**Figure S3A: 10 High-risk MDR clusters; associations with hospital level and site (n=515)**

**A screenshot of a graph

Description automatically generated**

Note for all Figures S3A-S3J: Reading the figures from left to right, the top left represents the proportion of MDR UTI in each cluster, the bottom left represents the number of subjects in each cluster. The second chart from the left indicates the distribution of the observations in each cluster with respect to the outcome of MDR UTI. The third chart from the left indicates the probability that the cluster has the relevant factor. Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome

**Figure S3B: 10 higher-risk MDR clusters; associations with WASH (n=515)**

**A screenshot of a graph

Description automatically generated**

**Figure S3C: 10 higher-risk MDR clusters; associations with environment factors (n=515)**

**A screenshot of a graph

Description automatically generated**

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome.

**Figure S3D: 10 higher-risk MDR clusters; associations with household socioeconomic factors (n=515)**

**A screenshot of a graph

Description automatically generated**

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome

**Figure S3E: 10 higher-risk MDR clusters; associations with health and hygiene factors (n=515)**

**A screenshot of a graph

Description automatically generated**

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome.

**Figure S3F: 10 higher-risk MDR clusters; associations with health factors (n=515)**

**A screenshot of a graph

Description automatically generated**

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome

**Figure S3G: 10 higher-risk MDR clusters; associations age, work and urban/rural (n=515)**

**A screenshot of a graph

Description automatically generated**

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome

**Figure S3H: 10 higher-risk MDR clusters; associations with health and AB factors (n=515)**

A screenshot of a graph

Description automatically generated

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome

**Figure S3I: 10 higher-risk MDR clusters; associations with international travel, heard of AMR, experienced AMR (n=515)**

**A screenshot of a graph

Description automatically generated**

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome

**Figure S3J: 10 higher-risk MDR clusters; associations with education (n=515)**

**A graph of different colored and black lines

Description automatically generated with medium confidence**

Note: Blue colours represent clusters with low risk of the outcome; green colours indicate clusters with average risk of outcome, and red colours indicate clusters with high risk of the outcome