

plague has been imported into Oporto at some period, now impossible to state precisely; and without doubt by rats out of some ship coming from Alexandria, the Persian Gulf or the island of Mauritius. At Oporto it seems that for a long time one met with dead rats in the alleys of the Rue Fonte-Taurina and its neighbourhood. The plague spread by these rodents, quickly attacked the other rats and mice that abounded in this quarter and in the vast docks of the port. The first cases of human plague appeared only after several weeks and attacked at first the dock porters and other poor classes that live in these quarters, containing the most unsanitary houses in the city."

These statements are again borne out by recent newspaper reports of the disease in Sydney and Adelaide, where it was noted that rats were dying in hundreds before cases were recognized in man.

We have two great modes then of transmitting infection to a previously unaffected area, viz:—plague infected man and his immediate surroundings—and plague infected rats. Necessarily if the first were the only means of dissemination, isolation of the individual and disinfection of the individual and his surroundings would suffice to stay the ravages of the plague. Plague infected man throws off the bacilli in his sputum, fæces, the pus from buboes and often too in his urine and other secretions and excretions. From these sources the dust of rooms may be infected and while it can be shown experimentally that plague bacilli die out when exposed to light and drying in from 8 to 10 days at the outside, death does not necessarily follow when such bacilli get in the earth and floor dust in the hovels of our great cities or in the cruder hovels of the poorer classes in the East. For it has been time and again demonstrated that houses in which plague cases have developed, have been evacuated by their tenants for from 4 to 8 weeks and on their return plague has again broken out. In the laboratory culture tube the plague bacillus may retain its vitality for at least 3 months. Of this I am certain and no doubt in warmer climates and particularly under the unsanitary conditions which are found in many cities, conditions might be found in houses or soil which would tend to keep the bacilli alive for long periods. This vegetative existence of the plague bacillus is altogether apart from the possibility that the animal