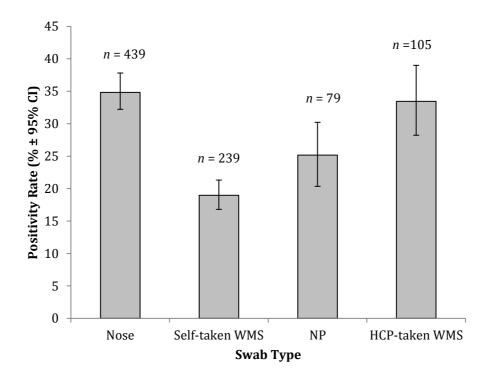
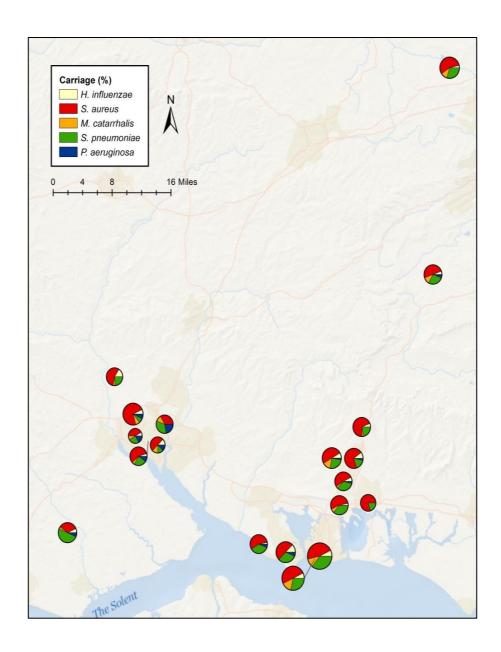
## **Supplementary File**



**Supplementary Figure 1.** Total Positivity Rates of the Four Swab Types

Bar chart showing positivity rates for all four swab types. WMS = whole mouth swab, NP = nasopharyngeal swab. Error bars represent 95% confidence intervals. Numbers of positive swabs are shown above each bar.



**Supplementary Figure 2.** Total Bacterial Carriage Rates of *S. pneumoniae*, *M. catarrhalis*, *P. aeruginosa*, *S. aureus* and *H. influenzae* in all swab types by geographical location of practices

Pie charts represent total bacterial carriage rates (%) in each GP practice with size representing proportionate amounts of bacterial carriage. Percentages of each bacterium within the total carriage rate are represented by coloured sections within each pie chart. Red lines are major roads, blue lines are rivers and darker areas of land represent cities.

## **Supplementary Table 1.** Microbiology Identification Techniques for the Six Target Bacterial Species

Bacterial species	Identification Technique
S. pneumoniae	Characteristic gram-positive alpha-haemolytic optochin-sensitive colonies growing on blood agar with nalidixic acid.
H. influenzae	Characteristic small gram-negative colonies requiring X+V factors growing on chocolate blood agar with bacitracin.
M. catarrhalis	Characteristic gram-negative tributyrin test-positive, DNase-positive diplococci growing on blood agar.
P. aeruginosa	Characteristic gram-negative oxidase-positive green colonies growing on <i>Pseudomonas</i> -selective CFC agar.
S. aureus	Characteristic gram-positive coagulase-positive colonies growing on blood agar.
N. meningitidis	Characteristic oxidase-positive gram-negative diplococci growing on <i>Neisseria</i> -selective GC agar and matching the correct API NH profile.