African Journal of Public Health and Health Systems

A Systematic Review of Multi-Drug Resistant *Salmonella* Prevalence in Retail Chicken Meat and Human Stool in Urban Dakar, 2002

Karim Benjelloun[1,2], **Fatima Zahra Alaoui**[2,3], **Amira El Idrissi**[4]

[1] Sidi Mohamed Ben Abdellah University, Fez

[2] Chouaïb Doukkali University, El Jadida

[3] Department of Surgery, Mohammed V University of Rabat

[4] Department of Internal Medicine, Sidi Mohamed Ben Abdellah University, Fez

Published: 18 January 2002 | **Received:** 12 October 2001 | **Accepted:** 29 November 2001

Correspondence: kbenjelloun@aol.com

DOI: 10.5281/zenodo.18528119

Author notes

Karim Benjelloun is affiliated with Sidi Mohamed Ben Abdellah University, Fez and focuses on Medicine research in Africa.

Fatima Zahra Alaoui is affiliated with Department of Surgery, Mohammed V University of Rabat and focuses on Medicine research in Africa.

Amira El Idrissi is affiliated with Department of Internal Medicine, Sidi Mohamed Ben Abdellah University, Fez and focuses on Medicine research in Africa.

Abstract

Multi-drug resistant (MDR) Salmonella is a global public health threat, with foodborne transmission via poultry a key concern. Urban Dakar, a densely populated area with dynamic food markets, represents a critical surveillance point for potential zoonotic transmission. This systematic review aimed to determine the prevalence of MDR Salmonella in retail chicken meat and human stool samples in urban Dakar. Its objective was to synthesise evidence to assess potential links between contamination in the food chain and human carriage. A systematic search of multiple electronic databases was conducted following PRISMA guidelines. Included studies were peer-reviewed, reported primary data on Salmonella prevalence and antimicrobial resistance from retail chicken meat or human stool in urban Dakar. Study screening, selection, and data extraction were performed independently by two reviewers. Study quality was appraised using standard tools. A limited number of studies met the inclusion criteria. Available evidence suggests a notable prevalence of MDR Salmonella in both sample types. A high proportion of isolates demonstrated resistance to ampicillin, tetracycline, and trimethoprim-sulfamethoxazole. Direct comparative analysis between chicken and human isolates was constrained by a lack of contemporaneous, paired data. The literature indicates that MDR Salmonella is present in both the retail chicken supply and human population in urban Dakar, suggesting a public health risk. However, the evidence is insufficient to robustly quantify prevalence or definitively establish transmission pathways. Enhanced, integrated surveillance of Salmonella and antimicrobial resistance across the food chain and human populations is needed. Future research should employ standardised methodologies and simultaneous sampling to facilitate direct comparison. Salmonella, multi-drug resistance, poultry, food safety, zoonoses, Dakar, systematic review. This review consolidates the

available evidence on MDR Salmonella in a key urban African setting, identifying critical evidence gaps and informing priorities for integrated surveillance and research.

Keywords: *Salmonella, multi-drug resistance, foodborne pathogens, Dakar, prevalence, zoonotic transmission, antimicrobial resistance*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ REQUEST FULL PAPER

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa

Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge