MILLENNIA TOGETHER

Dogs, cats and birds have lived alongside humans for thousands of years. Our interconnected lives offer physical and psychological benefits, as well as some risks. By **Rosie Mestel**, infographic by **Mohamed Ashour**.

A WORLD OF COMPANION ANIMALS

Pet preference varies from country to country. In one poll* of 22 nations¹, more than half of those surveyed reported owning at least one pet.

*The GfK survey polled more than 27,000 respondents aged 15 and over from 22 countries and regions and adjusted data to reflect the demographics of online users in each country.

THREATS TO PET HEALTH

Different ailments strike early and late in a pet's life. Older dogs often have tumours, whereas older cats are treated for chronic kidney disease, according to US data from 2.5 million dogs and 500,000 cats⁸.

LYME DISEASE

Reports of the tick-borne disease have risen 560% in pets in the **United Kingdom** since 2009, possibly because of warmer winters⁴.

OBESITY

Insurance claims for obesity-related diseases rose 23% between 2013 and 2015 for one insurance company in the **United States**⁵.

**US\$15.4
BILLION**

The amount spent on veterinary care in 2015 in the **United States**⁶

**20,000
RABIES DEATHS**

India has the highest reported incidence of, and deaths from, rabies in the world⁷, and the highest estimated number of stray dogs.

A SHIFTING LANDSCAPE

Diabetes is nearly three times more common in cats than it is in dogs. Over the past 10 years, the prevalence of diabetes in dogs has increased by 79.7% and in cats by 18%⁸.

PARASITIC PROTECTION

Incidence of the potentially fatal parasitic infection heartworm in dogs has fallen since 2011, owing to the use of preventative drugs⁸.

MIXED BLESSINGS

Numerous studies have documented the many benefits of owning a pet, but allergies, bites and disease can mean that animals are not always good for our health.

THE GOOD

BONDING

Researchers found that eye contact raised urinary levels of the hormone oxytocin, which promotes relaxation and trust, by **100%** for dogs and **250%** for their owners⁹.

EXERCISE

Dog owners were **69%** more likely to take a walk during their leisure time and **34%** more likely to get the weekly recommended 150 minutes of exercise compared with non-dog owners, a study of 5,819 US adults concluded¹⁰.

LOW STRESS

Among couples that owned a pet, when one person was given a stressful task, the blood pressure of that person rose from **120/80** on average to **155/100** when the spouse was present, but only to **125/83** when just their pet was there¹¹.

COMPANIONSHIP

Of 830 men and women aged 60 or over, those who owned a pet were **36% less likely** than non-pet owners to report loneliness¹².

FEWER ALLERGIES

Males who grew up with dogs that lived in the house during the **first year of the child's life** were **half as likely** to report dog allergies at age 18 compared with those who did not have a dog. The risk of having a cat allergy at the same age was **halved** for both males and females exposed to cats during early life¹³.

INSIGHTS

There are around **340** recognized dog breeds. This breed structure and the sequencing of the dog genome in **2005** mean that dogs are particularly suited to genetic studies, shedding light on human diseases such as cancer and vision loss.

THE BAD

DOG BITES

Globally, **tens of millions of injuries each year are caused by dog bites**. In the United States, **30,000 people** need reconstructive surgery and **10–20** die from the **4.5 million** dog bites that occur each year⁷.

RABIES

Most of the **59,000** deaths¹⁴ a year from rabies occur in Asia and Africa. In **99%** of cases, the virus is transmitted by rabid dogs — often by the world's **200 million** strays⁷.

ALLERGIES

At least **10–15%** of people in Western countries have antibodies against pet allergens. Rates have risen in recent decades¹⁵.

SALMONELLOSIS

Reptiles transmit *Salmonella* bacteria. From 2006 to 2014, **15** outbreaks across US states linked to terrapins and tortoises under 10 centimetres in length accounted for **921** illnesses, **156** hospitalizations and the death of **1** infant¹⁶.

Sources: 1. Pet Ownership Global GfK Survey; 2. Euromonitor International; 3. Bradley, T. & King, R. *The Atlantic* go.nature.com/2lmdoyu (2012); 4. PDSA; 5. Nationwide; 6. American Pet Products Association; 7. World Health Organization; 8. Banfield Pet Hospital State of Pet Health 2016 Report; 9. Nagasawa, M. et al. *Science* **348**, 333–336 (2015); 10. Reeves, M. J. et al. *J. Phys. Act. Health* **8**, 436–444 (2011); 11. Allen, K., Blasovich, J. & Mendes, W. B. *Psychosom. Med.* **64**, 727–739 (2002); 12. Stanley, I. H., Corwell, Y., Bowen, C. & Van Orden, K. A. *Aging Ment. Health* **18**, 394–399 (2014); 13. Wegienka, G. et al. *Clin. Exp. Allergy* **41**, 979–986 (2011); 14. Hampson, K. et al. *PLoS Negl. Trop. Dis.* **9**, e0003709 (2015); 15. Salo, P. M. *J. Allergy Clin. Immunol.* **134**, 350–359 (2014); 16. Bosch, S., Tauxe, R. V. & Behraves, C. *Emer. Infect. Dis.* **22**, 1149–1155 (2016).