

six months before the date of data collection. Respondents identified lack of knowledge about NCDs, low physical activity and exercise, cost and unavailability of drugs, poor habit of regular checkup, preference to traditional treatments for NCDs, the need for specialized care at hospitals, lack of early diagnosis and prompt treatment and concern about the side effects of the drugs to be taken over a longer or life long period as the main barriers to healthy lifestyle and NCD related facility based service seeking.

Interpretation: A community-based health education program through the existing Urban Health Extension Professionals would be a practical way to increase the level of awareness about NCD within the communities. Mass media should be used for promotion of NCD prevention and control and focus on the benefits of healthy diet, physical exercises, and regular health check-ups, and the harmful effects of alcohol, cigarette smoking, and use of addictive substances.

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Abstract #: 1.005_NCD

Evaluation of Enhanced Kampala Advanced Trauma Course at Mulago Hospital, Uganda: A Mixed Methods Study

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Background: Preventable death and disability due to traumatic injury is increasing in Uganda. The Kampala Advanced Trauma Course (KATC) was established to address the gaps in knowledge and skills of med/surg interns when managing trauma patients in low resource settings. This three-day course is mandatory for interns in the medical/surgical rotation at Mulago Hospital and a new scenario-based moulage component is being integrated into KATC. This is the first study that aims to determine students' immediate knowledge retention as well as describe perceptions of course strengths, weaknesses, and clinical feasibility.

Methods: This mixed methods study, conducted at Mulago National Referral Hospital and Makerere University in Kampala, Uganda, used convenience sampling to recruit enrolled med/surg interns (students, n=14) and KATC experts (facilitators, n=4). We administered pre and post-tests, student evaluation surveys, and conducted eight focus groups surrounding the May 2016 KATC. Students were excluded for failure to attend the entire course or to take both standardized tests. KATC experts were included if they facilitated one moulage scenario. Written consent was obtained and ethical approval was obtained from University of California, San Francisco and Mulago Research and Ethics Committee. We analyzed quantitative data using medians and Wilcoxon Signed Rank Test to evaluate students knowledge retention and KATC evaluation. We used a deductive approach and Framework Analysis to create a code matrix for the qualitative data.

Findings: No significant knowledge retention was found when comparing standardized test data. However, median student evaluation scores were positive across all 13 KATC sessions. Qualitative data also showed that KATC and moulage components were well received. Students and facilitators identified strengths of the course

including the emphasis on practical skills, perceived applicability, and engaging teaching style. Improvement areas were also highlighted, including time constraints and lack of materials to guide students after the course completion.

Interpretation: The enhanced course model is feasible to maintain and the scenario based moulage engaged students and facilitators. KATC has valuable clinical applicability for trauma care in low-resource settings. KATC can be improved using our findings, such as re-evaluating the standardized pre and post-test design. Research into clinical utilization is recommended next. Limitations of this study include small sample size and lack of control group.

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Abstract #: 1.006_NCD

Social Determinants of Depression in the Caribbean: A Systematic Review

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Background: Depressive disorders is the largest contributor to years lived with disability in the Caribbean, adding >900 in 2013. Depression is a risk factor for suicide and increased adverse outcomes of acute and chronic illnesses. Social inequalities influence the occurrence of depression. Yet little is known about the social inequalities of this condition. In support of the 2011 Rio Political Declaration on addressing health inequities, this article presents a systematic review of the role of social determinants on depression and its adverse outcomes in the Caribbean.

Methods: Eight databases were searched for observational studies reporting associations between social determinants and depression frequency or outcomes. Based on the PROGRESS-plus checklist, we considered 9 social determinant groups for 5 depression endpoints, totalling 90 possible ways ('relationship groups') to explore the role of social determinants on depression. Studies with >50 participants conducted in Caribbean territories between 2004 and 2014 were eligible. The review was conducted according to STROBE and PRISMA guidelines. Results were planned as a narrative synthesis, with meta-analysis if possible.

Findings: From 3,951 citations, 55 articles from 46 studies were included. Most were classified as serious risk of bias. Fifty-seven of these relationship groups were reported by the 55 included articles, leaving 33 relationship groups (37%) without an evidence base. Most relationships were reported for gender, age, residence, marital status, and education. Depression and its outcomes were more common among females (except suicide which was more common among males), middle adolescents and young adults, and those with lower levels of education. Marriage emerged as both a risk and protective factor for depression score and prevalence, while several inequality relationships from Haiti were in contrast to typical trends.

Interpretation: The risk of bias of studies and variability in the distribution of relationships within relationship groups restricted the synthesis of Caribbean evidence on social inequalities of depression. Along with more research focusing on regional social inequalities, attempts at standardizing observational reporting guidelines for observational studies of inequality is necessitated. This review offers as a benchmark to prioritize future research into the social determinants of depression frequency and outcomes in the Caribbean.

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Best Practice Guidance for the Use of Strategies to Improve Retention in Randomised Trials: Results From Two Consensus Development Workshops

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Background: Loss to follow-up in randomised clinical trials (RCTs) can lead to biased results. Evidence from a Cochrane review identified that monetary incentives and some postal communication strategies improve retention in RCTs. A related qualitative study found retention strategies are routinely used without knowledge of their effect. As no guidance for the use of retention strategies in RCTs exists, we developed consensus based guidance for the use of retention strategies in RCTs based on the evidence available.

Methods: We used consensus development workshops with trial personnel from two UK Clinical Trials Units to: explore the evidence available for retention in RCTs; identify barriers to the use of retention strategies; develop best practice guidance for the use of retention strategies; and to identify further strategies for evaluation. Each workshop commenced with a presentation of the evidence from a Cochrane review and associated qualitative study followed by discussions on: how convinced workshop participants were by the evidence; barriers to the use of effective strategies; types of RCT follow-up retention strategies could be used for, and retention strategies for future research. Summaries of the group discussion were fed back to workshop participants and agreed consensus on best practice guidance for retention identified.

Findings: 66 trial personnel attended the workshops. Best practice guidance was agreed for the use of small financial incentives to improve questionnaire response in RCTs and that 2nd class post rather than 1st class post was sufficient to improve postal questionnaire response in RCTs. Barriers to the use of effective retention strategies were: the small absolute benefits seen for the addition of monetary incentives, and perceptions among trialists that some communication strategies are outdated. Furthermore, there was resistance to change existing retention practices thought to be effective. Face to face and electronic follow-up strategies were identified for further research.

Interpretation: The extent of agreement on best practice guidance for the use of retention strategies in RCTs is limited by the variability in the currently available evidence. Potential barriers to the use of effective strategies have been identified. This guidance will need updating as new retention strategies are evaluated.

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Abstract #: 1.008_NCD

Spatial and Temporal Analysis of Nasopharyngeal Carcinoma Mortality in China, 1973-2005

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Background: To describe geographical variation in nasopharyngeal carcinoma mortality over time, we analysed nasopharyngeal carcinoma mortality data from three retrospective national surveys on causes of death in recent decades in China.

Methods: We first calculated the age-standardized mortality rate (ASMR) for each of the 31 provinces in mainland China stratified by survey period (1973–1975, 1990–1992 and 2004–2005). To test whether the geographical variation in nasopharyngeal carcinoma mortality changed over time, we then estimated the rate ratio (RR) for the aggregated data for seven regions using generalized linear models with a negative binomial error structure.

Findings: From the mid-1970s to the mid-2000s, there was an decrease in nasopharyngeal carcinoma mortality in China both male and female, and the ASMR for male were much higher (2–3 times) than female for all 31 provinces both three surveys. The overall ASMR decreased from 2.03 per 100,000 in 1973–1975 to 1.51 per 100,000 in 1990–1992, and to 1.07 per 100,000 in 2004–2005. Residents living in the South China areas had a extremely higher risk of nasopharyngeal carcinoma mortality than the North China for all three survey periods with the RR been 4.95(95% CI: 4.30–5.70) in 1973-1975, 12.83(95% CI: 10.73–15.34) in 1990-1992 and 15.20(95% CI: 12.34–18.72) in 2004-2005. The interaction between geographical region and death survey period was significant ($p < 0.0001$), indicating that the geographical differential had widened over time.

Interpretation: Although nasopharyngeal carcinoma mortality in most areas of China reduced to near zero, the high risk of nasopharyngeal carcinoma in the South China is still noteworthy. It may be necessary to target public health policies to the South China to address the widening geographic variation in nasopharyngeal carcinoma mortality. To further reduce the burden brought by nasopharyngeal carcinoma in China, primary prevention strategies should mainly focus on banning smoking in public areas. Other measures such as mass screening in high-risk populations and effective treatment programs are also of paramount importance in reduce the deaths.

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Perceptions of Vaginal Illness Related to Water Quality in the Coastal Ouest Region of Haiti

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