Anomalies in Soviet Healthcare

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Abstract

This paper focuses on recent developments in Soviet healthcare. Since consistent and reliable information on Soviet health practices and outcome measures is difficult to obtain, we use multiple sources, extensive interviews, and personal experience to analyze the current Soviet healthcare system. Where facts are conflicting, we point to anomalies between what observers read, are told, and what they see. Our focus is on the organization of Soviet healthcare, the place of the physician in Soviet society, the pressing set of current health problems, traditional and emergent strengths in the delivery system, contrasts with Western medicine, and the problems and inconsistencies we observed.

Key words: Soviet healthcare.

Geography and Ethnic Groups

The geography and complexity of the Soviet Union are staggering. The U.S.S.R. is a political union comprised of 15 separate republics. The total population is over 270,000,000 individuals, many speaking their own languages and preserving their traditional cultures. This makes the U.S.S.R. the third largest country in the world behind China and India. About 65% of the population live in cities. Slightly over half of the population is Russian (52%), with the remaining being 16% Ukrainians, 16% Central Asians, and a multitude of other minority ethnic groups. Approximately 60% are reported to be atheist, 17% Russian Orthodox, 15% Muslim, 3% Jewish, and a small number Protestant, Georgian Orthodox, and Roman Catholic. While the official language of the U.S.S.R. is Russian, there are at least 80 spoken languages. The country has 8.65 million square miles of sparsely populated territory, which makes it 2½ times the size of the contiguous U.S. It covers ¼th of the world's land surface encompassing 12 time zones. Because of its far northern position, long cold winters, and land formations, delivering healthcare services to much of Siberia is a monumental task.

To complicate matters, the large rivers beyond the Ural Mountains in Siberia, the Lena, Ob, Yenisey, Bol'shoy Anyuy, Kolyma, and Pechora, run from the South to the North. In the Spring when the thaws occur, the ice melts, running over the tundra and creating immense floods and totally impassable roads. A critical task of the Soviet healthcare system, then, is providing services over huge geographical spaces under severe climatic conditions for a wide spectrum of health problems. Healthcare delivery is much easier
in the Western part of the U.S.S.R. where large populations are located in major urban centers. It is not so easy in Siberia, in the mountainous regions of Georgia, or along the Northern border of the Himalayan mountains. The diverse medical traditions of the Central Asian cultures complicate the task. European-style healthcare, however, appears to have been successfully transplanted to the Asiatic areas and the nomadic portions of Siberia.

The Organization of Soviet Healthcare

In contrast to the U.S., healthcare in the Soviet Union is government owned and administered; central planning sets health policy goals, priorities, and directions. Services are highly organized by geography, size of the target population, workplace, social class, and party membership. Taking all of these factors into account, there are two generic types of medical care systems in the U.S.S.R.: one organized by place of residence; and the other by place of work, including elite military, KGB (Committee for State Security), police, Ministry of Railroads, Academy of Sciences, and the Fourth Main Administration for ranking government officials. Approximately 30% of the population receives care through the workplace systems. Higher education institutions maintain their own facilities, too. Recent Soviet literature recognizes apparent duplication and conflict by citing a need for integrating the dual resident and workplace systems.

In both the residential and work-based systems, Soviet healthcare can best be characterized as a gigantic health maintenance organization (HMO). For most citizens, the experience lies somewhere between that of attempting to get services at a large American urban public hospital and the more palatable experience of entering a suburban HMO setting catering to the upper middle class. However, services are provided free of charge, with minimal copayments for selected services. In either case, waiting in line is a necessity, with little choice over who one's physicians may be. The citizen with a presenting complaint enters the system through a screening clinic or emergency service and moves through a series of filtering mechanisms towards secondary and tertiary care facilities in a structured referral pattern.

The U.S.S.R. has a centrally planned economy, within which planning for the health of the population is coordinated through the Semaschko Institute on Organization of Health Care, based in Moscow. Five-year plans express the "vision of the future" for the U.S.S.R. in industry, agriculture, military, arts and sciences, education, health, and other aspects of economic development. The 220 scientific workers at the Semaschko Institute develop standards for all resources (e.g., personnel, technology, and hospital beds), determine the needs for medical equipment and supplies, and gather annual reports from and lend technical assistance to the various health ministries of the Union Republics. They also advise the Medical Collegium on graduate medical training and study selected area populations and delivery sites. The Institute's main priorities today are computerization, children's health, and approaches to prevention. The national Ministry of Health's administrative and technocratic structure is highly dependent on the political structure of the Central Committee of the Communist Party and the ruling government Politburo, since all high-ranking officials in the Ministry of Health, 50% of heads of health institutions, and 20% of all physicians are reported to be Party members, even though only 6.5% of the total population holds Party membership.

\[\text{Over 96\% of all doctors, nurses, and therapists in the Soviet Union are Union members.}\]

Labor unions have a crucial influence within the U.S.S.R., particularly the Union for Medical Workers for health planning. Over 96% of all doctors, nurses, and therapists in the Soviet Union are Union members. This union, in conjunction with other trade unions represented in the Supreme Soviet of the U.S.S.R., has significant input into articulating 5-year plans. This overall governing body, from which the Politburo is selected, ultimately determines national health policies in conjunction with the Supreme Soviets of each Union Republic. These policies, in turn, are administered through the Ministry of Health of the U.S.S.R. and the corresponding Ministry of Health for each Republic and autonomous region. The variety of locales and diverse populations of the U.S.S.R. require special adjustments in planning for their idiosyncratic health conditions. While it is difficult to ascertain exactly how this central health-planning process works, the healthcare system is so
complex that subordinate officials must wield significant influence in the daily operations of healthcare services.

In contrast to the U.S., the organization of the Soviet delivery system in theory is highly structured to facilitate the implementation of planning and allow for coordination of care (Figure 1). The respective Republic Ministries of Health are divided into "oblasts" (provinces), consisting of 1 to 5 million people. For example, the Uzbekhastan Republic in Central Asia is divided into 12 oblasts of about 1.5 million population each, one of which is for the city of Tashkent and its environs. The Tashkent oblast has 140 hospitals with 22,000 beds or a 157-bed average, with special institutions for tuberculosis, mental health, and maternal and child health. Oblasts are subdivided into districts called "rayons" consisting of about 40,000 to 150,000 people in most places. Tashkent, however, has 11 rayons of about 190,000 persons each. In some instances, the oblast or rayon may cover a total city or metropolitan area. Rayons have "sanepids" or public health units integrated with the clinical programs, which conduct health inventories every 5 years to evaluate and provide basic public health services similar to those in the U.S. Rayons are further partitioned into "uchastocks," or microdistricts, several of which feed into polyclinics, often with attached hospital beds, where most medical care is delivered. These are ambulatory clinics, often with attached hospital beds, situated in a community or workplace serving up to 200,000 people. The polyclinics offer a full range of services including outpatient diagnostic, industrial, neurological, surgical, ophthalmological, obstetrical and maternity, and rehabilitation clinics. In the community, polyclinics are often situated in the midst of residential complexes. At the workplace, there are smaller "medsanchast" or medical clinics, on site, to serve employees. These smaller clinics feed into the larger polyclinics located at each large factory or office. Polyclinics, in turn, relate to 500-600-bed oblast general hospitals. In addition, large cities have teaching and research tertiary care facilities, some specializing in heart disease, tuberculosis, and cancer, among other specialties. In dense urban areas such as Kiev, Leningrad, or Moscow, one large hospital might serve two or more rayons. In smaller villages or rural areas, one hospital and referring polyclinics will serve a smaller, more dispersed, population base.

In a few areas, we noted that, despite this hierarchical structure, program coordination between polyclinics and hospitals seemed to be weak. Record systems are not integrated between polyclinics at industrial and neighborhood sites, nor with the special women's polyclinics. Training in administration for oblast and rayon medical directors is given at postgraduate medical institutes for 4- to 6-month courses, and predictably, this specialization lags far behind U.S. health administration preparation.

**Emergency Medicine and the Ambulance System**

Emergency services in the Soviet Union have been highly touted around the world, and our observations suggest they are exemplary. Obtained readily across the U.S.S.R. by dialing "03," the ambulance service provides emergency transport to the nearest hospital. In addition, the system offers nonemergency at-home primary care services. The hospital/polyclinic complex operates the nonemergency "Neotlozhnaya Pomoisch" which provides home services to patients on an "as needed" basis, mostly for those with chronic illnesses. The emergency part of the ambulance system, the "Skoraya Pomoisch," is comprised of specially equipped ambulances staffed by a physician.
[trained in an emergency medical services (EMS) specialty after medical school], a feldsher (midlevel practitioners with longer training than our U.S. physician assistants), and a specially trained driver. These vehicles, radioconnected through a dispatch center, are even specialized by cardiovascular, pediatric, psychiatric, neurological, and gynecological services. The ambulance system purports to be able to reach any citizen within 15 minutes in every major metropolitan area in the Soviet Union and within 25 minutes in most rural areas. In 1983, in Sochi, a Black Sea resort attracting 4 million vacationers per year, over 215,000 calls were received and answered within an average of 4 minutes, with 55% "true emergencies" transported. While in the Soviet Union, one author had the opportunity to observe such a response when a delegate sprained an ankle. The ambulance was there within 10 minutes, fully equipped and well staffed. The other author and nearly one-quarter of the delegation were promptly and courteously sped off by ambulance to an infectious disease hospital in Alma Ata when they experienced severe gastrointestinal disorders. While as visitors we probably received preferential treatment, both the response and the service were impressive.

Receipt of Services

Contrary to ideology, not all citizens in the Soviet Union, nor all healthcare delivery institutions, are equal. Class levels of medical care are represented in distinct systems, and variations in quality exist between hospitals and polyclinics for high level government officials, research institutes and teaching hospitals, other urban facilities, and outlying rural hospitals. Members of the Communist Party, residents of large urban areas, particularly Moscow, and those who hold the more privileged positions in the society have access to a series of polyclinics and hospitals that are superior to others in the country. For example, the Kremlin has its own polyclinic that caters exclusively to the Politburo and top government officials. The care here is probably equal to some of the best in the world. Those at the top of the society also reach outside the Soviet medical system for highly technical procedures and “state-of-the-art” medicines which are either nonexistent or in short supply.

As in the U.S., the military has its own separate system of healthcare. While it is almost impossible to gather information on it, physicians familiar with military healthcare gave the impression that quality of care was better than that received elsewhere. Also connoting privileged status, certain industrial unions have constructed modern-equipped, high quality institutions for their memberships.

While medical care in the Soviet Union for the bulk of the population is organized according to HMO principles, those with clout can circumvent normal channels by using their power to access more exclusive polyclinics. By applying “Yna Lye Voh,” or operating “on the left,” individuals can use money and connections to gain entrance to the better facilities. Patients can pay the best doctors to see them; some private practice is openly permitted, and the “black-market” that flourishes in the larger economy encompasses some medical care activity too. Personal contacts are important, and better quality of care can also be obtained through a reciprocal trading or giving favors through the voucher system. Within the Soviet Union, most of the desirable benefits, such as vacations in the Crimea and access to automobiles, major appliances, and Western goods, are achieved through the use of vouchers. A voucher assigns one a place in line and frequently will even pay for goods or services. Therefore, favors can be purchased from medical staff by manipulating the voucher system. In sum, while standards and quality of care in the Soviet Union in some instances are equal to the best in the world, and while every citizen has access to reasonable quality care, there are many quality variations within the overall healthcare system.

Medical Research

In addition to the residential, work-based, and military healthcare systems, there is a separate but related system of research-oriented institutes focused on specific medical problems. Over 700 of these institutes have headquarters in Moscow, and others have been built as showplaces in the various republics. There are, for example, large institutes of immunology, epidemiology, occupational diseases, cardiology, neurology, pediatrics, gynecology, and physical and spa therapy located in Moscow and its environs.

Of these, the Institute of Cardiology, built at a cost of more than 100 million rubles, has achieved world renown. This contemporary complex of buildings sits on a well-landscaped campus and contains the most
modern equipment. The Director of the Institute is Academician Yevgeny I. Chasov who shared the 1985 Nobel Prize for Peace with Professor Bernard Lown of Harvard University.17,18 Academician Chasov's institute is staffed by over 2,700 employees including 572 researchers, 376 candidates of science, 57 doctors of science, and 23 professors and academicians. The objectives of the Cardiology Institute are to: (a) define and address the major cardiovascular problems in the Soviet Union; (b) undertake research on cardiovascular disease; and (c) develop and effect prevention and intervention programs that can be implemented on a national level. It is responsible for developing new drugs, echocardiographs, telemetry from ambulances to hospitals, coronary care units (CCU) in most urban hospitals, coronary sanitariums, and cardiac outpatient clinics, for example.

The Red Banner Institute of Industrial Hygiene and Professional (Occupational) Diseases is another Moscow showplace, directed by N. F. Izmerov.19 Affiliated with the Soviet Academy of Medical Sciences, this institute employs 800 staff, 275 of whom are scientific workers, 44 physicians, and 57 candidates of science. Soviet society places high priority on both occupational health and rehabilitation services for the maintenance of its industrial workforce. Trade unions provide assignments to the Red Banner Institute for a wide variety of investigations, many for establishing maximum allowable concentration of various pollutants (chemical, noise, microwave, particulates) and designing preventive programs at worksites.

These prestige research and training institutes provide the innovation and leadership within the Soviet healthcare system. Nearly every institute in Moscow has corresponding branches in the major republics of the Soviet Union, including Kiev in the Ukraine and Novosibirsk in Siberia. These institutes are analogous to the National Institutes of Health and major research and teaching centers in the United States.

Comparisons to the United States

A significant difference between the Soviet and U.S. healthcare delivery systems is that the former has the organizational potential to be more coordinated. However, it cannot be easily determined to what degree the bureaucratic hierarchy, the geographical dispersion of facilities, and the lack of modern information and communication systems interfere with this goal. In the Soviet Union, both the standard medical care delivery system organized through the Republic Ministry of Health, oblast, rayon, and uchastock levels and the research institutes are structured in a centralized fashion. Before major activities can be initiated, permission must be requested and granted from higher authorities. A few of the research institutes, apparently due to their renown and prestige, have a relative autonomy with regard to the usual government constraints.

The Soviet government spends much less on medical care than does the United States. In 1960, the Soviet Union spent 5.6% of the gross national product (GNP) on health. By 1984, this figure declined to 4.7%, indicating other social priorities.20,21 This compares to a 1984 U.S. expenditure of 10.4% of GNP, which translates to much lower per capita spending, particularly given their larger population. Soviet economies are apparently reached through lower professional salaries, fewer diagnostic tests, and less heroic medical interventions (such as the number of coronary bypass surgeries and other high-cost, end-stage care). For instance, in 1980, there were only five computerized axial tomographic (CAT) scanners in the entire Soviet Union. At the present time, there are only a few nuclear magnetic resonance machines in the entire country. One is located in the Institute of Cardiology where it is infrequently used. But beyond the unavailability of sophisticated technology for most citizens, the Soviet system provides more doctor visits per capita, greater rates of hospitalization, and over twice the length of stay than the U.S.

The Place of the Physician in Soviet Society

The Soviet Union has one doctor for about every 250 people, the highest ratio of physicians to patients in the world. About 70% are women. The medical training of the average Soviet physician is less than her U.S. counterpart's. Every medical worker begins specialized training after 10 years of general education, roughly equivalent to grade school and part of
our high school. The number of years of subsequent medical training for various health workers is outlined in Table 1.

<table>
<thead>
<tr>
<th>Type of Health Worker</th>
<th>Specialty Training Beyond Basic Education</th>
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<tbody>
<tr>
<td>Physician</td>
<td>7 years</td>
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<tr>
<td>Dental doctor</td>
<td>2 years; 10 months</td>
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<tr>
<td>General feldsher</td>
<td>2 years; 6 months</td>
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<tr>
<td>Midwife</td>
<td>2 years; 6 months</td>
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<tr>
<td>Sanitarian feldsher</td>
<td>2 years; 6 months</td>
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<tr>
<td>Feldsher laborant</td>
<td>1 year; 10 months</td>
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<tr>
<td>Nurse</td>
<td>1 year; 10 months</td>
</tr>
<tr>
<td>Dental technician</td>
<td>1 year; 10 months</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>1 year; 10 months</td>
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Candidates gain entry to the 7-year medical schools by a combination of academic achievement, rigorous testing, and connections. The entrance examination to medical school covers chemistry, biology, physics, philosophy, and Russian language. Medical education is free, and in addition, about 70% of the students receive living stipends. The first 2 years of medical school cover physical and biological sciences, social sciences, philosophy, scientific communism, and foreign language. Years 3 and 4 include basic health sciences, while Years 5 and 6 involve clinical rotations. The last year is an internship in a specialty. General comparisons of Soviet and U.S. physicians in terms of training, salary, and specialization are thus made somewhat difficult.

Many Soviet physicians have developed excellent diagnostic and clinical skills. Most do not have available the latest in hi-tech equipment, nor is the less sophisticated diagnostic testing as prevalent as here. Western physicians, in observing this, note that the better Soviet doctors have highly developed diagnostic skills and clinical sensitivities independent of high technology...

Stratification within the medical profession in the Soviet Union is quite apparent. There appears a formal rigidity in the physician hierarchy and in the doctor-patient relationship. The most prestigious physicians do not work in universities or general hospitals but rather in the research institute system that combines research, graduate specialty training, and advanced patient care. The top Soviet physicians are called academicians; they are the highly regarded scientists who, like their counterparts in industry, hold much greater status than the practicing physician. Next, come the senior specialty physicians, heads of hospitals, and directors of polyclinics, followed in rank by general practitioners and house staff, and finally by feldshers, nurses, and technicians.

Salaries in the Soviet Union are not as accurate indicators of position as they are in the U.S. because doctors there have access to extensive perks and certain vouchers. Individual salaries are in large part influenced by the local Union of Medical Workers. Physicians are expected to work 5½ days a week with considerable vacation time during the year. Individuals can earn a 20% bonus for working in rural areas and an additional 40% for practicing in Siberia. Experienced feldshers, nurses, and therapists can earn up to about the median physician salary but generally have less social position and perks. The relative salaries for a few occupations are listed in Table 2.

Physicians have power not merely by salary but by...
position and ideology. Physician salaries are based on: (a) level of qualification; (b) years of work; (c) position; (d) duties; and (e) specialization. Salaries are supplemented by fringe benefits including preferred apartments, cars, limousines, vacation benefits, access for children to the better schools, vouchers to shop in special stores, and tickets to sporting and cultural events. In many senses, salaries provide significant disposable income because transportation, utilities, and housing consume little of their monthly income. For instance, apartments cost only 6 to 10 rubles a month, which comprise about 2.9% of income. Medical care is free, and taxes are graduated up to a maximum tax of 12% of income. Transportation on the Metro or a bus is but 5 kopeks or 5 U.S. cents. Gas and utilities are quite inexpensive. Dachas, or summer homes, sometimes come with the job. Food is expensive, but shopping at preferred stores on vouchers reduces this expense.22

Physicians exercise a strong social control over healthcare in the U.S.S.R. Their sheer numerical dominance tends to reinforce this power structure. Every clinic, therapy institute, and health facility is run by doctors. In fact, there are very few nonphysician administrators in any healthcare institution. Physicians also are protectors of the State and medical ideologies. For instance, there is a strong contingent of Soviet physicians against nuclear war that is closely connected to Communist Party policy. Even in the most recent physician oath, there is a line indicating that physicians stand against nuclear arms and nuclear war. On several occasions, our delegations heard impassioned pleas from physicians for solidarity of health professionals on this issue.

Current Health Problems

In barely 20 years since World War II, the U.S.S.R. matched 60 years of U.S. and European health progress; however, dramatic and unusual reversals have emerged since the mid-1960s. Feshbach estimates that the crude death rate per 1000 rose 50% from 6.9 in 1964 to 10.3 in 1980.20,21 There had been a remarkable achievement in infant mortality reduction from 1950 to 1971, but the rate has apparently increased to embarrassing levels. The Soviet government has not reported health status data to the World Health Organization since the early 1970s.23 There is an acknowledged coronary disease epidemic; cancer-related deaths have significantly increased; and the category of accidents, poisonings, and injuries makes up the third major cause of death.29 Significant discussion of the nature and cause of these new mortality and morbidity patterns is beclouded by the absence of current Soviet government-issued data.

Alcoholism . . . remains a major problem . . . Abortion is a common form of birth control . . .

Alcoholism continues to be a major problem as is lung cancer associated with smoking.24 Abortion is a common form of birth control, so that there are instances of women having 10 to 12 abortions during their child-bearing years. The Soviets have identified and begun research on the “polar syndrome” which is a condition experienced by those who live and work in Siberia through the severe, long winters. This condition is characterized by low vitamins E and C consumption, cabin fever, and depression. Treatment usually involves periodic rotation to a warmer climate or a large city.25

In addition to national efforts aimed at preventing cardiovascular disease and tuberculosis, there are new public health initiatives designed to control problem drinking behavior. Soviet Premier Gorbachev’s government has limited the number of hours that bars can be open and the amount of vodka that is sold. A major antismoking campaign was begun in 1984 but has not progressed as far as the one in the U.S. There is also an effort to ban the use of street drugs and severely punish abusers. No cases of acquired immune deficiency syndrome (AIDS) in the Soviet Union are admitted, but physicians told us that beginning research is being undertaken. Officials couch their discussion of sexually transmitted diseases in a moral context and argue that they do not have the same degree of problems as the West.

Contrasts with Western Medicine

Visitors from almost all foreign healthcare systems observe a different content to medical practice than in the U.S. According to Feshbach, about 30% of the Soviet medicines dispensed are herbal in nature.14 Designated state farms grow the herbs employed in
these treatments. Since 1912, acupuncture has been used sparingly. In 1954 a group of Soviet scientists was trained in the People's Republic of China. Since that time, five Soviet schools have trained about 1000 acupuncturists. This modality is used to treat pain, pulmonary, and digestive disorders but not for anesthesia.25

Another interesting contrast is the major emphasis given to mud baths, balneology, climatology, and exercise. Muds from different parts of the Soviet Union are used with amino oxides to treat low back pain, lumbago, arthritis, and joint diseases. Electrotherapy is also widely used. A variety of electrical and magnetic fields are run across the body affecting the adrenal gland. Several such therapies are used to alter the autoimmune complex in rheumatoid arthritis, neurological diseases, and collagenous diseases. They are also used on the vertebrae for ischemic and heart diseases. Soviet physicians maintain that such modalities have been successful in treating 71% of the patients with ulcers of the duodenum and that they are often more effective than drugs. There is a significant reliance on Western-style physiotherapy, which is often combined with these nontraditional interventions.

Dating back to the time of Hippocrates, climatology is still therapeutically employed and enjoyed in the U.S.S.R. for a variety of different disease conditions. Climatology considers the influence of the climate, solar, hydro, and air therapies as environmental treatment. There are over 14,000 resort spas in the Soviet Union with a capacity of 60 million people annually. Many resorts exist in the Crimea on the Black Sea, organized by trade unions or for specific disease types. When the sun is not shining, ultraviolet rays and electrotherapy are used indoors. The major focus of climatology and associated health spas is upon prevention and rehabilitation aimed at returning the individual back to productive work. Many American scientists remain skeptical of the concept of climatology and the purported efficacy of spa treatments for serious chronic diseases. Cynics assert that the therapeutic benefits derive more from a vacation by the sea than the medical treatment. The spas exist both to treat true medical problems and as a benefit for privileged workers. The location, time of the year, and the luxury of the spa are an integral part of Soviet class stratification. However, for years Europeans have a tradition of going to the mountains or the ocean for cure in the sunshine and clear air. Indeed, this is the background of Thomas Mann's "Magic Mountain."

Numerous studies regarding the efficacy of specialized spas and climate therapy have been conducted in the Soviet Union, but they do not meet the standards of Western science. We had long discussions with Soviet scientists about methods for the study of various treatment modalities. As far as could be determined, they generally use case studies with undisguised interventions to examine the efficacy of treatment and appear not to rely greatly on double-blind studies or control groups. Thus, their arguments seem to be based on carefully observed clinical experience or the results of relatively uncontrolled field studies. For these reasons, it is difficult to assess the reported efficacy of their many nontraditional treatments. However, rather than dismiss these interventions out of hand, carefully designed studies may ascertain why patients do obtain measurable benefits for specific chronic conditions.

Conclusion

The healthcare system in the Soviet Union presents many similarities and some marked contrasts with that of the U.S. In the U.S.S.R., medical care is free and available to all citizens, operated by various levels of government, and centrally planned through highly structured 5-year plans. Soviet healthcare has the highest ratio of physicians to population served of any country in the world, and its operating costs are relatively low, though the quality of care can be quite variable. New major public health interventions are likely to have significant effects on the problems of alcoholism and smoking-related diseases. Some nontraditional therapies bear more rigorous scientific investigation. The willingness of the Soviets to examine their health conditions and efforts may become increasingly apparent as a result of the Chernobyl incident.

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Abstract of Healthcare Management Literature


The original rationale for drug product selection laws allowing for the replacement of brand-name pharmaceuticals with generic equivalents was the prospect of reduced prescription costs. The legislation was underpinned by two assumptions: (a) generic drugs are less costly for pharmacies to purchase than their branded equivalents; and (b) a sizable percentage of the savings would be passed on to the consumer. Price competition between branded and generic drugs, stimulated by substitution laws, was expected to be another source of reduced prescription costs. This study examines two issues. First, are generics less expensive, on average, to consumers than their branded equivalents? Second, are generics always less expensive to consumers than branded versions? The important distinction here is which rule-of-thumb is more appropriate: “buy generic” or “buy the cheapest” (in which case whether a product is branded or generic is irrelevant).

The study used two broad designs. One compared prices of 21 matched brand and generic drugs within each pharmacy. A second approach compared prices of the same drug, branded or generic, across pharmacies while controlling for other market and patient characteristics. Pharmacy cost and patient price for the drug and the method of payment (cash, Medicaid, or other third-party insurance) were studied. Pharmacy-specific variables included the location of each store and type of ownership—chain or independent. Analyses of pharmacy cost, consumer price, and gross profit were conducted at five levels—national, regional, state, city, and individual pharmacy—on a per-pill basis. The findings can be summarized as follows. The cost per pill paid by the pharmacy was always less for the generic than the branded drug. However, the size of differences between generic and brand drugs in cost per pill to the pharmacy was not matched by prices paid by consumers. Generally, there was a larger difference in pharmacy cost than consumer price, even though consumers paid less for generics than branded drugs for nearly all of the matched drug pairs evaluated. These findings held at all levels of aggregation, i.e., from the national level to that of individual pharmacies. Two important qualifications apply nonetheless. First, there were wide price variations within and among pharmacies, so determining the lowest price for a drug is not straightforward from the consumer’s point of view. Second, the general result applies only on average. Although the average consumer paid less for generic versus branded drugs, many individual consumers paid more. The probability that a randomly selected generic prescription would have a lower price than that of a randomly selected brand name equivalent varied widely across the 21 drug pairs, from 0.33 to 0.99.

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