

# Chapter 5

## Distribution and Prevalence of Antimicrobial Resistance of NTS Salmonella Isolated from Farm Animals and Animal Food Products in Africa



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### 5.1 Background

*Salmonella enterica* is one of the most important zoonotic and foodborne pathogens. It is one of the main bacterial causes of foodborne diseases worldwide. Several food products such as eggs, white or red meat, and dairy products are the main sources of most of these diseases. Food-producing animals such as pigs, cattle, and chickens are the main reservoirs of human *Salmonella*.

Antimicrobial resistance (AMR) poses a major threat to public health, complicating the treatment of infectious diseases and creating additional health-care costs. It has been estimated that 1.27 million deaths worldwide are attributable to bacterial AMR in 2019, with a particularly high burden in sub-Saharan Africa.

*Non-typhoidal Salmonella* (NTS) has developed resistance to many antimicrobials and poses a serious challenge to public health. Given the limited data available on *Salmonella* resistance in African countries, this study aimed to systematically determine the prevalence of antimicrobial resistance of NTS isolated from farm animals and animal food products in Africa.

### 5.2 Introduction

*The Salmonella* genus constitutes a global public health problem and has attracted significant interest regarding foodborne illnesses responsible for thousands of deaths worldwide. This genus is commonly recovered from food-producing animals and water and is considered the major cause of zoonotic infections in humans and animals. Thus, *Salmonella* infections constitute significant public health and safety

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