

shown their respective peculiarities. Of all the diphtheria germs that are thus swallowed, practically only those that are stranded in the throat, will flourish; those diphtheria germs which pass on into the stomach or intestine are destroyed or pass out harmlessly. On the other hand, typhoid germs, if stranded on the throat, do not flourish there, nor do those which reach the stomach flourish in that organ. It is only those typhoid germs which survive the journey until the intestine is entered that can succeed in producing typhoid fever. The human tuberculosis germ has a still longer road to go. Not only must it pass mouth, stomach, and intestine, but it must be also absorbed from the intestine into the blood, as the food is; but it does not grow in the blood. The blood is only a river, by which it can be carried to a favorable developing ground. We do not know at all why human tuberculosis germs entering the blood thus, should elect to settle and grow in a joint in one person, in a lung in another, in a kidney or a gland or a bone in another. However, this is the way in which these different forms of human tuberculosis develop. The old idea that human tuberculosis of the lung (consumption) is contracted chiefly by breathing the germs directly into the lungs, has been definitely upset. The lungs are infected from the blood-stream chiefly, just as are the other internal organs, bones, and joints.

Another and, from the public health standpoint, an even more important difference exists. Diphtheria germs developing in the throat, and typhoid fever germs developing in the intestine, can readily escape from the body: in the case of diphtheria, through the mouth and nose dis-