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Background: Breast cancer is a heterogeneous disease with distinct molecular signatures of disease aetiology, evidenced by the joint expression of molecular tumour markers. Differential effects of oral contraceptive (OC) use on breast cancer risk by molecular subtypes have been reported. This is the first meta-analysis to investigate the associations between OC use and subsequent breast cancer risk stratified by combined estrogen receptor (ER) and progesterone receptor (PR) status alongside the Luminal A and B subtypes, which additionally consider the human epidermal growth factor receptor 2 (HER2) status.

Methods: A systematic review and meta-analysis of case-control and cohort studies was conducted in PubMed and Web of Science. The odds ratios (ORs) were summarized using a random-effects model.

Results: Eleven studies were analysed. Random-effects meta-analyses revealed significant increasing effects for ever-users of OCs on ER-PR- breast cancer compared to never-users (OR = 1.30, 95% CI: 1.07 -1.56, p 4 years compared to never-users (OR = 1.74, 95% CI: 1.15-2.63, p 4 years is associated with an increased breast cancer risk, pertaining to the estrogen and progesterone double negative breast cancer subtype. Large-scale prospective observational studies comprising more comprehensive molecular signatures of breast cancer aetiology, including HER2 status, are needed.

### The use of mobile app survey data to examine compliance with occupational smoking bans: A case study of seven countries

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Background and Objective: Secondhand smoke (SHS) endangers the health of individuals who do not smoke and poses a significant public health risk. Protecting individuals from SHS through smoking bans is a key tobacco control measure, but timely data on the degree of compliance is needed. We used a mobile app-based survey platform, Premise, to assess compliance with smoking bans in workplaces in Brazil, Indonesia, Mexico, the Philippines, South Africa, Turkey, and Venezuela.

Methods: Data were collected through Premise between April and June 2022 for a minimum of 900 adult respondents meeting age and sex quotas. Countries represent diverse levels of tobacco control and smoking prevalence. In this descriptive analysis, we included only respondents who reported working outside their homes. Respondents were asked whether their workplace allowed smoking everywhere inside and how often and where they saw folks smoking at their workplace.

Results: Analysis samples ranged from 373 (South Africa) to 604 (Brazil). Respondents in Venezuela and South Africa reported the greatest proportion of workplaces with indoor smoking restrictions (97%), followed by Brazil, Mexico, and the Philippines (96%). 98% (Venezuela and South Africa) and 97% (Brazil) reported compliance with these restrictions. Reported compliance rates in Mexico and the Philippines were lower (94% and 96%, respectively). Indonesia (86%) and Turkey (93%) had the lowest rates of reported workplace indoor smoking bans, with compliance rates at 91% and 85%, respectively.

Conclusion: Our findings suggest that there are high levels of workplace smoking restrictions overall. However, even with high levels of tobacco control, lapses in compliance may still result in exposure to SHS in occupational settings, particularly in contexts with higher smoking prevalence. Despite the limitations of mobile app-based data collection, this study highlights the potential usefulness of such innovative approaches to capture real-time compliance to tobacco control measures in different contexts.

### Public health and clinical utility of "dica" classification, "coda" score and fecal calprotectin in the management of patients with diverticular disease

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Background and objective: The Diverticular Inflammation and Complication Assessment (DICA) classification and the Combined Overview on Diverticular Assessment (CODA) score are valuable prognostic tools for diverticulitis, providing new risk stratification tools useful for everyday clinical practice and also with a significant public health impact in terms of treatment effectiveness and decision making. Our aim was to assess the net benefit of management strategies based on DICA and CODA and to see whether fecal calprotectin (FC) can further aid improving risk stratification.

Methods: 871 participants with diverticular disease who underwent FC dosing were included in this international, multicentre, prospective cohort study. Survival methods for censored observations were used to estimate the 3-year risk of diverticulitis according to basal FC, DICA and CODA. The net benefit of management strategies based on DICA, CODA, and FC in addition to CODA, was assessed with decision curve analysis.

Results: FC was associated with the risk of diverticulitis at 3 years (HR per each base 10 logarithm increase: 3.29; 95% CI, 2.13–5.10) and showed moderate discrimination (c-statistic: 0.685; 0.614–0.756). DICA and CODA were more accurate predictors of diverticulitis than FC. However, FC showed high discrimination capacity to predict acute diverticulitis at 3 months, which was not maintained at longer follow-up times. A decision curve analysis, which incorporates the harms and benefits of using a prognostic model for clinical decisions, comparing the combination of FC and CODA with CODA alone did not clearly indicate a larger net benefit of one strategy over the other.

Conclusion: CF could be useful as a complementary tool to evaluate the early risk of diverticulitis in patients with long-standing diverticular disease in whom performing further colonoscopy is considered inconvenient or not feasible. In all other cases, management strategies based on the CODA score alone should be suggested.

### Improving access and information with and for people with inflammatory bowel disease: co-design using the Ophelia (Optimising Health Literacy and Access) process

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Background and objective: The quality of care and information for people living with inflammatory bowel disease (IBD) in Australia is inconsistent, often sub-optimal, and does not meet the prevailing Australian IBD Standards. Crohn's and Colitis Australia (CCA), using the Ophelia (Optimising Health Literacy and Access) process, aims to co-design improvements to the delivery of information, services and resources with and for people with IBD and their carers.

Methods: Vignettes were developed from interviews (n=17) and cluster analysis outcomes of health literacy data from surveys (n=868). Using the vignettes in participatory co-design (online workshops and an online activity) with consumers (n=38) and health professionals (n=38), the Ophelia process facilitated the generation of ideas to improve access to IBD information and services. These ideas were collated and coded into specific activities then prioritised for implementation.

Results: Ideas generation with consumers and health professionals led to 883 ideas that were collated and coded (removing duplicates and grouping similar ideas) to 70 ideas. Of these, 29 were deemed within the scope of this CCA project, with 11 ideas already part of daily CCA business and 30 ideas allocated to other CCA projects or to future projects. Grouping of the 29 ideas into prioritised activities for implementation resulted in 13 activities in 3 categories: 1) National leadership (n=2 activities); 2) Improvement of services and access (n=1 activity); and 3) Improvement of information, tools, and processes for consumers (n=10 activities).

Conclusion: The ideas for improvement were derived from data generated by the intended recipients of the project activities and were grouped and prioritised for implementation by CCA. The program of work will forge pathways for health literacy development for CCA, its members, and the wider IBD community.

### Forecasting smoking deaths to 2050: a forecasting analysis for