

CAMBRIDGE

JOURNALS

# BJN

## BRITISH JOURNAL OF NUTRITION

### Editor-in-Chief

G C Burdge, *University of Southampton, UK*

*British Journal of Nutrition* is a leading international peer-reviewed journal covering research on human and clinical nutrition, animal nutrition and basic science as applied to nutrition. The journal recognises the multi-disciplinary nature of nutritional science and includes material from all of the specialities involved in nutrition research, including molecular and cell biology, and the emerging area of nutritional genomics.

[journals.cambridge.org/bjn](http://journals.cambridge.org/bjn)

Submit your article online  
[bjn.msubmit.net](http://bjn.msubmit.net)

Register for free content alerts  
[journals.cambridge.org/bjn-alerts](http://journals.cambridge.org/bjn-alerts)



**Impact Factor**  
**3.302**

Ranked **18/76**  
Nutrition and Dietics

2012 Journal Citation Reports®  
Thomson Reuters

To subscribe contact  
Customer Services

### Cambridge:

Phone +44 (0)1223 326070  
Fax +44 (0)1223 325150  
[journals@cambridge.org](mailto:journals@cambridge.org)

### New York:

Phone +1 (845) 353 7500  
Fax +1 (845) 353 4141  
[subscriptions\\_newyork@cambridge.org](mailto:subscriptions_newyork@cambridge.org)



**CAMBRIDGE**  
UNIVERSITY PRESS



# PHN

## PUBLIC HEALTH NUTRITION

### Editor-in-Chief

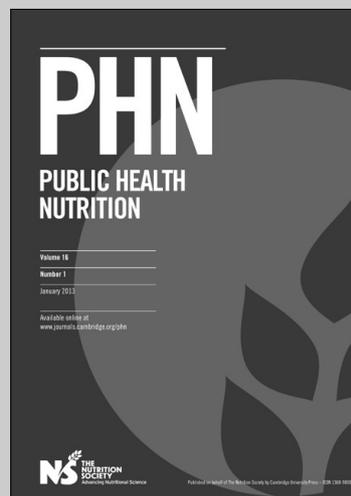
Marilyn Tseng, *California Polytechnic State University, USA*

*Public Health Nutrition* provides an international peer-reviewed forum for the publication and dissemination of research and scholarship aimed at understanding the causes of, and approaches and solutions to, nutrition-related public health achievements, situations and problems around the world. The journal publishes original and commissioned articles, commentaries and discussion papers for debate.

[journals.cambridge.org/phn](http://journals.cambridge.org/phn)

Submit your article online  
[phn.msubmit.net](http://phn.msubmit.net)

Register for free content alerts  
[journals.cambridge.org/phn-alerts](http://journals.cambridge.org/phn-alerts)



### Impact Factor 2.25

Ranked **47/158**  
Public,  
Environmental and  
Occupational Health

Ranked **34/76**  
Nutrition and Dietics

2012 Journal Citation Reports®  
Thomson Reuter

To subscribe contact  
Customer Services

#### Cambridge:

Phone +44 (0)1223 326070  
Fax +44 (0)1223 325150  
[journals@cambridge.org](mailto:journals@cambridge.org)

#### New York:

Phone +1 (845) 353 7500  
Fax +1 (845) 353 4141  
[subscriptions\\_newyork@cambridge.org](mailto:subscriptions_newyork@cambridge.org)



**CAMBRIDGE**  
UNIVERSITY PRESS

CAMBRIDGE

JOURNALS

# JNS

## JOURNAL OF NUTRITIONAL SCIENCE

**Editor-in-Chief**

G C Burdge, *University of Southampton, UK*



 **Cambridge  
Open**

*Journal of Nutritional Science* encompasses the full spectrum of nutritional science including public health nutrition, epidemiology, dietary surveys, nutritional requirements, metabolic studies, body composition, energetics, appetite, obesity, ageing, endocrinology, immunology, neuroscience, microbiology, genetics and molecular and cell biology. The Nutrition Society fully engages with the Open Access model of publishing.

### [journals.cambridge.org/jns](http://journals.cambridge.org/jns)

Submit your article online  
[jnutsci.msubmit.net](http://jnutsci.msubmit.net)

Register for free content alerts  
[journals.cambridge.org/jns-alerts](http://journals.cambridge.org/jns-alerts)

 **THE  
NUTRITION  
SOCIETY**  
Advancing Nutritional Science

 **CAMBRIDGE  
UNIVERSITY PRESS**

# Public Health Nutrition

Volume 19, 2016 ISSN: 1368-9800  
journals.cambridge.org/phn

## **Publishing, Production, Marketing, and Subscription Sales Office:**

Cambridge University Press  
Journals Fulfillment Department  
University Printing House  
Shaftesbury Road  
Cambridge CB2 8BS  
UK

## **For Customers in North America:**

Cambridge University Press  
32 Avenue of the Americas  
New York  
New York 10013  
USA

**Publisher:** Katy Christomanou

## **Special sales and supplements**

This journal accepts advertising and inserts. We also provide bulk reprints of suitable papers to meet teaching or promotional requirements. The journal also publishes supplementary material including conference proceedings on behalf of academic and corporate sponsors. Please contact Sarah Maddox at Cambridge University Press for further details (email: smaddox@cambridge.org).

## **Subscription information**

*Public Health Nutrition* is an international journal published 18 times per year by Cambridge University Press on behalf of the Nutrition Society. The online edition is available at journals.cambridge.org/PHN, with free table of contents alert (upon registration).

## **Annual subscription rates**

Volume 19, 2016 (18 issues):  
Internet/print package: £1340/\$2570 Americas only/€2147 EU only  
Internet only: £970/\$1840 Americas only/€1542 EU only

**Any supplements** to this journal published in the course of the annual volume are normally supplied to subscribers at no extra charge.

**Claims** for non-receipt of journal issues will be considered on their merit and only if the claim is received within six months of publication. Replacement copies supplied after this date will be chargeable.

**Advertising:** The Nutrition Society is willing to include advertisements in its journals. However, it will retain the right to make decisions on which advertisements are acceptable and

which are not, and will not be obliged to give reasons to prospective advertisers for its decisions. The appearance of an advertisement in the Society's journals does not imply endorsement by the Society. For further details, please contact Cambridge University Press.

**Back volumes** will be available in due course. Please contact Cambridge University Press for further information.

**US POSTMASTERS:** Please send address corrections to  
Cambridge University Press  
32 Avenue of the Americas  
New York  
New York 10013  
USA

**Notes for Authors** are available from the publisher at the given address and can be found inside the back cover.

**Offprints:** The author (or main author) of an accepted paper will receive a free PDF of their paper. Additional offprints are available for a fee and must be ordered at proof stage. **No page charges are levied by this journal.**

**Copyright:** As of 1 January 2001 the copyright of all articles submitted to *Public Health Nutrition* are retained by the authors or their institutions. For articles prior to this date permission for reproduction of any part of the journal (text, figures, tables or other matter) in any form (on paper, microfiche or electronically) should be sought directly from the Society, at: The Editorial Office, The Nutrition Society, 10 Cambridge Court, 210 Shepherds Bush Road, Hammersmith, London, W6 7NJ, UK.

**Disclaimer:** The information contained herein, including any expression of opinion and any projection or forecast, has been obtained from or is based upon sources believed by us to be reliable, but is not guaranteed as to accuracy or completeness. The information is supplied without obligation and on the understanding that any person who acts upon it or otherwise changes his/her position in reliance thereon does so entirely at his/her own risk. Neither the Society, nor Cambridge University Press accepts responsibility for any trade advertisement included in this publication.

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see [www.fsc.org](http://www.fsc.org) for information. Typeset by Macmillan India Limited, Bangalore, India and Printed in Europe by Bell and Bain, Glasgow.

*Public Health Nutrition* is covered in Science Citation Index Expanded (Web of Science), Current Contents, Agriculture, Biology & Environmental Sciences, Current Contents, Clinical Medicine, CAB ABSTRACTS<sup>®</sup>, Global Health, Index Medicus<sup>®</sup> (MEDLINE<sup>®</sup>), EMBASE, Excerpta Medica, BIOSIS<sup>®</sup> Database and CINAHL<sup>®</sup> Database  
*Public Health Nutrition* participates in the following initiatives: HINARI by WHO and AGORA by FAO.

*Public Health Nutrition (PHN)* provides a forum for the presentation of original research findings and high quality reviews of key topics, and for discussion of and debate on of current issues and controversies. It also publishes special issues on major topics of interest. Our field includes research, scholarship, and discussions on public health nutrition, that take a population, health promoting and preventive approach. Papers that do not have this emphasis may be directed to more appropriate journals. Potential contributors are encouraged to read the aims and scope of the journal, and to note and follow the guidelines set out below.

## Content:

- **Original research findings and scientific reviews** are published as full papers usually less than 5000 words, not including the abstract, references, tables, figures and acknowledgements.
- **Editorials** express the opinion of the journal, as represented by its central editorial team, on topics judged by them to be important. Editorials, including guest editorials, are usually co-ordinated and developed by the editorial team.
- **Position papers**, including declarations and other statements of policy, may be invited or unsolicited.
- **Invited commentaries and book reviews** are expressions of opinion on a topical subject. These are commissioned by the members of the editorial team.
- **Letters to the Editors** are usually in response to material published in *PHN*. Submissions are sent to the author for comment and, when possible, published together with the author's reply.

**Submission:** PHN operates an online submission and reviewing system. All manuscripts should be submitted to <http://mc.manuscriptcentral.com/phnutr>. Please contact the Editorial Office on [phn.edoffice@cambridge.org](mailto:phn.edoffice@cambridge.org) regarding any other types of submission.

**Refereeing:** Review articles and articles reporting original research are subject to external review by two or more referees who evaluate manuscripts based on their importance, relevance, and originality. Authors are asked to submit names and contact details (including email address) of up to four potential referees. All other contributions (editorials, position papers, invited commentaries, book reviews, and letters to the Editors) undergo an internal review process by at least two members of the editorial team. Invited commentaries and book reviews may also be checked externally as necessary to avoid technical errors and to improve salience.

**Copyright:** At the time of acceptance, authors will be asked to provide a completed copy of the 'Licence to Publish' (in lieu of copyright transfer), available at <https://www.nutritionociety.org/>. It is the author's responsibility to obtain written permission to reproduce any material (including text and figures) that has appeared in another publication.

**Preparation of manuscripts:** Please refer to the full Directions to Contributors on our website (<http://www.nutritionociety.org>). Manuscripts should be in clear and concise English, and spelling should follow the Oxford English Dictionary. For authors whose native tongue is not English, in-house editorial attention to their contributions will improve clarity. On acceptance, all contributions are subject to editorial amendment to conform to house style. Manuscripts should be prepared in a common word processing package (Word for Windows is preferred) in Times New Roman or other common typeface, prepared with double-spaced text, at least 2 cm margins, and page and line numbers. Standard abbreviations and SI units must be used.

## Disclosure of financial support and any competing

**interests.** The submission must include a statement within an Acknowledgements section reporting any competing interests, all sources of funding, and the nature of the contribution of each author to the manuscript. If there are no competing interests, this must be stated. Authors are asked to provide this information during the submission process and should not include it as part of the manuscript to allow for double-blind reviewing.

## Arrangement of papers:

1. **Title page** should include the article title, author(s), affiliation(s), up to eight keywords, one author identified for correspondence (with full postal address, telephone and fax numbers, and email address), and a running title of up to 45 characters. The title page should be submitted online as a separate cover letter, not as part of the manuscript, to enable double-blind reviewing.
2. **Abstract** should be structured, usually using the following internal headings: Objective, Design, Setting, Subjects, Results, Conclusions. Abstracts should be intelligible without reference to text or figures and should not exceed 250 words.
3. **Text** should be divided under headings (typically to include Introduction, Methods, Results, Discussion and Conclusions), and sub-headings as appropriate. Conclusions should include recommendations that derive from the research and that are concrete, feasible, and potentially effective. Emphasising that more research is needed is usually not necessary unless there is specific reason to say so. All submissions must include a statement that the research was conducted in accordance with guidelines laid down by the Declaration of Helsinki and approved by an ethics review committee.
4. **Acknowledgements** (sources of funding, competing interests declaration, authorship responsibilities, acknowledgements) should be provided during the submission process, not as part of the manuscript.
5. **References** should be in Vancouver style. Please refer to the full Directions to Contributors.
6. **Tables** should be reduced to the simplest form and should not be used where text or figures give the same information. Each table must be accompanied by a clear and concise caption that is comprehensible without reference to the text. Longer tables may be published online only.
7. **Figures** should be numbered, and legends should be provided. Each figure, with its legend, should be comprehensible without reference to the text and include definitions of abbreviations.

**Proofs:** Correspondence and proofs for correction will be emailed to the first named author unless otherwise indicated. The author will receive a PDF proof for checking. It is important that proofs be returned promptly. Authors may be charged for any alterations in excess of 10% of original setting.

**Offprints:** The corresponding author will receive a PDF of the published paper free of charge. Offprints are available to purchase and must be ordered before publication.

**Monitoring and surveillance**

Trends in nutritional status and nutrient intakes and correlates of overweight/obesity among rural adult women ( $\geq 18$ –60 years) in India: National Nutrition Monitoring Bureau (NNMB) national surveys  
*II Meshram, N Balakrishna, K Sreeramakrishna, KM Rao, RH Kumar, N Arlappa, G Manohar, CG Reddy, M Ravindranath, SS Kumar, GNV Brahmam and A Laxmaiah* 767

Seven-year time trends in energy balance-related behaviours according to educational level and ethnic background among 14-year-old adolescents  
*FJ Meijerink, CL van Vuuren, HAH Wijnhoven and M van Eijnsden* 777

Dietary habits of Samoan adults in an urban Australian setting: a cross-sectional study  
*KC Perkins, R Ware, LF Tautalaso, R Stanley, L Scanlan-Savelio and L Schubert* 788

Impaired quality of life in treatment-seeking obese children of Dutch, Moroccan, Turkish and Surinamese descent  
*NNE Radhakishun, M de Wit, M van Vliet, IA von Rosenstiel, JH Beijnen, DPM Brandjes and M Diamant* 796

**Assessment and methodology**

Factors associated with longitudinal food record compliance in a paediatric cohort study  
*J Yang, KF Lynch, UM Uusitalo, K Foterek, S Hummel, K Silvis, CA Aronsson, A Riikonen, M Rewers, J-X She, AG Ziegler, OG Simell, J Toppari, WA Hagopian, Å Lernmark, B Akolkar, JP Krischer, JM Norris, SM Virtanen and SB Johnson and the TEDDY Study Group* 804

**Nutritional status and body composition**

Effects of social mobility from childhood to adolescence on BMI  
*AP Muraro, RMV Gonçalves-Silva, MG Ferreira and R Sichieri* 814

**Behavioural nutrition**

The influence of parental encouragement and caring about healthy eating on children's diet quality and body weights  
*E Faught, KV Ploeg, YL Chu, K Storey and PJ Veugelers* 822

Adolescents' awareness and use of menu labels in eating establishments: results from a focus group study  
*AE Evans, SR Weiss, KJ Meath, S Chow, EA Vandewater and RB Ness* 830

Factors influencing food preparation behaviours: findings from focus groups with Mexican-American mothers in southern California  
*TM Smith, GF Dunton, CA Pinard and AL Yaroch* 841

**Nutritional epidemiology**

Determinants of gestational night blindness in pregnant women from Rio de Janeiro, Brazil  
*C Saunders, MDC Leal, PAR Neves, PDC Padilha, LBG da Silva and AOC Schilithz* 851

Characterisation of anaemia and associated factors among infants and pre-schoolers from rural India  
*KM Nair, S Fernandez-Rao, B Nagalla, RV Kankipati, R Punjal, LF Augustine, KM Hurley, N Tilton, KB Harding, G Reinhart and MM Black* 861

Lunch frequency among adolescents: associations with sociodemographic factors and school characteristics  
*TP Pedersen, BE Holstein, R Krølner, AK Ersbøll, TS Jørgensen, AK Aarestrup, J Utter, SA McNaughton, D Neumark-Stzainer and M Rasmussen* 872

Fast-food consumption, diet quality and body weight: cross-sectional and prospective associations in a community sample of working adults  
*TL Barnes, SA French, NR Mitchell and J Wolfson* 885

Red and processed meat consumption and mortality: dose-response meta-analysis of prospective cohort studies  
*X Wang, X Lin, YY Ouyang, J Liu, G Zhao, A Pan and FB Hu* 893

100% Fruit juice: perspectives amid the sugar debate  
*GC Rampersaud* 906

**Economics and environment**

Food insecurity and intimate partner violence against women: results from the California Women's Health Survey  
*JL Ricks, SD Cochran, OA Arah, JK Williams and TE Seeman* 914

**Interventions**

A mixed-methods exploration of implementation of a comprehensive school healthy eating model one year after scale-up  
*P-J Naylor, HA McKay, M Valente and LC Mâsse* 924

Effect of African leafy vegetables on the micronutrient status of mildly deficient farm-school children in South Africa: a randomized controlled study  
*M van der Hoeven, M Faber, J Osei, A Kruger and CM Smuts* 935

**Workforce development**

How cooks navigate nutrition, hunger and care in public-sector foodservice settings  
*EK Tsui and A Morillo* 946

Cambridge Journals Online For further information about this journal please go to the journal website at: [journals.cambridge.org/phn](http://journals.cambridge.org/phn)