**Supplementary data**

In HCHS/SOL baseline data, there are missing data in both first and second spirometry measures. Among the 16,415 participants, 947 (5.8%) had missing first spirometry. Of those 15,468 participants who had first spirometry, 1,403 were abnormal (FEV1/FVC <0.7 or FEV1 <LLN) and therefore were expected to have a second spirometry after bronchodilation. However, 330 of those participants had missing second spirometry, representing 23.5% of those expected to have the second spirometry. Since the diagnosis of COPD depends on both spirometry measures, there were 1,277 participants whose COPD status were missing, representing 7.8% of

the total sample. Although the overall missing percentage is not particularly high, its potential impact on the estimates of the COPD prevalence could be large because the prevalence itself is fairly low. Therefore, adjustment for missing data was applied to obtain unbiased estimates for COPD prevalence.