

Improvements for 2022

During 2021, Cabinet Office (CO) led the most substantial review of the NSRA methodology since its inception. Whilst the methodology is always reviewed between iterations, this is the first time that we have invited formal external challenge by commissioning the Royal Academy of Engineering and working closely with the House of Lords inquiry into risk assessment and risk planning.

Several hundred stakeholders have contributed to the review from across HMG departments and ALBs, the community of government Chief Scientific Advisers (CSAs), intelligence agencies, a range of academic groups, parliamentarians, local practitioners and industry groups. Key changes for the 2022 NSRA include:

- **Separation of chronic and acute risks:** Chronic risks usually emerge and persist over longer periods of time and are addressed through ongoing policy and operational work rather than crisis response. As a result they are best assessed outside of the NSRA framework and are captured in a short summary section (Page 12)
- **Multiple risk scenarios:** Certain risks within the NSRA could manifest in different ways depending on context or circumstances in which they materialise. Risks with significantly different planning and/or response requirements are explored using multiple scenarios.
- **Assessment timescales:** Non-malicious risks can be assessed with confidence over a longer timeframe than malicious risks. Non-malicious risks will now be assessed over 5 years and malicious risks will remain at 2 years. The NSRA is complementary to longer term futures work across HMG.
- **New impact measures:** New impact measures have been added to more thoroughly represent the impacts of a risk across society including to data infrastructure, supply chains and government services. Existing impact indicators have been updated to reflect developing understanding and experience since 2019.
- **Use of data:** To expand the use of data and ensure the NSRA is evidence-led and rigorous, the NSRA team has worked with the National Situation Centre (SitCen) to automate impact scoring and presentation of the NSRA. The Office for National Statistics (ONS) has provided guidance to departments to ensure the latest data sets are informing assessment.
- **Expert challenge:** To enable greater scrutiny of NSRA risks, expert challenge has been substantially expanded to deliver 24 expert challenge sessions with 120 internal and external experts and increased involvement from CSAs.
- **Visual communication:** To improve user comprehension of visual representations of risk, CO worked with the Winton Centre for Risk and Evidence Communication to improve the matrix and other data visualisations.

During the methodology review, further changes were agreed for implementation following NSRA 2022.

- **Continuous assessment:** The NSRA is transitioning from a static process which is completed every two years, to a 'live', continuous process which reviews risks on a rolling basis. This will allow improved assessment of emerging and uncertain risks in particular. Work will continue with SitCen to improve digital platforms to facilitate this process and sharing of outputs.
- **Interdependencies exercise:** Risks do not exist in isolation and can influence and magnify the consequences of other events that occur concurrently. In appreciation of this, CO will run an interdependencies mapping process with key stakeholders to explore and visualise the cascading links between risks.

Chronic risks

Definition

Chronic risks are distinct from acute risks in that they pose continuous challenges, generally over a longer timeframe, that gradually erode our economy, community, way of life, and/or national security. While chronic risks often require robust government-led responses, these tend to be developed through policy changes or “business as usual” mitigations rather than emergency civil contingency responses. In contrast, acute risks are defined events of sufficient severity that they require an emergency response (at any level) from the UK civil contingencies system.

Chronic and acute risks are intrinsically linked and each can cause and amplify the other. For instance, the COVID-19 pandemic could now be viewed as a chronic risk, with various acute manifestations around surges and new variants.

Treatment of chronic risks

Chronic and acute risks have been disaggregated as they require different planning and responses and are not accurately measured through the same process. The analysis of likelihood and impact based on a singular event (i.e. RWCS), which applies to acute risks and constitutes the NSRA’s added value, is not the most appropriate measure for chronic risks as they do not have defined event horizons. Instead, this chapter presents three high-level case studies of chronic risks, illustrating existing policy responses across government and how they each interact with the acute risks assessed in the body of this document.

Case Study: Antimicrobial resistance

Context

Antimicrobial resistance (AMR) arises when organisms that cause infection evolve ways to survive treatment. Although resistance occurs naturally, the use of antimicrobials in humans, animal agriculture, plants and crops, alongside unintentional exposure, including through environmental contamination and food, is rapidly accelerating the pace at which it develops and spreads. Each year, AMR is estimated to cause almost 1.3 million deaths globally, and 7,600 deaths in the UK. Resistance to all antimicrobials, including antivirals and antifungals, is concerning, but the most worrying is bacterial resistance to antibiotics. The impacts of leaving AMR unchecked are wide-ranging and extremely costly in financial terms, but also in terms of global health, our ability to undertake modern medicine, food sustainability and security, environmental wellbeing, and socio-economic development.

In January 2019, HM Government published its vision for AMR to be contained and controlled by 2040 and, in support of the vision, the first in a series of five-year national action plans. The plan focuses on three key ways of tackling AMR: i) reducing need for, and unintentional exposure to, antimicrobials; ii) optimising use of antimicrobials; and iii) investing in innovation, supply and access.

2022 NSRA approach

AMR has the potential to increase the impact of many of the acute risks in the human, animal, and plant disease category, as current effective treatments to viral, fungal or bacterial infections could be rendered ineffective. A pandemic (R78) occurring in an environment of ineffective antibiotics could result in higher deaths from secondary bacterial infections. Moreover, loss of effective antibiotics could exacerbate outbreaks of animal diseases and have a resultant impact on both supply chains of essential foodstuffs, and the economy due to lost yield.