

grey literature searches, and (4) eligibility biases, such as those based on the language of publication or on particular indicators of quality, which may result in the exclusion of non-English reports and small-scale studies from regions with less developed health research infrastructure. **Conclusion** A systematic review must set strict inclusion criteria, but the process used to select eligible studies may introduce a wide variety of biases. Awareness of the factors that restrict the comprehensiveness of systematic reviews will allow researchers to weigh and address these limitations. Improved systematic reviews will form a stronger foundation for evidence-based policy.

### P1-183 INFLUENZA VACCINATION IN PROSTATE CANCER SURVIVORS IN THE ELECTRONIC HEALTH RECORD ERA

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**Introduction** While most men diagnosed with prostate cancer die from causes other than their cancer, many think that subsequent care focuses on their prostate cancer-related issues. We investigated whether influenza and pneumococcal vaccination practices were diminished in a cohort of men following their diagnosis of prostate cancer, in an environment that has implanted an electronic health record with multiple redundant reminders.

**Methods** We used information collected as part of the California Mens Health Study, a prospective cohort study of nearly 40 000 men ages 45–69 years at baseline in 2002 who were recruited through the Kaiser Permanente Southern California Health Plan. We identified all 1636 men who were newly diagnosed with prostate cancer from 2002 through 2008 and examined the use of influenza vaccine in the year prior to and subsequent to their cancer diagnosis, in the period before and after the introduction of the electronic health record.

**Results** Of the 973 and 663 men with prostate cancer in the pre- and post-electronic era, 312 (33%) and 391 (59%) had an influenza vaccine in the year prior to diagnosis compared to 374 (39%) and 406 (61%) in the years following (Matched OR (95% CI) 4.84 (3.62 to 6.47) and 1.64 (1.14 to 2.36)). Similar results were obtained when expanded to 2 years.

**Conclusion** These data suggest that once diagnosed with prostate cancer, no less attention is paid to preventive care as measured by influenza vaccination. Moreover, even with the dramatic increases in vaccination rates associated with the electronic record, there remained a significant improvement following cancer diagnosis.

### P1-184 A META-ANALYSIS OF THE PREVALENCE OF HIV/SYPHILIS AMONG CHINESE BISEXUAL MEN WHO HAVE SEX WITH MEN (MSM)

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**Introduction** In China, sexual transmission has become the major route of HIV transmission, prevalence of HIV is rapidly increasing among China men who have sex with men (MSM). This study investigate the bisexual behaviour among MSM and explore their HIV/syphilis prevalences stratified by sexual behaviour in order to inform the development of targeted preventive strategies.

**Methods** The Pubmed, Chinese Biomedical (CBM), Chinese National Knowledge Infrastructure (CNKI), VIP, Wanfang database, and Google Scholar databases were searched through June 2010 to

identify relevant articles. Data of eligible citations was extracted by two reviewers. All analyses were performed with Stata 10.0.

**Results** Fifty studies (including 28 739 total MSM subjects) met the selection criteria. Aggregated findings indicated that the estimated prevalence of bisexual behaviour among MSM in China is 31.2% (95% CI 28.1% to 34.5%). HIV and syphilis prevalences were 5.4% and 11.4%, respectively among MSM engaging in bisexual behaviour and 3.8% and 9.3% among MSM only having sex with men, in which HIV prevalence among MSM engaging in sex with both men and women was significantly higher than those who only have sex with men (OR 1.30; 95% CI 1.04 to 1.62;  $p=0.02$ ).

**Conclusion** There is a high prevalence of bisexual behaviour among men who have sex with men in China, and bisexual behaviour is significantly associated with increased HIV infection risk. The results of this meta-analysis highlight a critical pattern of HIV transmission among MSM in China and indicate that targeted interventions aimed at encouraging safe sex practices and promoting societal and family acceptance of MSM are urgently needed.

### P1-185 ESTIMATING THE ATTRIBUTABLE BURDEN OF CARDIOVASCULAR DISEASE FOLLOWING REDUCING THE PREVALENCE OF DIABETES TO THEORETICAL AND FEASIBLE MINIMUM RISK LEVEL

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**Introduction** Knowledge of the magnitude of attributable burden to cardiovascular disease (CVD) by diabetes, especially based on updated data are needed for health policy, priority setting and preventing CVD. This study aimed to estimate the contribution of diabetes to the attributable burden of cardiovascular disease in Iran.

**Methods** WHO Comparative Risk Assessment (CRA) methodology was used to calculating Potential Impact Fraction (PIF). Data on the Prevalence of newly diagnosed diabetes mellitus (NDM) and known diabetes mellitus (KDM) were obtained from 3<sup>rd</sup> Iranian surveillance of risk factors of non-communicable diseases and data on corresponding measures of effect were derived from a national-specific study with age and multivariate adjusted HRs. PIF were estimated on both theoretical minimum and feasible minimum risk. Uncertainty for the attributable burden was estimated by Monte Carlo simulation-modelling techniques incorporating sources of uncertainty.

**Results** Based on multivariate- adjusted HRs, by reducing the per cent of Iranian women with diabetes from 10.05% to the feasible minimum risk level that is, 5%, 6.8% (95% uncertainty intervals: 3.5 to 9.8) of attributable Disability Adjusted Life Years (DALYs) to CVD are avoidable and the corresponding value for men were 3.1% (95% uncertainty intervals: 1.4 to 4.8).

**Conclusion** Although data on the Prevalence of diabetes and corresponding measures of effect were obtained from an updated and country-specific source, but to better priority setting, PIF should be applied to updated and revised burden of CVD.

### P1-186 CHALLENGES IN NATURAL EXPERIMENT RESEARCH: POTENTIAL LESSONS FROM THE H1N1 PANDEMIC

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**Introduction** Research on natural experiments (NEs) allows investigation into topics that are important for policy-makers, including