

HEALTH & MEDICINE

Since its inception, [Israel](#) has been very successful in pursuing effective [Public Health policies](#).

Israel's high standards of health services, top-quality medical resources and research, modern hospital facilities, and an impressive ratio of physicians and specialists to population are reflected in one of the highest average life expectancies in the world. Despite its status as a young nation composed of immigrants principally from North Africa, the [former Soviet Union](#) and Central Europe, Israel's quality of life is still very high. Israel also managed to absorb thousands of [Holocaust](#) survivors in addition to many immigrants suffering from tuberculosis, malnutrition, heart disease and every type of cancer.

Over the past twenty years, Israel has also become a world leader in medical technology innovation and Israeli doctors and institutions have made significant contributions in virtually every field of medicine.

Public Health

The [Zionist Movement](#) in [pre-state Israel](#), which combined the traditional Jewish concern for all people with an emphasis on societal needs, regarded public health as a top social, political and economic priority.

By the time Israel declared its [independence](#) in 1948, a national health infrastructure was already in place. Mother-and-child care centers (Tipot Halav) administered vaccinations to new-born babies and advised parents on proper care of infants. Health insurance funds (Kupot Holim) offered day-to-day consultations with doctors and specialists, and insured members for hospitalization.

Despite Israel's commitment to providing health services for all of its citizens, by the early 90's some six percent of Israelis were not insured through one of the four existing health funds - Kupat Holim Clalit, Maccabi, Me'uhedet and Le'umit.

In 1994, the [National Health Insurance Law](#) was enacted and it was implemented the following year, rectifying this situation. Since then, all citizens have their health insurance paid by a tax on income (up to 4.8%) while their employer's portion is collected by the National Insurance Institute and passed on to the health insurance fund of the individual's choice. The country's sick funds and the [Ministry of Health](#) provide health services, including public clinics, preventive medicine, hospitals, research, dental care, private physicians, and government administration.

Health & Medicine Statistics

Israel's [national expenditure on health](#) is slightly below average for countries in the OECD. In 2010, the country spent approximately 57 million NIS on health & medicine accounting for 7.5% of the national GDP. This placed towards the bottom of countries, though the average expenditure was only a slightly higher 9%.

In 2008, Israel spent just under 53 million NIS, of which 43% was allocated to public clinics and preventive medicine, 34% to hospitals and research, and another 9% for dental care. As a comparison, Israel spent only 10.5 million NIS on health in 1971.

The 2010, the average [life expectancy](#) in Israel was 81.5 years, up by nearly 3 years on average since 2000. Jewish females had the highest life expectancy at 83.7 years while Muslims males had the lowest, at 76.8 years.

The [infant mortality rate](#) in 2010 was 3.6 deaths per 1,000 live births. This rate has dropped significantly since the mid-1990's, when the rate was hovering above 6 deaths per 1,000 live births.

In 2009, the main causes of death in Israel were heart diseases, diabetes, cerebrovascular diseases, ill-defined causes, kidney disease, lung and trachea diseases, and other malignant neoplasms.

At the end of 2010, there were 5,262 HIV carriers and 494 [AIDS](#) patients living in Israel. The Ministry of Health diagnosed 411 new cases of HIV (278 males, 133 females) in 2010 and 31 Israeli's died from the disease that same year.

In the 2006 estimate, Israelis aged 65 and over represent 9.8% of the population, those ages 15-64 make up 63.9%, and children up to the age of 14 and younger represent 26.3%.

Successes in Israel

University research results are put into practice by the public health system, while the Israel Council for Public Health runs campaigns to raise public awareness of relevant issues. In addition to increasing longevity and reducing infant mortality, Israel has completely eradicated a range of diseases, such as malaria, polio and diphtheria, which had plagued the country in its formative years.

As in most western countries, heart disease and cancer are the biggest killers. Successful educational campaigns have greatly reduced the level of smoking and the incidence of skin cancer caused by the sun's rays. Israel has the lowest percentage of new HIV positive victims in the western world, with just a few hundred new cases each year. This is largely attributable to comprehensive sex education programs offered in the country's high schools.

The country has also made significant strides in combating nutritional deficiencies. In the early years of the State, agricultural infrastructure was, in part, planned in conjunction with the Ministry of Health's nutritional recommendations. Today, the diet of Israelis favors vitamin-rich fresh fruit and vegetables.

Medical Technology Innovations

There is virtually no area of medicine to which Israeli devices have not made [significant contributions](#). Cardiology, genetics, neurology and ophthalmology are but a few of the [medical sciences](#) benefiting from advanced Israeli technology. From neonatology to gerontology to the latest in telemedicine, Israeli scientists, universities and companies are working to benefit the entire health system, from physician, to patient, to medical administrators and insurers.

Israeli medical and biotechnological scientists have created state-of-the-art surgical lasers; computerized no-radiation diagnostic instrumentation for [breast cancer](#); an intelligent medical sensor used to track and direct instruments to an exact location in the heart or other organs via a real-time virtual image; the fully flexible wave guide fiber for endoscopic surgery; unique computerized monitoring systems for critical care patients; pain-relieving transcutaneous devices; a revolutionary autoclave design to combat AIDS and other infectious diseases; and many more.

The most important resource in Israel is its human capital, including the flood of Russian-speaking scientists, engineers and programmers, who immigrated in the 1990s. Many of them excel in math, physics, material sciences and medical electronics. In addition, over the years, close cooperation has developed between medical research institutions and industry. This cross-fertilization has bridged the once impenetrable gap between basic and applied science and has made it easier for innovative technology to arrive at your doctor's office. Few today would argue against the rapidity of advancements by medical manufacturers, based on the most updated research and development that has taken place in the country's universities and research institutes.

Local scientists have developed methods for producing a human growth hormone and interferon, a group of proteins effective against viral infections. Copaxone, a medicine effective in the treatment of multiple sclerosis, has been developed in Israel. Genetic engineering, including cloning, has resulted in a wide range of diagnostic kits based on monoclonal antibodies, along with other microbiological products.

In aesthetic medicine, Israel has pioneered electro-optic medical devices that apply proprietary pulsed light technology for non-invasive treatment of skin cancer and benign lesions, as well as for treatment of varicose veins, skin rejuvenation and hair removal. In neonatology, Israel has introduced an early warning monitor, which senses lowered breathing and pulse levels and could prevent SIDS.

Israel has made significant theoretical and practical contributions to the [biotechnology](#) revolution and has developed an advanced infrastructure of medical and paramedical research as well as bioengineering capabilities. Biotechnology, biomedical and clinical research account for more than half of all scientific publications. Israeli scientists developed a pill-size combination of a digital camera, battery, radio transmitter, and light source, which patients can swallow as a non-surgical imaging of the gastrointestinal tract.

Israeli companies have developed a broad range of innovative optical glass rods as active media for solid-state medical lasers and high intensity luminescence. Israel has also developed a system for real-time thermal images of blood flow through exposed coronary arteries, without ingesting toxic contrast materials or exposure to radiation. Also newly introduced is an infrared blood test of hemoglobin and hematocrit and an award-winning device that attaches to a standard catheter to indicate correct insertion of an infusion needle into a vein.

