



BHF National Centre
physical activity+health

**Highlights from the International Congress on Physical Activity and Public Health
Amsterdam, 13-16th April 2008**

The second International Congress on Physical Activity and Public Health attracted over 600 delegates from around the world. Key note lectures included presentations on the use of 'intervention mapping' to facilitate the integration of theory and evidence in physical activity intervention planning by Kay Bartholomew; physical activity related injuries by Professor Caroline Finch; the gene-environment interaction which might contribute to the prevention or treatment of complex diseases by Dr Paul Franks; cost and cost effectiveness analyses for physical activity and public health by Dr Mike Pratt; and the role of evidence in physical activity promotion by Dr Brian Martin.

Further information and the final programme for the conference including abstracts can be downloaded from <http://www.icpaph08.org>. Below are some more details about particular sessions which were well attended:

Symposium: Is sedentary behaviour a distinct, real and important hazard to human health? (Abstract numbers O-004 to O-007)

Presenters: Steven Blair, Marc Hamilton, David Dunstan, Neville Owen

This presentation provided a detailed overview of the epidemiological research linking sedentary behaviour with poor metabolic health and the characterisation of common markers of both sedentary behaviour (e.g. TV viewing times) and health. The physiological and biochemical effects of 'sitting' were presented with interesting new findings that highlighted the potent (negative) effects on lipoprotein lipase activity and the potential deleterious effects on fat and cholesterol metabolism. Limitations of the current evidence base and important areas for future research were outlined.

Free Paper Session: Measurement of physical activity (Abstract numbers O-021 to O-026)

Presenters: Carukshi Arambepola, Bettina Bringolf-Isler, Peter Schantz, L. Anjos, Mark Tremblay, Michael Sjöström

This session included a variety of presentations focusing on different aspects of physical activity measurement, including self-report and objective measurement tools. Highlights included a presentation by Bettina Bringolf-Isler on epidemiological tools for the assessment of physical activity which focused on the use of GIS and the

relationship between environmental and personal characteristics and habitual physical activity [O-022]. Dr Mark Tremblay presented the results of a recent systematic review comparing direct versus self-report measures for assessing physical activity [O-025].

Symposium: Accelerometry-based physical activity monitoring: where are we and where are we going? (Abstract numbers O-057 to O-060)

Presenters: Ann Rowlands, Dale Esliger, Patty Freedson, Ulf Ekelund, David Bassett

An introduction to accelerometers was presented including their history, use in measuring physical activity and their limitations which include for example their inability to determine whether an individual is sitting or standing, the location of the individual, the mode of activity or the context. A novel accelerometer data processing methodology was demonstrated which uses pattern recognition techniques to improve the interpretation of data obtained from accelerometers. The usefulness of combining heart rate monitors and accelerometers to more accurately calculate physical activity energy expenditure was also discussed.

Free Paper Session: Environmental issues (physical and social) and physical activity (Abstract numbers O-065 to O-070)

Presenters: Norah Nelson, Melvyn Hillsdon, Sonja van Dillen, James Sallis, Sylvia Titze, Wojtek Chodzko-Zajko

This session involved a series of papers reporting results from research on the role of the environment and physical activity. A new model aiming to enhance our understanding and ability to describe, measure and account for the complex inter-relationships between different features of the physical environment was presented by Dr Norah Nelson [abstract O-065].

Dr Hillsdon presented data from a recent study conducted in Bristol, UK, examining the relationship between perceived access to everyday destinations, neighbourhood liveability, safety and reported physical activity. Results showed that perceptions of neighbourhood safety and access to public green space were associated with moderate physical activity [abstract O-066].

New data from the RESIDE study in Western Australia examining the relationships between individual and environmental factors and cycling for transport in adults were presented. Several neighbourhood environmental attributes were found to significantly increase the odds of cycling for transport - these included a green and attractive neighbourhood, traffic slowing devices and street connectivity [abstract O-069].

Another paper reported results from the Netherlands on the effect of green space on physical activity. These results also showed the amount of green space was associated with leisure time physical activity [abstract O-067]. All the results and future research directions were discussed.

Symposium: Intervention strategies for increasing walking and cycling

(Abstract numbers O-105 to O-108)

Presenters: David Ogilvie, Claire Fitzsimons, Lars Bo Andersen, Bengt Kayser

Dr Ogilvie presented the results of a recent systematic review which assessed the effects of interventions aimed at promoting walking in individuals and populations. Forty-eight studies were included in the review and the results showed that the most successful interventions can encourage people to increase walking, by up to 30-60 minutes per week on average, at least in the short-term. Areas for future research were highlighted [abstract O-105].

Preliminary results for the Walking for Well-being in the West project, a community-based walking intervention for adults underway in Scotland, were presented. The results at the 12 week follow-up showed a significant increase in steps/day in the intervention group with no significant change in the control group [abstract O-106].

Advances in the promotion of commuter cycling were presented particularly around environmental adaptations to promote active travel in Norway [abstract O-107]. The difficulties of conducting randomised controlled studies in this area were highlighted. Potential improvements to the environment were discussed including the development of a linked traffic light system which warns cyclists to speed up or slow

down as they approach traffic lights, to avoid reaching the lights when they are red. A new electronic route planner which focuses on the use of cycle lanes was also introduced. The session included a discussion on the necessary cultural changes as well as adaptation of the physical environment needed to promote walking and cycling [abstract O-108].

Symposium: Physical activity surveillance around the world (Abstract numbers O-158 to O-161 and Abstract number O-203)

Presenters: Janet Fulton, Deborah Malta, Adrian Bauman, Trudy Wijnhoven, Fiona Bull

This symposium showcased various ongoing and new surveillance systems that are used to monitor national physical activity levels around the world. Presentations included the new system in development in Brazil and the established BRFSS systems in the USA. Professor Adrian Bauman presented on the development of the international comparative measure (IPAQ) and Professor Fiona Bull reported on the Global physical activity measure (GPAQ) in use in many developing countries in African and Asian regions. The session highlighted the importance of collecting continuous data on physical activity over time and that despite well established local and national surveillance systems, there is still limited data available for international comparison. However both IPAQ and GPAQ are suitable instruments for future use for this purpose.

Symposium: Filling the gaps: What can we learn about population physical activity from non-health surveillance systems? (Abstract numbers O-193 to O-197)

Presenters: Dafna Merom, Heather Bowles, Hidde van der Ploeg, Adrian Bauman

This session presented a series of papers exploring alternative methods of assessing participation in health promoting physical activity at the population level. Examples included the use of transportation surveillance systems to assess walking and cycling; the use of broader national surveys to ensure social, economic and environmental influences are taken into consideration; adopting time use surveys to assess physical activity and sedentary behaviour; and assessing park use to advance understanding of how people engage with their environments for health benefits. The validity of using these types of measures was discussed and it was demonstrated that alternative non-health surveys can provide consistent estimates with health surveys for the prevalence of meeting the current public health physical activity recommendations.

The third International Congress on Physical Activity and Public Health will be held on 5-8th May 2010 in Toronto, Canada. Further information is available at www.icpaph2010.org