



# TARGET

## TECHNOLOGY ASSESSMENTS, REVIEWS, GUIDELINES & EVIDENCE-BASED TOPICS

### TECHNOLOGY ASSESSMENTS & SYSTEMATIC REVIEWS

#### Methods of Promoting Physical Activity

A physically active lifestyle is fundamental to preventing chronic diseases. However, promoting physical activity is challenging, and the potential of various interventions in promoting physical activity could be more fully exploited. This systematic review evaluated the effectiveness and cost implications of various methods to promote physical activity for healthcare systems, including giving advice and counselling, supervised exercise in group and individualised programmes, theory-based behavioural interventions and methods for children and adolescents. There was evidence that these interventions could increase physical activity under certain conditions.

*Hellénius ML, Alton V, Eckerlund I, et al. Methods of Promoting Physical Activity: A systematic review. Report no: 18. The Swedish Council on Technology Assessment in Health Care (SBU). March 2007.*

Summary guidelines available at:

[http://www.sbu.se/Filer/Content1/publikationer/1/Fysisk\\_sam\\_ENG.pdf](http://www.sbu.se/Filer/Content1/publikationer/1/Fysisk_sam_ENG.pdf)

#### Reduction in the risk of cervical cancer by vaccination against human papillomavirus (HPV) – a health technology assessment

This systematic review and economic analysis found that the HPV vaccines Gardasil® and Cervarix®, are safe and protect efficiently against persistent infection with the HPV types at which they are aimed. However, the duration of protection conferred by the vaccine, the long-term risk of rare adverse events, and whether booster doses are required after primary vaccination, remain uncertain. It is stressed that screening programmes against cervical cancer using Pap smears should be continued. Vaccinated women should be informed of the importance of continuing with screening.

*Reduction in the risk of cervical cancer by vaccination against human papillomavirus (HPV) – a health technology assessment. Copenhagen: National Board of Health, Danish Centre for Health Technology Assessment, 2007*

[http://www.sst.dk/publ/Publ2007/MTV/HPV/HPV\\_vaccination\\_en.pdf](http://www.sst.dk/publ/Publ2007/MTV/HPV/HPV_vaccination_en.pdf)

#### Effectiveness and Safety of Vitamin D in Relation to Bone Health: Evidence Report

Vitamin D deficiency has been associated with bone loss, fractures and falls. This systematic review found that most of the evidence on vitamin D status and bone health outcomes was concentrated on older adults (postmenopausal women and men over age 60 years), with relatively few high quality controlled studies in infants, children and adolescents. Besides suggesting associations between vitamin D and some bone health outcomes (established rickets, serum PTH, falls, bone mineral density), the report identified that the level of sun exposure sufficient to maintain vitamin D concentration is currently not a very well researched area.

*Cranney A, Horsley T, O'Donnell S, et al. Effectiveness and Safety of Vitamin D in Relation to Bone Health. Technology Assessment No. 158.*

*Rockville, MD: Agency for Healthcare Research and Quality. August 2007.*

<http://www.ahrq.gov/downloads/pub/evidence/pdf/vitaminD/vitad.pdf>

#### Nanotechnology: Horizon Scanning (Health Technology Policy Assessment and OHTAC Recommendation)

Second-generation nanotechnologies are being developed to enable devices to target a problem (e.g. tumour), image, deliver therapeutic agents and monitor therapeutic efficacy in real time. Overall, the use of second-generation nanotechnologies is still in the preclinical benchwork stage. Apart from estimating timelines, the report also highlights the uncertainties not addressed in the literature, such as long-term stability, toxicology, and cost-effectiveness of the nanodevices.

*Ontario Ministry of Health and Long Term Care. Nanotechnology: Horizon Scanning Appraisal. The Medical Advisory Secretariat, Ontario Ministry of Health and Long Term Care, 2006.*

Full-text available at:

[http://www.health.gov.on.ca/english/providers/program/ohtac/tech/recommend/rec\\_nano\\_110106.pdf](http://www.health.gov.on.ca/english/providers/program/ohtac/tech/recommend/rec_nano_110106.pdf)

**GUIDELINES****Assessment, diagnosis and clinical interventions for children and young people with autism spectrum disorders**

The Scottish Intercollegiate Guideline Network developed these guidelines to provide state-of-the-art information to clinical service providers at all levels of provision (primary, secondary and tertiary), and to address the needs of individuals with autism spectrum disorders. Apart from focusing on diagnosis and pharmacological and non-pharmacological interventions, the guideline also discusses information that should be shared with children and young people with autism, their parents and caregivers.

*SIGN guidelines:* <http://www.sign.ac.uk/pdf/sign98.pdf>

**American Academy of Dermatology Guidelines of care for acne vulgaris management**

The American Academy of Dermatology recently released their guidelines on the management of acne vulgaris. The scope of the guideline is limited to the management of adults and adolescents with acne, and it does not include consequences of acne, such as scarring or post-inflammatory hyperpigmentation. The guidelines contain evidence-based recommendations on the classification of acne, the role of microbiological and endocrine testing, and safety and efficacy of various therapeutic interventions, including pharmacological treatment and other complementary therapies.

*Full guidelines available at:*

<http://www.aad.org/NR/rdonlyres/8D4D2DDB-7176-4202-808E-28D67334B3E4/0/AcneVulgaris.pdf>

**Ministry of Health Clinical Practice Guidelines**

The Ministry of Health recently updated their guidelines on diagnosis and management of headache, dementia and glomerulonephritis, to incorporate new evidence since the publication of their first editions. In addition to these, the new guidelines on osteoarthritis of the knees have also been published.

- *Diagnosis and management of headaches*

<http://www.moh.gov.sg/mohcorp/publications.aspx?id=17608>

- *Dementia*

<http://www.moh.gov.sg/mohcorp/publications.aspx?id=16970>

- *Glomerulonephritis*

<http://www.moh.gov.sg/mohcorp/publications.aspx?id=16966>

- *Osteoarthritis of knees*

<http://www.moh.gov.sg/mohcorp/publications.aspx?id=16686>

**Prevention of Cardiovascular Disease: Pocket guidelines for assessment and management of cardiovascular risk**

The World Health Organization, in collaboration with the International Society of Hypertension (ISH), has developed cardiovascular risk prediction charts that enable cardiovascular risk assessment and prediction in non-western populations.

These pocket-charts come as a handy guide for health workers globally to identify people at risk of heart attacks and strokes. This important innovation would enhance the capability of low-resource settings to deal with the increasing burden of heart disease.

*WHO/ISH pocket charts:*

[http://www.who.int/cardiovascular\\_diseases/guidelines/Compact%20disc%20colour%20charts%20x24%20Aug%2007.pdf](http://www.who.int/cardiovascular_diseases/guidelines/Compact%20disc%20colour%20charts%20x24%20Aug%2007.pdf)

**Guidelines on preparticipation screening for cardiovascular abnormalities in competitive athletes**

The American Heart Association (AHA) supports preparticipation cardiovascular screening in student-athletes and other participants in competitive sports on the basis of ethical, legal, and medical grounds. In the screening protocol, personal and family history and physical examination are promoted as potentially effective strategies to raise the suspicion of cardiovascular disease among athletes.

*Full guidelines available at:*

<http://circ.ahajournals.org/cgi/reprint/115/12/1643>

**EVIDENCE-BASED TOPICS****HTA 101: Introduction to Health Technology Assessment**

The updated online version of HTA 101 covers the fundamental concepts of health technology assessment ranging from HTA purpose, methods, selection of topics for HTA, search of literature, critical evaluation of evidence, the basic framework of HTA, and monitoring impact of HTA. Comprehensive in scope, it includes citations of the work of many authors who have researched this field. The inclusion of an easy-to-understand glossary should appeal to the reader who wants a glimpse into the concept of HTA.

*Clifford S. Goodman. HTA 101: Introduction to Health Technology Assessment. January 2004*

[http://www.nlm.nih.gov/nichsr/hta101/ta101\\_c1.html](http://www.nlm.nih.gov/nichsr/hta101/ta101_c1.html)

**TARGET** is a quarterly news summary that seeks to bring evidence-based publications to the attention of SMJ readers. If the publications are available on the Internet, URL links are provided. This news summary is published in collaboration with the Health Technology Assessment Branch of the Ministry of Health, Singapore.