

Diseases considered as candidates for global eradication by the International Task Force for Disease Eradication¹

Disease	Current annual toll worldwide	Chief obstacles to eradication	Conclusion
Diseases targeted for eradication			
Dracunculiasis (Guinea worm disease)	<2 million persons infected; few deaths	Lack of public and political awareness; inadequate funding	Eradicable
Poliomyelitis	100,000 cases of paralytic disease; 10,000 deaths	No insurmountable technical obstacles; increased national/international commitment needed	Eradicable
Lymphatic filariasis	80 million cases	Need better tools for monitoring infection	Potentially eradicable
Mumps	Unknown	Lack of data on impact in developing countries; difficult diagnosis	Potentially eradicable
Rubella	Unknown	Lack of data on impact in developing countries; difficult diagnosis	Potentially eradicable
Taeniasis/cysticercosis (pork tapeworm)	50 million cases; 50,000 deaths	Need simpler diagnostics for humans and pigs	Potentially eradicable
Diseases/conditions of which some aspect could be eliminated			
Hepatitis B	250,000 deaths	Carrier state, infections in utero not preventable; need routine infant vaccination	Not now eradicable, but could eliminate transmission over several decades
Iodine deficiency disorders	Unknown	Inadequate surveillance, lack of environmental sources of iodine	Could eliminate iodine deficiency disorders
Neonatal tetanus	560,000 deaths	Inexhaustible environmental reservoir	Not now eradicable, but could prevent transmission
Onchocerciasis (river blindness)	18 million cases; 340,000 blind	High cost of vector control; no therapy to kill adult worms; restrictions in mass use of ivermectin	Could eliminate associated blindness
Rabies	52,000 deaths	No effective way to deliver vaccine to wild animals that carry the disease	Could eliminate urban rabies
Trachoma	500 million cases; 6-8 million blind	Linked to poverty; ubiquitous microbe	Could eliminate blindness
Yaws and other endemic treponematoses	2.5 million cases	Political and financial inertia	Could interrupt transmission *

* Because persons may be infected for decades and the organisms cannot be distinguished from those that cause venereal syphilis, elimination of transmission -- not eradication -- is the goal.

¹ CDC. Recommendations of the International Task Force for Disease Eradication. *Morbidity and Mortality Weekly Report* 1993; 42(RR-16):8.

Diseases of which Some Aspect Could Be Eliminated²

Hepatitis B

Hepatitis B is a viral disease that is responsible for more than 250,000 deaths per year worldwide.³ High incidences are found in Alaska and other arctic areas, Africa, China, Southeast Asia, and the Amazon. Many infections are asymptomatic. Hepatitis B is transmitted in early childhood, often perinatally from mother to infant; sexual and other transmission by direct contact also occur. About 5% of infections occur in utero. More than two thirds of persons infected in infancy become persistent carriers of the virus. Deaths result from liver cancer or chronic liver disease, including cirrhosis.

A vaccine to prevent hepatitis B was introduced in the late 1970s. Three doses are required, beginning at birth or in early infancy in areas where the disease is highly endemic. Some countries have begun routine mass vaccinations of infants against hepatitis B as a part of their Expanded Programme on Immunization. An alternative approach is to vaccinate only infants of infected mothers who have been identified by prior screening. At the current cost of U.S. \$7.60 per dose of vaccine, hepatitis B could be eventually eliminated from the United States at a cost of about \$120 million per year, compared with an estimated annual cost of \$750 million for treating persons who contract the disease. Reduction of disease would not begin to be evident for about 15 years. It is not possible to eradicate hepatitis B now, but it is technically feasible to eliminate its transmission by universal vaccination programs.

² CDC. Recommendations of the International Task Force for Disease Eradication. *Morbidity and Mortality Weekly Report* 1993; 42(RR-16):10-1.

³ Maynard JE, Kane MA, Hadler SC. Global control of hepatitis B through vaccination. *Rev Infect Dis* 1989;11(suppl 3):574-8.