### CAMBRIDGE

# JOURNALS

# British Journal of Nutrition

Published on behalf of The Nutrition Society

Editor-in-Chief P.C. Calder, University of Southampton, UK

*British Journal of Nutrition* is a leading international peerreviewed 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

Submit your article online **bjn.msubmit.net** 

Register for free content alerts journals.cambridge.org/bjn-alerts



#### Impact Factor :3.072

2010 Journal Citation Reports®, Thomson Reuter

To subscribe contact Customer Services

#### Cambridge:

Phone +44 (0)1223 326070 Fax +44 (0)1223 325150 journals@cambridge.org

#### New York:

Phone +1 (845) 353 7500 Fax +1 (845) 353 4141 subscriptions\_newyork@cambridge.org



# Public Health Nutrition

Volume 15, 2012 ISSN: 1368–9800 journals.cambridge.org/phn

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

Cambridge University Press The Edinburgh Building Shaftesbury Road Cambridge CB2 8RU UK

#### For Customers in North America:

Cambridge University Press Journals Fulfillment Dept 100 Brook Hill Drive West Nyack New York 10994–2133 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 Katy Christomanou at Cambridge University Press for further details (email: kchristomanou@cambridge.org).

#### Subscription information

*Public Health Nutrition* is an international journal published 12 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 15, 2012 (12 issues): Internet/print package: £813/\$1559 Americas only/€1303 EU only Internet only: £643/\$1219 Americas only/€1022 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 Public Health Nutrition Cambridge University Press 100 Brook Hill Drive West Nyack New York 10994–2133 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 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

# Notes for Authors

*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, including references.
- **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 (eJournalPress). All manuscripts must be submitted online at http://phn.msubmit.net/. If any difficulties are encountered, please contact the Publications Office at phn@nutsoc.org.uk

**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.nutritionsociety. 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.nutritionsociety. 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:

- 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.

#### **PUBLIC HEALTH NUTRITION, VOLUME 15 - NUMBER 7**

R Erlich, A Yngve and ML Wahlqvist 1139 SP Cri   In this issue IIII SP Cri   La this issue IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Editorial	 Desig
In this issueI RehuCooking in this issueback to basics!I RehuCooking in this issueback to basics!and I HaapalaIIIIIIIIIIIIHot TopicCooking and healthpublicCooking frequency may enhance survivalin Taiwanese elderlyAC PaRC-Y Chen, M-S Lee, Y-H Changand Wand ML Wahlqvist1142UsualDoes involvement in food preparationexercistrack from adolescence to young adulthoodamourand si t associated with better dietarysupplequality? Findings from a 10-year longitudinalstudyStudy1150MN Laska, NI Larson,SC TimD Neumark-Sztainer and M Story1150Process evaluation of an environmentaland educational nutrition intervention in regions with mildly excessive iodinein drinking water in Hebei Province, ChinaII68SL v. Zhao, D Xu, Z Chong, L Jia, Y Du, JMa and S RutherfordII68A Maangala, R Prättälä, K Patja, 	Cooking as a healthy behaviour R Erlich, A Yngve and ML Wahlqvist	1139 potas
Cooking in this issue – back to basics!E de BA Yngve, M Tseng, A Hodge, G McNeillon beland I Haapala1141Hot Topic – Cooking and healthpublicCooking frequency may enhance survivalprogramin Taiwanese elderlyAC PaRC-Y Chen, M-S Lee, Y-H Changand Wand ML Wahlqvist1142Does involvement in food preparationexercisetrack from adolescence to young adulthoodamourand is it associated with better dietarysupplequality? Findings from a 10-year longitudinaland Wstudy2003-WL Jaska, NI Larson,SC TinD Neumark-Sztainer and M Story1150Process evaluation of an environmentalvalidaand educational nutrition intervention inand facases da Cowan and CM Devine1159SourceCM SVMonitoring and surveillanceCM SVA sepidemiological survey of children'sEpideniodine nutrition and goitre status inFactorregions with mildly excessive iodinein and vaand R Rutherford1168Mba and S Rutherford1168Maand S Rutherford1168Maand R Rauramaa1174Feychometric validation of a knowledge questionnaire on micronutrients among adolescent boys, Hyderabad, India 	In this issue	
InterportCooking and meanCooking frequency may enhance survival in Taiwanese elderlyAC Pa and ML WahlqvistRC-Y Chen, M-S Lee, Y-H Chang and ML Wahlqvist1142Does involvement in food preparation track from adolescence to young adulthood and is it associated with better dietary quality? Findings from a 10-year longitudinal studyUsual exercisMV Laska, NI Larson, D Neumark-Sztainer and M Story1150and RProcess evaluation of an environmental and educational nutrition intervention in residential drug-treatment facilities JA Cowan and CM Devine1159Monitoring and surveillanceCM SvMonitoring and surveillanceEpidelAn epidemiological survey of children's iodine nutrition and goitre status in regions with mildly excessive iodine in drinking water in Hebei Province, China1168Age, marital status and changes in and R Ruramaa1174Maand S Rutherford1168Age, marital status and changes in and R Rauramaa1174Assessment and methodologyAssoci Proutrient status of S RogPsychometric validation of a knowledge questionnaire on micronutrients and R Rauramaa1174Faustine, S Vazir, SF Rao, MV Rao, A Laxmaiah, P Ravinder, VV Rao and KM Nair1182Change in methodology for collection of drinking water intake in What We Eat in and KM Nair1182Change in methodology for collection of drinking water intake in What We Eat in and KM Nair1182Romiterie Stations for and KM Nair1182Romiterie Stations for and KM Nair1182 <td>Cooking in this issue – back to basics! A Yngve, M Tseng, A Hodge, G McNeill and I Haapala</td> <td>E de L on be</td>	Cooking in this issue – back to basics! A Yngve, M Tseng, A Hodge, G McNeill and I Haapala	E de L on be
Cooking frequency may enhance survival in Taiwanese elderlyprogra AC Pa and ML Wahlqvistprogra AC Pa and MLDoes involvement in food preparation track from adolescence to young adulthood and is it associated with better dietary guality? Findings from a 10-year longitudinal studyUsual 	Hot Topic – Cooking and health	
Does involvement in food preparation track from adolescence to young adulthood amour and is it associated with better dietary supple quality? Findings from a 10-year longitudinal studyexercise amour supple amour supple amour supple amour sudyexercise amour supple amour supple amour sudyexercise amour supple amour supple amour sudyexercise amour supple amour supple amour supple amour sudyexercise amour supple amour supple amour supple amour supple amour sudyexercise amour supple amour supple amour supple amour sudyexercise amour supple amour supple amour supple amour supple supple amour supple amour supple amour supple supple amour supple amour supple supple amour supple amour supple supple amour supple<	Cooking frequency may enhance survival in Taiwanese elderly <i>RC-Y Chen, M-S Lee, Y-H Chang</i> and ML Wahlqvist	progra AC Pa and V 1142
D Neumark-Sztainer and M Story1150and RProcess evaluation of an environmental and educational nutrition intervention in residential drug-treatment facilities JA Cowan and CM DevineValida and fa case is sourceManitoring and surveillance1159Monitoring and surveillanceCM SvMonitoring and surveillanceCM SvManikig water in Hebei Province, ChinaFactor dietary in drinking water in Hebei Province, tolawand S RutherfordMa and S Rutherford1168Age, marital status and changes in dietary habits in later life: a 21-year follow-up among Finnish women I Haapala, R Prättälä, K Patja, R Männikkö, M Hassinen, P Komulainen and R RauramaaFood c and ve and in S RogaPsychometric validation of a 	and is it associated with better dietary quality? Findings from a 10-year longitudi study	d exerci d amou suppl inal and N 2003-
and educational nutrition intervention in residential drug-treatment facilities JA Cowan and CM Devineand fa cases s sourceMonitoring and surveillance1159SourceMonitoring and surveillanceCM SVMonitoring and surveillanceEpidenAn epidemiological survey of children's iodine nutrition and goitre status in regions with mildly excessive iodine in drinking water in Hebei Province, ChinaEpidenAge, marital status and changes in dietary habits in later life: a 21-year follow-up among Finnish women and R RauramaaSRogd SRogdAssessment and methodologyAssoci fibre-co anthroStatus of anthro SRogd SRogdPsychometric validation of a knowledge questionnaire on micronutrients 	D Neumark-Sztainer and M Story	1150
Monitoring and surveillanceCM SvManitoring and survey of children's iodine nutrition and goitre status in regions with mildly excessive iodine in drinking water in Hebei Province, ChinaEpidelS Lv, J Zhao, D Xu, Z Chong, L Jia, Y Du, J Ma and S Rutherford1168M Lan A Men M LanAge, marital status and changes in dietary habits in later life: a 21-year follow-up among Finnish women and R Rauramaa1174S Roge R Männikkö, M Hassinen, P Komulainen and R RauramaaFood c and three S Roge anthree fibre-co anthree fibre-co and R Rauramaa1174Assessment and methodology Psychometric validation of a knowledge questionnaire on micronutrients among adolescents and its relationship to micronutrient status of 15–19-year-old adolescent boys, Hyderabad, India LF Augustine, S Vazir, SF Rao, MV Rao, A Laxmaiah, P Ravinder, VV Rao and KM NairA Mös and KM NairChange in methodology for collection of drinking water intake in What We Eat in America/National Health and Nutrition Examination Survey: implications for analysis RS Sebastian, CW Enns, JD GoldmanCM LK Will	Process evaluation of an environmental and educational nutrition intervention in residential drug-treatment facilities	and fa
iodine nutrition and goitre status in regions with mildly excessive iodine dietary in drinking water in Hebei Province, ChinaFactor dietary in mor 	Monitoring and surveillance	30010
Age, marital status and changes in dietary habits in later life: a 21-year and in <i>I Haapala, R Prättälä, K Patja, R Männikkö, M Hassinen, P Komulainen</i> and R RauramaaWho ci and in <i>S Rogi</i> <i>Roginal R Prättälä, K Patja, R Männikkö, M Hassinen, P Komulainen</i> and R RauramaaFood ci serviceAssessment and methodologyanthro anthroanthro <i>S Rogi</i> anthroPsychometric validation of a knowledge questionnaire on micronutrients among adolescents and its relationship to micronutrient status of 15–19-year-old adolescent boys, <i>Hyderabad, India</i> <i>LF Augustine, S Vazir, SF Rao, MV Rao,</i> <i>A Laxmaiah, P Ravinder, VV Rao</i> <i>A Mös and KM Nair</i> 1182Change in methodology for collection of drinking water intake in What We Eat in America/National Health and Nutrition Examination Survey: implications for analysis <i>RS Sebastian, CW Enns, JD Goldman</i> Who ci and KM vair	An epidemiological survey of children's iodine nutrition and goitre status in regions with mildly excessive iodine in drinking water in Hebei Province, China S Lv, J Zhao, D Xu, Z Chong, L Jia, Y Du, J Ma and S Rutherford	Factor dietar in mo <i>A Mer</i> <i>M L a</i>
Assessment and methodologyanthroPsychometric validation of a knowledge questionnaire on micronutrients among adolescents and its relationship to micronutrient status of 15–19-year-old adolescent boys, Hyderabad, India LF Augustine, S Vazir, SF Rao, MV Rao, A Laxmaiah, P Ravinder, VV Rao and KM NairGerma A Mös and KM NairChange in methodology for collection of drinking water intake in What We Eat in analysis RS Sebastian, CW Enns, JD GoldmanPrevious Coldman	Age, marital status and changes in dietary habits in later life: a 21-year follow-up among Finnish women I Haapala, R Prättälä, K Patja, R Männikkö, M Hassinen, P Komulainen and R Rauramaa	and v and ir S Rog Food d 1174 servic
Psychometric validation of a knowledge questionnaire on micronutrients among adolescents and its relationship to micronutrient status ofCML B P Puul T Sahi T Sahi15–19-year-old adolescent boys, Hyderabad, India LF Augustine, S Vazir, SF Rao, MV Rao, A Laxmaiah, P Ravinder, VV Rao and KM NairGerma A Mös and KM NairChange in methodology for collection of drinking water intake in What We Eat in America/National Health and Nutrition Examination Survey: implications for analysis RS Sebastian, CW Enns, JD GoldmanCML B P Puul LM L P Ruint LK Will	Assessment and methodology	
15–19-year-old adolescent boys,emploHyderabad, IndianutritiLF Augustine, S Vazir, SF Rao, MV Rao,GermaA Laxmaiah, P Ravinder, VV RaoA Mösand KM Nair1182Change in methodology for collection of drinking water intake in What We Eat in America/National Health and Nutrition Examination Survey: implications for analysisPerceidisadv RS Sebastian, CW Enns, JD GoldmanLK Will	Psychometric validation of a knowledge questionnaire on micronutrier among adolescents and its relationship	nts CML E P Puu T Sah
Change in methodology for collection ofPerceidrinking water intake in What We Eat inand verAmerica/National Health and NutritionpercepExamination Survey: implications foraffordanalysisdisadv <i>RS Sebastian, CW Enns, JD GoldmanLK Will</i>	15–19-year-old adolescent boys, Hyderabad, India LF Augustine, S Vazir, SF Rao, MV Rao, A Laxmaiah, P Ravinder, VV Rao	emplo nutrit Germa <i>A Mös</i>
drinking water intake in What We Eat in and vertice   America/National Health and Nutrition perception   Examination Survey: implications for afford   analysis disadvertic <i>RS Sebastian, CW Enns, JD Goldman</i> LK Will		
	drinking water intake in What We Eat in America/National Health and Nutrition Examination Survey: implications for analysis	and v perce afford disad
	RS Sebastian, CW Enns, JD Goldman and AJ Moshfegh	



Food choices and health during military service: increases in sugar- and fibre-containing foods and changes in anthropometric and clinical risk factors *CML Bingham, M Lahti-Koski, P Absetz, P Puukka, M Kinnunen, H Pihlajamäki, T Sahi, A Uutela and P Jallinoja* 1248

Associations between maternal employment and time spent in nutrition-related behaviours among German children and mothers A Möser, SE Chen, SB Jilcott and RM Nayga Jr

Perceived quality and availability of fruit and vegetables are associated with perceptions of fruit and vegetable affordability among socio-economically disadvantaged women *LK Williams, L Thornton, D Crawford* and K Ball 1262

1256

FSC www.iscorg FSC<sup>®</sup> C007785 Dietary adequacy and dietary quality of Inuit in the Canadian Arctic who smoke and the potential implications for chronic disease SE Rittmueller, C Roache and S Sharma 1268

#### Nutrition and health

nation and notation	
Household food insecurity and hunger among households in Sidama district, southern Ethiopia N Regassa and BJ Stoecker	1276
Parental nutrition knowledge and attitudes as predictors of 5–6-year-old children's healthy food knowledge D Zarnowiecki, N Sinn, J Petkov and J Dollman	1284
Serum ferritin levels associated with increased risk for developing CHD in a low-income urban population <i>ME Olesnevich, MF Kuczmarski,</i> <i>M Mason, C Fang, AB Zonderman</i>	
and MK Evans	1291
Interventions	
Behavioural factors related with successful weight loss 15 months post-enrolment in a commercial web-based weight-loss programme <i>MJ Neve, PJ Morgan and CE Collins</i>	1299
Lessons learned from a family-focused weight management intervention for obese and overweight children <i>M Twiddy, I Wilson, M Bryant</i> <i>and M Rudolf</i>	1310
The efficacy of a brief, peer-led nutrition education intervention in increasing fruit and vegetable consumption: a wait-list, community-based randomised controlled trial	
C Glasson, K Chapman, K Gander, T Wilson and E James	1318
Letters to the editor	1327

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



//doi.org/10.1017/51268980012002102 Published online by Cambridge University Pro

ION

Advancing Nutritional Science