these, 88 counties lost all their otolaryngologists. More than half (59.8 percent, n=1,858) of all U.S. counties had no otolaryngologists in either 2004 or 2009.

In addition, we found that otolaryngology is more male-dominated than most surgical specialties. Female otolaryngologists are disproportionately represented in hospital settings. In the last decade, the number of solo practice otolaryngologists in rural counties decreased significantly.

The number of otolaryngologists in active practice for all U.S. counties from 2004 to 2009. In 2009, otolaryngologists practiced in 37.4 percent (1,161) of U.S. counties, representing an increase of 20 counties from 2004. From 2004 to 2009, 20.6 percent of U.S. counties (641) lost otolaryngologists relative to population, and 88 counties (2.8 percent) lost all otolaryngologists (see Figure 1, page 31). During the same period, 13.3 percent of counties (412) gained otolaryngologists relative to population, and 108 counties (3.5 percent) that had no otolaryngologists

Training in otolaryngology

According to ACGME data, from 2001 to 2009, the number of otolaryngology residents increased by 23 percent.1 The number of otolaryngology training programs held steady at 103 during this period. However, otolaryngology residents receiving ABMS certifications declined by 19.3 percent from 2000 to 2009.2

Geographic distribution of otolaryngologists

As supply has contracted, distribution has also become problematic. To examine geographic variation in the supply of otolaryngologists, we analyzed practitioner and population data

Figure 2. Gender and age distribution of otolaryngologists, 1981–2009

Figure 3. Mean age, rural and urban otolaryngologists, 1981–2009