



Active and healthy: a societal challenge

En bonne santé en étant actif :
un enjeu sociétal

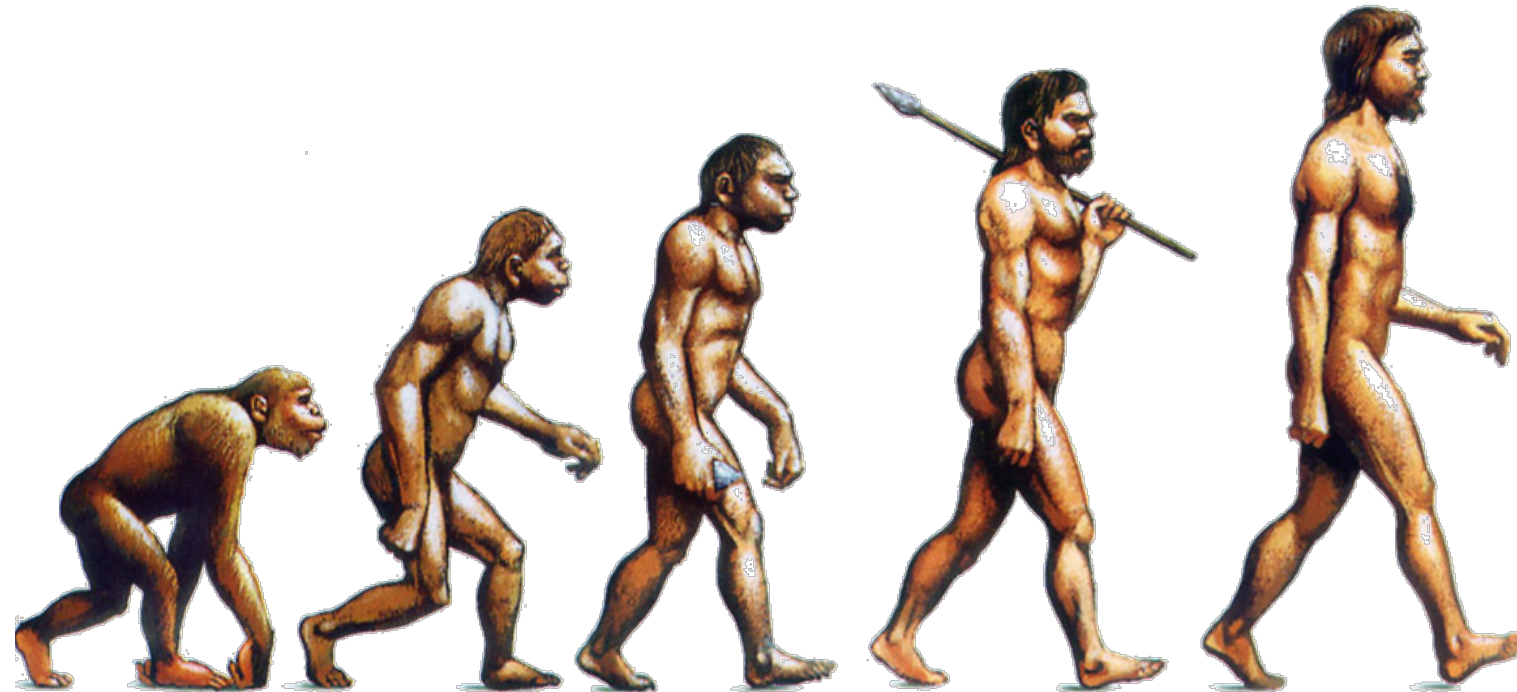


Daniel Theisen, PhD

Alexis Lion, PhD

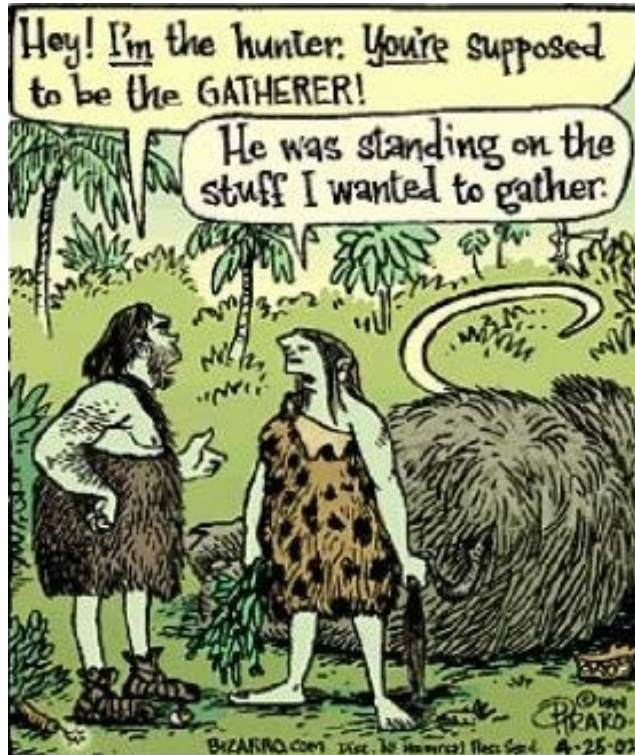
Sports Medicine Research Laboratory

Human evolution

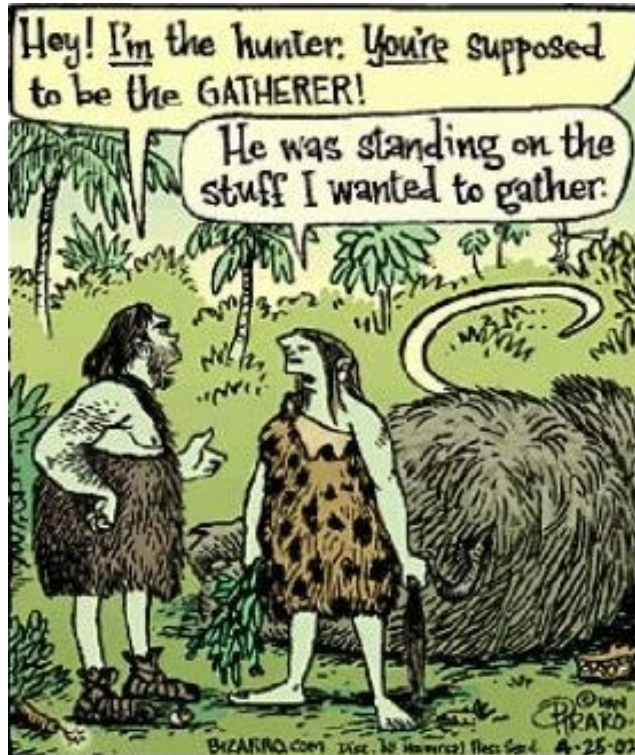


Genome of homo sapiens remains unchanged since ~ 10,000 years
Specialized in bipedal displacement and running

Hunters and gatherers



Hunters and gatherers



Commuting

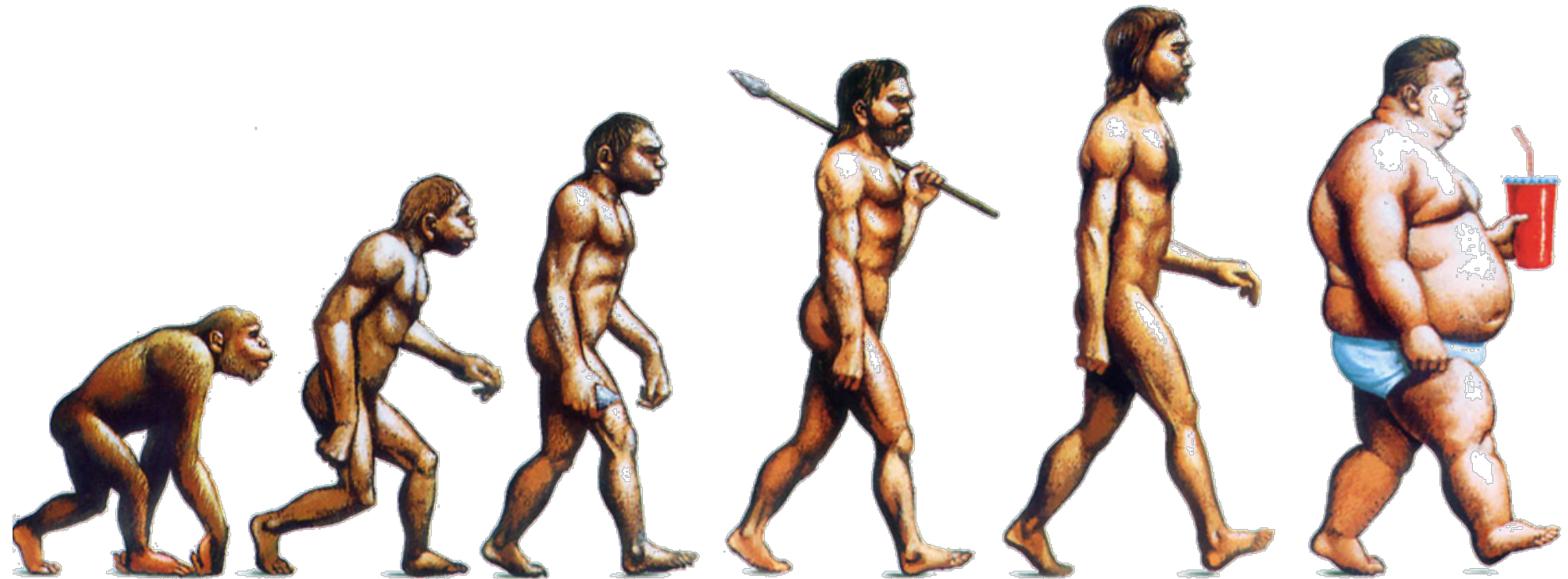


Daily activities



Food

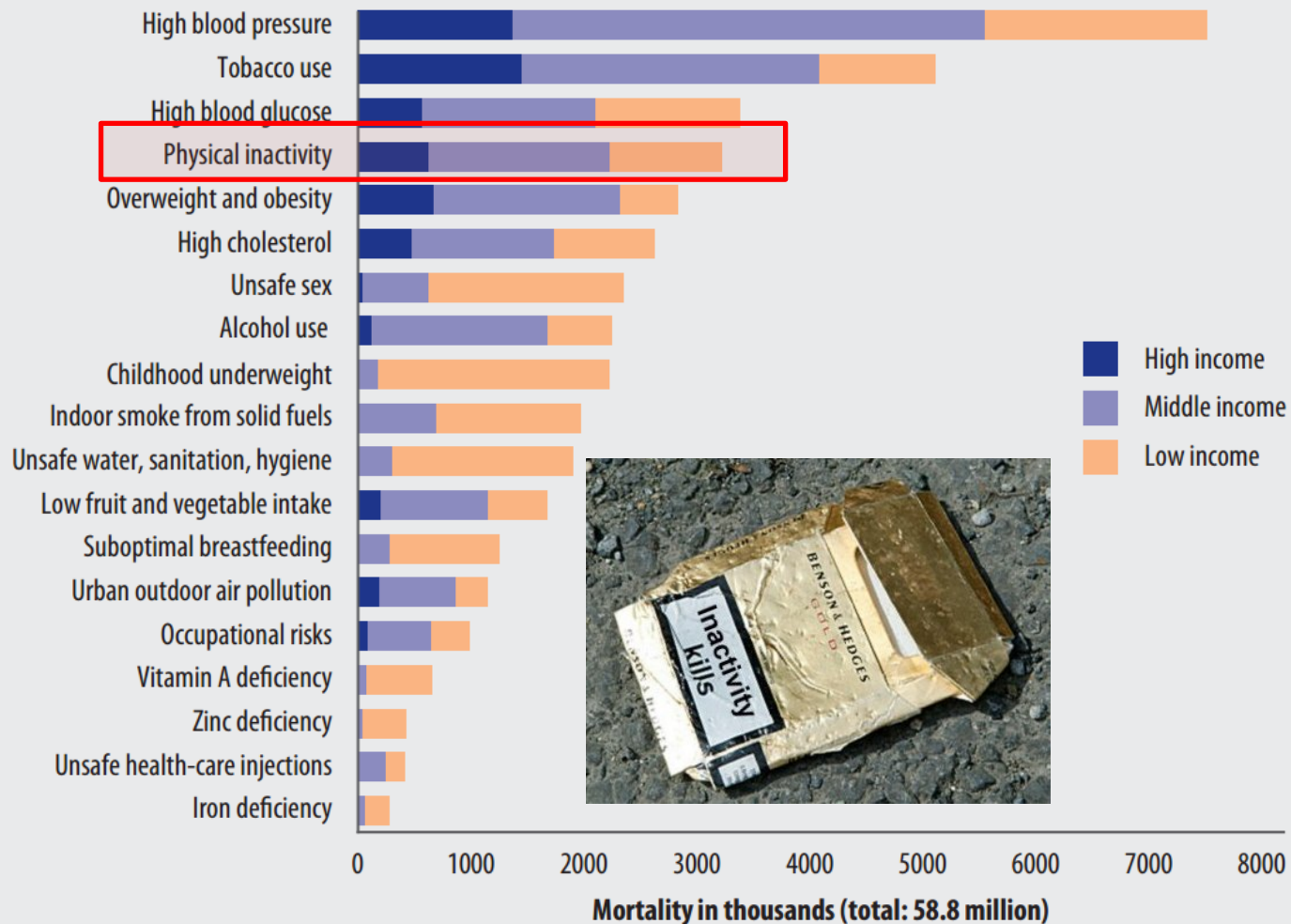
Human (r)evolution



Genome of homo sapiens remains unchanged since ~ 10,000 years
Specialized in bipedal displacement and running

Physical (in)activity and health

Figure 6: Deaths attributed to 19 leading risk factors, by country income level, 2004.



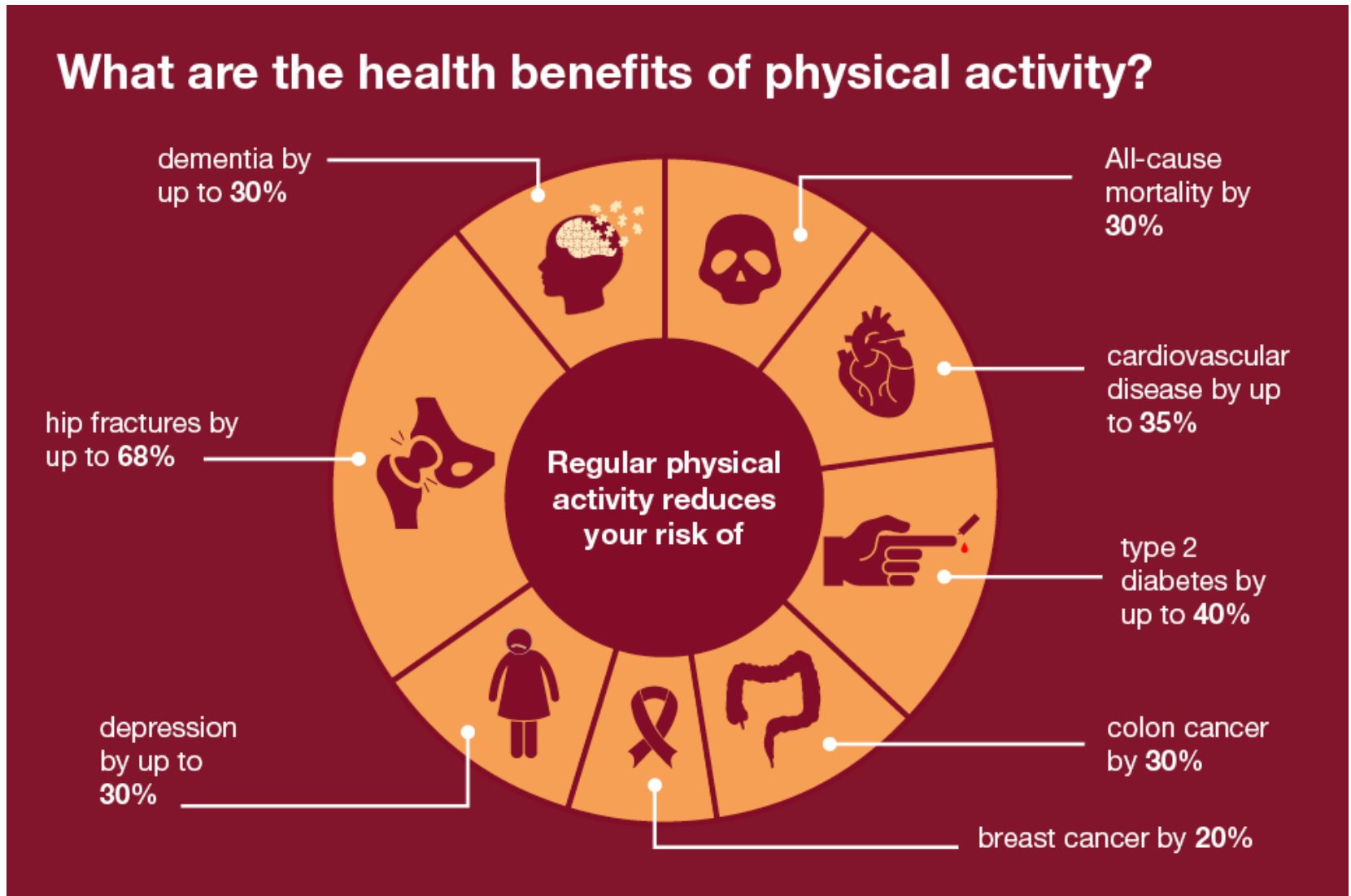
Physical (in)activity and health

Rank	Risk factor
1	Smoking
2	High BMI
3	High Blood pressure
4	High Fasting plasma glucose
5	Alcohol use
6	High total cholesterol
7	Low glomerular filtration
8	Low levels of physical activity
9	Drug Use
10	High intake of processed meat



The Lancet, 2015
(Courtesy: Prof Saverio Stranges)

Benefits of physical activity on health



Primary prevention



Département ministériel des Sports
Ministère de la Famille et de l'Intégration



Ministère de l'Éducation nationale
et de la Formation professionnelle
Ministère de la Santé

Dossier de presse

Présentation du

Plan d'action pour la promotion de l'alimentation saine et de l'activité physique



5 juillet 2006



LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère de la Santé

Direction de la santé

Recommendations

Physical activity for early years (birth – 5 years)

Active children are healthy, happy,
school ready and sleep better



Every movement counts



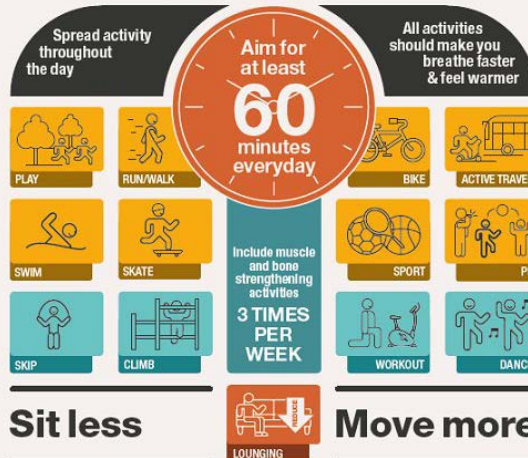
Move more. Sit less. Play together

UK Chief Medical Officers' Guidelines 2011 **Start Active, Stay Active**: www.bit.ly/startactive

Physical activity for children and young people (5–18 Years)



Be physically active



Sit less

Move more

Find ways to help all children and young people accumulate
at least 60 minutes of physical activity everyday

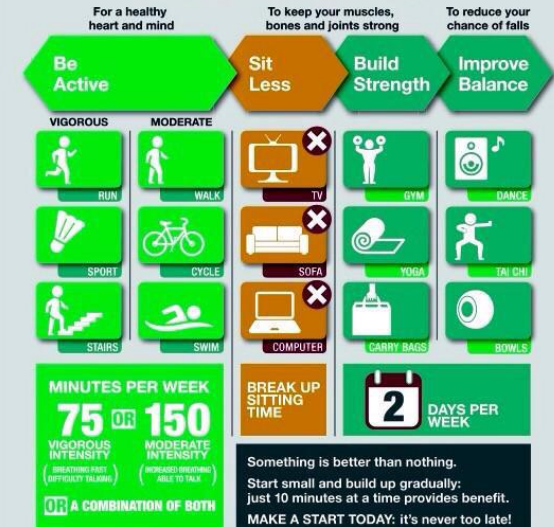
UK Chief Medical Officers' Guidelines 2011 **Start Active, Stay Active**: www.bit.ly/startactive

Physical activity benefits for adults and older adults

+	BENEFITS HEALTH	
Zz	IMPROVES SLEEP	
+	MAINTAINS HEALTHY WEIGHT	
+	MANAGES STRESS	
+	IMPROVES QUALITY OF LIFE	

REDUCES YOUR CHANCE OF	Type II Diabetes	-40%
	Cardiovascular Disease	-35%
	Falls, Depression and Dementia	-30%
	Joint and Back Pain	-25%
	Cancers (Colon and Breast)	-20%

What should you do?



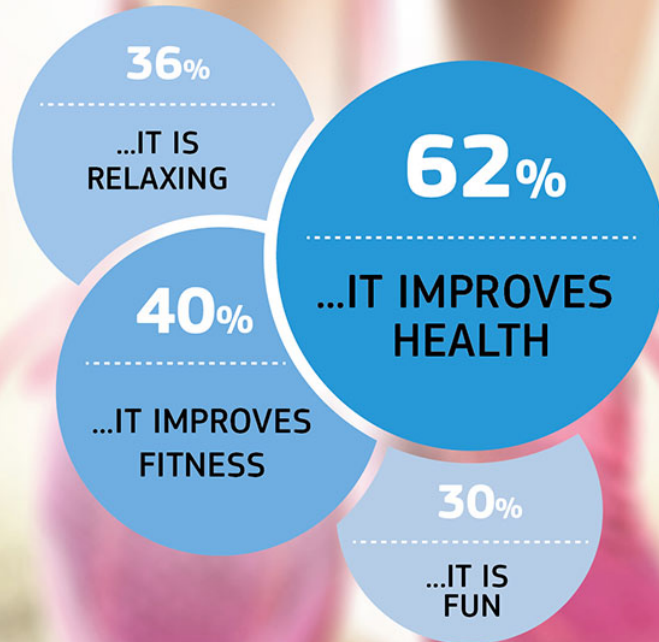
UK Chief Medical Officers' Guidelines 2011 **Start Active, Stay Active**: <http://www.bit.ly/startactive>

Some barriers...

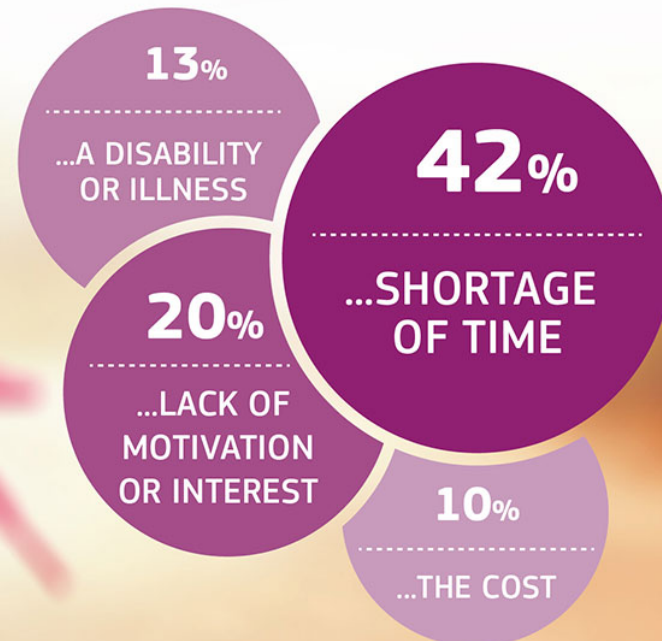
WHY ARE EUROPEANS *ACTIVE*?

European Week of Sport

EUROPEANS ARE MOTIVATED BECAUSE...



EUROPEANS DO NOT PRACTISE SPORT DUE TO...



images: © shutterstock — Source: Eurobarometer Physical Activity 2013

#BEACTIVE

More barriers...



PA benefits for patients with NCDs



SCANDINAVIAN JOURNAL OF MEDICINE & SCIENCE IN SPORTS

Scand J Med Sci Sports 2015; (Suppl. 3) 25: 1–72
doi: 10.1111/sms.12581

© 2015 The Authors. Scandinavian Journal of Medicine &
Science in Sports published by John Wiley & Sons Ltd

SCANDINAVIAN JOURNAL OF
MEDICINE & SCIENCE
IN SPORTS

Exercise as medicine – evidence for prescribing exercise as therapy in 26 different chronic diseases

B. K. Pedersen¹, B. Saltin²

¹The Centre of Inflammation and Metabolism and The Center for Physical Activity Research, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark, ²The Copenhagen Muscle Research Centre, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark

thebmj

Research ▾ Education ▾ News & Views ▾ Campaigns ▾

Research

Comparative effectiveness of exercise and drug interventions on mortality outcomes: metaepidemiological study

BMJ 2013 ; 347 doi: <https://doi.org/10.1136/bmj.f5577> (Published 01 October 2013)

Cite this as: *BMJ* 2013;347:f5577

BJP British Journal of
Pharmacology

REVIEW

Exercise acts as a drug; the pharmacological benefits of exercise

J Vina, F Sanchis-Gomar, V Martinez-Bello and MC Gomez-Cabrera

Department of Physiology, University of Valencia, Fundacion Investigacion Hospital Clinico
Universitario/INCLIVA, Valencia, Spain

Cost-effectiveness of the interventions

British Journal of
Sports Medicine Latest content

[Home](#) / [Archive](#) / [Volume 50, Issue 7](#)

 Article Text

 Article info

 Citation Tools

Review

Are brief interventions to increase physical activity cost-effective? A systematic review

Vijay GC¹, Edward CF Wilson^{1, 2}, Marc Suhrcke^{1, 3, 4}, Wendy Hardeman⁵, Stephen Sutton⁵ on behalf of the VBI Programme Team

[Author affiliations +](#)

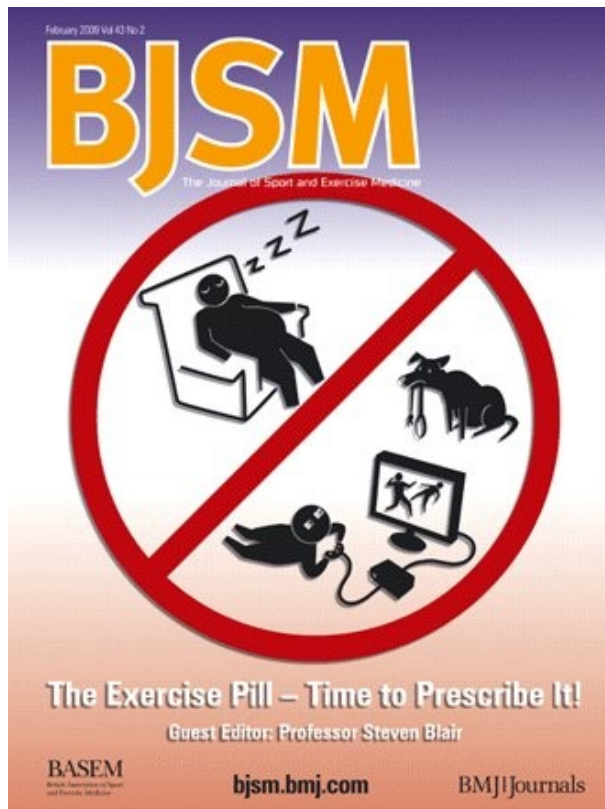


HEALTH TECHNOLOGY ASSESSMENT

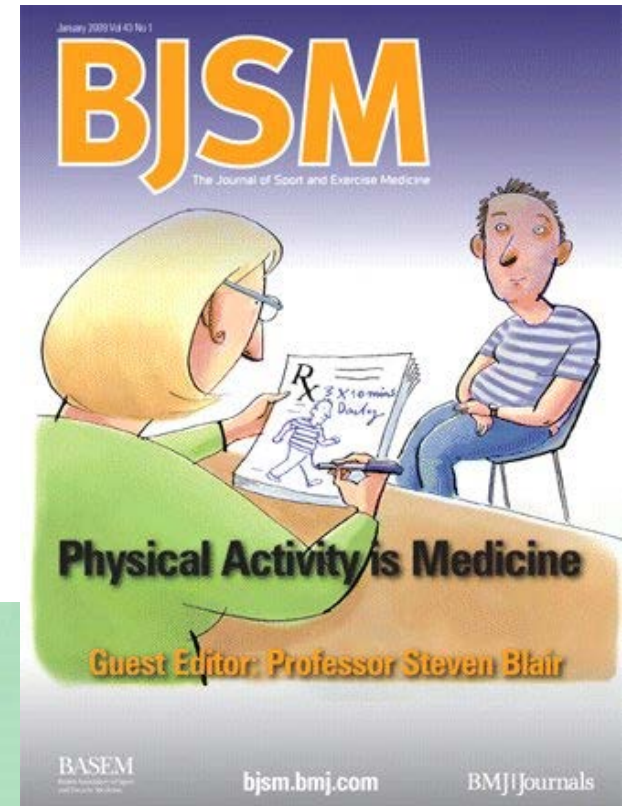
VOLUME 19 ISSUE 60 JULY 2015
ISSN 1366-5278

**A systematic review and economic evaluation
of exercise referral schemes in primary care:
a short report**

*Fiona Campbell, Mike Holmes, Emma Everson-Hock, Sarah Davis,
Helen Buckley Woods, Nana Anokye, Paul Tappenden and Eva Kaltenthaler*



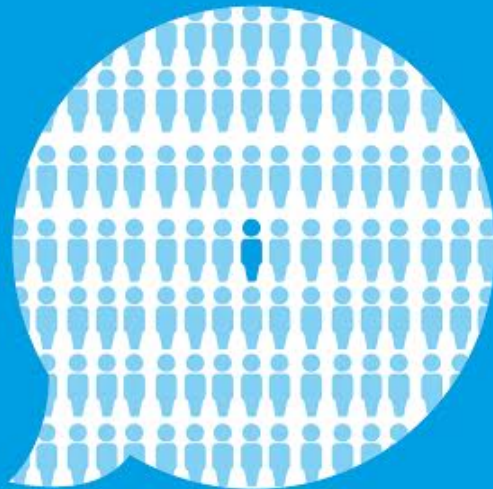
**Dr. Charles
Delagardelle**



“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”

Efficacy of the counselling

TO GET ONE SMOKING PATIENT
TO GIVE UP CIGARETTES¹



DOCTORS NEED TO ADVISE
50-120

TO GET ONE INACTIVE
PATIENT TO MEET
RECOMMENDED
ACTIVITY LEVELS¹



DOCTORS NEED TO ADVISE
12

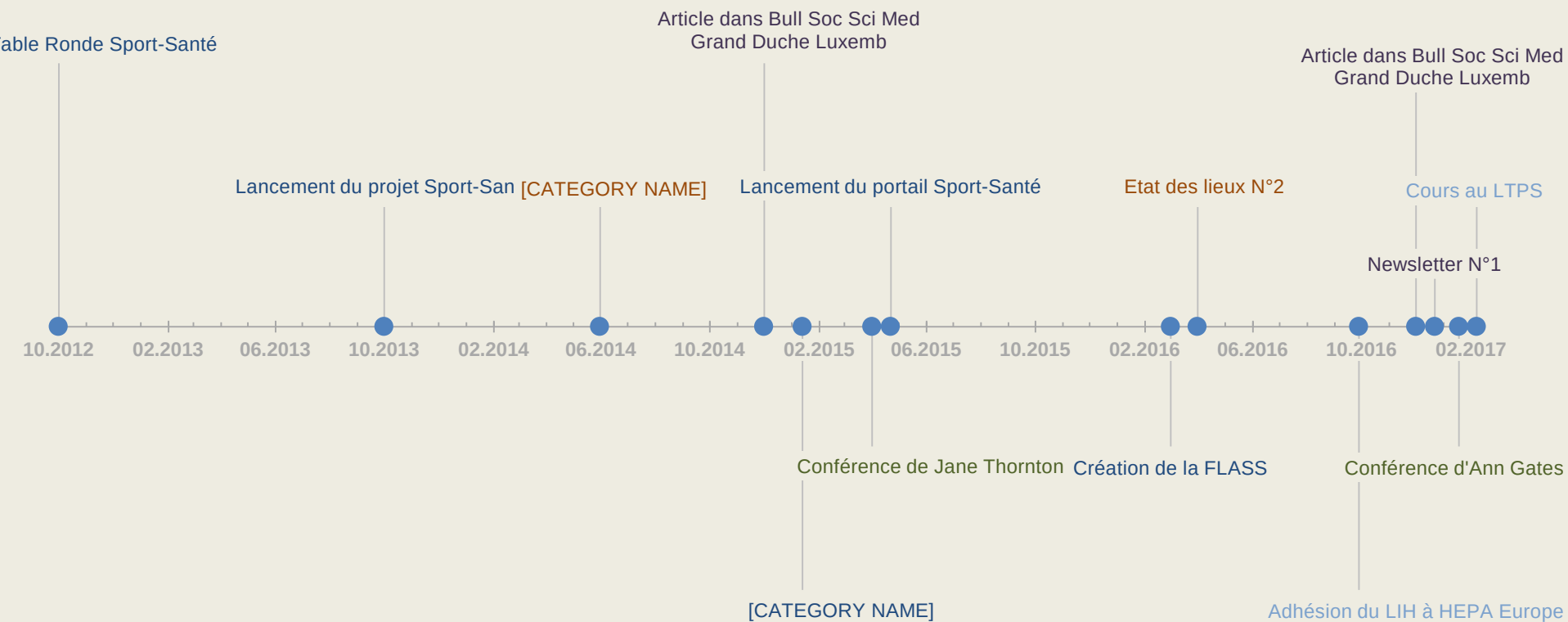
**BOTH HAVE
COMPARABLE
HEALTH BENEFITS¹**



**“Let’s make every
contact count,
for physical
activity!”²**

1. Thornton JS et al. Br J Sports Med 2016; doi:10.1136/bjsports-2016-096291.

2. Gates AB. Br J Sports Med 2016; 50(6): 322-3.



Secondary and tertiary prevention



Obesity

Physical activity improves health by reducing the deleterious effects of obesity. In addition, combined with a diet, body weight loss is facilitated.

[Read More](#)



Cardiovascular diseases

After a cardiovascular event, physical activity limits strongly the risk of relapse and increases the vital prognostic.

[Read More](#)



Cancer

Physical activity is recommended during and after a cancer. The recommendations vary according to the types of cancer.

[Read More](#)



Neurologic/rare diseases

Physical activity cannot reverse the process of the most neurologic/rare diseases but limits the decrease of the quality of life.

[Read More](#)



Orthopedic disorders

Physical activity restores mobility and limits the increase of dependency. But, the exercises should be adapted to each pathologies.

[Read More](#)

MSGOM

Medizinische Sportgruppen für Personen mit Orthopädischen & Metabolischen Störungen



Blötz
a.s.b.l.



groupes
sportifs
oncologiques



Fondation
Cancer

Info - Aide - Recherche



DONNA
Luxembourg

Coalition européenne
contre le cancer du sein



ALAN
MALADIES RARES
LUXEMBOURG



PARKINSON
LUXEMBOURG



MSL
Multiple
Sclérose
Lëtzebuerg



MSGOM

Medizinische Sportgruppen für Personen mit Orthopädischen & Metabolischen Störungen



MOVIN'KIDS



Gesond Diddeleng

Fédération Luxembourgeoise des Associations de Sport de Santé



ALAN - Maladies Rares Luxembourg



Association Luxembourgeoise des Groupes Sportifs pour Cardiaques



Association Luxembourgeoise des Groupes Sportifs Oncologiques



Blëtzt



Fondation Cancer



Medizinische Sport Gruppen Für Personen mit Orthopädischen & Metabolischen Störungen



Multiple Sclérose Lëtzebuerg



Parkinson Luxembourg

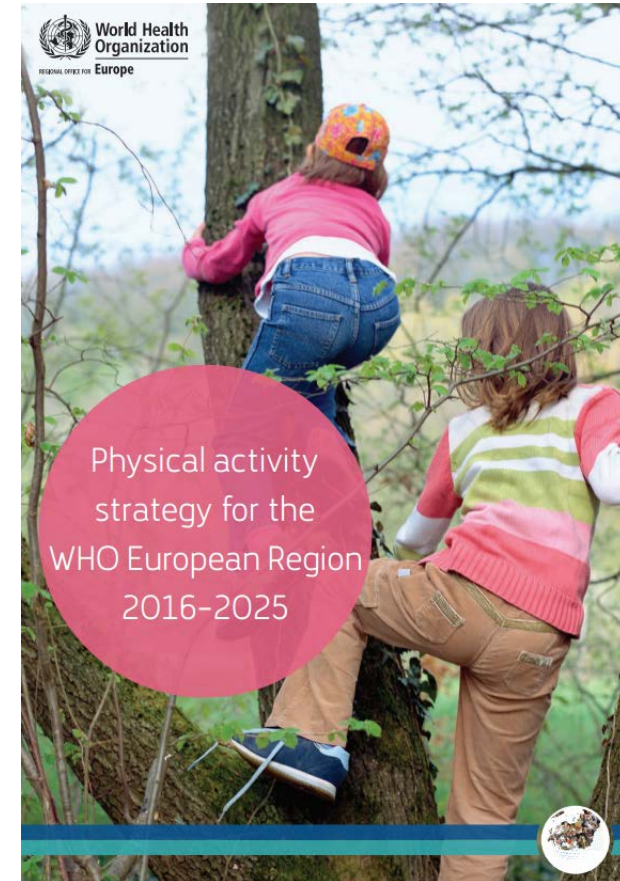
Time to action

Physical activity promotion → national priority

Physical activity promotion → supported by government

Physical activity promotion → healthcare professionals as leaders

Reimbursement of the therapeutic physical activity



Programme National Thérapeutique Sport-Santé

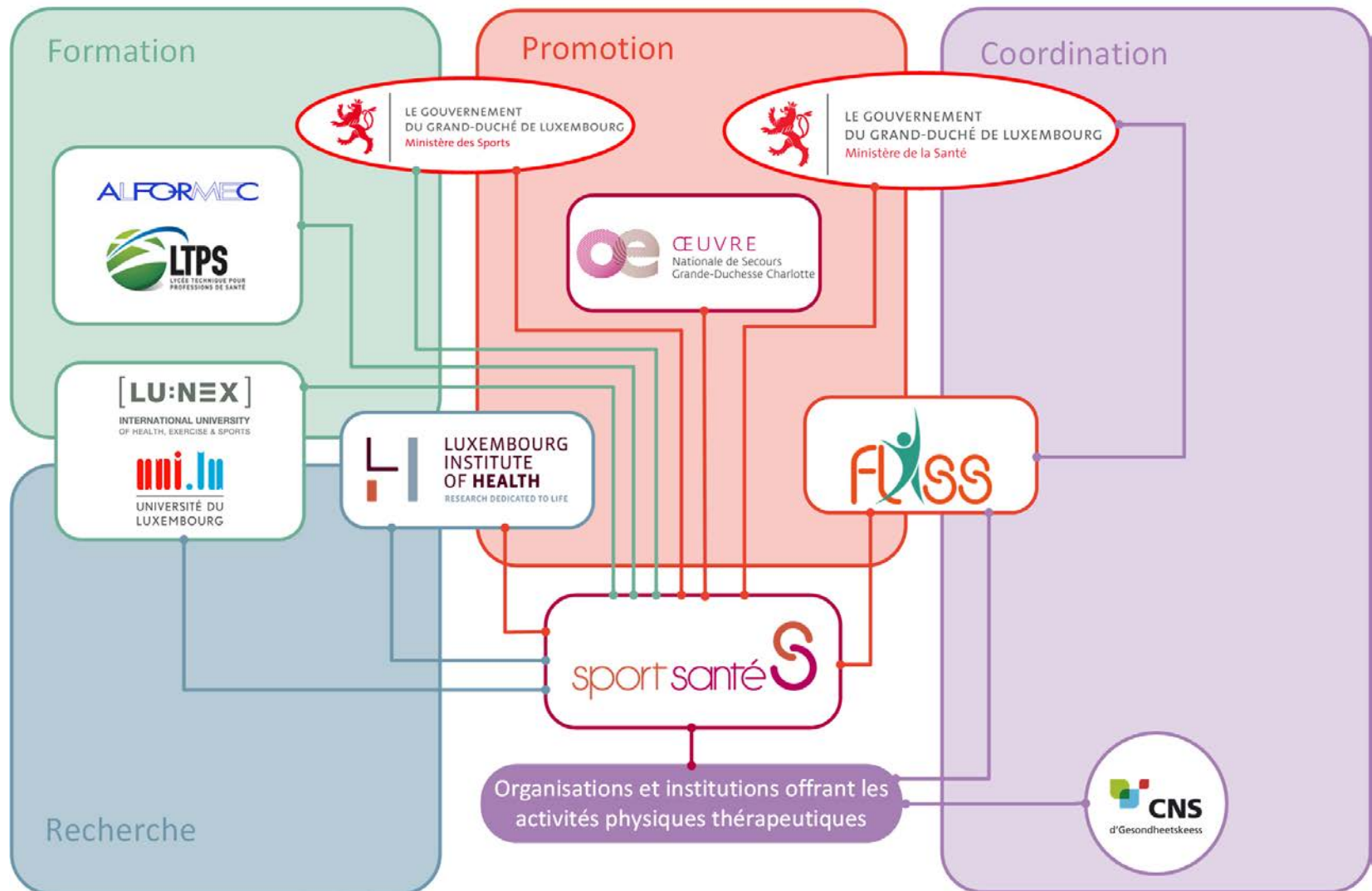
Vers une implémentation nationale et
durable de l'activité physique pour la santé



www.sport-sante.lu

Future of the secondary/tertiary prevention

Programme National Thérapeutique Sport-Santé



Strategic Priorities for Physical Activity Surveillance in the United States

JANET E. FULTON¹, SUSAN A. CARLSON¹, BARBARA E. AINSWORTH², DAVID BERRIGAN³, CYNTHIA CARLSON⁴, JOAN M. DORN¹, GREGORY W. HEATH⁵, HAROLD W. KOHL, III^{6,7}, I-MIN LEE⁸, SARAH M. LEE¹, LOUISE C. MÄSSE^{9,10}, JAMES R. MORROW, JR¹¹, KELLEY PETTEE GABRIEL⁶, JAMES M. PIVARNIK¹², NICOLAAS P. PRONK^{13,14}, ANNE B. RODGERS¹⁵, BRIAN E. SAELENS¹⁶, JAMES F. SALLIS¹⁷, RICHARD P. TROIANO³, CATRINE TUDOR-LOCKE¹⁸, and ARTHUR WENDEL¹⁹

Med. Sci. Sports Exerc., Vol. 48, No. 10, pp. 2057–2069, 2016

National programme for PA promotion

- Primary
- Secondary
- Tertiary

National programme for PA surveillance

- Monitor PA behaviours of individuals
- Monitor factors that can promote PA

Single overarching strategy



sport santé 



www.sport-sante.lu



contact@sport-sante.lu



[@SportSanteLux](https://twitter.com/SportSanteLux)



[sport-sante.lu](https://www.facebook.com/sport-sante.lu)

 FLASS



www.flass.lu



contact@flass.lu



[@FLASSlux](https://twitter.com/FLASSlux)



[FLASSlux.lu](https://www.facebook.com/FLASSlux.lu)



Active and healthy: a societal challenge

En bonne santé en étant actif :
un enjeu sociétal



Daniel Theisen, PhD

Alexis Lion, PhD

Sports Medicine Research Laboratory