

Mental health problems are responsible for 20 percent of the total disease burden and 1 percent of mortality. This high rate of mental disorders reflects a society that endured years of wartime traumas. The suicide rate, 17 per 100,000 deaths, is similar to other Balkan states. Unintentional injuries and accidents is in line with European Union averages, causing 46 out of every 100,000 deaths. Road traffic injuries are very high at 739 per 100,000, compared to 297 per 100,000 in the rest of the EU.

Even before the split, the health systems of Serbia and Montenegro were essentially separate. Serbia has 45 hospitals and 57 specialized inpatient facilities, while Montenegro has seven general hospitals and three specialized hospitals. A private health system is developing, but has not yet been integrated into the state structure and is largely unregulated. Insurance is compulsory, financed by payroll taxes and international aid, and managed by state-run insurance bureaus. There is currently a gap between funding levels and reimbursements, leaving patients to cover the difference with out-of-pocket payments.

SEE ALSO: Healthcare, Europe; Mental Health.

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Severe Acute Respiratory Syndrome (SARS)

Severe Acute Respiratory Syndrome (SARS) is one example of what is referred to as a new and emerg-

ing disease—that is, a disease whose incidence has increased in the last two decades; one that is newly appearing; or a disease that is spreading to new geographic areas. Other examples include HIV/AIDS, West Nile virus, Hantavirus, Ebola, monkey pox, and *E. coli* O157:H7. SARS was the first *global* epidemic of an emerging infectious disease of the new century.

Over 8,000 SARS cases were identified at various locations throughout the world from January to May 2003 with nearly 10 percent succumbing to this disease. Although this fatality rate was high in comparison to most common infectious diseases (e.g., the case fatality rate for normal strains of influenza is around 1 percent), it was lower than other more lethal and virulent diseases such as Ebola which has a fatality rate between 70 and 90 percent.

The causative agent of SARS was discovered to be a member of the coronavirus family whose other members cause a substantial fraction of the common colds experienced by humans. The SARS coronavirus damages the aveoli causing the lungs to be filled with a mixture of blood and dead cells and prohibiting the exchange of respiratory gases.

SARS originally involved a zoonotic transmission in which the novel coronavirus crossed over from an animal species to humans, then adapting itself so that it could be transmitted between human hosts themselves. The palm civet cat is suspected to be the animal host reservoir for SARS. Because this animal is captured and sold for human consumption in southern China, it is thought that the initial viral crossover to humans occurred in the live animal wet markets of this area. The first human cases of SARS were identified in November 2002, as workers and food handlers in the animal markets of Guangdong province became ill with a mysterious disease then classified as "atypical pneumonia."

In early February, outbreaks occurred in various boom towns in areas of southern China, but these were small and localized and did not garnish much attention. In February 2003, a larger number of cases of the mysterious respiratory illness surfaced in local hospitals in the larger city of Guangzhou, spreading conspicuously amongst hospital staff and close contacts of infected patients. One of those infected was an elderly physician who subsequently traveled to Hong Kong where he stayed at the Metropole Hotel. This index case was later classified as a "superspreader"—an individual who, unexplainably, exhibits enhanced

infectivity. From this index case, 11 other hotel guests became infected. Among these guests were those who continued their travels within Hong Kong and to other major cities such as Toronto, Singapore, and Hanoi. All of Vietnam's 63 SARS cases, 238 cases in Singapore, and 136 cases in Toronto could be traced to this superspreading event.

With the development of a formal case definition by the World Health Organization (WHO), local containment efforts proved to be successful. Such efforts involved traditional measures of contact tracing and quarantine where those infected were asked to list all of the people he or she had been in contact with in the previous three weeks. Through follow-up, it would then be determined if the contacts were infected. Those infected would be quarantined to break the chain of transmission.

The international response to SARS was coordinated by the WHO's global influenza surveillance network. The WHO also mobilized the Global Outbreak Alert and Response Network, a partner organization comprised of 115 national health services, academic institutions, technical institutions, and individuals, to pursue internationally driven collaborative work on SARS. Telecommunication networks facilitated collaborative research among 11 laboratories dispersed throughout the world. The establishment of a "virtual network" connected to a secure Web site and complemented by daily teleconferences, ultimately led to the landmark achievement of identifying the causative agent of SARS within just one month and delineating its genetic code soon thereafter (processes which usually take months or years under normal circumstances).

The rapid spread of SARS across the globe—spreading to five countries within 24 hours and more than 30 countries on six continents within six months—has been attributed to the ease and speed of international air travel in today's world. In this context, it should be noted that the incubation period of many infectious diseases (i.e., the period between exposure and symptom onset) is now less than the travel time between any two major urban centers of the world. Consequently, many infected travelers may inadvertently carry the disease to far off locations.

The globalized nature of infectious disease spread (and response) has many implications and reverberations for the economic, social, and political domains.

For example, the WHO travel advisories issued in April 2003 recommended the postponement of travel to SARS affected regions and this had significant economic repercussions for many sectors, but primarily the travel, hospitality, and retail industries. It has been estimated that the costs to the world economy due to SARS was close to \$54 billion.

At the macro level, new developments in international relations could also be identified, as the political world adjusts to conditions of globalized infectious disease spread. For example, the WHO, as a supranational organization, by issuing a travel advisory, broke with the tradition of noninterference with the ability of sovereign nations to conduct trade. Finally, SARS spread among the network of many of the largest and most influential cities of the world, cities that often host large diaspora communities. As was evident in Toronto, one of the most multicultural cities in the world, infectious disease may lead to social problems related to the stigmatization of certain ethnic and other marginalized groups.

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SEE ALSO: Epidemic; Institute of Medicine (IOM); MEDLINE; Public Health; Travel Medicine; Traveler's Health; Viral Infections; Virology; World Health Organization (WHO).

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Sexually Transmitted Diseases

Sexually transmitted diseases, often also referred to as sexually transmitted infections or venereal diseases, are infectious diseases that are primarily transmitted via vaginal, anal, or oral sex, or via other sexual contact. Pathogens infect via the mucous membranes of the penis, vagina, or mouth, which are generally more