

# Statistics Under Pressure

## Policy recommendations for data-driven decision-making

These recommendations outline practical steps policymakers can take to ensure that data and analyses are able to feed into decision-making in pressurised situations. This is essential to enable decisions to be best informed by evidence.





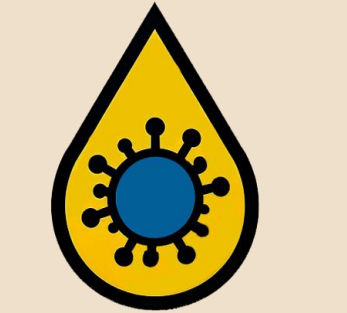






The recommendations form part of the [Statistics Under Pressure](#) initiative, which seeks to foster an environment where trade-offs can be made with confidence, and the resulting data and statistics can feed into decision-making with confidence.

They draw on insights gleaned throughout the initiative, including a series of [case studies](#) that illustrate the factors balanced across a range of prominent statistical and data projects. They are also supported by a set of [principles](#), designed to support analysts making trade-offs under pressure.

If you have any comments or would like to discuss this initiative please get in touch with us at [policy@rss.org.uk](mailto:policy@rss.org.uk).





No.	Area	Recommendation	Example(s) from Statistics Under Pressure case studies	
1.	Data consideration	<b>Data</b> should be considered from the outset of policy-making. This includes data collection processes, sharing, analysis plans, and coherence across different areas.	 	<ul style="list-style-type: none"><li>Ensuring standardised format of incoming data when developing <a href="#">furlough statistics</a> during the Covid-19 pandemic would have aided data processing and analysis.</li><li>Increased data-sharing and common infrastructure would have helped set up the <a href="#">Covid-19 dashboard</a> quickly at the beginning of the pandemic.</li><li>Considering how <a href="#">homelessless data can be harmonised</a> can help illuminate important insights.</li></ul>
2.	Data literacy training	Policy-makers should receive <b>statistical and data literacy training</b> , to build understanding of different types of evidence and the uncertainty they can be associated with.	 	<ul style="list-style-type: none"><li>Upskilling in statistical and data literacy among policy teams would enable better understanding of, for example, what sort of data could be included on the <a href="#">Covid-19 dashboard</a> and the uncertainty that is associated with estimates in the <a href="#">trial investigating the impacts of badger culling on cattle health</a>.</li></ul>
3.	Confidence ratings	Statistical outputs should be accompanied by <b>scores indicating the confidence</b> that statistical experts have in the estimates, reflecting the quality of the evidence.	 	<ul style="list-style-type: none"><li>In the Infected Blood Inquiry, the statistical team provided confidence ratings (low /moderate /high) to indicate certainty around calculated estimates of the number of people infected and the number who subsequently died. Confidence ratings could also be useful in other instances, eg when considering whether to pause or continue publishing <a href="#">quarterly regional GDP</a>.</li></ul>
4.	Team structure to enable evidence-informed decision-making	<b>Team structure</b> should enable analysts to feed <b>evidence</b> into <b>decision-making</b> . This includes the need for strong links and effective communication between analyst and policy teams – including from the <b>outset</b> , to allow discussion of whether questions can <b>realistically be answered</b> .  <b>Multi-disciplinary</b> teams should be supported with time, resources and authority to conduct appropriate analyses.	   	<ul style="list-style-type: none"><li>Creation of a new data role in the Secretary of State for Health and Social Care's Private Office helped bridge and improved communication between the policy and analytical teams (eg who were working on the <a href="#">Covid-19 dashboard</a>).</li><li>Setting up and maintaining infrastructure that allows statisticians to feed data into government rapidly, as with <a href="#">travel statistics</a> during (and following on from) the Covid-19 pandemic, facilitates data-informed decision-making.</li><li>Cross-team communication was important in the <a href="#">Salisbury poisonings</a>, when statisticians embedded themselves in the military testing team to facilitate collaboration, and in the <a href="#">Covid-19 Infection Survey</a>, when multi-disciplinary collaboration enabled government and university colleagues to work in partnership with eg, experts in epidemiology modelling and data processing.</li></ul>
5.	Funding	<b>Long-term value</b> should be considered when making decisions on funding, including investing in <b>infrastructure</b> and <b>technology</b> that will enable efficiencies when pressurised work is necessary.		<ul style="list-style-type: none"><li>There is a need to ensure that solutions found during crisis situations, eg increased resourcing for data projects like the <a href="#">Covid-19 dashboard</a>, can be sustained, to allow continued preparedness for future crisis situations.</li></ul>

