



## Drivers that Increase the Burden of Infection Map

### Description

#### Purpose

The aim of the “Drivers that increase the burden of infection” map is to provide an overview of the key drivers of infection (i.e. those influences that increase the burden of infection), the factors that affect them, and interventions that may mitigate the impact of these factors. The burden of infection has been identified as a key influence on the development of antimicrobial resistance (AMR) and we hope this map will increase awareness of how Infection Prevention & Control (IPC) can be used to combat the rise of AMR.

#### Background

The drivers of infection were identified as a key influence on the development of AMR in both the “GP Care & Community” and “Hospital” AMR Systems Maps previously published on GOV.UK<sup>1</sup>. It is well understood that the first step in tackling the rising trend in AMR is to prevent infection from occurring in the first place and understanding the drivers of infection is crucial to this process.

Subsequent to the publication of the AMR Systems Maps, a workshop on IPC was held by Public Health England in February 2015 and the output from this workshop was used to develop the “Drivers that increase the burden of infection” map.

#### Description

The map provides a visual representation of the various influences driving increased infection within the population. This increase will in turn lead to an increase in the number of resistant infections both directly, through a higher number of infected individuals, and indirectly, through increased antimicrobial usage causing natural selection of resistant microbes.

#### Structure of the map

At the centre of the map is the increased burden of infection and use of antimicrobials influencing increased incidence of AMR.

Moving outwards from the centre are concentric rings showing:

- 1) Examples of infections in the population

---

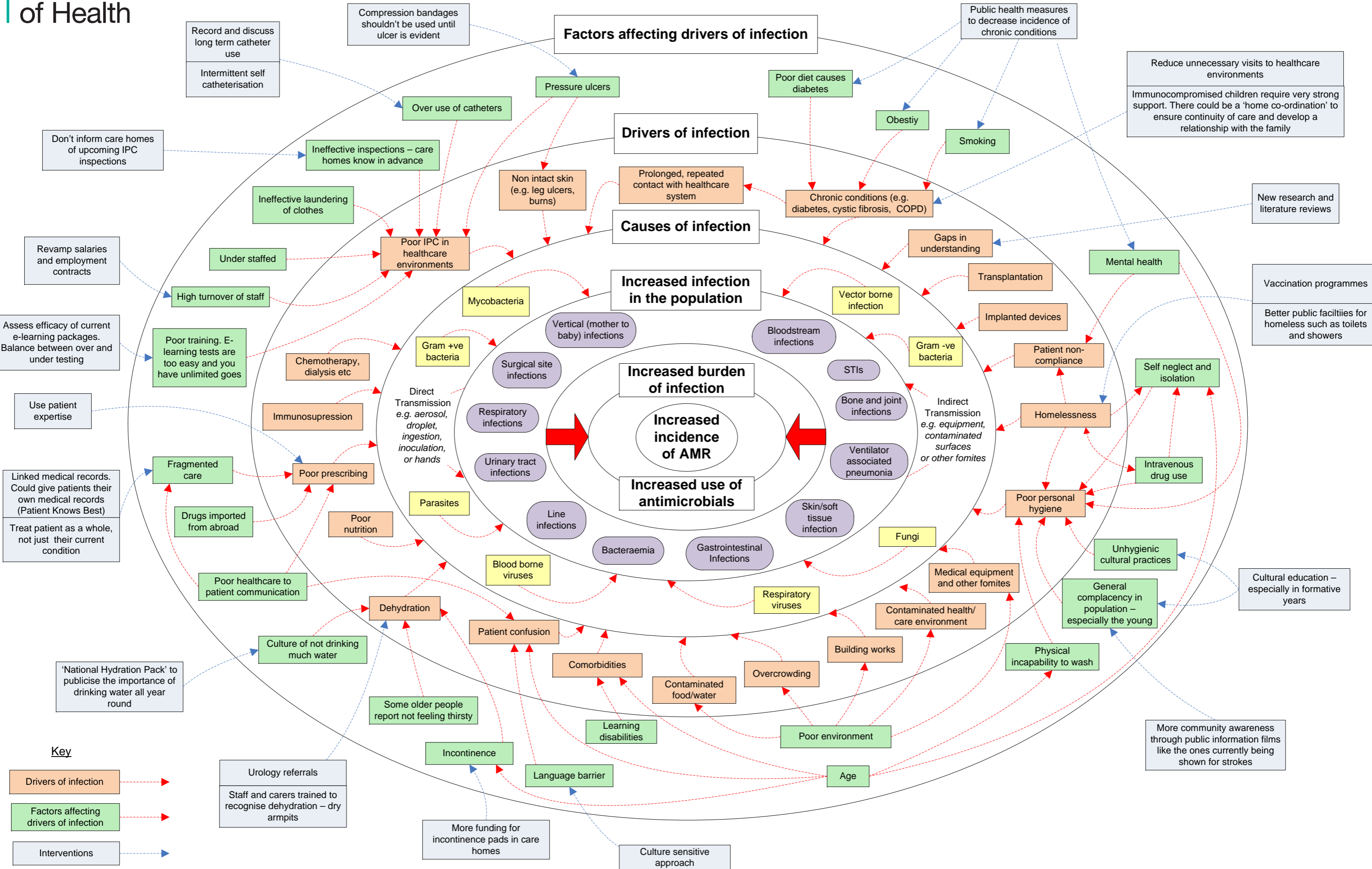
<sup>1</sup> <https://www.gov.uk/government/publications/antimicrobial-resistance-amr-systems-map>

- 2) Causes of infection with microbes split into their major groups
- 3) Drivers of infection i.e. things that directly increase the risk of infection
- 4) Factors affecting the drivers of infection
- 5) Interventions that may mitigate these factors

*Note* – the causes of infection have been split into their major groups: Gram +ve Bacteria e.g. *S.aureus*; Gram -ve Bacteria e.g. *E.coli*; Mycobacteria e.g. *M. tuberculosis*; Respiratory Viruses e.g. *Influenza*; Blood Borne Viruses e.g. Hepatitis B; Vector Borne Infection e.g. Lyme's Disease; Fungi e.g. *C. albicans*; and Parasites e.g. Threadworm.



# Drivers that increase the burden of infection





Department  
of Health

## Acknowledgements

### Map design

Stephen Dobra - Department of Health

Participants in the Public Health England Infection Prevention & Control Mapping Workshop, February 2015.

Created on Microsoft Visio 2010 by George Chappelle & Caitlin Robinson - Department of Health

### **Additional advice:**

Liz Stokle & Carole Fry - Public Health England

## Contact

If you have any comments or suggestions regarding the map please contact us at [AMRmaps@dh.gsi.gov.uk](mailto:AMRmaps@dh.gsi.gov.uk).