Obesity

A threat for people and pets

UNIVERSITY OF LIVERPOOL

Weight Management Clinic

In partnership with ROYAL CANIN

Alex German

University of Liverpool, UK

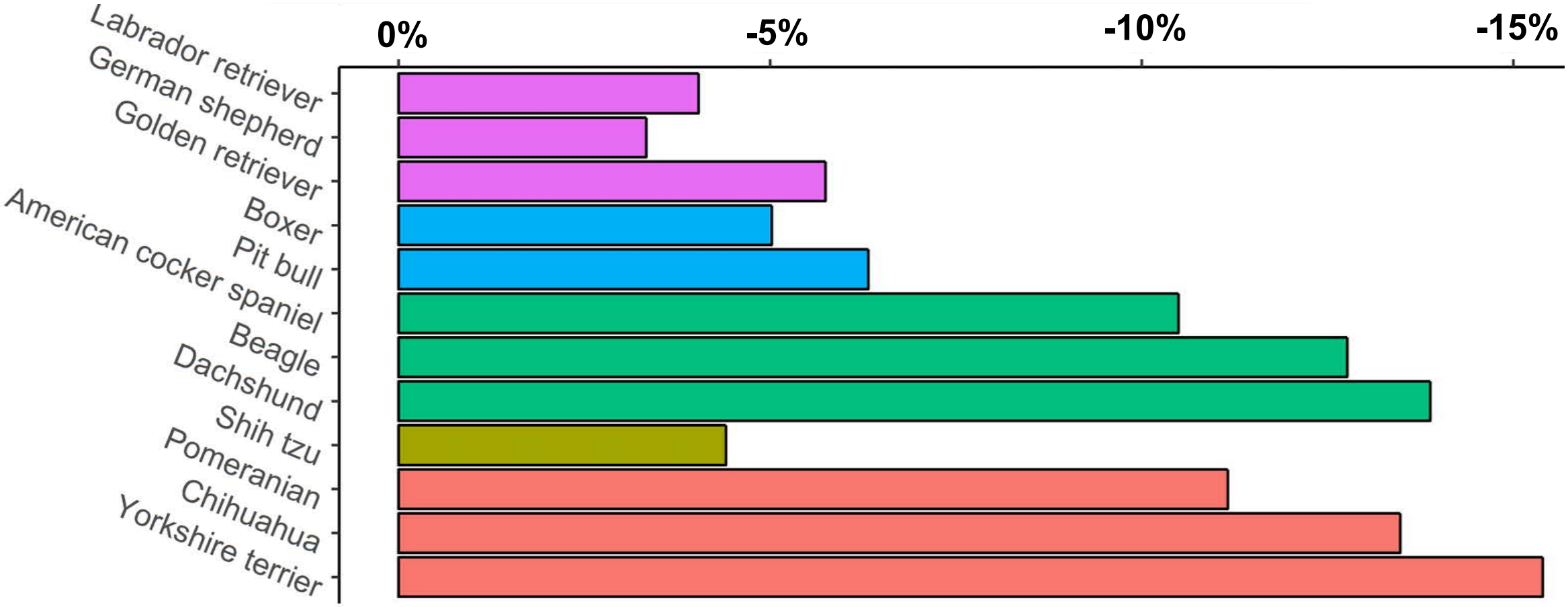
Obesity is a chronic disease that harms every organ system

Weight bias gets in the way of progress

“Obesity is a chronic disease that harms every organ system”

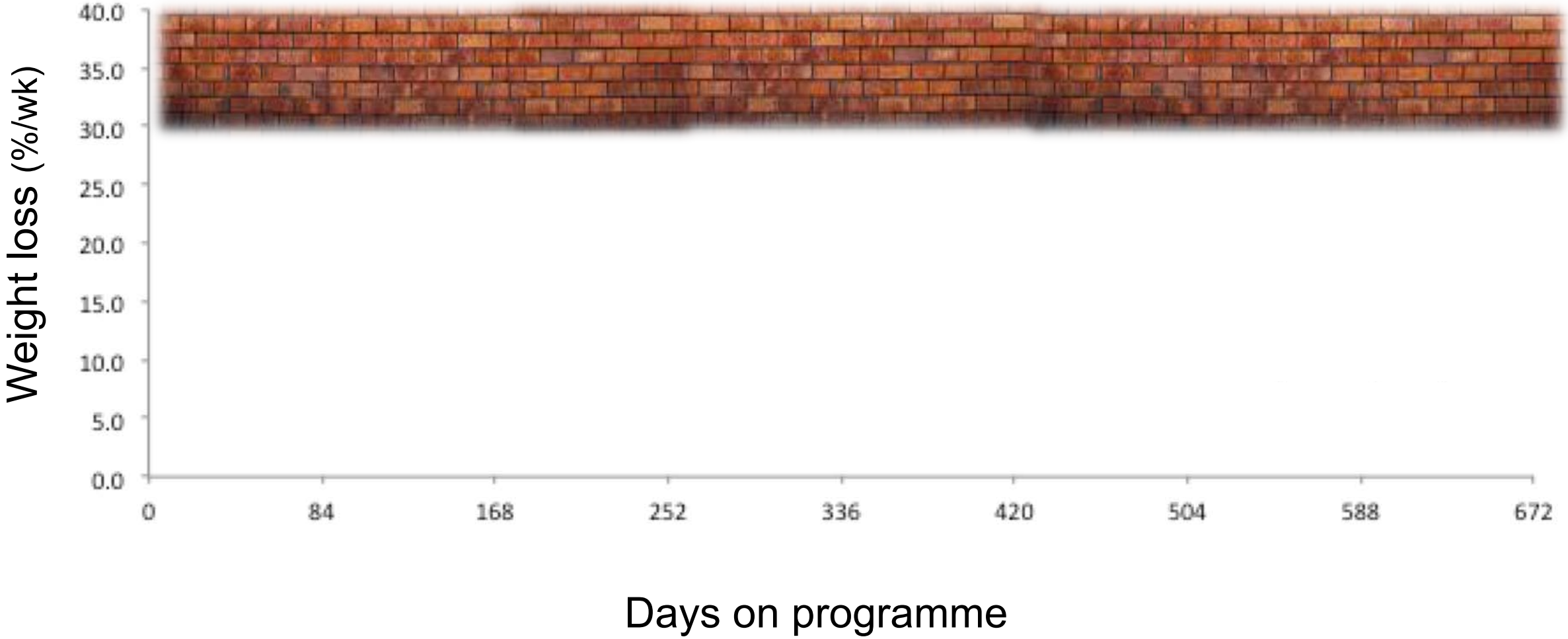
"Obesity is a chronic disease that harms every organ system"

Shortened lifespan

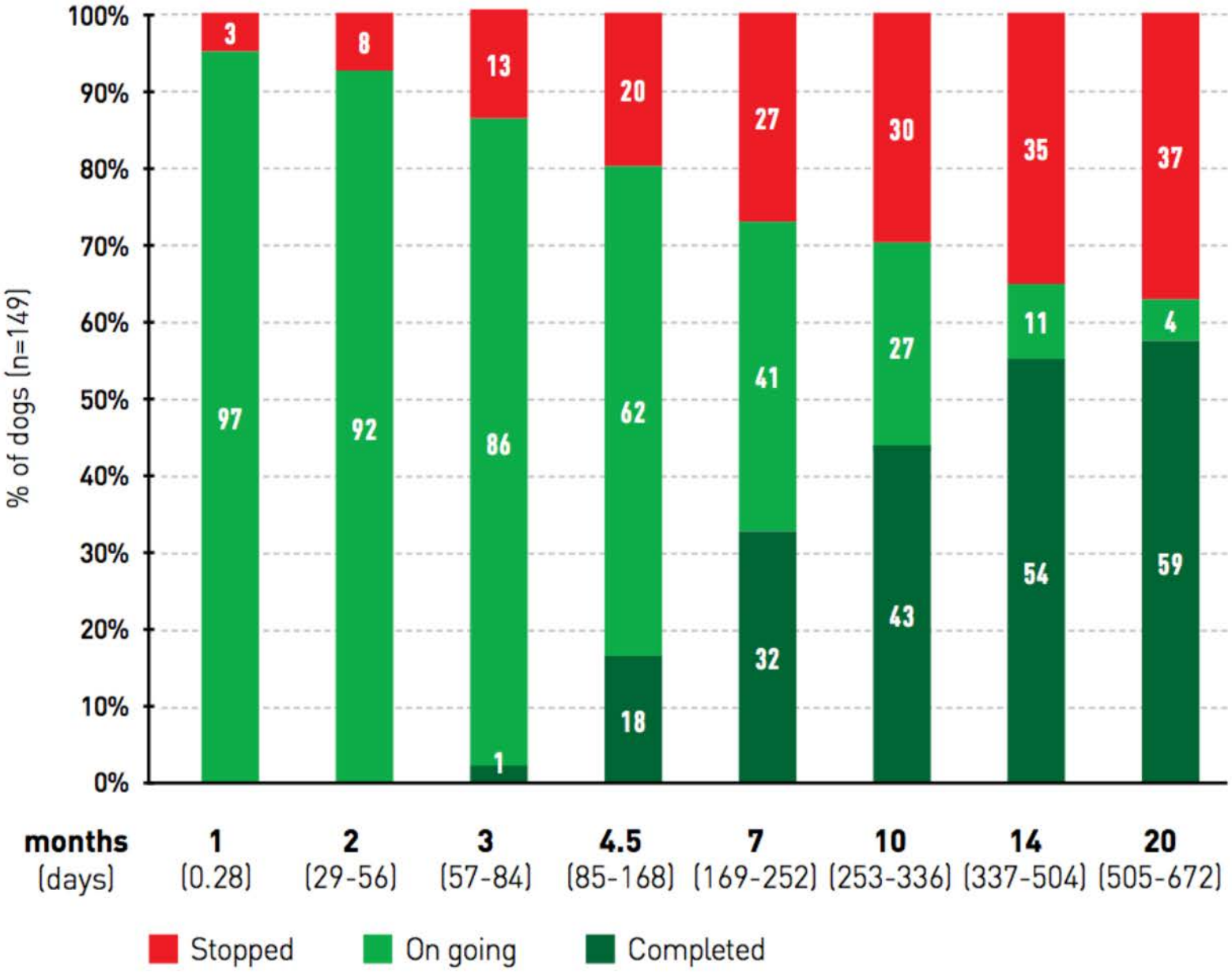


Chronic diseases cannot be cured

Percentage weight loss kinetics



Owner compliance and overall sucess of weight loss programmes



Obesity is a chronic disease that harms every organ system

Weight bias gets in the way of progress

We searched computer records & looked at the free text of 21,145 consultations…

8 year old female neutered border collie

Struggling on legs again, esp hindlegs, stiffness in hips i think. rest of legs ok, stifles ok. takes a while to get up. is overweight +++, adv diet.

discussed exercise, regular gentle exercise is best. start metacam and see if improvement. also discussed cod liver oil and glucosamines.

Dispense METACAM 32ml. give 25kg dose once daily with or after food.

SEARCH TERMS:

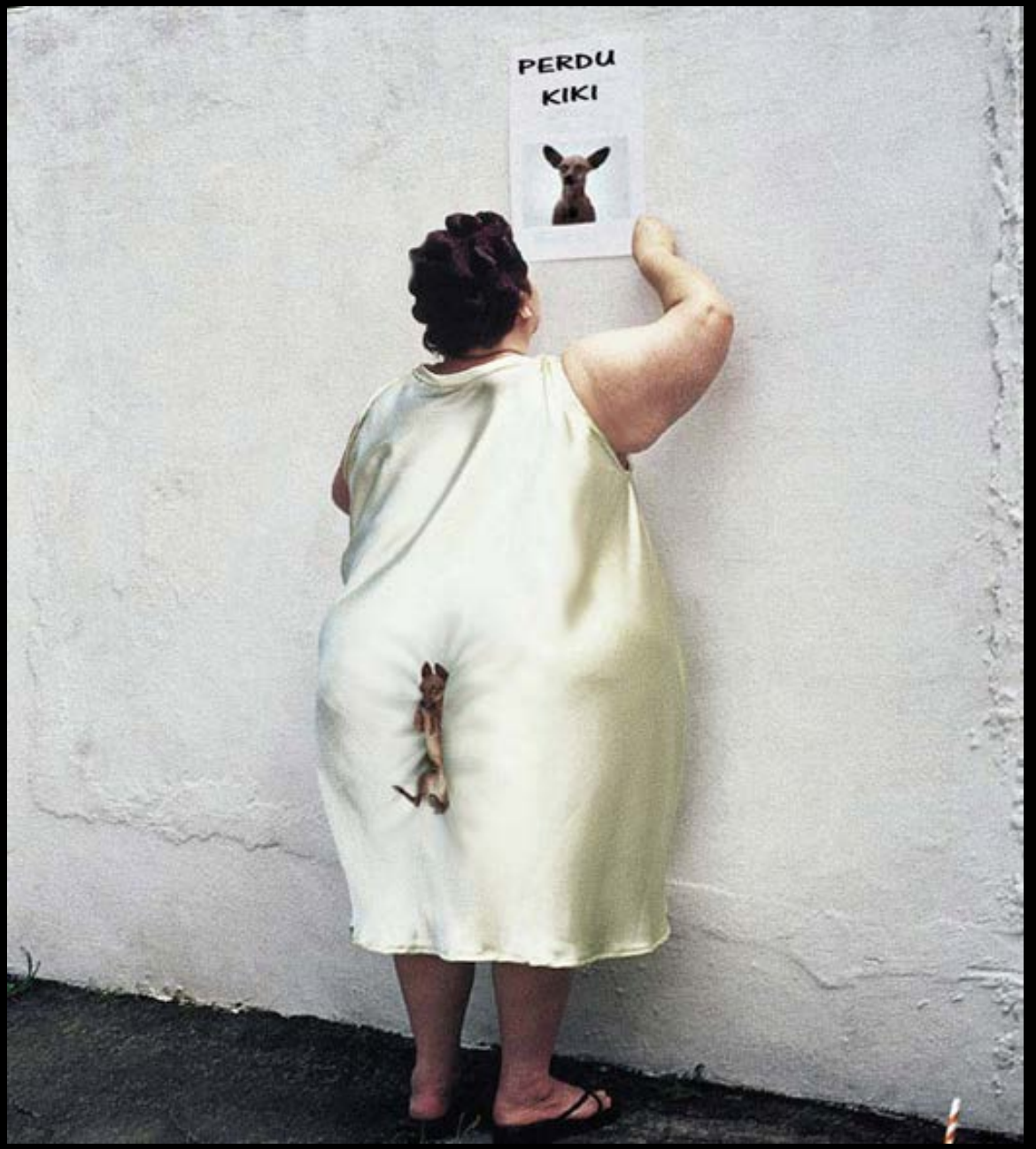
“obese”

“overweight”

Rolph et al (2014) J Nutr Sci vol. 3, e58, 1-5

~1 %

DIET FAIL


PERDU
KIKI

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Action on pet obesity

1. Define obesity as a disease

Most medical organisations now recognise obesity as a disease…

The Global Pet Obesity Initiative

The Global Pet Obesity Initiative Position Statement

Ernie Ward DVM
Alexander J. German BVSc, PhD, Cert SAM, DECVIM, SFHEA, FRVCS
Julie A. Churchill DVM, PhD, DACVN

Uniform Definition of Obesity

We call for the veterinary profession to adopt uniform nomenclature for canine and f
obesity. There is currently no universally-accepted definition of obesity in dogs and cats, ar
lack of professional consensus has created confusion among veterinary professionals, ir
stakeholders, and owners. This makes it challenging for veterinarians to provide clear m
to their clients about obesity and might explain why veterinarians rarely record the pre
obesity in the clinical records of their patients.[1] We believe that adopting and widely pu
a standard definition of obesity will raise awareness of the disease, and increase discu
motivation to act within the profession with the ultimate goal of improving health of cats

Our recommendation is that the term obesity be defined as 30% above ideal body we
excess body weight (overweight and obesity) represents a continuum and any cut-po
of disease is somewhat arbitrary (see below), this definition correlates with the det
obesity in humans using the standard metric such as body mass index (BMI) a
circumference.[2] It is also consistent and broadly supported by veterinary studies v
associations with various comorbid diseases,[3-5] functional impairment,[6-11] and de
of life.[12,13] The most practical clinical measure of adiposity is body condition
below), and 30% above ideal weight is equivalent to 8/9 using the preferred 9-
However, defining obesity on the basis of 'above ideal weight', rather than
condition score, is preferable because it enables veterinarians to use other strate
onset of obesity precisely in addition to definition by BCS. For example, if a
recommends routine body weight and BCS assessment throughout life, and suc
identifying and record the 'healthy adult weight' of a dog or cat (i.e. an early-a
where BCS is ideal),[18] weight gain could then be accurately quantified as
from the healthy adult weight, enabling the onset of obesity to be accurately

Universal Body Condition Score System

We urge the global veterinary community to adopt a universal Bo
dogs and cats of whole-integer, one-through-nine (1–9) scale. Man
scoring systems have been suggested for estimating the adiposity of d
while they may be broadly comparable (for example a 5-unit system
equivalent to a 9-unit system), having different methods creates c
problematic for veterinary professionals and owners when discus
recommendations, it can also lead to inconsistency in interpreting t
In adopting a universal system, we believe that the 9-unit body condition sco
system has been more extensively validated than other systems, for example by compari
against precise measures of body fat mass using dual-energy X-ray absorptiometry, DEXA).[14-17,2

It is also the system that has been recommended by the WSAVA Global Nutrition Panel.[23] We recognize that other validated methods of determining adiposity have been developed for cats and dogs, such as using multiple zoometric measures.[20,21] While we would not discourage their use, we believe that body condition scoring has many advantages most notably speed and simplicity, to ensure consistent use in veterinary practices. By adopting a universal BCS, we believe veterinary teams will be better able to interpret veterinary medical research, more consistently and accurately assess their patients' body condition, and clearly communicate with colleagues and clients.

Defining Obesity as a Disease

We call for the veterinary profession formally to recognize canine and feline obesity as a disease. For many years, the medical profession has debated the various reasons for and against defining human obesity as a disease.[24-28] Opponents have argued that body fat gain is simply a normal physiological response to an abnormal ('obesogenic') environment.[27,28] However, obesity develops in a pattern expected for any disease process in that one or more causal factors trigger various pathophysiological mechanisms, which ultimately lead to functional impairment.[26] With obesity, the prolonged positive energy balance leads to expansion of adipose tissue and fat deposition in other organs; this in turn promotes dysregulation of metabolic, hormonal and/or inflammatory processes, ultimately leading to functional impairment, comorbidities of obesity and reduced quality of life. Obesity also meets the American Medical Association (AMA) definition of disease namely:

1. An impairment of the normal functioning of some aspect of the body
2. Demonstrates characteristic signs or symptoms
3. Causes harm or morbidity

The final arguments against classifying obesity as a disease are that the label would negatively impact well-being and would not improve medical support for affected individuals.[27,28] However, such arguments have been refuted by others who believe a formal obesity classification will actually reduce stigma and, in turn, improve access to medical care.[25,26] While a clear consensus has not yet been reached, the broad trend has been toward adopting a formal disease definition. This has been the position of the AMA since 2013,[25] and is now held by many other national medical organizations, the World Health Organization, World Obesity Federation, Food and Drug Administration and the National Institute of Health.[26,30,31]

Obesity is now a major health concern worldwide with published studies suggesting that up to 59% of dogs and cats are overweight,[3,4,32] making obesity one of the most common medical disorders identified in veterinary practice.[5,34] Recent evidence suggests a rapidly increasing prevalence[35] and the fact that it is now a worldwide problem including developing countries.[36] Particularly concerning is the current prevalence of obesity in growing animals, whereby approximately 21% of dogs are already overweight by 6 months of age.[37] Obesity can reduce life expectancy,[38] negatively impact quality of life,[12,13] and is associated with various comorbidities.[3,4, Obesity contributes to metabolic derangements,[9-11,39] significant functional impairment (most notably respiratory, cardiovascular and renal function)[10,11] and is a significant financial burden on owners.[40] Thus, as with the condition in humans, the wealth of scientific data in cats and dogs to

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Formally endorsed by the *American Veterinary Medical Association* on 16th July 2018

…and another 9 associations including…

- ***BSAVA***
- ***BVA***
- ***Dogs Trust***

Action on pet obesity

1. Define obesity as a disease

2. Improve communication about obesity

1%

Action on pet obesity

1. Define obesity as a disease
2. Improve communication about obesity
3. Redefine weight loss goals

UNIVERSITY OF LIVERPOOL

Weight Management Clinic
In partnership with ROYAL CANIN

“Focus on the benefits of weight loss”

Vet Res Commun (2010) 34:241–253
DOI 10.1007/s11259-010-9348-7

ORIGINAL ARTICLE

The effect of weight loss on lameness in obese dogs with osteoarthritis

William G. Marshall · Herman A. W. Hazewinkel · Dermot Mullen · Geert De Meyer · Katrien Baert · Stuart Carmichael

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Abstract This paper describes the effect of weight loss on lameness in obese dogs with osteoarthritis (OA). Fourteen obese client-owned dogs with clinical and radiographic signs of OA participated in an open prospective clinical trial. After a screening visit and a visit for collection of baseline data, the dogs were fed a restricted-calorie diet over a study period of 16 weeks that incorporated six follow-up visits. At each visit, body weight and pelvic

Benefits seen with 6-9% weight loss

Keywords Dog · Osteoarthritis · Obesity · Weight loss · Lameness

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Citation: Flanagan J, Bissot T, Hours M-A, Moreno B, Feugier A, German AJ (2017) Success of a weight loss plan for overweight dogs: The results of an international weight loss study. PLoS ONE 12 (9): e0184199. https://doi.org/10.1371/journal.pone.0184199

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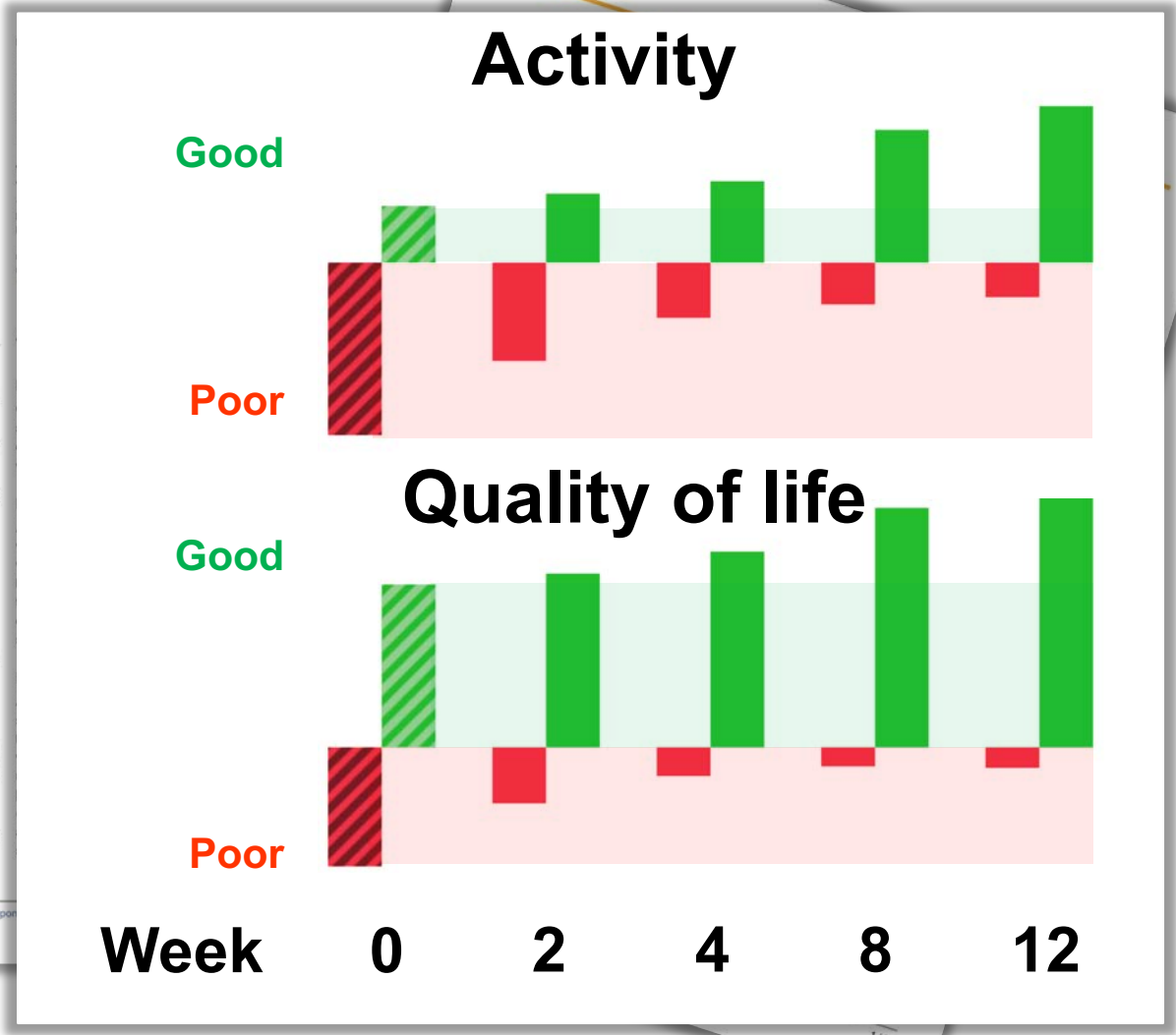
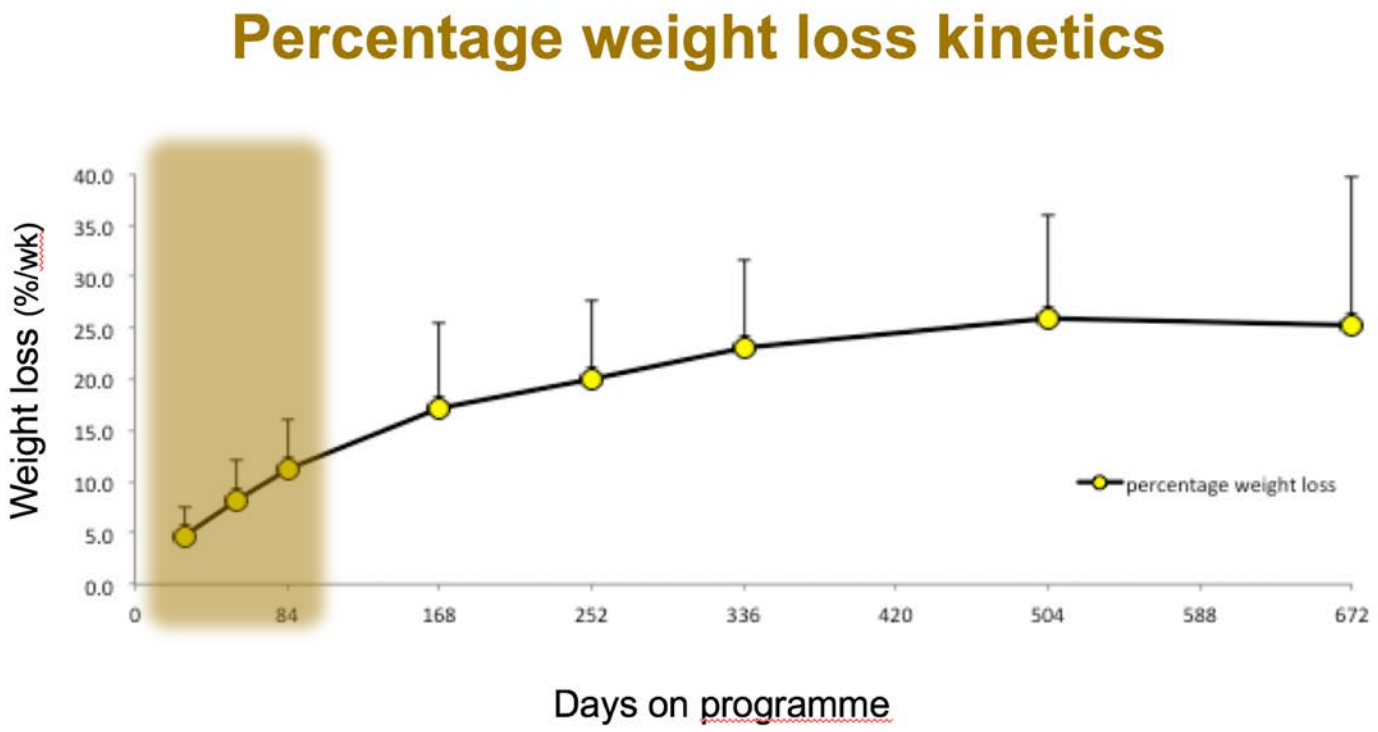
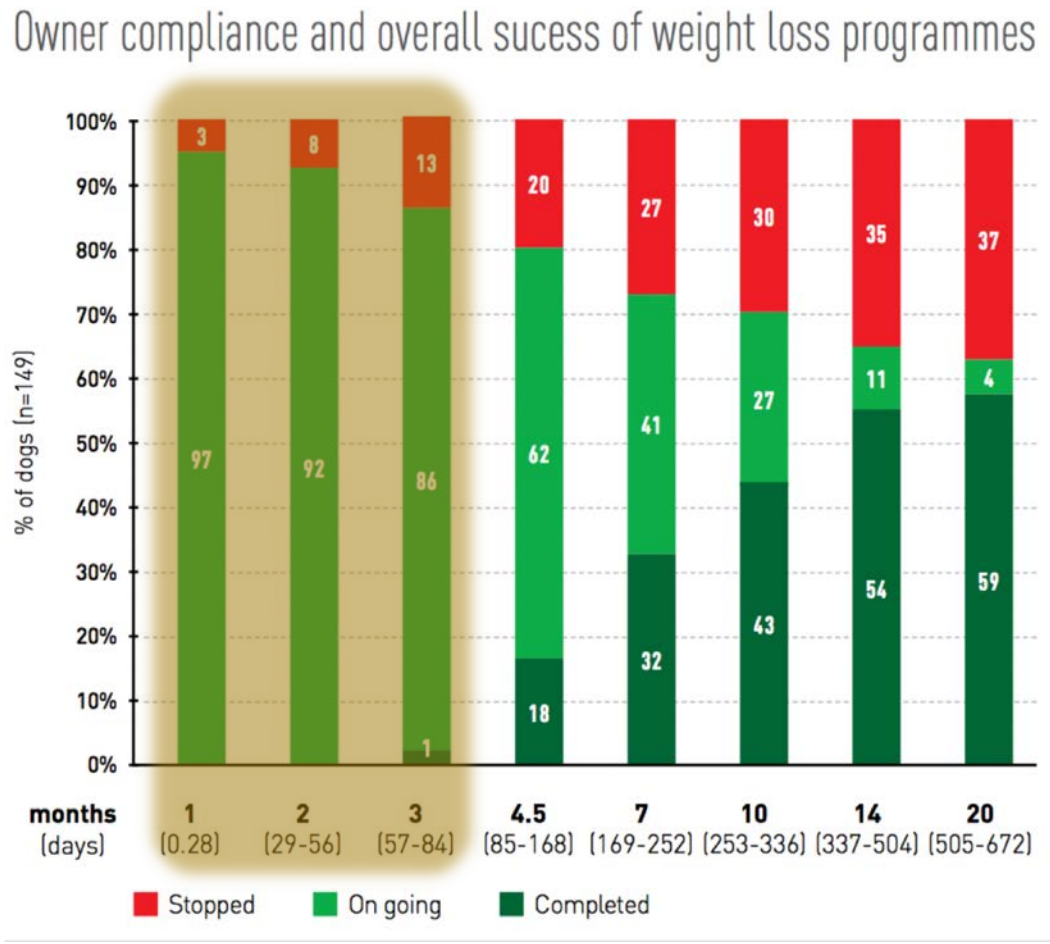


Redefine weight loss goals





...And finally... a word on prevention

PLOS ONE

RESEARCH ARTICLE

Growth standard charts for monitoring bodyweight in dogs of different sizes

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Data Availability Statement: The study data are available from the Liverpool Data catalogue (10.17638/datacat.liverpool.ac.uk/377). Please note that the dataset has been fully anonymised by removing any client and animal details that might enable the client to be identified.

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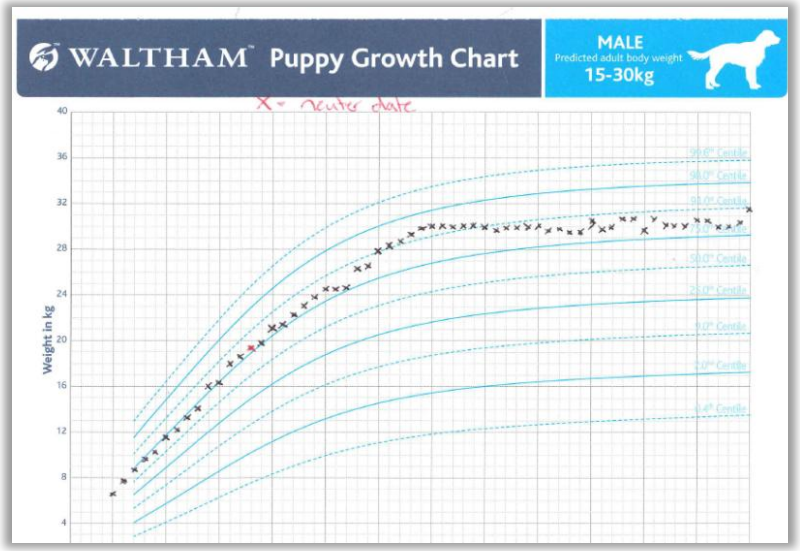
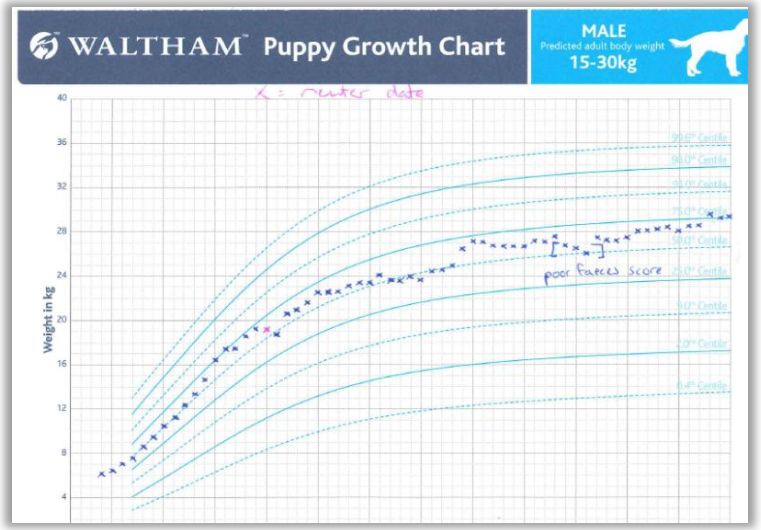
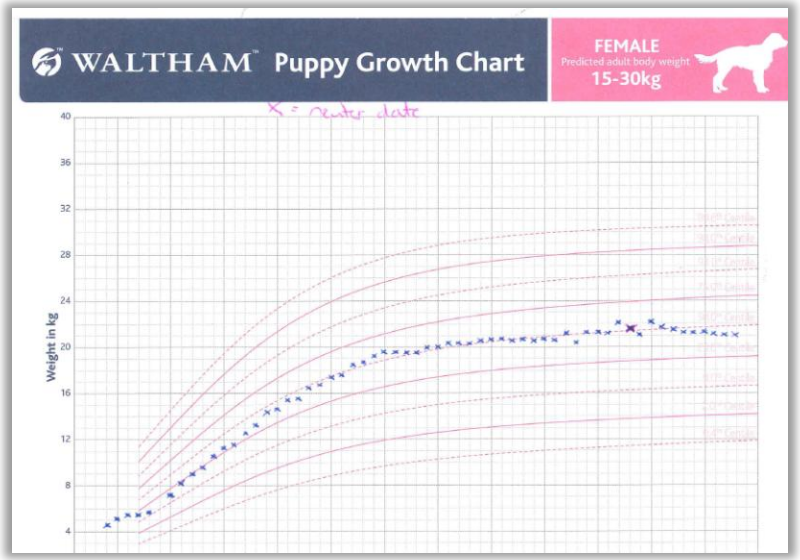
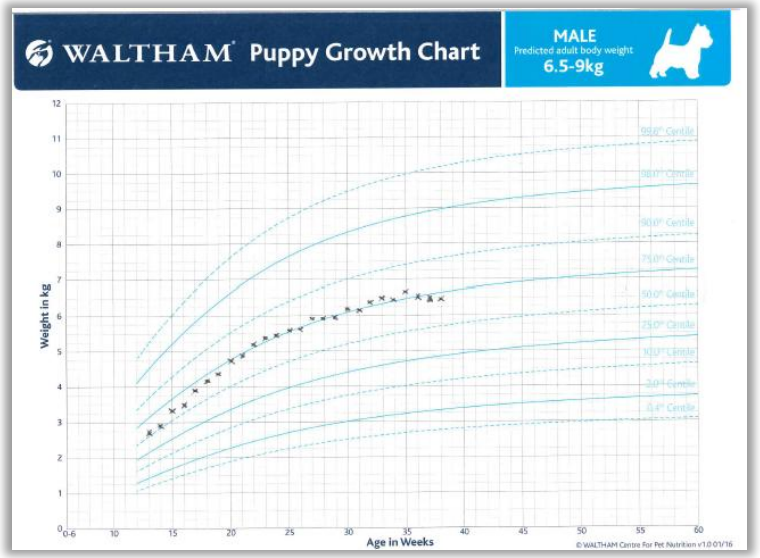
Abstract

Limited information is available on what constitutes optimal growth in dogs. The primary aim of this study was to develop evidence-based growth standards for dogs, using retrospective analysis of bodyweight and age data from >6 million young dogs attending a large corporate network of primary care veterinary hospitals across the USA. Electronic medical records were used to generate bodyweight data from immature client-owned dogs, that were healthy and had remained in ideal body condition throughout the first 3 years of life. Growth centile curves were constructed using Generalised Additive Models for Location, Shape and Scale. Curves were displayed graphically as centile charts covering the age range 12 weeks to 2 years. Over 100 growth charts were modelled, specific to different combinations of breed, sex and neuter status. Neutering before 37 weeks was associated with a slight upward shift in growth trajectory, whilst neutering after 37 weeks was associated with a slight downward shift in growth trajectory. However, these shifts were small in comparison to inter-individual variability amongst dogs, suggesting that separate curves for neutered dogs were not needed. Five bodyweight categories were created to cover breeds up to 40kg, using both visual assessment and hierarchical cluster analysis of breed-specific growth curves. For 20/24 of the individual breed centile curves, agreement with curves for the corresponding body-weight categories was good. For the remaining 4 breed curves, occasional deviation across centile lines was observed, but overall agreement was acceptable. This suggested that growth could be described using size categories rather than requiring curves for specific breeds. In the current study, a series of evidence-based growth standards have been devel-oped to facilitate charting of bodyweight in healthy dogs. Additional studies are required to validate these standards and create a clinical tool for growth monitoring in pet dogs.

Introduction

The growth phase is fundamental to the lifelong health and wellbeing of all humans. A growth pattern that deviates from optimal can result from malnutrition or the presence of an