
Poster: ethical and legal aspects in animal experimentation

Estimates for worldwide laboratory animal use

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Animal experimentation continues to generate public, scientific and political concern worldwide. Many countries conduct animal experiments but relatively few collate and publish animal use statistics; yet this is a first and essential step toward public accountability and an informed debate, as well as being important for effective policy-making and regulation.

The implementation of the Three Rs (replacement, reduction and refinement of animal experiments) should be expected to result in a decline in animal use, but without regular, accurate statistics, this cannot be monitored. Previous estimates of worldwide annual laboratory animal use are imprecise and unsubstantiated, ranging from 28-100 million.

We collated data for 38 countries that publish national statistics, and standardised these against the definitions of “animals”, “purposes” and “experiments” used in European Union Directive 86/609/EEC. We developed and applied a statistical model, based on publication rates, for a further 142 countries. This yielded a basic estimate of global animal use in 180 countries.

However, this basic figure excludes several uses and species/forms of animals that are included in the statistics of some countries. These should be included in statistics to represent more comprehensively the full use that science makes of animals. With the data available from a few countries that do include in their statistics other uses and types of animals, we also produced, by extrapolation, a range for a more comprehensive global estimate that includes animals killed for the provision of tissues, animals used to maintain genetically-modified strains, and animals bred for laboratory use but killed as surplus to requirements.

For a number of reasons that are explained, this more-comprehensive range figure of 82-154 million (mean 115.3 million) animals is still likely to be an underestimate.

References

Taylor, K., Gordon, N., Langley, G., Higgins, W. (2008). Estimates for Worldwide Laboratory Animal Use. *ATLA* (in press).

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