was included in the updated clinical practice guidelines of the American College of Chest Physicians in 2012.[5]

Chinese physicians should participate in more international clinical research, contributing Chinese evidence. Although Chinese physicians are participants in many international clinical studies at present, with more investment in clinical research and fast development of capacity building, Chinese physicians can and should become a leading force in clinical research globally in the near future.

Chen Wang, Qian Liu
Beijing Hospital, Beijing Institute of Respiratory Medicine, National Clinical Research Centre for Respiratory Diseases, Beijing 100730, China (CW); and National Health and Family Planning Commission of the People's Republic of China, Beijing, China (CW, QL)
cyh-birm@263.net

CW is director of the National Clinical Research Centre for Respiratory Diseases. QL declares that he has no conflicts of interest. We thank Zhe Yang and Zhaofeng Zhang (Ministry of Science and Technology of the People's Republic of China), Dan Xiao (Beijing Institute of Respiratory Medicine), and Yanming Li, Pengjun Zhang, and Sinan Wu (Beijing Hospital) for their contribution.

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What is the scale of intimate partner homicide?

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Intimate partner homicides are fatal violent attacks perpetrated by intimate partners,[1] and are often the extreme and unplanned consequence of abusive relationships. Although recognised as an important risk factor for death and disability among women, previous country-level assessments[2,3] and the recent Global Burden of Disease Study 2010 (GBD 2010)[4] have not considered the extent of intimate partner violence among male victims.

In *The Lancet,* Heidi Stöckl and colleagues[5] present estimates of global and regional prevalence of intimate partner homicide based on a systematic review and survey of 169 national statistical offices undertaken as part of the GBD 2010 comparative risk assessment. An inclusive definition of intimate partner was used, including current, former, and same-sex partners and both male and female victims. Data were obtained for 66 countries, showing substantial information gaps. Furthermore, 20% of the homicide data had missing information about the victim–perpetrator relationship. A frequently used method to impute missing values for homicide statistics is to use contextual information, such as information about the mechanism or place of injury and characteristics of the perpetrator. However, these data were absent in most included studies.

The investigators used three different approaches to deal with missing information about the victim–perpetrator relationship. For the low-level (conservative) estimates, they treated homicides with missing information as non-partner homicides. For the high-level estimates they excluded the homicide cases with missing victim–perpetrator relationship information. This approach could potentially lead to overestimation of the proportion of intimate partner homicide cases, since intimate partner homicides could arguably be solved more easily and might be more likely to be reported than are homicides perpetrated by strangers or acquaintances. For mid-level estimates, Stöckl and colleagues redistributed the cases with missing information to the known cases of intimate and non-intimate partner homicide assuming that information about the victim–perpetrator relationship was missing at random.

As expected, Stöckl and colleagues' findings reflect sex disparities in the occurrence of intimate partner homicide. On the basis of low-level estimates, they found that overall 13·5% (IQR 9·2–18·2) of homicides were committed by an intimate partner, a proportion six times higher for female homicides (38·6%, 30·8–45·3) than male homicides (6·3%, 3·1–6·3).[5] Although the male estimates did not vary substantially in the sensitivity analysis, the high estimate for women was almost half of all homicides and

closer to the proportion of femicides perpetrated by an intimate partner reported in South Africa.[6] A surprising implication of the findings is the extent of male victims of intimate partner homicide. Globally in 2010 almost half a million people are estimated to have been murdered,[7] and 80% of homicide victims were male. If 6·3% of these male homicides were perpetrated by an intimate partner this would equate to about 25 000 intimate partner homicides in which the victim was male, or a ratio of 1·53 women murdered by a partner for each man that was murdered by a partner, worldwide.

The observed regional differences in intimate partner homicide need to be interpreted with caution. Although they might represent real differences in patterns of homicide, they could also be due to differences in the completeness and quality of data for homicides. The absence of data in some regions might also reflect cultural, financial, or religious factors. In certain countries, cultural killings of women, to reinstate the lost honour of a family and so-called dowry deaths, are often not treated as crimes.

Stöckl and colleagues' study draws attention to the enormous difficulties in measurement of intimate partner homicide and the need to improve data. Improved information about victim–perpetrator relationship is crucial to inform prevention strategies. Where routine data do not provide such information reliably, good quality sample studies are needed. Ideally, such improved data could be combined with meta-analysis to explore the global variation in prevalence of intimate partner homicides.

Despite data limitations, and substantial uncertainty as to the exact prevalence of intimate partner homicide among male and female victims in different regions, these findings have important implications for efforts to prevent intimate partner homicides and the need for further research. Emphasising the importance of health services in prevention, Jewkes[8] recently drew attention to a need to develop and test new directions for health professionals, because routine identification of abused women and standard interventions do not result in improved health. Future work should also consider prevention of intimate partner violence perpetration by men with interventions designed to support men in building non-violent identities.[8,9] There is also a need for other sectors to respond, and an improved criminal justice system response to intimate partner violence is required as well as laws to restrict firearm access to perpetrators of intimate partner violence.[5,10]

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Intimate partner homicides result mainly from conflicts associated with abusive relationships, jealousy, revenge, or the termination of a relationship, but the motive can also be financial gain, emphasising the complexity of homicides involving intimate partners and the need for improved understanding of the determinants and situation in which such acts occur. Stöckl and colleagues' findings raise important questions about the scale and dynamics of intimate partner homicide: are the countries with available data representative of all countries? Were the perpetrators current or former partners? What is the proportion of heterosexual versus homosexual partnerships? Has there been a falling or increasing trend in intimate partner homicides over time?

Prevention of homicide of women and men by intimate partners is important. Research into the complex issues related to intimate relationships can only be undertaken if improved data are collected in a systematic fashion.

Rosana E Norman, Debbie Bradshaw
Queensland Children's Medical Research Institute, University of Queensland, Herston, QLD 4029, Australia (REN); School of Population Health, University of Queensland, Herston, QLD, Australia (REN); and Burden of Disease Research Unit, South African Medical Research Council, Tygerberg, Cape Town, South Africa (DB)
r.norman@sph.uq.edu.au

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Can fracture clinics respond to domestic violence?

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Domestic violence is prevalent across communities and in clinical practice worldwide.[1] The USA has called for screening in all clinical settings,[2] although evidence to support this idea is scarce.[3] Prevalence studies are a basic prerequisite to convince clinicians to pay attention to this major public health issue. However, prevalence data might not be sufficient to overcome barriers against clinicians asking about, or identifying, domestic violence. Despite more than a decade of studies in many clinical settings (eg, family practice, emergency departments, and antenatal clinics) showing a high prevalence of domestic violence[4] and the subsequent introduction of training or screening in health settings, identification of domestic violence in these settings has not increased.[3] In a review of 11 studies in which patients' reports of being screened by a health professional were assessed, only 19% of patients had been screened for domestic violence.[5]

Christine Schneider/Science Photo Library

In their well-designed study in *The Lancet*, the PRAISE Investigators[6] report the high prevalence of domestic violence in 2945 women attending orthopaedic fracture clinics across 12 sites in Canada, the USA, the Netherlands, Denmark, and India. The reported rates of domestic violence of one in six in the past 12 months (16%, 95% CI 14·7–17·4) and of one in three women experiencing abuse in their lifetime (34·6%, 32·8–36·5) are within the range of previously published prevalence estimates.[4] Strengths of the study are the cross-country sites, the high response rate in ten sites, and the many methods used to assess domestic violence. Limitations, which are common in prevalence research, include the use of screening methods to establish prevalence, the absence of a gold standard, the difficulty in attainment of accurate denominators (ie, some women might still be missed despite data collection by research assistants), and contested definitions of domestic violence.[7,8] The authors have attempted to minimise these issues, for example by using multiple measures of domestic violence to assess prevalence, but some practitioners will probably remain unconvinced about the need to identify women who are experiencing domestic violence.[5]

This study is important because it focuses on injuries from domestic violence and the potential opportunity for orthopaedic surgeons and other staff in fracture clinics to help women onto the pathway to safety. Recently, focus has increased on the associations of domestic violence with mental health issues,[9] which are the main contributor to domestic violence being