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ON THE USES OF DISINFORMATION TO LEGITIMIZE THE REVIVAL OF THE COLD WAR: HEALTH IN THE U.S.S.R.

Albert Szymanski

During the 1970s the Soviet Union experienced rising infant mortality rates and a corresponding levelling off of earlier increases in life expectancy. Several Western critics have misrepresented or exaggerated these statistics, suggesting that these trends indicate a general breakdown in the Soviet health care system as well as the failure of the Soviet form of socialism. This paper examines life expectancy and infant mortality data by Soviet republic, showing that rates are not uniform throughout the U.S.S.R. and in many cases compare favorably with those in Western European countries and the United States. It is suggested that the infant mortality problem in the U.S.S.R. is a temporary negative consequence of rapid progress in the areas of industrialization, employment of women, and socialization of child care. It is concluded that improvements in public health education, the quality of child care facilities, and the manufacture and distribution of infant formula will contribute to the rapid resolution of this problem.

In the Fall of 1980, the U.S. Bureau of the Census issued a study of infant mortality in the U.S.S.R. by two well-credentialed Western Soviet experts, Christopher Davis and Murray Feshback (1). The study has been distributed free of charge by the Department of Commerce. Reviews of this government publication, especially the feature review by Nick Eberstadt (2) in the *New York Review of Books*, used the information in this pamphlet to launch a sensationalist "exposé" of the "crisis" of Soviet society. Both the original publication and the *New York Review of Books* essay discredit the Soviet Union's health system—the first in a careful, albeit distorted, manner; the second, taking extreme liberties with the data of the first, in a polemical manner more appropriate for the *National Review* than for a progressive publication.

This article will look at the findings of the Davis-Feshbach pamphlet to discern the actual situation in the Soviet Union, in respect both to infant mortality and overall life expectancy. It will be shown that although there has been a real problem with infant mortality in the U.S.S.R., it has been grossly exaggerated and misinterpreted in order to discredit the Soviet form of social organization (and/or the "Russian character"). In fact, the problem has actually been (a) rather minor and relatively easily correctable within the parameters of the Soviet form of social organization; and (b) mostly a result of rapid urbanization, the employment of women and the expansion of day care facilities. That is, it is a negative (and temporary) result of the

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rapid progress of the U.S.S.R. in raising living standards and freeing women from their traditional family roles.

Nick Eberstadt's critique of the U.S.S.R. in the *New York Review of Books* poses the problem in no uncertain terms:

The spectacle of an industrial nation embarking on a path towards pre-industrial standards of health is deeply disturbing. A mortality crisis of the sort the U.S.S.R. is now suffering is alien to everything we understand about modern life. (2, p. 27)

There is not a single country in all of Europe, in fact, in which lives are so short, or babies's death rates so high—not even impoverished, half civilized Albania. In the realm of health, the Soviet Union's peers are to be found in Latin America and Asia. (2, p. 23)

If such accusations were true, if there is such a "health crisis" in the U.S.S.R., this would indeed cast serious doubts on the viability of the Soviet socialist system. Such is the implicit, although never explicitly stated, message in both the Eberstadt and the Davis-Feshbach publications. Eberstadt even goes so far as to offer an explanation in terms of the "backward" Russian national character, as well as "rampant" demoralization and "social decay" (2, p. 27):

What do these things say about alienation and depression, the desire of people to look after their health and to keep others alive? How can we fit these bits of information together to suggest that some virulent strain of anomie is not running rampant or that the Soviet social order is not in the midst of a deadly decay? . . .

Of all the European peoples, the Russians were the least "Europeanized" before the Revolution. One must wonder whether they do not remain so to this day. Anyone familiar with Russian literature will know that the Russian universe is not easily described. . . .

Dostoevsky once wrote that the "fundamental spiritual need of the Russian people is . . . for suffering, perpetual and insatiable, everywhere and in everything." It might be unwise to dismiss these words. For hundreds of years Western visitors have remarked that in the Russian view of the world, suffering is not something to fear or even to face indifferently, but rather more like a collective reserve of strength, to be added to and drawn on. Perhaps this attitude can help to explain the current health crisis in the USSR. . . .

Davis and Feshbach, avoiding such speculations about virulent anomie and masochistic (Asian) national character, are more careful in their etiology.

Let us examine the extent to which there is in fact a "health crisis" in the U.S.S.R. manifested in radically increased infant mortality rates and declining life expectancy.

LIFE EXPECTANCY

According to the definitive World Bank publication, *The World Atlas of the Child* (3),¹ which brings together the most complete statistics on infant mortality and life expectancy available, life expectancy in the U.S.S.R. in 1975 was 70.4 years (up from 68.4 years in 1960 and 70.0 years in 1970). Life expectancy in the U.S. in 1975 was just 8 months longer than in the Soviet Union in the same year, hardly enough to justify Eberstadt's claims. In fact, Soviet life expectancy in 1975 was identical to that of the U.S. in 1967. And contrary to Eberstadt, life expectancy in the U.S.S.R. is

¹Unless otherwise noted, all statistics cited in this article are taken either from this source or from reference 1, Table 2.

by no means the lowest in Europe. In 1975 Soviet life expectancy was higher than that of Yugoslavia, Romania, Poland, Hungary, Czechoslovakia, and "half-civilized" Albania (where the statistic was 68.9 years). It was higher than that of Portugal (68.7 years) and Finland (70.1 years). This latter comparison is especially relevant, because before 1917 Finland was a part of the Russian Empire (more industrialized and with a higher living standard than the average) and continues to have the closest relation to the U.S.S.R. of any European nonsocialist country. Eberstadt's claim that life expectancy in the Soviet Union is comparable to that in the less developed Latin American countries is also disputed by the facts. The U.S.S.R. was considerably ahead of the major Latin American countries in 1975 life expectancy: Mexico (64.7 years), Chile (62.6), Brazil (61.4), and Argentina (68.2). It should be noted that the Soviet overall life expectancy is only slightly lower than that of the major advanced capitalist countries such as the United Kingdom (72.4 years), Japan (72.9), and West Germany (71.3).

Soviet life expectancy statistics represent the average for the entire U.S.S.R., including both the Asian republics (which before 1920 had life expectancies comparable to those in Afghanistan and Nepal in 1975) and the Baltic countries, where life expectancies are at the Western European level. More appropriate comparisons would be between the Western European Soviet republics and Western Europe (which are on a par), or between the Asiatic republics and the ethnically similar areas across the Soviet frontier (Turkey, Afghanistan, Iran), where life expectancy is substantially lower. In 1975 life expectancy was 40.3 years in Afghanistan, 51.0 years in Iran, and 56.9 years in Turkey.

It also should be noted that the life expectancy for nonwhites in the U.S. in 1975 was 67.9 years. If the overall rate in the U.S.S.R. of 8 months below the all U.S. average indicates, in Eberstadt's words, a "mortality crisis alien to everything we understand about modern life," what does the 6.4 years differential between white and black life expectancy in the U.S. in 1975 indicate?

The Soviet Union radically increased the life expectancy of its population in the generation after the Revolution. According to Eberstadt (2, p. 23), "In 1897, Imperial Russia offered its people a life expectancy of perhaps 30 years." He continues (2, p. 28), "Despite the continuing purges, the politically inflicted famines, and World War II . . . Stalin managed to raise life expectancy in the Soviet Union from about 44 when he assumed total power to about 62 when he died." The Soviet system thus has been able to take a population living in large part at Asian standards and bring both its European and Central Asian regions up to roughly Western European standards of health and nutrition. By 1960 reported life expectancy in the U.S.S.R. was higher than that in the U.S. (68.4 years vs. 68.0 years). In 1900 U.S. life expectancy had been 17 years longer than that in Russia.

The success of the Soviet system in rapidly increasing life expectancy before the 1960s, and slowly increasing it since then (at least through 1975), should not obscure the problem as to why increases in life expectancy in the U.S.S.R. in the post-1950s period have been slower than those in most Western European countries during this same period. That it is not something inherent in the Soviet form of socialism which caused the slower increase in Soviet life expectancy between 1960 and 1975 (2.0 years, as compared to 3.1 years for the U.S.) is demonstrated when the two Germanys

are compared. In 1960 East Germany (traditionally the poorer rural region) had a life expectancy of 68.3 years (1.3 years less than West Germany), but by 1975 it had risen to 72.6 years (an improvement of 4.3 years), compared to the West Germany life expectancy of 71.3 years (now a 1.3 year advantage for the East Germans). The East Germany life expectancy is in fact higher than that of Austria, Belgium, Italy, Switzerland, the United Kingdom, Canada, and Australia.

If the U.S. advantage over the U.S.S.R. is sufficient to indicate a “deeply disturbing health crisis” and to imply virulent anomie and rampant social decay, what then can be inferred about West German, Canadian, Australian, or Swiss society, whose differential in life expectancy compared to East Germany is of the same order? Although such comparisons would seem to show conclusively that there is nothing inherent in the Soviet form of economic and social organization that slows the rate of growth in health indices, they of course address neither the issue of whether something unique about the U.S.S.R. is slowing down growth in life expectancy nor the fact that the U.S.S.R. (and some of the other Eastern European countries) is not improving its life expectancy (and lowering infant mortality rates) as rapidly as East Germany.

INFANT MORTALITY

The core of the Davis-Feshbach argument is that the infant mortality rate in the U.S.S.R. apparently increased in each year between 1970–1971 and 1975–1976. Official figures stood at 22.9 per 1000 in the former period and Davis and Feshbach estimate it at 31.1 in the latter (1, p. 3). A quite startling rise.

In fact, most of the stagnation in overall life expectancy experienced by the Soviets in the 1970s is attributable to the increased infant mortality rate. While the (estimated) infant mortality rate rose by 36 percent in the 1970–1971 to 1975–1976 period, the death rate for children aged 1 to 4 years *declined* by 5 percent. There was no change at all in the death rates of those over 69 years, the age group that had by far the highest death rate (75 per 1000 in both periods). The 60–69 year age group, which also accounts for a large proportion of all deaths, did experience a slight increase (5 percent) in its death rate in this period. The age group 5–40 years experienced no change in its death rate from 1970–1971 to 1975–1976.

The only group besides infants to experience a significant increase in death rates during this period were those in the 40–59 year category. This group’s death rate increased from about 7.8 per 1000 in the 1970–1971 period to about 8.7 per 1000 in the 1975–1976 period (1, Table 1). It has been suggested that this increase could be a result of higher alcohol consumption, higher accident rates (e.g. automobile)—both of which are related to the significant increase in disposable income that occurred in the post-1950s period—or World War II-associated trauma. This group was 5 to 25 years old at the time of the German invasion; they are now moving into age brackets where susceptibilities to the primary causes of fatalities increase. (It should be noted that sclerosis of the liver (caused by alcoholism) is the sixth most common cause of death among this age group in the U.S.)

Reported infant mortality rates can vary significantly from year to year, including short-term countertrends, because of epidemics of diseases (especially respiratory

diseases such as pneumonia) for which insufficient immunities have been developed. Therefore, it is wise to use moving averages or averages of blocks of years to detect real trends as opposed to exceptional occurrences. For example, between 1968 and 1972 West Germany experienced a period of rising infant mortality, with the rate rising in each of three successive years (4, Table 10). India experienced a rise in infant mortality from 112 per 1000 live births in 1970 to 120 per 1000 in 1975 (3, Table 3).

When first-year moving averages are examined, the increase for U.S.S.R. infant mortality was from 24.9 per 1000 in 1971 to 28.7 per 1000 in 1975, a 3.8 increase rather than the 6.5 increase indicated by the year-to-year data. When blocks of five years are examined, it is seen that the increase in infant mortality is almost negligible. Soviet infant mortality was 30.3 per 1000 in 1961-1965, 25.8 per 1000 in 1966-1970, and 26.3 per 1000 in 1971-1975 (1, Table 2). Nevertheless, it is clear that the trend, while less startling than the data reported by Davis and Feshbach suggest, appears to be real.

The trends in infant mortality statistics are not uniform throughout the Soviet Union. Over the course of the 1970s, there has in fact been little change in infant mortality rates in the Western European areas of the U.S.S.R. Significantly rising infant mortality rates are largely confined to Central Asia, Moldavia, and Georgia. The five-year moving average for infant mortality for the *Russian* republic was 23.2 per 1000 in 1970 and 23.0 per 1000 in 1975. The five-year block average was 30.4 per 1000 for 1961-1965, 24.6 per 1000 for 1966-1970, and 22.4 per 1000 for 1971-1975, a consistent decline in infant mortality for the major Slavic republic where approximately half of all Soviet citizens live. The reported rate of infant mortality in Central Asia (including Kazakhstan but excluding Azerbaidzhan) was 33 per 1000 in 1960; the estimated rate for this area (computed on the assumption that the average for all the other republics was the same as the Russian rate) was 34 per 1000 for 1970 and 46 per 1000 for 1975. It would appear that there *is* in fact a serious problem, not in the Soviet system as a whole, but largely in Central Asia. The three-year moving average for 1970 was 17.4 for Estonia, 17.3 for Latvia, 18.3 for Lithuania, 17.3 for the Ukraine, and 18.0 for Byelorussia. In 1973 these statistics were, respectively, 16.4, 17.0, 18.3, 17.4, and 16.7—in three cases a decrease and in two a slight increase (see Table 1).

According to Eberstadt (2, p. 23), infant mortality in European Russia around 1900 was about 250 per 1000, while in Central Asia it was about 333. By 1960, the Soviets had reduced their reported infant mortality rate to 35 per 1000. Davis and Feshbach argue that the Soviet definition of infant mortality is narrower than that generally applied in the West and consequently excludes approximately 14 percent of the deaths categorized as such in the West. If the Davis-Feshbach factor is applied, then the reported Soviet infant mortality rate in 1960 was, by the Western definition, 40 per 1000. This adjusted infant mortality rate was of the same general size as that of Austria (38 per 1000), West Germany (34 per 1000), Greece (40 per 1000), and Italy (44 per 1000) at the same time, a respectable achievement for a 40-year period.

The officially reported average for the five Central Asian republics for 1960 was 33 per 1000, compared to 37 for the Russian republic, 31 for Estonia, 38 for Lithuania, 50 for Armenia, 37 for Georgia, and 43 for Azerbaidzhan. The reported Central Asian figures for 1960 are highly suspicious. It appears most unlikely that in

Table 1

Soviet infant mortality rates (per 1000), republics and major cities, 1960-1974 ^a				
Republic (City)	1960	1967	1970	1974
<i>Slavic Republics</i>				
R.S.F.S.R.	37.0	25.0	23.0	23.0
Ukraine	30.0	18.4	17.3	17.4 ^b
Byelorussia	34.9	21.0	19.0	17.0
<i>Baltic Republics</i>				
Estonia	31.2	19.2	17.8	17.6
Latvia	27.0	17.0	18.0	19.0
Lithuania	38.0	20.5	19.3	19.4
<i>Transcaucasian Republics</i>				
Armenia	50.0	28.0	—	—
(Erevan)			(26.7)	(21.4)
Georgia	36.8	29.0	—	—
(Tbilisi)			(21.3)	(33.9)
Azerbaijan	43.0	38.0	—	—
(Baku)			(24.1)	(20.7)
<i>Central Asian Republics</i>				
Kazakhstan	36.8	26.0	—	—
(Alma Ata)			(26.7)	(29.2)
Kirghizia	30.0	43.0	—	—
(Frunze)			(25.3)	(24.1)
Tadzhikistan	30.0	38.0	—	—
(Dushanbe)			(46.7)	(51.8)
Turkmenistan	—	—	—	—
(Ashkhabad)			(32.4)	(46.4)
Uzbekistan	28.0	31.0	—	—
(Tashkent)			(40.0)	(45.5)
Moldavia	—	—	—	—
(Kishinev)			(16.8)	(24.4)
All U.S.S.R.	35.3	26.0	24.7	27.9

^aSource, reference 1, Tables 2 and 4.

^b1973.

the most rural and traditional parts of the U.S.S.R., where there was considerably more reluctance to take a sick child to the available modern health care facilities, the real incidence of infant mortality would be as low as in any other area in the country. According to Davis and Feshbach (1), in the Central Asian republics “. . . in which birth rates are high and a high proportion of the births occur in rural areas, many infant deaths went unreported in the past.” Central Asia is the most rapidly urbanizing

and generally modernizing region of the U.S.S.R. As families move to the cities and modern ways become more customary, giving birth in a hospital is becoming nearly universal, and the official statistics on infant mortality are more closely approaching the real rate. That the early statistics on infant mortality in Central Asia were considerably understated is supported by the fact that the reported infant mortality rate increased in both the 1960s and 70s. For example, the rate went from 30.0 per 1000 in 1960 to 43.0 per 1000 in 1967 (the last year for which statistics are available) in Kirghizia, from 30.0 to 38.0 in Kazakhstan, from 28.0 to 31.0 in Uzbekistan, and from about 32.8 to about 49.1 in Turkmenistan. Meanwhile, the reported infant mortality rate declined significantly in every other republic. The overall Soviet average declined from 35.3 per 1000 in 1960 to 26.0 per 1000 in 1967, in spite of the reported countertrend in Central Asia.

Strong evidence for this thesis is provided by the fact that the Central Asian republic where reported infant mortality increased the most in the 1960-1967 period, Kirghizia, was the one Central Asian republic to experience a reported decline in infant mortality in the 1970-1974 period (as indicated by the rate for its capital city); while the Central Asian republic with the smallest reported increase in infant mortality in the 1960-1967 period, Uzbekistan, reported the greatest increase in the 1970-1974 period (as measured by the rate in Tashkent, its capital city) (see Table 1). It would seem that improvements in the recording of infant deaths have been made at somewhat different times in the various Central Asian republics.

In Azerbaidzhan, the most modernized and urban of the traditionally Islamic republics, the infant mortality rate declined from 43.0 per 1000 in 1960 to 38.0 per 1000 in 1967, and in Baku, its capital, from 24.1 per 1000 in 1970 to 20.7 per 1000 in 1974, giving further support to the thesis that the post-1960 rise in recorded infant mortality rates in Central Asia has been in good part due to more effective reporting, itself a product of improved hospital availability, increasing utilization of health services, and urbanization, as well as the efforts of state officials to insure the registration of births and deaths.

The tendency for the death rate of 1 to 4 year olds to decline through the 1970s, even while infant mortality rates increased significantly, is compatible with the thesis that the decline in the more rural and traditional areas of underreporting of infant deaths which occur at, or soon after, birth is in part responsible for the apparent increase in infant mortality. It is much less likely that the death of a child 1 to 4 years old would go unreported than the death of an infant a few weeks old.

It is possible that the low infant mortality rates reported in 1960 for the Central Asian republics are in part a result not only of the customary failure to report infant deaths, but also of the failure of the authorities to aggressively encourage such reporting. The result has been the generation of statistics that make Central Asia stand out both in relation to adjacent Asian countries and to the rest of the U.S.S.R. However, official complicity in producing artificially low infant mortality rates was not the sole factor accounting for the high reported rates of the 1970s. This is evidenced by the widespread concern the problem has generated internally in Moscow—unlikely if the matter were simply one of official underreporting.

In summary, it would appear that much of the apparent increase in the Soviet infant mortality rate observed in the post-1971 period is the result of better reporting

and actually indicates *improved* rather than deteriorating health care. The estimated Central Asian infant mortality rate of 46 per 1000 in 1975 is high by contemporary Western standards. It is approximately the same size as Italy's rate in 1960 (44 per 1000). Yet it is qualitatively better than the rates of comparable countries across the southern Soviet border. The infant mortality rate was 153 per 1000 in Turkey in 1970, 269 per 1000 in Afghanistan in 1975, and 120 per 1000 in Iran in 1975. The real rates in these countries, all of which share ethnic populations with the U.S.S.R., are probably considerably higher than the reported rates, for the same reason that the earlier Soviet rates differed from the reported rates. Thus the appropriate comparisons for Central Asia reveal that the qualitative improvement in diet and health care made available to these peoples through the Soviet system has enabled them to reduce their infant mortality indices to one-third to one-fourth of those of related peoples across the border. This represents a considerable success for the Soviet system in Soviet Asia.

It should be noted that the rates for the western republics of the U.S.S.R. are comparable with those of most Western European countries. Figures for these republics for 1974 compare favorably (even if the Soviet rates are 14 percent too low) with the 1975 rates per 1000 of 21 for Austria, 20 for West Germany, 21 for Italy, 16 for the United Kingdom and the U.S. (24 for nonwhites), and 17 for Australia. Given the fact that these countries are considerably more wealthy and urbanized than the western part of the Soviet Union, the Soviet attainment of approximately equivalent infant mortality rates in its western republics is a significant achievement. Certainly it represents a major success in the Soviet health care system, rather than what Eberstadt terms a "reversion to preindustrial standards."

A comparison of the two Germanys further reveals that the socialist organization of society is not the issue. In 1960 infant mortality in East Germany was 39 per 1000 compared to 34 per 1000 in West Germany. By 1975 infant mortality in East Germany was 16 per 1000 compared to 20 per 1000 in West Germany.

URBANIZATION AND THE CHANGING ROLE OF WOMEN

Soviet society, especially its most "backward" regions, such as Central Asia and Moldavia, is experiencing an extremely rapid rate of urbanization. In the 1959-1970 period the urban population increased by 36.0 percent, with the percentage of the Soviet people living in urban areas rising from 48 to 56 percent of the total. The rate of growth in the urban population was especially pronounced in the previously most rural regions. For example, the rate of increase was 90.7 percent in Moldavia, 80.3 percent in Tadzhikistan, 68.5 percent in Uzbekistan, and 67.2 percent in Kirghizia. These figures compare with the 19 percent growth in the urban population of the U.S. between 1960 and 1970, with the percentage of the U.S. population living in urban areas growing from 70 to 74 percent of the total. These rates of urbanization are about one-half the comparable Soviet figures. At the same time, the most "backward" areas of the U.S. urbanized at rates about one-third or one-fourth those of the comparable regions of the U.S.S.R. For example, the urban population of Mississippi grew by 20 percent, of Alabama by 12 percent, of Louisiana by 17 percent, and of Georgia and South Carolina by 26 percent (5, Tables 11 and 17).

Virtually all Soviet women now work outside the home. In 1970 the labor force participation rate of all females ages 16 to 54 in the U.S.S.R. was 89.1 percent (1, p. 11). Women in urban areas often live at some distance from their place of employment and frequently are separated from their children, who are usually in child care centers, for much of the day. Women on collective and state farms, although they too work, are both more likely to see their children during the course of the work day and to have relatives (usually grandparents) to look after them.

A Soviet study of infant mortality rates in Latvia in the 1962-1967 period found that the death rate was 15.0 per 1000 for infants of women who were not working, 13.7 for infants of collective farmers, 17.2 for infants of salaried employees, and 19.4 for those of wage workers (cited in 1, p. 12). This suggests that women who are either full-time housewives or collective farmers are better able to look after their children's health than those who work in the modern sector. Thus we would expect, other things being equal, for infant mortality to increase most rapidly where urbanization and the labor force participation of women in the nonfarm economy increased sharply.

Leaving improved recording of actual infant mortality aside, the most serious explanations that have been offered by both Soviet social scientists and Western observers for rising infant mortality rates are: (a) a deterioration in health care, (b) underutilization of health care services, (c) rapid expansion of day care facilities, undermining the traditional extended family, (d) replacement of breast feeding by formula feeding, and (e) a series of exceptionally virulent strains of influenza during the 1970s.

MEDICAL CARE

Eberstadt asserts (2, p. 23), "... health conditions in the U.S.S.R. have worsened steadily since the mid-1960s and the deterioration shows no signs of stopping." He continues (2, p. 24), "... some sort of failure in medical care would seem almost a foregone conclusion." Although Eberstadt claims to base this conclusion on the article by Davis and Feshbach, these scholars in fact make a quite different argument (1, p. 24):

Soviet medicine has made a positive contribution to the safeguarding of infant health and no doubt was an important factor in the reduction of the infant mortality rate up to 1971. During the 1970s, obstetrical, gynecological, and pediatric services have improved and inequalities in their distribution have lessened. The quality of Soviet medicine in general has probably not deteriorated. But the "extensive" development strategy followed in the health sector (more doctors, more hospital beds, etc.) has not improved the quality of medical care for pregnant women and infants sufficiently to cope with the increasing threats to infant health.

Davis and Feshbach go on to argue that: (a) a declining proportion of the Soviet budget has been going to medicine; (b) medicine is underutilized, in part because of inefficiency in the delivery system; (c) insufficient care is given to sterilization; and (d) especially virulent strains of influenza developed in the U.S.S.R. in the 1970s with which Soviet medical strategy was unable to deal adequately. Rather than suggesting, as does Eberstadt, that rising infant mortality is caused by a fundamental crisis in

Soviet society or the barbarian, masochistic Russian character, they conclude (1, p. 24): "Basic changes must be made in Soviet medical development strategies and in the level of investments in health if the Soviet Union is to regain control of its infant mortality."

Eberstadt (2, p. 25) and Davis and Feshbach (1, p. 22) both suggest that the Soviet Union is cutting back on resources allocated to health. Eberstadt argues (2, p. 26) that the increasing militarization of Soviet society has forced the Soviet leaders to take resources away from health care and assign them to military uses, thereby resulting in a deterioration of health care:

The United States and its NATO allies were financing their rising investments in social services at the expense of the military, but for Soviet leaders this course was and remains unthinkable. . . . The masters of the planned economy were left with only one option: they had to reduce the proportion of goods and services for consumers. . . .

Tampering with the diet had become dangerous: peasants, workers, and bureaucrats alike now judged a regime by what it put on their plates. . . . Nor would it be feasible to save money by cutting back on the production of such things as brassieres or refrigerators: even a schoolboy would know that nothing in a public economy is so jealously coveted as private property. But who would notice or complain if the government skimmed a bit on public, and therefore essentially intangible, services like health care? Denying a sick man an operation, after all, is not nearly so difficult as taking away a healthy man's shoes.

Aside from there being no evidence that the quality of Soviet health care has deteriorated and the widespread recognition that its quantity (doctors, hospital beds, etc.) increased through the 1970s, Eberstadt's analysis is contradicted by the fact that in the 1970-1977 period the Soviet Union *increased* the share of its GNP spent on health, as well as its spending per capita. At the same time, it *decreased* the share of its GNP allocated to the military. In 1970 the U.S.S.R. spent 2.4 percent of its GNP on health and 14.0 percent on the military. In 1977 it spent 2.5 percent on health and 13.3 percent on the military. The Soviet population grew by 6.6 percent in this period. Clearly the Soviets are increasing, not decreasing, the resources allocated to health care—absolutely, in relation to military spending, and in per capita terms (6, Table 1). The effectiveness of Soviet health care is underscored by the fact that death rates for children ages 1 to 4 *decreased* over the course of the 1970s.

Discussing concrete deficiencies in Soviet health care, Davis and Feshbach point out that problems with poor hygienic conditions result in higher infant mortality than in the West, including the failure to adopt the new "throw away" technology of plastic syringes, disposable needles, paper bedding, and so forth. They do not, however, claim that the rising rates of infant mortality are a result of "low standards of hygiene and inattention to basic rules for sterilization," because ". . . there is no evidence that the level of public and private hygiene has worsened in recent years" (1, p. 20). It can further be argued that relatively little of the overall differential between the relatively high rates of infant mortality in most of Central Asia and Moldavia and the low rates in western U.S.S.R. can be attributed to the sanitation/sterilization factors, since, presumably, the same techniques are used throughout the country. The considerable difference between the rates of infant mortality in the two regions of the U.S.S.R. must stem from other factors.

THE UTILIZATION OF MEDICAL SERVICES

One of the most common explanations offered by Soviet investigators for the rising infant mortality rates in some regions is the underutilization of available medical services. This is especially a problem in the more "backward," traditionally Islamic areas. Davis and Feshbach note (1, p. 20) that in such areas, "parents underestimate the seriousness of their child's sickness and rely too much on village feldshers. By the time a sick child receives competent medical care, it is often too late to save its life." A Soviet study (cited in 1, p. 20) of a traditionally Islamic area of the Transcaucasus, Daghestan, found:

The tardiness of mothers in coming for medical assistance has a significant influence on the infant mortality rate, as has poor diagnosis by mothers of the state of health of their infants, and the treatment of these sick children at a feldsher/midwife unit. Of the children who died, 17 percent did not receive medical assistance, 22 percent received it before 3 days had passed, but the overwhelming majority received assistance after 7 days. Of 222 infants, 76.3% died at home, while 23.7% died in the hospital. About 20% of the infants received treatment from feldshers before the visit to the doctors.

A Soviet study (cited in 1, p. 20) found that in 61 percent of the cases that resulted in death from pneumonia the parents did not seek medical help until after the second day of illness; in 19 percent of the cases the infants were hospitalized too late. Another Soviet study of infant pneumonia (cited in 1, p. 19) found that 22 percent of parents first tried to treat the disease themselves without consulting a doctor; in 12 percent of the cases the child was sent to a day care center in spite of showing the first symptoms of the disease.

One Soviet social scientist has suggested that the more liberal social security laws enacted in the 1970s, allowing mothers with sick children to stay home from work without loss of pay, may have had the perverse effect of causing parents to delay seeking outside medical help for sick children. Davis and Feshbach conclude (1, p. 20), "On balance it appears that this factor may have contributed to the rise in infant mortality." Whether or not this is so, it is clear that the reluctance of parents to bring sick children to modern medical facilities (as well as the practice of sending children in the first stages of contagious illness to child care facilities) is definitely a cause of the higher infant mortality rates in Central Asia. It should be noted that the Soviets have intensified public education about proper child care over the course of the 1970s. For example, a Russian-language edition of Dr. Benjamin Spock's classic child care manual has been published.

CHANGES IN CHILD CARE PATTERNS

As Soviet society rapidly urbanizes, its family structure, as well as the characteristic mode of taking care of children, is being rapidly and radically transformed. In rural areas the traditional practice was for grandparents, parents, and children to live together as an extended family. In the early years of industrialization, when insufficient housing prevented nuclear families from getting their own urban apartments, this rural pattern often continued in the rapidly growing cities. The extended family

enabled grandmothers to look after grandchildren while the parents worked. In recent years this pattern has been broken down by a number of factors. Probably the most important of these are: (a) the more ready availability to young people of individual residential units (1, p. 17); (b) the rapid expansion of the Soviet economy and the extreme shortage of labor, resulting in considerable geographic mobility among young people; (c) post-1966 pension laws changes encouraging retirement-age people to work full-time (they are allowed to keep both their full pension benefits and their wages), reducing grandparents' availability to look after grandchildren; and (d) growing rates of divorce and of unmarried mothers with young children, increasing the number of single-parent families in which the mother works full-time. In the words of Davis and Feshbach (1, p. 18): "The decline of the extended family reduces the amount of informal child care services available. These trends probably affect the feeding and nursing of infants and the utilization rates of creches and pediatric facilities, and thereby indirectly influence infant mortality.

These developments have required an especially rapid expansion of day care facilities to care for children after the expiration of the two-month paid leave period allowed to new mothers. Between 1970 and 1977 the number of preschool children attending day care centers increased by 37 percent. Some 4.4 million preschool children were in day care centers in 1960, 9.3 million in 1970, and 12.7 million in 1977 (29 percent of them were under 3 years of age). In 1970, 50 percent of urban, compared to 30 percent of rural, children were in day care centers (1, p. 20). The rapid economic growth of the U.S.S.R. often has meant that housing and factories go up faster than creches. As a result, many institutions have admitted more children than they were designed for, and the ratio of supervisors to children is lower than it should be. Further, the general labor shortage, combined with the relatively low pay of day care workers, has made it difficult to attract qualified people. Moreover, the very practice of socialized child care (which increases exposure to contagious diseases) inevitably increases the incidence of illness among children. A Soviet study (cited in 1, p. 20) found the frequency of illness among children in day care centers to be almost twice as high as that for children not in such centers; the difference was due mainly to infectious diseases, especially influenza.

CHANGES IN CHILD FEEDING PATTERNS

Another result of the changes in Soviet family life has been the rapid decline of breast feeding and its replacement by formula feeding. Soviet researchers have found that infants on formula tend to have significantly higher rates of infant mortality than breast-fed children. A study in Omsk in 1975 (cited in 1, p. 18) found that the mode of feeding was one of the two most important factors in accounting for infant mortality. A study in Minsk (cited in 1, p. 18) found that mothers who did not have correct knowledge of hygiene tended not to feed their children properly and that "this is one of the reasons their children die more frequently." Another Soviet study (cited in 1, p. 18) found that "the death rate from all causes among formula-fed infants is 3 to 5 times that of breast-fed infants and the death rate from gastrointestinal illnesses is 10 to 12 times higher. The earlier a child is weaned the greater the negative effect on health. Breast feeding not only protects the child from illness and

death while being nursed, but also protects against vulnerability after breast feeding ends. . . ." A study of a traditionally Islamic area (cited in 1, p. 18) concluded: "The early weaning of the infant has a major influence on the level of infant mortality. It is well known that infants on formula or mixed feeding are especially susceptible to the risk of gastrointestinal illness, and the death rate of such infants is many times higher than that of breast-fed babies."

Formula feeding can cause gastrointestinal diseases either because the milk is contaminated during production or distribution, or (more likely, given the greater variance in infant mortality among republics) because the parents do not properly sterilize the milk. According to Davis and Feshbach (1, p. 18), "This situation no doubt exists in the U.S.S.R., particularly in the Central Asian region and in other rural areas." Formula feeding also can result in nutritional problems if adequate formula milk is not available or if parents do not provide the child with a properly balanced diet (the latter is the more likely problem in the more traditional areas of the U.S.S.R.). Nutritional problems result in higher fatality rates from respiratory diseases such as pneumonia.

The Soviets have rather extensively examined the problems associated with formula feeding, including both sanitary standards in production and distribution and inadequate knowledge on the part of parents about how to feed children. One Soviet study (cited in 1, p. 18) pointed out that until recently it had been common for parents to feed infants cow's milk and liquid yogurt (kefir) rather than the appropriate formula. Further, in the rural areas of Central Asia it was traditional practice to feed children diets that contained excessive fat (1, p. 18).

INFLUENZA OUTBREAKS

A number of Soviet studies have found that the principal cause of infant deaths in the 1970s was pneumonia. In 1970, 26 percent of all urban infant deaths in the U.S.S.R. were from pneumonia and the percentage increased over the course of the 1970s (1, p. 16). One study (quoted in 1, p. 16) concluded, ". . . in the main the level of general infant mortality is determined by the level of mortality from pneumonia." Another study of the Krasnoyarsk Kray in 1973 found that 31 percent of all infant deaths in urban areas and 44 percent of those in rural areas were from pneumonia.

Influenza sets the stage for secondary bacterial infections such as pneumonia. The U.S.S.R. experienced virulent epidemics of influenza in each of the years from 1971 to 1976. During this period a number of antigenic shifts in the influenza virus occurred so that the Soviet population repeatedly lost its natural immunity. Apparently vaccines were not developed quickly enough to provide adequate protection (1, p. 17). These influenza epidemics have affected infant mortality both because infants themselves contracted the disease and because pregnant women infected with influenza have a higher probability of giving birth prematurely (premature infants, of course, have higher rates of mortality). Davis and Feshbach conclude (1, p. 16): "The large increase in infant mortality in Soviet cities, where infectious diseases spread easily, could be explained by this factor." In fact, given the rapid urbanization, the decline in the extended family, the increased use of day care facilities, and the rapid decline of breast feeding—all factors highly associated with susceptibility to influenza—plus the

fact that virulent epidemics of influenza occurred in each of the years from 1971-1976, it would appear that the combination of these factors was primarily responsible for the rising infant mortality rates of many republics in this period, as well as the stagnation in the long-term decline in others.

The fact that the death rate for children ages 1 to 4 years declined at the same time as the infant rate rose would appear to indicate that (a) weaker infants succumbed to these diseases before age one, thus producing a hardier stock of 1 to 4 year olds; (b) immunities were developed before the age of one; and (c) the factor of premature birth (induced by mothers with influenza) largely spent itself by age one.

Table 2 shows the infant mortality rates of the capital cities of the six Soviet republics that had infant mortality rates in 1974 higher than the average for the Russian Republic *and* that experienced an increase in infant mortality between 1970 and 1974. Of these six republics, all but Georgia experienced a rate of urbanization at least 50 percent higher than the Union average in the 1959-1970 period, and all, except Kazakhstan, had urban populations less than three-fourths of the Russian republic. This gives strong support to the hypothesis that rising infant mortality in the Soviet Union is primarily associated with rapid urbanization and its consequences. It should be noted that in these republics child deaths (especially those occurring near birth) were most likely to go unreported in the past years. Consequently, the

Table 2
Soviet republics with high and rising infant mortality^{a, b}

Republic (City)	Infant Mortality		% Increase in Infant Mortality	% Urban in 1970	% Increase in Urban Population 1959-1970
	1970	1974			
Georgia (Tbilisi)	21.3	33.9	+59	48	35.6
Moldavia (Kishinev)	16.8	24.4	+45	33	90.7
Turkmenistan (Ashkhabad)	32.4	46.4	+43	48	57.1
Uzbekistan (Tashkent)	40.0	45.5	+13	37	68.5
Tadzhikistan (Dushanbe)	46.7	51.8	+11	38	80.3
Kazakhstan (Alma Ata)	26.7	29.2	+9	52	70.7
Russian Republic (Moscow)	23.0	23.0	0	64	37.0
(Leningrad)	20.4	22.9	+11	—	—
	19.8	17.8	-13	—	—
All U.S.S.R.	24.7	27.9	+13	56	36.0

^aThe six republics with infant mortality rates in their capital cities higher than those in the Russian republic in 1974 and which had an increase in infant mortality between 1970 and 1974.

^bSources, reference 1, p. 4, and Zev Katz et al., *Handbook of Major Soviet Nationalities, 1975*, Table A10.

apparent rise in infant mortality rates is likely in part a statistical artifact of improved reporting associated with urbanization.

High and rising infant mortality rates in the 1970s were not universal in the traditionally Islamic republics. For example, in Baku—the capital of Azerbaidzhan, the republic in which traditional Islamic ways have been most eroded and which is the most urbanized (51.8 percent in 1970)—infant mortality decreased from 24.1 per 1000 in 1970 to 20.7 per 1000 in 1974. This supports the thesis that it is the change in family patterns associated with urbanization that produced rising infant mortality rates. Kirghizia's capital of Frunze also experienced a decline in infant mortality in the 1970-1974 period.

It also should be noted that rapid urbanization does not necessarily lead to rising infant mortality rates. For example, infant mortality decreased in the Armenian capital of Erevan from 26.8 to 21.4 per 1000 between 1970 and 1974 in spite of an increase of 80.2 percent in the urbanized population. Furthermore, infant mortality decreased in this period from 18.4 to 17.7 per 1000 in Minsk, the capital of Byelorussia, despite an increase in its urban population of 69.6 percent between 1959 and 1970. It thus appears that with proper public education about child care, as well as proper utilization of child care facilities, infant mortality can be significantly decreased even in the face of rapid changes in women's work patterns and the undermining of the extended family.

SUMMARY AND CONCLUSIONS

The Soviet Union experienced a period of rising infant mortality through the 1970s. This phenomenon was not universal throughout the country. It was largely confined to the most rapidly urbanizing peripheral regions of Central Asia, Georgia, and Moldavia. However, even the western republics experienced stagnation in the long-term decline of their infant mortality rates. There were some prominent exceptions to the general trend of increase and stagnation—e.g. Armenia, Azerbaidzhan, Kirghizia, and Byelorussia. The great variation in the trends in infant mortality indicates that the source of the problem is neither a general breakdown in the Soviet health care system nor a result of the Soviet form of socialism, to say nothing of a fatalistic Russian character. The fact that four of the Soviet republics (or at least their capital cities) experienced a significant decline in infant mortality in the face of the overall trend, combined with the success of the East German socialist regime, demonstrates that it is not socialist institutions themselves that account for high or increasing infant mortality rates.

Eberstadt's description of the U.S.S.R. as "embarking on a path towards pre-industrial standards of health," as experiencing "a mortality crisis alien to modern life," with a "virulent strain of anomie running rampant" and a "deadly decay," all stemming from the "fundamental spiritual need of the Russian people for suffering, perpetual and insatiable, everywhere and in everything," does not square with the facts.

Studies of the considerable difference in infant mortality experienced by infants in day care centers compared with those cared for by parents or other relatives, as well as the equally significant differences between those on infant formula and those

who are breast-fed, make it clear that the primary source of the rising infant mortality rates in some republics and the stagnation in others is mediated by these factors. The infant mortality problem in Soviet society is apparently primarily a negative consequence of the rapid progress made in industrialization, employment of women in industry, and socialization of child care. In many cases progress in public health education (concerning proper medical treatment and formula feeding) and the development of fully adequate child care facilities have not kept pace.

Some might draw the conclusion that the infant mortality problem is a result of "modernization" and/or the undermining of the traditional family, and thus that the solution lies in having women return to the home as full-time mothers. Others point to the temporary nature of the phenomenon, and the apparent ease with which Soviet institutions in some republics have been able to solve the problem (as have the East Germans). It is clear that improvements in public health education, the quality of child care facilities (including better screening of potentially sick infants), and the manufacture and distribution of infant formula are required to reverse present negative trends and make possible the resumption of the long-term pattern of decreasing Soviet infant mortality. It should be noted that the rapid pace of urbanization and family change in Soviet society has reached its peak (the Soviet Union was 62 percent urban in 1978). The new values that incorporate a scientific attitude toward child care, as well as the stabilization of the growth of new institutions and practices, will undoubtedly contribute to the rapid resolution of this problem of socialist development.

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