

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: **Census of antibiotic resistance genes.** Genes identified by ResFinder software from 816 E. coli whole-genome sequences from this study: cattle (n = 132), sheep and goats (n = 162), chicken (n = 209), dog (n = 107), people (n = 165), wildlife (n = 18), and water (n = 23).

File Name: Supplementary Data 2

Description: **Livestock, all groups.** Odds ratios (95% confidence intervals) for mixed-effects multivariate logistic regression models for bacterial isolates collected from livestock and pooled across ethnic groups livestock. See Table 5 in manuscript for variable descriptions. MDR is defined as resistance to three or more antibiotics.

File Name: Supplementary Data 3

Description: **Arusha livestock.** Odds ratios (95% confidence intervals) for mixed-effects multivariate logistic regression models for bacterial isolates collected from Arusha. See Table 5 in manuscript for variable descriptions. MDR is defined as resistance to three or more antibiotics.

File Name: Supplementary Data 4

Description: **Chagga livestock.** Odds ratios (95% confidence intervals) for mixed-effects multivariate logistic regression models for bacterial isolates collected from Chagga livestock. See Table 5 in manuscript for variable descriptions. MDR is defined as resistance to three or more antibiotics.

File Name: Supplementary Data 5

Description: **Maasai livestock.** Odds ratios (95% confidence intervals) for mixed-effects multivariate logistic regression models for bacterial isolates collected from Maasai livestock. See Table 5 in manuscript for variable descriptions. MDR is defined as resistance to three or more antibiotics.

File Name: Supplementary Data 6

Description: **Chicken, all groups.** Odds ratios (95% confidence intervals) for mixed-effects multivariate logistic regression models for bacterial isolates collected from chicken and pooled across ethnic groups. See Table 5 in manuscript for variable descriptions. MDR is defined as resistance to three or more antibiotics.

File Name: Supplementary Data 7

Description: **Dogs, all groups.** Odds ratios (95% confidence intervals) for mixed-effects multivariate logistic regression models for bacterial isolates collected from chicken and pooled across ethnic groups. See Table 5 in manuscript for variable descriptions. MDR is defined as resistance to three or more antibiotics.

File Name: Supplementary Data 8

Description: **Descriptive statistics of variables entered into multivariate models by ethnic group.**

File Name: Supplementary Data 9

Description: **Fit Indices for mixed-effects logistic models.** McKelvey and Zavoina Pseudo r^2 and Intraclass Correlations.