

Animal Experimentation

An HRC Research Primer



Report in Brief

This primer summarizes the available quantitative research relating to animal experimentation, including the number of animals used for experiments and public opinion regarding the use of animals in research.

The Bottom Line

The number of animals used in medical, pharmaceutical, and product research each year is at least 115 million worldwide, using official figures. The actual number is believed to be much higher. Generally speaking, most people surveyed in the U.S. and elsewhere say that they accept the use of animals for research purposes, at least to a certain degree. However, more people believe it is acceptable only for medical purposes, particularly involving the perceived treatment or prevention of serious human diseases or illnesses.

How to Use this Information

Animal advocates are well-served by knowing the magnitude of the use of animals in research (to the extent possible) and understanding how public opinion varies by the type of use. It is important for advocates to know that most people are willing to accept some animal experimentation, but that most people also support limiting animal research. Additionally, some people lack confidence in the validity and necessity of research on animals and they are likely to support stronger, more enforceable regulations.

HRC Information

HRC is a nonprofit organization dedicated to maximizing the effectiveness of animal advocates by applying professional, cost-efficient, and informative consumer and market research methods.

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Introduction and Overview

Animal research takes place in every developed country in the world, but an accurate estimate for how many animals are used in experiments is difficult to determine. This is due to wide differences in official figures and the omission of large numbers of animals from official counts. Public attitudes toward animal experimentation are also diverse and at times conflicting. On one hand, most people enthusiastically support anything considered “scientific advancement.” On the other hand, much of that support erodes when people become aware of the harsh realities that can be involved in such research.

This primer summarizes the available research on the number of animals used in experiments in the U.S. and elsewhere, as well as public attitudes toward animal research. The vast majority of studies pertain to animal experimentation for medical and pharmaceutical purposes, but some studies relating to animal research for personal care and household products are included here as well.

Number of Animals Used in Animal Experimentation

Due to the widespread use of animals in research around the world and significant gaps in official statistics, accurate and complete estimates are difficult to provide. One of the most comprehensive estimates available says the total number of research animals used worldwide each year is at least 115 million. The Dr. Hadwen Trust calculated this estimate using statistical modeling based on official data from 37 countries that report animal research data (representing 21% of the world’s countries). The actual number is much higher because official figures omit a large number of animals used for research. For instance, the vast majority of animals used in the U.S. are omitted from official numbers. The Hadwen estimate may also be understated because of incomplete reporting and inconsistent standards.

- **United States** – Official U.S. Department of Agriculture (USDA) records show that over one million animals were used in research in 2006. By species this includes: 37% guinea pigs and hamsters; 24% rabbits; 10% farm animals; 7% dogs; 6% non-human primates, 2% cats, and 14% other species. However, the U.S. Animal Welfare Act only requires the reporting of certain animal species; more than 93% of all research animals – including birds, rats, mice, amphibians, reptiles and fish – are excluded from the official USDA data. Previous estimates including these species stated that over 100 million animals are used for research in the U.S. every year.
- **United Kingdom** – According to the Yorkshire Post, the number of animals used in testing surpassed 3 million for the first time in 2006. Rats, mice, and other rodents accounted for 83% of research animals, while fish, amphibians, and reptiles accounted for 14%, and rabbits, ferrets, sheep, cows, pigs, dogs, cats, and monkeys constituted an additional 3%. Slightly less than a third of all animal testing conducted is related to genetics, a third to the treatment or prevention of disease, and about 31% to organ functions. The remaining 6% of research is related to product testing. Research on chimpanzees, orangutans, and gorillas is banned in the U.K.
- **New Zealand** – Data collected by the National Animal Ethics Council in 2006 showed that research was carried out on more than 318,000 animals, which represents an increase of more than 20% from the previous year. The council also reported that more than 5% of these animals are believed to have suffered at “severe” or “very severe” levels.

NUMBERS OF ANIMALS USED IN RESEARCH*

Year	Source	Region	Finding
2010	U.S. Department of Agriculture, Annual Report Animal Usage [external resource]	United States	1,131,076 animals were used in research in the U.S. in 2009. 76,001 of these animals were in studies that caused pain but did not administer drugs.
2008	Home Office Statistics, Science & Research Group (Statistics of Scientific Procedures on Living Animals Great Britain 2008)	United Kingdom	3,583,223 animals were used in research in 2008.
2008	Dr. Hadwen Trust (Estimates for Worldwide Laboratory Animal Use in 2005)	Worldwide	Statistical modeling based on official government data estimates that a minimum of 115 million animals are used in experiments globally each year.
2008	Yorkshire Post (Public Opinion Test for Animal Research)	United Kingdom	Over 3 million animals used in research in 2006.
2006	National Animal Ethics Council (Animal Testing Figures Shock the Greens)	New Zealand	318,000 animals experimented on in 2006.
2006	Statistical Report on the Use of Animals for Experimental and Other Scientific purposes in Ireland [external resource]	Ireland	73,797 animals used for scientific purposes in Ireland in 2006.
Unknown	American Anti-Vivisection Society (Animal Patents, Summary of Survey Findings)	United States	Total animals used in research, including species not covered in official USDA data, is estimated at 100 million or more per year.

Public Opinion Regarding Animal Experimentation

A slight majority of people support the use of animal experimentation, with support increasing as certain animal welfare or human benefit conditions are met. Support is strongest for medical research where people perceive benefits to humans in the treatment and curing of diseases and illnesses. Public opinion therefore varies dramatically according to the wording of the survey question. For instance, the 1999 Ipsos Mori survey asked respondents about their agreement with animal experimentation. By asking the question “cold,” only 24% of respondents agreed with the practice, but when including a preamble explaining why scientists believe it will hasten progress in medicine, approval nearly doubled to 45%, demonstrating the conditional public support for animal research.

Due to the variation in question wording used for different research projects, it can be difficult to compare results between different studies. Broadly speaking, approval rates for medical research appear to fall

between 50% and 75% of the public, while approval rates for research conducted on animals for other uses such as personal care or household products is significantly lower. Support for such testing is often below 50%, with some variation due in part to question wording. Based on a review of the available studies, public acceptance of animal experimentation seems to increase substantially when one (or more) of the following qualifiers or conditions is included:

- It is for medical research or to prevent/treat/cure major diseases
- As long as there is no “unnecessary” animal suffering
- Where there is no available non-animal alternatives
- When using animals who would otherwise be euthanized

SUPPORT/ACCEPTABILITY OF ANIMAL EXPERIMENTATION*

Year	Source	Region	Finding
2010	European Commission (Science and Technology Report)	Europe	44% of European citizens agreed that "scientists should be allowed to experiment on animals like dogs and monkeys if this can help sort out human health problems," while 37% disagreed. 66% agreed that such experiments should be allowed on mice, while 18% disagreed.
2010	Humane Research Council (The Animal Tracker – Wave 3)	United States	<p>Do you agree or disagree that research on animals is necessary for medical advancement?</p> <ul style="list-style-type: none"> • Agree (57%) • Disagree (17%) • Do Not Know (27%)
2010	Ipsos Mori (Views on Animal Experimentation)	United Kingdom	<p>29% of British adults oppose animal experimentation on welfare grounds.</p> <p>19% support a ban on all animal experiments for any form of research, down from 26% in 1999.</p> <p>Percentage of people who can accept animal experimentation so long as:</p> <ul style="list-style-type: none"> • It is for medical research (70%) • There is no unnecessary suffering to the animals (71%) • It is only conducted for life-threatening diseases (50%) • There is no alternative (68%)

SUPPORT/ACCEPTABILITY OF ANIMAL EXPERIMENTATION (CONTINUED)*

Year	Source	Region	Finding
2009	Ipsos Mori (Views on Animal Experimentation)	United Kingdom	<p>27% of British adults oppose animal experimentation on welfare grounds.</p> <p>17% support a ban on all animal experiments for any form of research.</p> <p>Percentage of people who can accept animal experimentation so long as:</p> <ul style="list-style-type: none"> • It is for medical research (75%) • There is no unnecessary suffering to the animals (74%) • It is only conducted for life-threatening diseases (53%) • There is no alternative (70%)
2008	Gallup (Values and Beliefs Survey)	United States	56% consider medical testing on animals to be morally acceptable.
2008	Swedish Research Council (Public Opinion in Sweden on the Use of Animals in Research)	Sweden	70% accept animal experimentation if the goal is to acquire more knowledge about diseases and how they can be prevented and cured. 30% consider animal experimentation unacceptable.
2007	Gallup (Values and Beliefs Survey)	United States	59% consider medical testing on animals to be morally acceptable. 37% feel that medical testing on animals is morally wrong.
2007	Canadian Press Harris-Decima (Animal Human Stem Cell Poll)	Canada	47% support medical research involving the creation of animal-human embryos if it would find treatments for serious illness.
2007	Ipsos Mori (Views on Animal Experimentation)	United Kingdom	<p>Percentage of people who can accept animal experimentation so long as:</p> <ul style="list-style-type: none"> • It is for medical research (74%) • There is no unnecessary suffering to the animals (76%) • There is no alternative (70%) <p>18% think the government should ban all animal research.</p> <p>26% oppose experimentation on grounds of animal welfare.</p>
2007	Intromart (Dutch Oppose Animal Testing)	Netherlands	67% are opposed to animal testing where the animal experiences any pain or suffering.

SUPPORT/ACCEPTABILITY OF ANIMAL EXPERIMENTATION (CONTINUED)*

Year	Source	Region	Finding
2006	ICM Research (Vivisection Survey)	United Kingdom	57% of people surveyed believe that it is acceptable to use animals for medical research while only 19% believe it is acceptable to use animals to test household products.
2005	University of Calgary (Public Perceptions of Transgenic Animals)	Canada	60% of Americans and 50% of Canadians support the use of genetically modified animals to produce higher quality industrial goods. 66% of Canadians support the use of animals in medical research. 48% of Canadians support the use of animals as a source of living cells, tissues, or organs to prolong human life.
1990	Parents Magazine (Parents Magazine Poll)	United States	58% feel that animal use in medical research is acceptable, while 78% feel that it is acceptable in AIDS research, specifically.

Public Confidence and Perceived Necessity of Animal Experimentation

While many people believe that some animal experimentation is necessary for scientific advancement, there is evidence that the public questions the integrity of animal-based research. For example, governments typically regulate animal research to some extent; public confidence in current regulatory systems seems to vary significantly. A 2007 Ipsos Mori study in the United Kingdom found that more than half of respondents (54%) expect that animal experimentation rules are well enforced, but 35% said that they did not trust the regulatory system to ensure animal welfare. In the United States, slightly more than half of people (54%) say they trust scientists to avoid causing unnecessary suffering, but 56% also believe that the unnecessary duplication of animal research does occur.

A few studies have been conducted regarding the perceived validity of animal research. A 1998 Animal Aid study found that 43% of respondents believe that results from testing on animals cannot be applied to people, while 48% believe that it could. Perspectives from those in the scientific community differ; a survey of British family doctors found that 96% of them agree that animal experiments have made important contributions to medicine. Further, 88% agreed that safety tests should be conducted on animals before humans. However, this same study found that 93% of British doctors agree that “medical research data can be misleading.” Similarly, in 2004 Europeans for Medical Advancement found that 82% of European general practitioners felt the same way.

CONFIDENCE AND PERCEIVED NECESSITY FOR ANIMAL EXPERIMENTATION*

Year	Source	Region	Finding
2010	Ipsos Mori (Views on Animal Experimentation)	United Kingdom	63% of British adults trust inspectors of animal facilities to uncover any misconduct that may be occurring; 32% have a lack of trust in the regulatory system; 58% think Britain has tough rules governing animal experimentation.
2009	Ipsos Mori (Views on Animal Experimentation)	United Kingdom	65% of British adults trust inspectors of animal facilities to uncover any misconduct that may be occurring; 30% have a lack of trust in the regulatory system; 51% think Britain has tough rules governing animal experimentation.
2007	Ipsos Mori (Views on Animal Experimentation)	United Kingdom	67% trust inspectors of animal facilities to report any misconduct that may be occurring. 60% think the rules governing animal experimentation in Britain are tough. 54% expect that animal experimentation rules are well enforced. 35% say they do not trust the regulatory system for animal experimentation.
2006	Research Defense Society (GP's Back Animal Research)	United Kingdom	96% of British family doctors agree that animal experiments have made important contributions to medicine. 88% agree that safety tests should be carried out on animals before human trials of new medicines are conducted. 93% of British doctors agree that "medical research data can be misleading."
2006	Ipsos Mori (Views on Animal Experimentation)	United Kingdom	63% believe that inspectors would uncover any misconduct occurring at research institutes. 54% trust that scientists experimenting on animals would not cause unnecessary suffering. Two-thirds believe that animal experimentation occurs behind closed doors. 56% believe that unnecessary duplication of animal experiments takes place.
2004	Europeans for Medical Advancement (New Survey Among Doctors Suggests Shift in Attitude Regarding Scientific Worth of Animal Testing)	Europe	82% of general practitioners (GPs) are concerned that animal data can be misleading when applied to humans. 83% of GPs would support an independent scientific-evaluation of the clinical relevance of animal experiments.
1998	Animal Aid (NOP Solutions Opinion Poll)	United Kingdom	43% believe that the information and results of research on animals cannot reliably be applied to people, while 48% believe that it can, and 10% don't know.
1990	Parents Magazine (Parents Magazine Poll)	United States	58% feel that animal use in cosmetic studies should be illegal, while 23% disapprove, but didn't think it should be illegal.

* Source: Details for all of the research studies cited in this primer are available to registered users of HRC's HumaneSpot.org.