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(Administration 2017; Ahern, Wheeler et al. 2017; Baker, Sanders et al. 2017; Boelen and Smid 2017; Bundy, Li et al. 2017; Celis-Morales, Lyall et al. 2017; Cohen, Brauer et al. 2017; Dell'Osso, Gesi et al. 2017; Ditto, Liu et al. 2017; Duffy, Torrey et al. 2017; Etemadi, Sinha et al. 2017; Ferket, Feldman et al. 2017; Gloster, Klotsche et al. 2017; Godlee 2017; Graber 2017; Hamer, O'Donovan et al. 2017; Han, Tavares et al. 2017; Hawkins-Elder, Milfont et al. 2017; Kendler, Lönn et al. 2017; Livingston, Sommerlad et al. 2017; Luthar, Curlee et al. 2017; MacQueen, Surette et al. 2017; Micha, Peñalvo et al. 2017; Milojev and Sibley 2017; Northey, Cherbuin et al. 2017; Reginster, Dudler et al. 2017; Reitsma, Fullman et al. 2017; Schaefer, Caspi et al. 2017; Schneider and Preckel 2017; Scott, De Souza et al. 2017; Sharabi and Caughlin 2017; Siahbazi, Behboudi-Gandevani et al. 2017; Siemieniuk, Harris et al. 2017; Topiwala, Allan et al. 2017; Tsugawa, Newhouse et al. 2017; Ustun, Adler et al. 2017; van Scheppingen, Denissen et al. 2017; Vedel and Thomsen 2017; Westmaas, Bontemps-Jones et al. 2017; Wilkinson and Pickett 2017; Wise 2017; Zhang, Li et al. 2017)

U.S, Food & Drug Administration. (2017). Eating fish: What pregnant women and parents should know. U. S. F. D. Administration.

FDA and EPA have issued advice regarding eating fish. This advice is geared toward helping women who are pregnant or may become pregnant - as well as breastfeeding mothers and parents of young children - make informed choices when it comes to fish that is healthy and safe to eat (however pretty much anyone can benefit by being aware of this information). The advice includes a chart that makes it easier than ever to choose dozens of healthy and safe options, and a set of frequently asked questions & answers.

Ahern, A. L., G. M. Wheeler, et al. (2017). "Extended and standard duration weight-loss programme referrals for adults in primary care (wrap): A randomised controlled trial." The Lancet. http://dx.doi.org/10.1016/S0140-6736(17)30647-5

(Available in free full text) Background Evidence exist that primary care referral to an open-group behavioural programme is an effective strategy for management of obesity, but little evidence on optimal intervention duration is available. We aimed to establish whether 52-week referral to an open-group weight-management programme would achieve greater weight loss and improvements in a range of health outcomes and be more cost-effective than the current practice of 12-week referrals. Methods In this non-blinded, parallel-group, randomised controlled trial, we recruited participants who were aged 18 years or older and had body-mass index (BMI) of 28 kg/m2 or higher from 23 primary care practices in England. Participants were randomly assigned (2:5:5) to brief advice and self-help materials, a weight-management programme (Weight Watchers) for 12 weeks, or the same weight-management programme for 52 weeks. We followed-up participants over 2 years. The primary outcome was weight at 1 year of follow-up, analysed with mixed-effects models according to intention-to-treat principles and adjusted for centre and baseline weight. In a hierarchical closed-testing procedure, we compared combined behavioural programme arms with brief intervention, then compared the 12-week programme and 52-week programme. We did a within-trial cost-effectiveness analysis using person-level data and modelled outcomes over a 25-year time horizon using microsimulation. This study is registered with Current Controlled Trials, number ISRCTN82857232. Findings Between Oct 18, 2012, and Feb 10, 2014, we enrolled 1269 participants. 1267 eligible participants were randomly assigned to the brief intervention (n=211), the 12-week programme (n=528), and the 52-week programme (n=528). Two participants in the 12-week programme had been found to be ineligible shortly after randomisation and were excluded from the analysis. 823 (65%) of 1267 participants completed an assessment at 1 year and 856 (68%) participants at 2 years. All eligible participants were included in the analyses. At 1 year, mean weight changes in the groups were −3·26 kg (brief intervention), −4·75 kg (12-week programme), and −6·76 kg (52-week programme). Participants in the behavioural programme lost more weight than those in the brief intervention (adjusted difference −2·71 kg, 95% CI −3·86 to −1·55; p<0·0001). The 52-week programme was more effective than the 12-week programme (−2·14 kg, −3·05 to −1·22; p<0·0001). Differences between groups were still significant at 2 years. No adverse events related to the intervention were reported. Over 2 years, the incremental cost-effectiveness ratio (ICER; compared with brief intervention) was £159 per kg lost for the 52-week programme and £91 per kg for the 12-week programme. Modelled over 25 years after baseline, the ICER for the 12-week programme was dominant compared with the brief intervention. The ICER for the 52-week programme was cost-effective compared with the brief intervention (£2394 per quality-adjusted life-year [QALY]) and the 12-week programme (£3804 per QALY). Interpretation For adults with overweight or obesity, referral to this open-group behavioural weight-loss programme for at least 12 weeks is more effective than brief advice and self-help materials. A 52-week programme produces greater weight loss and other clinical benefits than a 12-week programme and, although it costs more, modelling suggests that the 52-week programme is cost-effective in the longer term.

Baker, S., M. R. Sanders, et al. (2017). "A randomized controlled trial evaluating a low-intensity interactive online parenting intervention, triple p online brief, with parents of children with early onset conduct problems." Behaviour Research and Therapy 91: 78-90. http://www.sciencedirect.com/science/article/pii/S0005796717300256

This randomized controlled trial examined the efficacy of Triple P Online Brief, a low-intensity online positive parenting program for parents of children with early onset disruptive behavior problems. Two hundred parents with 2–9-year-old children displaying early onset disruptive behavior difficulties were randomly assigned to either the intervention condition (n = 100) or a Waitlist Control group (n = 100). At 8-week post-assessment, parents in the intervention group displayed significantly less use of ineffective parenting strategies and significantly more confidence in dealing with a range of behavior concerns. These effects were maintained at 9-month follow-up assessment. A delayed effect was found for child behavior problems, with parents in the intervention group reporting significantly fewer and less frequent child behavior problems at follow-up, but not at post-assessment. All effect sizes were in the small to medium range. There were no significant improvements in observed negative parent and child behavior. No change was seen for parents' adjustment, anger, or conflict over parenting. Consumer satisfaction ratings for the program were high. A brief, low-intensity parenting program delivered via the Internet can bring about significant improvements in parenting and child behavior.

Boelen, P. A. and G. E. Smid (2017). "Disturbed grief: Prolonged grief disorder and persistent complex bereavement disorder." BMJ 357. http://www.bmj.com/content/bmj/357/bmj.j2016.full.pdf

What you need to know: When confronted with the death of a loved one, most people experience transient rather than persistent distress, and do not develop a mental health condition. Bereavement, specifically the sudden, unexpected death of a loved one is associated with an elevated risk for multiple psychiatric disorders. Consider prolonged grief disorder (PGD) in people with ongoing separation distress beyond the first six to 12 months of bereavement. PGD occurs in approximately 10% of

bereaved individuals, with an increased risk following the death of a partner or child and loss to unnatural or violent circumstances, and among people vulnerable to mental health conditions. Psychological treatments addressing the pain and consequences associated with the irreversibility of the separation can be effective. Emerging evidence provides limited support for pharmacological interventions. [Note Kathy Shear's helpful & detailed response to this article].

Bundy, J. D., C. Li, et al. (2017). "Systolic blood pressure reduction and risk of cardiovascular disease and mortality: A systematic review and network meta-analysis." JAMA Cardiology. http://dx.doi.org/10.1001/jamacardio.2017.1421

Importance Clinical trials have documented that lowering blood pressure reduces cardiovascular disease and premature deaths. However, the optimal target for reduction of systolic blood pressure (SBP) is uncertain.Objective To assess the association of mean achieved SBP levels with the risk of cardiovascular disease and all-cause mortality in adults with hypertension treated with antihypertensive therapy.Data Sources MEDLINE and EMBASE were searched from inception to December 15, 2015, supplemented by manual searches of the bibliographies of retrieved articles.Study Selection Studies included were clinical trials with random allocation to an antihypertensive medication, control, or treatment target. Studies had to have reported a difference in mean achieved SBP of 5 mm Hg or more between comparison groups.Data Extraction and Synthesis Data were extracted from each study independently and in duplicate by at least 2 investigators according to a standardized protocol. Network meta-analysis was used to obtain pooled randomized results comparing the association of each 5–mm Hg SBP category with clinical outcomes after adjusting for baseline risk.Main Outcomes and Measures Cardiovascular disease and all-cause mortality.Results Forty-two trials, including 144 220 patients, met the eligibility criteria. In general, there were linear associations between mean achieved SBP and risk of cardiovascular disease and mortality, with the lowest risk at 120 to 124 mm Hg. Randomized groups with a mean achieved SBP of 120 to 124 mm Hg had a hazard ratio (HR) for major cardiovascular disease of 0.71 (95% CI, 0.60-0.83) compared with randomized groups with a mean achieved SBP of 130 to 134 mm Hg, an HR of 0.58 (95% CI, 0.48-0.72) compared with those with a mean achieved SBP of 140 to 144 mm Hg, an HR of 0.46 (95% CI, 0.34-0.63) compared with those with a mean achieved SBP of 150 to 154 mm Hg, and an HR of 0.36 (95% CI, 0.26-0.51) compared with those with a mean achieved SBP of 160 mm Hg or more. Likewise, randomized groups with a mean achieved SBP of 120 to 124 mm Hg had an HR for all-cause mortality of 0.73 (95% CI, 0.58-0.93) compared with randomized groups with a mean achieved SBP of 130 to 134 mm Hg, an HR of 0.59 (95% CI, 0.45-0.77) compared with those with a mean achieved SBP of 140 to 144 mm Hg, an HR of 0.51 (95% CI, 0.36-0.71) compared with those with a mean achieved SBP of 150 to 154 mm Hg, and an HR of 0.47 (95% CI, 0.32-0.67) compared with those with a mean achieved SBP of 160 mm Hg or more.Conclusions and Relevance This study suggests that reducing SBP to levels below currently recommended targets significantly reduces the risk of cardiovascular disease and all-cause mortality. These findings support more intensive control of SBP among adults with hypertension.

Celis-Morales, C. A., D. M. Lyall, et al. (2017). "Association between active commuting and incident cardiovascular disease, cancer, and mortality: Prospective cohort study." BMJ 357

(Available in free full text) Objective To investigate the association between active commuting and incident cardiovascular disease (CVD), cancer, and all cause mortality.Design Prospective population based study. Setting UK Biobank.Participants 263 450 participants (106 674 (52%) women; mean age 52.6), recruited from 22 sites across the UK. The exposure variable was the mode of transport used (walking, cycling, mixed mode v non-active (car or public transport)) to commute to and from work on a typical day.Main outcome measures Incident (fatal and non-fatal) CVD and cancer, and deaths from CVD, cancer, or any causes.Results 2430 participants died (496 were related to CVD and 1126 to cancer) over a median of 5.0 years (interquartile range 4.3-5.5) follow-up. There were 3748 cancer and 1110 CVD events. In maximally adjusted models, commuting by cycle and by mixed mode including cycling were associated with lower risk of all cause mortality (cycling hazard ratio 0.59, 95% confidence interval 0.42 to 0.83, P=0.002; mixed mode cycling 0.76, 0.58 to 1.00, P<0.05), cancer incidence (cycling 0.55, 0.44 to 0.69, P<0.001; mixed mode cycling 0.64, 0.45 to 0.91, P=0.01), and cancer mortality (cycling 0.60, 0.40 to 0.90, P=0.01; mixed mode cycling 0.68, 0.57 to 0.81, P<0.001). Commuting by cycling and walking were associated with a lower risk of CVD incidence (cycling 0.54, 0.33 to 0.88, P=0.01; walking 0.73, 0.54 to 0.99, P=0.04) and CVD mortality (cycling 0.48, 0.25 to 0.92, P=0.03; walking 0.64, 0.45 to 0.91, P=0.01). No statistically significant associations were observed for walking commuting and all cause mortality or cancer outcomes. Mixed mode commuting including walking was not noticeably associated with any of the measured outcomes.Conclusions Cycle commuting was associated with a lower risk of CVD, cancer, and all cause mortality. Walking commuting was associated with a lower risk of CVD independent of major measured confounding factors. Initiatives to encourage and support active commuting could reduce risk of death and the burden of important chronic conditions.

Cohen, A. J., M. Brauer, et al. (2017). "Estimates and 25-year trends of the global burden of disease attributable to ambient air pollution: An analysis of data from the global burden of diseases study 2015." The Lancet 389(10082): 1907-1918. http://dx.doi.org/10.1016/S0140-6736(17)30505-6

(Available in free full text) Background Exposure to ambient air pollution increases morbidity and mortality, and is a leading contributor to global disease burden. We explored spatial and temporal trends in mortality and burden of disease attributable to ambient air pollution from 1990 to 2015 at global, regional, and country levels. Methods We estimated global population-weighted mean concentrations of particle mass with aerodynamic diameter less than 2·5 μm (PM2·5) and ozone at an approximate 11 km × 11 km resolution with satellite-based estimates, chemical transport models, and ground-level measurements. Using integrated exposure–response functions for each cause of death, we estimated the relative risk of mortality from ischaemic heart disease, cerebrovascular disease, chronic obstructive pulmonary disease, lung cancer, and lower respiratory infections from epidemiological studies using non-linear exposure–response functions spanning the global range of exposure. Findings Ambient PM2·5 was the fifth-ranking mortality risk factor in 2015. Exposure to PM2·5 caused 4·2 million (95% uncertainty interval [UI] 3·7 million to 4·8 million) deaths and 103·1 million (90·8 million 115·1 million) disability-adjusted life-years (DALYs) in 2015, representing 7·6% of total global deaths and 4·2% of global DALYs, 59% of these in east and south Asia. Deaths attributable to ambient PM2·5 increased from 3·5 million (95% UI 3·0 million to 4·0 million) in 1990 to 4·2 million (3·7 million to 4·8 million) in 2015. Exposure to ozone caused an additional 254 000 (95% UI 97 000–422 000) deaths and a loss of 4·1 million (1·6 million to 6·8 million) DALYs from chronic obstructive pulmonary disease in 2015. Interpretation Ambient air pollution contributed substantially to the global burden of disease in 2015, which increased over the past 25 years, due to population ageing, changes in non-communicable disease rates, and increasing air pollution in low-income and middle-income countries. Modest reductions in burden will occur in the most polluted countries unless PM2·5 values are decreased substantially, but there is potential for substantial health benefits from exposure reduction.

Dell'Osso, L., C. Gesi, et al. (2017). "Adult autism subthreshold spectrum (adas spectrum): Validation of a questionnaire investigating subthreshold autism spectrum." Comprehensive Psychiatry 73: 61-83. http://www.sciencedirect.com/science/article/pii/S0010440X1630339X

Abstract Aim Increasing literature has shown the usefulness of a dimensional approach to autism. The present study aimed to determine the psychometric properties of the Adult Autism Subthreshold Spectrum (AdAS Spectrum), a new questionnaire specifically tailored to assess subthreshold forms of autism spectrum disorder (ASD) in adulthood. Methods 102 adults endorsing at least one DSM-5 symptom criterion for ASD (ASDc), 143 adults diagnosed with a feeding and eating disorder (FED), and 160 subjects with no mental disorders (CTL), were recruited from 7 Italian University Departments of Psychiatry and administered the following: SCID-5, Autism-Spectrum Quotient (AQ), Ritvo Autism and Asperger Diagnostic Scale 14-item version (RAADS-14), and AdAS Spectrum. Results The AdAS Spectrum demonstrated excellent internal consistency for the total score (Kuder–Richardson's coefficient=.964) as well as for five out of seven domains (all coefficients>.80) and sound test–retest reliability (ICC=.976). The total and domain AdAS Spectrum scores showed a moderate to strong (>.50) positive correlation with one another and with the AQ and RAADS-14 total scores. ASDc subjects reported significantly higher AdAS Spectrum total scores than both FED (p<.001) and CTL (p<.001), and significantly higher scores on the Childhood/adolescence, Verbal communication, Empathy, Inflexibility and adherence to routine, and Restricted interests and rumination domains (all p<.001) than FED, while on all domains compared to CTL. CTL displayed significantly lower total and domain scores than FED (all p<.001). A significant effect of gender emerged for the Hyper– and hyporeactivity to sensory input domain, with women showing higher scores than men (p=.003). A Diagnosis* Gender interaction was also found for the Verbal communication (p=.019) and Empathy (p=.023) domains. When splitting the ASDc in subjects with one symptom criterion (ASD1) and those with a ASD, and the FED in subjects with no ASD symptom criteria (FED0) and those with one ASD symptom criterion (FED1), a gradient of severity in AdAS Spectrum scores from CTL subjects to ASD patients, across FED0, ASD1, FED1 was shown. Conclusions The AdAS Spectrum showed excellent internal consistency and test–retest reliability and strong convergent validity with alternative dimensional measures of ASD. The questionnaire performed differently among the three diagnostic groups and enlightened some significant effects of gender in the expression of autistic traits.

Ditto, P. H., B. Liu, et al. (2017). "At least bias is bipartisan: A meta-analytic comparison of partisan bias in liberals and conservatives." Available at SSRN: https://ssrn.com/abstract=2952510. https://ssrn.com/abstract=2952510

(Available in free full text) One form of partisan bias is the tendency to more readily accept the validity of information that affirms one's political beliefs than information that challenges those beliefs. Both liberals and conservatives accuse their political opponents of partisan bias, but is there empirical evidence that one side of the political aisle is indeed more biased than the other? To address this question, we meta-analyzed the results of 41 experimental studies of partisan bias involving over 12,000 participants who identified their political ideology. Based on previous literature, two hypotheses were tested: an asymmetry hypothesis (predicting greater partisan bias in conservatives than liberals) and a symmetry hypothesis (predicting equal levels of partisan bias in liberals and conservatives). Overall partisan bias was robust (r = .254) and there was strong support for the symmetry hypothesis: liberals (r = .248) and conservatives (r = .247) showed nearly identical levels of bias across studies. Several methodological features moderated the degree of overall bias, and the relative magnitude of bias in liberals and conservatives differed across political topics. Implications of the current findings for the ongoing ideological symmetry debate, and partisan bias' role in scientific discourse and political conflict are discussed.

Duffy, R. D., C. L. Torrey, et al. (2017). "Calling in retirement: A mixed methods study." The Journal of Positive Psychology 12(4): 399-413. http://dx.doi.org/10.1080/17439760.2016.1187201

This mixed methods study aimed to examine the experiences of a calling in retirement with a sample of 196 retired adults. First, a qualitative analysis explored the types of activities participants experienced as a calling as well as the types of barriers that participants perceived as keeping them from living their calling. 'Helping Others' emerged as the largest category of calling that participants endorsed and 'No Resources to Live Calling' emerged as the most frequently endorsed barrier. Building on our qualitative findings, we conducted a quantitative analysis to examine the relation of perceiving a calling with well-being. Consistent with prior research with working adult populations and in support of our hypotheses, perceiving a calling related to life meaning and life satisfaction, and structural equation modeling demonstrated that life meaning and living a calling (via life meaning) fully mediated the perceiving calling-life satisfaction relation. Implications for research and practice are discussed.

Etemadi, A., R. Sinha, et al. (2017). "Mortality from different causes associated with meat, heme iron, nitrates, and nitrites in the nih-aarp diet and health study: Population based cohort study." BMJ 357

Objective To determine the association of different types of meat intake and meat associated compounds with overall and cause specific mortality. Design Population based cohort study. Setting Baseline dietary data of the NIH-AARP Diet and Health Study (prospective cohort of the general population from six states and two metropolitan areas in the US) and 16 year follow-up data until 31 December 2011. Participants 536 969 AARP members aged 50-71 at baseline. Exposures Intake of total meat, processed and unprocessed red meat (beef, lamb, and pork) and white meat (poultry and fish), heme iron, and nitrate/nitrite from processed meat based on dietary questionnaire. Adjusted Cox proportional hazards regression models were used with the lowest fifth of calorie adjusted intakes as reference categories. Main outcome measure Mortality from any cause during follow-up. Results An increased risk of all cause mortality (hazard ratio for highest versus lowest fifth 1.26, 95% confidence interval 1.23 to 1.29) and death due to nine different causes associated with red meat intake was observed. Both processed and unprocessed red meat intakes were associated with all cause and cause specific mortality. Heme iron and processed meat nitrate/nitrite were independently associated with increased risk of all cause and cause specific mortality. Mediation models estimated that the increased mortality associated with processed red meat was influenced by nitrate intake (37.0-72.0%) and to a lesser degree by heme iron (20.9-24.1%). When the total meat intake was constant, the highest fifth of white meat intake was associated with a 25% reduction in risk of all cause mortality compared with the lowest intake level. Almost all causes of death showed an inverse association with white meat intake. Conclusions The results show increased risks of all cause mortality and death due to nine different causes associated with both processed and unprocessed red meat, accounted for, in part, by heme iron and nitrate/nitrite from processed meat. They also show reduced risks associated with substituting white meat, particularly unprocessed white meat.

Ferket, B. S., Z. Feldman, et al. (2017). "Impact of total knee replacement practice: Cost effectiveness analysis of data from the osteoarthritis initiative." BMJ 356

(Available in free full text) Objectives To evaluate the impact of total knee replacement on quality of life in people with knee osteoarthritis and to estimate associated differences in lifetime costs and quality adjusted life years (QALYs) according to use by level of symptoms.Design Marginal structural modeling and cost effectiveness analysis based on lifetime predictions for total knee replacement and death from population based cohort data.Setting Data from two studies—Osteoarthritis Initiative (OAI) and the Multicenter Osteoarthritis Study (MOST)—within the US health system.Participants 4498 participants with or at high risk for knee osteoarthritis aged 45-79 from the OAI with no previous knee replacement (confirmed by baseline radiography) followed up for nine years. Validation cohort comprised 2907 patients from MOST with two year follow-up.Intervention Scenarios ranging from current practice, defined as total knee replacement practice as performed in the OAI

(with procedural rates estimated by a prediction model), to practice limited to patients with severe symptoms to no surgery.Main outcome measures Generic (SF-12) and osteoarthritis specific quality of life measured over 96 months, model based QALYs, costs, and incremental cost effectiveness ratios over a lifetime horizon.Results In the OAI, total knee replacement showed improvements in quality of life with small absolute changes when averaged across levels of confounding variables: 1.70 (95% uncertainty interval 0.26 to 3.57) for SF-12 physical component summary (PCS); −10.69 (−13.39 to −8.01) for Western Ontario and McMaster Universities arthritis index (WOMAC); and 9.16 (6.35 to 12.49) for knee injury and osteoarthritis outcome score (KOOS) quality of life subscale. These improvements became larger with decreasing functional status at baseline. Provision of total knee replacement to patients with SF-12 PCS scores <35 was the optimal scenario given a cost effectiveness threshold of $200 000/QALY, with cost savings of $6974 ($5789 to $8269) and a minimal loss of 0.008 (−0.056 to 0.043) QALYs compared with current practice. These findings were reproduced among patients with knee osteoarthritis from the MOST cohort and were robust against various scenarios including increased rates of total knee replacement and mortality and inclusion of non-healthcare costs but were sensitive to increased deterioration in quality of life without surgery. In a threshold analysis, total knee replacement would become cost effective in patients with SF-12 PCS scores ≤40 if the associated hospital admission costs fell below $14 000 given a cost effectiveness threshold of $200 000/QALY.Conclusion Current practice of total knee replacement as performed in a recent US cohort of patients with knee osteoarthritis had minimal effects on quality of life and QALYs at the group level. If the procedure were restricted to more severely affected patients, its effectiveness would rise, with practice becoming economically more attractive than its current use.

Gloster, A. T., J. Klotsche, et al. (2017). "Increasing valued behaviors precedes reduction in suffering: Findings from a randomized controlled trial using act." Behaviour Research and Therapy 91: 64-71. http://www.sciencedirect.com/science/article/pii/S0005796717300219

Psychological flexibility theory (PFT) suggests three key processes of change: increases in value-directed behaviors, reduction in struggle with symptoms, and reduction in suffering. We hypothesized that Acceptance and Commitment Therapy (ACT) would change these processes and that increases in valued action and decreases in struggle would precede change in suffering. Data were derived from a randomized clinical trial testing ACT (vs. waitlist) for treatment-resistant patients with primary panic disorder with/without agoraphobia (n = 41). Valued behavior, struggle, and suffering were assessed at each of eight sessions. Valued actions, struggle, and suffering all changed over the course of therapy. Overall changes in struggle and suffering were interdependent whereas changes in valued behavior were largely independent. Levels of valued behaviors influenced subsequent suffering, but the other two variables did not influence subsequent levels of valued action. This finding supports a central tenet of PFT that increased (re-)engagement in valued behaviors precedes reductions in suffering. Possible implications for a better understanding of response and non-response to psychotherapy are discussed.

Godlee, F. (2017). "Red meat: Another inconvenient truth." BMJ 357. http://www.bmj.com/content/bmj/357/bmj.j2278.full.pdf

Evidence continues to emerge linking high meat consumption with increased mortality. This week Arash Etemadi and colleagues provide further support for the association (doi:10.1136/bmj.j1957). Their population based cohort study links high intake of red and processed meat with increased deaths from all causes and from nine specific ones. Dietary epidemiology studies are of course fraught with pitfalls. At their worst they attract ridicule for supporting every conceivable association, fuelling public confusion and fake news. This week's study is large, with more than 7.5 million American person years of observation, and it's well done. Although its main findings are based on a single dietary assessment, a subgroup had two assessments done on separate occasions, and these associations were if anything stronger. Importantly, death rates were lower in groups who ate a higher proportion of fish and poultry than red meat. In the accompanying commentary John Potter provides no comfort for anyone wanting to deny an inconvenient truth (doi:10.1136/bmj.j2190). "Overconsumption of meat is bad for health and for the health of our planet," he says. It seems our ancestors ate meat at most once a week, consuming 5-10 kg a year. Modern diets in rich countries deliver more than 10 times this amount, with animal protein now providing up to a fifth of our energy requirements. The study suggests that haem iron in red meat and nitrate/nitrite in processed meat are among the culprits. But Potter says that the ill effects are likely to be caused in many different ways, including carcinogens caused by cooking, contaminants in animal feed, and reduced intake of plant based foods. Nor is earlier death the only concern for human health, he says. A high meat economy brings with it accelerated sexual development and antibiotic resistance, together with shortages of food, and animal to human disease epidemics thrown in for good measure. As for the effects on the planet, water depletion, methane production, and pollution of air and groundwater are just the beginning. We must of course reduce the use of fossil fuels in transport, but livestock production outstrips this as a cause of climate change. Potter outlines two possible courses of action. "As with many contemporary problems of resource overuse and maldistribution, we need to decide whether to act now to reduce human meat consumption or wait until the decay of sufficient parts of the global system tip us into much poorer planetary, societal, and human health." What can doctors do? We can lobby for more and better research to support clearer evidence based dietary guidelines. And we can lead by example, as our predecessors did with smoking cessation, by reducing our own red meat consumption. Your own suggestions are welcome.

Graber, R. (2017). Do best friends promote psychological resilience in adults? . British Psychological Society Annual Conference. Brighton.

Although psychological evidence suggests that social support broadly facilitates the development of psychological resilience in adulthood, little is understood about the particular role of best friendships in this regard. Dr Rebecca Graber led this preliminary study which hypothesised that a better quality best friendship would positively impact the development of psychological resilience in a community sample of British adults. The study analysed whether better perceived close friendship quality significantly predicted subsequent psychological resilience at 12-month follow-up, controlling for earlier resilience; 75 adults completed the questionnaire. A community sample of 185 adults based in the UK was recruited through online social networking sites, university events and community organisations supporting socially isolated adults. Participants completed assessments on psychological resilience, best friendship quality, coping behaviours and self-esteem. Participants then completed the same assessments one year later, to see how best friendship quality had impacted resilience processes over this period. Longitudinal regression and bootstrapped multiple mediation analyses were used to explore the results. Project Timeframe: The research project commenced in 2010 and ended in 2012. Project Aims: The aim of the project was to determine the impact of best friendship upon resilience development in adults over time. Project Findings & Impact: Results revealed that best friendships are a protective mechanism supporting the development of psychological resilience in adults, although the mechanisms for this relationship remain unclear. The study provided statistical evidence, for the first time, of the vital role of these valued social relationships upon resilience development in an adult sample, while posing open questions for the mechanisms underlying this effect. Consideration was also given to the limitations to the study based on sampling and measurement issues, in the context of both resilience and relationship research. These findings support research by Dr Graber, published in 2016, revealing that best friends facilitate resilience processes in socioeconomically vulnerable children.

Hamer, M., G. O'Donovan, et al. (2017). "Normal-weight central obesity and risk for mortality." Annals of Internal Medicine: 1-2. http://dx.doi.org/10.7326/L17-0022

Background: The association between obesity, defined in terms of body mass index (BMI), and mortality in the general population has been controversial. Various studies have examined whether central obesity has greater predictive utility than BMI. In a 2015 study of 15 184 adults, paradoxical results suggested that centrally obese participants defined as normal weight on the basis of BMI had the worst long-term survival even when compared with their overweight and obese counterparts. Objective: To replicate these analyses in a larger sample of adults in the general population. [The BMJ - http://www.bmj.com/content/357/bmj.j2033 - commented "People with a normal body mass index (BMI) but a large waist circumference have worse long term survival than people who are overweight or obese but who do not carry their weight around the middle, a study has found. The finding, published in Annals of Internal Medicine,1 is consistent with previous research but is from a much larger sample of adults in the general population. The study included 42 702 participants from 10 years of the Health Survey for England and the Scottish Health Survey. Participants' mean age was 57.7, and 46.8% were men. The researchers found that 43.7% of participants were overweight (BMI 25 to <30) and 25% were obese (BMI ≥30). The overall prevalence of central obesity was 53.4%—defined as a waist to hip ratio of 0.85 or higher in women and 0.90 in men. The prevalence of central obesity among normal weight, overweight, and obese participants was 28.7%, 60.2%, and 72.7%, respectively. A total of 5355 people died over 383 542 person years of follow-up. The researchers found that, when compared with the normal weight participants without central obesity, only normal weight and obese people with central obesity were at increased risk for all cause mortality. Compared with overweight participants without central obesity, their counterparts with central obesity were at increased risk for mortality (hazard ratio 1.11 (95% confidence interval 1.01 to 1.23)). Obese participants with central obesity were also at higher risk for mortality than their counterparts without central obesity (1.27 (1.09 to 1.47)). A total of 1720 participants died of cardiovascular disease. Compared with normal weight participants without central obesity, all participants with central obesity were at increased risk for death from cardiovascular disease. The results were similar when men and women were analysed separately. The researchers, from Loughborough University, said, "Explaining these paradoxical findings in overweight and obese persons, even in the presence of central obesity, is challenging. One possibility is that overweight and obese persons have greater amounts of subcutaneous fat in the hips and legs—that is, fat linked to healthier metabolic profiles." However, they noted that that the study relied on a single clinical assessment and that weight histories might have been more informative."]

Han, S. H., J. L. Tavares, et al. (2017). "Social activities, incident cardiovascular disease, and mortality." Journal of Aging and Health 29(2): 268-288. http://journals.sagepub.com/doi/abs/10.1177/0898264316635565

Objective: This study examined the relationships between social activities, incident cardiovascular disease (CVD), and non-CVD mortality among older adults in the United States. Method: Data from the Health and Retirement Study (2006-2010) were employed. Two measures of social engagement, volunteering and informal helping, along with two measures of social participation, attendance at religious services and social group meetings, were included. Mediation models for health behaviors were estimated. Results: Multinomial logistic regression models demonstrated that volunteering provided the most consistent results in terms of a lower risk of incident CVD and mortality. Furthermore, volunteering at higher time commitments is related to lower CVD incidence and death; informally helping others at a modest time commitment is related to lower risk of death only. Health behaviors mediated the relationships. Social participation was not related to either CVD or mortality. Discussion: Social activity is a modifiable behavior that may be considered a potential health intervention.

Hawkins-Elder, H., T. L. Milfont, et al. (2017). "Who are the lonely? A typology of loneliness in new zealand." Aust N Z J Psychiatry: 4867417718944. https://www.ncbi.nlm.nih.gov/pubmed/28707520

BACKGROUND: Loneliness has many negative physical and mental health ramifications and is most prevalent among vulnerable social groups. However, little is known about how loneliness is grouped within the population and the characteristics of those groups. METHODS: We conducted a Latent Profile Analysis on 18,264 participants from the fifth wave of the New Zealand Attitudes and Values Study to identify the number of distinct loneliness profiles in the population. Secondary analyses then determined the representation of various demographic and psychosocial characteristics of participants within each profile. RESULTS: Analyses identified four distinct loneliness profiles: 'high-loneliness' (5.7%), 'low-loneliness' (57.9%), 'appreciated outsiders' (29.1%; who received acceptance from others but felt like social outsiders) and 'superficially connected' (7.2%; who showed the opposite pattern). 'High-loneliness' were the most introverted, emotionally unstable and poorest in wellbeing. 'Appreciated outsiders' and 'superficially connected' had moderate wellbeing, but 'appreciated outsiders' were relatively higher in wellbeing despite greater introversion and neuroticism. CONCLUSION: This research provides a typology of loneliness in New Zealand and identifies groups more likely to experience loneliness. The 'appreciated outsiders' and 'superficially connected' profiles provide fresh insight into how loneliness may manifest and the relative influences of quality and quantity of social contacts on wellbeing.

Kendler, K. S., S. L. Lönn, et al. (2017). "Divorce and the onset of alcohol use disorder: A swedish population-based longitudinal cohort and co-relative study." American Journal of Psychiatry 174(5): 451-458. http://ajp.psychiatryonline.org/doi/abs/10.1176/appi.ajp.2016.16050589

Objective: The purpose of this study was to clarify the magnitude and nature of the relationship between divorce and risk for alcohol use disorder (AUD). Method: In a population-based Swedish sample of married individuals (N=942,366), the authors examined the association between divorce or widowhood and risk for first registration for AUD. AUD was assessed using medical, criminal, and pharmacy registries. Results: Divorce was strongly associated with risk for first AUD onset in both men (hazard ratio=5.98, 95% CI=5.65–6.33) and women (hazard ratio=7.29, 95% CI=6.72–7.91). The hazard ratio was estimated for AUD onset given divorce among discordant monozygotic twins to equal 3.45 and 3.62 in men and women, respectively. Divorce was also associated with an AUD recurrence in those with AUD registrations before marriage. Furthermore, widowhood increased risk for AUD in men (hazard ratio=3.85, 95% CI=2.81–5.28) and women (hazard ratio=4.10, 95% CI=2.98–5.64). Among divorced individuals, remarriage was associated with a large decline in AUD in both sexes (men: hazard ratio=0.56, 95% CI=0.52–0.64; women: hazard ratio=0.61, 95% CI=0.55–0.69). Divorce produced a greater increase in first AUD onset in those with a family history of AUD or with prior externalizing behaviors. Conclusions: Spousal loss through divorce or bereavement is associated with a large enduring increased AUD risk. This association likely reflects both causal and noncausal processes. That the AUD status of the spouse alters this association highlights the importance of spouse characteristics for the behavioral health consequences of spousal loss. The pronounced elevation in AUD risk following divorce or widowhood, and the protective effect of remarriage against subsequent AUD, speaks to the profound impact of marriage on problematic alcohol use.

Livingston, G., A. Sommerlad, et al. (2017). "Dementia prevention, intervention, and care." The Lancet. http://dx.doi.org/10.1016/S0140-6736(17)31363-6

(Available in free full text) Key messages: 1 The number of people with dementia is increasing globally: Although incidence in some countries has decreased. 2 Be ambitious about prevention: We recommend active treatment of hypertension in middle aged (45–65 years) and older people (aged older than 65 years) without dementia to reduce dementia incidence. Interventions for other risk factors including more childhood education, exercise, maintaining social engagement, reducing smoking, and management of hearing loss, depression, diabetes, and obesity might have the potential to delay or prevent a third of dementia cases. 3 Treat cognitive symptoms: To maximise cognition, people with Alzheimer's disease or dementia with Lewy bodies should be offered cholinesterase inhibitors at all stages, or memantine for severe dementia. Cholinesterase inhibitors are not effective in mild cognitive impairment. 4 Individualise dementia care: Good dementia care spans medical, social, and supportive care; it should be tailored to unique individual and cultural needs, preferences, and priorities and should incorporate support for family carers. 5 Care for family carers: Family carers are at high risk of depression. Effective interventions, including STrAtegies for RelaTives (START) or Resources for Enhancing Alzheimer's Caregiver Health intervention (REACH), reduce the risk of depression, treat the symptoms, and should be made available. 6 Plan for the future: People with dementia and their families value discussions about the future and decisions about possible attorneys to make decisions. Clinicians should consider capacity to make different types of decisions at diagnosis. 7 Protect people with dementia: People with dementia and society require protection from possible risks of the condition, including self-neglect, vulnerability (including to exploitation), managing money, driving, or using weapons. Risk assessment and management at all stages of the disease is essential, but it should be balanced against the person's right to autonomy. 8 Manage neuropsychiatric symptoms: Management of the neuropsychiatric symptoms of dementia including agitation, low mood, or psychosis is usually psychological, social, and environmental, with pharmacological management reserved for individuals with more severe symptoms. 9 Consider end of life: A third of older people die with dementia, so it is essential that professionals working in end-of-life care consider whether a patient has dementia, because they might be unable to make decisions about their care and treatment or express their needs and wishes. 10 Technology: Technological interventions have the potential to improve care delivery but should not replace social contact.

Luthar, S. S., A. Curlee, et al. (2017). "Fostering resilience among mothers under stress: "Authentic connections groups" for medical professionals." Womens Health Issues 27(3): 382-390. https://www.ncbi.nlm.nih.gov/pubmed/28410972

BACKGROUND: We report on effects of an intervention to foster resilience among professional women at high risk for stress and burnout: health care providers (physicians, PhD clinicians, physician assistants, and nurse practitioners) who are mothers. METHODS: Between February and November 2015, 40 mothers on staff at the Mayo Clinic, Arizona, were assigned randomly to either 1) 12 weekly 1-hour sessions of a structured, relational supportive intervention, the Authentic Connections Groups (n = 21) with protected time to attend sessions or to 2) 12 weekly hours of protected time to be used as desired (controls; n = 19). Participants were assessed at baseline, after the intervention, and 3 months follow-up on multiple psychological measures plus plasma cortisol. RESULTS: Across the 12 weeks of the intervention groups, there were zero dropouts. After the intervention, analyses of covariance showed significantly greater improvements ($p < .05$) for mothers in the Authentic Connections Groups than control condition for depression and global symptoms. By 3 months follow-up, significant differences were seen for these two dimensions and almost all other central variables, including self-compassion, feeling loved, physical affection received, and parenting stress, with moderate effect sizes (etap2 0.08-0.19; median, 0.16). Participants in the Authentic Connections Groups (but not control) condition also showed significant reductions in cortisol levels at both after the intervention and follow-up. CONCLUSIONS: Facilitated colleague support groups could be a viable, low-cost, preventive intervention to mitigate burnout and distress for mothers in high-stress professional settings such as hospitals, resulting in personal benefit, greater engagement at work, and attenuated stress associated with parenting.

MacQueen, G., M. Surette, et al. (2017). "The gut microbiota and psychiatric illness." Journal of Psychiatry & Neuroscience : JPN 42(2): 75-77. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5373703/

(Available in free full text) The global market for probiotics is projected to be worth almost $USD 100 billion by 2020,1 reflecting growing acceptance that our intestinal microbiota can influence physiologic systems, including but not limited to the gut. Many lay publications enthusiastically tout the potential health benefits of an optimized microbiome — or conversely, the risks of dysbiosis. Depression, stress, anxiety and autism are all proposed to be at least partially sensitive to manipulation of the gut microbiome. Studies have suggested that a variety of conditions are influenced by the microbiome, including obesity, functional gastrointestinal (GI) disorders, chronic fatigue syndrome and inflammatory illnesses. All of these disorders also have an important central nervous system component. It is likely that a substantial portion of people who consume prebiotics or probiotics will do so with the aim of improving symptoms related to the brain … There is interest among both the research and lay communities in understanding the effects of the microbiome on the brain. Patients and clinicians alike are keen to understand whether modifying the microbiome might provide a treatment avenue for various neuropsychiatric conditions. Despite a relative abundance of reviews of the microbiome in human mental health and disease, actual data are sparse, and the widespread use of probiotics is not currently supported by randomized controlled trial data. Research programs that are comprehensive and bring together investigators from various disciplines may provide the best opportunity to move this exciting but challenging field forward in the next decade.

Micha, R., J. L. Peñalvo, et al. (2017). "Association between dietary factors and mortality from heart disease, stroke, and type 2 diabetes in the united states." JAMA 317(9): 912-924. http://dx.doi.org/10.1001/jama.2017.0947

Key Points - Question: What is the estimated mortality due to heart disease, stroke, or type 2 diabetes (cardiometabolic deaths) associated with suboptimal intakes of 10 dietary factors in the United States? Findings: In 2012, suboptimal intake of dietary factors was associated with an estimated 318 656 cardiometabolic deaths, representing 45.4% of cardiometabolic deaths. The highest proportions of cardiometabolic deaths were estimated to be related to excess sodium intake, insufficient intake of nuts/seeds, high intake of processed meats, and low intake of seafood omega-3 fats. Meaning: Suboptimal intake of specific foods and nutrients was associated with a substantial proportion of deaths due to heart disease, stroke, or type 2 diabetes. Importance: In the United States, national associations of individual dietary factors with specific cardiometabolic diseases are not well established. Objective: To estimate associations of intake of 10 specific dietary factors with mortality due to heart disease, stroke, and type 2 diabetes (cardiometabolic mortality) among US adults. Design, Setting, and Participants: A comparative risk assessment model incorporated data and corresponding uncertainty on population demographics and dietary habits from National Health and Nutrition Examination Surveys (1999-2002: n = 8104; 2009-2012: n = 8516); estimated associations of diet and disease from meta-analyses of prospective studies and clinical trials with validity analyses to assess potential bias; and estimated disease-specific national mortality from the National Center for Health Statistics. Exposures: Consumption of 10 foods/nutrients associated with cardiometabolic diseases: fruits, vegetables, nuts/seeds, whole grains, unprocessed red meats, processed meats, sugar-sweetened beverages (SSBs), polyunsaturated fats, seafood omega-3 fats, and sodium. Main Outcomes and Measures: Estimated absolute and percentage mortality due to heart disease, stroke, and type 2 diabetes in 2012. Disease-specific and demographic-specific (age, sex, race, and education)

mortality and trends between 2002 and 2012 were also evaluated. Results In 2012, 702 308 cardiometabolic deaths occurred in US adults, including 506 100 from heart disease (371 266 coronary heart disease, 35 019 hypertensive heart disease, and 99 815 other cardiovascular disease), 128 294 from stroke (16 125 ischemic, 32 591 hemorrhagic, and 79 578 other), and 67 914 from type 2 diabetes. Of these, an estimated 318 656 (95% uncertainty interval [UI], 306 064-329 755; 45.4%) cardiometabolic deaths per year were associated with suboptimal intakes—48.6% (95% UI, 46.2%-50.9%) of cardiometabolic deaths in men and 41.8% (95% UI, 39.3%-44.2%) in women; 64.2% (95% UI, 60.6%-67.9%) at younger ages (25-34 years) and 35.7% (95% UI, 33.1%-38.1%) at older ages (≥75 years); 53.1% (95% UI, 51.6%-54.8%) among blacks, 50.0% (95% UI, 48.2%-51.8%) among Hispanics, and 42.8% (95% UI, 40.9%-44.5%) among whites; and 46.8% (95% UI, 44.9%-48.7%) among lower-, 45.7% (95% UI, 44.2%-47.4%) among medium-, and 39.1% (95% UI, 37.2%-41.2%) among higher-educated individuals. The largest numbers of estimated diet-related cardiometabolic deaths were related to high sodium (66 508 deaths in 2012; 9.5% of all cardiometabolic deaths), low nuts/seeds (59 374; 8.5%), high processed meats (57 766; 8.2%), low seafood omega-3 fats (54 626; 7.8%), low vegetables (53 410; 7.6%), low fruits (52 547; 7.5%), and high SSBs (51 694; 7.4%). Between 2002 and 2012, population-adjusted US cardiometabolic deaths per year decreased by 26.5%. The greatest decline was associated with insufficient polyunsaturated fats (−20.8% relative change [95% UI, −18.5% to −22.8%]), nuts/seeds (−18.0% [95% UI, −14.6% to −21.0%]), and excess SSBs (−14.5% [95% UI, −12.0% to −16.9%]). The greatest increase was associated with unprocessed red meats (+14.4% [95% UI, 9.1%-19.5%]). Conclusions and Relevance: Dietary factors were estimated to be associated with a substantial proportion of deaths from heart disease, stroke, and type 2 diabetes. These results should help identify priorities, guide public health planning, and inform strategies to alter dietary habits and improve health.

Milojev, P. and C. G. Sibley (2017). "Normative personality trait development in adulthood: A 6-year cohort-sequential growth model." J Pers Soc Psychol 112(3): 510-526. https://www.ncbi.nlm.nih.gov/pubmed/27831700

The present study investigated patterns of normative change in personality traits across the adult life span (19 through 74 years of age). We examined change in extraversion, agreeableness, conscientiousness, neuroticism, openness to experience and honesty-humility using data from the first 6 annual waves of the New Zealand Attitudes and Values Study (N = 10,416; 61.1% female, average age = 49.46). We present a cohort-sequential latent growth model assessing patterns of mean-level change due to both aging and cohort effects. Extraversion decreased as people aged, with the most pronounced declines occurring in young adulthood, and then again in old age. Agreeableness, indexed with a measure focusing on empathy, decreased in young adulthood and remained relatively unchanged thereafter. Conscientiousness increased among young adults then leveled off and remained fairly consistent for the rest of the adult life span. Neuroticism and openness to experience decreased as people aged. However, the models suggest that these latter effects may also be partially due to cohort differences, as older people showed lower levels of neuroticism and openness to experience more generally. Honesty-humility showed a pronounced and consistent increase across the adult life span. These analyses of large-scale longitudinal national probability panel data indicate that different dimensions of personality follow distinct developmental processes throughout adulthood. Our findings also highlight the importance of young adulthood (up to about the age of 30) in personality trait development, as well as continuing change throughout the adult life span.

Northey, J. M., N. Cherbuin, et al. (2017). "Exercise interventions for cognitive function in adults older than 50: A systematic review with meta-analysis." British Journal of Sports Medicine

Background Physical exercise is seen as a promising intervention to prevent or delay cognitive decline in individuals aged 50 years and older, yet the evidence from reviews is not conclusive. Objectives To determine if physical exercise is effective in improving cognitive function in this population.Design Systematic review with multilevel meta-analysis. Data sources Electronic databases Medline (PubMed), EMBASE (Scopus), PsychINFO and CENTRAL (Cochrane) from inception to November 2016. Eligibility criteria Randomised controlled trials of physical exercise interventions in community-dwelling adults older than 50 years, with an outcome measure of cognitive function. Results The search returned 12 820 records, of which 39 studies were included in the systematic review. Analysis of 333 dependent effect sizes from 36 studies showed that physical exercise improved cognitive function (0.29; 95% CI 0.17 to 0.41; p<0.01). Interventions of aerobic exercise, resistance training, multicomponent training and tai chi, all had significant point estimates. When exercise prescription was examined, a duration of 45–60 min per session and at least moderate intensity, were associated with benefits to cognition. The results of the meta-analysis were consistent and independent of the cognitive domain tested or the cognitive status of the participants. Conclusions Physical exercise improved cognitive function in the over 50s, regardless of the cognitive status of participants. To improve cognitive function, this meta-analysis provides clinicians with evidence to recommend that patients obtain both aerobic and resistance exercise of at least moderate intensity on as many days of the week as feasible, in line with current exercise guidelines.

Reginster, J.-Y., J. Dudler, et al. (2017). "Pharmaceutical-grade chondroitin sulfate is as effective as celecoxib and superior to placebo in symptomatic knee osteoarthritis: The chondroitin versus celecoxib versus placebo trial (concept)." Annals of the Rheumatic Diseases. http://ard.bmj.com/content/early/2017/04/29/annrheumdis-2016-210860

(Available in free full text) Objectives Chondroitin sulfate 800 mg/day (CS) pharmaceutical-grade in the management of symptomatic knee osteoarthritis consistent with the European Medicines Agency guideline. Methods A prospective, randomised, 6-month, 3-arm, double-blind, double-dummy, placebo and celecoxib (200 mg/day)-controlled trial assessing changes in pain on a Visual Analogue Scale (VAS) and in the Lequesne Index (LI) as coprimary endpoints. Minimal-Clinically Important Improvement (MCII), Patient-Acceptable Symptoms State (PASS) were used as secondary endpoints. Results 604 patients (knee osteoarthritis) diagnosed according to American College of Rheumalogy (ACR) criteria, recruited in five European countries and followed for 182 days. CS and celecoxib showed a greater significant reduction in pain and LI than placebo. In the intention-to-treat (ITT) population, pain reduction in VAS at day 182 in the CS group (−42.6 mm) and in celecoxib group (−39.5 mm) was significantly greater than the placebo group (−33.3 mm) (p=0.001 for CS and p=0.009 for celecoxib), while no difference observed between CS and celecoxib. Similar trend for the LI, as reduction in this metric in the CS group (−4.7) and celecoxib group (−4.6) was significantly greater than the placebo group (−3.7) (p=0.023 for CS and p=0.015 for celecoxib), no difference was observed between CS and celecoxib. Both secondary endpoints (MCII and PASS) at day 182 improved significantly in the CS and celecoxib groups. All treatments demonstrated excellent safety profiles. Conclusion A 800 mg/day pharmaceutical-grade CS is superior to placebo and similar to celecoxib in reducing pain and improving function over 6 months in symptomatic knee osteoarthritis (OA) patients. This formulation of CS should be considered a first-line treatment in the medical management of knee OA.

Reitsma, M. B., N. Fullman, et al. (2017). "Smoking prevalence and attributable disease burden in 195 countries and territories, 1990–2015: A systematic analysis from the global burden of disease study 2015." The Lancet 389(10082): 1885-1906. http://dx.doi.org/10.1016/S0140-6736(17)30819-X

(Available in free full text) Background The scale-up of tobacco control, especially after the adoption of the Framework Convention for Tobacco Control, is a major public health success story. Nonetheless, smoking remains a leading risk for early death and disability worldwide, and therefore continues to require sustained political commitment. The Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) offers a robust platform through which global, regional, and national progress toward achieving smoking-related targets can be assessed. Methods We synthesised 2818 data sources with spatiotemporal Gaussian process regression and produced estimates of daily smoking prevalence by sex, age group, and year for 195 countries and territories from 1990 to 2015. We analysed 38 risk-outcome pairs to generate estimates of smoking-attributable mortality and disease burden, as measured by disability-adjusted life-years (DALYs). We then performed a cohort analysis of smoking prevalence by birth-year cohort to better understand temporal age patterns in smoking. We also did a decomposition analysis, in which we parsed out changes in all-cause smoking-attributable DALYs due to changes in population growth, population ageing, smoking prevalence, and risk-deleted DALY rates. Finally, we explored results by level of development using the Socio-demographic Index (SDI). Findings Worldwide, the age-standardised prevalence of daily smoking was 25·0% (95% uncertainty interval [UI] 24·2–25·7) for men and 5·4% (5·1–5·7) for women, representing 28·4% (25·8–31·1) and 34·4% (29·4–38·6) reductions, respectively, since 1990. A greater percentage of countries and territories achieved significant annualised rates of decline in smoking prevalence from 1990 to 2005 than in between 2005 and 2015; however, only four countries had significant annualised increases in smoking prevalence between 2005 and 2015 (Congo [Brazzaville] and Azerbaijan for men and Kuwait and Timor-Leste for women). In 2015, 11·5% of global deaths (6·4 million [95% UI 5·7–7·0 million]) were attributable to smoking worldwide, of which 52·2% took place in four countries (China, India, the USA, and Russia). Smoking was ranked among the five leading risk factors by DALYs in 109 countries and territories in 2015, rising from 88 geographies in 1990. In terms of birth cohorts, male smoking prevalence followed similar age patterns across levels of SDI, whereas much more heterogeneity was found in age patterns for female smokers by level of development. While smoking prevalence and risk-deleted DALY rates mostly decreased by sex and SDI quintile, population growth, population ageing, or a combination of both, drove rises in overall smoking-attributable DALYs in low-SDI to middle-SDI geographies between 2005 and 2015. Interpretation The pace of progress in reducing smoking prevalence has been heterogeneous across geographies, development status, and sex, and as highlighted by more recent trends, maintaining past rates of decline should not be taken for granted, especially in women and in low-SDI to middle-SDI countries. Beyond the effect of the tobacco industry and societal mores, a crucial challenge facing tobacco control initiatives is that demographic forces are poised to heighten smoking's global toll, unless progress in preventing initiation and promoting cessation can be substantially accelerated. Greater success in tobacco control is possible but requires effective, comprehensive, and adequately implemented and enforced policies, which might in turn require global and national levels of political commitment beyond what has been achieved during the past 25 years.

Schaefer, J. D., A. Caspi, et al. (2017). "Enduring mental health: Prevalence & prediction." Journal of Abnormal Psychology 126(2): 212-224. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC5304549/

(Available in free full text) We review epidemiological evidence indicating that most people will develop a diagnosable mental disorder, suggesting that only a minority experience enduring mental health. This minority has received little empirical study, leaving the prevalence and predictors of enduring mental health unknown. We turn to the population-representative Dunedin cohort, followed from birth to midlife, to compare people never-diagnosed with mental disorder (N=171; 17% prevalence) to those diagnosed at 1-2 study waves, the cohort mode (N=409). Surprisingly, compared to this modal group, never-diagnosed Study members were not born into unusually well-to-do families, nor did their enduring mental health follow markedly sound physical health, or unusually high intelligence. Instead, they tended to have an advantageous temperament/personality style, and negligible family history of mental disorder. As adults, they report superior educational and occupational attainment, greater life satisfaction, and higher-quality relationships. Our findings draw attention to "enduring mental health" as a revealing psychological phenotype and suggest it deserves further study. GENERAL SCIENTIFIC SUMMARY: This study reviews evidence indicating that the experience of a diagnosable mental disorder at some point during the life course is the norm, not the exception. Our results suggest that the comparatively few individuals who manage to avoid such conditions owe their extraordinary mental health to an advantageous personality style and lack of family history of disorder, but not to childhood socioeconomic privilege, superior physical health, or high intelligence.

Schneider, M. and F. Preckel (2017). "Variables associated with achievement in higher education: A systematic review of meta-analyses." Psychol Bull 143(6): 565-600. http://psycnet.apa.org/journals/bul/143/6/565/

The last 2 decades witnessed a surge in empirical studies on the variables associated with achievement in higher education. A number of meta-analyses synthesized these findings. In our systematic literature review, we included 38 meta-analyses investigating 105 correlates of achievement, based on 3,330 effect sizes from almost 2 million students. We provide a list of the 105 variables, ordered by the effect size, and summary statistics for central research topics. The results highlight the close relation between social interaction in courses and achievement. Achievement is also strongly associated with the stimulation of meaningful learning by presenting information in a clear way, relating it to the students, and using conceptually demanding learning tasks. Instruction and communication technology has comparably weak effect sizes, which did not increase over time. Strong moderator effects are found for almost all instructional methods, indicating that how a method is implemented in detail strongly affects achievement. Teachers with high-achieving students invest time and effort in designing the microstructure of their courses, establish clear learning goals, and employ feedback practices. This emphasizes the importance of teacher training in higher education. Students with high achievement are characterized by high self-efficacy, high prior achievement and intelligence, conscientiousness, and the goal-directed use of learning strategies. Barring the paucity of controlled experiments and the lack of meta-analyses on recent educational innovations, the variables associated with achievement in higher education are generally well investigated and well understood. By using these findings, teachers, university administrators, and policymakers can increase the effectivity of higher education.

Scott, S. P., M. J. De Souza, et al. (2017). "Combined iron deficiency and low aerobic fitness doubly burden academic performance among women attending university." The Journal of Nutrition 147(1): 104-109. http://jn.nutrition.org/content/147/1/104.abstract

Background: Academic success is a key determinant of future prospects for students. Cognitive functioning has been related to nutritional and physical factors. Here, we focus on iron status and aerobic fitness in young-adult female students given the high rate of iron deficiency and declines in fitness reported in this population.Objectives: We sought to explore the combined effects of iron status and fitness on academic success and to determine whether these associations are mediated by cognitive performance.Methods: Women (n = 105) aged 18–35 y were recruited for this cross-sectional study. Data were obtained for iron biomarkers, peak oxygen uptake (VO2peak), grade point average (GPA), performance on computerized attention and memory tasks, and motivation and parental occupation. We compared the GPA of groups 1) with low compared with normal iron status, 2) among different fitness levels, and 3) by using a combined iron status and fitness designation. Mediation analysis was applied to determine whether iron status and VO2peak influence GPA through attentional and mnemonic function.Results: After controlling for age, parental occupation, and motivation, GPA was higher in women with normal

compared with low ferritin (3.66 ± 0.06 compared with 3.39 ± 0.06; P = 0.01). In analyses of combined effects of iron status and fitness, GPA was higher in women with normal ferritin and higher fitness (3.70 ± 0.08) than in those with 1) low ferritin and lower fitness (3.36 ± 0.08; P = 0.02) and 2) low ferritin and higher fitness (3.44 ± 0.09; P = 0.04). Path analysis revealed that working memory mediated the association between VO2peak and GPA.Conclusions: Low iron stores and low aerobic fitness may prevent female college students from achieving their full academic potential. Investigators should explore whether integrated lifestyle interventions targeting nutritional status and fitness can benefit cognitive function, academic success, and postgraduate prospects.

Sharabi, L. L. and J. P. Caughlin (2017). "What predicts first date success? A longitudinal study of modality switching in online dating." Personal Relationships 24(2): 370-391. http://dx.doi.org/10.1111/pere.12188

This study uses a longitudinal design to investigate the effects of online dating sites on first date success. Participants were surveyed before their first date with someone from an online dating site (N = 186) and again after meeting their partner in person (N = 94). As part of the survey, they also supplied the e-mails they had sent to their partner through the dating site so their actual communication could be examined. Findings indicated that first date success was predictable from features of participants' online impressions and relational dynamics. The results are discussed in terms of their theoretical and methodological contributions to the literature on relationship development, as well as their practical implications for online dating sites and users.

Siahbazi, S., S. Behboudi-Gandevani, et al. (2017). "Effect of zinc sulfate supplementation on premenstrual syndrome and health-related quality of life: Clinical randomized controlled trial." Journal of Obstetrics and Gynaecology Research 43(5): 887-894. http://dx.doi.org/10.1111/jog.13299

Aim: The purpose of study was to assess the effect of zinc sulfate (ZS) supplementation on premenstrual syndrome (PMS) and health-related quality of life (QoL). Methods: This was a double-blind randomized and placebo-controlled trial using the parallel technique conducted between June 2013 and May 2014. A total of 142 women (age, 20–35 years) with PMS were allocated to either the ZS or placebo group. The women in the intervention group received ZS 220-mg capsules (containing 50 mg elemental zinc) from the 16th day of the menstrual cycle to the second day of the next cycle. Data were collected using the Premenstrual Symptoms Screening Tool (PSST) and 12-item Short-Form Health Survey Questionnaire. Result: The prevalence of moderate to severe PMS in the ZS group significantly decreased throughout the study period (9.5% in the first, 6% in the second and 2.6% in the third month of the study, P < 0.001), but in the control placebo group this reduction was seen only in the first month of the study (14.2% in the first, 13.7% in the second and 13.5% in the third month, P = 0.08). Also, ZS improved the PSST component scores throughout the study period. The mean scores of QoL in physical and mental components were significantly improved in the ZS intervention group. However, the differences were statistically significant only 3 months after the intervention. Conclusion: Zinc sulfate, as a simple and inexpensive treatment, was associated with improvement of PMS symptoms and health-related QoL. Additional studies are warranted to confirm these findings.

Siemieniuk, R. A. C., I. A. Harris, et al. (2017). "Arthroscopic surgery for degenerative knee arthritis and meniscal tears: A clinical practice guideline." BMJ 357. http://www.bmj.com/content/bmj/357/bmj.j1982.full.pdf

What you need to know: We make a strong recommendation against the use of arthroscopy in nearly all patients with degenerative knee disease, based on linked systematic reviews; further research is unlikely to alter this recommendation. This recommendation applies to patients with or without imaging evidence of osteoarthritis, mechanical symptoms, or sudden symptom onset. Healthcare administrators and funders may use the number of arthroscopies performed in patients with degenerative knee disease as an indicator of quality care. Knee arthroscopy is the most common orthopaedic procedure in countries with available data. This Rapid Recommendation package was triggered by a randomised controlled trial published in The BMJ in June 2016 which found that, among patients with a degenerative medial meniscus tear, knee arthroscopy was no better than exercise therapy.

Topiwala, A., C. L. Allan, et al. (2017). "Moderate alcohol consumption as risk factor for adverse brain outcomes and cognitive decline: Longitudinal cohort study." BMJ 357

(Available in free full text) Objectives To investigate whether moderate alcohol consumption has a favourable or adverse association or no association with brain structure and function. Design Observational cohort study with weekly alcohol intake and cognitive performance measured repeatedly over 30 years (1985-2015). Multimodal magnetic resonance imaging (MRI) was performed at study endpoint (2012-15). Setting Community dwelling adults enrolled in the Whitehall II cohort based in the UK (the Whitehall II imaging substudy). Participants 550 men and women with mean age 43.0 (SD 5.4) at study baseline, none were "alcohol dependent" according to the CAGE screening questionnaire, and all safe to undergo MRI of the brain at follow-up. Twenty three were excluded because of incomplete or poor quality imaging data or gross structural abnormality (such as a brain cyst) or incomplete alcohol use, sociodemographic, health, or cognitive data. Main outcome measures Structural brain measures included hippocampal atrophy, grey matter density, and white matter microstructure. Functional measures included cognitive decline over the study and cross sectional cognitive performance at the time of scanning. Results Higher alcohol consumption over the 30 year follow-up was associated with increased odds of hippocampal atrophy in a dose dependent fashion. While those consuming over 30 units a week were at the highest risk compared with abstainers (odds ratio 5.8, 95% confidence interval 1.8 to 18.6; P≤0.001), even those drinking moderately (14-21 units/week) had three times the odds of right sided hippocampal atrophy (3.4, 1.4 to 8.1; P=0.007). There was no protective effect of light drinking (1-<7 units/week) over abstinence. Higher alcohol use was also associated with differences in corpus callosum microstructure and faster decline in lexical fluency. No association was found with cross sectional cognitive performance or longitudinal changes in semantic fluency or word recall. Conclusions Alcohol consumption, even at moderate levels, is associated with adverse brain outcomes including hippocampal atrophy. These results support the recent reduction in alcohol guidance in the UK and question the current limits recommended in the US.

Tsugawa, Y., J. P. Newhouse, et al. (2017). "Physician age and outcomes in elderly patients in hospital in the us: Observational study." BMJ 357. http://www.bmj.com/content/357/bmj.j1797

(Available in free full text) Objectives To investigate whether outcomes of patients who were admitted to hospital differ between those treated by younger and older physicians. Design Observational study. Setting US acute care hospitals. Participants 20% random sample of Medicare fee-for-service beneficiaries aged ≥65 admitted to hospital with a medical condition in 2011-14 and treated by hospitalist physicians to whom they were assigned based on scheduled work shifts. To assess the generalizability of findings, analyses also included patients treated by general internists including both hospitalists and non-hospitalists. Main outcome measures 30 day mortality and readmissions and costs of care. Results 736 537 admissions managed by 18 854 hospitalist physicians (median age 41) were included. Patients' characteristics were similar across physician ages. After adjustment for characteristics of patients and physicians and hospital fixed effects (effectively comparing physicians

within the same hospital), patients' adjusted 30 day mortality rates were 10.8% for physicians aged <40 (95% confidence interval 10.7% to 10.9%), 11.1% for physicians aged 40-49 (11.0% to 11.3%), 11.3% for physicians aged 50-59 (11.1% to 11.5%), and 12.1% for physicians aged ≥60 (11.6% to 12.5%). Among physicians with a high volume of patients, however, there was no association between physician age and patient mortality. Readmissions did not vary with physician age, while costs of care were slightly higher among older physicians. Similar patterns were observed among general internists and in several sensitivity analyses. Conclusions Within the same hospital, patients treated by older physicians had higher mortality than patients cared for by younger physicians, except those physicians treating high volumes of patients.

Ustun, B., L. A. Adler, et al. (2017). "The world health organization adult attention-deficit/hyperactivity disorder self-report screening scale for dsm-5." JAMA Psychiatry. http://dx.doi.org/10.1001/jamapsychiatry.2017.0298

Importance Recognition that adult attention-deficit/hyperactivity disorder (ADHD) is common, seriously impairing, and usually undiagnosed has led to the development of adult ADHD screening scales for use in community, workplace, and primary care settings. However, these scales are all calibrated to DSM-IV criteria, which are narrower than the recently developed DSM-5 criteria.Objectives To update for DSM-5 criteria and improve the operating characteristics of the widely used World Health Organization Adult ADHD Self-Report Scale (ASRS) for screening.Design, Setting, and Participants Probability subsamples of participants in 2 general population surveys (2001-2003 household survey [n = 119] and 2004-2005 managed care subscriber survey [n = 218]) who completed the full 29-question self-report ASRS, with both subsamples over-sampling ASRS-screened positives, were blindly administered a semistructured research diagnostic interview for DSM-5 adult ADHD. In 2016, the Risk-Calibrated Supersparse Linear Integer Model, a novel machine-learning algorithm designed to create screening scales with optimal integer weights and limited numbers of screening questions, was applied to the pooled data to create a DSM-5 version of the ASRS screening scale. The accuracy of the new scale was then confirmed in an independent 2011-2012 clinical sample of patients seeking evaluation at the New York University Langone Medical Center Adult ADHD Program (NYU Langone) and 2015-2016 primary care controls (n = 300). Data analysis was conducted from April 4, 2016, to September 22, 2016.Main Outcomes and Measures The sensitivity, specificity, area under the curve (AUC), and positive predictive value (PPV) of the revised ASRS.Results Of the total 637 participants, 44 (37.0%) household survey respondents, 51 (23.4%) managed care respondents, and 173 (57.7%) NYU Langone respondents met DSM-5 criteria for adult ADHD in the semistructured diagnostic interview. Of the respondents who met DSM-5 criteria for adult ADHD, 123 were male (45.9%); mean (SD) age was 33.1 (11.4) years. A 6-question screening scale was found to be optimal in distinguishing cases from noncases in the first 2 samples. Operating characteristics were excellent at the diagnostic threshold in the weighted (to the 8.2% DSM-5/Adult ADHD Clinical Diagnostic Scale population prevalence) data (sensitivity, 91.4%; specificity, 96.0%; AUC, 0.94; PPV, 67.3%). Operating characteristics were similar despite a much higher prevalence (57.7%) when the scale was applied to the NYU Langone clinical sample (sensitivity, 91.9%; specificity, 74.0%; AUC, 0.83; PPV, 82.8%). Conclusions and Relevance The new ADHD screening scale is short, easily scored, detects the vast majority of general population cases at a threshold that also has high specificity and PPV, and could be used as a screening tool in specialty treatment settings.

van Scheppingen, M. A., J. Denissen, et al. (2017). "Self-esteem and relationship satisfaction during the transition to motherhood." Open Science Framework, 28 May 2017. Web. https://osf.io/85uya/

(Available in free full text) In the current study, we used five waves of longitudinal data from a large representative sample of Norwegian mothers (N = 84,711) to examine the association between romantic relationship satisfaction and self-esteem before and after childbirth in subgroups of first-, second-, third-, and fourth-time mothers. Maternal self-esteem showed a highly similar change-pattern across subgroups. Specifically, self-esteem decreased during pregnancy, increased until the child was six months old and then gradually decreased over the following years. The replication of this trajectory across subgroups and pregnancies suggests that this is a normative change pattern. For relationship satisfaction, the birth of the first child seemed to have the strongest impact compared to the birth of subsequent children. In first-time mothers, relationship satisfaction was high during pregnancy, sharply decreased around childbirth and then gradually decreased in the following years. In second-, third-, and fourth-time mothers, the decrease in relationship satisfaction after childbirth was more gradual and linear compared to the sharp decrease found in first-time mothers. Moderate positive correlated changes between self-esteem and relationship satisfaction indicated that these constructs were linked over time. Discussion focuses on the implications of the results for theory and future research on self-esteem, relationship satisfaction, and personality-relationship transactions. See too the BPS Research Digest description at http://tinyurl.com/y9u5bgm2

Vedel, A. and D. K. Thomsen (2017). "The dark triad across academic majors." Personality and Individual Differences 116: 86-91. http://www.sciencedirect.com/science/article/pii/S0191886917302817

The Dark Triad traits (i.e., narcissism, psychopathy, and Machiavellianism) have been associated with the desire for power, status, and social dominance in the workplace, and these desires have been hypothesized to draw Dark Triad individuals towards occupations affording such outcomes. Following this reasoning, the Dark Triad may also influence educational choices. Research in other personality traits has shown that Big Five traits impact educational choices: Students in different academic majors differ on Big Five traits at enrollment. The aim of the present study was to explore whether there are also pre-existing Dark Triad differences across academic majors. Accordingly, the Big Five and the Dark Triad traits were measured in a sample of newly enrolled students (N = 487) in different academic majors (psychology, economics/business, law, and political science), and mean scores were compared. Group differences in the Big Five personality traits largely replicated previous findings. Group differences in the Dark Triad traits were also found and included medium and large effect sizes with the largest differences being between economics/business students (having high Dark Triad scores) and psychology students (having low Dark Triad scores). These findings indicate that Dark Triad as well as Big Five traits may influence educational choices.

Westmaas, J. L., J. Bontemps-Jones, et al. (2017). "Randomised controlled trial of stand-alone tailored emails for smoking cessation." Tobacco Control. http://tobaccocontrol.bmj.com/content/early/2017/05/17/tobaccocontrol-2016-053056

(Available in free full text) Introduction Digital technology has created opportunities for delivering smoking cessation assistance at the population level. However, the efficacy of sending multiple, automated, tailored emails providing motivation, support and information for quitting is unknown.Methods Smokers planning to quit (n=1070) were randomly assigned to (1) 27 tailored cessation emails (deluxe email group (DEG)), (2) 3 to 4 tailored emails with links to downloadable booklets (basic email group (BEG)) or (3) a single non-tailored email (single email group (SEG)). All emails included links to quitting resources. Self-reported 7-day point-prevalence abstinence was assessed at 1 month, 3 months and 6 months postenrolment.Results Across follow-ups, abstinence was significantly greater for smokers in the DEG (34%) compared with the SEG (25.8%; OR=1.47, 95% CI 1.07 to 2.02, p=0.02) but there was no difference between the BEG (30.8%) and the SEG (p=0.13). Results were independent of baseline cigarettes per day, interest in quitting, smoker in household, use of nicotine replacement therapy (NRT) or varenicline and gender, themselves associated with abstinence (ps<0.05). Missing=smoking and multiple imputation analyses based on 25 data sets corroborated results. Participants in the DEG were also more likely to use non-medication aids

(eg, quit smoking website, cessation class/clinic) compared with the SEG (OR=1.34, p=0.02, CI 1.06 to 1.71), but use of these or NRT by the 4-week follow-up (vs no use) increased abstinence across follow-ups primarily for those in the SEG.Conclusions Stand-alone tailored, multiple emails providing support, motivation and information during a quit attempt are an easily deployable, inexpensive mode of providing effective cessation assistance to large numbers of smokers planning to quit. (And as a BMJ comment - http://www.bmj.com/content/357/bmj.j2459 - noted "Sending smokers frequent personalised emails providing tips on quitting, motivational messages, and social support achieves similar cessation rates to the most effective medicines, a study has found.")

Wilkinson, R. G. and K. E. Pickett (2017). "The enemy between us: The psychological and social costs of inequality." European Journal of Social Psychology 47(1): 11-24. http://dx.doi.org/10.1002/ejsp.2275

(Available in free full text) There is now substantial evidence that larger income differences in a society increase the prevalence of most of the health and social problems that tend to occur more frequently lower down the social ladder. The pathways through which human beings are sensitive to inequality are however less clear. This paper outlines the explanatory theory that we think best fits the growing but incomplete body of evidence available. Inequality appears to have its most fundamental effects on the quality of social relations—with implications affecting the prevalence of a number of psychopathologies. We suggest that human beings have two contrasting evolved social strategies: one that is adaptive to living in a dominance hierarchy and the other appropriate to more egalitarian societies based on reciprocity and cooperation. Although both strategies are used in all societies, we hypothesise that the balance between them changes with the extent of material inequality.

Wise, J. (2017). "Cutting salt could reduce need to urinate at night, study finds." BMJ 356. http://www.bmj.com/content/bmj/356/bmj.j1527.full.pdf

Cutting salt intake could reduce people's need to get up in the night to urinate, says a preliminary study presented at the European Association of Urology congress in London. The Japanese study included 321 men and women with a mean age of 64.3 who experienced nocturia during sleep time and had a high dietary salt intake (≥8 g/day in men and ≥7 g/day in women).The participants were given written guidance and support on reducing their salt intake and were followed up for 12 weeks. The volume and frequency of urination were measured on a frequency volume chart, and daily salt intake was estimated by examining the sodium and creatinine concentrations of spot urine samples using a formula that was adjusted for height, weight, and age. The study found that 223 members of the group (69.5%) managed to reduce their salt intake from a mean of 10.7 g/day to 8.0 g/day. In this group the average night time frequency of urination improved, falling from 2.3 times to 1.4 times (P<0.001). In contrast, 98 subjects increased their average salt intake from a mean of 9.6 g/day to 11.0 g/day, and they found that the need to urinate increased from 2.3 times to 2.7 times a night (P<0.001). The need to urinate during the day also reduced when salt in the diet was reduced, the researchers found. Quality of life as measured by a standard questionnaire also improved significantly from 3.6 points to 2.7 points (P<0.001) among the group who cut their salt intake. The study has not been published in a journal so has not gone through a peer review process. However, it was reviewed for suitability and accuracy by the European Association of Urology communications group and by a specialist in the field. The study author, Matsuo Tomohiro, of Nagasaki University in Japan, said, "This is the first study to measure how salt intake affects the frequency of going to the bathroom, so we need to confirm the work with larger studies. Night time urination is a real problem for many people, especially as they get older. This work holds out the possibility that a simple dietary modification might significantly improve the quality of life for many people." Marcus Drake, professor of physiological urology from the University of Bristol, UK, and lead of the European Association of Urology's working group on nocturia, commented, "This is an important aspect of how patients potentially can help themselves to reduce the impact of frequent urination. Research generally focuses on reducing the amount of water a patient drinks, and the salt intake is generally not considered. "Here we have a useful study showing how we need to consider all influences to get the best chance of improving the symptom." Tomohiro M, Nakamura Y, Yasuda T, et al. Effect of restricted salt intake on nocturia. Abstract. 32nd European Association of Urology conference. Mar 2017.

Zhang, R., B. Li, et al. (2017). "Serum 25-hydroxyvitamin d and the risk of cardiovascular disease: Dose-response meta-analysis of prospective studies." The American Journal of Clinical Nutrition 105(4): 810-819. http://ajcn.nutrition.org/content/105/4/810.abstract

Background: During the past decade, an increasing number of prospective studies have focused on the association between vitamin D and cardiovascular disease (CVD). However, the evidence on the relation between serum 25-hydroxyvitamin D [25(OH)D] and the risk of overt CVD is inconclusive. Objective: We performed a dose-response meta-analysis to summarize and prospectively quantify the RR of low serum 25(OH)D concentration and total CVD (events and mortality). Design: We identified relevant studies by searching PubMed and EMBASE up to December 2015 and by hand-searching reference lists. Prospective studies based on the general population and reported RRs and 95% CIs were included. A random-effects model was used to calculate the pooled RRs. Nonlinear association was assessed by using restricted cubic spline analyses. Results: A total of 34 publications with 180,667 participants were eligible for the meta-analysis. We included 32 publications (27 independent studies) for total CVD events and 17 publications (17 independent studies) for CVD mortality. We observed an inverse association between serum 25(OH)D and total CVD events and CVD mortality, and the pooled RRs per 10-ng/mL increment were 0.90 (95% CI: 0.86, 0.94) for total CVD events and 0.88 (95% CI: 0.80, 0.96) for CVD mortality. A nonlinear association was detected for total CVD events (P-nonlinear < 0.001) and CVD mortality (P-nonlinear = 0.022). Conclusion: Serum 25(OH)D concentration was inversely associated with total CVD events and CVD mortality from the observed studies.