

The UK's antimicrobial resistance response faces substantial barriers from the civil service's structure, practices of governance, and churn



We argue that the machinery of government and the current practices of the civil service are a hindrance to the British Government's ability to tackle antimicrobial resistance (AMR). The UK's civil service is occasionally called the Rolls Royce of public administrations,¹ and it is ranked the best in the world.²³ However, over a decade of austerity cuts, which have reduced resource departmental expenditure limits by more than 16% (and even more in non-priority departments), has undermined the capacity of the civil service and worsened outcomes.⁴ Although the UK civil service might be capable of addressing immediate day-to-day issues, its current mode of operation leaves the government vulnerable to more complex (or wicked) national challenges. This vulnerability is most evident in the case of the grand pandemic of AMR and drug-resistant infections.

Since its inception, the civil service has worked to implement a structured programme of work for the government of the day, while serving as a buffer against the unpredictability of ever-changing administrations. The civil service has historically served as a deep talent pool for ministers as they transition into unfamiliar roles. This expertise is particularly valuable for ministers in charge of highly technical and risky portfolios, such as energy and health. Since the creation of the Secretary of State for Health and Social Care role 7 years ago, eight individuals have held the position—an average of approximately 1.14 Secretaries of State per year. None of these eight individuals had a medical background. As a result, ministerial understanding of AMR has been limited, leading to insufficient awareness in the executive branch regarding the associated drug-resistant infections and future risks.

AMR was associated with 4.95 million global deaths from bacterial infections alone in 2019.⁵ Consequently, the UK Government developed tactical and strategic plans for mitigating this threat, including the 5-year national action plan and 20-year vision.^{6,7} However, despite the existential threat posed by drug-resistant infections—analogue to climate change in the complexity of their drivers and widespread nature of their impact—no comparable structures or mechanisms have been established for AMR. For instance, although the Department for Energy Security and Net Zero exists as a designated department of the UK

Government, with a Secretary of State explicitly in charge of this issue, no equivalent department exists for AMR. Various aspects are handled by the Department of Health and Social Care; Department for Environment, Food and Rural Affairs; and Foreign, Commonwealth and Development Office; as well as directorates, executive agencies, and non-departmental public bodies associated with these departments, leading to a disorganised and uncoordinated overall response. The previous administration under Rishi Sunak delegated responsibilities for AMR to the Minister for Women's Health Strategy and Mental Health.⁸ In contrast, the new administration under Sir Keir Starmer has delegated these responsibilities to the newly created Minister for Public Health and Prevention,⁹ whose portfolio covers a wide range of issues, including obesity, tobacco addiction, cancer prevention, the EU and trade engagement, as well as overseeing the Food Standards Agency. As the Minister's remit is broad, it is conceivable that AMR might not receive the attention it requires. Even if the minister were to champion the cause, the Government's decision to position AMR within the remit of a minister in the Department of Health and Social Care inherently undermines the application of a One Health approach by limiting the roles that the Department for Environment, Food and Rural Affairs or Foreign, Commonwealth and Development Office might play in addressing AMR. Therefore, the UK Government should transfer the responsibility of AMR to a minister with a dedicated and cross-cutting portfolio, such as within the Cabinet Office. This move would align with the recommendation of the (then) All-Party Parliamentary Group on Antibiotics for a dedicated minister for AMR.¹⁰

Appointing a minister with an appropriate remit cannot, in itself, resolve all the challenges associated with AMR. Of the eight aforementioned Secretaries of State for Health and Social Care, only one—Dr Thérèse Coffey—had any scientific training before taking office, and her tenure lasted for only over a month. The absence of ministerial subject matter expertise is not an exception but rather the norm. The Campaign for Science and Engineering highlight that only 78 Members of Parliament (fewer than one in eight) have a background or interest in science,

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technology, engineering, mathematics, and medicine.¹¹ Thus, scientific expertise and experience within the civil service are important for ensuring evidence-based decision making by executive members who are not trained in scientific reasoning. To enhance the provision of accurate scientific information to key policy makers, the UK Government should consider how it can foster an environment in which trained scientists can advance within the civil service by leveraging their strengths rather than reskilling as managers. Particularly, for tackling AMR, the Government should nurture and leverage the skills of the civil service to establish a cross-departmental delivery and implementation unit for AMR strategy, reinforcing the efforts of a dedicated minister.

The support unit of civil servants must achieve a considerably low turnover rate and better retention of institutional and scientific experience to effectively assist a dedicated minister. However, the current structure of the UK civil service contributes to the loss of valuable knowledge and expertise. Over the years, the civil service has been restructured to encourage role changes, with the intention of mitigating the risk of regulatory capture by the private sector. The fear that drove this change was that officials were too close to the sectors they covered, damaging their ability to provide independent advice.¹² However, an analysis conducted in 2021 showed that in the UK, the machinery of state has become porous to private business interests to a degree that is exceptional among established democracies.¹³

In addition, a series of public sector pay caps and pay freezes, initiated as part of austerity measures in 2010 and continuing almost without cessation until 2022,¹⁴ has resulted in the only path to career and salary progression for civil servants being to move diagonally, as opposed to vertically; the primary means for civil servants to receive an increase in pay is a role change.¹⁵ Senior roles often have considerably different remits and might only be tenuously related to the current posting of a civil servant. This frequent movement causes a constant loss of stability within the civil service, according to a 2018 statement by Oliver Dowden, the then Minister for Implementation in the Cabinet Office.¹⁵ An average civil servant spends 2 years in a post, with a considerably high turnover rate, often known as churn.¹⁵ Churn has been identified as a major source of frustration, with numerous stakeholders commenting that not knowing who they are going to sit down with in the next month makes it impossible to build productive long-term relationships and feed into the UK

Government's decision-making process. The Institute for Government's Whitehall Monitor 2023 report showed that fewer than half (47%) of civil servants intend to stay for at least 3 years, suggesting continued appetite to move in the medium term.¹⁶

The UK Government should eliminate the drivers behind diagonal promotion and pay increases. The recommendation to reintroduce pay progression, as proposed in the 2019 *Moving on: the cost of high staff turnover in the civil service* report, would help to achieve this goal.¹⁵ Announcements by the Chancellor that civil servants will receive above-inflation pay rises in 2024–25 are a welcome start to this process. However, the government should ensure that this pay rise is not a one-off event and that the expectation of pay progression is restored in the civil service. In addition, the Government should aim to create a greater number of roles and career pathways that enable progression based on depth of expertise rather than the accumulation of management responsibilities. This initiative would support both reduced churn and deeper subject specialisation within the civil service.

Civil service churn carries costs beyond just white elephant projects;¹ it leaves the Government without a depth of discipline-specific expertise, harming the nation's ability to solve complex problems. A third of the central government's current spending goes on outsourcing,^{13,17} in lieu of developing the requisite expertise within the Government. The Test and Trace programme during the COVID-19 pandemic was overly reliant on expensive contracts and was unable to wean itself off its persistent reliance on consultants.¹⁸ History is at a risk of repeating itself if the civil service remains devoid of expertise and institutional memory in the face of the grand pandemic of AMR. We call for the UK Government to again commit to building in-house excellence and expertise, providing continuity for stakeholders and preserving the institutional memory required to learn from past experiences. To comprehensively address AMR as an existential priority and not simply pay lip service to AMR, the executive needs to radically alter its approach. Furthermore, addressing this issue could serve as a pilot or case study for other potential changes to the currently maladapted structure of the UK Government.

We declare no competing interests. P-EF is a Biosecurity Policy Manager at the Centre for Long-Term Resilience, an independent, non-profit think tank. He has a long track record of working on antimicrobial resistance (AMR) scientific research and policy. NB is a member of the House of Lords and ex-leader of the Green Party of England and Wales. She has spent 5 years as a legislator and has recently tabled a Private Member's Bill aiming to ban biocides in consumer products to reduce

antimicrobial pollution. AC is a Principal Scientist at the UK Centre for Ecology & Hydrology. He has published over 160 peer-reviewed articles with over 5500 citations (h-index 36) and is well established as a leading environmental AMR expert. Conceptualisation: P-EF, AS; Project administration: P-EF; Supervision: NB, AS; Writing—original draft: P-EF; Writing—review and editing: P-EF, NB, AS. All authors had full access to all the data in the study and had final responsibility for the decision to submit for publication. The authors thank Emma Norris for her insightful comments and reflections on machinery of government arrangements during the drafting process.

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*Paul-Enguerrand Fady, Natalie Bennett, Andrew Singer
paul-enguerrand@longtermresilience.org

The Centre for Long-Term Resilience, London WC2H 9JQ, UK (P-EF); House of Lords, London, UK (NB); UK Centre for Ecology & Hydrology, Wallingford, UK (AS)

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