

Physical activity and health Towards new UK guidelines for older adults

KT-EQUAL Conference
Bath
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Exercise, Nutrition and Health Sciences

A bit of history The emergence of physical activity guidelines

Two approaches to the evidence base:

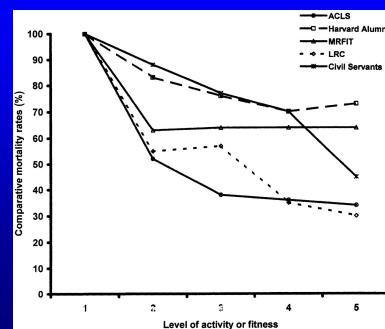
- Epidemiological – prospective cohort studies initiated by the late Jerry Morris (1953) – focus on mortality and morbidity – medical perspective
- Exercise training studies - Martti Karvonen (1957) – focus on cardiovascular fitness and health markers such as BP, lipids – exercise science perspective

Blair, S (2004) *Am J Clin Nutr.*

Emergence of physical activity guidelines

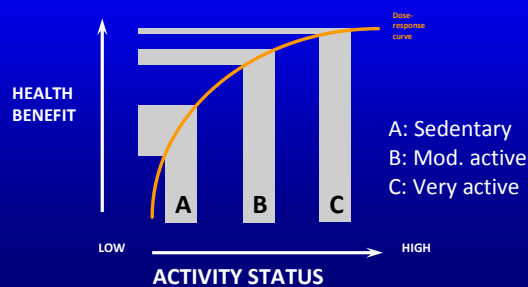
- 1978 American College of Sports Medicine position statement on the recommended quantity and quality of exercise for developing and maintaining fitness in healthy adults. *Med Sci Sports* ;10:vii-x
- 1995 CDC/ACSM Pate RR, Pratt M, Blair SN, et al. Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *JAMA*, 273:402–7.
- 1994 *Moving on: International Perspectives on Promoting Physical Activity*, Health Education Authority

FIGURE 3. The association between self-reported physical activity [Harvard Alumni Health Study (Harvard Alumni), Multiple Risk Factor Intervention Trial (MRFIT), and British Civil Servants Health Study (Civil Servants)] or cardiorespiratory fitness [Aerobics Center Longitudinal Study (ACLS) and Lipid Research Clinics Mortality Follow-up Study (LRC)] and cardiovascular disease mortality in 5 large prospective studies

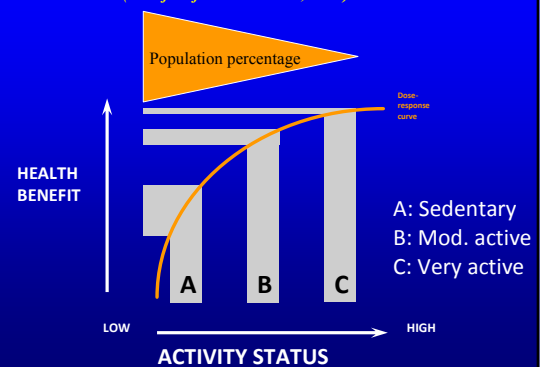


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Dose-response curve for physical activity and health (modified from Pate et al., 1995)



Dose-response curve for physical activity and health (modified from Pate et al., 1995)



**Chief Medical Officer's Report
April, 2004**

Dh.gov.uk/publications

AHA/ACSM consensus (2007)

US Dept of Health and Human Services Physical activity guidelines for Americans (2008)



**Physical activity and health outcomes:
Overall picture from the CMO report**

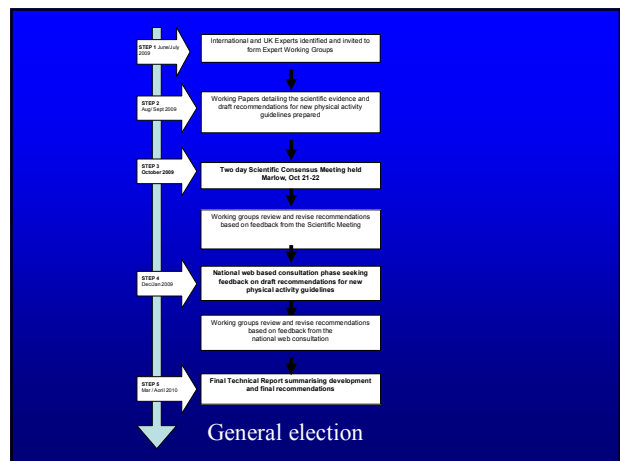
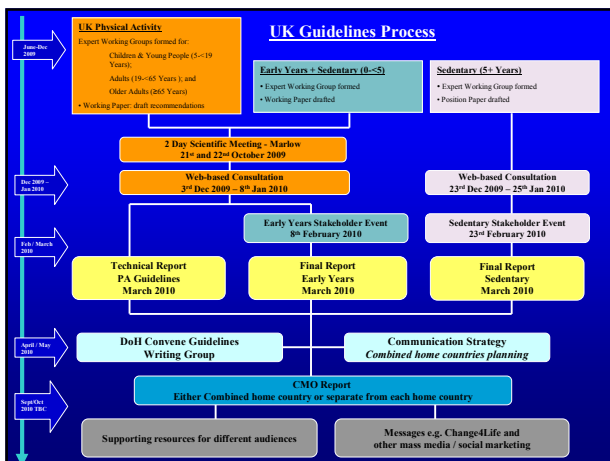
	PREVENTION		THERAPY	
	Evidence	Effect	Evidence	Effect
CHD	High	Strong	Medium	Moderate
Stroke	High	Moderate	Low	Weak
Obesity	Medium	Moderate	Medium	Moderate
Cancer (colon,breast)	Medium	Moderate	-	-
Diabetes	High	Strong	Medium	Weak
Musculo-skeletal	Medium	Moderate	Medium	Moderate
Mental health	Medium	Moderate	Medium	Moderate

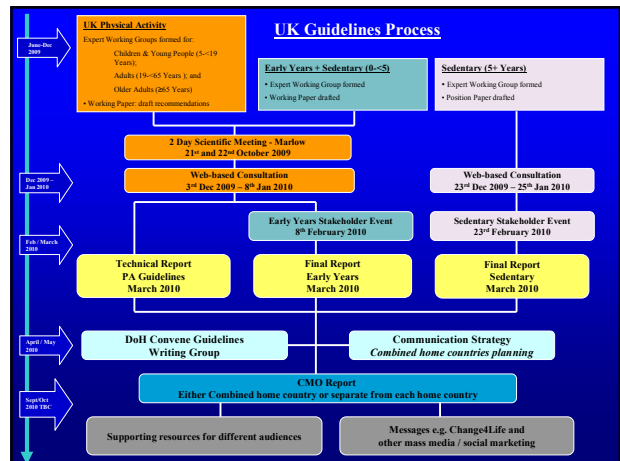
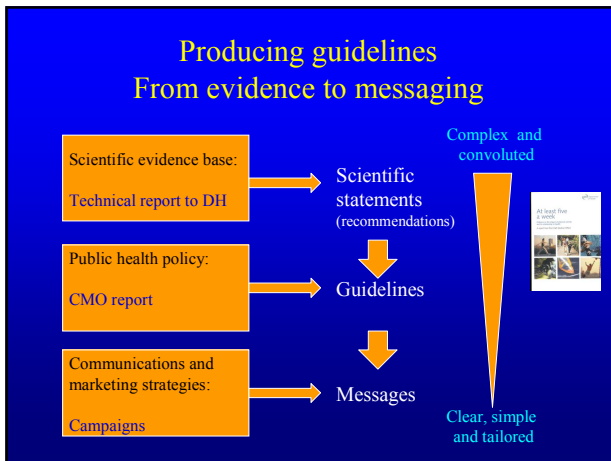
Current core guidelines that apply to older adults

- For general health benefit, adults should achieve a total of at least 30 minutes a day of at least moderate intensity on 5 or more days of the week.
- Specific commentary on implications for cardiovascular health, diabetes, obesity, mental health, skeletal health, children, older adults, and risk
- The guidelines of adults also are appropriate for older adults

**Be active, be healthy:
A plan for getting the nation moving
(DH, 2009)**

- The need to update existing evidence
- Exponential rise in numbers of published studies (and new journals)
- Common guidelines across the UK
- Several other updates
 - Physical activity guidelines for Americans
 - British Association of Exercise and Sport Sciences (2009)
 - EU/HEPA guidelines (2009)
- Consideration of recommendations by age group – children, adults, older adults, infants
- Consideration of evidence on sedentariness





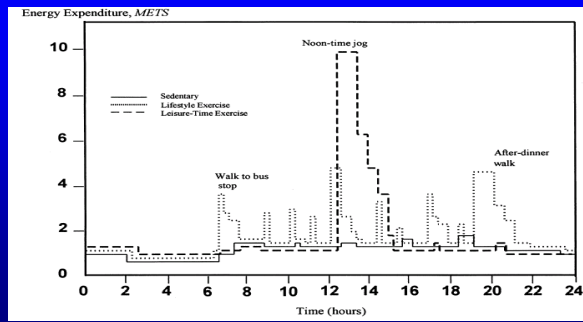
- ## UK physical activity guidelines: Outcomes
- Evidence has considerably strengthened, particularly for prevention of some cancers, diabetes, and dementia.
 - Result in common guidelines across the UK
 - Be accompanied by the first guidelines in UK for early years
 - Will incorporate more directly the implications of sedentary lifestyles
 - Likely to have separate guidelines for older adults

- ## Recommendations for activity guidelines
- ### Choice of ways of meeting recommendations
- **Recommendation ?**
The UK guidelines for adults should recognise that combinations of moderate- and vigorous- intensity activities can provide health benefits and this represents another way of achieving the recommended target volume of activity.
- ### Recognition of low starting points
- **Recommendation ?**
The UK Physical Activity Guidelines for adults should recognise that those who are least active are most at risk of poor health and increasing their physical activity (even if it does not meet the public health target of 150 minutes of moderate-intensity activity per week) will have health benefits.

- ## Recommendations for activity guidelines
- ### Recommendation ?
- The UK Physical Activity Guidelines for adults should include a recommendation to undertake muscle strengthening activities involving the major muscle groups of the body on two or more days per week. Time spent undertaking muscle strengthening activities should be in addition to the primary recommendation of 150 minutes. Although there is currently insufficient evidence to determine an optimal regimen for this muscle strengthening activity, an example of a regimen that has been shown to be beneficial should be included in the explanatory guidance that accompanies the guidelines.*

- ## Recommendations for older adults.....
- 15 recommendations in the technical report

Lifestyle versus structured patterns of activity



(Blair, Kohl, & Gordon, 1992)

Physical activity promotion for older adults

Programme	Cardio-vascular	Strength	Flexibility	Coordination	Mental & social	Cognitive ability
Gym-based	*	*			*	*
Health walks						
Dancing						
Green exercise						
Out and aboutness						



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Thanks for listening