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Annual Medical Intelligence Summary (U)



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PREFACE

(U) This joint DIA, AFMIC, and QMIC publication is produced annually and presents highlights and analysis of worldwide medical intelligence occurrences of interest to both policy-makers and military leaders. Contents include regional assessments and summaries of notable medical intelligence. Issues covered are relative to: military and civilian health care infrastructures; research, development, and production; humanitarian efforts; infectious disease outbreaks; and environmental health. Material presented is based, to the extent possible, on best available intelligence information.

(U) In an effort to upgrade worldwide medical intelligence reporting, AFMIC and QMIC solicits contributions to, and constructive criticism of, this publication. Request that any amplification of subject matter, constructive criticism, comments, or suggested changes be forwarded to:

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SECTION I

GLOBAL ISSUES

Drugs of Abuse

(U) Most persons involved in counternarcotics efforts are generally familiar with the outward effects of drugs of abuse upon an individual and the general behaviors associated with different drugs. However, often they lack an understanding of how drugs work within the human body. Knowledge of how drugs of abuse work within the body helps explain their insidious and rapid addictive properties and their biological effects upon individuals. Since the demand for drugs of abuse is in part driven by the aggregate individual demand for drugs, understanding of drugs at the individual biological level may be helpful to personnel involved in counternarcotics activities.

(U) Of the many problems facing those involved in the war on drugs, perhaps the most difficult is the complex pharmacology of the drugs themselves. Why certain drugs are so much more addictive than others is a function not of availability or cost, but of their effects on the human body. The problem is inseparable from the biochemistry of the human brain. Drugs of abuse generally are derived from chemical messenger substances that occur naturally in humans. Like chemical messengers, drugs also affect specialized sites in the body and brain that normally are affected by naturally occurring compounds. In general, drugs modify the body's ability to communicate with itself, so that abnormal biochemical events predominate.

(U) Pleasure plays a key role in the addictive process. Primitive pleasure centers of the human brain are believed to participate in many drug addictions.

(U) Virtually all current drugs of addiction and their chemical precursors are derived from pharmaceuticals that were or are legitimate. The pharmaceutical industry is aggressively seeking drugs that can be used to counter the abuse of addictive drugs. A greater scientific understanding of the molecular mechanisms of the human brain will lead to some cures. However, the same advances also have a high potential to make possible the development of entirely new classes of addictive drugs, the nature of which can only be imagined today.

(U) Given the frequency with which new designer drugs appear, merely to monitor worldwide trends in the development of centrally active drugs is inadequate. Equipped with an understanding of the pharmacologic basis of drug addictions, all participants in the war on drugs can rapidly identify compounds with abuse potential and initiate measures to prevent the development of new classes of addictive drugs.

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Table VII
(U) Commonly Abused

Drugs	Trade or Other Names	Medical Uses	Physical Dependence	Psychological Dependence
NARCOTICS				
Opium	Dover's Powder, Paregoric, Parepectolin	Analgesic, antidiarrheal	High	High
Morphine	Morphine, Pectoral Syrup	Analgesic, antitussive	High	High
Codeine	Tylenol with Codeine, Empirin Compound with Codeine, Robitussin A-C	Analgesic, antitussive	Moderate	Moderate
Heroin	Diacetylmorphine, Horse, Smack	Under investigation	High	High
Hydromorphone	Dilaudid	Analgesic	High	High
Meperidine (Pethidine)	Demerol, Mepergan	Analgesic	High	High
Methadone	Dolophine, Methadone, Methadose	Analgesic	High	High-low
Other narcotics	LAAM, Leritine, Numorphan, Percodan, Tussionex, Fentanyl, Darvon, Talwin, Lomotil	Analgesic, antidiarrheal, antitussive	High-low	High-low
DEPRESSANTS				
Chloral hydrate	Noctec, Somnos	Hypnotic	Moderate	Moderate
Barbiturates	Phenobarbital, Tuinal, Amytal, Nembutal, Seconal, Lotusate	Anesthetic, anti-convulsant, sedative, hypnotic	High-moderate	High-moderate
Benzodiazepines	Ativan, Azene, Clonopin, Dalmane, Diazepam, Librium, Xanax, Serax, Tranxene, Valium, Verstran, Halcion	Anti-anxiety, anti-convulsant, sedative, hypnotic	Low	Low
Methaqualone	Quaalude	Sedative, hypnotic	High	High
Glutethimide	Doriden	Sedative, hypnotic	High	Moderate
Other depressants	Equanil, Miltown, Noludar, Placidyl, Valmid	Anti-anxiety, sedative, hypnotic	Moderate	Moderate
STIMULANTS				
Cocaine	Coke, Flake, Snow	Local anesthetic	Possible	High
Amphetamines	Biphentamine, Delcobese, Desoxyn, Dexedrine, Mediatric	Hyperkinesis, narcolepsy, weight control	Possible	High
Phenmetrazine	Preludin	Hyperkinesis, narcolepsy, weight control	Possible	High
Methylphenidate	Ritalin	Hyperkinesis, narcolepsy, weight control	Possible	Moderate
Khat	Qat	None	Possible	High
Other stimulants	Adipex, Bacarate, Cylert, Didrex, Ionamin, Plegine, Pre-State, Sanorex, Tenuate, Tenanil, Voranil	Hyperkinesis, narcolepsy, weight control	Possible	High
HALLUCINOGENS				
LSD	Acid, Microdot	None	None	Unknown
Mescaline and peyote	Mesc, Buttons, Cactus	None	None	Unknown
Amphetamine variants	2,5-DMA, PMA, STP, MDA, MDMA, TMA, DOM, DOB	None	Unknown	Unknown
Phencyclidine	PCP, Angel Dust, Hog	Veterinary anesthetic	Unknown	High
Phencyclidine analogs	PCE, PCPy, TCP	None	Unknown	High
Other hallucinogens	Bufotenine, Ibogaine, DMT, DET, Psilocybin, Psilown	None	None	Unknown
CANNIBIS				
Marijuana	Pot, Acapulco Gold, Grass, Reefer, Sinsemilla, Thai Sticks, Skunk	Under investigation	Unknown	Moderate
Tetrahydrocannabinol	THC	Under investigation	Unknown	Moderate
Hashish	Hash	None	Unknown	Moderate
Hashish Oil	Hash Oil	None	Unknown	Moderate

Duration (hours)	Methods of Usual Administration	Possible Effects	Effects of Overdose	Withdrawal Syndrome
3-6	Oral, smoked	Euphoria, drowsiness, respiratory depression, constricted pupils, nausea	Shallow respiration, clammy skin, dilated pupils, weak and rapid pulse, coma, possible death	Watery eyes, runny nose, yawning, loss of appetite, irritability, tremors, panic, chills, and sweating, cramps, nausea
3-6	Oral, smoked, injected			
3-6	Oral, injected			
3-6	Injected, sniffed, smoked			
3-6	Oral, injected			
3-6	Oral, injected			
12-24	Oral, injected			
Variable	Oral, injected			
5-18	Oral	Slurred speech, disorientation, drunken behavior without odor of alcohol	Slow and shallow breathing, clammy skin, convulsions, coma, possible death	Anxiety, insomnia, tremors, delirium, convulsions, possible death
1-18	Oral			
4-18	Oral			
4-8	Oral			
4-8	Oral			
4-8	Oral			
4-8	Oral			
1-2	Sniffed, smoked, injected	Alertness, excitation, euphoria, increased pulse rate and blood pressure, insomnia, loss of appetite	Increased agitation, increase in body temperature, hallucinations, convulsions, possible death	Apathy, long periods of sleep, irritability, depression, disorientation
2-4	Oral, injected			
2-4	Oral, injected			
2-4	Oral, injected			
2-4	Oral			
2-4	Oral, injected			
2-4	Oral, injected			
8-12	Oral	Illusions, and hallucinations, poor perception of time and distance	Longer, more intense "trip" episodes, psychosis, possible death	Withdrawal syndrome not reported
8-12	Oral			
Variable	Oral, injected			
Days	Smoked, oral, injected			
Days	Smoked, oral, injected			
Variable	Oral, injected, smoked, sniffed			
Variable	Oral, injected, smoked, sniffed			
2-4	Smoked, oral	Euphoria, relaxed inhibitions, increased appetite, disoriented behavior	Fatigue, paranoia, possible psychosis	Insomnia, hyperactivity, and decreased appetite occasionally reported
2-4	Smoked, oral			
2-4	Smoked, oral			
2-4	Smoked, oral			

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Foreign Biological Warfare (BW) Agent Threat List

(b)(1), 1.4 (c), 1.4 (h)

(U) Known or suspect microorganisms and BW-related toxic substances are listed in the following table. Assessments that an agent has been weaponized, is in the test and evaluation phase, or still is in the BW program R&D phase are divided into three categories--virtually certain, probable, and possible.

Foreign Biological Warfare Agent List (U)

(b)(1), 1.4 (c), 1.4 (h)

1.4(h)(c)
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SECTION II

REGIONAL ASSESSMENT

Asia/Pacific

(U) AIDS and HIV transmission are an increasingly significant health concern among the countries of South and Southeast Asia, particularly Thailand, India, and Burma. Thailand has implemented proactive education and prevention programs that are effective, even if politically unpopular. India recognizes the potential impact of AIDS, but has not mustered the political will, or ability, to fund and execute prevention programs.

(U) Burma is emerging as an AIDS time bomb, as poverty and continuing ethnic strife frustrate all attempts at education, screening, and prevention. Moreover, Burma's conflicts are sending potentially infected refugees into neighboring countries, such as Thailand, Bangladesh, and India.

(U) International health agencies, such as the World Health Organization (WHO), and humanitarian assistance organizations probably will play a greater role in implementing prevention and control programs, provided that funding and support are received from developed nations.

(U) The Association of Southeast Asian Nations (ASEAN) alliance probably will continue to be an important instrument for strengthening foreign exchanges and disaster relief efforts among member nations. Additionally, the South Asian Association for Regional Cooperation (SAARC), modeled after ASEAN, may play a significant role in relief operations and medical technology exchanges on the subcontinent.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Enterically transmitted diseases, malaria, and dengue fever are the major causes of morbidity in the local populations and the greatest infectious disease risks for nonindigenous personnel deploying to the region. These diseases were the main causes of reported outbreaks and increased disease incidence throughout much of the Asia/Pacific region during 1992, and contributing causes are unlikely to change in the near future. Outbreaks of enterically transmitted diseases (including acute diarrheal diseases, cholera, typhoid, and hepatitis A) largely were attributed to deteriorating public sanitation conditions, exacerbated by flooding in some countries (such as Pakistan and Nepal). Malaria continued to be a major cause of morbidity in the region, associated with ineffective vector control programs, population movements, and increased prevalence of drug-resistant strains. Increased circulation of dengue viral serotypes and elevated vector densities continued to cause outbreaks of dengue fever and dengue hemorrhagic fever.

Afghanistan

(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)



Burma

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)



Cambodia

(U) Mefloquine-resistant falciparum malaria has been confirmed from western border areas by *in vivo* and *in vitro* testing.

Trends —

(U) Cambodia's medical infrastructure is little more than a shell, staffed primarily by expatriate Europeans and international humanitarian assistance personnel. The unstable political and economic situation will continue to hamper any improvement in the health care system. Increased conflict among Cambodian factions probably will drive foreigners from the country, and health conditions will continue to worsen. Cambodia's health care system will remain highly dependent on external sources of humanitarian aid for the foreseeable future.

China, People's Republic of

(U) In early 1992, the Chinese government closed 85 percent of the country's private clinics. The government may be trying to regain control of a failing health care system.

(U) China's People's Liberation Army (PLA) began consolidating preventive medicine and health promotion programs, signaling further departures from the "People's War" concept of the Mao era.

(U) The Medical Department of the PLA established a nationwide emergency medical network, which provides a more effective basis for training personnel, developing routines and procedures for treating combat injuries, and ensuring appropriate disaster response.

(U) Chinese researchers developed an experimental vaccine against the nerve agent VX. The vaccine induces a protective antibody response in experimental animals against a lethal challenge dose of VX.

(U) The Shanghai Biological Products Research Institute and the East China Chemical Engineering College successfully produced large amounts of Japanese B encephalitis virus for vaccine production. A domestically produced microcarrier system was used to grow large quantities of animal cells in bioreactors. The animal cells then were infected with the encephalitis virus for large-scale propagation.

Trends —

(U) The changes facing China, as it emerges from the 14th Party Congress, are manifested in health care systems as well as in the economy. China is developing improved pharmaceutical production capabilities and is aggressively marketing traditional Chinese medicines in developing countries. The PLA Medical Department, through sideline medical industries, is a significant component in this marketing strategy.

(U) The PLA Medical Department has undergone major reorganizations with the intent of establishing standard medical doctrine and procedures. There also is an apparent effort to better regulate sideline industries by encouraging their development while attempting to ensure they do not detract from medical readiness.

(U) The Beijing government most probably will continue to encourage foreign investment in South China's nascent medical equipment and pharmaceuticals industries, following Deng Xiaoping's injunction that South China should join the "mini-dragons" by 2000. If South China's economy remains capitalized by Hong Kong after 1997, Deng's hopes may well materialize.

(U) While the pace of change depends on the shape of the post-Deng Xiaoping leadership, it is probable that the evolution of China's health sectors will not be significantly impacted by political events.

Cook Islands

(U) Until recently, the vector for dengue fever in the Cook Islands has only been *Aedes polynesiensis*. *Aedes aegypti*, however, now has been reported on Manihiki Island. Preventive measures have been taken to stop the mosquito from spreading to other islands.

French Polynesia

(U) Dengue viral serotype 3 continued to circulate at low endemic levels, indicating an ongoing risk for infection and a potential for sporadic outbreaks. Dengue 3 was associated with a major dengue fever outbreak during mid-1990.

India

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) The Institute of Immunohematology in Bombay reported development of a blood substitute that can be administered in emergencies to all patients regardless of their blood type. The product, a purified stroma-free

hemoglobin solution derived from discarded blood, "not only supplies oxygen to body tissue but also helps the body maintain its fluid volume."

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) India is a conglomerate of disparate regions, each of which could be a country in its own right and each of which has its own separate health care system. India now has an estimated 1 million HIV-infected individuals, who will heavily impact India's health care system within the next 3 to 5 years. With limited resources at the local level and lack of strong national policy, it is unlikely that the infrastructure will catch up to the needs of the population.

Indonesia

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

Korea, North

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) North Korea's isolation has been costly. In the past, Pyongyang depended heavily on the Soviet Union and Eastern Europe for basic commodities, including medical supplies and equipment. With the collapse of the Soviet Bloc, officials have turned increasingly to Japan and China for their medical materiel needs. However, because Japan and China expect payment in hard currency and North Korea has very little hard currency, the country's medical sector has severe shortages of all medical commodities.

(U) Shortages in medical materiel are representative of the entire economy. Pressure resulting from shortages, coupled with political instability that will accompany Kim Chong Il's succession to power, portends a troubled near-term future for the peninsula.

Korea, South

(U) Efforts to increase blood donations and decrease reliability on imported blood for fractionation continued in South Korea. Donations, although slightly up from previous years, were far short of the Korean National Red Cross' stated goals.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Puumala virus, the primary etiologic agent of hemorrhagic fever with renal syndrome (HFRS) in northern Europe and western Russia, was identified as the cause of 12 HFRS cases in South Korea during 1991, indicating that Puumala virus may have a wider distribution than previously documented.

Malaysia

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) The official 1991 case total for dengue fever (6,618 cases, including 40 fatalities attributed to dengue hemorrhagic fever) was 36 percent higher than that for 1990. Peninsular Malaysia accounted for most of the increase, with urban areas (including Kuala Lumpur) having been hardest hit. An apparent shift in the predominate dengue viral serotype from dengue 2 during 1991 (when dengue fever incidence reached an all-time high) to dengue 3 during the first quarter of 1992 may have increased the risk from dengue hemorrhagic fever.

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

Nepal

(U) Health conditions for Bhutanese refugees encamped in eastern Nepal were poor, and dysentery claimed at least 30 lives.

Papua New Guinea (PNG)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) The performance of the PNG health system is restricted by administrative and medical staff ceilings and by budget restrictions. Equipment failures and critical shortages of basic drugs and medical supplies will continue to affect the provision of adequate health care for the next year.

Solomon Islands

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Solomon Island's capital, Honiara, reports the highest recorded incidence of malaria in the world. Including repeat cases, Honiara recorded 1,200 cases of malaria for every 1,000 inhabitants in 1991. Every inhabitant of Honiara is considered to carry the malaria parasite. The high incidence of malaria is attributed to almost complete cessation of preventive spraying, cuts in public health spending, and decreases in foreign aid for medical supplies.

Taiwan

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) Taiwan maintains one of Asia's strongest economies, despite its increasing diplomatic isolation. The country's establishment as a special customs zone under GATT will ensure continued economic vitality, including medical sectors. Taiwan's medical and pharmaceutical industries are increasingly sophisticated, and they are decreasing their dependence on imported medical materiel.

Thailand

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(3):10 USC 424,1.4 (c)

(U) Introduction of a patent protection bill in Thailand caused concerns about rising drug prices.

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) Thailand is contending with an increased demand on health resources along its borders with Burma and Cambodia. Many refugees congregate near the borders and overburden Thai hospitals and clinics. Health officials are considering allocating more resources to support humanitarian programs and relieve pressure on the medical facilities. Moreover, Thai officials view border crossings as an opportunity to educate refugees on prevention of AIDS, malaria, and other health issues that affect Thailand and neighboring countries.

Tuvalu

(U) An outbreak of cholera on Nukunono and Nanumea Islands resulted in 220 cases (7 fatal) from 16 May through 23 June 1992. Cholera is endemic in much of Oceania, usually occurring as sporadic cases. An outbreak (200 cases) previously was reported from Tuvalu during July through December 1990.

Vietnam

(U) An "epidemic" of (presumed) Japanese encephalitis (JE) that reportedly had "affected" hundreds of people (particularly children) in 10 northern provinces as of late June 1992 appeared consistent with the endemicity and typical seasonality of JE in this region.

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

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SECTION III

REGIONAL ASSESSMENT

Europe

(U) Many European Community countries are finding that health costs are consuming an increasing proportion of the national budget, while the effectiveness of the health care system, as measured by indicators such as longevity and infant mortality, remain constant or even decline. Increasing loss of productivity due to sick leave is associated with increasing medical care costs. Socialist systems are losing support in favor of more pluralistic systems, which include significant private provider participation and increasing individual liability for medical care copayments.

(U) Implementation of the Maastricht treaty over the next few years is likely to cause a massive redistribution of medical personnel within Europe. Physician-to-population ratios and physician unemployment vary greatly from one country to another. Countries that have kept physician numbers low and have been successful in controlling costs of physician care will experience some initial disruption as unemployed or underemployed personnel migrate to other countries due to relaxed licensure rules.

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) HIV infection is a significant public health problem in Europe and will continue to receive intense scrutiny by the European community. Although incidence and prevalence rates vary among countries depending on social factors, drug use patterns, and foreign travel and immigration policies, most countries have incidence rates lower than or equivalent to US rates. Incidence among homosexual males, drug abusers, and other traditional high-risk groups remains high, while incidence among heterosexual contacts has been increasing. Spain is one of the countries most affected by HIV, while Turkey, in common with many Islamic countries, reportedly has a relatively low rate of infection. AIDS education and awareness programs are well developed and have been moderately successful. Among Western European countries, only Turkey is reluctant to establish aggressive education, testing, and control measures. Not all countries routinely test military conscripts for HIV infection, and most countries do not regularly test all military personnel. All countries appear to have adequate testing of blood and blood products, although testing may be relaxed in more remote areas of Turkey. Although current testing practices in France appear to be adequate, the government continues to be affected by the scandal resulting from distribution and use of untested blood

products in 1984 and 1985. France is the acknowledged leader in AIDS research in Europe, but most other Western European countries support some research efforts. Although aggressive education and prevention programs may have abated the spread of the disease somewhat, numbers of HIV-infected personnel will continue to increase in Europe, providing a major challenge to many of the socialized health care systems in Europe.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Over 3 million persons have been displaced by the ongoing civil war, and basic public health, medical infrastructure, and sanitation are seriously degraded in areas under siege. Despite relief efforts, disease morbidity and mortality have increased significantly, particularly among civilians. Disease outbreaks have been more severe in areas where malnutrition, poor sanitation, and overcrowding exist (such as refugee camps and detention centers). Winter conditions will contribute to increased numbers of disease- and exposure-related morbidity and mortality. The greatest number of refugees and displaced persons are in Bosnia-Herzegovina and Croatia. In Bosnia-Herzegovina, public health services are either nonexistent or are rapidly being exhausted, food shortages are increasing, and disease incidence is rising. Environmental conditions and infectious diseases also pose a significant risk to nonindigenous operational forces deployed to the former republics of Yugoslavia.

Austria

Trends —

(U) The Austrian medical system is fairly stable. Although facing increasing costs, budgetary crises have not reached the proportions experienced in some other European countries. Modernization and new construction projects are underway at several major Austrian hospitals.

Belgium

Trends —

(U) The Belgian government proposed plans to disband the military health services, incorporating military health care into the civilian health care system. The proposal is in the early stages of consideration and may never reach serious consideration. The proposal is strongly opposed by active duty military officers. There is no information on how medical services would be provided to deployed forces if these plans were to be adopted. The proposal is part of a larger effort to reduce military expenditures.

Czechoslovakia

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) The Czech military medical services are transitioning from a Soviet-based system to a more Westernized system. The new medical services will be structured to better support a military that is oriented toward national rather than strategic defense.

(U) The independent states of the Czech Republic and Slovakia were formalized in 1993. The Czech medical services will adapt quickly with minimal disruption. The less developed Slovak medical services will adapt more slowly and with some difficulty.

Denmark

Trends —

(U) Prior to 1992, all patients in Greenland requiring specialized medical treatment were evacuated to Copenhagen. As part of a cost-cutting program, Denmark is increasing the autonomous health care capability in Greenland. This endeavor is expected to significantly improve health care on Greenland. However, it also may limit the quality of some services since it is unlikely that Greenland will soon have services and personnel equivalent to established medical facilities in Denmark.

France

(U) The trial of four health officials for their part in the distribution of HIV-contaminated blood products in 1985 concluded with a guilty verdict. Michael Garretta, director of the Central Blood Transfusion Service, was sentenced to 4 years in prison and a heavy fine. The charges were brought on behalf of 27 hemophiliac patients who contracted AIDS after receiving contaminated blood products. Although foreign HIV test kits and heat sterilization equipment were available in January 1985, potentially contaminated blood and blood products were distributed by the Blood Transfusion Service until 1 October 1985. The scandal expanded as the Mereiux Institute in Lyon continued to export HIV-contaminated blood products for nearly 6 months after domestic distribution had ceased. The likelihood that more senior government officials, possibly including former Prime Minister Laurent Fabius, will be implicated is increasing.

Trends —

(U) The contaminated blood scandal continues to stress the Socialist government at a time when support for the Maastricht treaty and other internal pressures have lead to growing opposition. Rapidly rising health care costs in an era of declining economy will lead to demands for major health care reforms.

Germany

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) The issue of German support for United Nations (UN) humanitarian and peacekeeping initiatives has been centered on political and constitutional questions over foreign deployment of troops. Germany decided that humanitarian and peacekeeping missions in support of UN resolutions are appropriate. Problems experienced in the deployment to Cambodia involved uniforms (German uniforms are inappropriate for tropical areas), pay, and leave requirements. These mostly minor difficulties resulted from lack of experience in remote troop deployment. After several months, most of these difficulties had been resolved.

Trends —

(U) Health care reforms designed to stem the explosion of medical costs in Germany include sharply increased copayments and reduced payments to service providers. The incorporation of the former East German medical system into the West German system does not

appear to have contributed to the cost explosion, but future expenditures to replace antiquated hospital facilities in that region are expected to be high.

Greece

(U) According to a Greek infectious disease specialist, indigenous malaria (unspecified) transmission may have occurred during 1991. Officially malaria free since 1986, risk of reestablishment of transmission exists because competent vector species of *Anopheles* mosquitoes are present.

Hungary

(U) The demise of the Warsaw Pact has had only limited impact on the medical capability of the Hungarian military health services. The health services are self-reliant, with most materiel needs met by national production assets. Hungary is one of the largest medical materiel producers of the former Warsaw Pact countries.

(U) Hungary's field health service downplays the importance of preventive health and first aid. During basic training, little emphasis is placed on buddy aid; squad-size elements lack medical support. Medical support in the field emphasizes treatment of injuries, with little attention to handling the sick and taking preventive medicine countermeasures.

Trends —

(U) Hungary's military forces and medical department are continuing to downgrade and reorient into a home defense force. The military and its medical support elements will reorganize into territorial defense battalions. Currently, combat battalions are supported by a battalion aid station consisting of an evacuation unit but no physician.

Ireland, Republic of

(U) A 2-year study of post-traumatic stress syndrome among Irish peacekeeping troops will begin at Ireland's Center for the Study of Human Conflict and Cooperation. The study may identify the extent of post-traumatic stress syndrome in the Irish Defense Force and provide some means of remediation.

Italy

Trends —

(U) Italy is the poor stepchild of the Western European medical community. The country's medical system consumes nearly the highest portion of the public budget among European Community members, but has been unable to achieve generally high health indices among the population. Widespread abuse, mismanagement, and lack of adequate regulation have led to calls for a massive reorganization of the health care system to avoid a major government budget crisis. Despite spending 6.2 percent of the gross national product (GNP) on health and having more physicians per capita than any other Western European country, basic health care needs are not met in large portions of Italy, particularly in southern regions. Current government attempts to reform the health care system and reduce costs are not expected to be effective. With a staggering national debt and a slowing economy, drastic changes in health care funding will be critical.

Poland

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) Poland's health care system is changing radically in response to political and economic changes currently being implemented in the country.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Poland cannot afford to provide free comprehensive health care for its population. Patient charges for certain services, particularly pharmaceuticals, have been implemented.

(U) With increasing demand for health care in Poland, the private health sector will begin to grow at an unprecedented rate. Private health care services will cater primarily to the more affluent sector of the population and provide little relief for the health care needs of the general population.

Portugal

(U) Incidence of acute sexually transmitted diseases (STDs, including gonorrhea) during 1991 was nearly 40 percent higher than during 1990. Relative increase was greatest among 15- to 19-year olds and in rural areas. Incidence of STDs in most other European countries has been declining for several years.

Trends —

(U) The Portuguese medical system is improving rapidly, corresponding to a general improvement in the Portuguese economy. Physician salaries have improved, and the more highly qualified physicians are less likely to emigrate. Shortages of nurses and other mid-level medical personnel continue, but increasing numbers of nursing training programs are alleviating the problem.

(U) The military services are expected to continue programs for modernization and relocation of military medical facilities. Major reorganization of the military medical system, aimed at reducing duplicate staff services, is under consideration but is unlikely to be adopted in the near future. The military is less affected by personnel shortages because of large training programs, but nurses are leaving the military as soon as their initial obligation is completed for higher paying positions in the private sector.

Sweden

(U) Sweden's Trelleborg Industries developed a disposable shroud to protect its combat support hospital system from liquid chemical agents.

(U) The Swedish company, Astra Pain Control, marketed an autoinjector containing the oxime HI-6 and atropine that is considered effective in counteracting soman poisoning in humans.

Turkey

(b)(1),(b)(3):10 USC 424,1.4 (c)

Yugoslavia

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) The United Nations Department of Humanitarian Assistance is establishing a special unit designed to track the distribution of food and medical supplies. While the unit will focus first on resource analysis for UN agencies, it ultimately also will try to track nongovernment organizations and bilateral assistance.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) The US is deploying a 60-bed MASH unit to Zagreb to provide more definitive medical care for UN Protection Forces. Even so, there will be only limited holding capacity, and serious casualties will require further medical evacuation outside the combat zone.

	Life Expectancy	Infant Mortality	Beds (per 1,000)	Physicians (per 10,000)	Med Cap Ranking
Bosnia and Hercegovina	72	15	4.5	5.7	4
Croatia	72	10	7.6	9.3	2
Macedonia	72	35	5.3	5.7	5
Slovenia	73	9	7.4	10.3	1
Yugoslavia (Serbia and Montenegro)	71	24	5.9	7.0	3

Trends —

(U) Although improved medical care could save hundreds or even thousands of lives this winter, the greatest threat to refugees and displaced persons is lack of adequate food and shelter. Medical intervention will have relatively little impact on limiting winter casualties.

(U) Medical facilities in Bosnia-Hercegovina will require continuous supplies of basic medical and surgical supplies and equipment, especially disinfectants, antibiotics, vaccines, anesthetics, infusion solutions, blood transfusion sets, wound dressings, and surgical supplies (scalpels, gloves, sutures).

(U) Most important in preventing the further decline of medical facilities is to ensure the availability of basic support services, including power, heat, and potable water.

SECTION IV

REGIONAL ASSESSMENT

Newly Independent States (NIS)

(U) The dissolution of the Soviet Union resulted in the formation of fifteen independent republics. Initially, the republics (less the Baltics) formed a union called the Commonwealth of Independent States (CIS). However, during the past year, all 15 of the republics have become known singularly by their republic's name and collectively as the NIS. For purposes of clarity, all NIS republics will be covered in this section. The terminology CIS, former Soviet Union, and different republic names will appear as it did at the time of the writing of the following individual assessments.

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) Degradation of centralized public health infrastructure following the breakup of the Soviet Union has further increased the impact of endemic diseases and unparalleled environmental pollution in the CIS. Despite emerging political interest, the republics generally do not have the resources to restore the degraded public health infrastructure to adequate levels, and the prevalence of adverse health effects will increase. The incidence of many infectious diseases already is elevated in many areas, and will continue to be further complicated by ongoing civil unrest in some republics (such as Armenia and Tajikistan). Widespread environmental damage associated with Communism's unchecked power and its obsession with forced industrialization produced an environmental catastrophe of unrivaled proportions. Air, water (rivers, streams, lakes, ground water sources, and seas), soil, and food have been heavily polluted by industrial, agricultural, military, and domestic wastes. Contaminants routinely exceed safe levels, and long-term

exposure to environmental contaminants may result in health effects never before observed, or possibly even anticipated, in humans.

(U) On 7 August 1992, a World Bank representative announced a US \$600 million loan to the Russian federation. The Russian health sector will receive US \$100 million of that loan to import urgently needed laboratory equipment, pharmaceuticals, and raw materials to manufacture vaccines, medicines, and other pharmaceutical supplies.

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) Use of medicinal herbs is common throughout the newly independent republics. Trade in medicinal herbs became such a lucrative business in Azerbaijan that export quotas on herbs were introduced during 1991. Many medicinal plants in the CIS are contaminated with toxic inorganic substances caused by industrial pollution, and in some cases, the Chernobyl nuclear accident. The Moscow Medical Institute imeni M. M.

Sechenov and the Institute of Chemistry and Chemical Technology of the LiSSR Academy of Sciences conducted analyses on some species of medicinal plant material and found excessive amounts of various heavy metals, including cadmium, mercury, and lead. There are no legislated norms or guidelines for maximum allowable concentrations of heavy metals in medicinal plants, and contaminated plants and medicinal preparations made from these plants are being sold in markets, stores, and pharmacies.

(U) In February 1992, pharmaceutical workers held a conference in Moscow to discuss Russia's domestic pharmaceutical services and the need for radical improvements in the supply of medicines. Conference attendees considered privatization of pharmacies and better training systems for pharmacists as fundamental for improved services. A summary document containing specific proposals for the Russian government and appropriate enterprises was adopted at the conference.

(U) Between October 1991 and February 1992, medical workers' strikes and threats of strikes occurred in Chernogorskaya, Kemerovo, Stavropol, the Kuzbass area, Nizhniy Novgorod, and many other cities. The most often stated reasons for the strikes were shortages of medical supplies, pharmaceuticals, and equipment; dilapidated medical facilities; poor wages, benefits, and working conditions; and poor quality or lack of nonmedical services and supplies necessary to support medical missions (such as communications equipment, fuel, and batteries for emergency vehicles).

(b)(1),(b)(3):10 USC 424,1.4 (c)

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(b)(3):10 USC 424

(U) CIS BW Facilities.

(U) An outbreak of enterically transmitted hepatitis (probably including both hepatitis A and E) aboard the aircraft carrier Minsk resulted in evacuation of 134 crew members to the hospital ship Irtysh in April 1992.

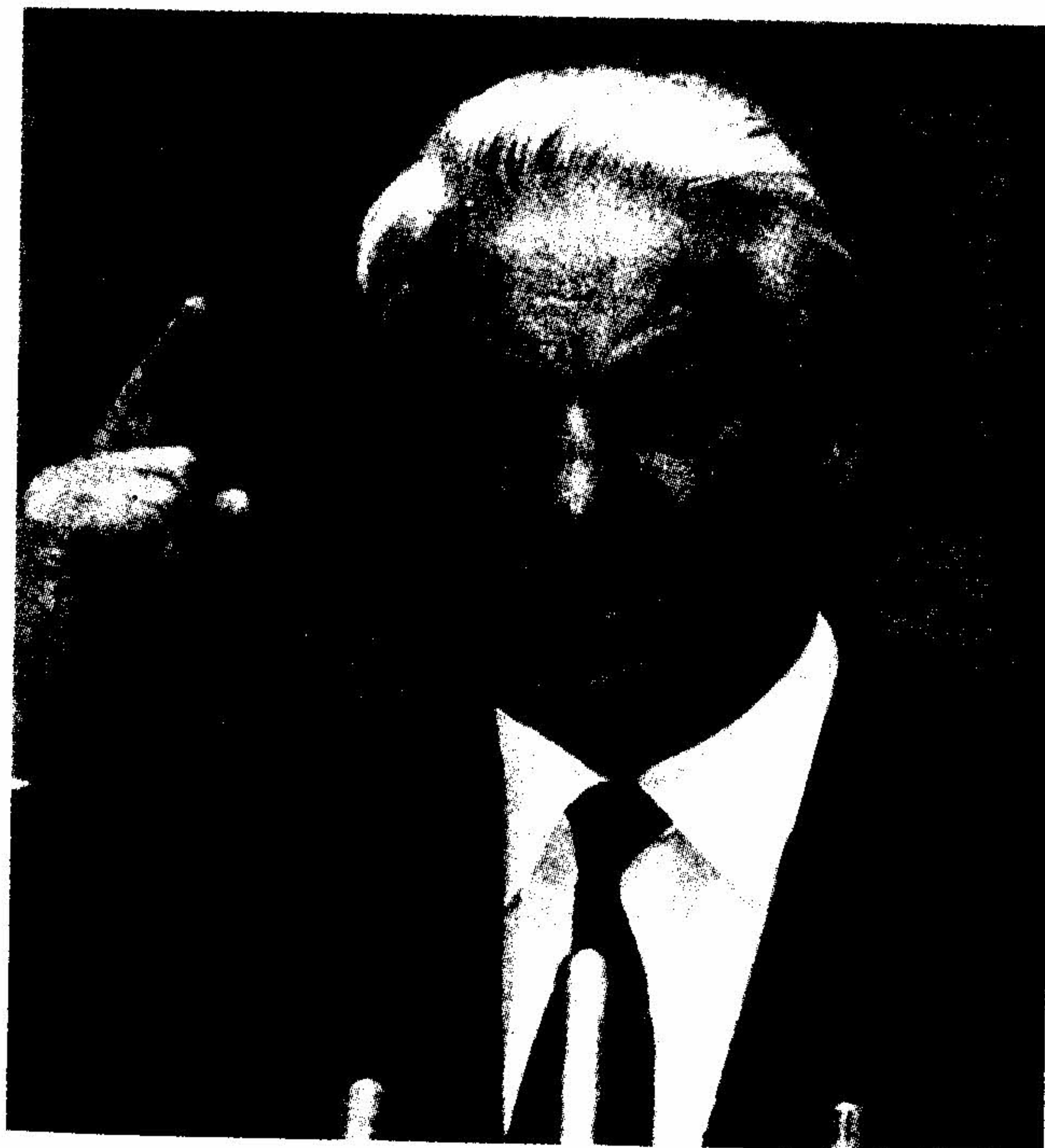
(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Risk from waterborne diseases (including hepatitis A, shigellosis, and unspecified "gastroenteritis") in the Tom' River Basin in south-central Siberia increased, subsequent to breakdowns of water purification plants.

(U) During July, 18 cases of anthrax (presumably intestinal) attributed to consumption of "meat from sick cattle" (that apparently had not been immunized during an ongoing regional immunization program) reportedly occurred in Ikon-Chal. Risk from anthrax likely will remain elevated if compliance with existing immunization programs does not improve.

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)



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(U) Russian President Boris Yeltsin.

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) Joint medical ventures for the operation of hospitals and pharmaceutical and medical equipment production plants will be increasing difficult to accomplish, even in the more developed republics such as Russia, Ukraine, and Belarus. Implementation of changes in Russian laws necessary for repatriation of profits will be slowed or derailed by officials trained in the Communist system and others who demand bribes or payments to approve projects.

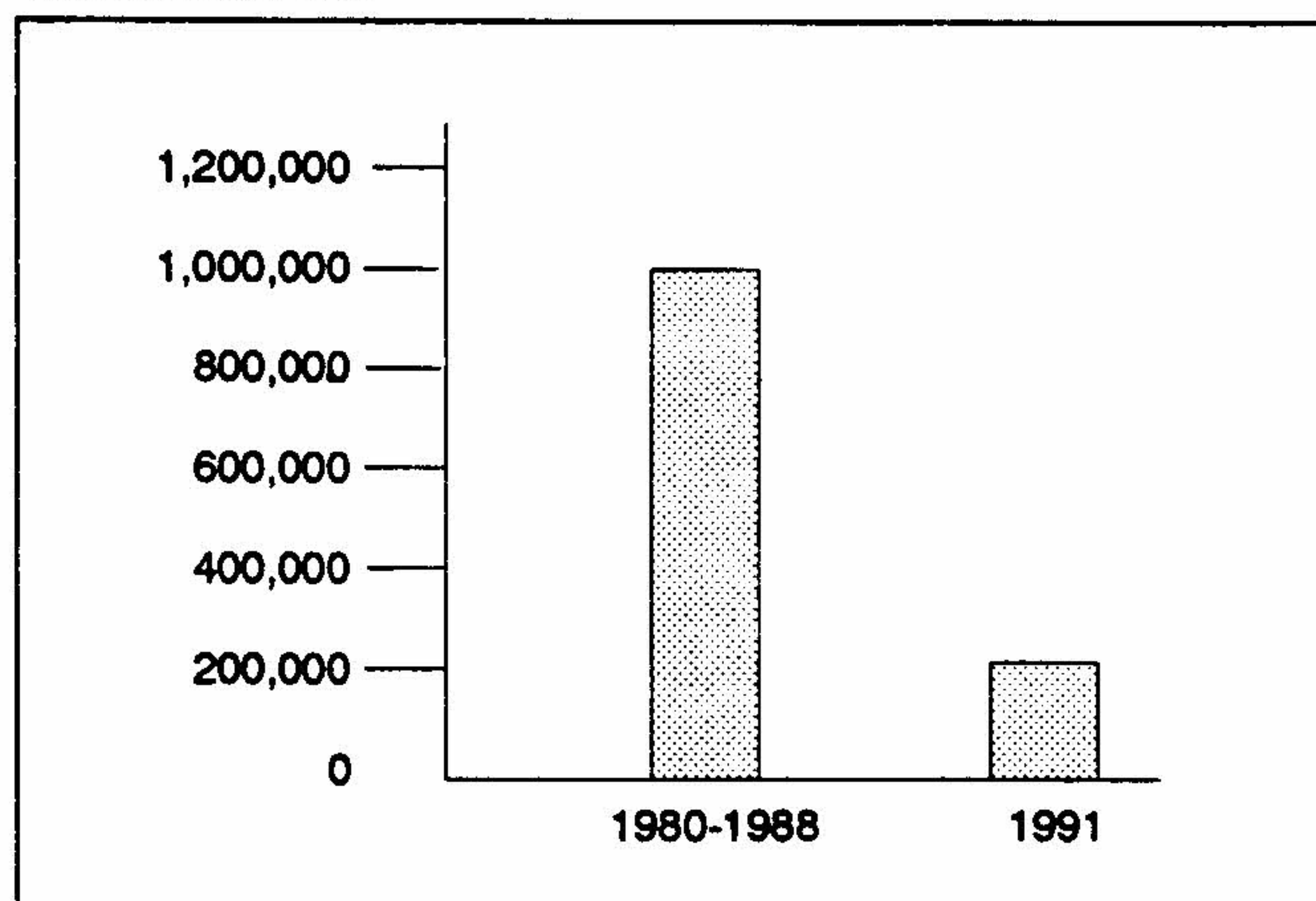
(b)(1),(b)(3):10 USC 424,1.4 (c)



(b)(1),(b)(3):10 USC 424,1.4 (c)



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(U) Comparison of Annual Population Growth in Russia, 1980-1988 versus 1991.

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SECTION V

REGIONAL ASSESSMENT

Middle East

(U) Countries in the Middle East have become acutely aware of their reliance on foreigners for medical personnel and training, and medical materiel. The financial burden of quickly growing populations and the increasing cost of imported medical care have motivated Middle Eastern governments to place an emphasis on becoming self-sufficient in health care matters.

(b)(1),(b)(3):10 USC 424,1.4 (c)

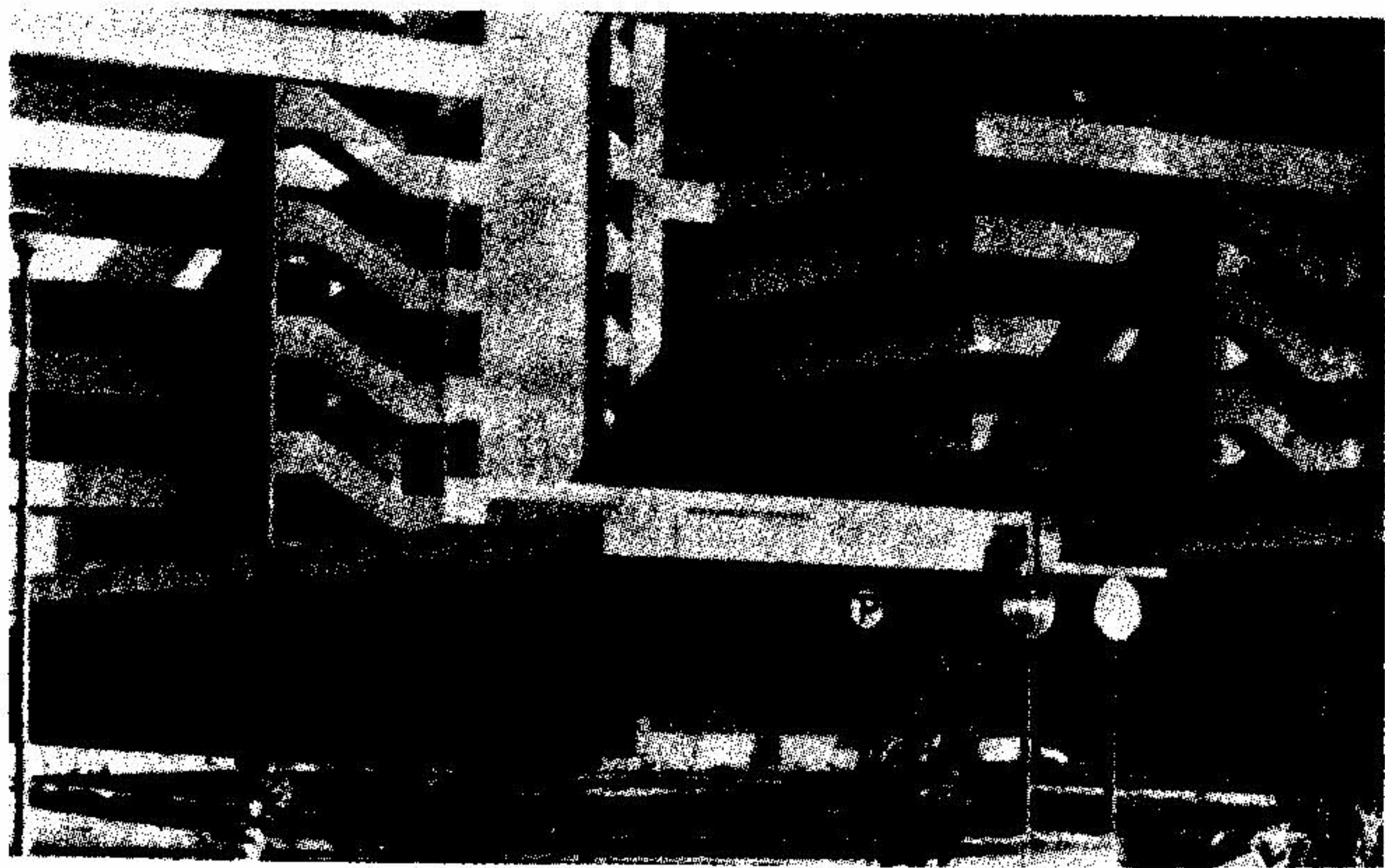
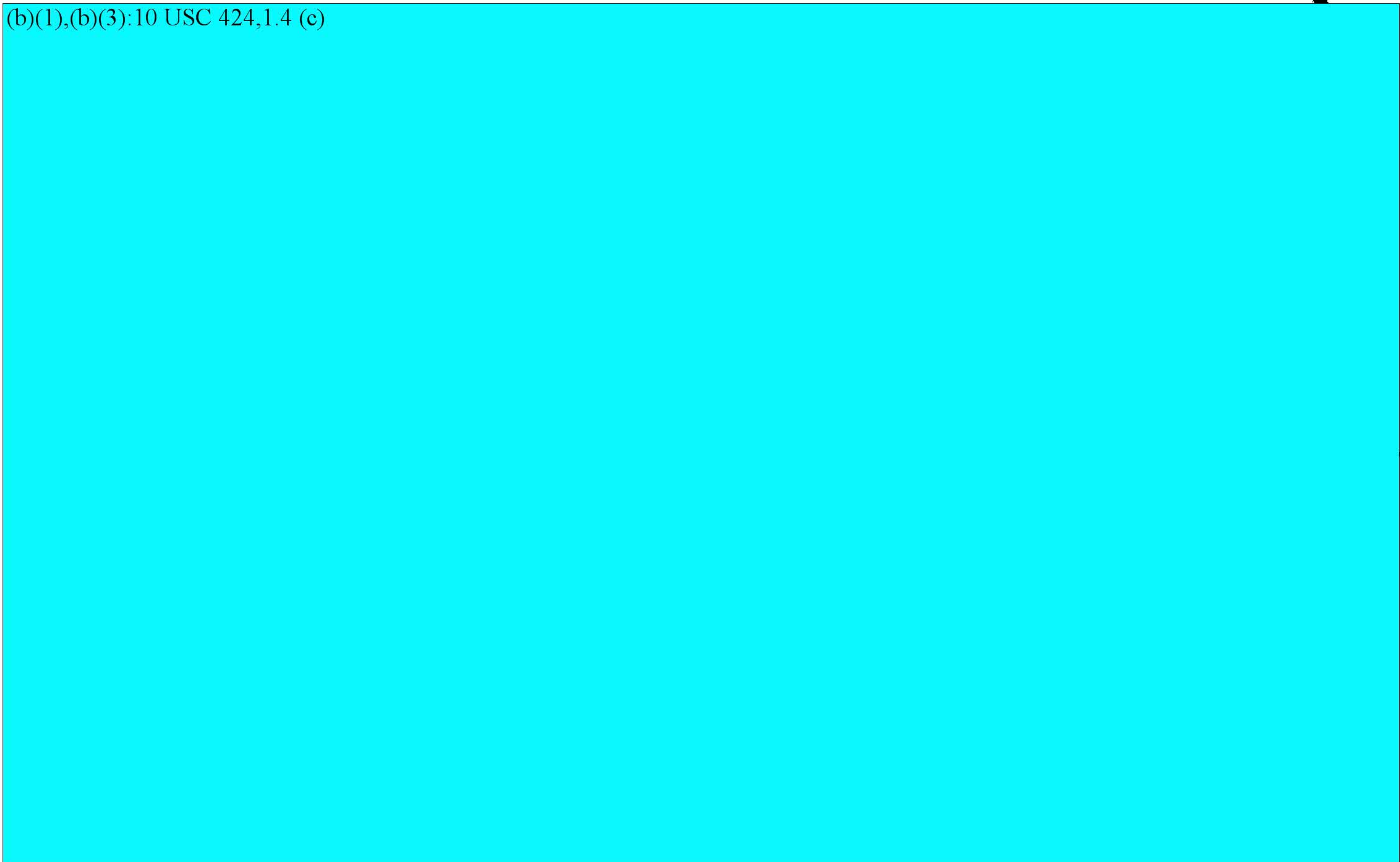


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Bahrain

(b)(1),(b)(3):10 USC 424,1.4 (c)



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(U) Al Salmaniyah Medical Center,
Bahrain.

Iran

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) A government hospital, the Ayatollah' Ali Moradyan Hospital of Nahavand, was built in rural Iran with private funds at an approximate cost of US \$57 million. The Ministry of Health, Treatment, and Medical Education, which supervised the construction of the facility, contributed US \$1.9 million toward equipment. The construction of this facility is indicative of the government's desire to involve the private sector in meeting future medical needs.

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) Drug-resistant falciparum malaria became more prevalent in southeastern Iran, particularly in Baluchestan-Sistan and Hormozgan Provinces, further increasing the risk of malaria in this region.

Trends

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) Iran has placed a heavy emphasis on self-sufficiency in the production of pharmaceuticals, but the country has a major problem producing raw materials required by drug manufacturing industries. Severe shortages have resulted, and black marketing activities in

pharmaceuticals appear to be increasing. Yet, the importation of pharmaceuticals continues to be frowned upon by the Iranian government. Even with numerous new medical treatment facilities and adequately trained medical staffs, it is extremely unlikely that health care in Iran will improve significantly during the next 5 years unless adequate supplies of pharmaceuticals can be obtained on a regular basis.

Iraq

(U) Malaria (vivax predominates) became a public health problem among the Kurds in northern Iraq during mid-1992. Initial seasonal cases occurred recently in Sayyid Sadiq, Al Sulaymaniyah Province, and the case total in Mosul "increased to 951 in May." However, because of lack of comparative data, it was unclear whether risk and incidence were elevated above baseline levels.

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

Israel

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

Jordan

(U) Unreported foci of low-level vivax malaria transmission may exist in rural areas below 1,100 meters elevation, particularly in areas adjacent to Syria and along the Jordan Valley.

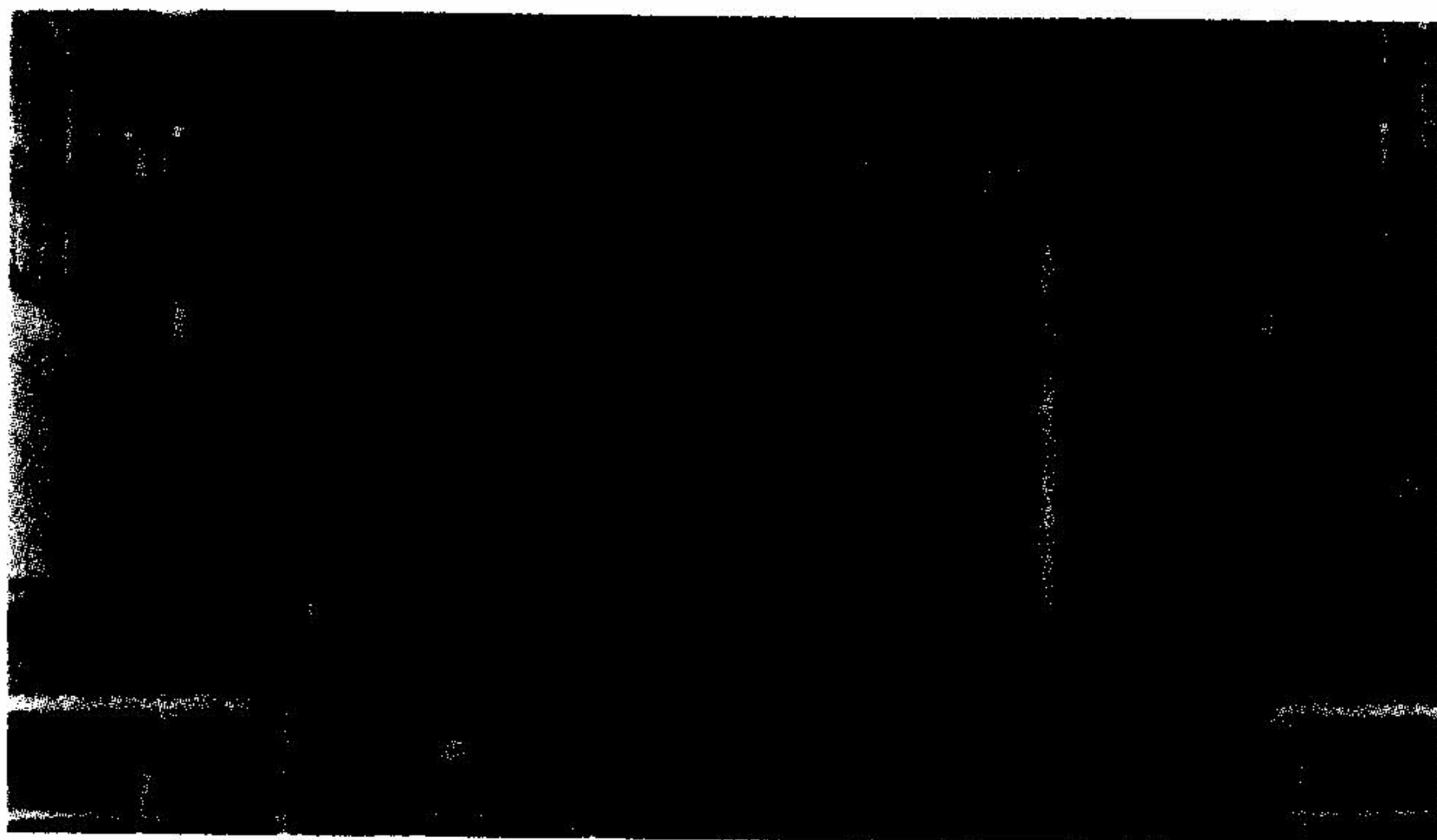
Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

Kuwait

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)



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(U) Mobile Emergency Facility in Kuwait.

Lebanon*Trends —*

(U) The Lebanese military and civilian medical infrastructures will remain unchanged. Due to financial constraints, most medical resources will be provided by foreign-sponsored nongovernmental organizations. No major medical reconstruction projects are anticipated next year.

(b)(1),(b)(3):10 USC 424,1.4 (c)

Oman

(U) During December 1992, the opening of the Oman Institute of Public Health was announced. The Ministry of Health built the institute with the intent to train Omanis as nurses, physiotherapists, radiology and laboratory technicians, and assistant pharmacists. This endeavor resulted from the government's attempts to increase the number of Omani nationals in the medical profession through a national program of "Omanization."

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

Saudi Arabia

(U) Hepatitis C virus (HCV) infection was confirmed in Saudi Arabia, with the prevalence of HCV antibodies in samples of healthy adult Saudis varying from 1.3 to 5.3 percent. Previously, HCV was presumed to occur, based on reports of post-transfusion non-A non-B hepatitis.

(U) The resurgence of malaria in southwestern Saudi Arabia elevated the risk of malaria, particularly in Jizan Province.

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) Saudi Arabia has insufficient blood stores to support a major medical contingency. There is an increasing distrust of the quality of donated blood and concern about possible HIV transmission through imported blood and blood products. However, when Saudi Arabia began reducing blood imports in response to the fear of importing HIV-contaminated blood, national blood shortages increased. Because of Saudi reluctance to donate blood, the country will continue to depend on imported blood.

Syria

(U) A significant number of the cases of cutaneous leishmaniasis reported during 1991 probably occurred in previously unreported enzootic foci (point specific geographic areas) in the Dumayr region (33-39N 036-42E) and were caused by *Leishmania major*.

Yemen

(b)(1),(b)(3):10 USC 424,1.4 (c)



SECTION VI

REGIONAL ASSESSMENT

Latin America

(U) In line with the general reduction of public outlays, most governments have cut back substantially on funding for civilian health services. Although funding figures are highly sensitive to devaluation and inflation and, thus, changes in the capacity to provide care are not necessarily as large as changes in apparent real expenditure, the reduction in resource commitment has been considerable in many countries. The restrictions on these small countries' organizational and monetary resources makes foreign assistance especially important.

(U) Providing an acceptable level of health care to the general population is the principal issue for health care delivery in Latin America. In-country resources for such programs usually are insufficient. Often, programs to bring health care to rural populations are hindered by the reluctance of medical personnel to live and work in the countryside. The underdeveloped transportation system, especially in rural areas, is another hindrance to the provision of health care. Even though most medical resources are located in cities, continuing rural-to-urban migration is placing a burden on urban health care facilities.

(U) Cuba's government had been an exception to this analysis. Cuba has a very developed health care system which provides services to the entire population. However, with reduced trade with the former Soviet Bloc and the recent tightening of the long-standing embargo by the US, tremendous pressure is being placed on the Cuban economy. Less hard currency is available to purchase medical equipment, replacement parts, and medical supplies abroad. Physicians in Cuba believe that medication shortages currently are Cuba's biggest health care problem.

(U) Latin American health care systems also must deal with epidemics of two diseases that will significantly alter their populations' health: cholera and AIDS.

(U) The current cholera epidemic has placed additional strains on civilian health care systems within many countries. Most Ministries of Health have education programs in place to prevent outbreaks and treatment programs for those who contract the disease. However, most preventive measures are long-term sanitary infrastructure issues, such as the quality of drinking water and proper waste disposal.

(U) The AIDS epidemic eventually will require more and more attention from public health authorities. There will be an increasing need for tertiary care and hospice-style care. Many AIDS victims in Latin America, especially the impoverished, will receive little care that could prolong or improve their quality of life during their illness. Presently, Cuba has invested the most time and effort in an AIDS program. Although the harsh Cuban testing and isolation program has slowed the momentum of the epidemic, the number of HIV-infected persons will gradually increase.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)



(U) Infectious diseases having the greatest regional impact during 1992 included cholera, dengue fever/dengue hemorrhagic fever, and malaria. The ongoing cholera epidemic that began in Peru during early 1991 spread to all Central and South American countries, except Paraguay and Uruguay. Cholera likely will become endemic in most areas where systems for distribution of potable drinking water and for disposal of human wastes are inadequate. Dengue fever was widespread regionally; outbreaks were reported from at least 10 countries, of which at least 2 also reported dengue hemorrhagic fever. Because *Aedes albopictus* (another dengue vector) can utilize a wider variety of breeding habitats than *Ae. aegypti*, its recently recognized introduction into Brazil and Mexico has created the potential for further expansion of dengue fever endemic areas. Risk from malaria appeared elevated regionally, with increased incidence and/or outbreaks of vivax malaria reported from several countries. Risk from falciparum malaria appeared elevated in Bolivia and Colombia. Both mefloquine-resistant falciparum malaria and chloroquine-resistant vivax malaria were reported from Brazil.

Argentina

(U) A contaminated over-the-counter drug resulted in many deaths and subsequent scrutiny of pharmaceutical control standards in Argentina. If stricter legislation results, the entire Southern Cone could follow suit.

Belize

(b)(1),(b)(3):10 USC 424,1.4 (c)



Bolivia

Trends —

(U) Bolivia heavily relied upon foreign aid for health programs. The continued poor quality and coverage of health services in Bolivia are reflected in statistics on malnutrition, maternal and infant mortality, and morbidity. Lack of adequate services are indicated by a high incidence of preventable infectious diseases. Poor medical capabilities were particularly apparent during the cholera epidemic of the early 1990s. Inappropriate control measures

were effected, death rates were high, and there probably was an official cover-up of the true incidence of the disease.

(U) In 1990, Bolivia obtained an unprecedented agreement for debt-bond exchange, in which money was provided for health programs in exchange for cancellation of Bolivian debt. The imaginative plan is a pragmatic stance, and may persuade the staunch defenders of nationalism in other Latin American countries that similar reforms will be to their benefit.

(b)(1),(b)(3):10 USC 424,1.4 (c)

Brazil

(U) During 1992, a Brazilian research foundation sought a world patent on recombinant antigens and synthetic peptides for use in diagnosing Chagas' disease. These materials could contribute significantly to rapid, accurate diagnosis of the disease and increased safety of blood supplies.

(U) Following an audit of health ministry contracting, charges of fraudulent bidding surfaced. All directors of the National Health Foundation and the Central Medical Supplies Exchange (probably the purchasing mechanism for the ministry) were dismissed.

(U) Extensive outbreaks of dengue fever occurred in the interior during 1991. Up to 90,000 inhabitants of northern Tocantins State may have been infected by dengue 2 during the second quarter of 1991, and an outbreak in Mato Grosso do Sul State totaled 4,735 cases during December 1991.

(U) Chloroquine-resistant vivax malaria may occur in some areas of the Amazon basin. An individual who had contracted vivax malaria in Rondonia State allegedly suffered relapses after departure to nonmalarious areas; treatment with both chloroquine and primaquine were administered both in malarious and nonmalarious areas.

(U) A case of mefloquine-resistant falciparum malaria acquired in the Amazon Basin indicated that such resistance may be more widespread in Brazil than previously believed.

Trends —

(U) In the past few years, two new public health problems have been added to the numerous ongoing health problems in Brazil: AIDS and cholera. AIDS programs were slow to start and have been inadequate to meet the challenge. There has been no indication that the necessary, extensive investment in the sewage and water treatment infrastructure to avert cholera will occur. Consequently, AIDS and cholera will further stress an overtaxed health care system during the next few years.

(U) The 1992 appointment of a health minister with an understanding of public health issues was unusual in Latin America, and may portend increased support of public health programs. Political endorsement will be a necessary component of a successful program. Currently, the political will of the new administration in this regard is unknown. The continuing economic crisis will limit the likelihood of increased governmental focus on public health problems.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

Chile

Trends —

(U) Because of an inadequate health budget in the 1980s, public hospitals have deteriorated and salaries of personnel have been lower than those in the private sector. As a result, there has been an increase in personnel strikes, and a dramatic expansion of private health care services to meet the demands of wealthier citizens. Since 1991, the government has responded with a visible investment in public health infrastructure and equipment.

(U) Given Chile's new democratic climate and a commonly held attitude of a right to public health care, labor activism of health care personnel will continue. The government probably will respond by continued investment in health care infrastructure and measures to improve labor relations. Long waiting periods for patients of the public system will continue, as demands for services continue to outpace limited resources. The private sector will continue to offer excellent health care to those who can afford it.

(b)(1),(b)(3):10 USC 424,1.4 (c)

Colombia

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) A report in late July 1992 stated that 31 "new cases" of dengue hemorrhagic fever (DHF) occurred in the vicinity of Ibagué, indicating that at least two outbreaks of DHF may have been ongoing during July. An outbreak (including at least 320 cases, 7 fatal) previously was reported from Bucaramanga (approximately 350 kilometers north-northeast of Ibagué), where a "health emergency" was declared.

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

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(U) Colombian Military Dental Clinic.

Cuba

(U) In September 1991, specialists from Cuba and Venezuela met in Havana to discuss issues in biotechnology, microbiology, and marine ecology. By cultivating its relationship with Venezuela, Cuba may be hoping to gain access to funding, Venezuelan and Western technology, and a larger biotechnology market.

(U) During 1992, Cuba introduced a reportedly successful peptic ulcer treatment using chitin, a naturally occurring cellulose-like compound that has been exploited for its medicinal properties.

(b)(1),(b)(3):10 USC 424

Trends —

(U) During this economic "special period," Cuba's health care system began to deteriorate. The system was partially subsidized indirectly by assistance from the former Soviet Union and other Warsaw Pact countries. With the liberation of Eastern Europe and Russia, subsidies to Cuba decreased drastically or were discontinued. Regular expenditures of hard currency and investment in the health sector will stagnate and probably decrease in the next 5 years.

(U) The decrease in investments will slow any construction projects and probably will result in less maintenance of already constructed facilities.

(U) Comparative Demographic Data, 1992			
	Cuba	Caribbean Region*	US
Estimated Population (millions)	10.8	34	254.5
Natural Increase (annual %)	1	1.8	0.8
Population Projected to 2010 (millions)	12.3	43	299
Infant Mortality Rate (per 1,000 live births)	12	55	10
Life Expectancy at Birth	75	69	75
Crude Birth Rate (per 1,000 population)	18	26	17
Crude Death Rate (per 1,000 population)	6	8	9
% Population Under 15 Over 64	23/9	32/6	22/12
*Aggregate data for Caribbean region, including Cuba			
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(U) The decrease in hard currency reserves drastically affected purchase of imported medical materiel. Reportedly, severe shortages exist of syringes, catheters, sutures, chemical reagents for diagnostic tests, x-ray film, condoms, and birth control pills. Critical shortages of pharmaceuticals are worsening, and inhabitants find it increasingly difficult to acquire prescribed pharmaceuticals. Concurrently, Cuba is making efforts to increase its export of biomedical products to earn hard currency.

(U) As the economic conditions worsen on the island, health personnel assigned to teams serving in foreign countries may take the opportunity of the assignment to defect. This may force the health ministry to reevaluate sending personnel overseas. However, the incentive to earn hard currency is so intense that teams likely will continue to be deployed, but with increased security screening before deployment.

(U) As the civilian health system deteriorates, it will become less able to support the Cuban military adequately during wartime. For example, extreme shortages of oil supplies may cause reductions in the capability of ambulances to respond to requests for evacuation. There still will be a capacity to move noncritical and elective cases from hospitals, but material and equipment limitations will restrict those capabilities.

Ecuador

(U) Reports of deaths attributed to chloroquine-resistant falciparum malaria (CRFM) occurring in Guayaquil during July 1992 indicate that risk from CRFM currently may exist in that region. CRFM previously had not been recorded from Guayaquil, where endemicity of falciparum malaria has been relatively low.

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(U) Military Hospital -
Quito, Ecuador.

El Salvador

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Currently, the Salvadoran government is involved in health projects within the National Reconstruction Program, which is heavily funded by the US Agency for International Development. According to a 1 June 1992 speech by President Cristiani, the government is emphasizing provision of basic health care by medical assistants and practical midwives at health centers. Preventive measures include vaccination campaigns, and potable water and latrine projects.

Guatemala

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

Haiti

(U) Cases of "dengue fever" recently were reported from among repatriate-monitoring personnel. Although presumed endemic, dengue fever officially had not been reported from Haiti since 1985.

Trends —

(U) With the loss of the majority of its foreign aid, Haiti's health care system is in jeopardy of reducing its already minimal capabilities. Under the current economic and political conditions, little improvement can be expected. Any improved capability probably will result only from external assistance.

(U) Because of deplorable environmental conditions, lack of preventive health services, and nearly nonexistent community health education programs, communicable diseases will continue to be a major menace to the Haitian population in the indefinite future.

Honduras

(U) Through late April 1992, 14,300 cases of malaria (vivax predominates) had been "registered so far this year," approximately 38 percent more cases than occurred during the comparable period of 1991. Incidence of malaria in Honduras apparently has been increasing at least since 1990.

Nicaragua

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Although health care has deteriorated slightly, several health indicators, including the infant mortality rate and death rate, improved during the past 3 years. The improvements probably are related to a peaceful country (versus the warfare of the mid-to late 1980s between the government and the Contras) rather than to any improvements in the health care system.

Peru

(U) An outbreak of bartonellosis (a sand fly-vectored bacterial infection endemic to Andean mountain valleys at elevations of 750 to 2,500 meters) in Yungay resulted in at least 500 cases (15 fatal) as of 19 June 1992.

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SECTION VII

REGIONAL ASSESSMENT

Africa

(U) Health care delivery has been severely affected by decreased funding. Civil strife and instability have stressed the health care system through an increased demand for services. In this region, South Africa has the best available and most comparable health care to Western standards.

(U) Except for a few primarily Islamic countries, the AIDS outlook for the military and civilian populations and governments of Africa is grim. The epidemic is firmly entrenched in Africa and is especially prevalent in military and prostitute populations. The large numbers of HIV-carriers in many Sub-Saharan militaries, police forces, and governments threaten to cause complete breakdowns of institutions and law and order. Senior military officers, professionals, and businessmen in upper and middle management ranks, the most experienced, educated, and economically productive segment of the population, will be increasingly difficult to replace as illnesses and deaths occur. HIV infection levels in both the military and general populations will continue to rise over the next 10 years, and millions of HIV-infected individuals will develop AIDS.

(U) The result will be dire economic and social consequences for most of Africa, with the situation being particularly grave in Central and East Africa. Total health care spending by most African governments ranges from US \$0.15/capita/year to several hundred dollars. African governments will be unable to respond to the financial burdens that HIV-infected populations will place on their barely adequate health care infrastructures.

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Significant disease issues were associated with refugees and displaced persons in the Horn of Africa (Djibouti, Ethiopia, Kenya, Somalia, and Sudan), the southward extension of the sub-Saharan meningococcal meningitis belt, and the ongoing drought in southern Africa. Continuing civil unrest and drought have worsened health conditions--primarily severe malnutrition and increased disease incidence--and complicated relief efforts for refugees and displaced persons in the Horn of Africa. During the foreseeable future, these populations will continue to be at an elevated risk from increased incidence and outbreaks of a variety of endemic infectious diseases. Meningococcal meningitis outbreaks in Burundi, Kenya, Rwanda, Tanzania, and Uganda indicate a southward extension of the historical sub-Saharan meningitis belt. Although these recent outbreaks appear to have a seasonal increased incidence during the drier parts of the year, sufficient data are not yet available to fully assess whether these "southward extension" outbreaks follow the same pattern as those in the historical belt (where case totals peak during the dry season and decline as the rainy season begins). In drought-stricken areas of southern Africa (including Lesotho, Malawi, and Zambia), the overall risk and incidence for diseases associated with poor sanitation are elevated because of increased contamination and pollution of limited water and food supplies. Other underlying problems, such as malnutrition, will exacerbate infectious disease morbidity and mortality among the affected populations.

Algeria

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) Algerian medical facilities continued to deteriorate. Shortages of oxygen at Zeralda Hospital severely restricted surgical and gynecological procedures. Medical maintenance deficiencies were experienced at the Oran University Hospital Center in Oran. The city's sole chemotherapy apparatus malfunctioned due to poor maintenance and almost contaminated the radiotherapy treatment area with radioactive cobalt.

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

(b)(1),(b)(3):10 USC 424,1.4 (c)

Central African Republic

(b)(1),(b)(3):10 USC 424,1.4 (c)

Djibouti

(U) HIV seroprevalence in "street" and "bar" prostitutes in Djibouti city increased drastically since the late 1980s, indicating the spread of HIV infection among prostitutes in Djibouti and elevated risk of heterosexual transmission from this high-risk group.

Egypt

(b)(1),(b)(3):10 USC 424,1.4 (c)

Trends —

(U) Egypt's medical infrastructure will be unable to develop significantly enough to keep up with the country's rapidly expanding population. Future health care in Egypt is expected to decline significantly without massive foreign assistance.

(U) Poor emergency medical response following the 12 October 1992 earthquake demonstrated the government's inability to respond to mass casualty situations and resulted in riots and political unrest. Inadequate emergency medical capabilities will continue to serve as a source for political unrest.

(b)(1),(b)(3):10 USC 424,1.4 (c)

Ivory Coast

(U) The influx of Liberians into the Ivory Coast during early 1992 overtaxed the limited public health infrastructure in affected areas, leading to outbreaks of "dysentery." Increased incidence of other infectious diseases and outbreaks among the displaced population occurred throughout the year.

(U) Falciparum malaria exhibiting R1 resistance to halofantrine, an antimalarial drug, was confirmed in the Ivory Coast during early 1992. Falciparum malaria accounts for approximately 90 percent of all malaria cases in the Ivory Coast.

Kenya

(U) The Kenyatta National Hospital in Nairobi received approximately US \$25 million from the World Bank to help fund a government program to boost the facility's health care capabilities.

Mozambique*Trends —*

(U) Mozambique will continue to be limited in its ability to respond effectively to disasters. There appears to be almost no disaster planning, medical resources are very limited, and the medical infrastructure has little capability to organize and conduct emergency medical operations.

(U) All military medical support and resources come from the civilian health care sector. This trend is expected to continue for the next several years.

(U) Mozambique will continue to rely almost entirely on foreign aid, especially from the WHO, which provides a vast majority of its health budget and supplies.

Namibia

(b)(1),(b)(3):10 USC 424,1.4 (c)

*Trends —*

(U) The Nigerian military has an ongoing program to screen all applicants for military service and some active duty personnel for AIDS. Additionally, the Ministry of Health is developing a 5-year plan for confronting the disease, which will focus, in part, on establish-

ing legislative AIDS policies and AIDS awareness. Although these are very significant measures, Nigeria will have great difficulty developing an effective AIDS program during the current economic downturn.

Sierra Leone

(b)(1),(b)(3):10 USC 424,1.4 (c)

Somalia

(U) Somalia's medical capabilities have been severely disrupted by the civil war. There are minimal numbers of medical personnel and extremely severe shortages of medical materiel. The limited number of functioning hospitals all have critical deficiencies. Foreign assistance is alleviating some of these problems, but long-term improvements are unlikely without an end to the fighting and restoration of the country's decimated infrastructure.

(b)(1),(b)(3):10 USC 424,1.4 (c)

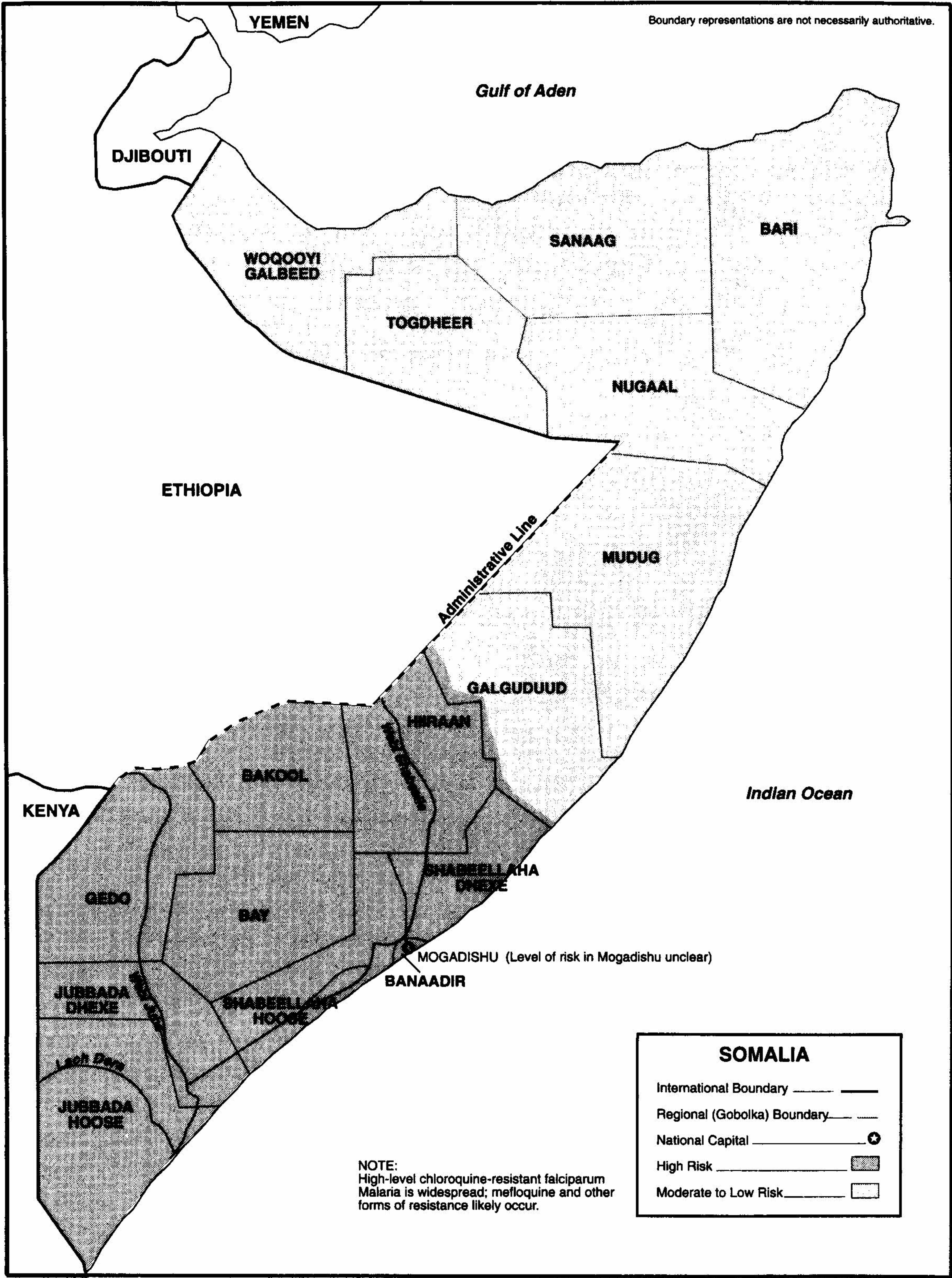
(U) In Somalia, self-administration of amphetamine-like compounds is widespread. The principal psychoactive agents, dextrorphan and levorphanol (with effects similar to both amphetamine and cocaine), are obtained by chewing leaves from the *Catha edulis* (khat) plant. Khat use has been associated with numerous behavioral and psychological changes, including appetite suppression, increased aggression, reckless behavior, impaired male sexual functioning, and gastrointestinal disorders. Chronic khat use may imperil relief efforts by exacerbating existing health problems, reducing the predictability of bandit "soldier" behavior, and exposing American and other UN troops to a readily available source of psychoactive drugs.

Trends —

(U) Although conditions will improve as aid continues to pour into the country, Somalia's basic medical infrastructure will remain poor for the foreseeable future. The medical situation will be critical until the civil war has ceased, and law and order have been restored. Even with the end of fighting, medical capabilities will be slow to improve because the country has no economic base with which to fund the extensive restoration of the medical organization, services, and facilities that will be required. The region will heavily depend on external assistance for an indefinite period.

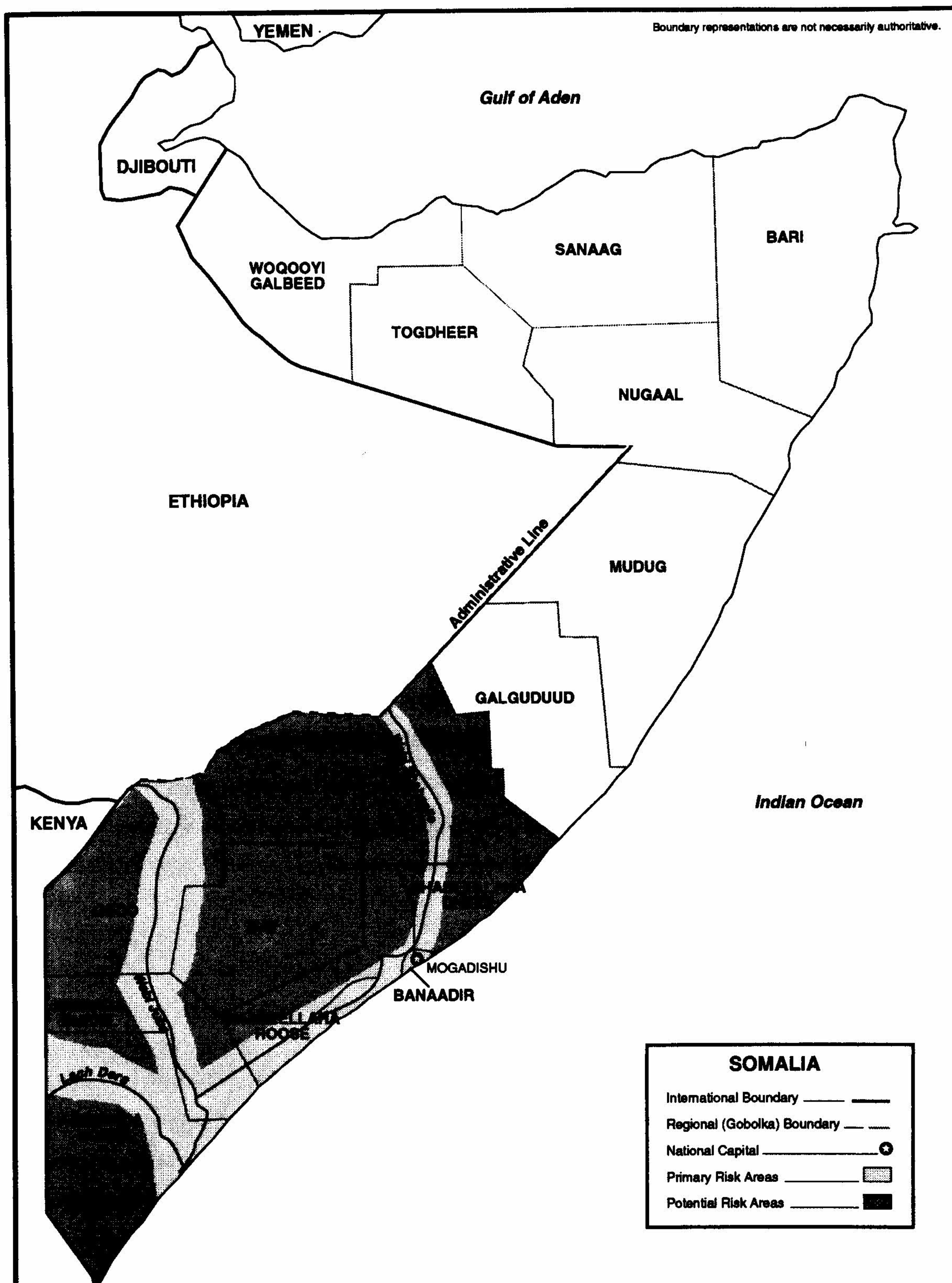
Comparative Vital Statistics, 1992			
	Somalia	Ethiopia	US
Birth rate (per 1,000 population)	49	47	16
Death rate (per 1,000 population)	19	20	9
Infant mortality (per 1,000 live births)	127	139	9
Life expectancy (years)			
male	52	46	72
female	52	48	79
Literacy (%)	24		
male	36		
female	14		
		UNCLASSIFIED	

UNCLASSIFIED



Reported Distribution of Malaria.

UNCLASSIFIED



Reported Distribution of Schistosomiasis.

South Africa

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) The South African Medical Service (SAMS) provides medical support to the South African Defense Force and makes extensive use of the civilian medical infrastructure. Since conventional operations normally take place over large, remote areas, SAMS uses local medical resources instead of building additional medical facilities or deploying with medical supplies. Long-term and trauma cases normally are moved to military hospitals in Capetown, Bloemfontein, or Pretoria.

Trends —

(U) South African medical services, both military and civilian are the best on the continent and are likely to remain so for the foreseeable future. Medical care to the white population of the country is comparable to that found in modern industrialized countries. Health care for the remainder of the population is substandard by comparison, but may undergo significant improvement during the next few years as the country continues the dismantling of the apartheid system.

(U) Health care services, both military and civilian, undoubtedly will change substantially over the next few years as South African society moves toward desegregation of the races. Although it is far too early to predict specific changes, medical care to the black population is certain to improve.

(U) AIDS has infected South African citizens, but relatively later than the other African countries. The government has been slow in mustering its prevention arsenal and thus is in the position of facing a Third World epidemic with a population that may expect First World resources to be devoted to the care of the sick. During the next few years, the government will experience difficulties deciding what portion of the budget will go toward the care of HIV-infected patients.

Sudan

(b)(1),(b)(3):10 USC 424,1.4 (c)

(U) As of early 1992, an epidemic of visceral leishmaniasis ongoing in southern areas since 1989 resulted in approximately 40,000 deaths among a population of 350,000. Contributing factors included the collapse of the local infrastructure and lack of medical personnel and supplies.

(U) Hepatitis E virus (HEV) was serologically documented as a common cause of previously reported enterically transmitted non-A, non-B (NANB) acute viral hepatitis in Sudan. (HEV earlier was documented as a common cause of acute viral hepatitis in Egypt and Ethiopia.)

Trends —

(b)(1),(b)(3):10 USC 424,1.4 (c)

**Tunisia*****Trends —***

(b)(1),(b)(3):10 USC 424,1.4 (c)

**Uganda**

(b)(1),(b)(3):10 USC 424,1.4 (c)

**Zambia**

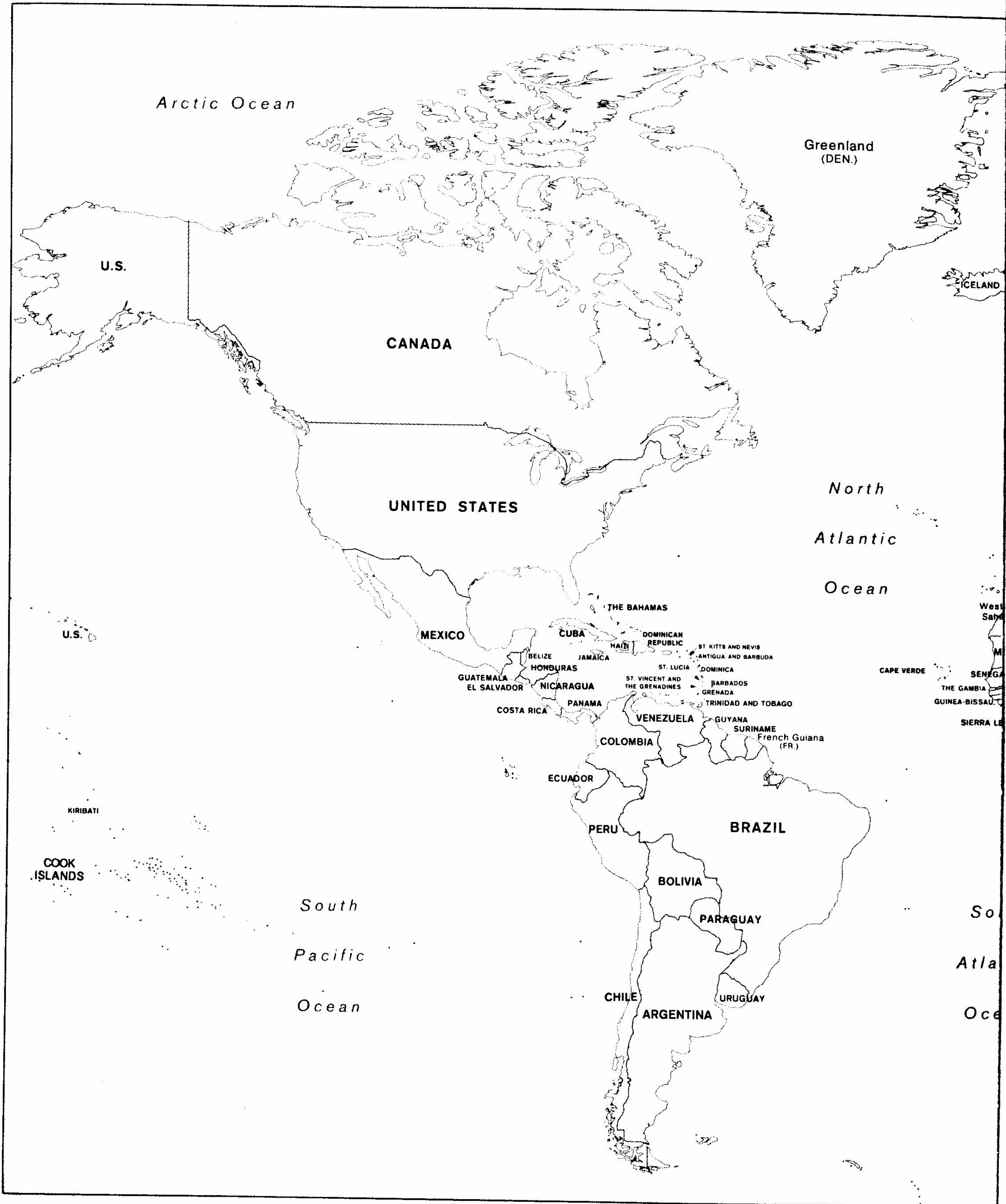
(b)(1),(b)(3):10 USC 424,1.4 (c)

**Zimbabwe**

(b)(1),(b)(3):10 USC 424,1.4 (c)



UNCLASSIFIED





This is a black and white outline map of Asia and its surrounding regions. The map includes the following labels:

- Continents and Major Regions:** RUSSIA, CHINA, INDIA, AUSTRALIA, NEW ZEALAND.
- Major Bodies of Water:** Arctic Ocean, North Pacific Ocean, Indian Ocean.
- Neighboring Countries and Territories:**
 - Europe:** FINLAND, ESTONIA, LATVIA, LITHUANIA, BELARUS, UKRAINE, MOLDOVA, ROMANIA, BULGARIA, GREECE, CYPRUS, TURKEY, SYRIA, JORDAN, ISRAEL, EGYPT, SAUDI ARABIA, IRAQ, IRAN, KAZAKHSTAN, UZBEKISTAN, KYRGYZSTAN, TURKMENISTAN, TAJIKISTAN, AFGHANISTAN, PAKISTAN, NEPAL, BHUTAN, BANGLADESH, SRI LANKA, MALDIVES.
 - Central and South Asia:** KAZAKHSTAN, UZBEKISTAN, KYRGYZSTAN, TURKMENISTAN, TAJIKISTAN, AFGHANISTAN, PAKISTAN, NEPAL, BHUTAN, BANGLADESH, SRI LANKA, MALDIVES.
 - East Asia:** N. KOREA, S. KOREA, JAPAN.
 - Southeast Asia:** BURMA, LAOS, VIETNAM, CAMBODIA, THAILAND, MALAYSIA, SINGAPORE, BRUNEI, PHILIPPINES, INDONESIA, PAPUA NEW GUINEA.
 - Oceania:** AUSTRALIA, NEW ZEALAND.
 - Other Islands and Territories:** HONG KONG (U.K.), MACAU (P.R.C.), FEDERATED STATES OF MICRONESIA, MARSHALL ISLANDS, NAURU, KIRIBATI, TUVALU, WESTERN SAMOA, FIJI, VANUATU, SOLOMON ISLANDS, MAURITIUS, SEYCHELLES, ZAMBIA, ZIMBABWE, BOTSWANA, SOUTH AFRICA, LESOTHO, SWAZILAND, TANZANIA, KENYA, UGANDA, RWANDA, BURUNDI, ZAMBIA, ZIMBABWE, BOTSWANA, SOUTH AFRICA, LESOTHO, SWAZILAND, TANZANIA, KENYA, UGANDA, RWANDA, BURUNDI.
 - Antarctica:** French Southern and Antarctic Lands (FR.).

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