



Jinan City: Shandong Qianfoshan Hospital; Qilu Hospital of Shandong University; General Hospital of Jinan Command; The Second Affiliated Hospital of Shandong University; Shandong Chest Hospital; East District of Shandong Provincial Hospital of Traditional Chinese Medicine; West District of Shandong Provincial Hospital of Traditional Chinese Medicine; Jinan City Central Hospital; The Forth Jinan Municipal Hospital  
 Weifang City: Affiliated Hospital of Weifang Medical College; Weifang People's Hospital  
 Binzhou City: Affiliated Hospital of Binzhou Medical College; Binzhou People's Hospital  
 Dezhou City: Dezhou People's Hospital  
 Dongying City: General Hospital of Shengli Oil Field in Dongying; Dongying People's Hospital  
 Heze City: Heze Municipality Hospital  
 Jining City: Jining First People's Hospital; Affiliated Hospital of Jining Medical College  
 Qingdao City: Qingdao Navy 401 Hospital; Affiliated Hospital of Qingdao University Medical College; East District of Affiliated Hospital of Qingdao University Medical College; East District of Qingdao Municipal Hospital; Qingdao Haici Hospital  
 Yanta City: Yuhuangding Hospital; Yantaishan Mountain Hospital  
 Liaocheng City: Liaocheng People's Hospital  
 Rizhao City: Rizhao People's Hospital  
 Tai'an City: Affiliated Hospital of Taishan Medical College; Taian City Central Hospital  
 Zaozhuang City: Tengzhou Central People's Hospital  
 Weihai City: Weihai Municipal Hospital; Wendeng Central Hospital  
 Zibo City: Zibo Central Hospital

**Figure S1** The map of the 34 ICUs from 15 cities in Shandong Province.