With over four million cases in Germany every year, influenza and acute upper respiratory tract infectious diseases (henceforth URTI) have the highest number of reported doctor consultations. Although the direct treatment costs are comparably low, the indirect effects, due to work absence, are far more compelling. In this paper, we estimate the effect of local URTI diseases as an exogenous shock to the production factor labor and thus on levels of firm productivity. To quantify the URTI related shock on the production factor labor, we geocode maps of weekly reported flu emergence in Germany from official influenza surveillance data. Measured by the length of the influenza season in German municipalities, these data exhibit substantial seasonal variation as well as high variance across regions. In our main analysis, we estimate firm level production functions using data from a comprehensive German firm survey. In our main regression, we analyze total factor productivity differentials and their relationship with the local influenza intensity. First results show sizeable negative effects of the URTI diseases on firm productivity.