**Supplementary Fig. S1.** DTPw vaccine coverage (3 doses) (represented as percentage of target population) in Pakistan since 1983. (Source: EPI Pakistan.)

**Supplementary Fig. S2.** Geographical information system (GIS) map showing DTPw vaccine coverage in KPK (represented as percentage of target population) in 2010 along with clinically reported cases in subsequently following years (2010-2013). (Source: EPI Pakistan.)

**Supplementary Fig. S3.** Clinically reported cases of pertussis disease in Pakistan.(Source: EPI Pakistan.)

**Supplementary Fig. S4.** GIS map showing potential outbreak reports of pertussis disease in Pakistan. Data acquired since outbreak report 2010-2013.(Source: EPI Pakistan.)