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## Israel : Translocation of Rabies

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# Israel- Translocation of Rabies in Israel

Public Health Brief by Sarah Baker

## Israel Overview

Located in the continent of Asia, Israel directly neighbors with Egypt, Saudi Arabia, Syrian Arab Republic, Yemen, Jordan, Palestine, and Lebanon. Israel's estimated population is 8.06 million (Macmillan, 2017) as of 2015. The state of Israel is rich with a history of political and religious conflict that is deeply tied to the land. Israel is divided amongst two primary racial groups; Jews make up 74.8% of the population while Arabs make up 20.8% of the population. The two groups have been waging a war over the ownership of Palestine for a hundred years. The surrounding nations to Israel are Arab and Muslim majority and have at one point or another declared war against Israel.

While Egypt and Jordan have come to a peace agreement with Israel tensions still run high. In many senses, Israel's enemies surround the nation as large terrorism groups surround the nations borders. While terrorism proves to be an ongoing external threat to the nation, the Israeli-Palestinian conflict remains the largest internal conflict the nation faces.

## Governmental Structure

The Israeli system of government is based on parliamentary democracy, which means that the Prime Minister of Israel is the head of government and leader of the multi-party system; giving government executive power. Elections in Israel run under the proportional representation system. Every four-years Israeli citizens vote

for a party (not a specific candidate as we do in the United States), the head of the elected party then becomes Prime Minister and is tasked with forming a government.

## Rabies Overview

Rabies is a preventable viral disease most often transmitted orally from animals. Rabies virus infects the central nervous system causing tissue death in the brain. Annually about 55,000 people die of rabies worldwide (WHO, 2011). There are two main categories by which rabies is carried and spread, these being an urban form (where dogs serve as the reservoir for the virus) and the sylvatic form (where wild animals serve as the reservoir). While rabies is primarily endemic in wild animals across much of the world, wildlife rabies has successfully been controlled in most regions of Israel by means of an oral vaccination program. In 1998 mass oral vaccinations were given to foxes and jackals in the northern regions of Israel. These oral vaccinations lead to the eradication of sylvatic rabies in Israel.



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## Reemergence of Rabies

Israel is now faced with a steady growing public health threat as canine rabies has reemerged in the northern region of Israel with 208 reported animal rabies cases in Israel between 2009 and 2014 (Boris, 2015). While the steady increase in cases is of notable alarm, moreover the close contact most often shared between dog and human populations is of much more concern from a public health prospective. In 2017 the World Health Organization noted, “40% of people bitten by suspect rabid animals are children under 15 years of age” (WHO, 2017) While there are immunizations for rabies there is still a staggeringly high number of deaths per year from individuals infected by rabid animals, especially those under the age of 15.

## Prevention & Vaccination

Rabies is a vaccine-preventable disease. Vaccinating dogs has proven to be the most cost-effective strategy for preventing rabies in people. Additionally, education on bite prevention and rabid animal behaviors for both children and adults is an essential extension of the long term rabies vaccination program and can decrease both the incidence of human rabies and the financial burden of treating dog bites. Educational learning and increased awareness at the community level is essential. In addition to this, human rabies vaccines exist for pre-exposure immunization. Preventative immunization is an important safety measure for those working in High-risk occupations or traveling to rabies-affected, remote locations. Post-exposure prophylaxis treatment can prevent the virus from entering into the central nervous system, but is only effective soon after exposure to rabies.

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