| Manuscript Number: | EJEP-D-19-00303R1 |
|-------------------|-------------------|
| Full Title:       | Healthy lifestyle and the risk of pancreatic cancer in the EPIC study |
| Article Type:     | Original article |
| Keywords:         | pancreatic cancer; healthy lifestyle index; population attributable fraction; EPIC; prospective study |
| Corresponding Author: | Pietro Ferrari |
|                   | FRANCE |
| Corresponding Author Secondary Information: | |
| Corresponding Author's Institution: | |
| Corresponding Author's Secondary Institution: | |
| First Author:     | Sabine Naudin |
| First Author Secondary Information: | |
| Order of Authors: | Sabine Naudin |
|                   | Vivian Viallon |
|                   | Dana Hashim |
|                   | Heinz Friesling |
|                   | Mazda Jenab |
|                   | Elisabete Weiderpass |
|                   | Flavie Perrier |
|                   | Fiona McKenzie |
|                   | H. Bas Bueno-de-Mesquita |
|                   | Anja Olsen |
|                   | Anne Tjønneland |
|                   | Christina C. Dahm |
|                   | Kim Overvad |
|                   | Francesca Romana Mancini |
|                   | Vinciane Rebours |
|                   | Marie-Christine Boutron-Ruault |
|                   | Verena Katzke |
|                   | Rudolf Kaaks |
|                   | Manuela Bergmann |
|                   | Heiner Boeing |
|                   | Eleni Peppa |
|                   | Anna Karakatsani |
|                   | Antonia Trichopoulou |
| Order of Authors Secondary Information: |
|------------------------------------------|
| Funding Information:                    |
| French Ministry of Health                | Not applicable |
| (GR-IARC-2003-09-12-01)                 |                   |
| European Commission, Directorate general | Not applicable |
| for health and consumer affairs          |                   |
| International Agency for Research on    | Not applicable |
| Cancer (none)                            |                   |
| Danish Cancer Society (none)             | Not applicable |
| Ligue Contre le Cancer (none)            | Not applicable |
| Institut Gustave Roussy (none)           | Not applicable |
| Mutuelle Générale de l'Education        | Not applicable |
| Nationale (FR) (none)                   |                   |
| Institut National de la Santé et de la   | Not applicable |
| Recherche Médicale (FR) (none)           |                   |
| Deutsche Krebshilfe (none)               | Not applicable |
| Deutsches Krebsforschungszentrum         | Not applicable |
| Organization                                                                 | Funding Information          |
|------------------------------------------------------------------------------|------------------------------|
| Federal Ministry of Education and Research (none)                            | Not applicable               |
| Hellenic Health Foundation (none)                                            | Not applicable               |
| Stavros Niarchos Foundation (None)                                           | Not applicable               |
| Hellenic Ministry of Health and Social Solidarity (None)                     | Not applicable               |
| Italian Association for Research on Cancer and the National Research Council (None) | Not applicable               |
| Dutch Ministry of Public Health, Welfare and Sports (None)                   | Not applicable               |
| Netherlands Cancer Registry (none)                                           | Not applicable               |
| LK Research Funds (none)                                                     | Not applicable               |
| Dutch Prevention Funds (none)                                                | Not applicable               |
| Dutch Zorg Onderzoek Nederland (none)                                        | Not applicable               |
| World Cancer Research Fund and Statistics Netherlands (none)                 | Not applicable               |
| Health Research Fund, Regional Governments of Andalucía, Asturias, Basque Country, Murcia and Navarra (project 6236) | Not applicable               |
| Instituto de Salud Carlos III, Redes de Investigacion Cooperativa (RD06/0020) | Not applicable               |
| Swedish Cancer Society (none)                                                | Not applicable               |
| Swedish Scientific Council (none)                                            | Not applicable               |
| Regional Government of Skåne (none)                                          | Not applicable               |
| Cancer Research UK (14136)                                                   | Not applicable               |
| Cancer Research UK (C570/A16491)                                             | Not applicable               |
| Cancer Research UK (C8221/A19170)                                            | Not applicable               |
| Medical Research Council (UK) (1000143)                                     | Not applicable               |
| Medical Research Council (UK) (MR/M012190/1)                                 | Not applicable               |
| Stroke Association (none)                                                   | Not applicable               |
| British Heart Foundation (none)                                              | Not applicable               |
| Department of Health (UK) (none)                                             | Not applicable               |
| Food Standards Agency (UK) (none)                                            | Not applicable               |
| Wellcome Trust (UK) (none)                                                   | Not applicable               |
| Région Auvergne-Rhône-Alpes (ADR 2016)                                       | Mrs Sabine Naudin            |

**Abstract:**

Background. Pancreatic cancer (PC) is a highly fatal cancer with currently limited
opportunities for early detection and effective treatment. Modifiable factors may offer pathways for primary prevention. In this study, the association between the healthy lifestyle index (HLI) and PC risk was examined.

Methods and Findings. Within the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort, 1,113 incident PC (57% women) were diagnosed from 400,577 cancer-free participants followed-up for 15 years (median). HLI scores combined smoking, alcohol intake, dietary exposure, physical activity and, in turn, overall and central adiposity using BMI (HLIBM) and waist-to-hip ratio (WHR, HLIWHR), respectively. High values of HLI indicate adherence to healthy behaviors. Cox proportional hazard models with age as primary time variable were used to estimate PC hazard ratios (HR) and 95% confidence intervals (CI). Sensitivity analyses were performed by excluding, in turn, each factor from the HLI score. Population attributable fractions (PAF) were estimated assuming participants’ shift to healthier lifestyles. The HRs for a one-standard deviation increment of HLIBM and HLIWHR were 0.84 (95% CI: 0.79, 0.89; ptrend=4.3e-09) and 0.77 (0.72, 0.82; ptrend=1.7e-15), respectively. Exclusions of smoking from HLIWHR resulted in HRs of 0.88 (0.82, 0.94; ptrend=4.9e-04). The overall PAF estimate was 19% (95% CI: 11%, 26%), and 14% (6%, 21%) when smoking was removed from the score.

Conclusions. Adherence to a healthy lifestyle was inversely associated with PC risk, beyond the beneficial role of smoking avoidance. Public health measures targeting compliance with healthy lifestyles may have an impact on PC incidence.

Response to Reviewers:

1) The authors have identified an interesting research question. “Healthy lifestyle and the risk of pancreatic cancer in the EPIC study” is an interesting topic. The main strengths of this study are that:
   1) It uses a large study sample and addresses a clear and focused research question.
   2) The overall study design is robust except for some minor aspects of details listed below
   3) The exploration of the data using an extensive range of analysis is right.
   4) The methods used are appropriate, and the presentation of the data is well performed.

Some concerns which will need to be addressed are:

The title is appropriate.

Authors: We thank the Reviewer for highlighting the strengths of our manuscript.

2) Line 111-112: Please change sentence from "Public health measures targeting compliance to healthy lifestyles may have an impact on PC incidence.” To "Public health measures targeting compliance with healthy lifestyles may have an impact on PC incidence.”

Authors: We updated the text according to the Reviewer’s suggestion.

3) In the first paragraph please include the incidence and mortality rates for pancreatic cancer.

Authors: The text was updated accordingly (page 5, lines 116-117) as: “Commonly diagnosed at late stages, PC is a highly fatal cancer with similar incidence and mortality rates [4].”

4) Line 123: please rewrite the sentence "United States and Western European countries, than in middle- and low-income countries” to "United States and Western European countries than in the middle and low-income countries”.

Authors: After double-checking, the original version of the sentence was kept.

5) In Exposure assessment: authors mention that "Habitual diet, including alcohol intake, over the year preceding recruitment was assessed at baseline by validated
center-specific dietary questionnaires”. Please explain how did the researchers exclude the memory bias of the participants? If not please add it to the limitations of the study.

Authors: Following the Reviewer’s suggestion, measurement error due to memory bias was mentioned in the discussion (page 14, lines 346-348), which now reads: “First, measurement errors likely affected dietary and lifestyle assessments, possibly introducing bias in estimated associations.”

6) Line 238: please change sentence "regions (North: Denmark, Sweden; Central: United Kingdom, The Netherlands, Germany" to "regions (North: Denmark, Sweden; Central: the United Kingdom, The Netherlands, Germany"

Authors: The text was updated accordingly.

7) Line 249: Reverse causation remains a concern despite excluding the first 2 and 5 years of follow-up. Could this issue be further mitigated by removal of participants that developed clinical disease over the first 10 years.

Authors: In agreement with the Reviewer’s request, further analyses were performed. Estimates were unchanged after removing the first 10 years of follow-up.

8) The statistical analyses are complete and well conducted

Authors: We thank the Reviewer for this comment.

9) Line 317 after the line "Body fatness is also an established risk factor for PC [8]." Please also include the latest article https://www.ncbi.nlm.nih.gov/pubmed/30788774

Authors: The reference suggested by the Reviewer was added to the list of references.

10) Authors need to discuss in detail about the limitations of the study.

Authors: In line with the Reviewer’s request, further emphasis was given to the limitations of our study, other than mentioning measurement errors as a source of exposure misclassification. The text (page 14, lines 343-351) now reads: “However, this study also has limitations. First, measurement errors likely affected dietary and lifestyle assessments, possibly introducing bias in estimated associations. Furthermore, as EPIC participants represent a healthy proportion of the general population, risk estimates in our study were likely attenuated. In addition, the evidence for a role of life course socio-economic status on cancer-related risk factors was suggested [56], and the use of education in our study as a proxy for socio-economic status might have introduced residual confounding. Last, our study did not consider potential changes of dietary and lifestyle exposures after recruitment, which could be relevant to estimate accurately the association between lifestyle factors and PC risk, as well as to explain HR patterns over age.”

11) Last paragraph can be made into a separate conclusion section.

Authors: The text was updated accordingly.

12) Tables are appropriate. Overall a well conducted study.

Authors: Thank you.
Healthy lifestyle and the risk of pancreatic cancer in the EPIC study

Sabine Naudin¹, Vivian Viallon¹, Dana Hashim², Heinz Freisling¹, Mazda Jenab³, Elisabete Weiderpass⁴,⁵,⁶,⁷, Flavie Perrier¹, Fiona McKenzie⁸, H. Bas Bueno-de-Mesquita⁹,¹⁰,¹¹, Anja Olsen¹², Anne Tjønneland¹²,¹³, Christina C. Dahm¹⁴, Kim Overvåd¹⁴,¹⁵, Francesca Romana Mancini¹⁶,¹⁷, Vinciane Rebours¹⁸,¹⁹, Marie-Christine Boutron-Ruault¹⁶,²⁰, Verena Katzke²⁰, Rudolf Kaaks²⁰, Manuela Bergmann²¹, Heiner Boeing²¹, Eleni Peppa²², Anna Karakatsani²²,²³, Antonia Trichopoulou²²,²⁴, Valeria Maria Pala²⁵, Giovana Masala²⁶, Salvatore Panico²⁷, Rosario Tumino²⁸, Carlotta Sacerdote²⁹, Anne M. May³⁰, Carla H. van Gils³¹, Charlotte Rylander³¹, Kristin Benjaminsen Borch³¹, María Dolores Chirlaque López³²,³³, María-Jose Sánchez³³,³⁴, Eva Ardanaz³³,³⁵,³⁶, J. Ramón Quirós³⁷, Pilar Amiano Exezarreta³³,³⁸, Malin Sund³⁹, Isabel Drake⁴⁰, Sara Regnér⁴⁰, Ruth C. Travis⁴¹, Nick Wareham⁴², Dagfinn Aune¹¹,⁴³,⁴⁴, Elio Riboli¹¹, Marc J. Gunter³, Eric J. Duell⁴⁵, Paul Brennan⁴⁶, Pietro Ferrari¹* 

¹ Nutritional Methodology and Biostatistics Group, International Agency for Research on Cancer, Lyon, France; ² Department of Hematology and Oncology, Tisch Cancer Institute, Icahn School of Medicine at Mount Sinai, New York, NY; ³ Nutritional Epidemiology Group, International Agency for Research on Cancer, Lyon, France; ⁴ Department of Community Medicine, Faculty of Health Sciences, University of Tromsø, The Arctic University of Norway, Tromsø, Norway; ⁵ Department of Research, Cancer Registry of Norway, Institute of Population-Based Cancer Research, Oslo, Norway; ⁶ Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden; ⁷ Genetic Epidemiology Group, Folkhälsan Research Center and Faculty of Medicine, University of Helsinki, Helsinki, Finland; ⁸ Environment and Radiation section, International Agency for Research on Cancer, Lyon, France; ⁹ National Institute of Public Health and the Environment (RIVM), Bilthoven, The Netherlands; ¹⁰ Department of Gastroenterology and Hepatology, University Medical Center, Utrecht, The Netherlands; ¹¹ Department of Epidemiology and Biostatistics, School of Public Health, Imperial College London, United Kingdom; ¹² Danish Cancer Society Research Center, Copenhagen, Denmark; ¹³ Department of Public Health, Faculty of Health and Medical Sciences, University of Copenhagen; ¹⁴ Section for Epidemiology, Department of Public Health, Aarhus University, Aarhus, Denmark; ¹⁵ Department of Cardiology, Aalborg University Hospital, Aalborg, Denmark; ¹⁶ CESP, Fac. de médecine - Univ. Paris-Sud, Fac. de médecine - UVSQ, INSERM, Université Paris-
Saclay, 94805, Villejuif, France; 17 Gustave Roussy, F-94805, Villejuif, France
EPIC France; 18 Pancreatology Department, Beaumont Hospital, DHU Unity, AP-HP, Clichy, and Paris-
Diderot University, Paris, France; 19 Inserm UMR1149, DHU Unity, and Paris-Diderot
University, Paris, France; 20 Division of Cancer Epidemiology, German Cancer Research
Center (DKFZ), Heidelberg, Germany; 21 German Institute of Human Nutrition Potsdam-
Rehbrücke; 22 Hellenic Health Foundation, Athens, Greece; 23 Pulmonary Medicine
Department, School of Medicine, National and Kapodistrian University of Athens,
“ATTIKON” University Hospital, Haidari, Greece; 24 School of Medicine, National and
Kapodistrian University of Athens, Greece; 25 Epidemiology and Prevention Unit,
Fondazione IRCCS Istituto Nazionale dei Tumori, Milano, Italy; 26 Cancer Risk Factors and
Life-Style Epidemiology Unit, Institute for Cancer Research, Prevention and Clinical
Network - ISPRO, Florence, ITALY; 27 Department of Clinical and Experimental Medicine,
University Federico II, Naples, Italy; 28 Cancer Registry and Histopathology Department,
Civic M.P. Arezzo Hospital, Ragusa, Italy; 29 Unit of Cancer Epidemiology, Città della Salute
e della Scienza University, Hospital and Center for Cancer Prevention (CPO), Turin, Italy; 30
Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht,
Utrecht University, Utrecht, The Netherlands; 31 Department of Community Medicine,
Faculty of Health Sciences, University of Tromsø, The Arctic University of Norway, Tromsø,
Norway; 32 Escuela Andaluza de Salud Pública, Instituto de Investigación Biosanitaria,
Universidad de Granada, Granada, Spain; 33 CIBER de Epidemiología y Salud Pública
(CIBERESP), Madrid, Spain; 34 Escuela Andaluza de Salud Pública. Instituto de
Investigación Biosanitaria ibs.GRANADA, Universidad de Granada. Granada, Spain; 35
Navarra Public Health Institute, Pamplona, Spain; 36 IdiSNA, Navarra Institute for Health
Research, Pamplona, Spain; 37 Public Health Directorate, Asturias, Spain; 38 Public Health
Division of Gipuzkoa, BioDonostia Research Institute, San Sebastian, Spain; 39 Department
of Surgical and Preoperative Sciences, Umeå University, Sweden; 40 Department of Clinical
Sciences in Malmö, Lund University, Malmö, Sweden; 41 Cancer Epidemiology Unit,
Nuffield Department of Clinical Medicine, University of Oxford, Oxford, United Kingdom;
42 MRC Epidemiology Unit, Institute of Metabolic Science, University of Cambridge,
Cambridge, United Kingdom; 43 Department of Nutrition, Bjørknes University College, Oslo,
Norway; 44 Department of Endocrinology, Morbid Obesity and Preventive Medicine, Oslo
University Hospital, Oslo, Norway; 45 Unit of Nutrition and Cancer, Catalan Institute of
Oncology (ICO-IDIBELL), Barcelona, Spain; 46 Genetic Epidemiology Group, International
Agency for Research on Cancer, Lyon, France.
*Corresponding Author

Pietro Ferrari, PhD
Nutritional Methodology and Biostatistics Group
International Agency for Research on Cancer, WHO
150, cours Albert Thomas
69372 Lyon CEDEX 08, France
Tel. +33 4 72 738 031
E-mail: ferrarip@iarc.fr

Keywords
Pancreatic cancer; healthy lifestyle index; population attributable fraction; EPIC; prospective study.

Abbreviations
BMI: Body Mass Index
CI: Confidence Interval
EPIC: European Prospective Investigation into Cancer and Nutrition
HR: Hazard Ratio
PC: Pancreatic Cancer
PAF: Population Attributable Fraction
WCRF/AICR: World Cancer Research Fund/American Institute for Cancer Research
WHR: Waist-to-Hip ratio
Abstract (Words=248)

Background. Pancreatic cancer (PC) is a highly fatal cancer with currently limited opportunities for early detection and effective treatment. Modifiable factors may offer pathways for primary prevention. In this study, the association between the healthy lifestyle index (HLI) and PC risk was examined.

Methods. Within the European Prospective Investigation into Cancer and Nutrition (EPIC) cohort, 1,113 incident PC (57% women) were diagnosed from 400,577 cancer-free participants followed-up for 15 years (median). HLI scores combined smoking, alcohol intake, dietary exposure, physical activity and, in turn, overall and central adiposity using BMI (HLI_BMI) and waist-to-hip ratio (WHR, HLI_WHR), respectively. High values of HLI indicate adherence to healthy behaviors. Cox proportional hazard models with age as primary time variable were used to estimate PC hazard ratios (HR) and 95% confidence intervals (CI). Sensitivity analyses were performed by excluding, in turn, each factor from the HLI score. Population attributable fractions (PAF) were estimated assuming participants’ shift to healthier lifestyles.

Results. The HRs for a one-standard deviation increment of HLI_BMI and HLI_WHR were 0.84 (95% CI: 0.79, 0.89; p_{trend}=4.3e-09) and 0.77 (0.72, 0.82; p_{trend}=1.7e-15), respectively. Exclusions of smoking from HLI_WHR resulted in HRs of 0.88 (0.82, 0.94; p_{trend}=4.9e-04). The overall PAF estimate was 19% (95% CI: 11%, 26%), and 14% (6%, 21%) when smoking was removed from the score.

Conclusion. Adherence to a healthy lifestyle was inversely associated with PC risk, beyond the beneficial role of smoking avoidance. Public health measures targeting compliance with healthy lifestyles may have an impact on PC incidence.
In the last decades, the rise in pancreatic cancer (PC) incidence has become a major public health concern with mortality rates expected to double by 2030 in American and European populations [1–3]. Commonly diagnosed at late stages, PC is a highly fatal cancer with similar incidence and mortality rates [4]. In the current absence of available screening tools [5], the identification of modifiable risk factors might be important for PC prevention. The World Cancer Research Fund/American Institute for Cancer Research (WCRF/AICR) international expert panel estimated that at least one-third of all cancers could have been prevented through lifestyle management including diet, obesity and physical activity habits [6]. PC incidence rates are nearly four times higher in high-income countries such as the United States and Western European countries than in middle- and low-income countries [4], suggesting that PC occurrence may be associated with lifestyle factors specifically prevalent in the Western world. Individual examination of lifestyle risk factors of PC have led to the identification of smoking, as well as body fatness, adult attained height, type-2 diabetes, and heavy alcohol drinking as positive risk factors, while diet and physical activity have been inconsistently associated with PC risk [7,8]. There is limited evidence regarding the joint association of different lifestyle factors on PC incidence, especially among European populations [9,10].

Previous epidemiological studies have identified clusters of modifiable exposures, assessable through a priori scores reflecting compliance with primary prevention guidelines [11], which were evaluated in relation to cardiovascular diseases [12,13], cancer incidence [14,15], and overall and cause-specific mortality [16,17]. A multi-component score termed the Healthy Lifestyle Index (HLI), combining information on smoking, alcohol intake, dietary habits, body mass index (BMI), and physical activity has been previously related to colorectal [18], breast [19], gastric [20], and overall cancers [21] within the European Prospective
Investigation into Cancer and Nutrition (EPIC) study. Within the American Association of Retired Persons (AARP) study a strong inverse association was observed between the HLI and PC risk[9].

In this work, the association between the HLI and PC risk was examined within the EPIC study. Two versions of the score were used, i.e. (i) with BMI to reflect overall adiposity and (ii) with waist-to-hip ratio to reflect central adiposity. The marginal role of single factors in the HLI score was investigated, particularly smoking. Population attributable fractions were also estimated.

Material and Methods

Study population. EPIC is a multicenter prospective study designed to investigate the etiology of cancer in relation to diet and other lifestyle factors [22]. From 1992 to 2000, 521,324 participants aged from 35 to 70 years were recruited across 10 European countries, mostly from the general population, of which 70% were women. Exceptions were the French cohort (school and university employees), the Spanish and Italian centers (blood donors), Utrecht and Florence centers (breast cancer screening participants), and Oxford (vegetarians and ‘health conscious’ participants). In France, Utrecht and Naples women only were recruited. Study participants provided informed consent before completing questionnaires at baseline. Participants from Norway were excluded from this study, as information on physical activity was not compatible with the other centers [23].

Cancer cases were identified during follow-up based on population cancer registries in Denmark, Italy, Netherlands, Spain, Sweden, and the United Kingdom, and on a combination of methods, including health insurance records, contacts with cancer and pathology registries, and active follow-up of EPIC participants and their next of kin in France, Germany, and
Greece. Mortality data were collected from, either the cancer or mortality registries at the regional or national level.

The most recent vital status and cancer diagnosis update were used. Vital status was known for 98.4% of all EPIC subjects, while 1.6% of participants emigrated, withdrew or were lost to follow-up. The current follow-up period ended as follows: December 2009 in Varese and Murcia, December 2010 in Florence, Ragusa, Turin, Asturias, Bilthoven and Utrecht, December 2011 in Granada, Navarra, San Sebastian and Cambridge, December 2012 in Oxford, Umeå, and Denmark, and December 2013 in Malmö. The end of follow-up was considered as the last known contact with participants in France (June 2008), Heidelberg and Potsdam (December 2009), and Naples (December 2010) and Greece (December 2012).

Cases of PC were primary incident tumor of the pancreas, coded according to the International Classification of Diseases (10th edition), which included all invasive pancreatic cancers (C25.0–C25.3, C25.7–C25.9). Endocrine and neuroendocrine tumors of the pancreas (C25.4) were censored at date of diagnosis (n=54). Microscopically confirmed PC represented 83% of the cases (n=928) based on histology of the primary tumor or metastases, cytology or autopsy reports.

**Exposure assessment.** Habitual diet, including alcohol intake, over the year preceding recruitment was assessed at baseline by validated center-specific dietary questionnaires [22,24]. Data on anthropometry (self-reported in France and the UK Oxford center) [25,26] physical activity, smoking habits, and prevalent chronic conditions were collected at recruitment through lifestyle questionnaires [22].

A diet score was built from the combination of six dietary factors reflecting diet quality [21], i.e. cereal fibers, red and processed meat, the ratio of polyunsaturated to saturated fatty acids, margarine (to express industrially produced trans-fats) [27,28], glycemic load, and fruits and vegetables. For each dietary factor, residuals were computed in models with total energy
intake [29], and grouped into country-specific deciles. Individual scores were summed up and categorized into quintiles.

The HLI was generated from the combination of five lifestyle factors, namely: diet score, physical activity, smoking status, alcohol consumption and anthropometry. For each factor, scores ranging from 0 to 4 were assigned to increasingly healthier categories, as described in Figure 1. The HLI was obtained as the sum of scores of each lifestyle factor [19]. As previous evidence on PC etiology identified waist-to-hip ratio, an indicator of central adiposity, as a PC risk factor [30,31], a HLI based on WHR (HLI_{WHR}) was implemented replacing BMI with sex-specific WHR quintiles.

**Statistical analysis.** From a study population of 521,324 participants, subjects without lifestyle or dietary information (n= 6,902), with ratio of estimated energy intake over energy requirement in the top or bottom 1% (n=10,241),[32] with self-reported prevalent cancer (n=24,221), with missing follow-up information (n=3,800), with missing smoking status (n=15,684) or physical activity (n=65,054) were excluded. For analyses with HLI_{WHR}, subjects with missing WHR were also excluded (n=45,105). Country-specific age standardized PC incidence rates (ASR, per 100,000 person-years, PY) were computed using 5-year categories in the range 50 to 70 years and the standard European population.

The association between the HLI and PC incidence was evaluated using multivariable Cox proportional hazard models, with age as the primary time variable, and Breslow’s method to handle ties [33]. The time at study entry was age at recruitment, while the exit time was age at cancer diagnosis, death, loss, or end of follow-up, whichever came first. All models were stratified by study center [32], sex and age at recruitment in 1-year categories.

The HLI_{BMI} and HLI_{WHR} were, in turn, modeled as continuous variables to compute HR estimates for a one-standard deviation (1-SD), corresponding to about three-point increase in the score. Analyses were also carried out in categories (0-4, 5-9, 10-14, 15-20), using the
group 5-9 as reference. Models were systematically adjusted for potential risk factors of PC and covariates influencing HLI and PC risk \([21,34–36]\), namely education level (no degree/primary school, secondary/technical or professional school, university degree or more, unknown (4%)), self-reported baseline diabetes status (no, yes, unknown (8%)), energy intake from non-alcohol sources (continuous), and height (continuous). Additional adjustment for BMI (continuous) was used in models for HLI\_WHR. HRs were unchanged after women-specific inclusion of menopausal status, ever use of replacement hormonal replacement therapy and number of full-term pregnancies, thus adjustment for these variables was not pursued. Overall tests for statistical significance of HRs were determined by comparing Wald-test statistics to a \(\chi^2\) distribution with degree of freedom (dof) equal to the number of categories minus one for evaluation in categories \((p_{\text{wald}})\) and dof equal to one as continuous \((p_{\text{trend}})\). The proportionality of hazards (PH) assumption was evaluated through the Schoenfeld’s residuals \([37]\).

Sensitivity analyses were carried out by excluding, in turn, each factor from the HLI scores to identify factors mostly driving the HLI association with PC risk. The excluded component was used as a confounder in the model.

Assuming a causal relationship between HLI\_WHR and PC risk, population attributable fractions (PAF) were estimated as the reduction in PC incidence that would occur if study participants shifted to the adjacent healthier category of HLI\_WHR, as \([38]\)

\[
PAF = \frac{\sum_{i=1}^{k} RR_i \ c_i - \sum_{i=1}^{k} RR_i \ c^*_i}{\sum_{i=1}^{k} RR_i \ c_i},
\]

with \(i=1,\ldots,4\) indexing the HLI\_WHR categories, \(HR_i\) and \(c_i\) expressing the hazard ratio and the observed proportion of participants in category \(i\), respectively, and \(c^*_i\) the counterfactual proportion of participants, as detailed in Supplementary Table 1. PAF was also computed assuming a counterfactual scenario whereby men adopted women’s lifestyle habits. Given the
low PC prevalence and under the proportional hazards assumption, HRs were correct
approximations of risk ratios (RR). Confidence intervals were obtained using bootstrap
sampling [39].

The relationship between the HLI and PC risk was estimated by, in turn, sex, European
regions (North: Denmark, Sweden; Central: The United Kingdom, The Netherlands,
Germany; South: France, Greece, Italy, and Spain), and smoking status (never, former,
current). Interactions were evaluated by comparing the difference in log-likelihood of models
with and without interaction terms between HLI_{WHR} and, either sex, European region or
smoking, to a χ² distribution, with dof equal to the total number of interaction terms minus
one. Although the PH assumption was satisfied, possible selections could operate among
study participants within 15 year of follow-up, and HR estimates can change with age. The
pattern of HR for a 1-SD increase of HLI_{WHR} by age was examined using a flexible
parametric survival model on the cumulative hazard scale. Restricted cubic splines with 5
internal knots were used to model the baseline hazard using attained age as the time scale and
a time-varying coefficient on HLI_{WHR} [40].

To address potential reverse causality, analyses were carried out excluding the first 2 and 5
years of follow-up. In analyses excluding smoking from the HLI, HR estimates after
adjustment by smoking status (never, former, current), smoking intensity (number of
cigarette/day, continuous) and duration of smoking (years, continuous) were examined. Two-
sided p-values were used with a 5% nominal statistical significance. Analyses were
performed using Stata 14 [41].

Results
From a total of 400,577 participants (70% women) followed-up for 15 years (median) and a total of 5,544,627 person-years, 1,113 incident PC cases were diagnosed. Exclusion of subjects without information on their WHR led to 1,075 PC cases from a total of 355,472 participants as reported in Table 1. The overall PC ASR was equal to 6.0 per 100,000 person-years, with relatively large and low ASR estimates observed in Germany (9.4 per 100,000 PY) and France (2.1 per 100,000 person-years), respectively. The individual components of the HLI, together with other confounding variables, are described in Table 2. The HLI was inversely related to education, while the prevalence of diabetes at recruitment was stable across HLI categories. The hypothesis of PH assumption was not rejected with p-value equal to 0.24.

A 1-SD higher HLI was inversely associated with PC risk, with HR equal to 0.84 (95% CI: 0.79, 0.89, p_trend=4.3e-09) for HLI_{BMI} and 0.77 (0.72, 0.82, p_trend=1.7e-15) for HLI_{WHR}, as shown in Table 3. These patterns were confirmed for PC HR estimates for analyses in categories, consistently for HLI_{BMI} and HLI_{WHR}.

Results of sensitivity analyses are displayed in Figure 2. After exclusion of smoking status, the HR for a 1-SD increase of HLI_{BMI} was 0.94 (95% CI: 0.88, 1.01; p_trend=0.11), and after exclusions of, in turn, alcohol and BMI, HRs were 0.85 (0.80, 0.91; p_trend=6.3e-07) and 0.79 (0.74, 0.85; p_trend=7.6e-12), respectively. After exclusion of, in turn, smoking, alcohol, waist-to-hip ratio from the HLI_{WHR} score, HRs were equal to 0.88 (0.82, 0.94; p_trend=4.9e-04), 0.79 (0.74, 0.84; p_trend=7.0e-13) and 0.79 (0.74, 0.85; p_trend=3.2e-11), respectively.

PAF estimates for a shift of participants to the adjacent healthier category of HLI_{WHR} was equal to 19% (95% CI: 11%, 26%) (Table 4). Excluding, in turn, smoking, alcohol and WHR from the HLI_{WHR} showed PAF estimates of 14% (6%, 21%), 19% (10%, 25%), and 16% (9%, 22%), respectively. PAF were 8% (-3%, 18%) for non-smokers at baseline (never and former) and 20% (7%, 35%) for current smokers. PAF estimates were 29% (16%, 37%) in
men, and 13% (2%, 24%) in women. Counterfactual scenario whereby men adopted women’s lifestyle habits showed a PAF of 13% (9%, 26%).

The association between the HLI_WHR and PC risk were similar by sex, European region, and smoking status with $p_{\text{heterogeneity}}$ equal to 0.35, 0.15 and 0.62, respectively (Figure 3). Although the PH assumption was satisfied, PC HR estimates for HLI_WHR showed weaker associations at older ages (Figure 4). Exclusion of the first 2 and 5 years of follow-up did not materially alter HRs. After exclusion of smoking from the HLI and adjustment by smoking status, intensity and duration, HRs were unchanged (not shown).

Discussion

In this large European prospective study, healthy lifestyle habits expressed as a HLI score were strongly inversely related to the risk of PC. Adherence to healthy behaviors corresponding to a three-point increase in the score was associated with a 16% (95%CI: 11%, 21%) lower PC risk for a score that included BMI, and 23% (18%, 28%) lower PC risk for a score based on WHR. These results support the adoption of healthy lifestyles in PC prevention.

Scores reflecting dietary and lifestyle habits have become increasingly popular in cancer epidemiology research [21,42,43]. In EPIC, scores expressing adherence to either the Mediterranean diet or the WCRF/AICR recommendations have mainly focused on diet, physical activity and anthropometry, and had previously shown null associations with PC risk in both men and women [44,45]. Within the NIH-AARP study, a score based on the American Cancer Society recommendations including physical activity, diet, BMI, alcohol, but not smoking, was associated with a 20% (95%CI: 3%, 35%) lower PC risk in men, comparing the top vs. bottom category, while no association was observed in women [46].
Within the same cohort, an inverse association was observed between HLI and PC, when smoking was added to the score [9].

In the current study, a comprehensive evaluation of the association between HLI and PC risk was undertaken using sensitivity analyses. As smoking is an established strong risk factor of PC [47], it has been suggested that the association between lifestyle habits and PC might be primarily driven by smoking [45]. In our analysis, HLI was inversely associated with PC risk even after excluding smoking from the score, with a 12% risk reduction associated with a three-point (1-SD) increase in the HLI_{WHR} (95%CI: 6%, 18%; \textit{p}_{trend}=4.9e-04). Additionally, in never and former smokers, the PC HR for a three-point increase in the HLI was equal to 0.87 (0.79, 0.95; \textit{p}_{trend}=2.0e-03, data not shown), suggesting the advantage of adopting healthy habits for PC prevention, beyond the benefit of smoking avoidance.

Body fatness is also an established risk factor for PC [8,48]. A recent pooled analysis concluded that central adiposity during adulthood assessed through waist circumference, or waist-to-hip ratio may also predict PC risk independently from BMI [49]. In our study, HLI based on WHR showed a marginally stronger relationship with PC risk than HLI based on BMI. The subcutaneous truncal adipose tissue has been positively associated with the development of insulin resistance and diabetes [31,50,51], two recognized risk factors for PC [52], and may explain the role of central adiposity, rather than overall adiposity, in PC etiology. Moreover, smoking and alcohol consumption have been previously associated with increasing visceral fat deposition [53,54], which may suggest common pathways between smoking, alcohol consumption and central adiposity in pancreas carcinogenesis.

In our study, the association between HLI and PC was marginally stronger at younger ages compared to older ages. This pattern could be due to a depletion over time of participants susceptible to PC [55], a phenomenon resulting in an over representation of non-susceptible participants with adverse lifestyle profiles at older ages, thus leading to weaker relationships.
Alternatively, HR patterns could be ascribed to study participants’ changes towards healthier lifestyle habits related to ageing, or ultimately due to a true causal association indicating that PC benefits could be more substantial if favorable lifestyle habits were adopted at younger ages [56].

This study is to date the first evaluation of the association between a combination of healthy lifestyle factors and PC incidence in European populations, thus corroborating previous evidence from a US study [9]. The strengths of the present study rely on its prospective multi-country design reflecting heterogeneous lifestyle habits. Its large sample size and long follow-up time allowed ascertainment of over a thousand incident PC cases, increasing the statistical power in comparison with the previous EPIC evaluation [44]. Furthermore, associations were unchanged after exclusion of the first years of follow-up. However, this study also has limitations. First, measurement errors likely affected dietary and lifestyle assessments, possibly introducing bias in estimated associations. Furthermore, as EPIC participants represent a healthy proportion of the general population, risk estimates in our study were likely attenuated. In addition, the evidence for a role of life course socio-economic status on cancer-related risk factors was suggested [57], and the use of education in our study as a proxy for socio-economic status might have introduced residual confounding. Last, our study did not consider potential changes in dietary and lifestyle exposures after recruitment, which could be relevant to estimate the association between lifestyle factors and PC risk, as well as to explain HR patterns over age.

Assuming that HLI was causally related to PC risk, and that combinations of different lifestyle factors leading to the same value of the HLI had the same effect on PC risk, PAF estimates indicated that 14% (95%CI: 6%, 21%) of PC could have been avoided by controlling central adiposity, alcohol consumption, diet and physical activity, and up to 19% (11%, 26%) if smoking control was also implemented, indicating the benefit of adopting
healthy lifestyle beyond smoking control. In the AARP study, the PAF was 27% assuming that participants adopted the healthiest lifestyle pattern [9], while in a recent Australian PC study considering only smoking and BMI, the PAF was 30% [58].

Conclusion

In conclusion, our findings provide evidence that adherence to a combination of healthy lifestyle habits was strongly inversely associated with PC risk in European adults. Inverse associations were observed even after dismissing, in turn, smoking, alcohol drinking, and adiposity. Adherence to healthy lifestyle habits, especially from younger ages, could be an effective primary prevention strategy to control the incidence of PC, a fatal cancer with no screening tools currently available for early detection.
Financial disclosure

This work was supported by the Direction Générale de la Santé (French Ministry of Health) (Grant GR-IARC-2003-09-12-01), by the European Commission (Directorate General for Health and Consumer Affairs) and the International Agency for Research on Cancer. The national cohorts are supported by the Danish Cancer Society (Denmark); the Ligue Contre le Cancer, the Institut Gustave Roussy, the Mutuelle Générale de l’Education Nationale and the Institut National de la Santé et de la Recherche Médicale (France); the Deutsche Krebshilfe, the Deutsches Krebsforschungszentrum, and the Federal Ministry of Education and Research (Germany); the Hellenic Health Foundation, the Stavros Niarchos Foundation and the Hellenic Ministry of Health and Social Solidarity (Greece); the Italian Association for Research on Cancer and the National Research Council (Italy); the Dutch Ministry of Public Health, Welfare and Sports, the Netherlands Cancer Registry, LK Research Funds, Dutch Prevention Funds, the Dutch Zorg Onderzoek Nederland, the World Cancer Research Fund and Statistics Netherlands (the Netherlands); the Health Research Fund, Regional Governments of Andalucía, Asturias, Basque Country, Murcia (project 6236) and Navarra, Instituto de Salud Carlos III, Redes de Investigacion Cooperativa (RD06/0020) (Spain); the Swedish Cancer Society, the Swedish Scientific Council and the Regional Government of Skåne (Sweden); Cancer Research UK (14136 to EPIC-Norfolk; C570/A16491 and C8221/A19170 to EPIC-Oxford), Medical Research Council (1000143 to EPIC-Norfolk, MR/M012190/1 to EPIC-Oxford) (United Kingdom), the Stroke Association, the British Heart Foundation, the Department of Health, the Food Standards Agency, and the Wellcome Trust (UK). This work was part of Sabine Naudin’s PhD at Claude Bernard Lyon I University (France), funded by Région Auvergne Rhône-Alpes, ADR 2016 (France).
Conflict of interest

None to declare.

Acknowledgments

We thank Carine Biessy and Bertrand Hemon for their technical support and contribution to this work, as well as all the participants of the EPIC cohort.

Copyright statements

Where authors are identified as personnel of the International Agency for Research on Cancer / World Health Organization, the authors alone are responsible for the views expressed in this article and they do not necessarily represent the decisions, policy or views of the International Agency for Research on Cancer / World Health Organization.

Data sharing statement

Information to submit an application to have access to EPIC data and/or biospecimens can be found at http://epic.iarc.fr/access/index.ph.
References

1. Rahib L, Smith BD, Aizenberg R, Rosenzweig AB, Fleshman JM, Matrisian LM. Projecting cancer incidence and deaths to 2030: the unexpected burden of thyroid, liver, and pancreas cancers in the United States. Cancer Res. 2014;74:2913–21.

2. Malvezzi M, Bertuccio P, Levi F, La Vecchia C, Negri E. European cancer mortality predictions for the year 2014. Ann Oncol Off J Eur Soc Med Oncol ESMO. 2014;25:1650–6.

3. Ferlay J, Partensky C, Bray F. More deaths from pancreatic cancer than breast cancer in the EU by 2017. Acta Oncol Stockh Swed. 2016;55:1158–60.

4. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA Cancer J Clin. 2018;68:394–424.

5. Lindquist CM, Miller FH, Hammond NA, Nikolaidis P. Pancreatic cancer screening. Abdom Radiol N Y. 2018;43:264–72.

6. IARC Working Group on the Evaluation of Carcinogenic Risks to Humans. Personal habits and indoor combustions. Volume 100 E. A review of human carcinogens. IARC Monogr Eval Carcinog Risks Hum World Health Organ Int Agency Res Cancer. 2012;100:1–538.

7. Maisonneuve P, Lowenfels AB. Risk factors for pancreatic cancer: a summary review of meta-analytical studies. Int J Epidemiol. 2015;44:186–98.

8. World Cancer Research Fund/American Institute for Cancer Research. Continuous Update Project Expert Report 2018. Diet, nutrition, physical activity and pancreatic cancer. www.dietandcancerreport.org; 2018.
9. Jiao L, Mitrou PN, Reedy J, Graubard BI, Hollenbeck AR, Schatzkin A, et al. A combined healthy lifestyle score and risk of pancreatic cancer in a large cohort study. Arch Intern Med. 2009;169:764–70.

10. Lucas AL, Bravi F, Boffetta P, Polesel J, Serafini D, La Vecchia C, et al. Adherence to World Cancer Research Fund/American Institute for Cancer Research recommendations and pancreatic cancer risk. Cancer Epidemiol. 2016;40:15–21.

11. Schuit AJ, van Loon AJM, Tijhuis M, Ocké M. Clustering of lifestyle risk factors in a general adult population. Prev Med. 2002;35:219–24.

12. Stampfer MJ, Hu FB, Manson JE, Rimm EB, Willett WC. Primary Prevention of Coronary Heart Disease in Women through Diet and Lifestyle. N Engl J Med. 2000;343:16–22.

13. Kurth T, Moore SC, Gaziano JM, Kase CS, Stampfer MJ, Berger K, et al. Healthy Lifestyle and the Risk of Stroke in Women. Arch Intern Med. 2006;166:1403–9.

14. Catsburg C, Miller AB, Rohan TE. Adherence to cancer prevention guidelines and risk of breast cancer. Int J Cancer. 2014;135:2444–52.

15. Arthur R, Kirsh VA, Kreiger N, Rohan T. A healthy lifestyle index and its association with risk of breast, endometrial, and ovarian cancer among Canadian women. Cancer Causes Control. 2018;29:485–93.

16. Inoue-Choi M, Robien K, Lazovich D. Adherence to the WCRF/AICR guidelines for cancer prevention is associated with lower mortality among older female cancer survivors. Cancer Epidemiol Biomark Prev Publ Am Assoc Cancer Res Cosponsored Am Soc Prev Oncol. 2013;22:792–802.
17. McCullough ML, Patel AV, Kushi LH, Patel R, Willett WC, Doyle C, et al. Following cancer prevention guidelines reduces risk of cancer, cardiovascular disease, and all-cause mortality. Cancer Epidemiol Biomark Prev Publ Am Assoc Cancer Res Cosponsored Am Soc Prev Oncol. 2011;20:1089–97.

18. Aleksandrova K, Pischon T, Jenab M, Bueno-de-Mesquita HB, Fedirko V, Norat T, et al. Combined impact of healthy lifestyle factors on colorectal cancer: a large European cohort study. BMC Med. 2014;12:168.

19. McKenzie F, Ferrari P, Freisling H, Chajès V, Rinaldi S, de Batle J, et al. Healthy lifestyle and risk of breast cancer among postmenopausal women in the European Prospective Investigation into Cancer and Nutrition cohort study. Int J Cancer. 2015;136:2640–8.

20. Buckland G, Travier N, Huerta J m., Bueno-de-Mesquita HB, Siersema P d., Skeie G, et al. Healthy lifestyle index and risk of gastric adenocarcinoma in the EPIC cohort study. Int J Cancer. 2015;137:598–606.

21. McKenzie F, Biessy C, Ferrari P, Freisling H, Rinaldi S, Chajès V, et al. Healthy Lifestyle and Risk of Cancer in the European Prospective Investigation Into Cancer and Nutrition Cohort Study. Medicine (Baltimore). 2016;95:e2850.

22. Riboli E, Hunt KJ, Slimani N, Ferrari P, Norat T, Fahey M, et al. European Prospective Investigation into Cancer and Nutrition (EPIC): study populations and data collection. Public Health Nutr. 2002;5:1113–24.

23. Ekelund U, Ward HA, Norat T, Luan J, May AM, Weiderpass E, et al. Physical activity and all-cause mortality across levels of overall and abdominal adiposity in European men and women: the European Prospective Investigation into Cancer and Nutrition Study (EPIC)123456. Am J Clin Nutr. 2015;101:613–21.
24. Kaaks R, Slimani N, Riboli E. Pilot phase studies on the accuracy of dietary intake measurements in the EPIC project: overall evaluation of results. European Prospective Investigation into Cancer and Nutrition. Int J Epidemiol. 1997;26 Suppl 1:S26-36.

25. Spencer EA, Appleby PN, Davey GK, Key TJ. Validity of self-reported height and weight in 4808 EPIC-Oxford participants. Public Health Nutr. 2002;5:561–5.

26. Spencer EA, Roddam AW, Key TJ. Accuracy of self-reported waist and hip measurements in 4492 EPIC-Oxford participants. Public Health Nutr. 2004;7:723–7.

27. Chajès V, Biessy C, Byrnes G, Deharveng G, Saadatian-Elahi M, Jenab M, et al. Ecological-level associations between highly processed food intakes and plasma phospholipid elaidic acid concentrations: results from a cross-sectional study within the European prospective investigation into cancer and nutrition (EPIC). Nutr Cancer. 2011;63:1235–50.

28. Saadatian-Elahi M, Slimani N, Chajès V, Jenab M, Goudable J, Biessy C, et al. Plasma phospholipid fatty acid profiles and their association with food intakes: results from a cross-sectional study within the European Prospective Investigation into Cancer and Nutrition. Am J Clin Nutr. 2009;89:331–46.

29. Willett WC, Howe GR, Kushi LH. Adjustment for total energy intake in epidemiologic studies. Am J Clin Nutr. 1997;65:1220S-1228S; discussion 1229S-1231S.

30. Berrington de González A, Spencer EA, Bueno-de-Mesquita HB, Roddam A, Stolzenberg-Solomon R, Halkjaer J, et al. Anthropometry, physical activity, and the risk of pancreatic cancer in the European prospective investigation into cancer and nutrition. Cancer Epidemiol Biomark Prev Publ Am Assoc Cancer Res Cosponsored Am Soc Prev Oncol. 2006;15:879–85.
31. Janssen I, Heymsfield SB, Allison DB, Kotler DP, Ross R. Body mass index and waist circumference independently contribute to the prediction of nonabdominal, abdominal subcutaneous, and visceral fat. Am J Clin Nutr. 2002;75:683–8.

32. Ferrari P, Day NE, Boshuizen HC, Roddam A, Hoffmann K, Thiébaut A, et al. The evaluation of the diet/disease relation in the EPIC study: considerations for the calibration and the disease models. Int J Epidemiol. 2008;37:368–78.

33. Thiébaut ACM, Bénichou J. Choice of time-scale in Cox’s model analysis of epidemiologic cohort data: a simulation study. Stat Med. 2004;23:3803–20.

34. Ferrari P, Jenab M, Norat T, Moskal A, Slimani N, Olsen A, et al. Lifetime and baseline alcohol intake and risk of colon and rectal cancers in the European prospective investigation into cancer and nutrition (EPIC). Int J Cancer. 2007;121:2065–72.

35. Ferrari P, Licaj I, Muller DC, Kragh Andersen P, Johansson M, Boeing H, et al. Lifetime alcohol use and overall and cause-specific mortality in the European Prospective Investigation into Cancer and nutrition (EPIC) study. BMJ Open. 2014;4:e005245.

36. Naudin S, Li K, Jaouen T, Assi N, Kyrø C, Tjønneland A, et al. Lifetime and baseline alcohol intakes and risk of pancreatic cancer in the European Prospective Investigation into Cancer and Nutrition study. Int J Cancer. 2018;143:801–12.

37. Schoenfeld D. Partial Residuals for The Proportional Hazards Regression Model. Biometrika. 1982;69:239–41.

38. Barendregt JJ, Veerman JL. Categorical versus continuous risk factors and the calculation of potential impact fractions. J Epidemiol Community Health. 2010;64:209–12.
39. Efron B, Tibshirani R. Bootstrap Methods for Standard Errors, Confidence Intervals, and Other Measures of Statistical Accuracy. Stat Sci. 1986;1:54–75.

40. Lambert PC, Royston P. Further Development of Flexible Parametric Models for Survival Analysis. Stata J. 2009;Volume 9 Number 2:.21.

41. StataCorp. 2015. Stata Statistical Software: Release 14. College Station, TX: StataCorp LP.

42. Krebs-Smith SM, Pannucci TE, Subar AF, Kirkpatrick SI, Lerman JL, Tooze JA, et al. Update of the Healthy Eating Index: HEI-2015. J Acad Nutr Diet. 2018;118:1591–602.

43. Reedy J, Wirfält E, Flood A, Mitrou PN, Krebs-Smith SM, Kipnis V, et al. Comparing 3 Dietary Pattern Methods—Cluster Analysis, Factor Analysis, and Index Analysis—With Colorectal Cancer RiskThe NIH–AARP Diet and Health Study. Am J Epidemiol. 2010;171:479–87.

44. Romaguera D, Vergnaud A-C, Peeters PH, van Gils CH, Chan DSM, Ferrari P, et al. Is concordance with World Cancer Research Fund/American Institute for Cancer Research guidelines for cancer prevention related to subsequent risk of cancer? Results from the EPIC study. Am J Clin Nutr. 2012;96:150–63.

45. Molina-Montes E, Sánchez M-J, Buckland G, Bueno-de-Mesquita HB, Weiderpass E, Amiano P, et al. Mediterranean diet and risk of pancreatic cancer in the European Prospective Investigation into Cancer and Nutrition cohort. Br J Cancer. 2017;116:811–20.

46. Kabat GC, Matthews CE, Kamensky V, Hollenbeck AR, Rohan TE. Adherence to cancer prevention guidelines and cancer incidence, cancer mortality, and total mortality: a prospective cohort study. Am J Clin Nutr. 2015;101:558–69.
47. Lynch SM, Vrieling A, Lubin JH, Kraft P, Mendelsohn JB, Hartge P, et al. Cigarette Smoking and Pancreatic Cancer: A Pooled Analysis From the Pancreatic Cancer Cohort Consortium. Am J Epidemiol. 2009;170:403–13.

48. Rawla P, Thandra KC, Sunkara T. Pancreatic cancer and obesity: epidemiology, mechanism, and preventive strategies. Clin J Gastroenterol. 2019;12:285–91.

49. Genkinger JM, Kitahara CM, Bernstein L, Berrington de Gonzalez A, Brotzman M, Elena JW, et al. Central adiposity, obesity during early adulthood, and pancreatic cancer mortality in a pooled analysis of cohort studies. Ann Oncol. 2015;26:2257–66.

50. Patel P, Abate N. Body Fat Distribution and Insulin Resistance. Nutrients. 2013;5:2019–27.

51. Taylor R. Insulin Resistance and Type 2 Diabetes. Diabetes. 2012;61:778–9.

52. Song S, Wang B, Zhang X, Hao L, Hu X, Li Z, et al. Long-Term Diabetes Mellitus Is Associated with an Increased Risk of Pancreatic Cancer: A Meta-Analysis. PloS One. 2015;10:e0134321.

53. Chiolero A, Faeh D, Paccaud F, Cornuz J. Consequences of smoking for body weight, body fat distribution, and insulin resistance. Am J Clin Nutr. 2008;87:801–9.

54. Molenaar EA, Massaro JM, Jacques PF, Pou KM, Ellison RC, Hoffmann U, et al. Association of lifestyle factors with abdominal subcutaneous and visceral adiposity: the Framingham Heart Study. Association of Lifestyle Factors With Abdominal Subcutaneous and Visceral Adiposity: The Framingham Heart Study. Diabetes Care Diabetes Care. 2009;32, 32:505, 505–10.

55. Hernán MA. The Hazards of Hazard Ratios. Epidemiol Camb Mass. 2010;21:13–5.
56. White MC, Holman DM, Boehm JE, Peipins LA, Grossman M, Henley SJ. Age and Cancer Risk. Am J Prev Med. 2014;46:S7-15.

57. Akinyemiju T, Ogunsina K, Okwali M, Sahuja S, Braithwaite D. Lifecourse Socioeconomic Status and Cancer-Related Risk Factors: Analysis of the WHO study on Global Ageing and Adult Health (SAGE). Int J Cancer. 2017;140:777–87.

58. Wilson LF, Antonsson A, Green AC, Jordan SJ, Kendall BJ, Nagle CM, et al. How many cancer cases and deaths are potentially preventable? Estimates for Australia in 2013. Int J Cancer. 2018;142:691–701.
Figures Captions

Fig 1 Scoring system implemented to combine the 5 lifestyle factors into the Healthy Lifestyle Index based on the waist-to-hip ratio (HLI\textsubscript{WHR})

\(^{1}\) For the HLI\textsubscript{BMI}, sex-specific waist-to-hip ratio quintiles was replaced by categories of BMI at baseline using cut-offs as (4) 22–23.9 kg.m\(^{-2}\), (3) 24–25.9 kg.m\(^{-2}\), (2) <22 kg.m\(^{-2}\), (1) 26–29.9 kg.m\(^{-2}\), and (0) >30 kg.m\(^{-2}\).
Fig 2 Hazard ratio estimates for the associations between a 1-SD increment of HLI\textsuperscript{1} and PC risk after recalculation of the HLI\textsubscript{BMI} and the HLI\textsubscript{WHR} excluding, in turn, each lifestyle factor

\textsuperscript{1} One Standard deviation corresponded to about 3 units of either HLI\textsubscript{BMI} or HLI\textsubscript{WHR};

\textsuperscript{2} Models evaluating associations between the HLI\textsubscript{BMI} and PC risk were adjusted for education level, diabetes status, non-alcohol energy intakes, height, and the index components currently excluded from the calculation of the HLI, and stratified by study center, age and sex;

\textsuperscript{3} Models evaluating associations between the HLI\textsubscript{WHR} and PC risk were adjusted for education level, diabetes status, non-alcohol energy intakes, height, BMI and the index components currently excluded from the calculation of the HLI, and stratified by study center, age and sex.
Fig 3 Heterogeneity in the relationship between HLI\textsubscript{WHR} and PC by sex, European region, and smoking status, expressed for a 1-SD increase of HLI\textsubscript{WHR}\textsuperscript{1}

\textsuperscript{1} One Standard deviation corresponded to about 3 units of either HLI\textsubscript{BMI} or HLI\textsubscript{WHR};

\textsuperscript{2} Northern Europe included Denmark and Sweden, Central Europe included United Kingdom, The Netherlands and Germany, and Southern Europe included France, Greece, Italy and Spain;

\textsuperscript{3} Models were computed using the HLI\textsubscript{WHR} excluding smoking;

\textsuperscript{4} Models included interaction terms between HLI\textsubscript{WHR} and, in turn, sex, European region, and smoking status at recruitment. Differences in HRs were assessed comparing the log-likelihood of models with and without interaction terms to a $\chi^2$ distribution with degrees of freedom equal to the number of categories minus one.
**Fig 4** Hazard ratio function (and 95% CI)\(^1\) for the association between HLI\(_{WHR}\) and PC risk over years of age, for 1-SD increase of HLI\(_{WHR}\)

\(^1\) Obtained from a flexible parametric survival model using restricted cubic splines with 5 internal knots and a time-varying coefficient on HLI\(_{WHR}\). Model was adjusted for educational level, BMI, height, non-alcohol energy intake, diabetes status, sex, country, age at recruitment.
| Modifiable lifestyle factors ($z_i$) | Levels of exposure | Level Score |
|-------------------------------------|---------------------|-------------|
| **Smoking status**                  |                     |             |
| Never                              |                     | 4           |
| Ex-smokers > 10 years              |                     | 3           |
| Ex-smokers ≤ 10 years              |                     | 2           |
| Current ≤ 15 cig/day               |                     | 1           |
| Current > 15 cig/day               |                     | 0           |
| **Alcohol intake** (in g/day)      | < 6                 | 4           |
|                                   | 6 - 11.9            | 3           |
|                                   | 12 - 23.9           | 2           |
|                                   | 24 - 59.9           | 1           |
|                                   | ≥ 60                | 0           |
| **Waist-to-Hip ratio$^1$**          | 1$^{st}$ quintile (M: <89 ; W: <73) | 4 |
|                                   | 2$^{nd}$ quintile (M: 0.90-0.92 ; W: 0.74-0.77) | 3 |
|                                   | 3$^{rd}$ quintile (M: 0.93-0.95 ; W: 0.78-0.80) | 2 |
|                                   | 4$^{th}$ quintile (M: 0.96-0.99 ; W: 0.81-0.85) | 1 |
|                                   | 5$^{th}$ quintile (M: >1.00 ; W : >0.86) | 0 |
| **Diet score**                     | 5$^{th}$ quintile (34-54) | 4 |
| Cereal fiber, red and processed meat, ratio of polyunsaturated to saturated fat, margarine, glycemic load, and fruits and vegetables | 4$^{th}$ quintile (30-33) | 3 |
|                                   | 3$^{rd}$ quintile (26-29) | 2 |
|                                   | 2$^{nd}$ quintile (22-25) | 1 |
|                                   | 1$^{st}$ quintile (0-21) | 0 |
| **Physical activity** (in MET-hours/week) | 5$^{th}$ quintile (M: >96 ; W : >134) | 4 |
|                                   | 4$^{th}$ quintile (M: 67-96 ; W: 96-134) | 3 |
|                                   | 3$^{rd}$ quintile (M: 47-67 ; W: 69-96) | 2 |
|                                   | 2$^{nd}$ quintile (M: 30-47 ; W: 45-96) | 1 |
|                                   | 1$^{st}$ quintile (M: <30 ; W: <45) | 0 |

Healthy Lifestyle Index (HLI) = \( \sum_{i=1}^{5} z_i \)
Figure 2

**HLI\_BMI (n=1,113)^2**

- HLI: 0.84 (0.79, 0.89) \( p_{trend} = 4.3e-09 \)
- HLI without Smoking: 0.94 (0.88, 1.01) \( p_{trend} = 0.11 \)
- HLI without Alcohol: 0.85 (0.80, 0.91) \( p_{trend} = 6.3e-07 \)
- HLI without BMI: 0.79 (0.74, 0.85) \( p_{trend} = 7.6e-12 \)
- HLI without Diet: 0.82 (0.76, 0.88) \( p_{trend} = 1.6e-08 \)
- HLI without Physical activity: 0.80 (0.75, 0.86) \( p_{trend} = 5.5e-10 \)

**HLI\_WHR (n=1,075)^3**

- HLI: 0.77 (0.72, 0.82) \( p_{trend} = 1.7e-15 \)
- HLI without Smoking: 0.88 (0.82, 0.94) \( p_{trend} = 4.9e-04 \)
- HLI without Alcohol: 0.79 (0.74, 0.84) \( p_{trend} = 7.0e-13 \)
- HLI without WHR: 0.79 (0.74, 0.85) \( p_{trend} = 3.2e-11 \)
- HLI without Diet: 0.76 (0.71, 0.81) \( p_{trend} = 2.3e-15 \)
- HLI without Physical activity: 0.74 (0.69, 0.79) \( p_{trend} = 5.3e-18 \)
Sex

Women 583
Men 492

European region

Northern Europe 442
Central Europe 368
Southen Europe 265

Smoking status

Never 395
Former 303
Current 377

Cases

HR (95% CI)  \( p_{\text{trend}} \)  \( p_{\text{heterogeneity}} \)

Women 0.79 (0.73, 0.86) 1.1e-07 0.35
Men 0.75 (0.69, 0.82) 8.5e-11

Northern Europe 0.74 (0.67, 0.81) 5.8e-11 0.15
Central Europe 0.85 (0.76, 0.94) 2.1e-03
Southen Europe 0.77 (0.68, 0.86) 9.4e-06

Never 0.90 (0.80, 1.02) 0.10 0.62
Former 0.83 (0.73, 0.95) 5.0e-03
Current 0.86 (0.77, 0.97) 0.01

Figure 3

Click here to access/download;Figure;Fig3.pdf
Figure 4

Click here to access/download;Figure;Fig4.pdf
**Table 1** Country-specific distribution of study participants, PC cases and HLI\textsubscript{WHR} score in the EPIC cohort

| Country   | Participants | PC cases | FUP\textsuperscript{1} (years) | PY        | ASR\textsuperscript{2} | Age at baseline\textsuperscript{1} (years) | HLI\textsubscript{WHR}\textsuperscript{1} |
|-----------|--------------|----------|--------------------------------|-----------|----------------|-------------------------------------------|------------------------------------------|
| Denmark   | 53,570       | 314      | 16 (5-18)                      | 794,475   | 8.5            | 57                                        | 10 (4-15)                                |
| France    | 18,973       | 16       | 15 (6-15)                      | 252,504   | 2.1            | 53                                        | 11 (6-16)                                |
| Germany   | 48,001       | 115      | 12 (4-14)                      | 498,390   | 9.4            | 51                                        | 12 (6-17)                                |
| Greece    | 24,686       | 41       | 11 (3-16)                      | 266,330   | 3.8            | 53                                        | 12 (6-17)                                |
| Italy     | 44,263       | 103      | 15 (7-17)                      | 626,927   | 6.0            | 51                                        | 12 (6-17)                                |
| Spain     | 39,852       | 105      | 17 (9-19)                      | 635,724   | 5.8            | 49                                        | 13 (6-17)                                |
| Sweden    | 24,038       | 128      | 18 (4-22)                      | 394,001   | 7.4            | 58                                        | 11 (6-16)                                |
| NL        | 30,550       | 81       | 15 (6-17)                      | 429,979   | 5.8            | 50                                        | 13 (7-17)                                |
| UK        | 71,539       | 172      | 16 (5-18)                      | 1,069,797 | 5.2            | 49                                        | 13 (8-18)                                |
| All participants | 355,472   | 1,075    | 15 (5-18)                      | 4,968,127 | 6.0            | 52                                        | 12 (7-17)                                |

Abbreviations: ASR, age-standardized incidence rate; FUP, follow-up; HLI, healthy lifestyle index; NL: The Netherlands; PC, pancreatic cancer; PY, person-years; UK: United Kingdoms;

\textsuperscript{1} Median values (5\textsuperscript{th} and 95\textsuperscript{th} percentiles);

\textsuperscript{2} Country-specific age-standardized incidence rates (per 100,000) were computed using 5-year categories in the age band 50 to 70 years and the standard European population.
|                                | All            | HLI<sub>WHR</sub> categories |
|--------------------------------|----------------|-----------------------------|
| Number of participants (n)     | 355,472        | 6,594                       |
| Number of PC cases             | 1,075          | 45                          |
| Person-Years                   | 4,968,127      | 86,277                      |
| Smoking (% never)              | 45             | 0                           |
| Alcohol (g/day)                | 7 (0-48)       | 36 (7-84)                   |
| BMI (kg/m²)                    | 25 (20-33)     | 27 (21-35)                  |
| Waist-to-hip ratio             | 0.83 (0.72, 1.01) | 0.98 (0.81-1.08)       |
| Diet score (units)             | 27 (19-39)     | 21 (13-29)                  |
| Physical activity (MET-hours/week) | 74 (19-154)   | 29 (5-73)                   |
| Age at recruitment (years)     | 52 (39-64)     | 54 (41-64)                  |
| Height (cm)                    | 165 (152-182)  | 171 (157-184)               |
| Weight (kg)                    | 68 (51-95)     | 80 (58-106)                 |
| Diabetes (%)                   | 3              | 3                           |
| Education (% below secondary)  | 31             | 45                          |
| Energy from non-alcohol drinking (kcal/day) | 1,959 (1,337-2,814) | 2,304 (1,430-3,675)       |

1 Medians (5<sup>th</sup> - 95<sup>th</sup> percentiles) are presented for continuous variables, percentages for categorical variables.
Table 3 Hazard Ratio estimates for associations between the combined HLI\textsubscript{BMI} and HLI\textsubscript{WHR} and PC risk in the EPIC study

| HLI\textsubscript{BMI} | HLI\textsubscript{WHR} |
|------------------------|------------------------|
| **Cases** | **PY** | **HR** | **(95\% CI)** | **p-value** | **Cases** | **PY** | **HR** | **(95\% CI)** | **p-value** |
| [0 - 4] | 33 | 78,738 | 1.49 | (1.03 - 2.13) | | 45 | 86,277 | 1.45 | (1.06 - 1.99) | |
| [5 - 9] | 338 | 1,271,983 | 1.00 | Ref. | | 355 | 1,085,850 | 1.00 | Ref. | |
| [10 - 14] | 570 | 3,061,318 | 0.75 | (0.65 - 0.87) | | 515 | 2,647,497 | 0.65 | (0.57 - 0.75) | |
| [15 - 20] | 172 | 1,132,588 | 0.64 | (0.52 - 0.78) | 3.0e-07 | 160 | 1,148,503 | 0.55 | (0.45 - 0.68) | 6.2e-13 |
| 1-SD increase\textsuperscript{1} | | | | | | | | | |
| 1,113 | 5,544,627 | 0.84 | (0.79 - 0.89) | 4.3e-09 | | 1,075 | 4,968,127 | 0.77 | (0.72 - 0.82) | 1.7e-15 |

\textsuperscript{1} One standard deviation corresponded to about 3 units of either HLI\textsubscript{BMI} or HLI\textsubscript{WHR};

\textsuperscript{2} Models were adjusted for education level, diabetes status, and non-alcohol energy intakes, height, and stratified by study center, age in 1-year category, and sex;

\textsuperscript{3} Models were adjusted for education level, diabetes status, non-alcohol energy intakes, height, BMI and stratified by study center, age in 1-year category, and sex;

\textsuperscript{4} For categorical variables, p-values were determined using a Wald test for overall significance, according to a χ\textsuperscript{2} distribution with degrees of freedom equal to the number of categories minus one.
Table 4 Population attributable fractions (PAF) of PC assuming counterfactual scenarios with the HLI/WHR in the EPIC study

| Shift to the adjacent healthier category of HLI/WHR | PAF (%) | (95% CI)     |
|--------------------------------------------------|---------|--------------|
| All participants                                 | 19%     | (11%, 26%)   |
| without Smoking                                  | 14%     | (6%, 21%)    |
| without Alcohol                                  | 19%     | (10%, 25%)   |
| without WHR                                      | 16%     | (9%, 22%)    |
| without Diet                                     | 21%     | (15%, 26%)   |
| without Physical activity                        | 17%     | (9%, 23%)    |
| Non-smokers                                      | 8%      | (-3%, 18%)   |
| Smokers                                          | 20%     | (7%, 35%)    |
| Men                                              | 29%     | (16%, 37%)   |
| Women                                            | 13%     | (2%, 24%)    |

Shift of lifestyle habits

| Men to Women                                     | 13%     | (9%, 16%)    |

1 Confidence intervals were obtained using a bootstrap sampling procedure using 1,000 iterations;

2 The counterfactual proportions of men across HLI/WHR categories were equal to the observed proportions of women in each HLI/WHR categories.
Dear Professor Hofman,

We thank you and the Reviewer for the valuable feedback to our manuscript “Healthy lifestyle and the risk of pancreatic cancer in the EPIC study” (EJEP-D-19-00303).

We carefully revised the manuscript according to the Reviewer’s comments, which contributed to further improve the text. You will find it enclosed, together with our point-by-point response letter.

In addition, the notation used to estimate population attributable fractions was further clarified in the methods (page 9, line 228-234), in the discussion (page 14, lines 354-356), and in Supplementary Table 1. All changes were highlighted in the text. Copyright statements were also added.

Thank you in advance for considering this revised version of the manuscript. We were glad to hear that the manuscript was accepted for publication by EJEP, and we look forward to hearing from you about the next steps of the publication process.

Yours sincerely,

Pietro Ferrari
Head, Nutritional Methodology and Biostatistics Group
ferrarip@iarc.fr
Responses to the Reviewer’s comments to the manuscript EJEP-D-19-00303

1) The authors have identified an interesting research question. "Healthy lifestyle and the risk of pancreatic cancer in the EPIC study" is an interesting topic. The main strengths of this study are that:
   1) It uses a large study sample and addresses a clear and focused research question.
   2) The overall study design is robust except for some minor aspects of details listed below
   3) The exploration of the data using an extensive range of analysis is right.
   4) The methods used are appropriate, and the presentation of the data is well performed.

Some concerns which will need to be addressed are:
The title is appropriate.

Authors: We thank the Reviewer for highlighting the strengths of our manuscript.

2) Line 111-112: Please change sentence from "Public health measures targeting compliance to healthy lifestyles may have an impact on PC incidence." To "Public health measures targeting compliance with healthy lifestyles may have an impact on PC incidence."

Authors: We updated the text according to the Reviewer’s suggestion.

3) In the first paragraph please include the incidence and mortality rates for pancreatic cancer.

Authors: The text was updated accordingly (page 5, lines 116-117) as: “Commonly diagnosed at late stages, PC is a highly fatal cancer with similar incidence and mortality rates [4].”

4) Line 123: please rewrite the sentence "United States and Western European countries, than in middle- and low-income countries" to "United States and Western European countries than in the middle and low-income countries”.

Authors: After double-checking, the original version of the sentence was kept.

5) In Exposure assessment: authors mention that "Habitual diet, including alcohol intake, over the year preceding recruitment was assessed at baseline by validated center-specific dietary questionnaires". Please explain how did the researchers exclude the memory bias of the participants? If not please add it to the limitations of the study.
**Authors:** Following the Reviewer’s suggestion, measurement error due to memory bias was mentioned in the discussion (page 14, lines 346-348), which now reads: “First, measurement errors likely affected dietary and lifestyle assessments, possibly introducing bias in estimated associations.”

6) Line 238: please change sentence "regions (North: Denmark, Sweden; Central: United Kingdom, The Netherlands, Germany" to "regions (North: Denmark, Sweden; Central: the United Kingdom, The Netherlands, Germany"

**Authors:** The text was updated accordingly.

7) Line 249: Reverse causation remains a concern despite excluding the first 2 and 5 years of follow-up. Could this issue be further mitigated by removal of participants that developed clinical disease over the first 10 years.

**Authors:** In agreement with the Reviewer’s request, further analyses were performed. Estimates were unchanged after removing the first 10 years of follow-up.

8) The statistical analyses are complete and well conducted

**Authors:** We thank the Reviewer for this comment.

9) Line 317 after the line "Body fatness is also an established risk factor for PC [8]." Please also include the latest article https://www.ncbi.nlm.nih.gov/pubmed/30788774

**Authors:** The reference suggested by the Reviewer was added to the list of references.

10) Authors need to discuss in detail about the limitations of the study.

**Authors:** In line with the Reviewer’s request, further emphasis was given to the limitations of our study, other than mentioning measurement errors as a source of exposure misclassification. The text (page 14, lines 343-351) now reads: “However, this study also has limitations. First, measurement errors likely affected dietary and lifestyle assessments, possibly introducing bias in estimated associations. Furthermore, as EPIC participants represent a healthy proportion of the general population, risk estimates in our study were likely attenuated. In addition, the evidence for a role of life course socio-economic status on cancer-related risk factors was suggested [56], and the use of education in our study as a proxy for socio-economic status might have introduced residual confounding. Last, our study did not consider potential changes of dietary and lifestyle exposures after recruitment, which
could be relevant to estimate accurately the association between lifestyle factors and PC risk, as well as to explain HR patterns over age.”

11) Last paragraph can be made into a separate conclusion section. Authors: The text was updated accordingly.

12) Tables are appropriate. Overall a well conducted study. Authors: Thank you.
Dear Dr. Hofman,

Enclosed please find a manuscript entitled "Healthy Lifestyle and the risk of pancreatic cancer in the EPIC study", which we would like to submit for publication to the European Journal of Epidemiology. Our study provided a comprehensive evaluation of the impact of modifiable lifestyle factors on the risk of pancreatic cancer (PC), a highly fatal disease with limited opportunities for early detection and effective treatment.

Within the European Prospective Investigation on Cancer and Nutrition (EPIC) study, the risk of PC was evaluated with respect to the Healthy Lifestyle Index (HLI), a score combining information on smoking history, alcohol intake, a dietary score, obesity and physical activity. Based on 1,113 incident cases, a strong inverse association between HLI and PC risk was observed, with a 16% lower PC risk (95% CI: 11%, 21%) for one standard deviation increase in the HLI score, expressing adherence to healthier lifestyle habits. Sensitivity analyses showed consistent inverse associations in scores where smoking, alcohol and obesity were, in turn, excluded. Using flexible parametric modelling to appreciate trends over participants’ age, the inverse association between HLI and PC risk was marginally stronger among adults younger than 55 years than at older ages.

Population attributable fractions based on counterfactual scenarios were estimated for a shift of participants towards healthier lifestyle habits. Our findings suggest that controlling modifiable factors like obesity, alcohol consumption, adopting a healthy diet and increasing the level of physical activity could prevent 14% (95% CI: 6%, 21%) of PC cases, and up to 19% (11%, 26%), if quitting smoking was also considered. Interestingly, 13% (9%, 16%) of PC cases could be prevented if men adopted lifestyle habits of women. Overall, our findings suggest that public health measures targeting compliance to healthy lifestyles may have a strong impact to control PC incidence.

We confirm that the manuscript has been submitted solely to the European Journal of Epidemiology, and that it has not been previously published, either in whole or in part, nor have the findings been posted online. We confirm that all Authors have approved the manuscript for submission. We have no conflicts of interest to disclose.

Thank you in advance for your consideration of this manuscript.

Yours sincerely,

Pietro Ferrari, PhD
Head, Nutritional Methodology and Biostatistics Group (NMB)
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:

http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Sabine NAUDIN

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 10.04.2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                       |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Vivian Viallon

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date April 10th 2015
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:

http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title: "Healthy lifestyle and the risk of pancreatic cancer in the EPIC study"

Manuscript No. (if you know it) EJEP-D-19-00303

Author name: Dana Hashim

Are you the corresponding author? □ Yes  ✔ No

Herewith I confirm that the information provided is accurate.

Author signature ____________________________ Date 10 April 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑  I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title  Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study
Manuscript No. (if you know it)  EJEP-D-19-00303
Author name  HEINZ FREISING

Are you the corresponding author?  ☐ Yes  ☑ No

Herewith I confirm that the information provided is accurate.

Author signature  [Signature]  Date  16-04-2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:

http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest. Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title  Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)  EJEP-D-19-00303

Author name  MARGA JENAS

Are you the corresponding author?  ☐ Yes  ☑ No

Herewith I confirm that the information provided is accurate.

Author signature  

Date  15/04/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest. Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

[ ] I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title ____________________________________________________________
Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) ____________________________________________
EJEP-D-19-00303

Author name ____________________________________________________________
Elisabete Weiderpass

Are you the corresponding author? [ ] Yes [ ] No

Herewith I confirm that the information provided is accurate.

Author signature ________________________ Date 9 April 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:

http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest. Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑️ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                       |                                    |
|                       |                                    |
|                       |                                    |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Flavie Perrier

Are you the corresponding author? ☑ Yes ☐ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 10/04/19
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-economics/14214

All authors of papers submitted to the European Journal of Epidemiology [Include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name: Fiona MCKENZIE

Are you the corresponding author? □ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature ___________________________ Date 13/4/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology (include name of journal) must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑️ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name H. B(as). Bueno-de-Mesquita

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature ___________________________ Date 12 April 2019

[Signature]
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title  Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)  EJEP-D-19-00303

Author name  Anja Olsen

Are you the corresponding author?  ☐ Yes  ☒ No

Herewith I confirm that the information provided is accurate.

Author signature  [Signature]  Date  10/4/19
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title _Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study_

Manuscript No. (if you know it) _EJEP-D-19-00303_

Author name _ANNE TROUVELAND_

Are you the corresponding author? ☐ Yes  ☑ No

Herewith I confirm that the information provided is accurate.

Author signature _[Signature]_ Date _10/4/2019_
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors whers to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name CHRISTINA C. DAHM

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature Date 12/04/19
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name

Are you the corresponding author? ☐ Yes  ☒ No

Herewith I confirm that the information provided is accurate.

Author signature  Date 9/04/16
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Francesca Romana Mancini

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature Francesca Romana Mancini Date 17/04/2018
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title  Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)  EJEP-D-19-00303

Author name  REBOURS vinciane

Are you the corresponding author? ☐ Yes  ☒ No

Herewith I confirm that the information provided is accurate.

Author signature  

Date  2019 - April the 10th
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

X I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title
Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)
EJEP-D-19-00303

Author name
Marie-Christine Boutron-Ruault

Are you the corresponding author? □ Yes □ No X

Herewith I confirm that the information provided is accurate.

Author signature ________________________Date April 16, 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑️ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name: Verena Katzke

Are you the corresponding author? ☐ Yes ☑️ No

Herewith I confirm that the information provided is accurate.

Author signature: ___________________ Date: 12.04.2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name: Rudolf Kaaks

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature: ______________________ Date: 15/7/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

X I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title ___________________________________________________________
Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) ___________________________________________
EJEP-D-19-00303

Author name ___________________________________________________________

Are you the corresponding author? □ Yes □ No X

Herewith I confirm that the information provided is accurate.

Author signature ________________________ Date _______________________

Nuthetal, April 9, 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s), Please check the instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature

Date 17 April 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title
Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)
EJEP-D-19-00303

Author name
Eleni Peppa

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature ✍️ Date ________________

10/4/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑️ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (If you know it) EJEP-D-19-00303

Author name: ANNA KARAKATSANI

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature: [Signature] Date: 4/10/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☒ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Antonia Trikalinos

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date April 15, 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title _Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study_

Manuscript No. (if you know it) _EJEP-D-19-00303_

Author name _VALERIA PALA_

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature _Date 10 April 2019_
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot: save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it): EJEP-D-19-00303

Author name: GIOVANNA MASALA

Are you the corresponding author? □ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature: GIOVANNA MASALA  Date: 04/12/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑️ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name SALVATORE PANVIO

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date April 24, 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Rosario Tumino

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature __________________________ Date 10/4/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name CAROLINA SACERDOTI

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 10/04/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name __________________________

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature _______________________, Date 11-04-2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Carla H. van Gils

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 16 April 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

X I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title ___________________________________________________________
Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) ___________________________________________
EJEP-D-19-00303

Author name ___________________________________________________________
Charlotta Rylander

Are you the corresponding author? □ Yes □ No  X

Herewith I confirm that the information provided is accurate.

Author signature ________________________Date _____________________________
Charlotta Rylander  11.04.19
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Kristin Benjaminsen Borch

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature Kristin Borch Date 12.04.2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑️ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name MARIÀ-DOLORES CHIRLAQUE

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 10 - April - 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest. Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

X I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name MARIA-JOSE SANCHEZ

Are you the corresponding author? ☐ Yes  X No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 10/04/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it): EJEP-D-19-00303

Author name: EVA ARDANAZ

Are you the corresponding author? ☐ Yes  ☑ No

Herewith I confirm that the information provided is accurate.

Author signature: [Signature]  Date: 10/4/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to __________ the European Journal of Epidemiology __________
[include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title  Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)  EJEP-D-19-00303

Author name  J. Ramón Quirós

Are you the corresponding author?  □ Yes  ❌ No

Herewith I confirm that the information provided is accurate.

Author signature  ___________________________  Date  April 16th 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑️ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                       |                                    |
|                       |                                    |
|                       |                                    |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Paola Amiano

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature __________________________ Date 20/04/10
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests [are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) _EJEP-D-19-00303_

Author name: _MALIN SUND_

Are you the corresponding author? □ Yes  □ No

Herewith I confirm that the information provided is accurate.

Author signature: _[Signature]_  Date: _APRIL 30TH, 2019_
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name ISABEL DRAKE

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 10 April 2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.
The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name [Signature]

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature [Signature] Date 19/04/10
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest. Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title ____________________________________________________________

Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) ____________________________________________

EJEP-D-19-00303

Author name _____________________________________________________________

Ruth Travis

Are you the corresponding author? ☐ Yes ☐ No X

Herewith I confirm that the information provided is accurate.

Author signature ________________________ Date 23/04/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest. Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

√ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name Nick Wareham

Are you the corresponding author? □ Yes  X No

Herewith I confirm that the information provided is accurate.

Author signature ____________________________ Date 10.4.19
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☑ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|------------------------------------|
|                        |                                    |
|                        |                                    |
|                        |                                    |
|                        |                                    |

Article title: Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (If you know it) EJEP-D-19-00303

Author name: Dagfinn Aune

Are you the corresponding author? ☐ Yes ☑ No

Herewith I confirm that the information provided is accurate.

Author signature: Dagfinn Aune Date: 24.04.2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☐ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title ________________________________________________________________
Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) _____________________________________________
EJEP-D-19-00303

Author name ____________________________
Elio Riboli

Are you the corresponding author? ☐ Yes ☐ No X

Herewith I confirm that the information provided is accurate.

Author signature ____________________________ Date 30/04/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

☒ I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name MAREC GUNTHER

Are you the corresponding author? ☐ Yes ☒ No

Herewith I confirm that the information provided is accurate.

Author signature [signature] Date 11/4/19
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit: http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                       |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |

Article title  Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)  EJEP-D-19-00303

Author name  Eric Duell

Are you the corresponding author?  □ Yes  X No

Herewith I confirm that the information provided is accurate.

Author signature  Date  10/04/2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:

http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to [include name of journal] must complete this form and disclose any real or perceived conflict of interest. Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files.

The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

X I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title

Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it)

EJEP-D-19-00303

Author name

Paul Brennan

Are you the corresponding author? □ Yes □ No

X

Herewith I confirm that the information provided is accurate.

Author signature __________________________ Date 10.04.2019
Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of all relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work. Awareness of real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate. For examples of potential conflicts of interests that are directly or indirectly related to the research please visit:
http://www.springer.com/gp/authors-editors/journal-author/journal-author-helpdesk/publishing-ethics/14214

All authors of papers submitted to the European Journal of Epidemiology [include name of journal] must complete this form and disclose any real or perceived conflict of interest.

Please complete one form per author. The corresponding author collects the conflict of interest disclosure forms from all authors. The corresponding author will include a summary statement that reflects what is recorded in the potential conflict of interest disclosure form(s). Please check the Instructions for Authors where to put the statement which may be different dependent on the type of peer review used for the journal. Please note that you cannot save the form once completed. Please print upon completion, sign, and scan to keep a copy for your files. The corresponding author should be prepared to send potential conflict of interest disclosure form if requested during peer review or after publication on behalf of all authors (if applicable).

I have no potential conflict of interest.

| Category of disclosure | Description of Interest/Arrangement |
|------------------------|-------------------------------------|
|                        |                                     |
|                        |                                     |
|                        |                                     |

Article title Healthy Lifestyle and the risk of Pancreatic cancer in the EPIC study

Manuscript No. (if you know it) EJEP-D-19-00303

Author name PIETRO FERRAR

Are you the corresponding author? [x] Yes [ ] No

Herewith I confirm that the information provided is accurate.

Author signature ___________________________ Date 12/4/2019
