980s, has all but dried up;
- the rise in costs of pharmaceuticals, above the rate of inflation of other health care expenditures, has led to a greater share of spending being devoted to drug purchases[21].

Table 3. Health care expenditure by categories in Belarus, (as % of total expenditure on health care), 1970–1995

Total expenditure on	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995
Public (%)	–	–	–	–	–	–	–	–	–	–
Inpatient care (%)	–	–	–	–	–	–	–	–	–	–
Pharmaceuticals (%)	–	–	–	–	–	–	–	–	–	–
Public investment (%)	–	–	–	–	–	–	–	–	–	–

Source:

The proportion of expenditure devoted to inpatient care remains extremely high. It accounts for the bulk of the budget and attempts to shift the balance of funding have been strongly resisted. This reflects the tradition of the soviet period with its focus on the provision of beds and its inclusion of sanatorium within mainstream health care provision. The weight of expectations created by the soviet experience has made it extremely difficult to implement change. The population (particularly the elderly) have come to expect ready access to inpatient care and the large numbers of staff employed have a vested interest in resisting change. This situation was been exacerbated by the low status of primary care during the soviet era and the lack of financial incentives to move the system to a more efficient and cost-effective exploitation of the primary and ambulatory care settings. Although approximately 2500 beds have been cut from the system between 1994 and 1996[22], the structure of health care expenditures is strikingly reminiscent of pre-independence patterns.

[21] The rapid rise in pharmaceutical costs can be observed across Europe but is exacerbated in Belarus by the dependence on imported drugs.
[22] Source: Statistics of the Ministry of Health of Belarus 1997.

Health care delivery system

The basic structure of the health care delivery system of the Republic of Belarus is unchanged since independence and follows Semashko principles. It provides primary, secondary and tertiary care through health posts, polyclinics, hospitals and specialist tertiary centres. Funding continues to be channelled through the oblast and rayon governmental structure, with supplementary moneys from republican sources supporting national centres of excellence and target-programmes. However, the financial crisis experienced post-independence has presented enormous challenges to the health care delivery system as has the growing realization that the burden of inpatient provision prevents adequate support of primary and preventive programmes.

Primary health care and public health services

Primary care

The models of primary care widely used in other European industrial countries are not entirely applicable to Belarus. It provides a more complex pattern of service delivery involving both conventional primary medicine and more specialist ambulatory services offered through the medium of the polyclinic. Almost all providers are in the public sector and are directly owned by third-party payers. Primary care as defined as the provision of first line consultations, emergency care, preventive medicine and a bundle of 'non-specialist' services is available to the entire population but, depending on place of residence, may be delivered through different routes.

Rural primary care provision

Nurse, midwife or feldsher[23] led health posts are provided for all small, rural conurbations and to cover dispersed rural populations. These centres provide

[23]Feldshers are nurses with between one and three years' additional training who are qualified to lead primary care services.

primary care in the purest sense with no specialist services offered. They carry out a series of health checks, particularly for pregnant women and children; immunisation and vaccination; first aid and treatment of minor injuries; routine treatment of minor ailments; 24-hour emergency cover and home visits; and may offer midwife-led obstetric care. Health posts will refer patients in need of more complex services to a higher level of the health system, usually the rayon or oblast hospital, which supervises their activities.

Larger rural communities are often served by doctor-led practices, normally with a handful of beds. These health stations tend to be staffed by nurses; midwives; a general physician treating adults and the elderly; a general paediatrician; and an obstetrician. Doctors are often recently qualified and are only just beginning to undergo special training for their generalist roles. They offer the full range of services available through health posts and routinely treat more 'complex' conditions. Deliveries are carried out in all low-risk cases and minor surgery may also be offered. However, despite the inpatient beds and minor surgical procedures carried out, the predominant modality of care is primary with the focus on straightforward, low-technology medicine and on preventive measures. More complex cases are referred to urban centres, i.e. the rayon or oblast hospitals which again are responsible for the care provided.

Many of the 2500 or so bed closures of the last three years have been in precisely this sort of small rural hospital. The inpatient care provided was found to be almost exclusively social care of the elderly. This was borne out by the fact that admissions were seasonal with the elderly presenting after the harvest and staying until spring thus taking advantage of free heat and food. Closures have meant that this practice has been largely discontinued.

Urban primary care provision

Primary care in urban areas is normally offered in a polyclinic setting. Each polyclinic is staffed by a number of 'uchastok' or generalist family therapists, generalist paediatricians and non-specialist obstetricians[24] who, together with midwives, nurses and social workers, are responsible for a defined local population. Basic dental services are provided by polyclinic dentists although adults may now expect to pay for their dental care. Each uchastok has 2000 patients on their list while paediatricians are responsible for 1000 patients. The population covered is entitled to receive a basic primary care package including health checks, health education, immunization, certification of sickness, home visits, and antenatal and obstetric care. Primary care physicians are also meant to be the first port of call for all patients entering the secondary system and in theory refer patients to specialists.

[24]Paediatric and obstetric primary care may be offered through specialist paediatric or women's polyclinics in larger urban centres.

It is generally accepted however, that this 'gatekeeping' role is widely bypassed. This is, in large part, because the population has had little confidence in the role of the family therapists. Until recently they had no specialist training and few if any incentives to provide quality care. Patients are assigned to a primary care doctor regardless of preference and this does little to inspire confidence in, or respect for the service provided. New training has been introduced to enhance the role of the general practitioner and it is hoped that this will shift popular perceptions. There are not, however, any plans at present to allow patient choice of GP or to make them budget holders.

Patients have become accustomed to referring themselves directly to secondary services and their rights to do so are guaranteed under the constitution. The fact that specialist outpatient care is provided in the same polyclinics further complicates access patterns. Most conventional polyclinics have a range of specialists, including cardiologists, gastroenterologists and oncologists, supervising ambulatory care within the same facility. This blurs the interface between primary and secondary care. It is clear that a certain amount of primary care is delivered in these specialist outpatient clinics, in part because of failures to control access, and in part because of problematic discharge patterns. It is not unusual for follow-up that might be delivered by a general practitioner of family doctor to take place at the secondary level of a specialist clinic.

Polyclinic budgets are based on the number of population in the area served and the projected number of visits. They are intended to cover both the primary and specialist outpatient services offered, which creates the danger of secondary ambulatory care edging out primary health provision. However, the degree of protection of the primary care budget has been enhanced since independence with additional stress on primary and prevention targets. There has also been greater protection vis-à-vis hospital spending. Traditionally local government paid polyclinic funds to the nearest hospital, which passed on the budget to its corresponding outpatient facility. This allowed hospital directors to protect their own budgets at the expense of the more cost-effective ambulatory care model. Polyclinic budgets are now paid direct, which is a distinct improvement. Nonetheless the historical weighting towards inpatient care persists.

Workplace primary care provision

There is also primary care provision through the workplace. Large enterprises (both industrial and agricultural) have traditionally offered polyclinic services to employees, in keeping with soviet preoccupations with productive workers. Work based polyclinics serving only a firm's employees are termed 'closed' clinics and are, in theory, funded exclusively by enterprises while 'open' clinics allow access to the local population and are jointly funded by local government.

This sector of the health system has traditionally focused on primary care and occupational health rather than specialist provision but some larger enterprise clinics did offer specialist ambulatory care in the past. However, many enterprise polyclinics have closed down as industries have failed while others have been absorbed into the main stream health care infrastructure of rayons and oblasts. Staff posts are now as likely to be paid for from mainstream budgets as by the factories or collective farms. It is unlikely, given the pressures on the economy, that extensive provision of care in the workplace will persist particularly if the funding of health care shifts to a social insurance basis. Current plans are for employers to bear the whole burden of the social insurance premium which makes it improbable that they will choose to make additional payments for their own health care facilities.

There is also some primary provision within schools with health checks and immunization offered on site; however, these services are normally provided either by the sanitary-epidemiological system or local polyclinics.

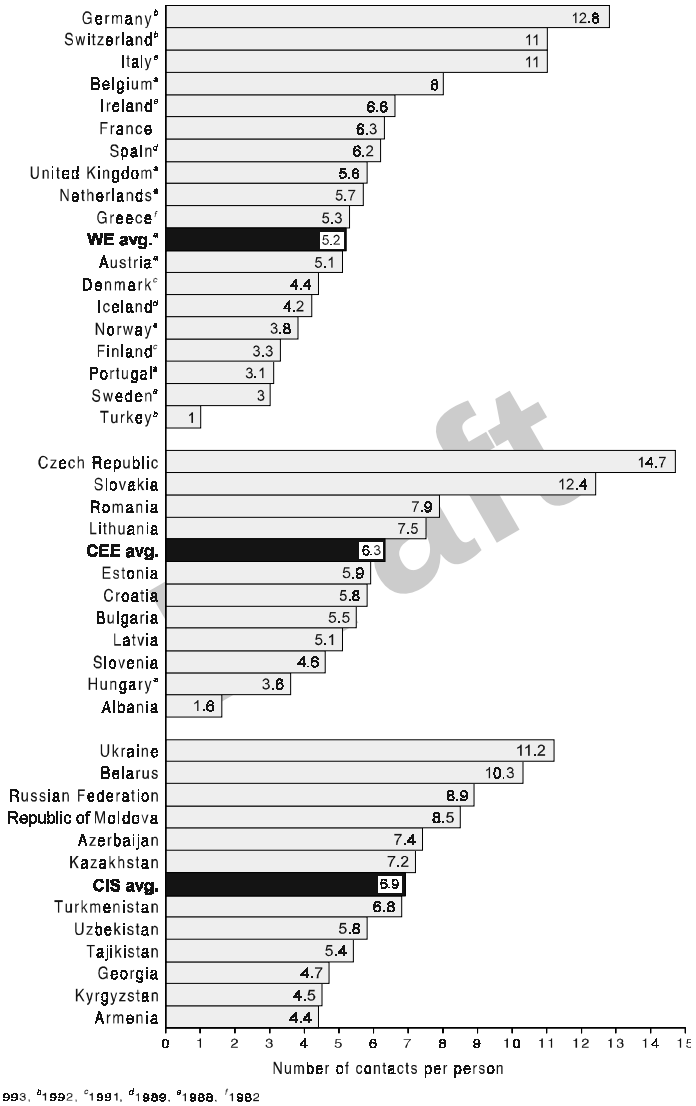
Challenges facing primary care provision

The Ministry of Health is conscious of the shortcomings of current primary care provision. The physical condition of many health posts, health stations and polyclinics is lamentable and the service offered is perceived as being of poor quality. It is for these reasons that doctors working in the primary setting are to receive training and be regarded as specialists in their own right. Choice of primary practitioner may be considered if only to try to offset the way patients now exploit their constitutional rights to refer themselves directly to the secondary sector. Concerns revolve not just around the unsatisfactory standard of care but around the expense engendered by the shortcomings of the primary system. Belarus still experiences high utilization of health services with 10.3 physician contacts per person in 1994 (see Fig. 7), rising to 10.6 in 1996, well above averages for western Europe and the CIS, yet there is little confidence in the effectiveness of consultations.

The Ministry is firmly committed to the extension of primary care and sees it as the key to meeting the population's health needs both equitably and efficiently. It intends to strengthen provision, enhance the quality, both of care and of facilities, and create financial incentives which will ensure that the primary sector bears the burden of care whenever appropriate. Early experiments in adjusting the structure of the system however, have proved disappointing. A pilot scheme establishing a family doctor system in Magilov, Grodno and Novo Polotsk has been frustrated by the Ministry of Finance which refused to allow a change in the formula for the pay of the doctors concerned and blocked per capita payments for patients covered. The reliance on salaries rather than a mixed-payment formula has reduced incentives for family doctors to meet health

care targets and provide care efficiently, however it has broken new ground in defining general practitioners as primarily responsible for all the care received by their patients. It has also allowed the clarification of a general practitioner's right to work either independently (single-handed) or in a group practice, and to offer services in the public or private sector.

Fig. 7. Physician contacts per person in the WHO European Region, 1994



[a]1993, [b]1992, [c]1991, [d]1989, [e]1988, [f]1982

Source: WHO Regional Office for Europe, health for all database

The Ministry of Health is still committed to its conception of a reform process which will extend the role of the family doctor, allow for payment of physicians through a mixed-formula and encourage a shift to per capita funding. However, the likely impact of a change to social insurance is still unclear. Responsibilities for commissioning care will clearly shift but, to date, no decision has been made on budget holding and the payment of general practitioners. In the interim period the Ministry of Health intends to pursue target-strategies that prioritize the primary setting including maternal and child health initiatives and health promotion. It is also encouraging oblasts and rayons to increase funding to the primary sector at the expense of secondary facilities, while at the same time encouraging greater coordination between primary and secondary providers. The possibility of polyclinics becoming the base for both single-handed and group practices which will focus on primary care, preventive medicine, health promotion and family planning has also been mooted. Family practitioners in this model would have incentives for treating patients in the primary setting whenever possible and for ensuring a high quality service. However, it seems likely that progress will be stalled until the funding mechanism issues are resolved.

Public health services

The soviet delivery of the bulk of public health services was through the Sanitary-Epidemiological (San-Epid) network and its structure and functions have been retained within the health care system of the Republic of Belarus. Each oblast has a Sanitary and Epidemiological Centre which supervises a network of outposts in the rayons[25] and reports back to the Ministry of Health. The sanitary-epidemiological system is charged with the:

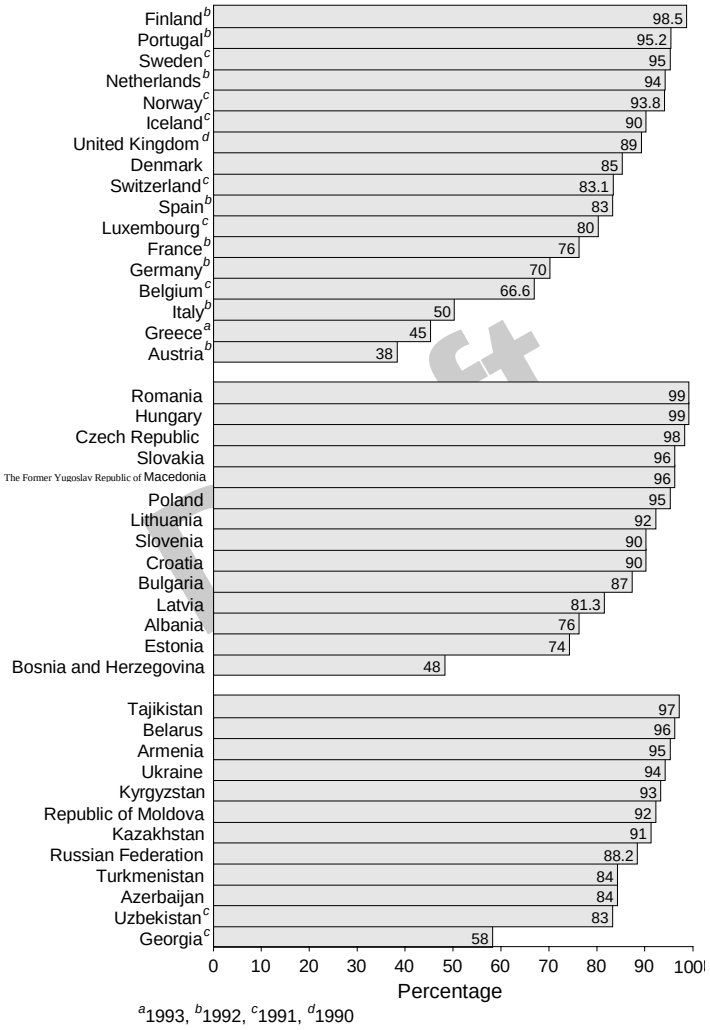
- collection of vital and health statistics;
- surveillance of infectious diseases and the forecasting and management of epidemics;
- management and delivery of immunisation and vaccination programmes;
- monitoring of environmental hazards and radiation levels;
- supervision of, and enforcement of laws on sanitary conditions, including water supplies, food production, sewage disposal and environmental pollution.

Centres are staffed by epidemiologists, statisticians, environmental engineers and physicians and focus primarily on communicable disease control and environmental hazards. The larger centres also run laboratory services and hold reserves to fight epidemics, including maintaining quarantine facilities.

[25]There were a total of 165 such centres in 1994.

The network carries out state and local disease prevention programmes, although these are largely concentrated around the control of infectious diseases. They manage immunization and vaccination programmes, some of which are delivered by primary care networks and some of which are carried out by the centres themselves. They are highly effective in meeting immunization targets and achieved 96% coverage against measles in 1994 (see Fig. 8). However, there are suggestions that over the last few years the population has been less willing to cooperate with immunisation programmes, in response to fears about AIDS.

Fig. 8. Levels of immunization against measles in the WHO European Region, 1994



[a]1993, [b]1992, [c]1991, [d]1990

Source: WHO Regional Office for Europe, health for all database

The National AIDS Centre was established in 1990 to counter the threat of HIV transmission and, although Belarus had no more than two dozen cases of full-blown AIDS at the time, it routinely screened all inpatient admissions under 65[26]. The cost of such precautions meant that this approach was not sustainable but a cluster of cross-infection through the reuse of syringes has encouraged far greater attention to hygiene procedures and a shift to disposable materials. The centre continues to monitor infection and campaign for safe work practices where blood products are concerned. It also coordinates AIDS prevention work, which consists largely of poster campaigns and advice to doctors on transmission routes but also supports outreach work with intravenous drug users in the communities affected. There is particular concern that the culture of users in Magilov encourages needle-sharing and is building up a concentrated pool of infection.

Other preventive services are offered through the primary care network which is responsible for family planning, antenatal services and screening for cancers and 'social diseases'. However, the focus on infection has tended to overshadow other preventive work and the quality of many services, particularly family planning, is poor.

The Sanitary and Epidemiological Centres do address noncommunicable diseases in that they monitor pollution, industrial hazards and radiation levels. Their input was influential in the drafting of the law, "On sanitation and the epidemiological wellbeing of the population", and they have powers to enforce legislation. However, the network's role in health education and health promotion is underdeveloped. There are no well-established health promotion programmes in place and responsibility for establishing initiatives is not clearly assigned. Neither the sanitary-epidemiological services, nor the primary care sector 'own' health promotion, and resources are so stretched that no administrators in either system are taking on this dimension of preventive work. Virtually all health-promoting activities had ceased in Belarus by 1994–1995 and even in 1997 there were only slow signs of progress despite the fact that such measures might prove cost-effective in the long term.

Despite the breakdown of effective health promotion the government has a strong commitment to providing information. The Ministry of Health supports the widest possible dissemination of medical information through the mass media and through scientific journals. In the long term, when resource issues have been resolved, there are plans to put a network of computers in place in hospitals and polyclinics in order to further the collection of population data and the dissemination of research findings. It is hoped that this will have long-term benefits for health education as well as for monitoring and surveillance.

[26]Until 1992 all inpatients were screened.

The strategic planning functions taken on by district public health services in some western countries still tend to be carried out centrally by the Ministry of Health, which sets priorities and seeks to evaluate service delivery. Decentralization though has increased the responsibilities of local health authorities. However, they often do not have the resources or, in some instances, the skills to carry out the more strategic public health functions of assessing health need and determining resource allocation. This has created a vacuum which is exacerbated by the increased autonomy of local hospitals. Attempts to use public health tools to guide local decision-making have been all but abandoned in the most disadvantaged oblasts and are not widespread even in better provisioned areas.

Future plans for the Sanitary and Epidemiological Centres focus on the extension of computer technology and the development of more specialist regional public health laboratories. It is intended that they continue to work to their existing remit and that health education, health promotion and the bulk of other preventive measures be carried out by the primary care sector, more specifically, the proposed network of family doctors.

Secondary and tertiary care

Secondary care is delivered through specialist ambulatory clinics situated in polyclinics and through the inpatient and outpatient services of hospitals. Tertiary care is mostly confined to republican-level polyclinics and hospitals in the national capital, Minsk, which are directly funded by the Ministry of Health, although some tertiary provision is also offered in oblast capitals. The network of polyclinics and hospitals established during the soviet era is still in place and all secondary and tertiary institutions remain publicly owned. While many are experiencing very real difficulties in maintaining their activities, bed cuts have been minimal and there is little evidence, as yet, of outright closure of secondary or tertiary facilities. What closures there have been, have been restricted to rural health posts and surplus maternity beds.

Care is organized on a territorial basis with a designated hospital serving each rayon and oblast, and funded through local government. The average rayon hospital had 251.6 beds in 1995 (255.4 in 1994) and provides general hospital type, secondary services, i.e. general medicine and surgery, obstetrics and a full range of specialties. District hospitals, which had an average of 297 beds in 1995, play a similar role to rayon hospitals. Complex cases may be referred to oblast hospitals which specialize in either adult or paediatric care. The average hospital for adults at regional level had 1090.8 beds in 1995 (1094.2

in 1994) while the average regional paediatric hospital had 431.7 in 1995 (455 in 1994). Oblast hospitals generally offer a full range of specialties and handle the more taxing cases. Hospitals also provide some follow-up of discharged patients through their own outpatient clinics.

Ambulatory, secondary care, however, is largely based in polyclinics. Again organization is on a territorial basis. Each rayon has a polyclinic which, in addition to primary care, offers specialist outpatient services. They treat patients in the community across the full range of specialties but may also refer patients on to secondary or tertiary hospitals or to the oblast polyclinic. Oblast polyclinics do serve their local population but also offer outpatient care in more complex cases. Larger urban centres have both standard polyclinics and paediatric polyclinics and the largest cities offer polyclinics which are exclusively for women.

Tertiary care is provided through a group of single speciality hospitals, specialist research institutes and teaching institutes with their own beds. Although these are largely concentrated in the national capital, some oblast hospitals do offer highly complex and expensive care and there are single specialty hospitals offering maternity services, orthopaedic care, etc. in the larger oblast capitals. Minsk itself has dedicated hospitals for most specialties, and the national centres for cardiology, oncology, gastroenterology, neurology, rheumatology, nephrology and dermatology, amongst others. There are also specialised polyclinics operating sophisticated diagnostic tools.

All services are provided on the integrated model with staff directly employed by the third-party payer (i.e. the appropriate tier of local government). There are no meaningful contracts between purchasers and providers for the standard package of care, although hospital directors may agree to contract with enterprises to provide additional services or with private companies offering voluntary insurance. Neither is there really a market for private services in the secondary or tertiary sectors. This is in large part because it is illegal for a publicly-owned hospital to charge for a 'necessary' treatment, and the market for private care is not sufficient to allow for the establishment of private hospitals. There are quasi-private clinics offering plastic surgery and dental care privately but these are an exception and only offer services not guaranteed by the state. There are consumers who wish to be treated in better facilities or given more attentive care but they tend to access these through under-the table payments rather than the formal private sector. Voluntary insurance schemes also arrange for these largely non-medical extras.

The overwhelming impression of secondary and tertiary services in Belarus is of a cumbersome system over-provided with beds and buildings and starved of resources. The number of beds/1000 population (12.4 in 1994) is well in excess of western European averages and even exceeds the CIS average of

10.5/1000 (see Fig. 9). While Belarus has started to reduce bed numbers, the speed at which it is doing so does not begin to bridge the gap with the west (see Fig. 10). This is worrying as an indication of the extent to which secondary and tertiary care dominate the system at the expense of primary services. It also all the more distressing when viewed in the light of reports on the quality of facilities. Many buildings are old, under-equipped and in poor condition. The limited resources available are insufficient even to maintain the fabric of the buildings in the sprawling hospital network or to ensure the upkeep of the equipment in place. Reports of patients' perceptions[27] of the quality of care are equally negative with expressions of profound dissatisfaction with the conditions in hospital, the humanity of care and the practice of requiring under-the-table payments.

The over-capacity of the secondary and tertiary systems also encourages over-utilization, with a Republic-wide tendency to fill available beds. Hospitalization is offered in place of more cost-effective outpatient approaches; length of stay is poorly controlled; and the primary sector is overly reliant on the better resourced secondary sector. There have been some attempts to address these issues but the only significant scale bed closures since 1991 have been of maternity and social care beds. The average length of stay remains high at 15.2 days in 1995[28], compared with 15.3 in 1994 (see Table 4). The burden of inpatient utilization and performance in Belarus is highlighted when seen in the context of standards in the WHO European Region (see Table 5). In 1994, Belarus had the third highest number of hospital beds per 1000 population, behind Iceland and the Ukraine, and the fourth highest number of admissions per 100 population, following Iceland, Austria and Finland. The admissions rate actually rose between 1994 and 1995 from 24.7 per hundred population to 24.9[29], amounting to a total of 2 555 544 admissions (over 2 349 531 in 1994) – this, despite the profound cut in real terms expenditure on health care.

It is clear that over-utilization of inpatient beds is not just a function of supply-led demand. The fact that pharmaceuticals are free in an inpatient setting encourages those needing drug therapy to seek admission. It is also an indication of levels of social need and the lack of provision of care for the elderly in a non-medical setting. Social policy actively pushes the costs of such care into the medical sector, paying rent rebates to those in hospital and effectively creating cash incentives for the elderly to admit themselves for the

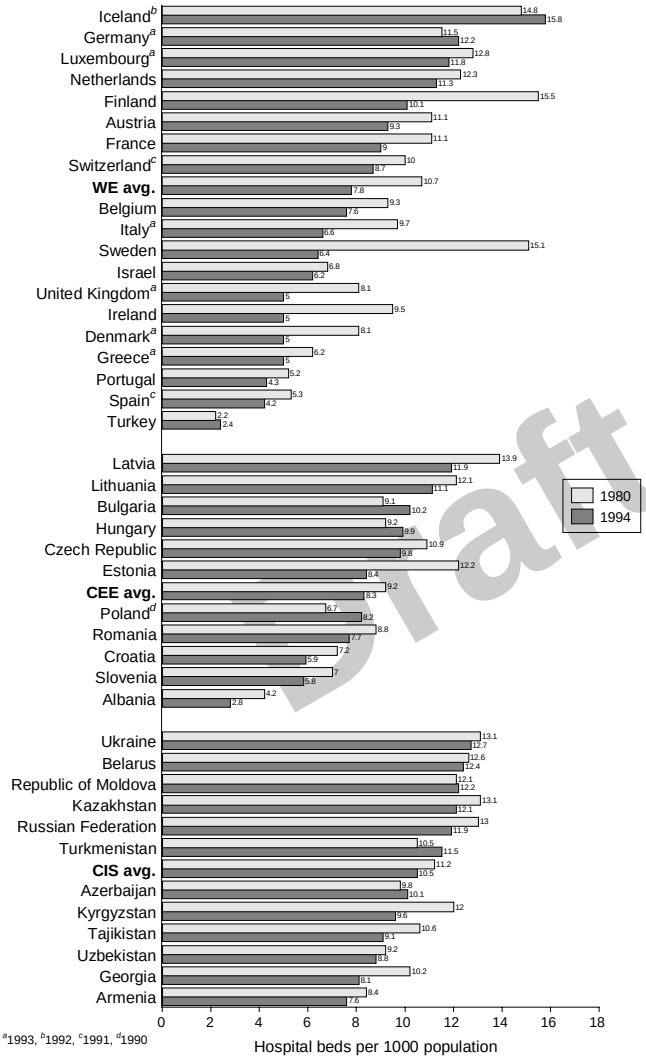
[27]There have been no formal customer satisfaction surveys but anecdotal evidence of dissatisfaction is overwhelming.

[28]Average length of stay for 1995 was 15.2 days in urban areas and 15 in rural areas, compared to a 15.3 day average for all settings in 1994. This reflects the closure of some rural inpatient facilities and the protection of secondary facilities in large towns and cities.

[29]Admission rates were highest in Magilov (27.4/100 in 1994 and 28/100 in 1995) and lowest in Brest (22.3/100 in 1994 and 22.5/100 in 1995) but both oblasts showed an increase in hospitalization rates.

winter, a traditionally stressful and expensive time. The lack of a gatekeeping system makes beds all the more easily accessible. Nonetheless, the oversupply of beds fosters this situation and the experience of rural health posts suggests that bed closures are effective in excluding some costs of social care from the system.

Fig. 9. Number of hospital beds per 1000 population in the WHO European Region, 1980 and 1994



Source: OECD Health data 1996 (for western Europe); WHO Regional Office for Europe, health for all database (for CEE and CIS countries and for Israel, Norway and Switzerland).

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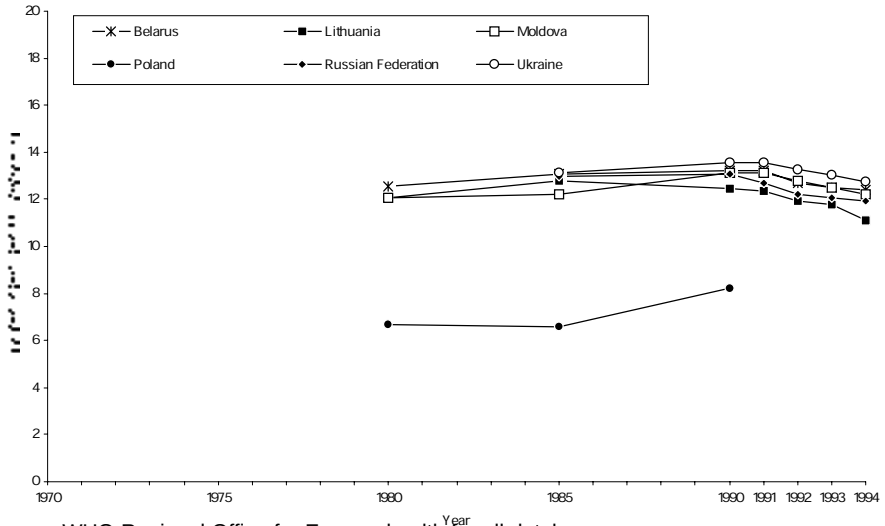
Fig. 10. Physicians per 1000 population in Belarus and selected western European countries, 1970–1994



Source: WHO Regional Office for Europe, health for all database

Table 4. Inpatient utilization and performance in Belarus, 1980–1994

Inpatient	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995
Admissions per 100 population	–	–	–	–	–	–	–	–	–	–
Average length of stay in days	–	–	–	–	–	–	–	–	–	–
Occupancy rate (%)	–	–	–	–	–	–	–	–	–	–

Source:

The Ministry of Health is conscious of the shortcomings of allowing secondary provision to predominate. They are committed to redressing the balance by prioritising primary and preventive services and adjusting the relationship between primary and secondary care. The reforms have already sought to address this by constituting all polyclinics as independent institutions[30] with their own budgets. They have also introduced specialist training for general practitioners and adjusted target-programmes to reflect the new

[30]Historically, polyclinics were linked to the nearest hospital, with the hospital, director, having management responsibility for priority setting and budgets. This encouraged secondary care providers to monopolize resources and gave no incentives to treat patients in the cheaper primary setting.

Table 5. Inpatient utilization and performance in the WHO European Region, 1994

Country	Hospital beds per 1000 population	Admissions per 100 population	Average length of stay in days (%)	Occupancy rate
Western Europe				
Austria	9.4	26.5	10.3	80
Belgium	7.6	19.7 [a]	12 [a]	83.5 [a]
Denmark	5.0 [a]	20.5 [a]	7.6 [a]	84.8 [a]
Finland	10.1	25.1	13.1	90.3
France	9	23.4 [a]	11.7 [a]	80.5 [a]
Germany	10.1 [b]	21.3 [b]	15.8 [b]	86.6 [b]
Greece	5.0 [a]	13.1 [b]	9.8 [b]	70 [c]
Iceland	15.8 [b]	28.2 [c]	17.8 [c]	84 [c]
Ireland	5.0 [a]	15.5 [a]	7.7 [b]	n/a
Italy	6.6	15.5 [b]	11.2 [b]	69.6 [b]
Luxembourg	11.8 [a]	20.3 [b]	16.5 [b]	81.4 [b]
Netherlands	11.3	11.2	32.8	88.6
Portugal	4.3	11.5	9.5	68.7
Spain	4.2 [c]	10 [a]	11.5 [a]	77 [a]
Sweden	6.4	19.5 [a]	9.4 [a]	83 [a]
Switzerland	8.7	14.6 [b]	n/a	82.6 [c]
Turkey	2.4	5.8 [a]	6.7 [a]	57.8
United Kingdom	5 [a]	21.6	10.2 [a]	n/a
CCEE				
Albania	2.8	8.07	8.98	71.8
Bulgaria	10.2	17.71	13.6	64.4
Croatia	5.9	12.78	13.78	81.6
Czech Republic	9.8	20.61	13.5	77.7
Estonia	8.4	17.82	14.2	83
Hungary	9.9	22.76	11.3	n/a
Latvia	11.9	20.14	16.4	78.7
Lithuania	11.1	20.6	15.9	79.1
Poland	8.2 [d]	n/a	n/a	n/a
Romania	7.7	21.1	10.3	77.4
Slovakia	7.9 [a]	17.8	12.74 [a]	76.6
Slovenia	5.8	15.8	10.6	79.4
The Former Yugoslav Republic of Macedonia	5.3 [c]	n/a	n/a	n/a
CIS				
Armenia	7.6	7.6	16.32	n/a
Azerbaijan	10.1	8.52	17.9	41.5
Belarus	12.4	24.65	15.3	83.2
Georgia	8.1	5.5	15.2	28.3
Kazakhstan	12.1	18.17	16.8	68.9
Kyrgyzstan	9.6	17.7	15.4	77.9
Republic of Moldova	12.2	22	17.3	n/a
Russian Federation	11.9	21.6	16.8	n/a
Tajikistan	9.1	16.44 [b]	14.5 [b]	58.3 [b]
Turkmenistan	11.5	17.01	15.1	66.6 [a]
Ukraine	12.7	n/a	16.91	n/a
Uzbekistan	8.8	19.3	14.3	n/a

[a] 1993, [b] 1992, [c] 1991, [d] 1990

Source: OECD, health data, 1996; WHO Regional Office for Europe, health for all database, Slovakian data from Ministry of Health.

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priorities. However, there are no effective mechanisms for implementing the shift in emphasis on the ground. The basis on which resources are allocated to hospitals is unchanged and the relationship between the two modalities of care is still ill defined. The gatekeeping role is underdeveloped and primary providers refer at will without financial penalties. There are no effective incentives for doctors to keep the management of patients in the primary sector and patients frequently present directly to the secondary setting. Where referrals are made, there is little if any feedback from hospitals to the referring physician, who is not made aware of the progress of cases or of whether the referral was appropriate. There is little evidence of any growth in cooperation between care providers.

Notwithstanding these difficulties, the Ministry rightly regards the existing polyclinic system, and its specialists dealing only in outpatient treatment, as a solid foundation from which to shift the emphasis in the modality of care. The Ministry envisages not just substitution of inpatient care with outpatient or home care but a slimmed-down secondary system and more effectively targeted specialist services. There have been discussions of plans to:

- extend the initial programme of bed closures to streamline the hospital system and release funds for outpatient and primary care;
- review the hospital network and draw clear boundaries between hospital functions, i.e. general, long stay, tertiary, etc.;
- transform oblast and republican institutions into a network of centres of excellence, reduce the number of tertiary centres and enhance their performance;
- remove chronic and social care from the high-cost secondary setting and provide for it in nurse-managed long-stay beds;
- strengthen the role of the general practitioner as gatekeeper;
- stimulate a greater focus on quality by encouraging both public and private facilities to compete;
- invest in and improve emergency services and when possible update medical and diagnostic technology.

It is however, difficult to predict when and how these plans might be implemented particularly given the increased decentralization of Ministry powers and the possibility of a major overhaul of the funding system and the introduction of a limited basket of care.

Social care

Social care is markedly underdeveloped in the Republic of Belarus and fails to meet the needs of an ageing population. This is a legacy of the soviet era which focused on industrial workers at the expense of vulnerable groups not in employment. Typically, the burden of care falls on health budgets rather than on welfare or social services. There are only a handful of centres offering nursing care to the elderly in the whole country. These are run by the Ministry of Social Affairs but are widely regarded as of extremely poor quality. There are no day-care centres, and no clearly-defined chronic, long-stay beds. There is no formal home care system and social and community-care services are seriously underdeveloped. The mentally and physically handicapped are not recognized, or catered for, as distinct special needs groups.

There are some rehabilitative facilities and a network of sanatoriums. However, these are often dedicated to the care of particular groups and so do not service some of the most disadvantaged. There are recuperative or 'rest' homes, belonging chiefly to the trade union movement where entitlement to access is through employment, which excludes much of the vulnerable population and there are special hospitals for war veterans. While the population directly involved in the 1941–1945 war are increasingly likely to require medical attention, the system of annual 'health breaks' whereby veterans are hospitalized and given bath, massage and other restorative treatments for a month every year, seems to be an inappropriate use of resources.

Nor is there is any private sector provision in the social care sphere with the exception of one pilot scheme in Minsk. It is now possible to purchase ten day blocks of respite care for the elderly or terminally ill although the cost per block of care, the equivalent of a doctor's average monthly salary, excludes the vast majority of the population. All other chronic, social and long-stay care is therefore provided by the mainstream public health sector through the integrated model. The chronically ill and the elderly either occupy acute beds long term or are not provided for at all, and the mentally handicapped are routinely cared for in acute psychiatric beds. Access is through normal hospital admission routes. This leads to bed blocking and creates additional financial strain on a system which is already overstretched. It also means that the care provided is not tailored to the needs of long-stay patients and is of poor quality.

Reform proposals specify the development of a more appropriate network of support for the elderly and chronically ill to ensure adequate access and reduce the costs of care. Plans include the designation of existing hospitals to provide chronic or social care. These hospitals will be separated out from the conventional secondary sector, which is recognized as being over-stocked, and

will be constituted as independent, budget holding institutions. Up to 15% of current bed reserves may be reclassified as for nursing care only. It is also hoped that private sector providers will offer long-stay and rehabilitative services. Progress to-date has been extremely limited and it is unclear when advances will be made.

The Ministry of Health would also like to draw more heavily on welfare budgets, particularly the social welfare fund, to meet needs which are not strictly medical. Negotiations have taken place with the Ministry of Labour and Social Affairs to secure additional support for the care of the elderly and to develop models of home and day care. However, the financial constraints that are affecting the health sector also apply to welfare budgets and, given the competing demands facing social services, success is unlikely in the short term.

Human resources, training and research

The Republic of Belarus has more than adequate provision of health care personnel. However, the number of physicians and nurses per 1000 population, while at the upper end of European norms (see Fig. 13) is not as excessive as in some former soviet republics (Georgia, Lithuania, Ukraine) or as in parts of southern Europe (Greece, Italy and Spain).

In 1996 there were 3.9 physicians per 1000 excluding dentists and 8.9 nurses, (11.4 including feldshers, midwives and other grades)[31]. The Ministry of Health would like to see levels of physicians reduced, despite which there is evidence of small recent increases in the number of doctors. This corresponds to small rises in much of western Europe (see Fig. 11). However, the figures in Belarus reflect high numbers of newly qualified doctors entering the health system and mask the fact that middle-ranking doctors are leaving the health sector, taking with them their knowledge and experience. The numbers of dentists and pharmacists remains relatively constant, and slightly above western European levels, although it is unclear what impact the privatization of these areas will have in future years.

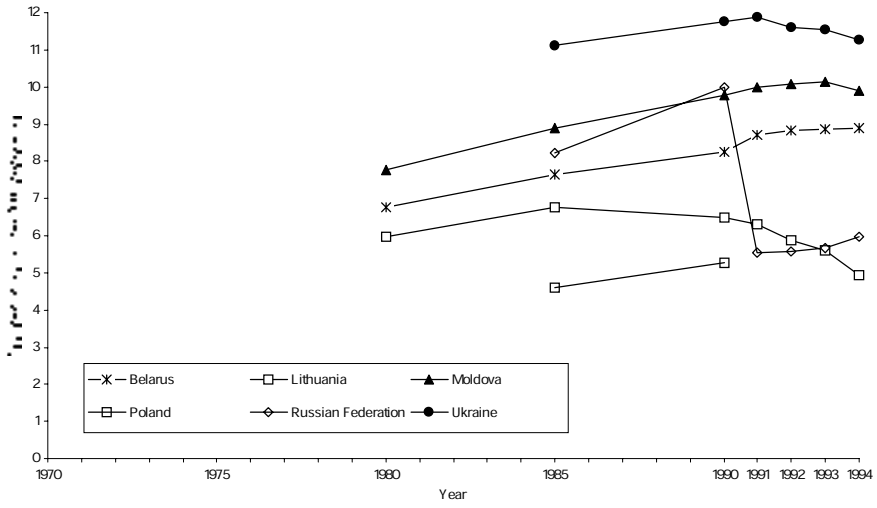
The total number of nurses has risen steadily over recent years and there have been none of the radical cuts in nursing staff experienced in Georgia or the Russian Federation (see Fig. 12). However, the number of nurses graduating fell from 6110 in 1994 to 4266 in 1996 suggesting changes may be in the pipeline. This possibility is offset by the fact that first year students in nursing school rose from 3977 to 4761 over the same period. The drop in graduates

[31] Source: Statistics of The Ministry of Health of Belarus 1997.

appears to reflect little more than some disruption to recruitment immediately after independence. Nor has there been any concerted effort to enhance the role of nurses. Most remain unspecialised with little professional autonomy and are scarcely more than glorified doctors' assistants. The only exception are the feldshers and midwives who receive additional training post-qualification and often lead rural primary health care delivery.

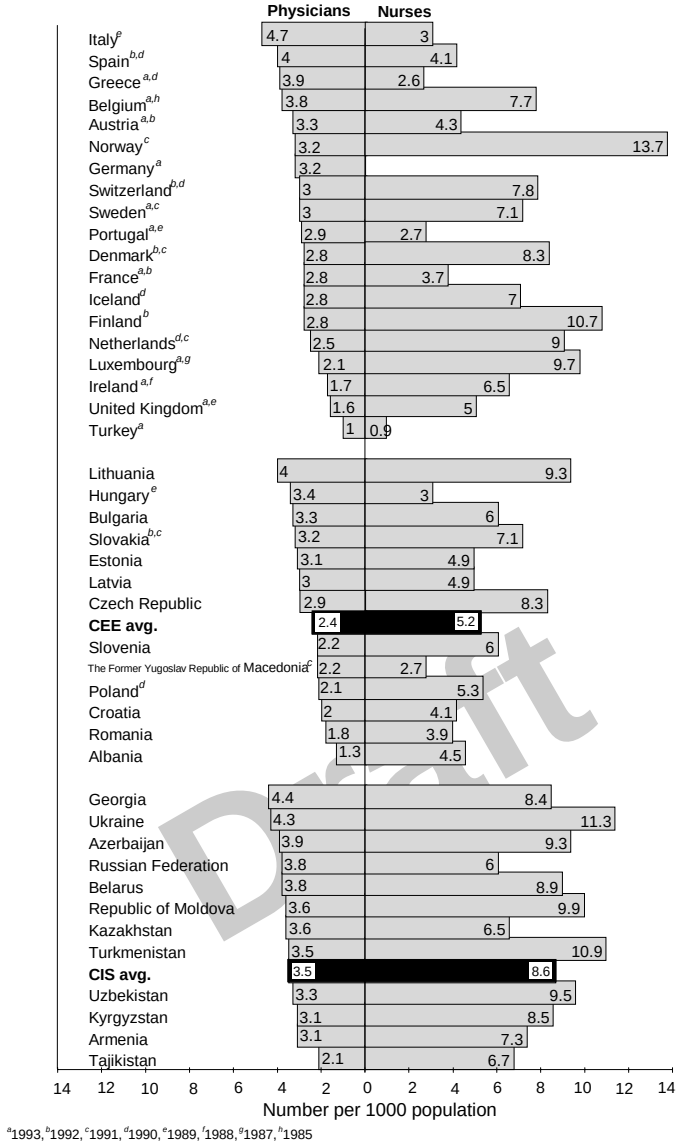
The breakdown of health care personnel highlights the over provision of staff in all categories and the failure to address this issue even post-independence (see Table 6). The Figures are not, however, entirely reliable and are confused by the structure of the various professional categories which do not correspond to European Union definitions. Despite the fact that, midwives and feldshers cannot be isolated from certified nurses in the centrally compiled statistics, it is clear that the production of nurses exceeds European rates while the picture for the production of doctors, dentists and pharmacists is similar (see Table 7). This suggests that Belarus will be dealing with the legacy of over-staffing for years to come.

Fig. 11. Nurses per 1000 population in Belarus and selected European countries, 1970–1994



Source: WHO Regional Office for Europe, health for all database

Fig. 12. Numbers of physicians and nurses per 1000 population in WHO's European Region, 1994



Source: OECD health data, 1996; WHO Regional Office for Europe, health for all database.

Table 6. Health care personnel in the Republic of Belarus, 1970–1995

Number per 1000 population	1970	1975	1980	1985	1990	1991	1992	1993	1994	1995
Active physicians	–	–	–	–	–	–	–	–	–	–
Active dentists	–	–	–	–	–	–	–	–	–	–
Certified nurses	–	–	–	–	–	–	–	–	–	–
Midwives	–	–	–	–	–	–	–	–	–	–
Active pharmacists	–	–	–	–	–	–	–	–	–	–
Physicians graduating	–	–	–	–	–	–	–	–	–	–
Nurses graduating	–	–	–	–	–	–	–	–	–	–

Source: OECD health data, 1995; WHO Regional Office for Europe, health for all database

The over-supply of medical staff does not however tend to lead to unemployment since the number of posts within the existing system is also artificially high. There was a period in the first years of post-independence when medical unemployment began to emerge but the stabilization of the system has absorbed much of this. It has however helped to ease the difficulties experienced prior to 1991 in recruiting physicians to work in areas deemed less glamorous. Although doctors do still prefer to work in urban centres, they are now more willing to adapt and to consider working in a rural or primary care setting. It has always been easier to recruit nurses and feldshers to work in rural areas and it is relatively common for women from small villages to return to work in their own communities so the geographical spread of nursing staff is fairly consistent with population levels.

The over-production of medical personnel reflects the overall failure of the Ministry of Health and the Ministry of Education to tackle the over-capacity of the medical education sector. There were 4 medical schools and 17 colleges of nursing or paramedical training at independence, all of which continue to function. Although no private schools have been allowed to open, efforts to reduce the number of students within the public sector have been mostly unsuccessful. Despite a drop in the number of doctors graduating in 1995 (2015 compared to 2264 in 1994) those qualifying rose again in 1996 to 2077. The number of first-year medical students also rose from 1218 in 1994 to 1347 in 1996[32]. This is not because planners are unaware of the over-production of medical personnel but because the principles used to determine staffing levels in hospitals and clinics are still linked to beds and projected visits. Local government bodies calculate their future staffing needs (allowing for staff wastage) based on bed numbers that are largely unchanged and so continue to make inflated demands for newly qualified personnel.

[32]Ibid.

Table 7. Health care personnel entering the work force in Europe per 100 000 population, latest available year

Country	Physicians	Dentists	Pharmacists	Nurses	Midwives
Western Europe					
Austria	14.1[c]	na	na	33.7[b]	na
Belgium	10.9[b]	0.6	1.7	55.3[d]	2.3[d]
Denmark	7.3[b]	1.6[b]	2.8[b]	32.2[b]	0.8[b]
Finland	11.3	4.4	4.4	88.2	1.5
France	8.5[d]	1.8[d]	4.0[d]	25.2[c]	0.9[c]
Germany	15.4[b]	2.5[b]	2.2[b]	18.9[c]	0.6[c]
Greece	na	na	na	na	na
Iceland	12.3[b]	2.9[b]	2.6[b]	25.4[b]	0.0[b]
Ireland	12.4[b]	2.0	1.3	42.4	6.5
Israel	4.7	1.1	1.5	15.3[b]	0.6[b]
Italy	na	na	na	na	na
Luxembourg	na	na	na	na	na
Netherlands	9.1[b]	0.7[b]	0.8[b]	39.1[b]	0.4[b]
Norway	na	na	na	na	na
Malta	na	na	na	na	na
Portugal	4.1[b]	0.8[b]	2.8[b]	16.2[b]	0.3[c]
Spain	na	na	na	na	na
Sweden	7.6[c]	2.3[c]	0.7[c]	45.0[c]	2.5[c]
Switzerland	10.6[b]	1.3[b]	2.2[b]	52.6[b]	1.4[b]
Turkey	6.8[b]	1.1[b]	1.5[b]	15.9[b]	7.0[b]
United Kingdom	na	na	na	na	na
CCEE					
Albania	na	na	na	na	na
Bosnia and Hercegovina	na	na	na	na	na
Bulgaria	na	na	na	na	na
Croatia	14.0	2.3	2.1	na	na
Czech Republic	11.8	0.6	1.9	48.4	2.4
Estonia	9.2	4.5	1.7	16.0	2.8
Hungary	9.8[b]	1.8[b]	2.4[b]	7.2[b]	na
Latvia	10.8	1.9	2.1	17.3	0.8
Lithuania	16.7	2.9	1.4	19.7	1.8
Poland	9.7[d]	2.8[d]	1.7[d]	na	na
Romania	14.2	2.0	1.6	14.8	na
Slovakia	16.1	na	na	2.0	0.5
Slovenia	7.1	1.2	4.9	39.6[b]	na
The Former Republic of Macedonia	8.3[b]	3.6[b]	2.8[b]	na	na
NIS					
Armenia	14.1	5.7	2.2	44.1	7.5
Azerbaijan	17.2[a]	1.7[a]	2.2[a]	31.1[a]	4.6[a]
Belarus	20.2	2.4	1.0	41.6	2.8
Georgia	na	na	na	na	na
Kazakhstan	20.5[a]	na	1.0[a]	45.2[a]	3.5[a]
Kyrgyzstan	12.8	2.3	0.5	46.5	7.6
Republic of Moldova	15.8	3.1	0.6	28.2	2.2
Russian Federation	15.8	2.3	2.2	25.6	2.3
Tajikistan	14.8[b]	na	na	62.1[c]	na
Turkmenistan	12.5[b]	1.4[b]	0.6[b]	56.4[b]	5.7[b]
Ukraine	13.8	2.8	2.6	49.6	3.8
Uzbekistan	22.1	1.5	0.7	129.1	5.9

Note: [a] 1997, [b] 1995, [c] 1994, [d] 1993, [e] 1992, [f] 1991; na: data not available

The failure to tackle the issue of overstaffing is not unconnected to the fact that medical staff are cheap to employ in Belarus. This is a legacy of soviet thinking which saw health professionals as unproductive and chose to place a higher value on workers in manufacturing. The incentives to reduce numbers of doctors is less therefore than it might have been were doctors perceived as high earners. Nonetheless, there are clearly costs to the health service generated by surplus medical staff who are carry out tests and investigations.

While the Ministry of Health has not achieved the cuts in medical students it had hoped for, it has carried out some reform of the medical syllabus removing the overtly political courses which were previously compulsory and extending the coverage of noncommunicable disease epidemiology. However, there have been no radical changes in education or training. Medical students still choose between paediatrics, surgery and internal medicine before qualification, and train appropriately. They are expected to acquire more focused speciality training in the workplace. There has been little progress in attempts to include management or financial training at the undergraduate level and it has proved hard to incorporate the recognition of the new challenges facing the health services into taught courses. This reflects the lack of breathing-room the economic situation has allowed and the fact that medical education is well-established and does not have an in-built capacity to change.

New graduates tend to be proficient in terms of knowledge and pre-clinical skills, to have little in the way of clinical expertise and to have absorbed a fairly traditional medical culture. Specialization in a branch of secondary medicine is still seen as the career objective of the vast majority of medical students and surgery, particularly specialist surgery, is regarded as the most prestigious area in which to practice. General practice has always been the Cinderella of the medical profession in Belarus and no special preparation or in-post training were offered prior to independence; rather, family therapists were drawn from the newly qualified and the least successful. However, there is now an established a family doctor model and a newly-designed specialist training programme for graduates entering general practice. It is hoped that this will change the perceptions of medical students and that, together with other initiatives to promote primary care, this will lead to a new set of attitudes within the medical professions.

Management training is still an area which is strikingly underdeveloped. It does not feature in undergraduate syllabuses and there are insufficient postgraduate training courses. Hospital and polyclinic directors are drawn exclusively from the ranks of senior physicians and do not normally have access to financial or administrative training. The presumption is that with clinical experience comes the necessary management expertise to oversee the running

of a health care institution. Managers however, have found themselves ill prepared to deal with the challenges facing them. There are also concerns about the lack of strategic management training given to public health physicians who might be expected to take on some of the responsibilities being given up by central government as decentralization progresses.

The productivity of health care personnel and the quality and humanity of care offered is also a major cause for concern. Both health service managers and patients complain of low-quality care and low work rates. This reflects, poorly on medical education and training and on the level of hands-on management skills but, more importantly, is a product of low morale.

All the medical professions are severely demoralized. Medical salaries are historically low but have been further eroded by inflation. During the worst of the economic crisis, doctors and nurses were often paid months in arrears and, although in 1997 the situation improved, the legacy of insecurity remains. There has also been an erosion in the job security felt during the soviet era. Although few staff cuts have been made to-date there has been some experience of medical unemployment and many staff fear that wholesale redundancies could take place. The work environment is frequently dilapidated and the treatment of medical staff by patients is often poor. While the notional status of doctors remains high, the respect in which the health system is held has been low for some years, and has declined further as shortages in the system translate into lower quality care and more insistent demands for under-the-table payments. Patients have come to undervalue medical staff and to routinely question their judgement which is itself demoralizing. Doctors and nurses are conscious of working in a failing system and this further compromises their motivation.

The reforms have sought to address these issues by encouraging performance-related pay. Managers now have theoretical rights to negotiate contracts linking pay to performance and giving incentives for increased productivity and greater humanity of care. However, uptake of the proposed scheme has been low because of ambiguities in labour law and the shortage of funds, which makes the payment of bonuses all but impossible. Thus the Belarus health system continues to face a series of challenges in the management of its human resources. Staffing levels, numbers of specialists, medical education and management training are all the subject of proposed reforms. The Ministry of Health plans to:

- reduce admissions to medical and nursing schools, review the balance between theoretical and practical training and raise quality thresholds;
- extend the postgraduate training system and reinforce the current five-yearly attestation cycle to ensure there are checks on the quality of medical personnel;

- ensure compatibility and compliance of all training to international standards, consolidating the new specialization of general practitioner and extending training in preventive medicine;
- reduce the number of doctors and nurses employed;
- develop the role of non-medical specialists including managers and economists;
- promote performance-related pay with incentives for quality, productivity and practising in isolated regions.

However, the difficulties in implementing reforms to date and the uncertainty facing the system make it difficult to suggest a time scale for the achievement of the measures outlined. Nonetheless, there are positive factors working in favour of the reform process. There is a network of feldshers who are well placed to support initiatives to enhance primary care. There are strong traditions of continuing education and the small amounts of international support available for capacity building in the management and economic sphere represent an opportunity which has yet to be fully exploited. Even unemployment, while it is destructive of individuals and has been rather arbitrary to-date, presents an opportunity to refocus the health system.

Research and medical science

The Ministry of Health also plans to refocus and reform the management of research and medical science in the Republic of Belarus. Research is currently carried out by both academic and clinical institutions, all of which are in the public sector, However, the rights of private sector institutions to equal treatment are protected in law. The Ministry has proposed:

- the centralization of all research funds;
- the clear determination of research priorities through the agreement of target-programmes with particular reference to the practical application of research;
- state support of research facilities and of key research programmes;
- a commitment to openness of information and international cooperation;
- the funding of a computerized medical information system;
- the creation of incentives for entry into research;
- that the independence of research and its evaluation be ensured;
- that research be comprehensively evaluated and relevant research findings implemented.

Again, the reform proposals are consistent with best practice in much of western Europe, but the ability of the Ministry of Health to deliver on its stated objectives in the short term is severely compromised by the financial difficulties facing

the health sector. The suggestion in the draft law on health insurance that employers' contributions will be sufficient to cover research activity raises some concerns about long-term funding. Nonetheless, the Ministry of Health remains committed to ensuring the survival of an independent research community in Belarus and is prepared to consider exploring other possibilities.

Pharmaceuticals and health care technology assessment

Pharmaceutical production in the Soviet Union was centrally managed and very little of the productive capacity was based in Belarus. This has left the Republic of Belarus heavily dependent on imports, which must be purchased with hard currency. Some 70% of all pharmaceuticals consumed are imported and this has driven up pharmaceutical expenditure and created significant problems of supply. It is commonplace both for given drugs to be unobtainable and for pharmacists to substitute the drug prescribed with a more readily available product.

The Ministry of Health itself imports essential drugs for the treatment of 'socially important' conditions, e.g. diabetes, tuberculosis, cancer and asthma and for vaccination programmes, while other drugs are imported privately. The Ministry retains regulatory responsibility for the quality of all pharmaceutical products and regulates prices. It has defined a group of essential drugs and sets prices for all listed products, and reviews the list and prices annually. The price of 'non-essential' products is unregulated and is determined by commercial forces. The state distributes centrally-purchased drugs in line with regional needs. All other supplies are provided privately.

The pharmaceutical sector is the first area of health services to have experienced any widespread privatization. The bulk of pharmacies were sold to the pharmacists managing them soon after independence, with the government retaining ownership of strategic outlets only. Pharmacists were also empowered to purchase drugs abroad and import them direct. In addition, a number of small import companies have developed and some international drug companies have begun marketing to health care institutions in Minsk. These private sources are expected to meet all drug needs that are not covered by the state's central purchases.

Pharmacies and importers sell wholesale to hospitals, who are oblige to provided free drugs for inpatients. Outpatients, by contrast are expected to meet prescription costs themselves. They purchase directly from pharmacies unless they belong to an exempt group. Pharmacists are legally bound to provide

drugs for these 'vulnerable' sectors of society (veterans, pregnant women, etc.) and to invoice the local authority for reimbursement. However, delays in the payment system have led to reluctance amongst pharmacists to provide drugs for the covered population.

Private bodies now play a major role in the supply of drugs and, while this has created incentives for pharmacists to address issues of efficiency and customer satisfaction, it has also undermined government attempts to contain costs. Although the Ministry of Health would like to promote the use of generics, the small scale importing of drugs by sole traders makes it difficult to influence purchasing decisions. Small enterprises also seem more vulnerable to the marketing of large drug companies. In addition, tax policies, which effectively cap the percentage profits made, have created perverse incentives for pharmacists to market more expensive products since these yield higher gross profits.

Privatization has also placed pharmacists under pressure to maximize sales, particularly of non-prescription drugs, which conflicts with the Ministry's desire to contain drug expenditure. There are no accurate figures for pharmaceutical consumption, but evidence from the region suggests that over-use of antibiotics, vitamins and psychotropic drugs is common. Furthermore, patients seen in the ambulatory setting expect to be issued with a prescription at most, if not all consultations. Patients also purchase drugs over the counter that would only be available on prescription elsewhere in Europe. Privatized pharmacists may be encouraging this behaviour and maintaining high levels of consumption.

Efforts to influence physicians' prescribing behaviour are severely constrained by these circumstances. There is insufficient information technology in place to keep doctors informed of their prescribing patterns relative to that of their peers. Also, given the erratic nature of drug supply, physicians and pharmacists cannot guarantee that the drug issued will be the one prescribed, rather than a similar product, which frustrates attempts to manage prescribing more effectively.

Polyclinics and health posts do not hold drug budgets and primary care physicians have no formal responsibility for drug expenditure so there are no incentives to curb prescribing in the ambulatory care setting. Hospitals are expected to cover the costs of all drugs prescribed for inpatients from their own budgets, so it is in the interests of hospital directors to monitor and limit the prescribing of their staff. However, this has limited impact since patients may be told a particular drug is unavailable despite state guarantees, and be tacitly encouraged to purchase it themselves thus maintaining high consumption patterns.

The Ministry of Health recognizes the need to address cost-containment issues and to encourage the cost-effective consumption of pharmaceuticals.

However, there is not a functioning positive drug list and the government are not in a position to promote the use of generics. The negative list covers controlled drugs (morphine and other opiates) and the essential list is used only to set prices. It is unclear how they will progress the reform agenda.

New technology is not currently at issue in Belarus since capital expenditure is meant to come from regional budgets and has effectively ceased. There is structural provision for central funding of the purchase of key health care technology but this is rarely used because of the corresponding shortages of resources at the centre. Very few purchases have been made since independence and these are exceptional. They tend to reflect the ability of elite institutions in Minsk to exploit their status to generate funds or secure deals with commercial organizations rather than objective need. The Ministry of Health does license all imports so regions with sudden access to resources cannot make wholly inappropriate purchases but at the moment these powers are scarcely needed.

Financial resource allocation

Again the determination of resource allocation owes much to the precedents established prior to independence and again the scope for change is heavily constrained by the financial crisis still threatening the country.

Third-party budget setting and resource allocation

The health sector budget is determined by the Ministry of Health in negotiation with the Ministry of Finance. The Ministry of Health makes estimates of the expenditure required based on the activity levels of the previous year, the epidemiological data indicating any shift in health needs and the reported costs of the previous year. Allowance is made for inflation and then a proposed budget is submitted to the Ministry of Finance. The revised estimates are submitted to the Supreme Soviet for approval and passed into law.

The global budget is then broken down into regional and district budgets and the Ministry of Health indicates the sums that local government are expected to raise and to channel into health care. The system rests on the assumption that both oblasts and rayons have a sufficient tax base to be able fund the standard level of services for the bed numbers and population levels locally. These local budgets, together with the cost of government programmes, represent the total state input to the health care system. Increasingly decentralization allows for local authorities to override central decisions but the figures set are still regarded as a base point for funding. Nonetheless, problems have arisen with local governments unable to raise sufficient funds to meet their obligations. In some areas only a proportion of the costs of the health care providers will be paid, the exact proportion depending on the moneys available. Payments are frequently made in stages and the poorest regions appear to be suffering increasing levels of hardship and inequity. There is little central support and the funding that does flow down from the Republican level is generally in kind,

i.e. drugs required for chemotherapy or for tuberculosis treatment. These are allocated in line with the level of demand experiences in the previous year.

Health care institutions are also entitled to raise revenue but their capacity to do so is severely constrained by the economic situation. Enterprises who might be expected to contract with hospitals or polyclinics for packages of care are themselves struggling and have withdrawn from the provision of on-site health services rather than wishing to extend the coverage they offer staff. Similarly, individuals who might pay for services are themselves facing severe financial constraints and are poorly placed to supplement health service budgets. More importantly still, there are difficulties posed by Article 47 of the constitution which guarantees all citizens free health care within the hospital system and is widely interpreted as precluding the introduction of charges. Certainly, hospitals are uncomfortable with exploiting their theoretical ability to generate income; they tend to avoid charging and when they do charge, avoid maximizing profits. The small sums earned are used to reward staff or carry out basic repairs and do not make a negligible contribution to total health service funding.

There is not in effect any capital expenditure but, by and large, this would be the responsibility of the level of government responsible for the institution concerned.

The changes in resource allocation, since 1991, have been characterized by retrenchment; failure to compensate adequately for increasing costs, and the use of official GDP to represent the monetary wealth of the nation and to guide the budget for health services, despite the widely-acknowledged fact that a significant proportion of health care expenditure is, in fact, by way of under-the-table payments.

The prevailing thinking in terms of plans for the future is that there should be a shift towards a social insurance system which is able to set clear limits to the care available, with the boundaries determined by the objective health needs of the population. The whole discussion of health insurance is premised loosely on this understanding although the basket of guaranteed care has yet to be defined. The proposals also rest on the belief that making an insurance fund the third-party (rather than the local health committee) will encourage greater efficiency and the use of mechanisms such as contracts to guarantee the correct levels and quality of care. There is still a considerable lack of detail as regards what constitutes an appropriate or acceptable system but the expectation is quite clearly that employers should pay a contribution per employee into the health insurance fund which will be ring-fenced and protected from other governmental bodies.

It is also hoped that significant numbers of non-essential services will become available on a fee for service basis and that voluntary insurance schemes

will allow citizens to top up the packages of care available to them and bring additional moneys into the system.

There is every intention that the government will set up a fund for those not in employment. What appears to be still open to debate is whether areas such as emergency services, public health and research should continue to be funded by tax-based governmental moneys or be included in the responsibilities of the insurance funds.

Fig. 13. Financing flow chart

Payment of hospitals

Historical formulas based on bed numbers and associated staffing levels persist and the funding of hospitals continues to be based on their size. While attempts have been made to adjust funding to reflect activity levels, these are frustrated by the tendency to fill all available beds (exacerbated by the use of acute beds for chronic and social care) and the tradition of very long lengths of stay.

A hospital budget is set out as an annual figure which basically adjusts the previous year's costs for inflation. While included in the formula is an estimate of the number of beds, outpatient visits, staff and energy costs, there is no serious attempt to limit the quantity of services provided or specify quality criteria. Where funds simply do not permit the rayon or oblast to meet their cost contribution, the provider and health committee negotiate some compromise. The first priority of hospital directors is to see the full coverage of salary costs and then of pharmaceuticals followed by light and heat. The figures set out in the budget do not however, accurately reflect the real costs. Certainly in terms of pharmaceutical expenses inpatients purchase drugs, needles and dressings while terms of staffing there are subsidies through under-the-table payments.

Polyclinics now receive their funds direct from local government rather than through the nearest hospital. Funding formulae are, however, as rigid as those used to determine the pay of hospitals. The starting point is the budget for the previous year and the upgrade for inflation as determined by the Ministries of Health and Finance. Historically budgets were calculated to reflect projected numbers of visits (a function of the size of the population in the catchment area) and the staffing levels required to service those visits. An allowance for heat and light was also made. It is this approach which continues to determine the budget in broad terms. It does nothing to address the balance between primary and secondary care or to build in incentives for efficiency or quality of service.

The intention is very firmly to review this situation and to use hospital and polyclinic budgets to set some limits to the care available on demand. There are also discussions about funding mechanisms that will encourage physicians to treat patients in the primary care or ambulatory setting. However, proposals have yet to be finalized. It is still unclear whether a shift towards an insurance-based system would bring with it diagnostic-related group case payments or fee-for-service payments to hospitals or how per capita funding might be used to weight spending towards the primary sector. There is also discussion of the possibility of reforming the procedures for paying hospitals independently of other reform measures, perhaps introducing contracts between local health

committees and providers. However, the capacity to manage such a process has not been demonstrated to-date and where voluntary insurance cover exists there is a rather disappointing reliance on the fee-for-service approach.

Payment of physicians

While there is now scope for hospital managers to negotiate contracts with individual members of staff and introduce productivity bonuses and other incentives the vast majority of staff are still salaried. Fixed rates are set centrally and standard increments, based largely on years of service, level of qualifications and position held, are paid in addition to basic salary. This is true for physicians and other medical professionals. There is little evidence of any real change in payment mechanisms. Certainly, family therapists, regardless of how unpopular they are, all paid at a standard rate regardless of the volume of patients they actually see. Some hospitals are able to generate small amounts of additional income, and the law allows them to establish a fund valued at 10% of the total wages bill and to use this at their own discretion to create incentives or reward staff. However, it is clear that the sums involved are not significant.

Although the system is salary-based, it is widely acknowledged that the salaries paid fall below the cost of living for medical staff. This is particularly the case for nurses who are paid even less than doctors. This seems to create powerful pressures on staff to take under-the-table payments and, although it is extremely difficult to measure these, they are acknowledged to be important. Levels of pay also contribute significantly to the poor morale of the health services.

There is a strong desire to see the current situation remedied but there is little optimism about the possibility of finding additional resources for medical salaries. Hopes seem to be pinned on new moneys being brought into the system by a reform of funding mechanisms coupled with a shift towards performance-related pay and productivity bonuses. Certainly, those hospitals working in the quasi-private sector or together with voluntary insurance schemes are able to pay substantial bonuses to staff. The speed of any change will depend on the direction of the reform of health sector financing.

Health care reforms

Determinants and objectives

The key aim of the Belarussian reform process from 1991 to 1995 was to maintain the status quo. The economic crisis was felt to be extreme and the threat of collapse so serious that all the efforts of planners, managers and strategists were devoted to keeping the core of the system functioning. However, the relative stability of the last year has allowed the Ministry of Health to begin to move beyond survival strategies. There is a profound awareness of the problems facing the health system as well as a strong commitment to maintaining a free and equitable health service for the entire population, and this has prompted renewed discussion of the best approach to health sector reform.

The main issues which underpin this review of the reform options are the continued economic constraints facing the situation and the realization that more state funds are not going to become available in the short term. The fact that demand for services is running at levels which are out of control and that there is intense consumer dissatisfaction are also major factors. Having consolidated the system inherited at independence and provided a firm legal basis for the republican health services, the Ministry of Health is now seeking to further a reform agenda which will address the core concerns outlined while maintaining equity and the achievements of the soviet period.

The objectives of the reform are included in the documents 'On National Health Care Policy' and the 'Conception of the Development of Health Care' and include the following aims to:

- work together with the citizens of Belarus to ensure that they have access to health in its broadest sense and are provided with the services they need to maintain that health, including sanitary and epidemiological protection;
- encourage citizens to take on responsibility for their own health status as well as turning to the state institutions for support;

- provide equitable access to services;
- promote primary health care and the prevention of illness;
- set priorities in line with scientific evidence;
- manage the system effectively and improve its organization;
- manage resources efficiently and exert maximum leverage on health status, improving the financing mechanisms in place;
- extend the models of care available and promote different forms of ownership and management;
- improve training and management of staff;
- enhance the quality and humanity of services.

Content of reforms and reform implementation

From the outset of independence, the government of Belarus has been committed to maintaining the health care infrastructure it inherited from the soviet system. There have been few attempts to introduce explicit reforms to-date but rather parliament has sought to create a sound legal basis for the conduct of health policy in Belarus. Legislation has largely been a clarification or restatement of a soviet-style legal framework underwritten by a powerful commitment to the provision of health care free at the point of use for the whole population of the Republic. Parliament in particular has proved itself reluctant to sanction any changes that might be construed as limiting the rights of citizens. A further phase of reforms may be expected in 1998 but the laws passed to-date are listed below.

- *Law on Social Protection of the Population Suffering the Consequences of the Chernobyl Accident, 22 February 1991*: defining legally the criteria for inclusion and the entitlement to health and related care.
- *Law on Health Care, 18 June 1993*: set out the rights and duties of the citizen and the obligation on the State to provide such health care as needed. Reiterated the legal position of doctors, nurses, hospitals and other parts of the health service and their rights to deliver health care.
- *Law on the Rights of the Child, 19 November 1993*: included the rights of the population under 18 years of age to comprehensive medical protection, including such preventive measures as deemed appropriate. Reiterated the legal position of those state bodies charged with delivering services to minors.
- *Law on Sanitary and Epidemiological Welfare of the Population, 19 November 1993*: passed into Belarus law provision for the san-epid network,

maintaining a legal basis for the collection of epidemiological data, the delivery of immunization programmes and the control of infectious diseases and environmental hazards.

- *Law on Prevention of Invalidity and Invalid Rehabilitation*: defining workers' rights with regard to industrial injury, the obligations on enterprises for health and safety and the role of the health services in rehabilitation and care.
- *Article 47 of the Constitution, 15 March 1994*: enshrining in the constitution of the Republic the right of the population to all those services provided by hospitals without charge and on the basis of citizenship only.
- *Law on Blood, Blood Components and Blood Donation, 31 January 1995*: setting out responsibilities for the safe handling of all blood products in the light of HIV issues.
- *Law on Transplantation of Human Organs and Tissues, 4 March 1997*: establishing a legal framework for the transplantation of organs from living donors or the deceased with the consent of next-of-kin.

Health for all policy

While the government is committed to the concepts enshrined in the World Health Organization's health for all policy, it has no formal commitment to it in law.

Reform implementation

The laws set out above have been enacted and implemented in that they govern the basis of health care provision in the Republic of Belarus. They do not, however, represent a full picture of the reform measures taken to date. In addition, the Ministry of Health developed a detailed statement on its 'Concept of Health Care Development' during 1993, which was submitted to government and informally approved. This was in effect a review of state policy in the field of health care and a preliminary treatment of its long-term prospects. The 'Concept of Health Care Development' confirmed a commitment to the provision of universal coverage and went further in incorporating central guidelines drawn from both local and international experience, WHO policy and the Declaration of Human Rights. It defines health in the broadest sense and the mission of the health service as being to contribute to the healthy, active and creative lives of the whole population. It explicitly refers to the role of health promotion and also spells out the role of other agencies, ministries and enterprises in contributing to the health of the nation. This in effect continues to serve as the mission statement of the health system in Belarus.

Within the Ministry of Health, there have been adjustments to the management and funding mechanisms which fall short of legislative change but may properly be regarded as reforms. There has been a shift of power to the regions and an increasing reluctance on the part of the Minister to impose centrally-held views at the periphery. There has also been a shift in stated priorities from high-technology and highly interventionist medicine to a stronger commitment to primary health care. This includes a redesign of the training of the 'family therapist' (the semashko version of the general practitioner) to recognize the importance of the primary caregiver. However, there are problems both in funding additional expansion and in wresting resources from established tertiary centres. There are hopes that, with increased economic stability, more funding will become available.

Further, the Ministry of Health is reviewing the possibility of reforming the financing structure of the health service. This includes consideration of the possibility of shifting from a tax-based to an insurance-based funding scheme, but it will also look at smaller, individual measures designed to match funding flows more closely to population need. The scope for introducing capitation allowances per patient registered with a general practitioner is being investigated as is the possibility of allowing third-party payers to contract with providers. An expansion of voluntary insurance schemes and of privately provided services is being mooted. All the schemes being investigated are intended to promote a rational use of resources with firm quality control and maximum efficiency.

Conclusions

The Republic of Belarus has managed to maintain intact a health care delivery system that provides an all but comprehensive package of care to the entire population, free at the point of use. This achievement is remarkable given the economic crises that the Republic has experienced and is all the more commendable when seen in the context of the turmoil faced by the health sector in other parts of the former Soviet Union. Despite significant concerns about health status there have been some very real gains, with a year-on-year fall in infant mortality rates. The decline in life expectancy is worrying but is in keeping with regional trends and has taken place against a backdrop of the ongoing impact of the Chernobyl accident. The health sector then has much to be proud of. Certainly the current situation bears out the decision to proceed only slowly with the reform of health care. Perhaps more importantly, it is a testament to the efforts of the individuals working within the health system.

However, despite the fact that the system has coped to-date, there is clearly a feeling that further reforms are now desirable and necessary. The increasing economic stability and new willingness to tackle reform issues in 1997 have set the stage for further adjustment to the health care system in 1998. Individuals working within the health system perceive the following issues as key problems:

- the population's understanding of their entitlement to care, underpinned by the widespread interpretation of Article 46 of the Constitution, i.e. that they shall have unlimited access to free services on demand and shall be the main arbiters of what constitutes appropriate care;
- the lack of resources available to meet the levels of demand – in particular a lack of funding for pharmaceuticals or equipment;
- the lack of a management framework or payment mechanisms which can be used to bring about practical changes.

There is also widespread feeling that a social insurance-based financing system will best address these issues. A social insurance scheme is, therefore, being proposed which will create some form of payroll-related tax to be paid

directly into an insurance fund. The fund may be either national or regional but will be exclusively for the provision of health care. It is suggested that the Republican government will continue to levy a proportion of general taxation for health care which will be used to pay contributions into a second insurance fund for those not in work.

It is not yet clear whether the funds will cover the cost of all health care expenditure including items like emergency services, prevention programmes, research and capital investment or whether central government will have to continue to fund some of these areas of spending. The funds (for the employed population and for those not in work) will issue each individual with a policy specifying the package of care to which they are entitled. This basket of care will relate to essential health needs, address public health issues and favour primary care.

Contracts of some sort will then be used to govern the relationship between third-party payers (the funds) and providers (hospitals and polyclinics). These proposals are very much at a discussion stage and details are not yet defined but it is hoped that the contract model will allow the introduction of incentives towards greater efficiency and higher quality care.

However, proposals to introduce a social insurance-based model of health care financing and a well-defined basket of care will necessitate the reinterpretation of Article 46 and it is unclear how parliament will regard any amendment to the constitution. There is also insufficient evidence of an economic recovery to be confident that industry and other employers will be able to foot the bill for health service provision. Since some of the key objectives of the proposals are to contain costs through limiting the care available on demand and to bring in new funds through employers' contributions, these issues are particularly serious.

There have also been attempts to explore routes which would allow more 'extra-budgetary' funds to be brought into the system, i.e. ways in which hospitals might generate income, but again Article 46 is seen as blocking most initiatives. Notwithstanding these problems, there have been successful experiments with voluntary insurance and with quasi-private polyclinics in Minsk. These demonstrate that there are sufficient funds in the economy to support a market in health care which allows for staff to be well paid and for facilities and equipment to be renewed. However, the lack of a clear framework to regulate and govern the charging of fees and the disposal of profits is always going to be an enormous impediment to the operation or extension of such programmes.

There are also issues around funding formulas within mainstream hospitals and clinics which will block change unless resolved. At present provider budgets include money for food, light, heat, etc. If hotel charges were to be introduced,

(often seen as uncontentious) then the hospital would stand to lose on its annual income unless changes were first made in funding formula, and this holds true for other possible schemes. The formulae in place also represent a wasted opportunity in terms of achieving change because they make no reference to activity levels or quality, nor do they allow any leverage in terms of shifting the modality of care.

Certainly there is felt to be little scope for chief doctors to manage their own facilities proactively; instead they are involved in a constant attempt to respond to unlimited demands within traditional constraints. There is clearly frustration amongst doctors and nurses at working without sufficient resources to respond to genuine patient need as well as generalized dissatisfaction with their relative powerlessness vis-à-vis the patient. The ability of patients to demand a second opinion or to denounce the physician to higher authorities undermines the status and security of the doctor, interferes with the caregiving relationship and is extremely wasteful of resources.

While it seems inevitable that some limits will be introduced in the care available, there are issues of public health and of the national 'good' that must inform the detailing of these limits. It is vital not to exclude services essential to the wellbeing of the country as a whole and there are clearly issues of access, equity and humanity that must be considered.

There will also be practical considerations that will need to be dealt with if limits to the package of care are to be introduced. In particular, in limiting the services provided by the state, the Republic will create the need to allow patients to purchase additional non-essential services out-of-pocket or through voluntary insurance. This will require changes in the legal and taxation framework governing both state hospitals and those state enterprises offering medical services since the current setup makes it extremely difficult to charge for services The issues of ownership and of taxation and the quasi-private state enterprises also need to be resolved.

While it may be both efficient and desirable to allow the extension of these quasi-private models of health care, they too raise concerns about equity. It will be important to review developments to ensure that no barriers to access are established which threaten public health or conflict with the humanitarian principles of the Republic. It will also be important to check that staff remaining in the fully public sector are not unduly disadvantaged and do not feel excluded from any revitalisation of the health sector. Access to adequate drugs for patients, equipment and training may all be as important as pay to these medical staff, but it is vital that those working in the mainstream, perhaps in the less glamorous of cost-effective areas of medicine, are well managed and adequately rewarded.

It is possible that the introduction of social insurance will provide the stimulus for changing patient attitudes and for introducing an agreed basket of care. It may also provide an opportunity to rethink the mechanisms used to agree funding between third-party payers and hospitals and create incentives for greater efficiency. That said, it might be possible to begin to review such issues regardless of the system used to raise funds for health care, i.e. taxation versus insurance. By focusing on the distribution mechanisms, considerable leverage may be exerted and changes achieved. The use of contracts, the introduction of choice of general practitioner and the creation of incentives to treat people in a primary care setting have all been discussed and could all be introduced in advance of any wholesale reform of funding mechanisms. They may indeed represent the most straightforward approach to the next stage of health sector reform in Belarus.